

[Report of the Medical Officer of Health for Wandsworth District, The Board of Works (Clapham, Putney, Streatham, Tooting & Wandsworth)].

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THE

Board of Works for the Wandsworth District.

SANITARY DEPARTMENT.

REPORT

ON THE

SANITARY CONDITION

OF THE SEVERAL PARISHES COMPRISED IN THE

Wandsworth District,

DURING THE YEAR 1886.

BY THE

MEDICAL OFFICERS OF HEALTH.

TO WHICH IS APPENDED THE REPORT OF THE ANALYST.

London:

ASHFIELD, STEAM PRINTER, BRIDGE ROAD WEST, BATTERSEA.

1887.

To the Board of Works for the Wandsworth District.

GENTLEMEN,

We have the honour to present our Report for the year 1886, on the vital statistics and sanitary condition of the Wandsworth District.

The usual arrangement of matter has been adopted: the more general statistics which concern the whole District, being followed by local reports which will be of special interest to the members of the corresponding sub-districts. Where possible additional information has been incorporated in the reports, and every effort made to ensure their giving a complete and accurate representation of the health of the District.

Many most encouraging features in the sanitary condition of the District will be apparent from a perusal of the following pages, and we have to congratulate you on a lower general Death-rate than in any preceding year with the exception of 1885.

The Table of Sanitary Operations on page 22 perhaps represents more faithfully than any other part of the Report, the share which the officers of the Sanitary Department acting under your supervision, may claim in producing this low death-rate, and we can assure you that no efforts will be lacking on our part to lessen the incidence of those diseases which can fairly be called *Preventible*.

We have the honour to remain,

Gentlemen,

Your obedient Servants,

*The Associated Medical Officers of Health
of the Wandsworth District,*

MAY 27th, 1886,

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REPORT,

ON THE

HEALTH AND SANITARY CONDITION OF THE ENTIRE DISTRICT.

1886.

VITAL STATISTICS.

Population. The official population of the Wandsworth District at the middle of the year 1886, was 257,742, being an increase of 9,332 on the previous year's population. This estimate is formed on the assumption that the rate of increase of the population was the same as during the decade 1871—81; and in the absence of a more frequent census enumeration, this seems to be the plan which is least open to objection. There is strong reason to think however, that especially in the case of the West Battersea, Wandsworth, and Streatham sub-districts, the true population is much higher than the estimated population.

Births. The total births registered during the year numbered 8,896,—4,556 of males and 4,340 of females. The number of births and the birth-rates in the several sub-districts are compared in the following table :—

TABLE I.

BIRTHS.				RATES.	
SUB-DISTRICTS.	Males.	Females.	Total.	Birth-rate.	Rate of Natural Increase.
Battersea { East ..	1268	1255	2523	36·2	20·0
{ West ..	1356	1261	2677	39·0	22·9
Clapham	530	541	1071	25·5	12·5
Putney	177	175	352	23·0	11·2
Streatham	568	510	1078	34·3	19·2
Wandsworth	657	598	1255	40·4	21·3
Whole District ..	4556	4340	8896	34·5	17·4

The *birth-rate* calculated from the total births registered and the foregoing estimated population was 34·51 per 1,000 persons living, as compared with 34·6 in the previous year. The birth-rate for the whole of London during last year was 32·3 per 1,000, being the lowest on record since the year 1850. The *natural increase* of the population, or excess of births over deaths was 4,498 and the rate of natural increase 17·4 per 1,000.

Deaths. The total deaths registered during the year numbered 4,398,—2,254 of males and 2,144 of females. The number of deaths and the death-rates of the several sub-districts are compared in the following table:—

TABLE II.

DEATHS.				Death-rate.
SUB-DISTRICTS.	Males.	Females.	Total.	
Battersea { East	603	526	1129	16·2
{ West	682	666	1348	20·0
Clapham	255	290	545	12·9
Putney	89	92	181	11·2
Streatham	246	227	473	15·0
Wandsworth	379	343	722	19·0
Whole District	2254	2144	4398	17·06

In Table II. the 1,548 deaths in West Battersea include 261 deaths in the Union Infirmary and 11 in the Bolingbroke Pay Hospital, without which the death-rate would be 15·9 per 1,000. The 722 deaths in Wandsworth include 144 in public institutions within the sub-district, without which the death-rate would be 17·8 per 1,000.

The *death-rate* was 17·06 per 1,000 persons; the lowest for ten years except last year, in which it was 16·87 per 1,000. The death-rate for the whole of London during last year was 19·9 per 1,000.

The birth-rates, death-rates, and rates of natural increase of the past and ten previous years are shewn in the following table :—

TABLE III.

Birth-rates, Death-rates, and rates of Natural Increase in the entire district during the ten years 1876—85, compared with those of the year 1886.

YEARS.	Births.	Birth-rate per 1000.	Deaths.	Death-rate per 1000.	Natural Increase.	Rate of Natural Increase per 1000.
1876	5999	39·04	3154	20·00	2845	18·51
1877	6159	38·60	2991	18·70	3168	20·00
1878	6508	39·40	3275	19·80	3233	19·80
1879	6833	39·70	3526	20·50	3307	19·23
1880	7038	34·20	3593	17·50	3445	16·80
1881	7582	35·68	3647	17·16	3935	18·51
1882	7889	35·69	3851	17·42	4038	18·26
1883	8079	35·14	4083	17·79	3996	17·39
1884	8979	37·57	4266	17·85	4713	19·77
1885	8606	34·60	4192	16·87	4414	17·90
Mean of Ten Years 1876—85	7367	36·94	3647	18·35	3709	18·61
1886.	8896	34·60	4398	17·06	4489	17·4

It will be seen from this table that the death-rate is 1·29 per 1,000 less than the decennial average. It is also 3·84 per 1,000 less than the rate for the 28 great towns of England and Wales, and 2·84 per 1,000 less than that for the whole of the Metropolis.

A glance at the following table shews the striking diminution in the mortality of this District since the year 1851, notwithstanding the tendency to raise the mortality which an increasing density of population always exerts.

