Report upon the public health and sanitary condition of the Parish of St. Mary, Battersea during the year1895.

To the Vestry of the Parish of St. Mary, Battersea.

REPORT

UPON THE

PUBLIC HEALTH & SANITARY CONDITION

OF

The Parish of St. Mary, Battersea,

DURING THE YEAR 1895,

BY

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MEDICAL OFFICER OF HEALTH.

Treasurer of the Incorporated Society of Medical Officers of Health and Vice-President of the Metropolitan Branch.

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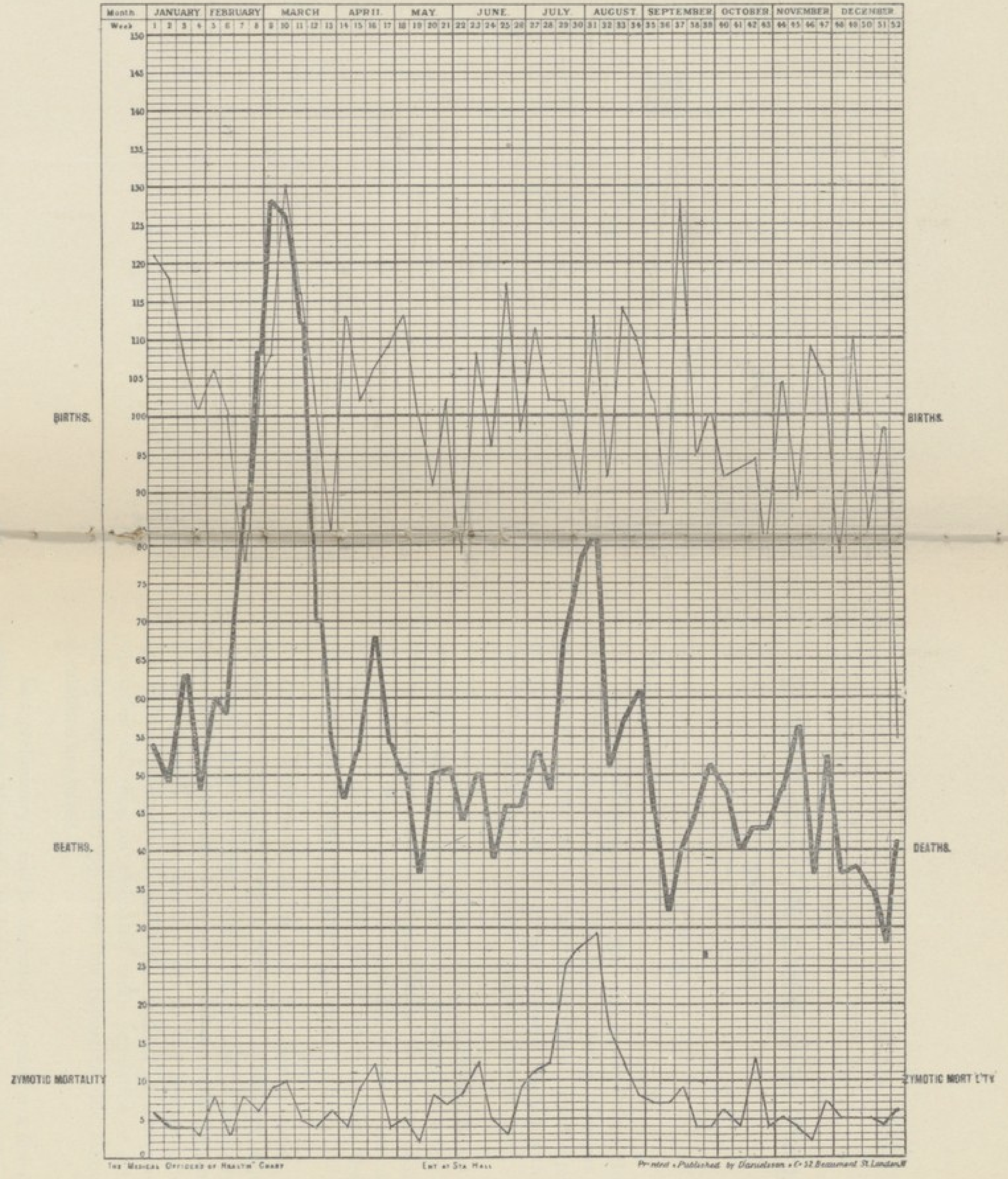
Chart indicating number of Births and Deaths registered weekly as occurring within the Parish during the year 1895



To the Vestry of the Parish of St. Mary, Battersea.

Gentlemen,

The following report for the year 1895 on the Public Health and Sanitary condition of the inhabitants of this populous and important parish shews a continued favourable state of the public health, which will afford satisfaction to those charged with the care of the health and lives of the residents therein.

The birth, death and other rates are estimated on the assumption that the same rate of increase of population has gone on, as occurred during the ten years of the decade 1881-91. The census of March 29th, 1896, will probably shew some disturbance of that rate, but the excess or diminution thereof will but disturb the rates to a fractional extent.

The mean population of the year 1894, for this parish, was 164,494. To this must be added the annual increase of population which has hitherto been found to exist, and for this purpose the known rate of increase between the two last census enumerations is employed. This increase was at the average rate of 4,319 persons each year, so that if this number be added to the population for 1894, an estimated mean population of 168,813 will be deduced for 1895. On this population the following calculations are based.

As a preliminary it will be desirable to mention a few facts relating to the Metropolis at large during 1895, as a basis of comparison.

The estimated mean population of the Metropolis, arrived at in a similar manner to that described above, as employed for this parish, was 4,392,346 for the year 1895.

The births registered in London during 1894, as given by the Registrar General in his weekly returns, numbered 133,715, and calculated on the estimated mean population the birth rate would be equal to 30·5 per thousand per annum.

The following pages will show that the birth rate for Battersea during 1895, was 31·1 per thousand, against 30·5 per thousand for London.

The total number of deaths recorded in all London during 1895, was 86,937 which, calculated upon the same population, would give 19·8 per thousand per annum as the death rate for the Metropolis during 1895.

The Battersea death rate was 17·1 per thousand, including all persons dying in the parish, whether belonging thereto or not, the death rate for London was therefore 3·7 per thousand higher than that of Battersea. Subsequent corrections, by eliminating non-parishioners dying in the parish and adding parishioners dying elsewhere, will reduce this difference to 2·3 per thousand in favour of Battersea.

The two thousand nine hundred and one persons, including non-parishioners, who died in the parish during 1895, would give a gross death rate of 17·1 per thousand per annum, viz.:—

East Battersea	...	...	1,115
West Battersea (excluding public institutions)	...	...	1,305
Wandsworth and Clapham Union Infirmary—			
(*a*) Parishioners	232		
(*b*) Non-Parishioners	228	...	460
Bolingbroke Hospital—			
(*a*) Parishioners	7		
(*b*) Non-Parishioners	10	...	17
	Carried forward		2,897

	Brought forward		2,897
Westminster Schools—			
(*a*) Parishioners	—		
(*b*) Non-Parishioners	2	...	2
Southlands College—			
(*a*) Parishioners	1		
(*b*) Non-Parishioners	—	...	1
Broomwood College—			
(*a*) Parishioners	1		
(*b*) Non-Parishioners	—	...	1
	Total	...	2,901

being four hundred and ninety-seven more than in 1894, that being a year of unusually low mortality and 1895 including a very cold and prolonged winter and spring, causing an increased mortality during the earlier months of the year as shewn in Table II.

Deaths occurring within the parish, of persons not belonging thereto :

In the Union Infirmary ...	...	...	228
In the Bolingbroke Hospital	...	...	10
In the Westminster Schools	...	...	2
Elsewhere ...	...	...	7
	Total		247

Two hundred and four was the number of non-parishioners registered as dying in the parish during 1894.

In order, however, to arrive at a corrected death rate, it is necessary to eliminate the two hundred and forty-seven persons, shewn in the above table as not belonging to the parish who died therein, and to include the deaths of the three hundred and seven parishioners who died in the various public institutions of the Metropolis and elsewhere, by which method a total corrected mortality of two thousand nine hundred and sixty one would be arrived at ; equal to a death rate of 17·5 per thousand per annum. This may be contrasted with the Metropolitan death rate of 19·8 per thousand during the year 1895, the deaths which took place within the boundaries of the

parish, including all non-parishioners dying in the Union Infirmary and elsewhere, are shewn in Table A. of mortality, and may be thus summarised.

Deaths occurring outside the parish, of persons belonging thereto :

Union Workhouse, Wandsworth	...	...	2
General and Special Hospitals	...	...	208
Metropolitan Asylums Board Hospitals		...	50
County and other Lunatic Asylums		...	38
Elsewhere (including River Thames)		...	9
	Total	...	307

Three hundred and forty-two was the number of Battersea parishioners dying elsewhere during the preceding year, 1894.

Since writing the above a fresh enumeration of the inhabitants of the Metropolis has been made for purely fiscal purposes. It shows that the population of Battersea on the night of March 29–30, 1896, amounted to 165,115, about three thousand less than the estimated population. This small difference of numbers in so large a population does not affect any of the rates given in this report, the only alteration would be in the second or third places of decimals which are not given.

Table A. This table is compiled in all sanitary districts under the express direction of the Local Government Board, for the purpose of securing uniformity of tabulation in all parts of the country, of the important particulars contained therein. It is at the same time expressly stated that the Medical Officer of Health of any district is at liberty, in addition, to continue to use any other form of tabulation which, in his opinion, illustrates more fully the sanitary condition of the district for which he acts. For purposes of comparison with the vital statistics of the past forty years, since the year 1856, other tables which have been employed in this parish are also given herewith, and will be found denoted by numbers, those of the Local Government Board being denoted by the letters A. and B.

TABLE A OF DEATHS DURING THE YEAR 1895 IN THE METROPOLITAN SANITARY DISTRICT OF BATTERSEA, CLASSIFIED ACCORDING TO DISEASES, AGES AND LOCALITIES.

Names of localities adopted for the purpose of these Statistics, Public Institutions being shewn as separate localities. [a]	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.							[i]	MORTALITY FROM SUBJOINED CAUSES DISTINGUISHING DEATHS OF CHILDREN UNDER 5 YEARS.																	
									1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
													FEVERS.																	
	At all ages. [b]	Under 1 year. [c]	1 and under 5 [d]	5 and under 15 [e]	15 and under 25 [f]	25 and under 65 [g]	65 and upwards. [h]		Small Pox.	Scarlatina.	Diphtheria.	Membraneous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhœa and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia & Pleurisy.	Heart Disease.	Influenza.	Injuries.	All other Diseases.	TOTAL.
East Battersea ..	1115	418	238	33	29	265	132	Under 5		2	14	12								62	20	70		6	119	4	6	21	320	656
								5 upwards		2	1	3		6			2		1	6	1	6	3	6	83	62	28	20	157	459
West Battersea .. (excluding Public Institutions)	1305	465	172	35	46	367	220	Under 5		4	15	5								27	30	59		3	144	3	5	22	320	637
								5 upwards		2	10			9			2		3	2	1	5	10	77	170	71	53	18	255	668
Wandsworth & Clapham Union Infirmary St. John's Hill ..	460	24	15	5	31	213	172	Under 5												2		9			12				16	39
								5 upwards									2		2			1	4	65	95	73	9	13	157	421
Bolingbroke Hospital, Bolingbroke Grove	17	..	..	2	2	10	3	Under 5																						
								5 upwards														1						8	8	17
Westminster Union School, St. James' Road	2	..	...	..	1	1	..	Under 5																						
								5 upwards																1					1	2
Southlands College	1	..	..	..	..	1	...	Under 5																						
								5 upwards																			1			1
Broomwood College	1	...	..	..	...	...	1	Under 5																						
								5 upwards																					1	1
Totals ..	2901	907	425	75	109	857	528	Under 5		6	29	17								91	50	138		9	275	7	11	43	656	1332
								5 upwards		4	11	3		15			6		6	8	2	13	17	211	348	206	81	59	579	1569
THE SUBJOINED NUMBERS HAVE ALSO TO BE TAKEN INTO ACCOUNT IN JUDGING OF THE ABOVE RECORDS OF MORTALITY.																														
Deaths occurring outside the district among persons belonging thereto	307	32	72	41	28	114	20	Under 5		11	25			1							1	4		2	20	4		5	31	104
								5 upwards	1	7	9			7								3		26	15	16		20	99	203
Deaths occurring within the district among persons not belonging to	247	7	10	4	17	105	104	Under 5												1		4			6				6	17
								5 upwards									1		2			1	4	26	43	36	6	24	87	230

In Table A. will be found particulars of mortality in the various Registrar's districts and public institutions which are also treated as separate districts. They comprise the Registrar's districts of East and West Battersea, and the following public institutions, situated within the parish, viz. :—Wandsworth and Clapham Union Infirmary, Bolingbroke Hospital, Westminster Union Schools, Emmanuel School, and the Masonic School for Girls.

The broad grouping of ages is under and above five years of age, so as to clearly define the mortality of each of these periods of life, more especially the infantile ages under five, as the greatest waste of life has occurred in the past at the early years, and although great improvement has taken place in this respect during the last few years, still much remains to be done in this direction. For instance, 342 Zymotic deaths, out of a total of 1,332 occurred under five years, a proportion which ought to be largely diminished. This, however, shews a great diminution compared with former years. Particulars of the other ages at death are also given in this table.

Table I. This table contains details of the deaths of Battersea parishioners in public institutions both within and without the parish. The disease from which death ensued, the sex, age, and particular class of institution are herein indicated, as well as the localities in which other parishioners lost their lives or were found dead, which latter require no comment, the causes of death being set out in the table.

TABLE I.

Deaths of Battersea Parishioners in Public Institutions of the Metropolis.

DISEASE.	Totals	Sex.		Age.							Institutions.				Elsewhere
		Males	Females	Under 1 year	1 to 5 years	All under 5	5 to 15 years	15 to 25 years	25 to 65 years	65 and upwards	Union Infirmary and Workhouse.	General and Special Hospitals	Asylums' Board Hospitals	County and other Lunatic Asylums	
Small-Pox ...	1	...	1	...	...	...	...	1	...	...	...	...	1	...	...
Scarlatina ...	18	8	10	1	10	11	7	...	...	...	...	...	18	...	...
Diphtheria & Membranous Croup	34	17	17	2	23	25	9	...	...	...	...	10	24	...	...
Typhus Fever ...	8	6	2	...	1	1	1	2	4	...	...	2	6	...	...
Enteric & Typhoid	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Relapsing „ ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal „ ...	1	...	1	...	...	...	...	1	...	...	1	...	...	...	...
Cholera ...	12	6	6	8	1	9	...	1	2	...	5	5	...	2	...
Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	1	...	1	...	1	1	...	...	...	...	1	...	...	...	...
Whooping Cough	1	...	1	...	1	1	...	...	...	...	...	1	...	...	...
Diarrhœa ...	3	1	2	...	...	...	...	2	1	...	3	...	...	...	...
Other Zymotics ...	2	1	1	...	...	...	...	1	1	...	...	2	...	...	...
Rheumatic Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis ...	68	38	30	1	1	2	3	14	47	2	40	24	...	4	...
Tubercular ...	21	10	11	3	8	11	4	2	4	...	2	19	1	...	...
Respiratory ...	84	42	42	10	16	26	4	5	27	22	49	29	...	5	...
Heart Disease ...	66	32	34	1	3	4	1	5	37	19	46	17	1	2	1
Brain and Nerves	55	27	28	...	2	2	4	4	37	8	24	14	...	17	...
Cancer ...	38	19	19	...	1	1	1	...	28	8	16	21	...	1	...
Violence ...	37	27	10	...	5	5	6	6	14	6	4	26	...	...	7
Other Diseases ...	106	54	52	23	4	27	4	5	42	26	43	55	...	7	1
Totals ...	556	288	268	49	77	126	44	49	244	93	234	225	50	38	9

The nine deaths recorded as having occurred "elsewhere" are here definitely located:

Male	...	Lower Sloane Street, Chelsea.
,,	...	Wandsworth Creek.
,,	...	On way to St. George's Hospital.
,,	...	Wandsworth Road.
,,	...	River Thames.
,,	...	,,
,,	...	,,
,,	...	River Lea.
Female	...	Omnibus—London Bridge.

In all five hundred and fifty-six deaths, twenty-six more than in 1894, occurred in public institutions and "elsewhere," of whom a large majority were adults. Of these two hundred and thirty-four took place in the Wandsworth and Clapham Union Infirmary and the Workhouse, two hundred and twenty-five in the General and Special Hospitals of the Metropolis, fifty in the Metropolitan Asylums Board Hospitals for infectious diseases, thirty-eight in the various Lunatic Asylums, and nine "elsewhere" as detailed above.

Tables II., III., and IV., give in tabular form the weekly returns of the District Registrars of Births and Deaths for East and West Battersea respectively, and include the deaths of all persons within the parish and in public institutions, whether parishioners or not. They shew the incidence of births and deaths at the various periods of the year, being grouped in quarters for that purpose, with additional particulars as to causes of death to be found in Table IV.

TABLE II.

BIRTHS AND DEATHS, EAST BATTERSEA, 1895.

Week ending:—	BIRTHS.			DEATHS.		
	M.	F.	Total.	M.	F.	Total.
5th January ...	28	32	60	10	8	18
12th ,, ...	34	28	62	6	14	20
19th ,, ...	25	17	42	8	11	19
26th ,, ...	19	25	44	9	10	19
2nd February ...	23	20	43	7	15	22
9th ,, ...	15	26	41	9	13	22
16th ,, ...	18	24	42	23	17	40
23rd ,, ...	23	28	51	21	23	44
2nd March ...	26	20	46	23	30	53
9th ,, ...	36	23	59	21	31	52
16th ,, ...	25	20	45	17	20	37
23rd ,, ...	22	26	48	14	9	23
30th ,, ...	25	16	41	15	10	25
1st Quarter ...	319	305	624	183	211	394
6th April ...	18	35	53	16	8	24
13th ,, ...	22	19	41	11	14	25
20th ,, ...	29	23	52	7	11	18
27th ,, ...	29	26	55	12	8	20
4th May ...	32	21	53	12	6	18
11th ,, ...	19	28	47	5	7	12
18th ,, ...	22	13	35	8	11	19
25th ,, ...	19	27	46	9	14	23
1st June ...	28	19	47	7	4	11
8th ,, ...	30	20	50	13	13	26
15th ,, ...	15	20	35	7	8	15
22nd ,, ...	39	24	63	1	9	10
29th ,, ...	24	17	41	11	7	18
2nd Quarter ...	326	292	618	119	120	239

BIRTHS AND DEATHS, EAST BATTERSEA, 1895, *continued*—

Week ending :—	BIRTHS.			DEATHS.		
	M.	F.	TOTAL.	M.	F.	TOTAL.
6th July ...	29	26	55	8	11	19
13th ,, ...	24	23	47	11	4	15
20th ,, ...	25	16	41	17	13	30
27th ,, ...	21	27	48	14	16	30
3rd August ...	33	23	56	19	18	37
10th ,, ...	22	19	41	16	9	25
17th ,, ...	22	34	56	9	11	20
24th ,, ...	25	30	55	8	14	22
31st ,, ..	24	22	46	9	9	18
7th September ...	18	19	37	9	9	18
14th ,, ...	30	27	57	9	8	17
21st ,, ...	28	13	41	10	6	16
28th ,, ...	35	18	53	11	8	19
3rd Quarter ...	336	297	633	150	136	286
5th October ...	26	26	52	8	9	17
12th ,, ...	21	24	45	7	6	13
19th ,, ...	16	11	27	8	5	13
26th ,, ...	21	24	45	9	10	19
2nd November ...	19	27	46	7	6	13
9th ,, ...	21	29	50	13	17	30
16th ,, ...	25	21	46	7	5	12
23rd ,, ...	27	22	49	10	7	17
30th ,, ...	25	21	46	6	8	14
7th December ...	22	25	47	7	6	13
14th ,, ...	33	14	47	7	4	11
21st ,, ...	15	24	39	2	6	8
28th ,, ...	12	13	25	10	6	16
4th Quarter ...	283	281	564	101	95	196
WHOLE YEAR ...	1,264	1,175	2,439	553	562	1,115

TABLE III.

BIRTHS AND DEATHS, WEST BATTERSEA, 1895.

Week ending :—	BIRTHS. M.	F.	TOTAL.	DEATHS. M.	F.	TOTAL.
5th January ...	31	30	61	17	19	36
12th ,, ...	33	23	56	12	17	29
19th ,, ...	37	27	64	22	22	44
26th ,, ...	30	27	57	13	15	28
2nd February...	27	36	63	18	20	38
9th ,, ...	31	28	59	19	17	36
16th ,, ...	19	17	36	21	27	48
23rd ,, ...	21	33	55	29	35	64
2nd March ...	29	33	62	37	38	75
9th ,, ...	37	24	71	30	44	74
16th ,, ...	42	29	71	34	41	75
23rd ,, ...	28	27	55	22	25	47
30th ,, ...	24	20	44	17	13	30
1st Quarter...	389	365	754	291	333	624
6th April ...	28	32	60	15	8	23
13th ,, ...	31	30	61	13	15	28
20th ,, ...	31	23	54	26	24	50
27th ,, ...	30	24	54	18	16	34
4th May ...	31	29	60	13	19	32
11th ,, ...	25	28	53	9	16	25
18th ,, ...	25	31	56	13	18	31
25th ,, ...	33	23	56	17	11	28
1st June ...	24	20	44	12	13	25
8th ,, ...	26	32	58	14	10	24
15th ,, ...	36	25	61	12	12	24
22nd ,, ...	25	29	54	21	15	36
29th ,, ...	31	26	57	17	11	28
2nd Quarter ...	376	352	728	200	188	388

Births and Deaths, West Battersea, 1895, *continued*.

Week ending :—	BIRTHS. M.	F.	TOTAL.	DEATHS. M.	F.	TOTAL.
6th July ...	30	26	56	13	21	34
13th ,, ...	29	26	55	16	17	33
20th ,, ...	29	32	61	10	27	37
27th ,, ...	17	25	42	27	21	48
3rd August ...	32	25	57	23	22	45
10th ,, ...	23	28	51	14	12	26
17th ,, ...	27	31	58	18	19	37
24th ,, ...	30	25	55	16	23	39
31st ,, ...	24	32	56	14	13	27
7th September ...	25	25	50	7	7	14
14th ,, ...	34	37	71	9	14	23
21st ,, ...	28	26	54	14	15	29
28th ,, ...	25	22	47	11	21	32
3rd Quarter ...	353	360	713	192	232	424
5th October ...	20	20	40	17	14	31
12th ,, ...	22	26	48	14	13	27
19th ,, ...	35	32	67	17	13	30
26th ,, ..	20	17	37	12	12	24
2nd November ...	22	36	58	18	17	35
9th ,, ...	21	18	39	12	14	26
16th ,, ...	25	38	63	15	10	25
23rd ,, ...	28	28	56	17	18	35
30th ,, ...	18	15	33	8	15	23
7th December ...	37	26	63	12	13	25
14th ,, ...	18	20	38	9	15	24
21st ,, ...	33	26	59	13	7	20
28th ,, ...	15	15	30	13	12	25
4th Quarter ...	314	317	631	177	173	350
Whole Year ...	1,432	1,394	2,826	860	926	1,786

TABLE IV.

BATTERSEA. 1895	Births	Deaths	Deaths: Under 1 Year.	Deaths: Above 60 Years	Small Pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhœa	Cholera	Violence	Inquests	Public Institutions (including Non-parishioners.)
1st Quarter E ..	624	394	111	86	..	18	1	6	11	1	2	..	12	44	...
W ..	753	624	141	195	..	4	..	7	17	3	6	..	15	35	162
2nd Quarter E ..	618	239	80	31	..	32	1	11	4	1	7	...	9	23	...
W ..	728	388	98	110	..	7	1	3	11	1	6	..	13	24	113
3rd Quarter E ..	633	286	160	29	..	17	..	5	4	1	55	3	11	23	...
W ..	713	424	158	80	..	12	4	5	2	1	49	2	20	32	115
4th Quarter E ...	564	196	67	36	..	1	2	8	2	3	9	..	9	29	...
W ..	631	350	92	98	..	8	1	15	1	4	11	1	13	22	91
Whole Year E ..	2439	1115	418	182	..	68	4	30	21	6	73	3	41	119	...
W ..	2825	1786	489	483	..	31	6	30	31	9	72	3	61	113	481
TOTALS	5264	2901	907	665	..	99	10	60	52	15	145	6	102	232	481

The deaths during the various quarters in the whole parish are here set out :—

1st Quarter	...	...	1,018
2nd ,,	...	...	627
3rd ,,	...	...	710
4th ,,	...	...	546
		TOTAL	2,901

The first quarter of the year exhibited an augmented mortality, the result mainly of diseases of the respiratory system, due to the low temperatures which prevailed.

The infantile mortality under one year was equal to one hundred and sixteen per thousand births and including mortality at all ages under five years, two hundred and sixty-two per thousand births, comparing favourably with the infantile mortality of 1894, when the deaths were one hundred and forty-one per thousand births under one year of age.

Table V. contains a veritable sanitary history of the parish of Battersea since 1856, the year in which modern sanitation first came into existence under the provisions of the Metropolis Local Management Act of 1855, and by which sanitary authorities, in the form of Vestries and District Boards, the latter consisting of small parishes grouped together, were first constituted for London as a whole. This parish at that time consisted of a congeries of small villages, between which extended market gardens; the inhabitants and dependents of some few dozens of large houses, the residences chiefly of merchants, with the workers at the market gardens, constituting the principal population. It will be observed that the population was then but 15,069, and at the census of 1861, had but reached the number of 19,582. The birth rate was then a little higher than now. The death rate, however, although the population was very sparse, was much higher than at present. It has been laid down as an axiom that mortality increases in direct proportion to the density of population, and it is the aim of modern sanitation to limit or prevent such increase. That the same parish, of course with the same superficial area, should, with a ten-fold population have a reduced instead of an augmented death rate, shews that the authority having charge of the sanitation, which includes the health condition and duration of lives of the inhabitants has performed its public duties in an exemplary manner.

TABLE V.

Year.	Mean Population for Year.	Births.	Birth rate.	Deaths.	Death rate.	Zymotic Deaths.	Natural Increase
1856	15,069	536	36·2	320	21·2	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	22·1	96	292
1860	18,676	680	36·4	399	21·3	62	281
1861	19,582	750	38·3	505	25·7	112	245
1862	23,108	784	33·9	491	21·2	106	293
1863	26,635	1,042	39·1	522	19·5	86	520
1864	30,161	1,140	37·7	669	22·1	129	471
1865	33,688	1,357	40·2	785	23·3	177	572
1866	37,145	1,386	37·3	1,002	26·9	244	384
1867	40,741	1,734	42·5	870	21·3	122	864
1868	44,267	1,975	44·6	1,046	23·6	194	929
1869	47,749	2,096	43·8	1,121	23·4	247	975
1870	51,320	2,170	42·2	1,375	26·7	404	795
1871	54,847	2,220	40·4	1,472	26·8	463	748
1872	60,244	2,349	38·9	1,202	19·9	220	1,147
1873	65,614	2,659	40·5	1,307	19·9	205	1,352
1874	70,984	2,865	40·3	1,387	19·5	238	1,478
1875	76,354	3,080	40·3	1,724	22·5	307	1,356
1876	81,704	3,455	42·2	1,745	21·3	340	1,710
1877	87,094	3,481	39·9	1,725	19·8	280	1,756
1878	92,464	3,748	40·5	1,803	19·4	322	1,945
1879	97,834	4,001	40·8	1,980	20·2	355	2,021
1880	103,204	4,095	39·6	2,040	19·7	383	2,055
1881	108,342	4,452	41·8	2,033	18·7	381	2,419
1882	112,661	4,504	39·9	2,214	19·6	353	2,190
1883	116,980	4,711	40·2	2,344	20·0	369	2,367
1884	121,299	5,275	43·4	2,569	21·1	568	2,706
1885	125,618	4,654	37·0	2,566	20·4	432	2,088
1886	129,937	5,140	39·5	2,477	19·0	398	2,663
1887	134,256	5,186	38·6	2,451	18·2	502	2,735
1888	138,565	5,061	36·5	2,187	15·7	363	2,874
1889	142,884	5,161	36·1	2,240	15·6	366	2,921
1890	147,203	5,105	34·6	2,854	19·3	543	2,251
1891	151,537	5,237	34·5	2,619	17·2	398	2,618
1892	155,856	4,990	32·0	2,692	17·2	473	2,298
1893	160,175	5,225	32·6	2,801	17·4	564	2,424
1894	164,494	5,024	30·5	2,404	14·6	468	2,620
1895	168,813	5,264	31·1	2,901	17·1	491	2,363

Tables VI., VII., VIII., and IX., with addendum, contain particulars of the mortality respectively of East Battersea, West Battersea, and in the Union Infirmary, giving separately parishioners and non-parishioners, and in the addendum of the other public institutions situated within the parish. These tables have been used from 1856, and are continued for purposes of comparison with former years as well as being the basis upon which all the other mortality tables are founded.

TABLE VI.

STATISTICS OF MORTALITY.

EAST BATTERSEA.		Total Deaths from each Class of Disease, &c. in the Sub-District.	Sex.		Age.							Social Position			
Population (Census) 1891, 67,144.			Males.	Females.	Under 1 year.	From 1 to 5 years.	Total under 5 years.	From 5 to 15 years.	From 15 to 25 years.	From 25 to 65 years.	65 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle and Trading Class, Shopmen, Clerks, &c.	Industrial and Labouring Classes.
Estimated mean population for middle of 1895, 72,479.															
I. Zymotic.	Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles	68	34	34	16	46	62	6	..	..	..	..	..	..	68
	Scarlet Fever	4	3	1	..	2	2	1	..	1	..	..	..	..	4
	Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Enteric Fever	6	3	3	..	..	..	1	2	3	..	..	..	..	6
	Puerperal Fever	2	..	2	..	..	..	..	..	2	..	..	..	..	2
	Diphtheria	30	15	15	4	22	26	4	..	..	..	..	..	..	40
	Whooping Cough	21	11	10	11	9	20	1	..	..	..	..	..	..	21
	Erysipelas	1	..	1	..	..	..	..	..	..	1	..	..	..	1
	Diarrhœa, Dysentery and Cholera	76	38	38	62	8	70	..	..	2	4	..	..	2	74
	Influenza	44	14	30	4	2	6	1	2	25	10	..	1	3	40
	Other Zymotic Diseases	1	1	..	1	..	1	..	..	..	..	..	..	..	1
	Total of Zymotic Diseases	253	119	134	98	89	187	14	4	33	15	..	1	5	247
II. Constitutional.	Gout	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Rheumatism	3	1	2	..	..	..	1	..	2	..	..	..	..	..
	Cancer & other Tumours	29	7	22	..	..	..	1	..	23	5	1	..	1	27
	Other Constitutional Diseases	2	2	..	2	..	2	..	..	..	..	..	..	..	..
	Tubercular. Phthisis	74	35	39	2	4	6	1	14	51	2	..	..	1	73
	Tubercular. Other Tubercular Diseases	62	38	24	28	24	52	5	..	5	..	..	..	1	61
III. Local.	Nervous	147	83	64	34	59	93	5	2	22	25	..	.	4	143
	Circulatory	66	29	37	2	2	4	1	2	46	13	..	..	1	65
	Respiratory	202	95	107	68	51	119	2	2	43	36	..	..	7	195
	Digestive	35	16	9	12	5	17	1	1	13	3	..	..	2	33
	Urinary	18	9	9	1	..	1	1	..	13	3	..	..	2	16
	Generative	4	..	4	..	..	..	..	..	4	..	..	..	..	4
	Locomotory	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Integumentary	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Developmental.	Premature Birth, Low Vitality and Congenital Defects	152	83	69	152	..	152	..	..	..	..	..	..	7	145
	Old Age	25	11	14	..	..	..	..	..	1	24	..	..	2	23
V.	Violence	41	24	17	18	3	21	1	4	9	6	..	..	1	41
VI.	All other Diseases	2	1	1	1	1	2	..	..	..	..	..	..	..	2
	Totals	1115	553	562	418	238	656	33	29	265	132	1	1	34	1079

TABLE VII.

STATISTICS OF MORTALITY.

WEST BATTERSEA.

Population (Census) 1891, 81,999.

Estimated mean population for middle of 1895, 95,019.

		Total Deaths from each Class of Disease, &c. in the Sub-District.	Sex.		Age.							Social Position			
			Males.	Females.	Under 1 year.	From 1 to 5 years.	Total under 5 years.	From 5 to 15 years.	From 15 to 25 years.	From 25 to 65 years.	65 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle and Trading Class, Shopmen, Clerks, &c	Industrial and Labouring Classes.
I. Zymotic.	Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles	29	11	18	12	15	27	1	..	1	..	..	1	..	28
	Scarlet Fever	6	3	3	..	4	4	2	..	..	..	..	..	..	6
	Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Enteric Fever	9	7	2	..	..	..	1	3	5	..	..	..	..	7
	Puerperal Fever	2	..	2	..	..	..	..	2	..	..	..	..	2	..
	Diphtheria	30	17	13	3	17	20	8	1	1	..	..	..	2	27
	Whooping Cough	31	14	17	14	16	30	1	..	..	..	..	..	2	29
	Erysipelas	3	3	..	..	..	..	..	..	3	..	..	..	..	3
	Diarrhœa, Dysentery and Cholera	64	34	30	52	7	59	..	..	2	3	..	..	10	54
	Influenza	38	20	18	3	2	5	..	2	17	14	..	2	5	31
	Other Zymotic Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total of Zymotic Diseases	212	109	103	84	61	145	13	8	29	17	..	3	24	185
II. Constitutional.	Gout	3	3	..	..	..	..	..	..	1	2	..	..	..	3
	Rheumatism	10	5	5	..	..	..	..	..	9	1	..	..	1	9
	Cancer & other Tumours	47	17	30	..	..	..	..	..	33	14	4	4	3	36
	Other Constitutional Diseases	4	1	3	3	..	3	..	..	1	..	..	..	..	4
	Tubercular. Phthisis	80	42	38	1	2	3	..	12	63	2	1	3	5	71
	Tubercular. Other Tubercular Diseases	58	26	32	30	11	41	5	4	8	..	..	..	5	53
III. Local.	Nervous	139	56	83	44	27	71	5	3	32	28	2	1	19	117
	Circulatory	74	26	48	2	1	3	1	3	41	26	1	2	9	62
	Respiratory	314	138	176	87	57	144	7	4	101	58	5	6	20	280
	Digestive	65	34	31	23	5	28	1	4	25	7	1	..	7	57
	Urinary	24	13	11	..	..	..	..	1	14	9	..	..	6	18
	Generative	3	..	3	..	..	..	..	1	2	..	1	..	..	2
	Locomotory	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Integumentary	1	..	1	..	1	1	..	..	..	..	..	..	..	1
IV. Developmental.	Premature Birth, Low Vitality and Congenital Defects	176	101	75	176	..	176	..	..	..	..	..	3	9	164
	Old Age	53	18	35	..	..	..	..	..	..	53	..	2	2	49
V.	Violence	40	24	16	15	7	22	3	6	6	3	..	1	..	39
VI.	All other Diseases	2	..	2	..	..	..	..	..	2	..	..	..	1	1
	Totals	1305	613	692	465	172	637	35	46	367	220	15	25	111	1154

TABLE VIII.

STATISTICS OF MORTALITY.

Wandsworth and Clapham Union Infirmary. [Parishioners.] 1895.		Total Deaths from each Class of Disease, &c.	Sex.		Age.							Social Position			
			Males.	Females.	Under 1 year.	From 1 to 5 years.	Total under 5 years.	From 5 to 15 years.	From 15 to 25 years.	From 25 to 65 years.	65 years and upwards.	Nobility and Gentry	Professional Class, Merchants, Bankers, &c.	Middle and Trading Class, Shopmen, Clerks, &c.	Industrial and Labouring Classes.
I. Zymotic.	Small-pox	..	..	..	..	..	..	..	..	..	..	...	..	..	...
	Measles	1	..	1	..	1	1	..	..	..	..	..	..	..	1
	Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Typhus Fever	..	..	..	..	..	..	..	..	..	..	...	..	..	..
	Enteric Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Puerperal Fever	1	..	1	..	..	..	..	1	...	...	..	..	..	1
	Diphtheria	...	..	..	..	..	..	..	..	..	..	..	..	..	..
	Whooping Cough	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Erysipelas	..	...	...	..	..	..	...	..	..	...	..	..	..	..
	Diarrhœa, Dysentry, and Cholera	5	3	2	4	1	5	..	..	..	..	..	..	..	5
	Influenza	3	1	2	..	..	..	..	2	1	..	..	..	..	3
	Other Zymotic Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total of Zymotic Diseases	10	4	6	4	2	6	..	3	1	..	..	...	..	10
II. Constitutional.	Gout	1	1	..	..	..	..	..	..	1	..	..	..	..	1
	Rheumatism	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cancer & other Tumours	13	8	5	..	..	..	..	..	10	3	..	..	..	13
	Other Constitutional Diseases	6	3	3	5	..	5	..	..	1	..	..	..	..	6
Tubercular.	Phthisis	40	24	16	..	..	..	..	8	30	2	...	...	..	40
	Other Tubercular Diseases	2	1	1	..	..	..	..	1	1	..	...	..	..	2
III. Local.	Nervous	23	12	11	..	1	1	2	1	15	4	..	...	...	23
	Circulatory	37	15	22	..	..	..	..	1	20	16	..	..	..	37
	Respiratory	58	30	28	5	1	6	..	4	27	21	...	...	..	58
	Digestive	7	1	6	..	..	..	..	1	5	1	..	...	...	7
	Urinary	7	4	3	..	1	1	..	...	6	..	..	..	..	7
	Generative	..	..	..	..	..	..	..	...	..	..	..	..	..	..
	Locomotory	..	..	..	..	..	..	..	...	..	..	..	..	..	..
	Integumentary	..	..	..	..	..	..	..	..	..	..	..	...	..	...
IV. Developmental.	Premature Birth, Low Vitality and Congenital Defects	3	1	2	3	..	3	..	..	..	..	...	...	...	3
	Old Age	21	14	7	..	..	..	..	..	...	21	...	..	...	21
V.	Violence	4	2	2	..	..	...	...	..	2	2	...	..	...	4
VI.	All other Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Totals	232	120	112	17	5	22	2	19	119	70	...	..	...	232

TABLE IX.

STATISTICS OF MORTALITY.

Wandsworth and Clapham Union Infirmary. [Non-Parishioners.] 1895.	Total Deaths from each Class of Disease, &c.	Sex.		Age.							Social Position			
		Males.	Females.	Under 1 year.	From 1 to 5 years.	Total under 5 years.	From 5 to 15 years.	From 15 to 25 years.	From 25 to 65 years.	65 years and upwards.	Nobility and Gentry	Professional Class, Merchants, Bankers, &c.	Middle and Trading Class, Shopmen, Clerks, &c.	Industrial and Labouring Classes.
I. Zymotic. Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..
I. Zymotic. Measles	1	1	..	..	1	1	..	..	..	..	..	..	..	1
I. Zymotic. Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
I. Zymotic. Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
I. Zymotic. Enteric Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
I. Zymotic. Puerperal Fever	1	..	1	..	..	..	..	..	1	..	..	..	..	1
I. Zymotic. Diphtheria	..	..	..	..	..	..	..	..	..	..	..	..	..	..
I. Zymotic. Whooping Cough	..	..	..	..	..	..	..	..	..	..	..	..	..	..
I. Zymotic. Erysipelas	2	1	1	..	..	..	..	..	..	2	..	..	..	2
I. Zymotic. Diarrhœa, Dysentry, and Cholera	5	2	3	1	3	4	..	..	1	..	..	..	..	5
I. Zymotic. Influenza	6	2	4	..	..	..	..	..	3	3	..	..	..	6
I. Zymotic. Other Zymotic Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total of Zymotic Diseases	15	6	9	1	4	5	..	..	5	5	..	..	..	15
II. Constitutional. Gout	1	1	..	..	..	..	..	..	1	..	..	..	..	1
II. Constitutional. Rheumatism	4	1	3	..	..	..	..	..	..	4	..	..	..	4
II. Constitutional. Cancer & other Tumours	17	10	7	..	..	..	..	..	12	5	..	..	..	17
II. Constitutional. Other Constitutional Diseases	6	1	5	3	1	4	..	1	..	1	..	..	..	6
II. Constitutional. Tubercular. Phthisis	25	10	15	..	..	..	..	4	20	1	..	..	..	25
II. Constitutional. Tubercular. Other Tubercular Diseases	1	..	1	..	1	1	..	..	..	..	..	..	..	1
III. Local. Nervous	24	10	14	..	..	..	1	4	12	7	..	..	..	24
III. Local. Circulatory	36	13	23	..	..	..	..	12	12	22	..	..	..	36
III. Local. Respiratory	49	31	18	2	4	6	1	..	16	26	..	..	..	49
III. Local. Digestive	5	4	1	..	..	..	..	..	5	..	..	..	..	5
III. Local. Urinary	7	7	..	..	..	..	..	..	6	1	..	..	..	7
III. Local. Generative	..	..	..	..	..	..	..	..	..	..	..	..	..	..
III. Local. Locomotory	..	..	..	..	..	..	..	..	..	..	..	..	..	..
III. Local. Integumentary	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Developmental. Premature Birth, Low Vitality and Congenital Defects	1	..	1	1	..	1	..	..	..	..	..	..	..	1
IV. Developmental. Old Age	28	15	13	..	..	..	..	..	..	28	..	..	..	28
V. Violence	9	7	2	..	..	..	1	1	5	2	..	..	..	9
VI. All other Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTALS	228	116	112	7	10	17	3	3	94	102	..	..	..	228

Particulars of deaths within the Parish in Public Institutions other than the Wandsworth and Clapham Union Infirmary.

PARISHIONERS.		
Bolingbroke Hospital	Female 69 years	Diarrhœa
,, ,,	Male 22 years	Burns
,, ,,	Male 37 years	Violence (Accident, thrown from horse)
,, ,,	Female 40 years	Cancer
,, ,,	Female 76 years	Burns
,, ,,	Male 38 years	Violence (Accident, train)
,, ,,	Female 10 years	Digestive
Broomwood College	Male 85 years	Senile decay
Southlands College	Male 61 years	Influenza
NON-PARISHIONERS.		
Bolingbroke Hospital	Male 7 years	Accident, burns
,, ,,	Female 50 years	Cancer
,, ,,	Male 60 years	Digestive
,, ,,	Male 61 years	Cancer
,, ,,	Female 59 years	Accident, fall
,, ,,	Male 17 years	Suicide, poisoning
,, ,,	Male 67 years	Cancer
,, ,,	Male 48 years	Accident, fall
,, ,,	Female 56 years	Cancer
,, ,,	Female 27 years	Caries of spine
St. James, Westminster, Schools	Female 15 years	Phthisis
,, ,,	Female 42 years	Apoplexy

Table B. This, the second table prescribed by the Local Government Board, contains particulars of the population, births, notifications of infectious disease in the several localities and various public institutions (themselves treated as separate localities), situated within the parish, and the cases of infectious disease removed from their homes in these several localities for treatment in the Metropolitan Asylums Board isolation hospitals. The cases of erysipelas are mostly removed to the Infirmary of the Wandsworth and Clapham Union, situated in St. John's Hill, within the parish, as also cases of puerperal fever, other hospitals not providing accommodation for these two diseases.

It will be observed that the several localities and institutions have populations assigned to them. The out-door districts of East and West Battersea have populations based upon the ascertained increase of population during the last inter-censal period, while the institutions have the census populations of 1891 given.

TABLE B OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH, DURING THE YEAR 1895 IN THE METROPOLITAN SANITARY DISTRICT OF BATTERSEA, CLASSIFIED ACCORDING TO DISEASES, AGES AND LOCALITIES.

Names of localities adopted for the purpose of these statistics. Public Institutions being shown as separate localities.	Population at all ages.		Registered Births.	Aged under 5 or over 5	New Cases coming to knowledge of Medical Officer of Health											No. of Cases removed for treatment in Isolation Hospitals.										
					1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
									FEVERS.											FEVERS.						
	Census. — 1891.	Estimate to middle of 1895.			Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.
East Battersea .	67144	72749	2439	Under 5		109	62	20		3					5		57	29	2		1					1
				5 upwards	16	261	120	6		62	3		5		98	15	139	29	1		32	3				5
West Battersea .. (excluding Public Institutions)	81999	95019	2825	Under 5		106	68	9		2					6		47	28								
				5 upwards	3	343	124	1	1	67	1		4		89	3	199	39			18			1		9
Wandsworth & Clapham Union Infirmary, St. John's Hill ..	615	615		Under 5		5											5								
				5 upwards	2	3				1	1		1		44	2	3				1					
Bolingbroke Hospital, Bolingbroke Grove	..	..		Under 5																					
				5 upwards																					
Westminster Union Schools, St. James' Road	152	152		Under 5																					
				5 upwards		3											3								
Southlands College ..	..			Under 3																					
				5 upwards																					
Broomwood College ..	..			Under 5																					
				5 upwards																					
Emanuel Schools, Wandsworth Common	232	232		Under 5																					
				5 upwards			1								2										
Masonic School for Girls, Battersea Rise	316	316		Under 5																					
				5 upwards																					
Totals ..	150458	169083	5264	Under 5		220	130	29		5					11		109	57	2		1					1
				5 upwards	21	610	245	7	1	130	5		10		233	20	344	68	1		51	3		1		14

TABLE X.

Particulars of Infectious Cases Notified during the year 1895.

	Cholera	Small Pox	Scarlet Fever	Diphtheria	Membranous Croup	Typhus Fever	Typhoid Fever	Continued Fever	Relapsing Fever	Puerperal Fever	Erysipelas	TOTAL.
Number of Cases Notified	...	21	830	375	36	1	135	5	...	10	244	1657
No. of Fatal Cases at home	...	...	10	40	20	1	15	...	...	6	6	98

TABLE XI.

Particulars of Cases of Infectious Disease Removed to Hospital during the year 1895.