DEATH-RATES IN DISTRICT PER 1,000 OF THE POPULATION.

During 10 years, 1851—60	..	..	20·40
„ „ 1861—70	..	..	19·34
„ „ 1871—80	..	..	18·06
During the year 1881	..	..	17·16
„ „ 1882	..	..	17·42
„ „ 1883	..	..	17·49
„ „ 1884	..	..	17·85
„ „ 1885	..	..	16·87
„ „ 1886	..	..	17·06

Deaths in
Outlying
Institutions.

The deaths already enumerated do not include those of inhabitants of this District, who have died in various hospitals and other institutions outside the District. To some extent the absence of these deaths from our tables of mortality is doubtless counterbalanced by the death in the Wandsworth District of temporary immigrants from the country, and by the mortality in the public institutions of West Battersea and Wandsworth. In the following table the deaths occurring in Outlying Institutions have been arranged according to the character of the Institution in which they occurred and the sub-district to which they properly belong.

TABLE IV.
Deaths in Outlying Institutions.

CAUSES OF DEATH.	Number in Entire District.	East Battersea.	West Battersea.	Clapham.	Putney.	Streatham.	Wandsworth.	Union Infirmary.	General and Special Hospitals.	Asylums Board Hospitals.
Small Pox .. ..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	2	1	..	1	..	..	..	..	..	2
Diphtheria	4	..	3	1	..	..	..	..	4	..
Enteric Fever	9	7	2	..	..	..	..	..	3	6
Whooping Cough ..	3	2	..	1	..	..	..	2	1	..
Measles .. ..	..	..	..	..	..	..	..	..	..	..
Other Zymotic Diseases	13	11	..	..	..	2	..	2	11	..
Tubercular Diseases...	69	34	9	10	1	3	12	35	32	2
Cancer	23	8	3	4	2	3	3	8	15	..
Rheumatism	3	1	..	1	..	..	1	1	2	..
Respiratory Diseases	71	23	14	10	3	11	10	36	35	..
Circulatory Diseases .	63	18	10	14	4	8	9	30	32	1
Nervous Diseases ..	64	28	7	8	3	5	13	26	36	2
Other Diseases	111	32	10	23	5	15	26	55	54	2
Violence	27	13	5	3	1	1	4	2	25	..
Total	462	178	63	76	19	48	78	197	250	15
Corresponding Totals in preceding year..	469	179	68	77	29	38	78	180	241	48

It will be seen that 462 deaths occurred in outlying institutions, of which 197 were in the Union Infirmary, 250 in the general and special hospitals of the metropolis, and 15 in the Asylums' Board Hospitals. In this table the deaths of West Battersea inhabitants occurring in Union Infirmary (61 in number), are not included. As the total deaths occurring in the Union Infirmary (261 in number) have been already included in the 4,398 deaths occurring within the district, there only remain

265 deaths to add, to obtain the complete mortality of this district. This gives a death-rate of 18·09 per 1,000, as compared with 18·00 in the previous year.

Use of Outlying Institutions by each Sub-district. The number of deaths in outlying institutions enables one to form an approximate idea of the relative use of such institutions by each sub-district; and an interesting side-light on their relative social condition is thus obtained.

For every 1,000 of the population there died in outlying institutions including the Union Infirmary :—

For East Battersea	..	2·55 per 1,000
„ West Battersea	..	1·88 „
„ Clapham	..	1·81 „
„ Putney	..	1·90 „
„ Streatham	..	1·59 „
„ Wandsworth	..	2·41 „

Stated as per centages of the total number of deaths, in East Battersea, 13·6 per cent of the total deaths occurred in outlying institutions; in West Battersea, 10·5 per cent; in Clapham, 12·6 per cent; in Putney, 13·8 per cent; in Streatham, 9·2 per cent; and in Wandsworth, 9·7 per cent.

Table V. gives some very important vital statistics of the Wandsworth District. The death-rates of the several sub-districts, inclusive and exclusive of outlying institutions are given, as well as the amount and density of population and the proportional number of the industrial classes which each sub-district possesses.

In table VI. the deaths occurring in the entire District during 1886, are classified according to Sex, Age, and Social Position, the relative numbers occurring in each sub-district being also given.

TABLE V.

SUB-DISTRICTS.	Population in the middle of 1886.	Percentage of Total Population.	Density of Population— Number of Persons to an Acre.	Relative Mortality per cent. of Industrial and other Classes.		Death-rate per 1,000 excluding deaths in Public Institu- tions, within and without the Sub- district.	Death-rate per 1,000 including deaths in Outlying In- stitutions, exclud- ing deaths in Public Institutions within the Sub- district.
				Industrial Classes.	Other Classes.		
East Battersea ..	69,602	27.00	73.4	83.4	16.6	16.2	18.7
West Battersea ..	67,265	26.09	48.0	82.9	17.1	15.9	18.0*
Clapham	41,945	16.27	34.0	57.1	42.9	12.9	14.7
Putney	15,210	5.90	6.9	60.0	40.0	11.2	13.1
Streatham ..	31,400	12.18	9.0	42.7	57.3	15.0	16.5
Wandsworth ..	32,320	12.56	13.0	64.2	35.8	17.8	21.4

* In estimating this rate, the deaths in Union Infirmary which belonged to West Battersea (64 in number) are included, in order that the rate may be compared with that of the other sub-districts.

TABLE VI.

SUMMARY of Deaths and their Causes, registered in the entire District during 1886, classified according to Sex, Age, and Social Position, and showing also the relative numbers in each Sub-district.

POPULATION of entire District, (Census) 1881, 210,434.		Total Deaths from each class of Disease in the entire District.		Sub-Districts.						Sex.		Age.								Social Position.										
Official Population in middle of 1886, 257,742.				East Battersea—Population, 60,602. Area in acres, 947.		West Battersea—Population, 67,265. Area in acres, 1,396		Clapham—Population, 41,945. Area in acres, 1,233.		Putney—Population, 15,210. Area in acres, 2,176.		Streatham, Tooting and Balham—Popula- tion, 31,400. Area in acres, 3,465.		Wandsworth—Population, 32,320. Area in acres, 2,478.		Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	From 10 to 20 years.	At 20 and under 40 years of age.	At 40 and under 60 years of age.	At 60 and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c	Middle & Trading Class, Shopmen, Clerks, &c	Industrial and Labouring Class.	
CAUSES OF DEATH.																														
I. Zymotic.	Small Pox
	Measles	124	44	26	11	4	11	28	70	54	31	86	6	..	1	..	..	..	..	..	..	..	..	..	..	..	5	18	101
	Scarlet Fever	21	9	5	1	..	..	6	9	12	3	14	1	1	2	..	..	..	..	..	..	..	..	..	..	..	1	..	20
	Typhus Fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Enteric Fever	39	11	13	3	1	3	8	18	21	1	2	6	7	14	8	1	..	..	..	..	..	..	..	..	..	..	12	27
	Puerperal Fever...	13	8	1	2	2	..	..	..	13	..	..	..	..	12	1	..	..	..	..	..	..	..	..	1	..	3	9	..
	Diphtheria	32	6	3	6	1	6	10	22	10	6	12	9	3	1	..	1	..	..	..	..	..	..	..	..	5	7	20	..
	Whooping Cough	213	62	42	34	18	26	31	90	123	96	113	4	..	..	..	..	..	..	..	..	..	..	..	..	..	10	30	173
	Erysipelas	24	10	6	2	1	1	4	13	11	4	1	1	2	2	8	6	..	..	..	..	..	..	..	2	1	5	16	..
Diarrhœa, Dysen- tery, & Cholera	230	78	70	25	9	20	28	122	108	187	31	1	..	4	2	3	2	1	15	41	173	..	..	..	..	..	..	..	..
Other Zymotic Diseases	5	4	..	..	..	..	1	2	3	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals of Zymotic Class		701	232	166	84	36	67	116	346	355	333	259	28	13	36	19	11	2	4	37	116	544
II. Constitutional.	Gout, and Rheu- matism	28	16	13	3	6	16	12	..	1	1	3	8	4	10	1	..	2	5	21
	Cancer and other Tumours	117	21	33	23	2	17	21	42	75	..	1	2	1	17	51	54	1	11	11	29	66	..	..	..	..	..	..	..
	Other Constitu- tional Diseases	26	11	5	6	..	1	3	13	13	13	3	1	2	1	5	1	..	..	2	3	21	..	..	..	..	..	..	..
	Phthisis	332	87	114	42	9	26	54	179	153	13	16	8	36	139	101	18	1	5	28	62	237	..	..	..	..	..	..	..
	Tabes Mesa....	237	93	92	21	3	4	24	129	108	167	49	1	7	7	6	..	..	2	8	28	199	..	..	..	..	..	..	..
	Hydrocephalus	82	22	23	14	7	8	8	46	36	35	34	10	2	1	..	..	..	..	1	13	68	..	..	..	..	..	..	..
III. Local.	Nervous	627	120	169	79	29	79	151	326	301	181	81	8	14	52	113	154	24	25	46	145	411	..	..	..	..	..	..	..
	Circulatory	298	55	104	35	18	40	46	139	159	8	5	6	10	27	103	126	13	11	29	71	187	..	..	..	..	..	..	..
	Respiratory	952	268	315	103	35	96	185	496	456	251	212	21	13	55	123	231	46	30	53	155	714	..	..	..	..	..	..	..
	Digestive	215	27	69	39	10	40	30	106	109	52	7	9	7	17	69	50	4	14	28	55	118	..	..	..	..	..	..	..
	Urinary	97	10	21	16	8	16	26	57	40	1	..	3	2	14	41	31	5	8	10	34	..	..	..	..	..	..	..	..
	Generative	31	3	11	5	4	4	4	2	31	..	..	..	..	23	4	3	..	..	4	5	..	..	..	..	..	..	..	..
IV. Develop- mental.	Locomotor	23	2	18	1	..	2	..	15	8	4	3	1	4	3	4	4	..	..	..	..	..	..	..	..	..	..	..	..
	Integumentary ...	6	..	6	..	..	..	..	1	5	..	1	1	..	..	1	3	..	..	1	..	..	..	..	..	..	..	..	..
	Premature (Birth, Low Vitality and Congenital Defects	299	114	61	28	8	43	45	177	122	295	2	2	..	..	..	..	..	..	14	42	243	..	..	..	..	..	..	..
	Old Age	192	25	74	33	7	21	32	69	123	..	..	..	..	12	20	70	90	13	21	48	110	..	..	..	..	..	..	..
	V. Violence	100	28	35	12	2	6	17	77	23	24	..	3	..	4	3	..	..	..	..	4	13	..	..	..	..	..	..	..
	VI. Undefined & { Undefined & { not specified { not sp'fd.	17	2	11	..	1	1	2	9	8	7	..	..	..	..	2	1	1	..	..	..	..	..	..	..	..	..	..	..
		5	3	..	1	..	..	1	5	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTALS		4398	1129	1348	545	179	473	722	2252	2146	1396	679	113	123	442	677	788	188	123	297	833	3143	..	..	..	..	..	..	..

Deaths at
different ages.

The deaths of children under 5 years of age amounted to 47·2 per cent of the total deaths, as compared with 46·4 per cent in the previous year. At the other extreme of life, i.e. at 60 years of age and upwards, 21·9 per cent of the total deaths occurred as compared with 21·2 per cent in the previous year.

Infantile
Mortality.

The deaths of children under one year of age amounted to 31·7 per cent of the total number of deaths. It is evident however, that this does not represent the true infantile mortality, as the percentage proportion of infantile deaths to total deaths will obviously vary with the number of children born. Hence it is necessary to express the mortality under one year in terms of the number living at that age, as obtained from the birth-returns. The following expresses the result as stated in this way:—

Deaths under 1 year per 1,000 births—

In East Battersea	169	In Wandsworth	164
„ West „	153	„ England & Wales	150
„ Clapham	142	„ 20 great towns	169
„ Putney	150	„ Leicester	211
„ Streatham	133	„ Preston	233

Social Position
of Deceased.