	Cholera	Small Pox	Scarlet Fever	Diphtheria	Membranous Croup	Typhus Fever	Typhoid Fever	Continued Fever	Relapsing Fever	Puerperal Fever	Erysipelas	TOTAL.
No. of Cases removed to Hospitals	...	20	453	125	3	...	52	3	...	1	15	672
No. of Fatal Cases in Hospitals.	...	1	18	34	...	...	8	...	...	...	...	61

Below will be found a synopsis of the notifications received during 1895, with removals to hospital:—

	Notifications.	Removed to Hospital.
Cholera	—	—
Small Pox	21	20
Scarlet Fever ...	830	453
Diphtheria	375	125
Membranous Croup ...	36	3
Typhus Fever ...	1	—
Typhoid Fever ...	135	52
Continued Fever ...	5	3
Relapsing Fever ...	—	—
Puerperal Fever ...	10	1
Erysipelas	244	15
	1,657	672

Ages:—

Under 5 years ...	395	170
5 Years and upwards ...	1,262	502
	1,657	672

Where occurring:—

East Battersea ...	770	314
West Battersea ...	824	344
Union Infirmary ...	57	11
Bolingbroke Hospital ...	—	—
Westminster Schools ...	3	3
Emanuel School ...	3	—
Masonic Schools ...	—	—
	1,657	672

The various Hospitals to which the cases have been removed are as follows :—

Asylums Board Hospitals
Victoria Hospital.
St. Thomas' Hospital.
St. George's Hospital.
Westminster Hospital.
London Fever Hospitals, and
Wandsworth & Clapham Union Infirmary.

Small-Pox. A slight increase in the number of cases of this disease notified during the year, twenty-one cases compared with twelve in 1894. Twenty-one cases are given in Table B., but one was not a case of true small pox but of a disease closely resembling it, and difficult to differentiate. The remaining twenty cases were promptly removed to the Metropolitan Asylum Boards Hospital Ships and the necessary disinfections promptly performed, and all other precautions taken.

By the courtesy of Mr. T. Duncombe Mann, the Secretary of the Metropolitan Asylums Board, I am enabled to give a detailed list of the cases admitted to the Hospital Ships in Long Reach, under the care of the Medical Superintendent, Dr. J. F. Rickett, who has been good enough to furnish me with the list which shows that of the twenty patients received one died insufficiently protected by vaccination.

Pending the report of the Commission on vaccination I do not propose to make any observations on the subject, but will on a subsequent occasion go largely into the vaccination question, it being one that should be put in such a form as to be readily understood, as it is very probable that ultimately the control of vaccination will be placed in the hands of the Local Sanitary Authorities. I reserve further comment.

Small Pox Cases Admitted to the Metropolitan Asylums Boards Hospital Ships at Long Reach from Battersea, During the Year 1895.

No	Name.	Age.	Sex.	Address.	Date of Admission.	Statement as to Primary Vaccination.	No. of Scars.	Collective Area.	Re-vaccinated.	
1	W. H.	18	M	Wandsworth Infirmary ..	Jan. 4	In infancy	3	1·69 sq. in.	Not	Recovered
2	E. B.	41	M	Do.	,, 4	,,	1	0·21 ,, ,,	,,	,,
3	A. D.	9	M	1, Duffield Street, Falcon Road	,, 12	Not vaccinated	None	—	—	,,
4	A. C.	20	M	Relief Station, Latchmere Road	July 9	In infancy	4	0·70 ,, ,,	Not	,,
5	H. L.	48	M	Do.	,, 27	,,	2	0·16 ,, ,,	,,	,,
6	W. O.	23	M	S. A. Shelter, Bridge Road	,, 27	,,	2	0·13 ,, ,,	,,	,,
7	G. C.	30	M	58, Mysore Road ..	Aug. 13	,,	2	0·96 ,, ,,	,,	,,
8	W. S.	66	M	Wandsworth Infirmary ..	,, 21	,,	3	0·40 ,, ,,	,,	,,
9	A. M.	56	M	62, Eland Road ..	,, 29	,,	1	0·56 ,, ,,	,,	,,
10	S. H.	18	F	33, Kingsley Street ..	Sept. 2	,,	4	1·17 ,, ,,	20th August (unsuccessfully.)	,,
11	T. E.	31	M	96, Stormont Road ..	,, 10	,,	4	0·84 ,, ,,	Not	,,
12	E. P. N.	52	F	62, Eland Road ..	,, 12	,,	1	0·11 ,, ,,	,,	,,
13	F. B. C.	16	F	14, Ponton Road ..	,, 14	,,	4	1·07 ,, ,,	,,	,,
14	N. C.	24	F	Do. ..	,, 14	,,	3	1·02 ,, ,,	,,	,,
15	J. R. C.	21	M	Do. ..	,, 14	,,	6	3·63 ,, ,,	,,	,,
16	M. T.	18	F	4, Linford Street, ..	,, 20	,,	4	2·58 ,, ,,	,,	,,
17	J. C.	17	M	35, Wycliffe Road ..	,, 20	,,	3	0·60 ,, ,,	,,	,,
18	E. C.	52	F	Do. ..	Oct. 4	,,	4	0·75 ,, ,,	,,	,,
19	W. F.	27	M	14, Ponton Road ..	,, 10	,,	3	2·18 ,, ,,	,,	,,
20	E. N.	15	F	47, Beaufoy Road ..	,, 24	Not vaccinated	None	—	—	Died

As there have been complaints that persons suffering from this and other infectious diseases have been conveyed in public conveyances, the following notice has been issued to those concerned, such as cabmen and conductors of tram cars and omnibuses.

The Vestry of the Parish of St. Mary, Battersea.—Notice to owners of public conveyances, drivers, &c.—The Vestry of the Parish of St. Mary, Battersea, desire to draw the attention of the public to sec. 70, of the Public Health (London) Act, 1891, which enacts that it shall not be lawful for any owner or driver of a public conveyance knowingly to convey, or for any other person knowingly to place, in any public conveyance, a person suffering from any dangerous infectious disease, or for a person suffering from any such disease to enter any public conveyance and if he does so he shall be liable to a fine not exceeding £10; and if any person so suffering is conveyed in any public conveyance, the owner or driver thereof as soon as it comes to his knowledge shall give notice to the Sanitary Authority, and shall cause such conveyance to be disinfected, and if he fails to do so he shall be liable to a fine not exceeding £5, and the owner or driver of such conveyance shall be entitled to recover in a summary manner from the person so conveyed by him or from the person causing that person to be so conveyed a sum sufficient to cover any loss and expense incurred by him in connection with such disinfection.

A Chamber has been provided at the Vestry's Depôt, Culvert Road, where conveyances can be disinfected free of charge.

The Metropolitan Asylums Board will remove in one of their Ambulances any person suffering from infectious disease to places other than the Board's hospitals upon application and payment of the sum of five shillings. In the case

of inability to pay such sum application should be made to the Sanitary Department of the Vestry, by whom such removal will be effected.

By Order of the Vestry of the Parish of St. Mary, Battersea.

Scarlet Fever.

Eight hundred and thirty cases of this disease were notified during the year 1895. Four hundred and fifty-three in which there was not efficient isolation to be obtained at home, or where, from the severe type of the disease or other causes, proper provision for the nursing and care of the sick could not be there obtained, were removed to the Metropolitan Asylums Board Hospitals, chiefly to the Fountain Hospital at Tooting, which latter has proved to be of inestimable value to this district, saving long journies and much valuable time. Rather less than four per cent. of the cases admitted to hospital died, being a very low rate and shewing the admirable treatment there adopted.

The other three hundred and seventy-seven cases, in which proper nursing and isolation existed, remained at home. These cases would include the milder attacks, ten proving fatal, being less than three per cent., contrasting with the cases removed to hospital.

Diphtheria and Membranous Croup.

These diseases are here grouped together as it is impossible to distinguish between them in many instances, diphtheria of the air passages being generally returned as membranous croup, but not always, many cases being termed laryngeal diphtheria.

Of these combined diseases, which originate as far as modern research extends from the same source, and therefore here grouped together as diphtheria, four hundred and eleven cases were notified during 1895. One hundred and twenty-eight were sent to hospital, many *in extremis*, for the sake of having tracheotomy performed as the only method of averting death from suffocation. Fifty-three hospital cases died, just forty-two per cent.

Two hundred and eighty-three, including the milder cases such as diphtheritic sore throat, remained at home. Of these sixty died, just over twenty-one per cent. of cases.

Enteric and other Fevers.

Enteric fever has been somewhat prevalent during the year 1895, one hundred and thirty-five cases having been notified. Fifty-two were removed to hospital, of whom eight died or slightly above fifteen per cent. The other eighty-three were treated at home, the majority being mild cases, and fifteen of these died or over eighteen per cent. The total mortality of all cases was over sixteen per cent.

Five non-fatal cases of continued fever were notified and require no comment. Three were removed to hospital.

Puerperal Fever was notified in ten cases of whom six died, this disease being extremely fatal. One was sent to hospital and recovered.

Erysipelas.

This disease still continues prevalent, two hundred and fifty-four cases being notified in 1895, against three hundred and twenty-five in 1894. Fifteen cases were removed to hospital, none of whom died, the rest, two hundred and forty-four remained at home of whom six died. Those removed were taken to the Wandsworth and Clapham Union Infirmary in the majority of instances, as general hospitals do not admit such cases as a rule, and the Metropolitan Asylums Board Hospitals do not receive them. The term erysipelas covers so many degrees and forms of inflammatory affections, that no profitable conclusions could be deduced from any further detail.

Diarrhœa.

In consequence of the prevalence of Diarrhœa and like affections of the digestive tract during the hotter months, more especially among hand fed infants, the Sanitary Committee directed the preparation and issue of precautions to be taken in the method of feeding and generally treating young children. These are appended :—

PRECAUTIONS AS TO DIARRHŒA.

In consequence of the prevalence of Diarrhœa amongst young children, more especially those brought up by hand, the Vestry as the Sanitary Authority acting under the advice of their Medical Officer of Health, beg to direct the attention of Parents and others having care of young children to the great advisability of boiling all water and milk used for feeding such children.

Care should be taken as to the sound condition of every article of food for children, anything not fresh being withheld. Fruit especially should not be given if in the slightest degree decomposed.

Cleanliness of person and dwellings with frequent flushing of house drains is of the greatest value.

Disinfectants in case of illness are supplied free of charge on application to the Sanitary Department, Town Hall Road, between the hours of 9 a.m. and 5 p.m., and on Saturdays, between 9 a.m. and 1 p.m.

Measles. The number of cases which occurred during the earlier months of 1895 cannot be ascertained, as this, the most fatal of all zymotic diseases, still remains non-notifiable. The number of fatal cases became so grave that I was directed to re-issue a bill giving the public instructions as to the necessary precautions to be observed during an epidemic of this disease, and they are here appended. Ninety-nine fatal cases were recorded during the year, the number during 1894 having been one hundred and fifty-one.

PRECAUTIONS TO BE OBSERVED

DURING THE

EPIDEMIC OF MEASLES.

The Vestry, as the Sanitary Authority for the Parish, and as advised by the Medical Officer of Health, desire to direct the attention of parents and others to the importance of checking the spread of Measles, which is now prevalent in an epidemic form and is causing much mortality by complications, such as Bronchitis and Pneumonia.

All children suffering from Measles, even in the earliest stage, before the eruption appears, should be isolated from others. The first symptoms of Measles are running at the eyes and nose, with repeated sneezing and a puffy appearance of the face and eyelids and, a few days after, the appearance of the rash which is raised and red or purplish in colour.

The child should be kept in bed from the first appearance of the symptoms until the rash has finally disappeared, in order to avoid the danger of lung complications which are the real causes of death, uncomplicated measles not being usually fatal. Medical aid should be sought in every case where difficulty of breathing is observed.

Disinfectants in a dilute form should be freely used in every case of measles in a warm bath at the onset and termination of the disease, and to sponge the face and other parts during the illness.

In case of inability to obtain suitable disinfectants the same will be supplied, free of charge, on application to the Vestry's Sanitary Department, Town Hall Road, Lavender Hill.

The epidemic declined during the summer months, but was accompanied and followed by deaths from whooping cough and other respiratory disorders.

Influenza. The sixth epidemic of this disease, which first appeared in this country after an absence of nearly fifty years in 1889, again affected a large number of persons in the early months of the year. Although many hundreds were incapacitated yet the mortality was below that of other years during which it was prevalent. Ninety-two deaths were recorded, the greatest number known in any one year except eighteen hundred and ninety-two and eighteen hundred and ninety three, when the deaths numbered one hundred and thirty-three and one hundred and eighteen respectively.

There can, however, be no doubt that the high mortality from diseases of the respiratory system was much influenced by this disease.

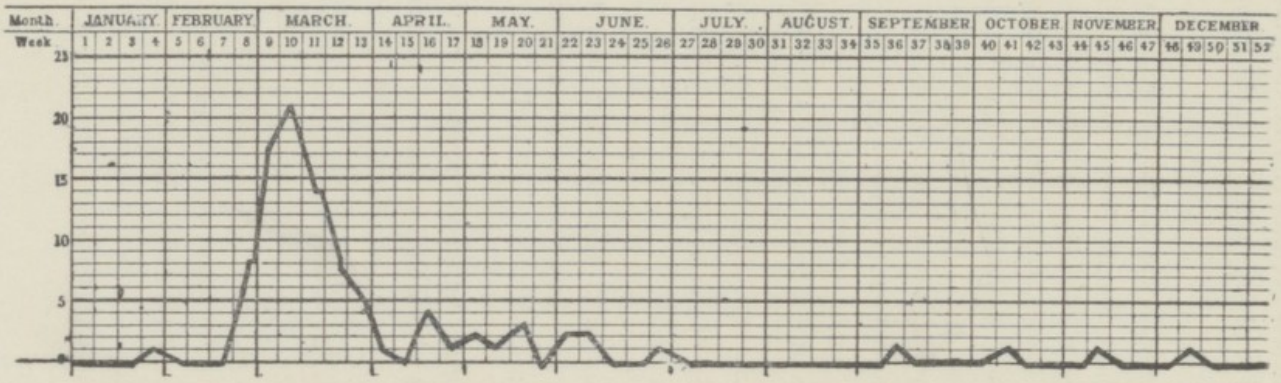
By the order of the Sanitary Committee a list of precautions to be taken drawn up by me was re-issued and circulated largely throughout the parish, and is here reproduced.

The diagram annexed shows the relative prevalence of fatal cases during the different seasons of the year, but gives no indication of the number of cases which were probably a hundred fold greater, including cases in every degree of severity.

It is a disease of the greatest variability, many, probably the majority of cases, being merely a matter of a few days or even hours. Others are of pronounced severity, and as malignant and fatal as the worst forms of tropical fever which indeed Influenza when severe precisely resembles and from which it is most probably derived.

CHART INDICATING NUMBER OF DEATHS FROM INFLUENZA

DURING THE YEAR 1895.



PRECAUTIONS AGAINST INFLUENZA.

The Vestry of the Parish of St. Mary, Battersea, as the Sanitary Authority and as advised by the Medical Officer of Health, in consequence of the renewed prevalence of Influenza, desire to direct the attention of the public to the extremely infectious character of the disease, and to point out that to the exposure of those in an infective condition from influenza, by neglect to isolate themselves during the period of such infective condition, the spread and maintenance of the disease is chiefly due. It is probable that the breath of those so affected is the principal medium by which infection is conveyed.

The early symptoms of influenza are chiefly chills and shivering, accompanied by great muscular weakness and prostration, often amounting to inability to stand or move, with pains in the spine or other parts of the body. It is desirable that persons thus affected should at once go to bed and there remain until convalescence is established in order to avoid the dangers of Pneumonia or Bronchitis, which are the chief complications to be feared, as likely to lead to fatal results.

Early recourse to medical assistance is desirable in every case, both for the determination of the real nature of the disease and for the prevention of the more serious complications.

A most important memorandum has been issued by the Medical Officer of the Local Government Board, and been produced as the result of questions in Parliament, addressed to Ministers, on the subject of a very fatal outbreak at the end of 1894 and beginning of 1895, and is here set out.

MEMORANDUM ON EPIDEMIC INFLUENZA.

Influenza became epidemic in England in the winter of 1889-90; it recurred in epidemic form in the spring of 1891, and was maintained up to June of that year; a third epidemic took

place in the winter of 1891-92, and after a minor recrudescence in the spring of 1893, a fifth prevalence on a wide scale took place in the winter of 1893-94. England is now passing through a sixth epidemic period. Two detailed reports have been issued by the Board on the subject. The first was Dr. Parsons, "On the Influenza Epidemic of 1889-90," with an introduction by Sir George Buchanan, M.D., F.R.S., the Board's Medical Officer at that date. The second was a "Further Report on Epidemic Influenza, 1889–92," by Dr. Parsons, with papers on the Clinical and Pathological aspects of the Disease, by Dr. Klein, F.R.S., and an introduction by myself.

A "Provisional Memorandum upon Precautions advisable at times when Epidemic Influenza threatens, or is prevalent," was also drawn up by me in January, 1892, and was issued by the Board to local sanitary authorities.

The further study made by the Medical Department as to the natural history of Influenza, and as to its clinical and bacteriological characteristics, goes to show that it is a disease against which it is most difficult to apply measures of prevention with any substantial prospect of success.

Influenza is highly infective from person to person; its infectious quality is often manifested before the disease is fully recognised; its incubation period is one of the shortest of all infectious diseases; it varies so much in intensity that many cases are never diagnosed at all; one attack confers no marked immunity against another; and the infection is largely eliminated by means of the lungs, the sputa of the sick being invariably charged, during the acute stage of the disease, with its pathognomonic micro-organism. The disease calls primarily for measures of isolation and of disinfection, but there are difficulties in making any such measures universally applicable. Wherever they can be carried out, the following precautions should, however, be adopted:—

1st. The sick should be separated from the healthy. This is especially important in the case of first attacks in a locality or a household.

2nd. The sputa of the sick should, especially in the acute stage of the disease, be received into vessels containing disinfectants. Infected articles and rooms should be cleansed and disinfected.

3rd. When Influenza threatens, unnecessary assemblage of persons should be avoided.

4th. Buildings and rooms in which many people necessarily congregate should be efficiently aerated and cleansed during the intervals of occupation.

It should be borne in mind that the liability to contract Influenza, and also the danger of an attack, if contracted, are increased by depressing conditions, such as exposure to cold, and to fatigue whether mental or physical. Attention should hence be paid at epidemic periods to all measures tending to the maintenance of health, such as the use of clothing of suitable warmth, and a sufficiency of wholesome food.

Persons who are attacked by Influenza should at once seek rest, warmth, and medical treatment, and they should bear in mind that the risk of relapse, with dangerous complications, constitutes a chief danger of the disease.

R. THORNE THORNE.

Local Government Board,
Medical Department,
March 6th, 1895.

It will be perceived that the contents of the above memorandum are in accord with the precautions issued by this parish early in 1894, and now re-issued for the guidance of the public.

Table XII. illustrates the epidemic or zymotic mortality for the past eleven years with the resulting death rates. The number of deaths from each class of disease is shewn. The zymotic death rate for 1895 was 2·9 per thousand persons, being a fractional point above 1895, which was 2·8, but being much lower than the decennial zymotic rate.

TABLE XII.

Comparative Table of Zymotic Mortality during the past 11 *years.*

	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895
Small-Pox	2	—	—	—	—	—	—	—	—	—	—
Measles	112	70	82	87	104	159	37	90	90	151	99
Scarlet Fever ...	8	14	68	25	12	10	10	15	17	5	10
Diphtheria	10	9	23	22	21	27	35	28	90	67	60
Enteric, &c. Fevers ...	18	23	17	13	15	21	19	8	14	13	15
Whooping Cough ...	121	104	112	119	81	146	104	100	115	77	52
Epidemic Diarrhœa...	126	152	175	75	112	121	104	99	120	93	151
Other Zymotic Diseases	35	26	25	22	21	59	89	133	118	62	104
Total Deaths from Zymotic Diseases...	432	398	502	363	366	543	398	473	564	468	491
Zymotic Death Rate	3·4	3·0	3·7	2·6	2·5	3·6	2·6	3·0	3·5	2·8	2·9
Death-rates from all Diseases ...	20·4	19·0	18·2	15·7	15·6	19·3	17·2	17·2	17·4	14·6	17·1

Table XIII. This table gives the non-zymotic mortality for the last eleven years, and shews that the mortality from this source during 1895 was the highest during the period. This was undoubtedly due to the rigorous climate of the earlier months of the year when, as shewn in Table IV., the mortality was excessive. The high death rate from diseases of the respiratory and other organs, greatly due to the influenza epidemic, greatly increased, as in 1892 and 1893, the mortality, or a decrease of non-zymotic fatality would have been shewn.

TABLE XIII.

Comparative Table of all non-zymotic cases of Deaths during the past 11 *years.*

	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895
Tubercular, including Phthisis ...	420	439	367	342	334	320	285	237	355	304	353
Of Brain, Nerves, &c.	282	289	280	223	212	261	195	259	213	211	334
Of the Heart, &c. ...	159	159	128	113	108	148	141	183	159	173	213
Of the Respiratory Organs, excluding Phthisis	630	584	528	474	391	618	572	635	653	471	623
Of Digestive Organs	88	96	86	113	100	118	122	112	127	197	114
Of Urinary Organs...	46	31	53	24	39	34	49	72	60	57	56
Of Organs of Generation	23	14	19	6	14	15	16	15	14	12	7
Of Joints, Bones, &c.	8	20	30	9	3	4	7	2	3	6	—
Premature Birth, Low Vitality, Malformation, &c. ...	137	175	202	175	205	206	238	256	295	273	332
Of Uncertain Seat Cancer, Syphilis, Dropsy, &c.	105	106	105	79	96	70	89	233	130	114	108
Age	76	99	88	57	52	71	74	122	103	118	128
Violence	61	63	63	53	60	77	60	81	102	70	102
Constitutional ...	4	5	—	—	—	—	2	12	23	20	40
TOTAL ...	2039	2080	1949	1671	1614	1942	1850	2219	2237	1936	2410

Inquests. During the year 1895, 267 cases came under the notice of the Coroner. Thirty-five of these were cases in which he decided that no further inquiry was necessary, and they are marked in the Registrar's Returns as "submitted to Coroner," which is considered sufficient to authorise registration."

In the other 232 cases inquests were held with the following results, as given in the verdicts of the respective juries :—

From Natural Causes			130
From Accidental Causes :—			
Suffocation	21		
Burns	8		
Run over	4		
Drowning	6		
Poisoning	1		
Falls, &c.	17		
On Railway	6		
Knocked down by swing	1		
Blow from Cricket Ball	1		
	—	65	
From Homicidal Causes :—			
Suicide—Hanging	1		
Cut throat	4		
Poisoning	6		
Drowning	4		
Suffocation	1		
On Railway	1		
	—	17	
Murder—Suffocation	5		
Fractured Skull	1		
Hœmorrhage from Umbilical Cord	1		
	—	7	
Open Verdicts :—			
Found drowned	6		
Suffocated	1		
Found dead	1		
Over distension of Stomach	1		
Lead poisoning	1		
Starvation	2		
Poisoning	1		
	—	13	
	——		102
Total ...			232

Eighteen deaths were due to suffocation whilst in bed with parents, the dates and days of the week being as follows :—

10th January	Thursday	9th August	Friday.
14th ,,	Monday	22nd ,,	Thursday.
18th ,,	Friday.	29th September	Sunday.
30th ,,	Wednesday	5th October	Saturday.
3rd February	Sunday	21st ,,	Monday
5th ,,	Tuesday	29th ,,	Tuesday.
18th ,,	Monday	6th November	Wednesday.
4th June	Tuesday	28th ,,	Thursday.
28th July	Sunday	17th December	Tuesday.

Differently arranged :—

	NO. OF CASES.
Sunday	3
Monday	3
Tuesday	4
Wednesday	2
Thursday	3
Friday	2
Saturday	1
Total	18

Social Position of Persons dying during 1895.

	Number.	Per Cent.
Nobility and Gentry	16	0·5
Professional Class -	30	1·0
Middle and Trading Classes	149	5·1
Industrial and Labouring Classes - -	2,706	93·4
	2,901	100·0

Water Supply for London.

This most important subject, more especially with reference to the health and sanitary condition of the inhabitants of this vast metropolis, among whom of course are included the many thousands of persons who are inhabitants of Battersea, is now engaging the attention of Parliament. The water companies have bills in the House of Commons and the London County Council has introduced measures giving it control over the water supply. In my report for last year the subject was very fully discussed, and as the matter is one involving as it does the expenditure of

many millions of the public money as well as the health and lives of the community and in which every public man should take a strong personal interest, a condensed account of the present position of the question is here given.

This most important subject has been under consideration by a Royal Commission which sat during 1892 and 1893. The Chairman was Lord Balfour of Burleigh ; Sir Archibald Geikie, Professor Dewar, Dr. Ogle, Mr. Mansergh, Mr. Hill, and Sir George Bruce constituted the Committee, all men of eminence and selected for their intimate knowledge of the subject. No Commissioner was in any way connected with either of the London Water Companies, and Mr. Mansergh is the Engineer who is now bringing water to Birmingham from Wales, while Mr. Hill is supplying Manchester from Thirlmere.

The witnesses examined include nearly one hundred of the leading sanitarians and engineers, together with representatives of the great public bodies of the Metropolis and elsewhere, the Local Government Board, the London County Council, the Corporation of London, and the various Water Companies and others having interests in the Water Supply of the Metropolis.

Briefly reviewing the inquiry, the main question referred to and considered by the Commission was whether the water of the Thames and Lea Valleys was good, and whether enough of it could be obtained for the London of the future without injury to the interests of other districts in those watersheds. They find, as the Companies always maintained, that "the water as supplied to the consumer in London is of a very high standard of excellence and of purity, and that it is suitable in quality for all household purposes," and also that the Thames and Lea Valleys may, without prejudice to the claims or material injury to the interests of districts outside the area of Greater London, be made to supply more than double the present population of the Metropolis with 35 gallons per head daily.

The Commissioners recommend that the inspection of the River Thames should be more thoroughly done than it is at present, and that increased provision should be made, in the form of reservoirs for avoiding the taking in of water while the river is in a state of flood. Of all the sites that have been suggested to them as suitable for reservoirs they consider none in the Thames Valley so reliable as can be found upon the London clay, only a short distance above the Hampton intakes. From the Thames, when required, may be taken 300,000,000 gallons a day; from the Lea, 52,500,000 gallons; from wells in the Lea Valley, 40,000,000 gallons; and from wells in the Kent Company's district, 27,500,000 gallons; besides a further considerable quantity, should it ever be wanted, from the Valley of the Medway and the country to the east of it.

The Commission, as might be expected, deal with the question broadly, without committing themselves to details. It would be going beyond the duty of useful criticism to discuss some of the interesting scientific, though minor, points upon which the Commissioners adopted views adverse to those of some of the distinguished witnesses who appeared before them. There are, however, in the enquiry two points which rather hang upon one another, and about which we wish the Commission had told us a little more. These are :—

(1) The effect which might be expected upon the Thames of taking double the present quantity of the water from the river during periods of drought.

(2) The amount of storage space to be provided above the intakes in order to make the taking of any more of this water unnecessary.

The conclusion of the Commission is most distinct that there is ample supply of water derivable from the Rivers Thames and Lea, from wells in the chalk in the Lea Valley, and also in the district of the Kent Water Works Company,

which will be sufficient to meet the requirements of London for fifty years to come. As to the purity of these supplies, the chemical and bacteriological evidence of Dr. Frankland, Dr. Odling, Professor Crookes, Professor Ray Lankester, Dr. P. F. Frankland and others, is most satisfactory; and no evidence submitted as to impurity could stand the test of the investigations and inquiries of the Commissioners. In their report, however, they very properly advise that further efforts shall be made to keep pollution of all kinds out of the Rivers, and maintain their purity in every possible way.

The report of the Commissioners, given below sums up the evidence and gives a general outline of the whole enquiry and is followed by the conclusions at which they finally arrived and their consequent recommendations.

The Commission, which was appointed in January, 1892, constituted for the purpose of ascertaining "whether, taking into consideration the growth of the population of the Metropolis and the districts within the limits of the Metropolitan Water Companies, and also the needs of the localities not supplied by any Metropolitan Company but within the watersheds of the Thames and the Lea, the present sources of supply of these Companies are adequate in quantity and quality, and, if inadequate, whether such supply as may be required can be obtained within the watersheds referred to, having due regard to the claims of the districts outside the Metropolis but within those watersheds, or will have to be obtained outside the watersheds of the Thames and the Lea." For the purpose of acquiring the information necessary to enable them to form a judgment upon the questions submitted, the Commissioners placed themselves in communication with the Metropolitan Water Companies, the Corporation of the City of London, the London County Council, and the Councils of the Counties of Bedford, Berks, Buckingham, Essex, Gloucester, Hants, Hertford, Kent, Middlesex, Oxford, Surrey, and Wilts. They also invited the Boards of Conservators of the Thames and Lea,

and all the Urban and Rural Sanitary Authorities whose districts are wholly or partially situated within the watersheds of those Rivers, and all the Water Companies and Public Authorities who have waterworks in the same area to give them any information bearing on the subject which they might be in a position to afford. The Commissioners sat on 45 days, 32 of which were occupied in hearing oral evidence. There were 92 witnesses examined, most of whom were put forward by the Metropolitan Water Companies or the County Councils of London and the counties of Hertford, Middlesex, Surrey, Essex, and Buckingham, and by other public bodies in London and the neighbourhood. Some of the evidence produced was of such a character that it was found necessary to employ an Assistant Commissioner to visit the localities under enquiry, and to ascertain upon the spot the precise facts. For this purpose, with the sanction of the Treasury, Mr. R. E. Middleton, M. Inst. C.E., was appointed.

The areas affected by the enquiry may be defined as extending over "Greater London" as that name is used in the General Register Office, where it is applied to the area included within the Metropolitan and City Police districts. Such area includes all parishes wholly comprised within a circle of 15 miles radius from Charing Cross, and all other parishes of which any part is included within a circle of 12 miles radius from the same centre. Greater London thus not only includes the whole of the Administrative County of London, but extends widely beyond it, and contains in all an area of 701 square miles. In the evidence given before the Commission the area within Greater London and outside the County of London was called the "Outer Ring," and it is within this area that at present the most rapid increase of population appears to be taking place. The areas supplied form together a district which is usually spoken of as "Water London," comprising about 622 square miles. The areas are not co-extensive with any districts of which the populations are given by the Registrar-General in the census returns, and no exact statement

of the population being obtainable from official returns the Companies found it necessary to rely upon estimates compiled from such other sources of information as they had at their command. According to the returns made by the Companies themselves the total population supplied by them in 1891 was estimated at 5,469,791; but it would seem, however, that 5,237,062 persons must be accepted as the closest approximation that could, under the circumstances, be made.

In turning to the future requirements of this ever-increasing population, the first question that presented itself for discussion was what area ought to be taken into account; and it soon became apparent that neither Registration London nor the London of the County Council, nor even Water London, was sufficiently extensive for the purpose. Not only should suburban districts be included in the area to be reported upon by the Commission, but such more remote districts must be considered as might reasonably be expected to be reached by the spreading of the population of London at no very distant time. After due consideration, the Commissioners determined to take as their basis that area known as Greater London, and to add to it certain parts of Water London which lie outside Greater London as now computed. The report states that the increase in population of this area, as shewn by the census returns for the last 50 years, has been far from equable. Taking, however, the average annual increase per cent. in the whole period as a basis, they think it may safely be computed that the population of Greater London will continue to increase at the rate of 18·2 per cent. decennially, or in the ratio of 1·82 per cent. annually.

The report sets out at length a table showing the yearly and monthly daily average both of water returned to the Official Water Examiner under the Metropolis Water Act, 1871, as supplied by the Companies in the year 1891. From this and similar calculations made from other returns, it appears that the quantity of water consumed per head of the population differs widely in the districts of the several Companies.

Taking the population estimated by them as being actually supplied, the quantities consumed per head per day range from 26·71 gallons in the case of the West Middlesex Company to 47·72 gallons in that of the Grand Junction Company; the average over the whole of the population being 31·19 gallons per head per day. The report next gives the present sources from which the water supplied by the Companies are derived. These are of four kinds, viz. :—(1) the Rivers Thames and Lea ; (2) gravel beds adjoining the main stream of the Thames and other gravel beds at Hanworth ; (3) natural springs ; and (4 wells sunk into the chalk or other strata at such points in the watersheds as may have been selected. The Commissioners discuss these in the order named. All the Companies, except the Kent Company, are dependent for some part of their supply upon water derived either from the Thames or the Lea.

Turning to the question of the "necessities of the future," the Commissioners set out in the report the views of the several Companies who adopted the same term, viz., 40 years, as the period for which it is desirable to look forward. The following table gives the figures laid before the Commission by each Company as to the estimated population and requirements of their district in 1931 :—

Name of Company.	Estimated Population in 1931.	Estimated Daily Supply per head in 1931.	Supply required per day.	Supply available per day.
New River ...	1,658,000	28·5	47,250,000	*56,500,000
East London ...	1,697,000	33·0	56,000,000	66,000,000
Chelsea ...	375,000	35·0	13,125,000	22,000,000
West Middlesex ...	959,187	28·0	26,857,236	24,500,000
Grand Junction ...	584,969	42·0	24,500,000	24,500,000
Lambeth ...	1,136,441	25·0	28,411,025	30,500,000
Southwark & Vauxhall	1,215,457	25·0	30,386,425	41,000,000
Kent ...	900,000	30·0	27,000,000	29,000,000
Total ...	8,526,054	29·73	253,529,686	294,000,000

* Deducting 330,000 gallons of unfiltered water from Hampstead Ponds.

The suggestions made by the Companies for extending their works, and so augmenting the volume of distributable water, may be stated as follows :—

(1) The abstraction of more water from the Thames without providing storage. (2) The abstraction of more water from the Thames and Lea with provision for storage. (3) The abstraction of water from gravel beds adjoining the Thames. (4) The abstraction of more water from deep wells in the chalk formation.

The report next proceeds to deal with the several suggestions which were laid before the Commissioners as to the construction of large storage reservoirs. Of the schemes submitted that of Messrs. Hunter and Fraser was considered the best. It was brought forward by Mr. W. Hunter, M. Inst., C.E., a Director, and Mr. Alexander Frazer, M. Inst., C.E., the Engineer of the Grand Junction Company. It consists in the construction of nine reservoirs upon land in the neighbourhood of Staines, at a spot only a few miles from the existing works of the Company. The storage capacity was to be obtained by excavating below the surface in almost flat ground, and forming the material removed into banks so as to increase the depth. By this combined process of sinking and raising a depth of 40 feet would be obtained ; the digging being entirely in gravel, which overlies the clay to a depth of from 20 to 30 feet. The advantage rightfully claimed for this scheme was that it could be carried out by instalments, as might be from time to time required.

After setting out the evidence given as to the estimated supply of water that would be procured from gravel beds and deep wells, the report summarizes the total capacity of the supply as returned by the representatives of the Companies as follows : — From the Thames, with additional storage 300,000,000 gallons per day ; from the Lea, with the East London Company's projected storage 52,500,000 gallons,

from chalk springs and wells 87,000,000 gallons; total, 439,500,000 gallons, or (say) 440 million gallons per day.

The report next deals with the objections which have been raised to the proposals of the Companies in regard to increasing the draught upon the Thames, the Lea and the chalk formation for the purpose of meeting further demands; and the conclusions arrived at by the Commission are stated as follows:

"From the River Thames."—In estimating the quantity of water which may be obtained from the Thames, we have given full consideration to the topographical, meteorological, geological, statistical, and engineering evidence which has been laid before us by the representatives of all the parties, although we shall now quote figures only from a few of the proofs. The area within the Thames watershed down to Kingston was assumed by the Duke of Richmond's Commission (on evidence then received) to be 3,676 square miles; and this figure has been adopted by Mr. Hawksley, Mr. Baldwin Latham and others in the present enquiry as to the area down to Teddington Weir. Both Mr. More and Mr. Binnie have made new and independent admeasurements, and compute this area respectively at 3,766 and 3,789 square miles; and Mr. More (being Engineer of the Thames Conservancy) may be assumed to possess the fullest acquaintance with the watershed, we propose to adopt his figures. From Mr. Topley we accept 3,548 square miles as being approximately the area above the intakes of the Water Companies. Mr. More has put in gaugings of the discharge of the Thames at Teddington for the years 1883 to 1891 with an added column showing the rainfalls.

"In the third column of the table the average yearly discharge of the nine years at Teddington is given as 435,931,000,000 gallons. But this quantity is subject to some correction, for we found on investigating the details of the gauging arrangements at Teddington that it was desirable to check the results by simultaneous measurements at Molesey and

Sunbury Weirs, and having entrusted this work to Mr. Middleton and considered his report we accept his opinion that Mr. More's quantities should be increased by 7 per cent. To the 435,931,000,000 gallons we therefore add 40,515,170,000 gallons, making 466,446,170,000 gallons. To this again must be added the average quantity taken by the Companies, viz., 30,896,000,000 gallons, giving a grand total of 497,342,170,000 gallons. Divided by 365 this gives a daily average of 1,362,581,288 gallons.

Year.	Total Quantity of Water abstracted by the Water Companies.	Volume of Discharge at Teddington Weir as guaged by the Thames Conservancy	Total flow of River Thames (Col. 2 + Col. 3.)	Average Annual rainfall on Thames Basin above intakes of the Water Companies.
	Gallons.	*Gallons.*	*Gallons.*	*Inches.*
1883	26,197,000,000	659,657,000,000	685,584,000,000	28·41
1884	29,946,000,000	330,648,000,000	360,594,000,000	22·90
1885	29,654,000,000	339,130,000,000	428,784,000,000	29·15
1886	30,350,000,000	544,786,000,000	575,136,000,000	31·07
1887	32,154,000,000	390,296,000,000	422,450,000,000	21·32
1888	30,280,000,000	427,656,000,000	457,936,000,000	28·45
1889	31,419,000,000	437,059,000,000	468,478,000,000	25·64
1890	32,876,000,000	261,916,000,000	294,792,000,000	22·81
1891	35,185,000,000	472,228,000,000	507,413,000,000	33·31
TOTAL	278,061,000,000	3,923,376,000,000	4,201,437,000,000	243·06
Average of the 9 years.	30,896,000,000	435,931,000,000	466,827,000,000	27·01

"During the nine years in question the rainfall averaged only 27·01 inches as compared with 28·50 inches which Mr. Symons gives as the mean fall of a long term upon the watershed. We therefore increase the daily volume to 1,437,747,750 gallons, raising it in the ratio of 27·01 to 28·50 inches. This quantity must, however, be reduced in the proportion of the area above Teddington, viz., 3,766 square miles, to that above the intakes, which is 3,548 square miles, thus bringing down the nett daily quantity to 1,354,521,778 gallons. This, we believe, is a very close approximation to the daily average flow of the Thames down to the waterworks intakes during a long series of years, and we will call it, in round figures, 1,350,000,000 gallons. The average daily discharge of three consecutive dry years we estimate at 1,120,000,000 gallons, and of the driest year at 900,000,000 gallons.

"These being the facts, we are of opinion that, by the construction in the neighbourhood of Staines, of reservoirs of adequate capacity, into which water shall be pumped and stored in times of excess, to be used in times of deficiency, at least 300,000,000 gallons a day may be obtained for the supply of London.

"We believe this can be done without taking in the more turbid of the flood waters, and without injuriously diminishing the volume of the River below the point of abstraction. To ensure the best results in both these respects, the takings of the water should be subject to strict regulations laid down by Parliament. The water allowed to be taken from the River should, in our opinion, include any water which may be pumped from the general beds in the vicinity of the River.

"From the River Lea.—The available drainage area of the Lea above the lower intake of the East London Company is stated by Mr. Bryan to be 460 square miles; and the mean rainfall upon it is stated by Mr. Symons to be 26 inches. No gaugings of the discharge has ever been made at or below the intakes; but they have been kept for many years at Fielde's Weir, which has above it (as before stated) an area of 422 square miles. From this point we have made out that, on the average of three consecutive dry years, 81,000,000 gallons a day will flow off by the River. We have no definite evidence as to the capability of the district below; but from some remarks of Mr. Bryan's, we judge that he does not calculate upon getting an additional quantity proportional to the whole area, and we shall probably be safe in calling the total available quantity 85,000,000 gallons. Of this the New River Company draw 22,500,000 gallons direct from the River above Ware; and the East London Company have at times taken 37,000,000 gallons. Dealing with the River as a whole, this abstraction is, in our opinion, too great with the storage now in existence; but if other reservoirs were constructed, adequately increasing the storage capacity on well recognized lines, 52,500,000 gallons a

day may be obtained. The taking of the water should be under regulations similar in character to those suggested for the Thames, viz.—the first flush of floods to be rejected, and in dry weather no water to be abstracted when the flow has run down to a quantity hereafter to be determined.

"From Wells in the Lea Valley.—Into this part of the case we have already gone very fully; and we need only repeat here that in very dry years the Companies should not calculate upon obtaining more than 40,000,000 gallons a day.

"From the Chalk on the South Side of the Thames.—From the existing wells of the Kent Company, and others which may be sunk within their district, we think that 27,500,000 gallons a day may safely be taken. From the tract of chalk country in the valley of the Medway and larger area farther eastward to the coast, a very considerable addition is also undoubtedly procurable.

"The summary of the several quantities above stated is as follows:—From the River Thames, 300,000,000 gallons per day; from the River Lea, 52,500,000 gallons; from wells in the Lea Valley, 40,000,000 gallons; from wells in the Kent Company's district, 27,500,000 gallons—total 420,000,000 gallons, sufficient, at 35 gallons per head per day, for a population of 12,000,000."

Conclusions.

The Commissioners then state that—

"We are strongly of opinion that the water as supplied to the consumer in London is of a very high standard of excellence and of purity, and that it is suitable in quality for all household purposes. We are well aware that a certain prejudice exists against the use of drinking water derived from the Thames and the Lea, because these rivers are liable to pollution, however perfect the subsequent purification, either by natural or artificial means, may be. But, having regard to the experience of London during the last thirty years, and to the evidence given

to us on the subject, we do not believe that any danger exists of the spread of disease by the use of this water, provided that there is adequate storage, and the same is efficiently filtered before delivery to the consumers.

"With respect to the quantity of water which can be obtained within the watersheds of the Thames and the Lea, we are of opinion that, if the proposals we have recommended are adopted, a sufficient supply to meet the wants of the Metropolis for a long time to come may be found without any prejudice to the claims, or material injury to the interests, of any district outside the area of Greater London. We are of opinion that an average daily supply of 40,000,000 gallons can be obtained from wells and springs in the chalk of the Lea Valley without affecting any material interests, but that, if this quantity be exceeded, it is probable that the springs and wells in the parts of the Valley immediately adjacent to the wells and all the districts farther down the Valley may be injuriously affected.

"From wells in the chalk area on the south side of the Thames, in the district of the Kent Company, we are of opinion that a daily average supply of 27,500,000 gallons may be obtained. We think it of very great importance that distinct obligations should be laid upon any company or Local Authority which is allowed to pump water from the chalk for purposes of public supply to keep accurate observation of the effect of their operations on the level of the water in the wells from which they pump, and return the results to the Water Examiner under such regulations as may be framed.

"The great difficulty which we have had to encounter has been in getting accurate and reliable information as to the actual effect of the operations now carried on. The importance of procuring this will increase each year as the limit of what can be taken from any district with safety is gradually being reached. From the River Lea we are of opinion what with adequate

additions to the present system of storage 52,500,000 gallons may be taken daily. We are of opinion that, by the construction of storage reservoirs in the Thames Valley, at no great distance above the intakes of the Companies, it will be possible to obtain an average daily supply of 300,000,000 gallons without taking in any objectionable part of the flood water. The average daily flow of the Thames at Teddington Weir, adding the water taken by the Companies, is about 1,350,000,000 gallons per day. It will thus be seen that, when 300,000,000 gallons are taken, there will be left to flow down into the tidal portion of the river an average daily quantity of not less than 1,000,000,000; and we think that regulations could be framed under which the quantity we suggest could be taken, not only without reducing the flow of the river on the rare occasions of exceptional drought to the present minimum, but in such a way as to secure that the volume of water left in the river at these times should be substantially greater than it is under existing conditions.

"To our minds, one great advantage of such a scheme of storage reservoirs is that it can be carried out progressively to meet the increasing demands for water; and should the population not grow so rapidly as we have thought it right to contemplate, the extensions may be from time to time deferred as successive decennial enumerations reveal that the ratio of increase is remaining stationary or even falling. From the sources and by the methods we have mentioned, a daily supply of 424,000,000 gallons can, in our opinion, be obtained. This is a sufficient quantity to supply 35 gallons per head to a population of 12,000,000 persons, which is about three-quarters of a million in excess of what the total population of Greater London, together with the outlying parts of Water London, will have become in 1931 even if the ratio of increase in the last decennial period from 1881 to 1931 is fully maintained. We are further of opinion that a large supply of water might be obtained from the chalk area east of the Kent Companies' district in the basis of the Medway, and in the district further east, without any risk whatever of damage to that area."

THE LONDON COUNTY COUNCIL AND ITS VIEWS UPON THE WATER SUPPLY.

Of these witnesses examined whose evidence was directly adverse to the reservoir and storage schemes put forward by the Companies, that of Mr. A. R. Binnie, M. Inst., C.E., Chief Engineer to the London County Council, was the most important. Mr. Binnie's evidence was to the effect that the supply that could be drawn from the Thames and the Lea was wholly insufficient to meet the future wants of Greater London; and he stated that, in his opinion, deeper storage reservoirs in the Thames Valley were impracticable, and, further, that any large increase in quantity pumped from the chalk formations would only ultimately diminish the amount of surface water in the various contributory streams, and therefore could not be reckoned on for increasing the supply.

The Water Committee of the London County Council issued a memorandum by its Chairman and a series of reports by the principal officers of the Council on the report of the Royal Commission on the Metropolitan Water Supply by which it will be seen that the conclusions of the Royal Commission are controverted to a certain extent. An admirable synopsis of the views of the London County Council and its chief officials appeared in the *British Medical Journal*, which is here closely followed.