In the following table the relative proportion per cent of the mortality borne by the several classes of inhabitants of the District during the years 1879—85 is compared with that of last year.

TABLE VII

Social Status.	1879	1880	1881	1882	1883	1884	1885	1886
Nobility & Gentry	3·30	3·40	2·71	3·43	2·48	4·41	2·76	2·79
Professional Class	5·90	5·50	5·12	4·44	5·66	6·25	4·67	6·75
Middle Class ..	17·40	16·90	19·00	20·85	19·59	25·66	19·10	18·94
Industrial Class	73·40	74·20	73·17	71·28	72·27	63·68	73·47	71·52
	100·0	100·0	100·00	100·00	100·00	100·00	100·00	100·00

The relative number of deaths from the various diseases, zymotic diseases being given in greater detail, are stated in Table VI. In the following table, these are compared with the corresponding deaths of the ten previous years.

TABLE VIII.

Showing the total number of deaths and their causes registered in the entire District, during the eleven years 1876-86, with the relative numbers of each class of disease.

DISEASES, And other causes of Death		1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886
Class :												
1 Zymotic	Small Pox ..	26	57	19	4	3	37	1	..	9	5	..
	Measles	88	64	84	125	59	134	115	133	182	140	124
	Scarlatina ..	86	58	39	134	173	100	119	65	47	11	21
	Diphtheria ..	15	7	19	17	19	18	51	63	43	29	32
	Whooping Cough ..	126	73	149	148	123	105	163	133	145	178	213
	Typhus and other fevers	47	64	39	62	44	37	49	52	58	41	39
	Diarrhoea & Choleraic Disease..	159	114	182	94	213	149	117	158	239	193	230
	Erysipelas ..	13	13	5	13	10	15	18	10	28	17	24
	Metria, Childbirth	26	20	7	28	23	29	19	25	24	23	13
	Carbuncle ..	..	..	..	..	..	..	3	..	..	..	..
	Influenza ....	..	1	..	..	..	..	..	..	..	..	..
	Quinsy .....	..	..	1	..	1	..	1	..	..	..	..
	Croup	27	20	39	40	19	18	31	60	38	..	..
Other Zymotic Diseases..		..	..	..	..	..	..	..	..	..	1	5
Totals of Zymotic Class..		613	491	583	665	687	642	687	699	817	638	701
2. Gout and Rheumatism		14	13	15	8	15	25	25	25	24	32	28
3. Cancer & other Tumors		97	101	106	91	110	118	144	114	148	105	117
4. Other Constitutional Diseases .....		..	..	..	..	..	..	..	..	..	23	26
5. Tubercular Diseases..		555	514	501	513	625	557	521	654	715	664	662
6. Nervous		316	450	503	474	464	510	539	574	602	594	627
7. Circulatory		170	204	212	203	193	245	251	255	269	278	298
8. Respiratory		561	519	694	891	657	695	850	829	758	982	952
9. Digestive		126	155	150	117	155	208	195	234	227	186	215
10. Urinary		62	63	42	74	66	70	89	99	80	81	97
11. Generative.....		23	29	19	25	20	35	32	30	35	42	33
12. Locomotory .....		..	..	..	..	..	..	..	..	..	11	23
13. Integumentary		5	6	1	3	8	3	9	10	3	9	6
14. Premature Birth, Low Vitality, Malformation, &c. ..		226	212	177	170	266	232	234	241	304	259	299
15. Old Age.....		150	126	141	141	136	120	153	185	154	171	192
16. Violence.....		90	82	75	83	96	113	104	94	111	97	100
17. Ill Defined and Not Specified		46	26	56	68	95	44	18	40	19	21	22
TOTALS		3154	2991	3275	3526	3593	3647	3851	4083	4266	4193	4398

Zymotic diseases caused 15·9 per cent of the total deaths as compared with 15·2 per cent in the previous year. The zymotic death-rate was 2·71 per 1,000 of the population, as compared with 2·56 in the previous year. The largest number of deaths from zymotic diseases were caused by the seven chief epidemic diseases enumerated in the following table :—

TABLE IX.

	Whole District.	East Battersea.	West Battersea.	Clapham.	Putney.	Streatham.	Wandsworth.
Small-pox ..	..	..	..	..	..	..	..
Measles ..	124	44	26	11	4	11	28
Scarlet Fever ..	21	9	5	1	..	..	6
Diphtheria ..	32	6	3	6	1	6	10
Enteric Fever ..	39	11	13	3	1	3	8
Whooping-cough	213	62	42	34	18	26	31
Epidemic							
Diarrhoea ..	230	78	70	25	9	20	28
Other Zymotic							
Diseases ..	42	22	7	4	3	1	5
Total Deaths from							
Zymotic Diseases	701	232	166	84	36	67	116
Zymotic Death-							
rate	2·71	3·33	2·4	2·00	2·36	2·13	3·58
Death-rate from							
all Diseases ..	17·06	16·2	15·9	12·9	11·2	15·0	19·0

If to the 701 deaths from zymotic diseases be added the 31 deaths from the same diseases in outlying institutions of inhabitants of this district (see table IV.), the zymotic death-rate becomes 2·84 per 1,000 of population.

By comparing tables IV. and IX. the relative local incidence of the various epidemic diseases will be best

understood. It will be seen that no death from Small Pox occurred; that Scarlet Fever caused 21 deaths at patients' own homes and 2 at the Asylums Board Hospitals; Enteric Fever, 39 deaths within the District and 9 without; Diphtheria, 32 within and 4 without. Diarrhoea was the most fatal of the epidemic diseases, causing 230 deaths; Whooping Cough coming next with 213, and Measles next with 124 deaths.

The preceding figures only give the *mortality* from the various epidemic diseases. In the absence of notification of all cases of the chief epidemic diseases, which cannot be obtained without compulsory powers, the following table of patients admitted into the Asylums Board Hospitals during the past year, gives the only further available indication of the number of cases of infectious disease in this district and in the metropolis generally.

TABLE X.

Number of cases of Infectious Diseases admitted into the Metropolitan Asylums Board Hospitals during 1886.