The Want of Finality in the Commission's Recommendations.

Mr. Basset Hopkins, the Chairman of Committee, in his memorandum, insists strongly on the narrowness of the scope of the inquiry by the Royal Commission, and points out that mischievous consequences may follow, and the Council may be grievously hampered in its action if people accept the idea that the report was the result of an all-embracing investigation of the general subject. The real question which is of most interest to Londoners is what is the best course for London to pursue

under the circumstances? But this never entered into the reference to the Commission, and in considering their report it has constantly to be borne in mind that whatever they say in support of the prospective sufficiency (for forty years only) of the watersheds of the Thames and Lea has no bearing on the real question whether new gathering grounds ought not to be sought for outside that area altogether.

Considerable stress is laid on the shortness of the term of forty years to which the Commission have limited their forecast. The capacity of the Thames and Lea watersheds as sources of supply may be expected to have reached, or nearly reached, their limit about the year 1931, and then it will be impossible any further to delay turning to some outside source. By that time, however, the best gathering grounds in the country, which "are already being rapidly taken possession of by other municipalities," may be lost to us. In regard to this, one has to bear in mind the long time which is required for the execution of the vast works necessary in large water schemes, and Mr. Binnie, the Council's chief engineer, says plainly that the people of London, "will, at some not very distant date (probably twenty years hence) have to contemplate the exhaustion of the supplies which can be obtained in the Thames Valley" and the necessity of looking elsewhere for an increased supply.

"One of the greatest blots upon the finding of the Royal Commission" is that "it can in no way be considered a final settlement of the case." This limitation of forecast to forty years is all the more curious in view of the fact that two members of the Royal Commission, giving evidence before the House of Lords on the Birmingham water scheme, gave much longer periods as the time for which estimates should be made, Mr. G. H. Hill stating that provision for a large town should be for a period of not less than 50 years, and Mr. James Mansergh, the engineer to the scheme, indicating that he calculated his supply for some sixty-four years, and on that basis laid out the

works which the Corporation of Birmingham are now carrying out.

The Effect of Dry Seasons.

Mr. Binnie shows in a striking way the difference between averages and actualities in regard to the flow of water down a river bed. The Royal Commissioners contemplating taking 300 million gallons from the Thames daily, trusting to the fact that the average daily flow at Teddington weir is about 1,350 million gallons; but Mr. Binnie shows that during certain dry months the total average flow would often only slightly exceed the amount of water required by the Companies, and in such a case as that of September, 1893, the total flow would not come up to the requirements. If the extreme minimum flow per twenty-four hours is taken, the difficulty of providing a supply both for the River and the Metropolis is still more apparent.

Tests Not to be Relied on.

There is a good deal of common sense in some of the remaks in the reports about the safety, or otherwise, of polluted waters. Mr. Binnie draws attention to the fact that "the Royal Commissioners received although they do not quote it, some very strong evidence from one of the highest authorities, namely, Sir G. Buchanan, M.D., F.R.S., late Chief Medical Officer to the Local Government Board." This evidence was to the effect that neither chemical nor bacteriological tests were to be relied on as to the purity of water, that we did not know how small an amount of morbific material, if it gained access to the water, might set up disease, and that the way to gain information as to purity and safety was to search out the conditions surrounding water courses and water services. Asked what would be his treatment of the water if it were found to be polluted, he could only answer that "there was nothing for it but either to boil the polluted water, or else to leave it alone."

In face of such evidence from such an authority we turn with interest to the paragraphs in Mr. Binnie's report summarising the pollutions of the Thames water, which the Commission thinks good enough for London. It seems that at the census of 1891 there was a population of 1,056,415 persons draining into the river above the intakes, and that in the last thirty years this population had increased from 816,814 to its present number. That, however, gives but a poor idea of the increase which is going on in the urban population living on the banks of the Thames and its Tributaries, many of these towns having more than doubled their size in thirty years "Besides this human population there are probably 1,600,000 animals inhabiting the above area." Consequently it is clear that if the Thames is to be retained as a source of water supply, the people of London must drink the more or less clarified excreta of this vast population.

To show what is likely to happen in the future, it is mentioned that in the present session of Parliament "the authorities of Swindon and Ticehurst, Pangbourne and district are applying for further water powers. What must be the result? They will either pump from wells or the River comparatively clean water which now flows down to supply London, and after defiling it by passing it through their bodies and water closets will return it directly or indirectly into the Thames to flow down and be drunk by the people of London."

Impossible to Keep Out Sewage.

Now about the purification of this water. Dr. Frankland is quoted as saying "That it is practically impossible to keep sewage or sewage effluents out of the River."

"There is no positive evidence that the filtered water is unwholesome, but the lives of a large community ought not to be dependent on the efficient filtering plant of commercial companies. Under present circumstances, a serious epidemic of typhoid or cholera in the Thames basin above the intakes,

would be attended with great risk to the water drinkers of London. Such experiments should not be tried upon large communities."

It would appear, then, that while Edinburgh, Glasgow, Liverpool, Manchester, and Birmingham find it necessary "to go to great distances to secure, undoubtedly pure and uncontaminated water, even to the extent of excluding the flow from cultivated land, yet it is quite sufficient for the people of London to supply them with the effluent water of their neighbours' water closets."

The Quality of Present Sources of Supply.

Mr. Shirley Murphy, Medical Officer to the London County Council, confines his observations to that portion of the report of the Royal Commission which relate to the quality of the present sources of supply. The Royal Commission had before it evidence, he says, which showed that the rivers from which the Water Companies draw their supplies receive from the towns, situated on their banks at varying distances above the intakes sewage effluents, which, after treatment of the sewage, either by filtration through land or by chemical processes, enter smaller rivers. In addition to these numerous pollutions from smaller populations discharging into cesspools and ditches reach, untreated, the streams at times of heavy rainfall. Such sewage must not infrequently contain the excremental matter of persons suffering from typhoid fever and may not improbably in the future contain from time to time the excreta of persons suffering from cholera. The virus of both these diseases has been found by past experience to have been disseminated by water and to have produced fatal results in persons drinking such water.

"Not only are these diseases known to be waterborne, but experience has shown that a very small amount of the excremental matter of persons suffering from them is capable under favourable circumstances of infecting vast volumes of water."

Insufficiency of Natural Purification.

After describing the various circumstances which are shown by the Commission to contribute to the purification of the rivers, Mr. Murphy says : "The fact may be accepted that these powers exist and are operating in the Thames and Lea to an extent which contributes in no small degree to the safety of the London water consumer." Yet the Commission evidently does not look upon these natural processes as in themselves sufficient to render the water fit for domestic purposes, but is only satisfied that agencies and the operations of the water companies combined, suffice to ensure that wholesome water is supplied to the consumer.

As it is probable that the completeness of the future operations of the water companies may depend upon the necessity which can be shown for efficient filtration, it is a matter of great importance that the natural processes of purification should not be held to be more deserving of confidence than they really are.

After a careful study of the statements in the Commission's report, Mr. Murphy is led to think that some of the reasons given for assuming that the London population is not exposed to risk are less deserving of acceptance than appears at first sight.

The very full information afforded in the report of the Royal Commission is of the utmost possible value as assisting to give definite form to a general comprehension of the real condition of the water supply of the Metropolis, present and future. It has always been a cherished article of faith in this country that the water of the River Thames is of unsurpassable quality for all domestic purposes. Nothing can be found in the report which in any way disturbs this conviction, and it may be assumed, as has always been urged in these reports, that the water supplied to London, if properly treated by the avoidance of pollution, ample storage (in order to avoid the necessity of taking in water from the river when in flood, as the organic pollution is

then at the maximum), and efficient filtration, is all that can be desired. The second point as to how long the quantity will suffice for the needs of ever-growing London is also fully gone into, and half-a-century is defined as the probable period. Of course there is much to be said on the other side, and that is lucidly given in the objections to the report of the Royal Commission urged by the London County Council and its officers.

Although very little is definitely said on the subject, the impression which the perusal of the report leaves upon the mind is that the whole control of the water supply, from the sources to the final delivery to the consumer, should be in the hands of one authority, and that the time has arrived when competing companies, the result of private enterprise, should no longer be left in possession of a monopoly of the primary necessity of existence.

The "British Medical Journal" remarks, in an editorial, that the position of affairs in regard to the London water supply is becoming very critical, for, on the one hand, if certain schemes which are ready for the consideration of Parliament be accepted, London will be practically tied to the Thames and Lea for another generation, while, on the other hand, even the County Council itself is hesitating to adopt the recommendation of its own Water Committee to go to pure sources for a pure supply.

Much has been made of the enormous expenditure which the bringing of water from Wales must necessarily involve. But although we quite recognise the greatness of the cost, we also recognise the greatness of the evil which it is meant to obviate—namely, the continued use of a water supply drawn from sources which are every year becoming more foul. Moreover, it must not be forgotten that if the recommendations of the Royal Commission on Metropolitan Water Supply are adopted in their entirety, as they should be by those who found their advice upon them, a very large expenditure would be involved in making the

river water safe to use. In fact, if the statements of the Water Committee are to be accepted, even this matter of expense by no means weighs in favour of the old supply. The report goes so far as to state that while the expense of providing London with an extra 240 million gallons of water a day from present sources would amount to upwards of £100,000 per million gallons, the expense of fetching 182 million gallons per day from Wales would be but £96,000 per million gallons, while to bring 415 million gallons would in proportion cost less still.

The patent fact and the standing menace to the safety of London is this, that the Thames and the Lea drain populous, highly cultivated, and therefore highly polluted areas. There was in 1891 a population of 1,056,415 persons living on the land which drains into the Thames above the various intakes of the water companies at or near Molesey, and this population is rapidly increasing. On the same area there were also probably about 1,600,000 animals. No doubt the art of filtering water has been, theoretically at any rate, brought to a pitch of very considerable perfection. But it certainly sometimes fails, and it is clear that so long as we drink water derived from a thickly populated area over which the use of waterclosets is rapidly extending, so long must we remain absolutely dependent on the unintermitting efficiency of processes of sedimentation and filtration for our protection from the evils of drinking sewage. Let us compare with these tainted sources the gathering ground offered by the County Council's Water Committee. "The areas from which the water would be derived are composed of the impermeable beds of the primary rocks of the old red sandstone and silurian systems, which are noted for the purity of the water which flows from their slopes. Owing to the general altitude of these districts on the steep slopes of the surrounding hills arable cultivation is almost impossible, the lower portions being chiefly composed of mountain pastures running up into bare unculturable wastes, with but a sparse population in any part." As we understand the suggested plans, the land from which the

water is to be derived would be purchased outright, certain villages would be abolished, drains would be dug out and cleansed, burial grounds would be cleared of their contents, and the whole area would be devoted to its one purpose of gathering water for the supply of London. We assert, then, that there is no comparison between the two alternatives, and that if London wants to have pure water its engineers should go at once to a pure source rather than adopt mechanical means, however ingenious, for clarifying water which has once been sewage.

It seems to be maintained by some that so great is the power of filtration, that it really does not much matter where water comes from, and that notwithstanding all we know as to the material which flows into the Thames and Lea, their water has only to be filtered to be rendered wholesome. The wisdom of trusting everything to a process which is so rough and ready, and so liable to break down in its various details, must be seriously doubted.

We have lately been told that after the filtration to which London water is subjected it is sometimes absolutely sterile; but that is not the point. The real criterion by which filtration has to be judged is not its power of occasionally producing a pure effluent, but of always keeping back such micro-organisms as may be present in the water. As a matter of fact, a certain percentage only appears to be kept back, and so long as the occurrence of floods in the river is found to influence the character of water in the pipes, so long must we be allowed to distrust filtration as a reliable means of producing a pure water from a doubtful source, although it is of course admitted that when no pure source is available it is the best that can be done.

The assertion made lately that the bacillus of typhoid fever has never been discovered in the water supplied by the London companies has been accepted by some as showing that, at least so far as typhoid is concerned, London water is innocuous. In relation to this, it may be well to recall to mind the investiga-

tions made by Mr. Parry Laws and Dr. Andrewes in regard to the presence of this organism in sewage. The most careful search failed to show it in the sewage at the outfalls, although it was estimated that there were 200 cases of typhoid fever in London at the time. It was, however, found in the main drain leading from the fever hospital at Homerton, in which some 40 cases were being treated, but even in this case, on going about a quarter of a mile further down the drain, the bacillus could no longer be discovered, Yet no one would accept the non-discovery of the typhoid bacillus as proving, or even suggesting, the wholesomeness of London sewage, and the same may be said in regard to its non-discovery in London water.

In the present state of knowledge on such matters we are driven back to much the same opinion as that held by the late Sir George Buchanan, who said that he did not think that it was possible, either by chemical, microscopical, or bacteriological processes, to say when a water was or was not injurious, and that there was no way of arriving at a solution of this question except by inspecting the sources of supply, and seeing if they were or were not polluted. According to this criterion London river water stands absolutely and hopelessly condemned.

The bill, introduced by Lord James of Hereford, on behalf of the Government, in the House of Lords, and which has at the time of writing been read for the first time, provides for the formation of a water Board for the Metropolis, which is to take over the Water Companies' business and plant and to have absolute powers to regulate the sources of supply.

Lord James of Hereford said, in presenting "a bill for the better control and regulation of the water supply to the metropolis and the surrounding districts," that the great public interest that was felt in the question of the supply of water to the metropolis rendered it advisable that a short statement should be made as to the nature of the provisions of the bill which he was about to present to the House for the better

control and regulation of the water supply to the metropolis and the surrounding districts. The bill had been framed by the Government upon the assumption that there existed a great and a growing opinion that the time had come when the management of the water supply of the metropolis and the surrounding districts should be vested in a responsible and public representative body. That assumption was not founded upon the view that the water companies had neglected their duties to the consumer ; but, at the same time, it was somewhat anomalous that the interests of the management should be placed in the hands of trading companies, who must have the duty cast upon them of considering the interests of their shareholders as well as the interests of the consumer. This view of giving the management of the water supply to a public body had received a great deal of Parliamentary sanction. Thirty years had passed since the Commission presided over by the Duke of Richmond recommended the creation of such a body as was now proposed for regulating the water supply of the metropolis. In 1880 Sir William Harcourt's Committee arrived at the same conclusion, and other Committees have reported to the same effect. In these circumstances he hoped there would be a consensus of opinion as to the need of such a body. It must be a municipal body. No one, he thought, would suggest that it should be an Imperial body or that Parliament should take charge of such interests as the water supply of a great community. Assuming that it should be a municipal body, the assumption would also be granted that it should be a representative body. The Government, therefore, proposed to establish a municipal and representative body to take charge of the water interests of London. Looking round to see whether there was such a body in existence, the Government found many municipal councils having the control of their districts ; but it was agreed that the only body to whom these powers could be entrusted was the London County Conncil. When, however, the question was asked whether those powers should be vested immediately and solely in the County Council other considerations presented

themselves. The supply of water for London came from eight different companies, and that supply covered not only the area under the jurisdiction of the London County Council, but many outside areas, which ought to be termed "Water London." These areas extended over different counties, Middlesex, Essex, Surrey, Kent, and Hertford. They extended from the borough of Croydon to the borough of West Ham, and far beyond the centre of London to Romford in Essex, Esher in Surrey, and Chatham in Kent. They represented 620 square miles, of which the London County Council control only 120 square miles. It was, therefore, difficult to suppose that these large outside areas would be content to be governed by a body to which they sent no representative. The Government had, therefore come to the conclusion that it would be impossible to accept the London County Council as the only power to control these large outside areas. They had, in fact, determined that a new municipal and representative body should be elected by all those who would be governed by that body. The question remained, How was that body to be formed? In the first place, with regard to numbers, it was difficult to demonstrate the wisdom of any particular number; but it was considered that thirty would represent a fairly constituted body, not too large to relieve members of the sense of individual responsibility. If this number was accepted, they had then to consider by whom the members of the body should be elected. Although the Government had decided that they could not place this power in the hands of the London County Council alone, they could not, of course, take exception to the view that the County Council was entitled to the very greatest consideration. The County Council, as he had said, controls 120 of the 620 square miles of "Water London," but geographical area could not be the only and the final test; the population and the property within the area must be taken into consideration. If that were done the preponderance of the London County Council area became apparent. The population of "Water London" was, according to the census of 1891, 6,500,000, whilst the population of the

County Council area was 4,232,000. The rateable value of "Water London" was £41,750,000, of which £30,000,000 was within the County Council area, and £11,750,000 outside that area. Of course that gave a greatly preponderant claim to the County Council, having regard to the proportion of population and rateable value. But they could not proceed upon that assumption alone. Other matters had to be considered. Whilst there was no reason why the representatives of, say, West Ham, Croydon, and Hertford should join together for common action, they could contemplate the County Council representatives acting as one. Then there was another grave consideration in seeking to determine the number of representatives to whom these large interests should be committed. The legislation which the Government were proposing was not legislation for the present time alone. It was essentially legislation for the future as well as for the present. There were many who said, "the water supply of London is sufficient;" but there were also others who, with perhaps greater force, affirmed that, looking at the growth of London, the time was approaching when preparations should be made to meet the demands of Greater London. Between 1841 and 1891 the population of Greater London had increased from 2¼ millions to 5½ millions, or more than double, and from a report published in 1893 by Lord Balfour's Commission there was every reason to believe that in thirty-five years, in 1931, the population of Greater London would exceed 11,000,000, or more than double the population at the present time. They ought, therefore, to constitute this governing body so as to meet the requirements to some extent of the future as well as of the present. Then they had to ask, where would that future growth of population be most shown as time went on? It would without doubt be outside the area of central London. Apart from the fact that the building of the future must to a great extent be outside the area of central London, there was the tendency of people to leave the urban parts in order to live in the suburban and even the rural parts. The result of these tendencies must be that in 1931 there would

be a suburban population outside London as great as that within the central area. It might be said that we ought to wait for that time; but it must be remembered that the action of the body about to be created would be the action for all time. Whatever that action might be, the cost would fall upon the future. That was the reason why they did not accept the numerical proportion of consumers in the London area as a guide to the representation, but they suggested as the proper proportion of that representation that the London County Council should have a majority on this body. He had mentioned thirty as the constitution of this Board. Of these twenty-eight would be ascribed to the different areas, and those would be the representatives of the consumers. Of these twenty-eight they have sixteen to the London County Council. To the Corporation of the City of London they gave two members. To the County Councils of Middlesex, Essex, and West Ham they also gave two each, and to the counties of Surrey, Kent, and Hertford, and to Croydon, they gave one each. They had taken into account the greater population of the counties to which two members had been given. They felt that the Thames Conservancy was a body which required representation, for the greater portion of the water supply of London proceeded from the Thames; and as to obtaining a sufficient supply and its purity that Board was the guardian of the public, therefore they had given it one representative in the proposed trust. The case of the Lea Conservancy Board was not so strong, but he did not think they could refuse to give them a representative. One great question which had arisen was whether the representation should be direct or indirect. Direct representation would of course mean an appeal to the ratepayers in all these areas. In the first place they came to the conclusion that the inhabitants of the metropolis had quite enough local elections at the present time. They also felt that there might be a difficulty in the ratepayers selecting proper persons as members of this board. There might be a vast number of candidates nominated, and there might be contested elections, and yet they might not

always obtain the best men to represent the interests of the ratepayers. Under these circumstances the Government had felt that the County Councils could be trusted to select the members to be placed on this trust. (Hear, hear.) In the old times it was objected that the Metropolitan Board of Works could not make such a selection, but that was not a popularly elected body. That could not, he thought, be said of the London County Council. The election of the County Council was a popular election, and would make the indirect representation upon this water trust sufficiently in touch with the ratepayers. The Government had felt that it was not necessary that the members of the water trust should be members of the respective county councils or bodies by which they were elected. He had heard the London County Council had great and important duties cast upon them, and, however meritorious their efforts to discharge them might be, they pressed heavily upon them. Further, it might be the wish of the county councils to select from outside their body men of great knowledge and experience in these matters, There remained one other great question. Having formed this body under the bill, what were the powers and duties they were going to vest in it. He knew there were some persons who anticipated that this bill would solve every difficulty. The Government had made every attempt to see how far the bill could solve the difficulties which had arisen, and it had been found impossible by a public bill to bring all these matters to a solution. When what they had to deal with was recognised it would be seen that this bill could not solve every difficulty. The interests of the water companies must be acquired in some way. They must receive compensation, the terms under which the transfer of their interest was to take place must be so arranged, and, he said it with all deference, these were matters which could not be dealt with in a public bill, but which would have to be dealt with by subsequent private legislation. The body being created, they had endeavoured to give it a very wide power, trusting to its judgment and discretion entirely. It would be for this body, whenever

it came into existence, to meet and deliberate, and to do what it could to acquire the great interests the care of which would be placed in its hands. Of course, it must do this subject to the sanction of Parliament. They could not give it compulsory rating powers until the powers it sought were known. When the new body asked for this or that power it would be for those who were interested in relation to the exercise of these powers to be heard also, and then for Parliament to give its final decision. With this object in view they gave this body power to enter on any negotiation and make any agreement they could, and take over the interests of the companies by adoption; but they had purposely left this discretion and power in as general terms as possible, in order that the new body might be unfettered in its action. As a preliminary matter he would place in their hands all the existing powers of control over water companies now in the hands of the London County Council under the Metropolitan Acts, and which might be usefully exercised until the property passed into their own hands. He was aware that when this body came into existence there would be some objection made to it probably by the representative of outside areas. They might say, "You are joining us too closely with Central London; we represent rural districts; let us manage our own water supply; let us be free to make our own arrangements; we do not want to go far afield to supply our rural districts." There might be great force in all these objections, but these rural districts could not be left out; they could not dissect the water supply, and say one county should take so much and another so much. That must be a matter of arrangement, and must be approved by Parliament. Therefore they had put into the bill a clause which would enable the outside districts to make arrangements for autonomous rights, and so to fall out of the trust. That clause was inserted in the hope that it might facilitate these bodies maintaining their freedom of action. He believed he had now mentioned the principal provisions of the bill. There were other provisions for facilitating the action of the new body, but he did not think it necessary to

detail them. The Government had had but one object in view. They had been aware of many interests which had been called into action in relation to this question of water supply, and were fully aware of the contentions which had taken place in years past as to these interests. In view of that the Government thought the time had come for these contentions to be brought to an end, and their wish had been to act, as it were, as arbitrators between the different interests. In now presenting the bill to the house, he asked for it not only that impartial consideration which he knew it would receive, but the assistance of their lordships, and if any suggestions were made which would tend to the improvement of the bill, and would make it a more workable and useful measure, the Government would not turn a deaf ear to such suggestions from whatever quarter of the House they might come.

Lord Tweedmouth suggested that the title of the bill should be, "A bill to exclude the London County Council from attempting to deal with the water question." He maintained that the provisions as to this new body ran counter to every precedent to be found in the country. In the case of the great cities—Glasgow, Liverpool, Manchester, and Cardiff—all had dealt with this question through their corporations. They also had had the question of areas to deal with, and had devised systems which worked perfectly. Setting aside the question as to the advisability of setting up a new body to represent London—a question which he thought would have suggested itself to the Marquis of Salisbury, who had often denounced the multiplication of these bodies—the proposals of the bill ran counter to the wishes of the various bodies which were to be included in the trust. The Government had not consulted the various local authorities round about London or obtained their consent to this proposal. He was well aware of the fact that none of the surrounding authorities wished this trust to be constituted at all. He contended that the London County Council ought to be the water authority for London, and emphatically protested against the constitution of a new authority for that purpose.

Sanitary Legislation during 1895.

The Bills introduced into Parliament during the Session dealing with matters of interest to Sanitarians, were but six in number, but one of which, the Factories and Workshops Bill became law.

The Architects Registration Bill to provide for the Registration of Architects, so as to enable qualified to be distinguished from unqualified practitioners, was opposed by the Architectural Societies on the ground that they carried out the proposed objects already, and the Bill was dropped.

The Sanitary Registration Bill proposed to form an additional authority to those already existing, to inspect every dwelling-house, school, college, hospital, asylum, workhouse, factory, workshop, hotel, and lodging house. As this would clash with and interrupt the work of the existing local authorities it was almost universally opposed, and was not reached before the close of the Session. It will probably not be re-introduced.

The Plumbers' Registration Bill met with considerable opposition, and was also not reached when the Session ended.

The Rivers Pollution Prevention Bill to make more effectual provision for prevention of the Pollution of Rivers and Streams was also not reached.

The Public Health Bill to confer upon County Councils additional powers for securing uniformity in the administration of the Public Health Acts within their districts, was an administrative rather than a Sanitary measure. It was eventually withdrawn.

The Cremation Bill to empower Burial Boards and Local Authorities to provide for the cremation of human bodies was not reached.

The Public Health Amendment Bill. A Bill to amend the Public Health Acts with respect to the definition of Drains

and Sewers was withdrawn, but is included in the measures of 1896 in an altered form.

The Factories and Workshops Bill, the sole survivor of the proposed Sanitary Legislation of the Session 1895, passed through the various stages and became law.

The following memorandum was issued by the Chief Inspector of Factories, and the Vestry's staff has been working with the Inspectors as suggested therein. The passing of the Act has entailed considerable additional work on the Sanitary Department.

MEMORANDUM.

For the various Acts to have the beneficial effect desired, it is absolutely necessary that there should be thorough co-operation between the Sanitary Authorities and H.M. Inspectors of Factories, and with that object in view I have requested H.M. Inspectors to have a conference with each Medical Officer in their respective districts. The administration of the sanitary provisions relating to workshops was transferred to the Local Authorities with the intention of relieving the Factory Inspectors to a great extent of the inspection of workshops so far as sanitary matters are concerned. By section 26, 1891, notices of the opening of new workshops, and by section 41, 1895, of all workshops, have to be sent to the Inspector of Factories, and when he receives such notices he is required to forthwith forward them to the Sanitary Authority of the district in which the workshop is situate.

A very large proportion of workshops, especially in the boot and shoe trade, only employ men, and the Medical Officer of Health is required by section 3 (1891), whenever he becomes aware of any child, young person, or woman being employed in a workshop, forthwith to give written notice thereof to the Factory Inspector of the district. If in the course of his inspections the Inspector of Factories observes that any of the pro-

visions of the Public Health Act are disregarded, he is required by section 4, 1878, to give notice in writing to the Sanitary Authority of the district, and such Sanitary Authority is to make inquiry into the complaint. The Act of 1895, section 3, makes it the duty of the Sanitary Authority to inform the Inspector of Factories as to the proceedings taken in consequence of the notice. But if within one month (Factory Act, 1895, section 3, and 1891, section 2) proceedings are not taken by the Sanitary Authority for punishing or remedying the act, neglect, or default, the Inspectors of Factories are authorised to take such proceedings and recover from the Sanitary Authority all expenses incurred in any successful proceedings except such as are recovered from any other person.

Section 1, by enacting definitely that 250 cubic feet must be allowed, will render the administration of the law with respect to overcrowding much easier of enforcement. The requirement of 400 cubic feet when working overtime remains as before.

Section 2, giving power to obtain an order from a court of summary jurisdiction as to dangerous parts of a factory or workshop, will enable H.M. Inspectors to secure the fencing of dangerous vats and tanks, and to guard against such evils as could not be remedied under the provisions of the law relating to public health.

With reference to section 6, it will be the duty of H.M. Inspectors to take proceedings if wearing apparel is made in factory or workshop where any inmate in the building is suffering from scarlet fever or small-pox.

Under section 7, 1891, and section 10, 1895, it is the duty of the Sanitary Authority to visit the factories or workshops where more than 40 persons are employed, and ascertain that suitable provision is made for escape in case of fire, and if the Sanitary Authority have neglected this duty, and it is evident that the means of escape are insufficient, it is the duty of H.M. Inspector to give notice to the Sanitary Authority.

Where in any factory or workshop the Inspector considers a moveable fire-escape necessary for the safety of the workers, H.M. Inspector should obtain an order from the magistrates for the occupier to supply the same under section 10, 1895.

Section 14 restricts overtime to women where overtime is worked under section 53, 1878, and has curtailed the number of days on which overtime can be worked. There are other restrictions as to overtime and hours of work in the same section.

Section 15 requires registers to be kept of children and young persons in workshops where overtime is worked under section 53, 1878, but it is not necessary in workshops to have certificates from the Certifying Surgeon.

It has been the custom in some factories and workshops to give women and young persons work to take home after having been employed in the works both before and after dinner; this is now prohibited. In other cases they have employed them in the retail shop after the day's work in the factory or workshop. This is now allowed in the case of children, young persons, and women by section 16, provided the total number of hours does not exceed that allowed in the factory or workshop to each class of hands.

Section 53, subsection 1.

"Owner" is thus defined in section 4 of the Public Health Act, 1875, 38 & 39 Vict., c. 55:—

"'Owner' means the person for the time being receiving the rack-rent of the lands or premises in connection with which the word is used, whether on his own account or as agent or trustee for any other person, or who would so receive the same if such lands or premises were let at rack-rent.

"'Rack-rent' means rent which is not less than two-thirds of the full net annual value of the property out of which the rent arises; and the full net annual value shall be taken to be the rent at which the property might reasonably be expected to let

from year to year, free from all usual tenant's rates and taxes, and tithe commutation rentcharge (if any), and deducting therefrom the probable average annual cost of the repairs, insurance, and other expenses (if any) necessary to maintain the same in a state to command such rent."

R. E. SPRAGUE ORAM,
H.M. Chief Inspector of Factories.

Home Office,
January 10, 1896.

The following are the main provisions of the Act to which attention may well be drawn.

Its provisions may be grouped, with sufficient comprehensiveness for the purpose of the present summary, under two heads—first, amendments and extensions of existing machinery, and, secondly, new machinery. Under the former head a variety of provisions have to be noticed. "Overcrowding" is now defined to mean the provision of less than two hundred and fifty cubic feet of space for each person employed, or four hundred feet during any period of overtime. The Secretary of State may, however, by order, modify this proportion for any period during which artificial light other than electric light is being employed. He may also, by order, increase the above-mentioned proportion as regards any particular manufacturing process or handicraft. Again, the prohibition of "children" from cleaning machinery in motion is now extended to "young persons," *i. e.*, persons above fourteen, but under eighteen years of age. The overtime employment of young persons in non-textile factories and workshops is prohibited, while that of women is reduced from five to three days in any one week, and from forty-eight to thirty days in any one year. The overtime employment of women under the "perishable articles" Clauses of the Factory and Workshops Act, 1878, is cut down from ninety-six to sixty days a year. No "young person" is to be employed under the "letterpress printing works" provision in the Act of 1878 for more

than twelve hours continuously. The requirement, in the Act of 1878, of ventilation by fans in any factory where the inhalation of dust may injure the workpeople is extended to any factory or workshop "where any process is carried on by which any gas, vapour, or other impurity is generated and inhaled by the workers to an injurious extent." Again, the Secretary of State may prohibit, modify, or limit the employment of all or any classes of persons in any process or particular description of manual labour which is certified by the Secretary of State to be injurious to health, or life, or limb. Any prohibitive or restrictive rules made in virtue of this provision are, however, to be laid for forty days, before coming into operation, before both Houses of Parliament. Every medical practitioner attending a patient whom he believes to be suffering from lead, phosphorus, or arsenical poisoning, or anthrax, contracted in any factory or workshop, is to notify his opinion both to the Chief Inspector of Factories and to the certifying surgeon for the district, and the Secretary of State may extend this provision to any other disease occurring in a factory or workshop. A medical practitioner is to be paid for any such notification by the Treasury. Every certifying surgeon is now authorised, if so directed by the Secretary of State, to make any special enquiry and re-examine any young person or child at the expense of the Treasury. It may be convenient to include at this point the provision that any accident causing loss of life, or preventing the person injured from working five hours on any one of the three working days after its occurrence, is to be reported forthwith to the Inspector for the district. To the category which we are considering also belong the following provisions. The arbitrators in any arbitration as to dangerous or unhealthy employments, under the Factory and Workshops Act, 1891, may, if the workmen request it, appoint some person to represent them, and take such part as may be directed in the proceedings. The right of representation thus conceded to the workmen is one of the most important reforms effected by the new Act. Again, "the penal compensation" already provided in the case of persons injured by neglect

to fence machinery is now extended to any death or bodily injury or injury to health, springing directly from neglect on the part of the occupier of a factory or workshop to observe any provision of or special rules under the Acts.

Lastly, the limitation of the existing provisions for the regulation of bakehouses to places of more than five thousand inhabitants is removed; in "tenement" factories the owner instead of the occupier is made liable for their sanitary condition, fencing, lime-washing, &c.; the provisions of the Act of 1891 with reference to fire-escapes are extended by power being given to a Court of summary jurisdiction to make orders for the provision of moveable fire-escapes not involving structural alterations, wherever, in its opinion, premises are not sufficiently protected in this respect. The Court may also prohibit the use of dangerous machines; home-work is prohibited in the case of children, and young persons and women who have been employed for the full number of hours in a factory or workshop are not to undertake home-work or after-employment in a shop.

Under the head of new machinery fall certain provisions in the Factory and Workshops Act, 1895, which go beyond a mere amendment or extension of the machinery of the old law. (1) Laundries carried on for trade and profit are brought within the Acts for certain purposes. This provision does not, however, apply to laundries (*a*) in prisons, reformatories, or industrial schools; (*b*) in institutions conducted *bonâ-fide* for charitable or religious purposes; (*c*) where the only persons employed are members of the same family living there; or (*d*) in which not more than two persons dwelling elsewhere are employed. (2) Adequate measures are to be taken to secure the maintenance of a reasonable temperature in each room in which any person is to be employed. (3) The term "factory" is now—for the purpose of the provisions as to notice and registration of accidents, special rules for dangerous employments, orders as to dangerous machines, and the powers of inspectors—made to

include "every dock, wharf, quay, and warehouse, and so far as relates to the process of loading or unloading therefrom or thereto all machinery and plant used in that process," and building operations where steam, &c., machinery is used. This new definition will bring a vast number of *employés* for the first time within the Act. (4) The occupier of a factory or workshop has various new duties, of a directory character, imposed upon him. If he has not done so under the existing law, he must, under a maximum penalty of five pounds, send to the Inspector a written notice, giving the name of his workshop, and other statutory particulars, before January 1, 1897. He must furnish the Inspector every half-year with a list of his *employés*, whether workmen or contractors, and the places of their employment, and must also make an annual return of similar purport. Moreover, he must, under a maximum penalty of ten pounds, keep a register of accidents, open to official inspection, and comply (an obligation, by the way, which rests upon a contractor also), within a month, with any notice from an Inspector that his factory or workshop is dangerous, and that out-work there must be discontinued. In the case of textile factories, and of any other class of factory or any workshop, if the Secretary of State shall so order, the occupier must exhibit, where it can be easily read, a statement of the rates that he pays for piece-work. But these particulars are not to be utilised by workmen for the purpose of disclosing trade secrets. (3) Finally, an Inspector of Factories, if so authorised by the Secretary of State, may now prosecute, or conduct, or defend any proceedings under the Factory Acts, although he is not a counsel or a solicitor. Such are the leading provisions of this important piece of legislation, which both political Parties contributed to passing in its present shape. There is, however, still ample room, and, indeed, an urgent necessity, for an Act consolidating the Statutes in which the Factory Law is embedded.

The new Act provides that a person charged with any offence under the Factories Acts may give evidence in his own behalf in the same manner as any other witness.

In connection with this subject the subjoined letter has been received from the London County Council. The register referred to has been kept in this parish for many years.

London County Council,
Spring Gardens,
17th December, 1895.

Sir,

The Council has had under consideration the provisions of Section 27 of the Factory and Workshop Act 1895, which will come into operation on the 1st of January, 1896. In view of the fact that sub-section 3 of this section prohibits the use as a bakehouse of a place under ground unless it is so used at the commencement of the Act, it occurs to the Council that it would materially assist the London Sanitary Authorities in carrying out the section if a complete register were made by each authority of the bakehouses in occupation in its district on the 1st of January next. As new bakehouses were constructed they could be added to the register with a record of the time at which they came into use. This register would be very useful for reference if these should be needed to decide the date at which any premises were first used as bakehouses. In communicating this suggestion I am directed to express the Council's hope that your Board will give instructions for the preparation of such a register.

I am Sir,
Your obedient servant,
H. De la Hooke,
Clerk of the Council.

Public Health (London) Act, 1891.

The procedure of the Sanitary Department is almost entirely based upon the provisions of the Public Health (London) Act, 1891, which consolidated and amended the various Acts under which the Sanitation of London had been previously carried out. It contained also many valuable provisions which had hitherto only been extra Metropolitan and contained in the Public Health Act, 1875,

under which provincial Sanitary Authorities had effected great improvement in the Sanitation of their districts. A condensed synopsis of its provisions here will be useful for reference.

Sec. 1 provides for house to house inspection by the Sanitary Authority, for which additional Inspectors with separate and smaller districts have been appointed within the last two years.

Sec. 2.—A nuisance must be abated that is *dangerous* or likely to be *dangerous* to health. Under the Metropolis Management and other Acts it was necessary to prove actual *injury* to health.

Sec. 3 provides that information of a nuisance may be made to the Sanitary Authority, who shall serve intimation to parties responsible.

Sec. 4.—The most essential difference between the procedure under the Public Health (London) Act, 1891, and the various other preceding Acts, is that formerly if a notice to abate a nuisance from the Sanitary Authority was not complied with, proceedings had to be commenced before a justice and evidence produced to satisfy him that a nuisance *injurious* to health existed, when, if satisfied that such nuisance existed and was *injurious* to health an order would be made for the abatement of the same. If this order was disregarded and the necessary works not executed it was necessary to commence fresh proceedings to recover penalties. The Sanitary Authority under this section itself considers the matter and makes orders, if necessary suing for penalties for non-compliance therewith.

Absence of proper water-fittings is constituted a nuisance under section 4, and by section 5 a house may be closed for this reason. The Authority can specify works and insist upon the carrying out of the same under the latter section and now does so in a large proportion of cases.

Secs. 5, 6 and 7 contain provisions for orders, penalties and appeals, and enables the Sanitary Authority itself to carry out necesary works in default of responsible owner, &c. Sec. 11 provides for recovery of expenses and costs consequent thereon, and Sec. 13 enables the Authority to take action in the first instance in the higher Courts should it think fit.

Under Sec. 14 an important proviso is introduced as a Sanitary Authority has power to take proceedings for the abatement of nuisances arising in the district of another authority should the nuisance injuriously affect the inhabitants of their own district.

Sec. 15 renders liable to a penalty of £5 any person wilfully injuring or destroying any closet or sanitary apparatus, and will probably be useful in restraining persons from wantonly damaging fittings.

Bye-laws are to be made by the Authority for the prevention of nuisances or keeping of animals so as to be a nuisance or injurious to health, and as to paving yards.

The London County Council has made Bye-laws under the following sections which are now operative :—

Sec. 16-1.— Removal of fœcal matter.
„ Removal and disposal of refuse.
„ Cleansing and filling up of cesspools and privies.

Sec. 39-1.—Water closets and soil pipes.
„ Ashpits.
„ Receptacles for dung, cesspools, &c.

The Vestry has made Bye-laws under the undermentioned Sections of the Act :—

Sec. 16-—Prevention of nuisances.
„ 39.—Keeping of water closets.
„ 50.—Cleansing of cisterns.
„ 94.—Houses let in lodgings.

These are in active operation, and can be obtained at the office of the Sanitary Department by any ratepayer desiring a copy.

There are other bye-laws which *may* be made by the Sanitary Authority, and which are now under consideration. They are :—

Sec. 66. Removal to hospital of infected persons. This is now effected under the provisions of the various acts and regulations of the Metropolitan Asylums Board.

Sec. 88. Bye-laws for the Mortuary. Regulations are in existence for the control of the Mortuary-keeper under which the Mortuary has hitherto been regulated.

Sec. 95. Tents and vans. Bye-laws were made by the District Board some years since, which have been acted on until the present time.

By Secs. 23 and 24 the control of smoke nuisances other than in private dwellings is placed under the Sanitary Authority instead of the Police, and has considerably increased the work of the Sanitary Department.

Work-shops, Work-places and Factories are also placed under the supervision of the Sanitary Authority with certain duties as to giving notice to the Factory Inspector when children, young persons, or women are employed. It is also the duty of the Authority to see that proper and separate accommodation is provided for each sex.

Sec. 47 provides that a medical officer of health or sanitary inspector shall examine all articles intended for the food of man if unsound, and shall seize the same and obtain an order from a Justice for its destruction. The fine is raised to a maximum of £50 for every animal or parcel of food condemned, and should a person be so convicted twice in twelve months the Court may

order a notice of the facts to be affixed to his premises for a period not exceeding twenty-one days. Should a person find himself in the possession of unsound food he himself may give notice to the Vestry, who must remove the same as trade refuse and this procedure would seem to relieve him of the penalties mentioned.

Sec. 48 contains the important provision that a newly-erected dwelling-house must not be occupied until a certificate has been obtained of the Sanitary Authority to the effect that a proper and sufficient supply of water exists. This section seems to be now more generally understood and imposes much work on the Sanitary Department. The following sections 49, 50, 51, 52, 53 and 54, apply *inter alia* to water supply generally.

Secs. 55, 56 and 57 re-enact, as elsewhere stated, the provisions of the Infectious Disease (Notification) Act.

Secs. 59, 60 and 61 require the authority to make provisions for the disinfection of clothing, &c., which provision has been duly made by the Vestry. The subsequent sections provide that infectious refuse shall not be treated so as to be dangerous to the public health, and prescribe penalties on persons letting houses or apartments in which infectious disease has occurred without having the same properly disinfected and obtaining a certificate thereof, which certificate is given to applicants free of charge on application to the Sanitary Department. Other important provisions for the prevention of the spread of infectious disease follow in subsequent sections; but they have long been in operation in this parish. In fact, it may be said generally that the methods of Sanitary procedure which may have gradually evolved in this parish during the last twenty years, have been adopted by the framers of the Act as its basis.

Provision is made for Mortuaries and post-mortem examinations; such has existed in Battersea for many years. The Mortuary accommodation is however becoming somewhat inadequate for the needs of this ever increasing parish and it is

proposed to partially rebuild and enlarge the Mortuary, so as to render it, what it was for many years, a model of what such a building should be. Originally said to be the best arranged Mortuary in London, other parishes in a commendable spirit of emulation have improved upon it until we are at the present time somewhat short of the standard of excellence. The plans of the Surveyor when carried out will provide a building far in advance of the majority of Metropolitan Mortuaries.

Customs and Inland Revenue Acts, 1891

This Act, which is simply an extension of the provisions of the Customs and Inland Revenue Act, 1890, exempting houses structurally fitted in the opinion of the Medical Officer of Health for occupation as separate tenements at an annual rental not exceeding £20 from the liability to house duty. The 1891 Act raises the amount to £40 annual rental. These Acts have added much to the duties of the Medical Officer, as personal inspection is imperative and certain forms of certificate have to be sent by him to the Surveyor of Taxes. Many hundreds of tenements have been inspected and certified since the Act came into force in January, 1891, and many flats are now being built and converted in the parish in order to obtain exemption or abatement of the house duty. The numbers inspected yearly from 1890 in which two hundred and forty-three were inspected and after the execution of necessary works, re-inspected and certified were for 1891, one hundred and nineteen, for 1892, one hundred and sixty-five; for 1893, two hundred and one and for 1894 and 1895, each ninety-one; a total of nine hundred and ten tenements.

Table XIV. sets out the forms of sickness and deaths while under treatment of the Parish poor under care of the District Medical Officers during 1895. It will be observed that the total number of cases treated was four thousand, six hundred and nineteen, out of which number eighty-nine died, under two per cent. Of course, many of the more severe cases went to the Union Infirmary before death. At all events the death-rate is extremely low.

TABLE XIV.

ZYMOTIC OR EPIDEMIC DISEASES.

Battersea. — Poor Law Medical Districts.		Small-Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Enteric & other Fevers.	Erysipelas.	Puerperal Fever or Metria.	Diarrhœa, Dysentery, or Cholera.	Influenza.	Other Zymotic Diseases.	Total.	Grand Totals of Cases and Deaths from all Diseases.
Cases	No. 1	—	20	4	2	2	1	—	—	21	102	1	153	
	No. 2	3	27	8	5	7	—	4	—	61	74	5	196	
	No. 3	—	10	8	1	2	—	4	2	26	59	1	91	
Whole Parish ...		3	57	20	8	11	1	8	2	108	215	7	440	1,656 1,676 1,287
Deaths	No. 1	—	—	—	—	—	—	—	—	—	—	—	—	
	No, 2	—	1	—	—	1	—	—	—	1	3	—	6	
	No. 3	—	—	2	—	1	—	—	—	2	—	—	5	
Whole Parish ...		—	1	2	—	2	—	—	—	3	3	—	11	4,619 10 35 44

OTHER DISEASES.

Battersea. — Poor Law Medical Districts.		Diseases of the Tubercular Class.	Of Brain, Nerves, &c.	Of Heart.	Of Respiratory Organs.	Of Digestive Organs.	Of Kidneys.	Premature Birth, Low Vitality, Malformation, &c	Age.	Violence.	All other Diseases.	Total.	Grand Totals of Cases and Deaths from all Diseases.
Cases	No. 1	30	40	16	255	20	7	2	58	21	1054	1,503	1,656
	No. 2	30	65	14	314	41	1	1	5	26	983	1,480	1,676
	No. 3	24	19	8	155	36	6	3	92	19	834	1,196	1,287
Whole Parish ...		84	124	38	724	97	14	6	155	66	2871	4,179	4,619
Deaths	No. 1	4	1	1	2	—	—	2	—	—	—	10	10
	No. 2	6	6	—	12	2	1	1	1	—	1	29	35
	No. 3	7	2	4	14	—	—	3	7	—	1	39	44
Whole Parish ...		17	9	5	28	2	1	6	8	—	2	78	89

TABLE XV.

Supplemental Return, 1895.] VACCINATION.