	Small Pox.	Scarlet Fever.	Enteric Fever.	Typhus Fever	Uncertain.	Measles.
Battersea	4	35	19	..	1	..
Clapham .. ..	..	22	2	..	..	..
Putney .. ..	..	1	..	..	..	..
Streatham .. ..	..	14	..	..	..	..
Wandsworth .. ..	..	4	4	..	..	..
Wandsworth & Clapham Infirmary ..	..	..	9	..	1	..
Entire Wandsworth District	4	76	34	..	2	..
Rest of Metropolis ..	129	1662	314	5	29	3

The most striking feature in this table is the great diminution in the number of Small-Pox cases in the whole of London (133 cases, as compared with 5060 in the previous year); and we may add, the almost complete absence of this disease during the latter half of the year. The Scarlet Fever admissions were over 500 more than in the previous year. This is probably partly due to a larger use of the isolation available in the Asylums Board Hospitals, but also to a somewhat increased prevalence of and mortality from the disease. Thus in the Wandsworth District, 21 deaths from Scarlet Fever occurred, as compared with 11 in the previous year. The admission of 3 cases of Measles was doubtless owing to mistaken diagnosis, as the Asylums Board do not provide accommodation for cases of Measles, although this is one of the most infectious and (indirectly at least), fatal of zymotic diseases. Nor do the Asylums Board admit cases of Diphtheria to their hospitals, owing to a technical legal difficulty in including this disease under the term 'Fever.'

TABLE XI.

SUB-DISTRICTS.	Number of Births Returned from 1st January to 31st December, 1885.	Successfully Vaccinated.	Insusceptible of Vaccination.	Had Small-pox.	Dead Unvaccinated.	Postponed by Medical Certificate.	Removed to Districts Vaccination Officer of which has been duly apprised.	Removed to places unknown, or which cannot be reached; and cases not having been found.
East Battersea	2497	2015	17	..	234	35	3	193
West Battersea	2583	2070	4	..	247	40	2	220
Clapham ..	1029	843	1	..	91	27	15	40
Putney ..	329	269	2	..	27	10	4	12
Streatham ..	1085	876	2	..	34	20	2	59
Wandsworth	1121	951	1	..	91	15	4	59
Totals ..	8644	7024	27	..	724	207	30	583

During the year 1885, as shewn in Table XI., out of 8,644 children, 7,024 were successfully vaccinated, and the remainder were accounted for by death, insusceptibility to vaccination, or postponement on account of illness, except 583, *i.e.*, 6·7 per cent. In the previous year 6·6 per cent. were accounted for.

Although the Small-pox epidemic of 1885 has in the latter part of 1886 almost entirely died out, we cannot look for a continued immunity from the disease; and the presence of so large a proportion of persons unprotected by vaccination (as well as of a further proportion of persons who have been but imperfectly vaccinated), renders it probable that in a year or two there will be such an aggregation of unprotected persons as to make another outbreak of Small-Pox inevitable.

Inquests.
Deaths
by
Violence.

The inquests held last year were 221, as compared with 174 in the previous year, and formed 5·0 per cent. of the total number of deaths.

The whole of the deaths which formed the subject of Coroner's inquiry in the several sub-districts are classified according to their verdicts in Table V.

It will be seen that of the total number, 114 were due to natural causes, and 107 to violence. Of the latter, 80 were accidental, 16 were suicidal, 3 were homicidal, and in 8, open verdicts were returned.

TABLE XII.

Verdicts.	Sub-Districts.						
	Total.	Battersea		Clapham	Putney	Streatham	Wandsworth
		East	West				
<i>Deaths from Natural Causes:</i> ..	114	29	32	15	2	10	26
<i>Deaths from Violence:</i> ..	..	..	..	..	..	..	..
<i>Accidental:</i>							
Drowning ..	21	9	7	..	2	..	3
Suffocation ..	23	7	4	5	..	4	3
Railway Injuries	6	3	2	1	..	..	..
Scalds and Burns	7	..	3	1	..	1	2
Poisoning ..	2	..	2	..	..	..	..
Concussion,							
Fracture, &c. ..	7	4	1	..	..	..	2
Injuries from Fall	8	..	3	3	..	1	2
Hydrophobia ..	5	..	..	..	1	..	1
Other Injuries ..	1	2	1	..	1	..	..
<i>Suicidal:</i>							
Poisoning ..	3	2	..	..	..	..	..
Hanging ..	2	..	1	1	..	..	..
Shooting ..	3	..	1	..	..	..	2
Drowning ..	5	1	3	1	..	..	..
Cut-Throat ..	3	..	2	1	..	..	..
<i>Homicidal:</i>							
Neglect at Birth ..	1	..	..	..	..	1	..
Manslaughter ..	1	..	..	..	..	..	1
Poisoning ..	1	1	..	..	..	..	..
<i>Open Verdicts:</i>							
Found Drowned ..	1	..	..	..	..	..	1
Found Dead ..	6	1	2	1	1	..	1
Newly Born ..	1	1	..	..	..	..	..
Totals ..	221	60	64	29	7	17	44

Uncertified
Deaths.

The number of deaths in which the cause was not certified by medical testimony, but in which the Coroner did not think an inquest necessary was 70, as compared with 58 in the previous year. Of the 70, 18 occurred in East Battersea, 28 in West Battersea, 4 in Clapham, 2 in Putney, 11 in Streatham, and 7 in Wandsworth.

Sickness and
Mortality
among Par-
ochial Poor.

The nature, amount and fatality of the sickness that occurred among the parochial poor in the several sub-districts are set forth in Table XIII., which forms a valuable index of the sickness occurring in the district generally.

The total number of cases coming under treatment was 3,364, as compared with 3,218 in the previous year. The proportion of deaths to cases treated was 3·1 per cent, as compared with 3·7 per cent. in the previous year.

Sanitary
Operations
of the Year.

A study of Table XIV. will shew the detailed sanitary work carried out in each sub-district during the past year, and the results obtained. This table embodies the measures which are being steadily and persistently taken by your Sanitary Officers to prevent the spread of disease, and remove the local unsanitary conditions to which disease is so frequently due.