Registration Sub-District.	Number of Births returned in the Birth List Sheets—1895.	Nos. of those births duly entered by the 31st January, 1895, in Cols 10, 11, and 13, of the Vaccination Register, (Birth List Sheets), viz :—					No. of Births which on the 31st Jan. 1896, remained unentered in the Vaccination Register on account.			Number of those Births remaining on 31st January neither duly entered in Vaccination Register (Col. 3, 4, 5, and 6 of this Return) nor ——— accounted in the Report Bk.
		Col. 10, successfully vaccinated.	Col. Insusceptible of vaccination.	Had small-pox.	Col. 13, Dead unvaccinated.		Postponement by Medical Certificate.	Removed to Districts their vaccination officers of which have been apprised.	Removed to places unknown.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
East Battersea	2444	1411	13	...	249	...	117	4	124	526
West Battersea	2839	1756	11	...	274	...	144	5	106	543
Totals ...	5283	3167	24	...	528	...	261	9	230	1,969

This return is annually made to the Guardians by the Vaccination Officer. The headings to the several columns explain themselves.

Summary of Sanitary Operations during 1895

The great amount of work done by the Sanitary staff is shewn in Table XVI. The work done was of a very thorough character and reflects great credit on the Chief and District Sanitary Inspectors.

The house to house inspections, the means by which most sanitary defects are detected, were up to the average number and would if other duties did not make more urgent calls upon the staff, enable them to inspect every house in the parish during the year, a result which has been aimed at for some years. The great number of complaints received from the public, intimations of the existence of infectious disease, with removal to hospital in many cases and inspection and disinfection in all, together with the more systematic testing and re-organisation of defective drains and other urgent matters, render the inspectors unable to give more than a comparatively small portion of their time to this important work. Some premises require and obtain several inspections during the year from the constantly recurring defects found therein. It will be seen that the total number of houses inspected is greater than in former years, the difference being that such inspections formerly were in the majority of cases from house to house, when of course a much larger number can be inspected than when from the prevalence of infectious disease or other causes each sanitary inspector has to traverse the whole area of his district daily. Inspections under the Factory and Workshops Act also add much to the duties of the staff.

TABLE XVI.

Summary of Sanitary Operations, 1895, in the whole Parish.

	1892	1893	1894	1895
Total Sanitary operations	38,779	54,577	53,791	55,806
Number of House Inspections	23,587	25,091	24,747	30,051
Bakehouses Inspections	215	296	313	460
Bakehouses Nuisances abated	...	18	19	49
Urinals—Inspections	251	260	318	483
Do. altered, repaired, or water laid on ...	...	120	119	31
Intimations Served, 54 & 55 Vic. cap. 76 (a)	3,691	4,420	4,289	4,256
Notices Served under Sec. 4	921	1,211	1,076	1,198
Notices Served under Sec. 62 and 65 ...	1,588	2,572	1,605	1,709
Complaints Received and attended to ...	...	4,089	3,253	3,877
Number of Houses Disinfected	1,227	2,069	1,449	1,454
Houses Supplied with Disinfectants ...	3,026	5,275	3,175	3,616
Overcrowding Abated	34	38	56	33
Premises Cleansed and Repaired ...	189	280	328	138
Drains Tested ... By Smoke ...	700	1,491	1,272	1,331
,, Water ...	178	491	794	997
Drains Cleansed and Repaired	1,107	1,564	1,106	1,205
Drains Relaid	220	917	742	742
Soil Pipes ventilated	...	...	135	796
Sink & Rain Water Pipes disconnected ...	1,360	562	1,012	634
Water Closets Cleansed and Repaired ...	237	314	426	236
Cesspools Abolished	1	4	6	8
Mews and Stables Drained and Paved ...	86	30	11	8
Yards Drained and Paved	161	253	938	555
Accumulations of Manure Removed or proper receptacles provided	41	70	56	61
Dust Receptacles Provided	738	772	1,221	688
Dust Complaints forwarded to the Surveyor	...	271	214	377
Leaky House-roofs and Gutters Repaired ...	185	84	240	134
Houses Supplied with Water	151	130	93	252
Water Closets Supplied with Water, or supply disconnected from drinking water cistern	860	731	1,113	1,054
Cisterns Covered, Cleansed and Repaired ...	409	469	624	816
Keeping of Animals in unfit state ...	5	16	11	16
Smoke Nuisances dealt with	10	26	21	11
Certificates of Disinfection Granted ...	1,044	1,659	1,551	1,538
Water Supply Certificate Granted (Sec. 48)	16	118	141	282
Proceedings Ordered by Vestry and Sanitary Committee	444	1,211	1,100	1,243
Summonses Issued	14	73	52	63
Magisterial Orders Obtained and Enforced ...	14	70	42	59
Sanitary Conveniences provided to Factories and Workshops, Sec. 38	4	8	19	...
Underground sleeping rooms disused ...	...	...	...	12
Gipsy vans inspected	...	...	...	64

PARTICULARS OF SUMMONSES ISSUED.

	Summonses.	*Magisterial Orders obtained.*
Under Sale of Food and Drugs Act	33	†31
Under P.H.(L)A. Non-compliance with notices	18	*16
Under P.H.(L)A. Contravention of Bye.laws, &c.	12	12
	63	59

† Two cases were withdrawn, summonses issued and convictions being obtained against the proprietors of the other thirty-one.

* Two cases dismissed, Magistrate deciding that the drain was a sewer.

It will be observed by reference to Table XVI, that 55,806 Sanitary operations were carried out during 1895, the largest number yet returned. The numbers for the years 1892, 1893 and 1894 are also given as a means of comparison, the Sanitary Staff having been augmented in the earlier of these years.

The number of house inspections during 1895 was the largest yet recorded, thirty thousand and fifty-one. Although so many houses have been inspected, many of them several times during the year, the great and most important work of all, house to house inspection has not been universal in the parish; the ideal towards which we should aim, being the inspection of every house each year. I have reason to anticipate that this matter will receive the earnest attention of all concerned and steps be taken to carry it out.

There were four thousand two hundred and fifty-six intimations served under Sec. 3, Public Health (London) Act, 1891. One thousand one hundred and ninety eight of these cases required statutory notices under Sec. 4, &c., by order of the Sanitary Committee and the Vestry, in addition to which one thousand seven hundred and nine notices were served under Secs. 62 and 65. In the large number of one thousand two hundred and forty-three cases proceedings were ordered, sixty-three summonses were issued, the other orders having been complied with and Magisterial orders were obtained and enforced in fifty-nine instances.

Three thousand eight hundred and seventy-seven complaints were received during 1895 and attended to. One thousand four hundred and fifty-four houses were disinfected for sanitary reasons, one thousand five hundred and thirty-eight certificates of disinfection issued and disinfectants were distributed free of charge in three thousand six hundred and sixteen instances. Overcrowding was abated in thirty-three instances, but, this is not at all a characteristic of this parish compared with those of central London. One hundred and thirty-eight premises were

cleansed or repaired. Drains were tested by smoke in one thousand three hundred and thirty-one cases, the majority being found defective. Nine hundred and ninety-seven new or re-constructed drains were subjected to the hydraulic test and found sound. The large number of twelve hundred and five drains were cleansed and repaired. The water supply apparatus to w.c.'s were newly provided or repaired in one thousand and fifty-four instances; eight hundred cisterns were cleansed or repaired. Two hundred and eighty-two certificates of water supply to new houses were issued.

A prominent feature in the work of the Sanitary department is the largely increased number of special inspections made by the Chief Sanitary Inspector and the District Sanitary Inspectors the results of which are reported to the Sanitary Committee at the next subsequent meeting. In order to facilitate reference to the minutes if necessary the dates upon which such reports have been made during the year 1895 are appended.

On January 15th it was reported that the Raywood Street Board School had been entirely redrained and new w.c.'s &c., constructed upon plans approved by the Sanitary Committee, the old drains and sanitary arrangements having been found by the Chief Sanitary Inspector upon examination and testing to be in very defective condition; during the execution of the new works an old brick culvert 13 feet long and 3 feet 6 inches in diameter was discovered half filled with fœcal matter, this was emptied and carted away and the culvert broken up, the same having been found to have no connection with any other building or sewer.

Hudson's Wharf, Wandsworth Common goods yard, depositing of house refuse for a longer period than 24 hours, contrary to clause 8, L.C.C. bye-laws under Sec. 16, Public Health (London) Act, also sorting and sifting of house refuse was found to be carried on, on the 2nd, 4th, 5th, 8th, 11th, of January contrary to order of Court of Summary Jurisdiction

which had been previously obtained by the Vestry; the Committee ordered this to be referred to the Solicitor and the nuisance was abated upon a cautionary letter.

Hillier's yard. Refuse deposited by Lambeth Vestry from roads &c., in their parish, the refuse remaining in some instances for a longer period than 24 hours. The refuse after being mixed with stable manure and other litter and water is then consigned to the country by train from the South Western Goods Yard, Nine Elms.

Hudson's Case. Nuisance arising from an open soil pipe head in Kersley Street. In this case the water closet was untrapped and discharged into an open rain water head the length of soil pipe being about 10 feet and trapped at the foot near the ground floor windows. The Medical Officer of Health had previously reported to the Sanitary Committee that in his opinion the nuisance constituted a danger to health.

As far back as the 4th September, 1894, considerable correspondence in respect to this nuisance passed between the Agent of the property and the Vestry, and every opportunity was given to the owner to abate the nuisance.

Subsequently proceedings were instituted, the wife of the occupier of the house stating that they had been unable to use the w.c. on account of bad smells experienced in the ground floor back room, when used, and that she had complained to the landlord who took no notice, except to send and pour disinfectants down the pipe, and further that the children had suffered from throat disease which her medical man attributed to bad sanitary arrangements.

Her delicate state of health rendered her unable to attend the Police Court at the hearing of the case, and her husband was, therefore, *subpœnaed*, but his evidence did not assist the Vestry or bear out in the least his wife's statement.

Mr. Hudson and his Surveyor stated that they had made certain tests with a view to ascertaining if any trace of Sulphuretted Hydrogen or Carbonic Acid gases were present, but could find none.

It could not be expected that any of these gases would be present in the pipe, having regard to the fact that it is trapped at the foot, and that clean water only passed down the pipe for some time previous.

The Magistrate in dismissing the case was probably influenced by the fact that the w.c. was not in actual use, this, however, was owing to its defective condition, and further, at any time this unsanitary arrangement may prove a source of injury to health.

February 5th.

There was presented at this date a return of the Annual inspection of all the public-house urinals in the parish, and in some 50 cases notices were served to supply proper water supply, to remedy defective apparatus, and paving &c., and to cleanse and limewhite urinals.

In several cases the Committee deemed it inadvisable to require the proprietors to provide urinals to their houses, on account of the latter being in positions where they would become a nuisance, or in respect of which the Justices had previously informed the representatives of the Vestry, that having visited the premises in question they were of opinion that urinal accommodation was not essential. In the case of the Northcote Hotel a new urinal has been constructed in an altered position, but in the vicinity of this house there is a great need of Public Urinal Accommodation, the yard of the Northcote Hotel being constantly rendered very offensive owing to so many of the general public making use of the place which is provided only for persons using the public-house.

It was further reported that District Sanitary Inspector Marrable had seized three-quarters of a hundred-weight of walnuts on Saturday night the 26th January, and conveyed them to the South Western Police Court, where they were condemned and afterwards destroyed. The owner gave the name of James Richardson, 4, Cherwell Street. Subsequent inquiries, however, failed to discover the owner, and the Sanitary Committee decided that no further action should be taken in the matter.

The Chief Sanitary Inspector reported to the Committee that Nos. 29, 30, 31, 32, 33, 34, Woodgate Street (the two latter being empty), but Nos. 29 to 32 were occupied and in a very dirty and dilapidated condition. In the fronts of the houses Nos. 29, 30, 32, the parapet walls had been pulled down, also portions of the roof on account of dangerous condition, and upon inspection he found the walls and ceilings extremely wet, the stack pipes and guttering defective, the yards unpaved, cisterns supplying directly the drinking water and water-closets, and the treads of the stairs were so worn and the ballusters destroyed so that their condition was dangerous to life and limb in passing up or down stairs. A notice was served by order of the Sanitary Committee with a view to ordering the same to be closed as unfit for human habitation. The Railway Company having taken the whole of the houses in question, they have since been demolished.

Also with reference to Nos. 8, 9, 10, 11, 12, 13, 14, 15, 16, and 17, Belfour Street, which were in a seriously dirty and dilapidated condition, the wash-houses especially being dangerous. The owners were served with the necessary notices to put same into sanitary condition, which have subsequently been complied with. This property is inhabited by careless and destructive people whose surroundings are made insanitary through their own filthy habits.

February 19th, 1895.

Gipsy Vans.

At this Meeting it was reported that having personally inspected the whole of the vans used for human habitation which are situated upon various plots of land in the parish, the Chief Inspector found that there were at this time eight plots used for the purpose. There were 68 vans, 46 of which were over-crowded, many of them seriously as the following instances will shew.

The Bye-laws in force regulating these structures are made under the Housing of the Working Classes Act, 1885, and require 150 cubic feet of free air space for an adult and 75 cubic feet for every child under 12 years. The Bye-laws also contain clauses which deal with the provision of closet and ashpit accommodation and water supply. The vans must also be watertight, properly ventilated and kept thoroughly cleansed. Several of the vans were found to be in a filthy condition, not watertight and without ventilation.

It was also found necessary to call upon the proprietors of ground in three instances to provide increased water-closet accommodation.

The total population dwelling in these 68 vans was 223 persons made up as follows :—

78 Male	persons	over	12	years	of	age
65 Female	,,	,,	,,	,,	,,	,,
31 Male	,,	under	,,	,,	,,	,,
49 Female	,,	,,	,,	,,	,,	,,

The Sanitary Committee directed notices to be served in all cases where there was a deficiency of over 50 cubic feet of free air space and also to provide water closet accommodation for each sex one for every twenty persons or proportion of twenty. The effect of this action was to cause the proprietors of the vans which were the more seriously overcrowded to leave the parish and in other cases the vans were disposed of and rooms in houses

taken, one remarkable feature of the inspection was, that with the exception of one case of rheumatism no illness whatever was discovered. The water-closet accommodation was increased to the required standard in those cases where there was previously a deficiency. The following tabulates the results of the inspection of these vans.

	No. of Van in Report Book.	Occupants. Males. over 12 yrs.	Males. under 12 yrs.	Females. over 12 yrs.	Females. under 12 yrs.	Free Cubic Air space in feet.	Deficiency of Air space in feet.	Remarks as to condition of Van.
Plot No. 1	2	1	–	1	1	278	97	Clean
	3	1	–	1	–	242	58	Clean, in good condition
,, 2	1	1	–	1	1	260	115	Dirty
	2	1	–	1	1	240	135	In fair condition
	3	2	1	1	3	412	338	Clean, good condition
	4	1	3	1	2	474	201	In fair condition
	5	1	3	1	1	306	294	Clean, in fair condition
	6	1	1	1	1	261	189	Dirty
	7	1	1	1	1	273	177	Woodwork decayed
	8	2	1	1	1	186	414	Dirty, all windows broken
	9	1	1	1	1	294	156	In good condition
	10	1	1	1	–	286	89	Windows fixtures, ventil. bad
,, 3	1	1	1	1	1	365	85	Clean, in good condition
	2	2	–	–	–	231	70	Do.
	4	1	–	2	–	343	107	Do.
	5	1	1	1	1	316	134	In good condition
	6	1	2	1	–	364	86	Clean, in good condition
,, 5	6	1	–	–	–	207	—	No ventilation whatever
	8	2	1	–	–	251	124	Clean, good condition
,, 6	3	2	–	–	–	251	49	Do.
,, 7	1	2	1	1	1	305	295	Do.
	2	3	–	1	–	348	252	In good condition
	3	1	3	1	–	340	85	Clean, good condition
	4	1	–	1	1	229	146	Dirty, dilapidated, leaky roof, &c.
	5	2	2	1	–	260	340	Dirty and windows broken
	6	2	–	1	2	194	406	Dirty and ventilation bad
	7	2	1	1	1	320	280	Clean and in good condition
	8	1	1	1	1	265	186	Do.
	9	1	–	1	4	321	279	Do.
	10	1	–	1	2	207	243	Fair condition
	11	1	1	1	3	355	245	Clean condition
	12	1	–	1	2	140	310	Dirty condition
	13	1	–	1	–	212	88	Clean and in good condition
,, 8	2	1	1	1	–	215	160	Do.
	4	1	1	1	–	297	78	Do.
	8	1	1	1	1	312	138	Do.
	9	1	–	1	2	282	168	Do.
	14	1	–	2	1	285	240	Do.
	15	1	1	1	2	268	257	Do.
	16	2	–	–	–	185	115	Do.

March, 5th.

At this Meeting the Chief Sanitary Inspector reported that having made an inspection of Overstrand Mansions, Blocks A. B. C. D. E. F. with respect to the soil pipe having several w.c.'s fitted one above the other into them were not provided with anti-syphon pipes as required by the Bye-laws of the London County Council under Sec. 39 (1) Public Health (London) Act, 1891. The owner's attention was directed to the matter and the necessary anti-syphon pipes provided without recourse to further measures.

Bloomfields factory, Queens Road was also inspected and the water-closets found to be in a dirty and offensive condition, they were subsequently cleansed. At these works some 105 girls and women and five men and boys were employed, the workroom was found to be clean and well ventilated.

He further reported that at Messrs. Smith & Stevens' Engineering Works in Queens Road, he found about 43 men employed. The two w.c.'s were in a dirty condition in one case the pan was broken. These defective closets were subsequently abolished and pedestal w.c.'s together with urinal accommodation provided.

April 27th.

The Pure Water Company's Works in Queens Road were inspected and it was found that for the 50 male persons employed two w.c.'s and urinal were provided and also two w.c.'s for the females the pans of all the w.c.'s required cleansing which was subsequently carried out. The water for manufacturing purposes is derived from an artesian well some 500 feet deep. The workshops were found to be clean.

At Messrs. Clark's Coffee Extract Works, Queens Road some seven men and boys are employed for which one w.c. was provided which required cleansing and this was carried out. The workrooms were in good and cleanly condition.

Proceedings were ordered by the Sanitary Committee to be taken against the builders of houses in various parts of the parish for failing to obtain the necessary certificate of proper and sufficient water supply under Section 48, Public Health (London) Act before allowing the premises to be occupied. The defendants were subsequently fined in each case.

April 30th.

At Truckell's Wharf, Nine Elms Lane the Chief Sanitary Inspector found the burning of business refuse carried on in a furnace with a shaft about 40 feet only in height and also in heaps in the yard of the premises in question. The burning caused considerable nuisance by the emission of offensive effluvia and the large quantities of dust. Notices were served and the nuisance abated.

He further reported at this meeting that the half-yearly inspection of Bake-houses had been made, and that 121 such premises were in occupation, that except in 41 instances the usual cleansing and limewhiting had been carried out, and that the premises were generally in very good sanitary condition. Notices were served where necessary, and the cleansing and limewhiting subsequently carried out.

May 14th.

The Chief Sanitary Inspector reported making inspection of Thornes' Brewery, Nine Elms, and that the sanitary arrangements were sufficient for the number of work people, and except one or two slight defects, which were subsequently remedied, the same were satisfactory.

Also that at these premises pigs were found to be kept within 33 yards of Ponton Street Board School and other premises in the vicinity. The pigs and styes were in a very cleanly condition, but as the keeping of swine were within the prohibitive distance of 40 yards notices were served by order of the Sanitary Committee and the keeping of pigs discontinued.

Also at Messrs. Swonnel's Works, Nine Elms, he found a want of proper sanitary convenience for the work people. Notice, by order of the Sanitary Committee, was served and the necessary accommodation provided.

He also specially reported with reference to the urinal and w.c. accommodation at the Central and Branch Public Libraries by order of the Sanitary Committee, and subsequently the premises were inspected by a Sub-Committee, the Chief Inspector accompanying them, the result of which was that certain suggestions were made to the Library Commissioners for improving the accommodation.

June 18th.

The Chief Sanitary Inspector reported that he had made an inspection of the Salvation Army Depôt in Wellington Road, at which some 150 men work, live and sleep. The larger dormitory is used by 100 men, and has a cubic air space of 32,327 cubic feet, or equal to 323 cubic feet per man. A further special dormitory is provided for some 32 men, who through good conduct and cleanliness are considered to deserve special accommodation. This has a cubic air space of 10,650 feet, or equal to 332 cubic feet per man. The dormitories and bedding were found in cleanly condition and the buildings very well ventilated. In addition to the above there are rooms used in the house adjoining the wharf by some 15 men which have a cubic air space of 400 feet per man.

In connection with these premises paper sorting, wood chopping, tin plate work, &c. are carried on. The workshops were in good condition, but the urinal and w.c. accommodation unsatisfactory and insufficient. This was increased and improved, upon notice which was served by order of the Sanitary Committee. It was stated that all men admitted to the premises are required to take a hot bath, during which time their clothing is subjected to a temperature of 180° Fahrenheit in a gas stove; baths and washing troughs are provided with hot and

cold water and for drinking and culinary purposes the water is drawn directly from the rising main. It had been reported to me that about 25 per cent. of the men were suffering from scabies, this statement was not however proved on inspection as from enquiries of several persons who had been some time at the premises it was found that only three cases had occurred during two years and these in newly admitted persons, the disease was immediately detected and the persons removed to the union infirmary. I found the whole of the premises which also include a day room and kitchen in satisfactory condition. During the year one case of small pox occurred at these premises, the patient was promptly removed to hospital and the dormitories containing 42.987 cubic feet of air space, promptly disinfected. It might here be noted it is the practice of the Army Officers to disinfect the dormitories twice in each week with sulphur.

He further reported that at Nos. 3 and 3a, Surrey Lane the staircases were in an exceedingly dangerous condition owing to the manner in which they had been constructed also that one w.c. only existed for the two houses. The Committee decided to draw the attention of the London County Council to the former defect and directed notice to be served to place the existing w.c. in good condition and also provide an additional one.

July 2nd.

The Chief Sanitary Inspector reported he had tested the drains and inspected the sanitary conveniences of Winstanley Road Board School, and that with regard to the drains he had found the same to be in a seriously defective condition, and that it would be necessary to entirely re-construct the same. Also that in consequence of the walls of the w.c.'s being used by the scholars as urinals, the same should be rendered with impervious material, and further that a large number of lavatory basins in various parts of the building admit the supply of water through the waste pipe and should therefore be re-placed by basins of improved form, as the water if drank by the scholars may prove

injurious to health. Plans have been received for the re-drainage of this School.

In company with the Inspector of the London County Council he inspected the works of Messrs. Garton, Hill, & Co., York Road, in consequence of complaint having been made to the Council of offensive smell being noticeable from the premises in question believed to be caused by the revivification of the animal charcoal. They inspected the various processes and found that the charcoal is used as a filtering medium and afterwards is re-burnt in gas furnaces, through which pass 9 inch cast iron vertical tubes, having a 7 inch similar pipe within; the 2 inch annular space being filled with the charcoal which is to be re-burned and is subjected to a temperatnre of 1,400° Fahr. This method is a great improvement upon the practice previously adopted for the revivifying of charcoal, and no nuisance was discovered to exist.

July 16th.

It was reported that the sanitary arrangements of the Pulsometer Engineering Works were found upon inspection to be in a most insanitary condition, the w.c. being formed of a rough brick trough arrangement with boarded front badly corroded. A sluice was provided to keep the water back in the trough, the supply of which was by means of a 2 inch pipe. By this arrangement the sides of the trough were never flushed, and were consequently very offensive. The Sanitary Committee directed notice to be served requiring proper and sufficient w.c. and urinal accommodation to be provided, which was subsequently carried out.

Also upon inspecting the A.1. Biscuit Company's premises, the Chief Inspector found that the w.c. accommodation was inadequate for the number of male employés, and also that which did exist was in a dirty condition. The accommodation for the female employés was in good condition and adequate for the number employed. The Committee directed notice to

be served to increase the conveniences for men and to place the existing closets in good condition.

Also at the premises of the London and Provincial Steam Laundry Company the Chief Inspector found some 176 females employed for whom only two w.c.s were provided for use during working hours. The men's w.c. was clean but structurally defective The Committee directed that the necessary steps be taken for enforcing sufficient accommodation, the result being that several w.c.'s in other parts of the building, usually kept locked, were opened in order to comply with the Committee's requirements, making the total number fifteen, which was adequate.

September 3rd.

The Chief Sanitary Inspector reported that at Carpenter Street a child died from neglect, the Coroner informing him, by his officer, that an inquest would be held, as the premises were stated to be in a dirty state.

He visited the premises and found that the family consisted of two adults and six children occupying one room, having a cubic air space of 1,140 cubic feet, or a deficiency in air space of 860 cubic feet. The necessary steps were taken for abating the serious overcrowding, and proceedings were subsequently taken by the National Society for the Prevention of Cruelty to Children and the parents sent to prison for general neglect of the child that died. The house generally was found to be seriously overcrowded and dirty, but upon notices being served on the owner and occupiers the nuisances were abated.

On several occasions during the year considerable nuisance has arisen, owing to emission of dense black smoke from Messrs. Spiers and Pond's steam laundry shaft in Battersea Park Road. Difficulty however was experienced in proceeding against Messrs. Spiers and Pond in consequence of their having provided apparatus which was capable (if properly used by the

person in charge of the furnace) of preventing the emission of black smoke. Representations have been made to Messrs. Spiers and Pond relative to the matter and the stokers also cautioned. The manager was requested by the Medical Officer of Health to use more suitable coal.

September 17th.

The Chief Sanitary Inspector having made inspection of Messrs. Whiffen's works in the Lombard Road in respect of which complaints have been made of the emission of offensive effluvia. The business carried on is in the manufacture of Vegetable Alkaloids from Tea, Willow Bark, Nux Vomica Bean, &c. He found the offensive effluvia to arise from a depositing or precipitating pit of 14 cubic yards capacity which is provided for the purpose of preventing solid matter from the waste products of manufacture entering the sewer, and he suggested that the pit in question should be reduced to one-half its size in order to render it necessary for a more frequent removal of the refuse deposited therein, and that permission be given to the Vestry to carry up ventilating shaft from the sewer. These suggestions were subsequently carried out.

September 17th.

The Chief Sanitary Inspector reported that the sanitary conveniences at Messrs. Whiffen's works had also been examined and found to be adequate in number for the persons engaged on the premises and to be in good condition.

Also at the laundries situated at 30 and 34, Gideon Road, the sanitary conveniences were found to give insufficient accommodation, also that the ironing rooms were in an overcrowded condition. These matters were subsequently rectified after notice from the Sanitary Committee.

October 15th.

The Chief Inspector reported he had seized on the 4th October three-quarters of cwt. of haddocks and two boxes of kippers

exposed for sale upon a barrow in York Road, the same being unfit for human food, and was afterwards destroyed by order of the Magistrate. Difficulty was experienced in tracing the owner of the fish. Proceedings were subsequently instituted against two persons who were convicted and fined.

November, 5th, 1895.

The Chief Sanitary Inspector reported that he had attended the Licensing Meeting of the Public Health and Housing Committee of the London County Council with reference to the Licensing of Cowhouses and Slaughterhouses and that with one exception the whole of the Licenses were renewed upon the same conditions, the exception was with reference to a slaughter-house situated at 82, Usk Road at which sometime previously a diseased calf was seized and fat boiling found to be carried on. The Licensing Committee at their adjourned meeting renewed the License on condition that the Licensee only slaughtered pigs which were his own property.

In consequence of a case of Typhoid Fever occurring to a pupil of Vicarage School, Lavender Gardens, but residing in Wandsworth, he tested the drains and examined the whole of the sanitary arrangements and water supply of the School, when the same were found to be in good condition and did not appear to have caused the case of Typhoid mentioned above and no other case occurred.

He also reported that the September inspection of bake-houses had been carried out and with but eight exceptions the cleansing and limewhiting had been attended to. The Sanitary Committee gave instructions for notices to be served in these cases and the same were subsequently complied with.

November 19th.

The laundry situated at 32, Latchmere Road had been inspected, the Chief Sanitary Inspector found that there was ample cubic air space for the persons employed but that the whole

of the drainage and sanitary arrangements was in a defective condition, that the washhouse was dilapidated and the ironing room without any ventilation. Notice was served by order of the Committee and these matters attended to.

December 3rd.

The Chief Sanitary Inspector reported having inspected the w.c.'s and urinals of Battersea Park Road Board Schools, from which offensive smells were alleged by residents in Warriner Gardens to arise. He found that the walls of the w.c.'s bore evidence of being used by the boys as a urinal, also that the latter were not provided with sparge pipes for the purpose of flushing and advised that the London School Board's attention be drawn to the necessity of providing the latter, and imperviously rendering the walls of the w.c.'s also to slope the entrance to urinals to properly trapped gulley instead of into playground.

The School Board for London in reply stated their inability to provide sparge pipes and asked the Sanitary Committee to waive their requirements. This however, the Committee have not done, being of opinion that where urinals are used by a large number of persons, the walls should be flushed by means of sparge pipes similar to those the London School Board have provided to other of their Schools in the parish.

It was also reported that Inspector Odell seized late at night on the 22nd November, about 250 bananas exposed for sale upon a stall in St. John Road, which were in his opinion unfit for human consumption and that the same were condemned by the Magistrate at the South Western Police Court.

Proceedings were subsequently taken against the owner who was fined.

December 31st.

The Chief Inspector reported that he had seized on Saturday Night the 21st December, about 10.30 o'clock, 1½ cwt of cob nuts which were exposed for sale upon a barrow in Falcon Road and in the sale of which the vendor was doing a brisk trade at 2d. per pint, that the nuts were subsequently con-

demned and destroyed by order of the Magistrate. The owner of the nuts gave his address as 22, Gun Street Dwellings, Southwark ; when the officer proceeded to serve the summons it was found that he had removed and his whereabouts could not be discovered.

In consequence of an unusually large number of cases of Scarlet Fever occurring at St. George's Schools, the same were thoroughly disinfected during the Christmas Holidays by the Vestry's staff of disinfectors.

WATER ANALYSIS.

Quarterly samples of water were taken regularly during the year at the periods ordered by the Sanitary Committee, and submitted to the Public Analyst for examination.

These particulars of the more important special inspections, apart from house-to-house inspection, inspection on complaint or notification of infectious disease, tend to shew that the Vestry possess competent officers, and I beg to record my sense of the able manner in which the Chief and District Sanitary Inspectors together with the rest of the staff, have performed their duties during the year under report.

In conclusion, I beg to thank my colleagues, more especially the Vestry Clerk (Mr. Wilkins) and the Surveyor (Mr. Pilditch) for the great assistance at all times willingly rendered, which I have received from them during the year, as well as during many previous years.

I have to express my sincere gratitude to the Members of the Sanitary Committee and the Members of the Vestry generally, who have by the support they have given to me at all times, enabled me to perform the duties of my office ; without which support it would be impossible for a Medical Officer of Health to efficiently and successfully carry out the important functions with which he is entrusted.

W. H. KEMPSTER, M.D.
Medical Officer of Health for Battersea.

List of Streets and Places in the Six Sanitary Districts of the Parish in which Houses are let in Lodgings, and number of Families resident therein.

District No. 1—INSPECTOR HERRIN.

	No. of houses let in lodgings.	No. of families in the houses.
Acre street	11	24
Ægis grove	19	38
Arden street	19	42
Ascalon sfreet	53	107
Battersea park road (Queen's Road to Nine Elms)	21	46
Belfour street	31	71
Bewick street	7	14
Brewery cottages	1	1
Brighton terrace	6	2
Broughton street	41	85
Ceylon street	29	65
Cherwell street	4	8
Corunna place	10	20
Corunna road	59	118
Corunna terrace	4	8
Cringle street	..	..
Currie street	34	77
Dashwood road	53	106
Dickens street	11	22
Emu road	..	..
Etruria street	22	44
Everett street	30	63
Foote's row	1	2
Froude street	..	..
Gambetta street	..	..
Gladstone street	48	119
Gladstone terrace	38	97
Gonsalva road	29	60
Haines street	20	40
Havelock terrace	26	59
Haward street	..	..
Ingelow road	28	58
John street (New road)	20	40
Kirtling street	..	..
Linford street	35	73
Lockington road	38	112
Montefiore street	27	54
Motley place	6	12
Motley street	69	140
Mundella road	35	70
	886	1793

	No. of houses let in lodgings.	No. of families in the houses.
New road	57	126
Nine Elms lane	20	46
Pagden street	3	6
Patmore street	29	52
Ponton road	16	34
Ponton street	6	12
Porson street	23	46
Portslade road	15	31
Power street	26	52
Prairie street	27	54
Prince of Wales' road	..	..
Queen's road	..	..
Queen's square	..	..
Raywood street	26	52
Robertson street east	32	64
Robertson street west	59	120
Ruskin street	13	26
St. Andrew street	23	50
St. Philip street	39	83
Savona place	11	24
Savona street	45	97
Seldon street	..	..
Seymour street	1	2
Silverthorne road	15	30
Sleaford street	5	10
Stanley atreet	45	97
Sterndale road	68	136
Stewarts lane west	4	8
Stewarts road	108	251
Stockdale road	56	112
Tennyson street	9	24
Thackeray street	..	..
Thessaly square	3	2
Tidbury street	11	22
Tidemore street	15	31
Trollope street	26	52
Tweed street	29	50
Victoria circus	3	12
Victoria road (east side)	17	47
Wadhurst road	60	120
William street	8	16
Woodgate street	32	66
	963	2172

Houses let in Lodgings, &c.	No. of Families occupying the Houses.
886	1793
963	2172
1849	3965

District No. 2.—INSPECTOR FREEMAN.

	No. of houses let in lodgings.	No. of families in the houses.
Abercrombie street	45	97
Albert road	..	..
Alexandra avenue	..	..
Alfred street	40	90
Anhalt road	23	52
Anerley street	17	35
Arthur street	47	92
Ashurst street	7	15
Atherton street	31	92
Austin road	34	71
Battersea park road	..	..
(North side Queens Road to Bridge Road)		
(South side Queens road to Christchurch)		
Battersea park	..	..
Beechmore road	..	..
Berkeley street	1	2
Blondell street	43	90
Bolan street	71	39
Bridge road	20	52
Brougham street	36	77
Brynmaer road	..	..
Cambridge road	..	..
Carlton grove	11	23
Carpenter street	66	147
Chatham street	28	71
Chesney street	3	7
Culvert place	12	24
Culvert road	60	137
Cupar road	..	..
Doddington grove	..	..
Elcho street	35	74
Ethelburga street	32	91
Forfar road	16	32
Foxmore street	..	..
Frere street	18	48
Gaines' cottages	..	..
Henley street	77	167
Howie street	25	62
Juer street	..	..
Kassala road	..	..
Kennard street	28	59
Kersley mows	..	..
Kersley street	..	..
Kilton street	28	56
Knowsley road	36	96
Landseer street	37	83
Landseer terrace	10	20
Latchmere road	47	114
(North of the South Western Railway)		
Latchmere street	15	38
Longhedge street	63	136
Lurline gardens	7	26
Macduff road	..	..
Meath street	..	..
Millgrove street	10	23
Orkney street	25	58
Oulton street	18	37
Palmerston street	43	98
Palmerston terrace	11	26
Park grove	30	60
Park road	31	75
Parkside street	41	83
Petworth street	..	..
Peveril street	..	..
Poyntz road	7	16
Prince of Wales' road	25	52
Queen's road	..	..
(West side from Battersea park road to London and South Western Railway)		
Radstock street	17	35
Rollo street	53	140
Rosenau crescent	..	..
Rosenau road	60	137
Russell street	40	98
St. George's street	24	60
St. James' grove	13	30
Sheepcote lane	29	62
Shellwood road	6	12
Soudan road	..	..
Southolm street	31	82
Spencer street	31	65
Victoria circus	..	..
Victoria dwellings, A to K and I	10	190
Victoria road (west side)	..	..
Warriner gardens	36	109
Warriner mews	..	..
Warsill street	29	69
Watford villas	..	..
Wellington road	5	10
Worfield street	..	..
	858	1942
	804	2044

Houses let in Lodgings, &c.

858
804

1662

No. of Families occupying the Houses.

1942
2044

3986

District No. 3.—INSPECTOR PURNELL.

	No. of houses let in lodgings.	No. of families in the houses.
Afghan road	30	60
Alfred place	1	2
Althorpe grove	..	..
Ashton's buildinge	1	2
Balfern street	53	107
Banbury street	10	24
Barmore street	20	51
Battersea park road (Bridge Road to York Road, north side)	..	..
Benfield street	34	85
Bolingbroke road	10	22
Bourne's place	..	..
Bridge road (west side)	36	89
Bridge road west	33	71
Buckton street	2	4
Bullen street	52	126
Cabul road	53	22
Candahar road	44	88
Castle street	74	148
Church lane	..	..
Church road	48	99
Colestown street	19	41
Cottage place	..	..
Creek street	7	14
Crescent place	..	..
Duffield street	28	59
Edna street	21	42
Este road	31	57
Falcon grove	9	18
Falcon road (East side from Railway to Lavender road)	18	36
Falcon terrace	15	30
Ford's place	6	12
Frances street	15	30
Freeland street	4	9
Garden wharf lane	..	..
Gosling's yard	..	..
Goulden street	36	72
Granfield street	32	76
Green lane	28	61
Gwynne road	71	145
Harley street	21	43
Harroway road	16	38
Hart street	2	4
Heaver road	56	113
Henning street	21	42
Henry street	33	69
High street	30	67
Holman road	3	6
Home road	66	142
	1062	2256

	No. of houses let in lodgings.	No. of families in the houses.
Hyde lane	18	45
Ingrave street	51	106
Inworth street	81	176
Kambala road	80	160
Kerrison road	35	70
Khyber road	32	64
Latchmere grove	22	46
Lavender road (north side)	47	114
Lavender terrace	13	26
Lithgow street	8	16
Little Europa place	13	26
Lombard dwellings	4	28
Lombard road	10	21
Lubeck street	11	22
Mantua street	63	129
Miles' cottages	..	..
Musjid road	59	115
Natal road	..	..
Nepaul road	10	20
Newman street	12	24
Octavia street	19	38
Orbell street	43	86
Orville road	37	101
Parkham street	29	59
Patience road	25	50
Pearson street	10	20
Phœnix wharf lane	..	..
Randall street'	20	43
Rowena crescent	39	82
Shillington street	34	69
Simpson street	37	87
Somerset street	..	..
Spicer street	4	8
Stainforth road	56	114
Stanmer street	44	90
Surrey lane	21	45
Surrey lane south	7	19
Swan wharf	..	..
Thibet street	2	4
Totteridge road	27	64
Trott street	20	62
Ursula street	31	62
Urswicke road	43	102
Verona street	28	56
Vicarage road	..	..
Wayford street	48	121
Winders road	11	31
Wye street	24	49
Yelverton road	45	91
York road (portion) ("Prince's Head" to Lavender road)	18	36
	1299	2783

Houses let in Lodgings, &c.	No. of Families occupying the Houses.
1062	2256
1299	2783
2361	5039

District No. 4.—INSPECTOR LAWRENCE.

	No. of houses let in lodgings.	No. of families in the houses.
Acanthus road	15	31
Altenburg gardens	..	..
Amies street	22	45
Arliss road	27	54
Ashbury road	6	12
Basnett road	53	156
Battersea rise (Northside of St. John's road to Clapham Common)	..	..
Beauchamp road	..	..
Beaufoy road	82	174
Birley street	5	10
Brassey square	13	26
Clapham common n'rth side	..	..
Dorothy road	..	..
Eccles road	..	..
Eland road	..	..
Elsley road	73	146
Eversleigh road	1	2
Elspeth road	..	..
Falcon road (East side Queen's Parade to Railway Arch)	..	..
Fontarabia road	..	..
Freke road	23	46
Forthbridge road	..	..
Garfield road	..	..
Gideon road	24	49
Glycena road	41	84
Gowrie road	41	42
Grayshott road	59	121
Green lane	..	..
Hafer road	5	10
Hanbury road	27	55
Hauberk road	..	..
Holden street	1	2
Ilminster gardens	..	..
Kathleen road	..	..
	498	1015

	No. of houses let in lodgings.	No. of families in the houses.
Kingsley street	..	..
Latchmere road (South side of the South Western Railway)	5	10
Lavender gardens	..	..
Lavender hill	..	..
Lavender sweep	..	..
Limburg road	..	..
Longbeach road	..	..
Marjorie grove	..	..
Marmion mews	..	..
Marmion road	10	23
Marney road	..	..
Morrison street	4	8
Mossbury road	25	52
Mysore road	..	..
Parma crescent	..	..
Pountney road	..	..
Rush-hill mews	10	20
Rush-hill road	..	..
Sabine road	31	70
St. John's road (east side)	..	..
Shirley grove	11	26
Sisters avenue	..	..
Stormont road	..	..
Sugden road	..	..
Taybridge road	..	..
Town hall road	..	..
Tipthorpe road	14	30
Tyneham road	9	19
Thirsk road	..	..
Wickersley road	84	194
Winifred grove	..	..
Wix lane	..	..
Wycliffe road	49	106
	252	558

Houses let in Lodgings, &c.	No. of Families occupying the Houses.
498	1015
252	558
750	1573

District No. 5.—INSPECTOR MARRABLE.

	No. of houses let in lodgings.	No. of families in the houses.
Abyssinia road	17	44
Aliwal road	..	..
Almeric road	7	15
Andoe road	7	14
Auckland raad	16	35
Battersea rise (South side from Railway to Clapham Common, north side from St. John's Rd. to Railway.)	18	40
Benham street	17	36
Bolingbroke grove (From Battersea Rise to Mallinson road)	..	..
Boutflower road	11	31
Britannia place	10	22
Brussels road	2	4
Cairns road	11	25
Canterbury place	5	10
Chivalry road	5	8
Clapham Junction	..	..
Cologne road	17	32
Comyn road	12	24
Currie road	13	26
Darien road	33	81
Eckstein road	..	..
Emma street	..	..
Falcon road (West side from Lavender Rd. to St. John's Hill)	..	..
Field place	2	4
Garden cottages	..	..
Grant road	106	238
Harbut road	31	63
Hermitage cottages	..	..
Hibbert street	1	2
Hope street	5	10
John street (York road)	3	6
Keildon road	24	48
Knox road	11	22
Lavender road (south side)	28	56
Leathwaite road (West Side from Battersea Rise to Mallinson Road)	..	..
Linda street	1	2
Lindore road	8	16
Livingstone road	72	187
Lothair street	2	7
Louvaine road	..	..
	494	1108

	No. of houses let in lodgings.	No. of families in the houses.
Mallinson road (north side)	25	51
Maysoule road	124	248
Mendip place	1	2
Mendip road	15	31
Meyrick road	94	211
Middleton road	14	28
Newcomen road	..	..
Northcote road (From Battersea Rise to Mallinson Road)	..	..
Oberstein road	4	8
Park road (Wandsworth common)		
Plough road	27	59
Plough terrace	1	2
Prested road	..	..
St. John's Hill	15	38
St. John's hill grove	4	2
St. John's mews	..	..
St. John's road (west side)	..	..
St. Peter's place	..	..
Sangora road	6	13
Severus road	..	..
Sewell road	31	63
Shelgate road	37	77
Speke road	77	164
Spencer road	..	..
Starch factory road	5	10
Stockwood street	9	18
Strathblaine road	10	21
Strath terrace	..	..
Tritton street	8	17
Usk road	12	25
Vardens road	..	..
Wandsworth com. North side	..	..
Wayland road	8	21
Webb's road (Battersea Rise to Mallinson Road)	2	4
Weston street	..	..
Wilson street	8	16
Winstanley road	65	153
York place	..	..
York road (From Lavender Road to boundary of Parish)	10	21
	612	1303

Houses let in Lodgings, &c.	No. of Families occupying the Houses.
494	1108
612	1303
1106	2411

District No. 6.—INSPECTOR ODELL.

	No. of houses let in lodgings.	No. of families in the houses.
Althorpe road	7	15
Ashness read	3	6
Balham park road	..	..
Belleville road	1	2
Bellevue road	1	2
Bennerley road	47	98
Berber road	5	10
Blenkarne road	..	..
Bolingbroke grove (From Mallinson Road to Nightingale Lane)	..	..
Bramfield road	..	..
Broderick road	..	..
Broomwood road	5	10
Burland road	11	23
Ballingdon road	..	..
Chatham road	43	95
Chatto road	10	20
Clapham common west side	..	..
Darley road	42	84
Dents road	..	..
Devereux road	..	..
Dulka road	16	32
Estcourt road	..	..
Gayville road	..	..
Gorst road	..	..
Granard road	..	..
Grandison road	..	..
Hillier road	..	..
Honeywell road	25	51
Kelmscott road	..	..
Kyrle road	..	..
	216	448

	No. of houses let in lodgings.	No. of families in the houses.
Leathwaite road (Both sides from Mallinson Rd. to Chatto Road and east side only from Mallinson Rd. to Battersea Rise)	18	36
Mallinson road (south side)	22	45
Mayfield road	..	..
Morella road	..	..
Montholme road	..	..
Nightingale lane	..	..
Nightingale park crescent	..	..
Northcote road (East and west sides south of Mallinsnn Road)	3	7
Nottingham road	6	12
Old park avenue	..	..
Ouseley road	..	..
Ramsden road	..	..
Ravenslea road	..	..
Rusham road	..	..
St. James' road	..	..
Salcott road	24	51
Sarsfeld road	..	..
Stonell's place	..	..
Sudbrooke road	..	..
Swaby road	4	8
Thurleigh road	..	..
Trinity road	..	..
Wakehurst road	20	40
Wandsworth common	..	..
Webb's road (East and west sides south of Mallinson Road)	5	10
Wexford road	..	..
Wiseton road	...	...
Wroughton road	..	..
	102	209

Houses let in Lodgings, &c.	No. of Families occupying the Houses.
216	448
102	209
318	657

The total number of Houses on the register as being let in lodgings, or inhabited by members of more than one family, is 8,046; and the number of families resident therein, 17,631; which gives little more than two families to each house so occupied.