TABLE XIII.

Cases of Sickness amongst the Poor under the treatment of the Union Medical Officers, with the Deaths from each class of Disease, during the year ended 31st December, 1886. Compiled from the District Medical Relief Books.

SUB - DISTRICTS.			Total Cases of Sickness treated in each Sub-District.		Total Deaths in each Sub-District.		1—Small Pox.		2—Measles.		3—Scarlatina.		4—Diphtheria.		5—Whooping Cough.		6—Diarrhoea and Dysentery.		7—Cholera.		8—Fever.		9—Erysipelas.		10—Puerperal Fever.		11—Lung Disease except Phthisis.		12—Phthisis.		13—Hydrocephalus, Atrophy, Scrofula, and Infantile Convulsions.		14—Violence, Privation, and Premature Birth.		16—Other Diseases.	
			Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Battersea	East ..	1098	33	3	..	7	2	20	1	2	..	11	2	28	1	..	..	16	..	1	..	..	..	159	6	36	7	5	2	10	..	800	12
	West ..	686	27	2	..	6	..	7	..	..	..	2	..	10	..	..	..	5	..	1	..	2	..	175	4	5	6	18	3	10	..	443	14
Clapham	.. ..	540	24	..	..	7	1	5	..	1	1	12	2	37	3	..	..	5	..	3	..	15	..	175	4	18	2	3	1	21	..	338	10
Putney and Roehampton	.. ..	126	3	..	..	5	..	..	..	..	..	4	..	5	1	..	..	..	..	..	..	..	..	22	..	7	..	..	..	5	..	75	1
Streatham, including Tooting and Balham	.. ..	213	4	..	..	16	..	12	..	..	..	2	..	18	..	..	..	1	..	1	..	..	..	68	..	8	1	..	..	6	..	78	4
Wandsworth	.. ..	696	25	..	..	44	2	5	..	..	..	23	3	44	1	..	..	6	..	7	..	..	..	183	5	6	2	4	1	39	..	325	11
Totals	.. ..	3364	116	5	..	85	5	49	1	3	1	54	7	142	6	..	..	33	..	13	..	17	..	782	20	50	17	30	7	91	..	2059	52

* * The ratio of deaths to cases treated is 3·1 per cent.

TABLE XIV.

SUMMARY of Sanitary Operations in the entire District during the year 1886.

	East Battersea.	West Battersea.	Clapham.	Putney.	Streatham and Tooting.	Wandsworth.	TOTAL.
Number of Houses & Premises inspected	7711	8178	3919	2277	3608	4195	29983
1st Notices served	848	830	1061	268	329	525	3861
2nd Notices served	119	145	276	6	9	93	648
Number of houses disinfected after infectious diseases ..	73	54	34	4	23	192	380
Number of houses in which infectious disease recurred after disinfection .....	..	..	..	..	..	..	..
Number of houses from which bedding, &c., was burnt ..	2	1	16	2	4	1	26
Disinfecting apparatus at Putney, number of times used ..	..	..	..	8	..	..	8
Overcrowding abated	19	6	10	2	2	1	40
Rooms cleansed and repaired..	58	61	220	8	65	17	429
Staircases & passages cleansed and repaired	23	3	24	..	23	5	78
New drains and drains relaid..	377		95	56	377	79	984
Number of feet of new sewers and branch drains	18301		8474	5216	5084	2010	39085
Drains cleansed and repaired..	384	564	175	23	190	88	1424
Syphon traps fixed to drains..	188	68	1002	..	320	..	1578
Sinks altered to discharge outside over gullies	59	26	319	5	56	..	465
Bath and lavatory wastes altered to discharge outside over gullies .....	..	1	287	..	34	..	31
Rain water pipes disconnected from drains .....	..	..	373	..	39	..	412
Water-closets cleansed and repaired	43	38	366	95	171	97	810
Water-closets, supply of water laid on to	383	409	39	58	123	278	1200
Urinals cleansed, repaired or water laid on	6	7	1	..	31	..	45
Accumulation of manure, &c., removed	10	15	30	8	52	5	120
Cesspools abolished	1	3	4	..	17	1	26
Dust-bins provided	187	155	65	18	113	131	669
Stables drained or paved and cleansed	8	..	12	..	5	..	25
Yards drained and paved	32	15	70	8	14	7	146
Unwholesome or dilapidated houses cleansed & repaired ..	84	58	..	..	23	11	176
Leaky house-roofs and gutters repaired	66	70	119	8	14	46	323
Houses supplied with water ..	27	18	17	2	7	18	89
Water-cisterns covered and repaired	471	245	457	29	48	239	1489
Cistern overflow pipes disconnected from drains .....	..	..	118	..	32	..	150
Wells closed .....	..	..	1	..	..	..	1
Pig nuisances removed	2	2	..	..	15	1	20
Unclassified nuisances	7	10	381	7	52	11	468
Cases investigated by Magistrates	6	7	3	..	..	..	16
Compulsory Orders obtained..	..	..	3	..	..	..	3
Compulsory works executed ..	..	..	3	..	..	..	3

Water
Supply.

The Thames water with which this District is supplied for drinking purposes, was somewhat freer from organic matter than the average. Attention may be called however, to Dr. Frankland's weighty remarks in his annual report to the Registrar-General on the Metropolitan Water Supply. "A small proportion of the solid matter, however, is always organic in nature, and this, although quite insignificant as regards its absolute amount, is yet of the greatest importance when its possible origin is taken into consideration. It must be borne in mind that the rivers Thames and Lea necessarily receive above the intakes of the Metropolitan Companies a certain amount of animal matter derived partly from sewers, cesspools, and sewage works, and partly from manured land. Such animal substances may at any time be accompanied by matters capable of producing zymotic disease, and although the treatment which the water subsequently receives at the hands of the Water Companies is calculated greatly to diminish the risk of such morbid matter reaching the consumer, its entire removal is not guaranteed. It is therefore satisfactory to know that most of the companies drawing their supplies from these rivers are making serious efforts to diminish the volume of water taken *directly* from the streams. It is desirable, however, that this action of the water companies should be supplemented by the enforcement of the laws prohibiting the discharge of sewage into the Thames and Lea."

A large part of the District still receives but an intermittent supply of water, and there can be no doubt that this is the cause of serious danger to health and actual disease. We hope that when our next annual report is issued, it will be possible to chronicle a considerable extension of the constant system of supply.

Meteorology
of the Year.

The general characters of the climate during 1886, may be gathered from Table XV. The mean temperature of the third quarter was 0°7 Fahr. above the average of 45 years, and the rainfall for the same period 2·43 inches below the average of 72 years. In accordance with these facts, one finds that the annual mortality from Diarrhoea in this District was 230, as compared with 193 in the previous year.

TABLE XV.

METEOROLOGICAL TABLE FOR LONDON, 1886.

Deduced from Observations, at Greenwich, under the Superintendence of the Astronomer Royal, and compiled from Quarterly Tables, furnished to the Registrar-General by James Glaisher, Esq., FR.S.

Winter ... Jan., Feb., March. Spring ... April, May, June. Summer ... July, Aug., Sept. Autumn ... Oct., Nov., Dec.	Temperature of								Elastic Force of Vapour.	Weight of Vapour in a Cubic Foot of Air.		Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Reading of Thermometer on Grass.								
	Air.			Evaporation.		Dew Point.		Air—Daily Range.												Number of Nights it was				Lowest Reading at Night.		Highest Reading at Night.		
	Mean.	Diff. from Average of 115 Years.	Diff. from Average of 45 Years.	Mean.	Diff. from Average of 45 Years.	Mean.	Diff. from Average of 45 Years.	Mean.	Diff. from Average of 45 Years.	Mean.	Diff. from Average of 45 Years.	Mean (Satn=100).	Diff. from Average of 45 Years.	Mean.	Diff. from Average of 45 Years.	Mean.	Diff. from Average of 45 Years.	Amount.	Diff. from Average of 72 Years.	At or below 30	Between 30° & 40°.	Above 40°.	Lowest Reading at Night.	Highest Reading at Night.				
1886.	°	°	°	°	°	°	°	°	°	in.	in.	grs.	gr.			in.	n.	grs.	grs.	Sums. in. in.	Sums.	°	°					
YEAR.	48·7	+0·1	—0·7	45·9	—0·6	43·0	—0·6	15·6	+0·0	·291	—·004	3·3	—0·1	81	—1	29·734	—·024	542	0	24·21	—1·85	90	141 134	15·0	58·2			
—																												
First Quarter...	36·5	—2·3	—3·5	34·8	—3·3	32·3	—3·2	10·6	—1·2	·183	—·026	2·2	—0·2	85	+1	29·737	+·027	556	+3	5·38	+0·14	52	39 8	16·5	47·1			
Second do. ...	52·5	+0·2	—0·4	48·8	—0·2	45·2	+0·2	19·7	—0·3	·303	—·002	3·4	—0·1	77	—1	29·766	—·012	538	0	5·93	+0·14	8	50 33	18·8	50·2			
Third do. ...	61·2	+1·5	+0·7	57·1	+0·8	53·6	+0·5	20·5	+0·9	·412	+·006	4·6	—0·0	77	—1	29·806	+·014	529	—1	4·87	—2·43	0	19 73	31·0	58·2			
Fourth do. ..	44·6	+0·9	+0·5	43·0	+0·4	41·0	+0·5	11·7	+0·7	·265	+·007	3·0	—0·1	87	—1	29·624	—·125	544	—3	8·03	+0·30	30	42 20	15·0	48·1			

In this Table, + and — respectively signify that the number in the preceding column are above or below the average to the extent of the quantities to which these signs are prefixed.

LOCAL SUMMARIES.

BATTERSEA.

The estimated population of the whole parish on the middle day of the year 1886 was 136,867.

The *natural* increase, being the excess of births over deaths was 2,703, and amounts to nearly one half of the *estimated* increase of population, shewing that the large and rapid addition to the number of inhabitants which has occurred in Battersea during the last twenty years, still continues.

The births during the year were registered as males, 2,624; females, 2,516, and the total number was 5,240, being equal to an annual birth-rate of 38·3 per thousand, that for London being 32·3 per thousand.

The deaths were—of males, 1,285; of females, 1,192, the total being 2,477, equal to a death rate of 18·1 per thousand. If 129 non-parishioners who died in the Union Infirmary be excluded, the total deaths would be 2,348, and the death rate 17·1 per thousand. The death rate for the Metropolis was 19·9 per thousand for the year under consideration.

EAST BATTERSEA.

An estimate of the population of this sub-district by the official method employed by the Registrar-General, gives 69,602 as the number of inhabitants calculated to the middle day of the year 1886. This is an increase of 2,948—one-tenth of the ascertained addition to its numbers during the ten years, 1871-81.

That this assumed increase is not an excessive one may be deduced from the fact that the *natural* increase of population, being the excess of births over deaths during 1886 was 1,394, leaving the probable increase by immigration as 1,554. The above-stated *natural* increase of population was equal to a rate of 20 per thousand, being rather less than in 1885, when it was 21·2. The subjoined table illustrates the relations of the birth and death rates with the actual natural increase of population during the last decade.

TABLE I.

Birth and Death Rates.

YEARS.	Births.	Birth-rate.	Deaths from all Causes.	Death-rate.	Natural Increase.
1876 ..	1,968	42·0	893	19·0	1,075
1877 ..	1,972	42·0	905	19·2	1,067
1878 ..	2,185	42·0	895	17·8	1,290
1879 ..	2,344	42·0	978	17·5	1,366
1880 ..	2,257	41·5	1,030	18·9	1,127
1881 ..	2,349	41·1	966	16·8	1,383
1882 ..	2,352	39·1	992	16·4	1,360
1883 ..	2,383	39·2	1,003	16·5	1,380
1884 ..	2,621	41·1	1,184	18·5	1,437
1885 ..	2,496	41·1	1,071	16·0	1,425
1886 ..	2,523	36·2	1,129	16·2	1,394

The most prominent feature in this table is the remarkable decrease in the birth rate which, as in all other densely-populated localities, shews a steady diminution year by year. This is doubtless readily explained by the fact that the enormously increased population of the sub-district during the last twenty years was caused by the immigration of large numbers of young persons of the child-producing age—and as the mean age of the residents of the sub-district becomes greater, a smaller number of births occur in relation to the population. This lowering of the birth rate also tends to lower the death rate, as the greatest mortality is found among very young children—for instance, the death rate under one year in the present report will be found to be 37·8 per cent. of the total mortality, that under five years 21·7 per cent., together amounting to 59·5 per cent. of the total deaths, while the mortality at 20 years and upwards, including as it does the inevitable mortality of old age, amounts to but 32·7 per cent. of deaths at all ages.

Births. The births registered during the 52 weeks included in the year 1886, numbered 2,523, of which number the males were 1,268, and the females 1,255. The consequent birth-rate was 36·2, which reference to the preceding table will shew is lower than that of any year since 1879, slowly approximating to the birth rate for London, 32·3, which in itself is the lowest since 1850.

Mortality. The deaths of 603 males and 526 females were registered during 1886, the total number being 1,129, and the death rate 16·2 per thousand, exceeding that of the preceding year by 0·2 per thousand, that however, having been the lowest yet recorded. The Metropolitan death rate for the year was 19·9.

TABLE II.
Statistics of Mortality.

EAST BATTERSEA.			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.	From 5 to 11 years.	From 10 to 20 years.	At 20 and under 40 years of age.	At 40 and under 60 years of age.	At 60 and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle and Trading Class, Shopmen, Clerks, &c.	Industrial and Laboring Classes.
Population (Census) 1881 54,675																	
Official Population in middle of 1886, 69,602																	
CAUSES OF DEATH.																	
I. Zymotic.	Small-pox .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles	44	23	21	13	28	2	..	1	..	..	..	..	..	..	4	40
	Scarlet Fever	9	3	6	3	3	1	1	1	..	..	..	..	..	..	..	9
	Simple Continued Fever	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	1
	Enteric Fever	10	6	4	1	..	3	2	1	3	..	..	..	..	..	2	8
	Puerperal Fever	8	..	8	..	..	..	..	8	..	..	..	..	..	..	2	6
	Diphtheria	6	3	3	1	3	1	1	..	..	..	..	..	..	..	2	4
	Whooping Cough	62	27	35	25	37	..	..	..	..	..	..	..	..	2	3	57
	Erysipelas	10	5	5	1	1	1	1	2	3	1	..	..	..	..	1	9
	Diarrhoea & Dysentery	78	41	37	60	16	1	..	..	1	..	..	..	..	3	9	66
	Infantile Cholera	4	2	2	4	..	..	..	..	..	..	..	..	..	..	..	4
	Other Zymotic Diseases .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals of Zymotic Class		232	110	122	104	92	10	5	13	7	1	..	..	5	23	204	
II. Constitutional.	Gout and Rheumatism	6	2	4	..	1	..	2	2	1	..	..	..	2	1	3	
	Cancer & other Tumours	21	7	14	..	..	..	1	10	10	..	..	1	1	3	16	
	Other Constitutional Diseases	11	5	6	9	1	1	..	..	..	..	..	..	..	1	10	
	Tubercular {	Phthisis	87	54	33	..	5	5	11	39	23	4	..	..	7	9	71
		Tabes Mesæ	93	56	37	63	23	1	3	1	2	..	..	..	2	8	83
		Hydrocephalus	22	10	12	6	12	3	1	..	..	..	..	..	..	4	18
		Scrofula .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
III. Local.	Nervous	120	60	60	31	30	2	6	3	23	22	3	..	4	20	96	
	Circulatory	55	30	25	..	2	1	1	7	22	20	2	..	4	15	36	
	Respiratory	268	149	119	90	73	8	3	15	37	38	4	3	4	29	232	
	Digestive	27	13	14	3	2	2	1	2	11	6	..	..	4	2	21	
	Urinary	10	7	3	..	..	1	1	1	5	2	..	..	..	3	7	
	Generative (Parturition)	3	..	3	..	..	..	..	2	1	..	..	..	..	..	3	
	Locomotor	2	2	..	..	1	..	..	..	1	..	..	..	..	..	2	
IV. Develop- mental.	Integumentary .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	{ Premature Birth, Low Vitality & Congenital Defects.	114	63	51	114	..	..	..	..	..	..	..	..	2	11	101	
V. Violence	Old Age	25	10	15	..	..	..	..	..	..	9	16	..	2	12	11	
	Violence	28	25	3	6	..	4	5	6	5	2	..	..	1	3	24	
VI. Illdefined and Not Specified	Illdefined	2	..	2	1	..	..	..	1	..	..	..	..	..	1	1	
	Not Specified	3	..	3	..	..	..	..	..	..	..	..	..	..	..	..
TOTALS		1129	603	526	427	245	37	41	93	138	114	25	4	38	145	942	

In addition to persons dying in the sub-district, others die in various outlying institutions as shewn by Table III., and it is contended that such deaths should be included in order to shew the real death rate of the sub-district, a very severe test, as many of these persons are merely members of families residing in East Battersea, being themselves resident and employed elsewhere, but when sick and admitted to institutions, giving the family address. These deaths numbered during the year under report 177 and if added to the number of persons dying within the sub-district, will give a total of 1,306, equivalent to a death rate of 18·7 per thousand. This is 1·2 per thousand less than the mortality for the Metropolis, and then fails to eliminate great numbers who come from other districts to attend the Metropolitan Hospitals, and who are merely temporary sojourners in the sub-district, it being convenient and inexpensive.

TABLE III.

Deaths in Outlying Institutions.

EAST BATTERSEA.				SEX.			AGE.			INSTITUTIONS.		
DISEASE.				Total.	Male.	Female.	Under 1.	1 to 60.	60 and upwards.	Union Infirmary	General & Special Hospitals.	Asylums Board Hospitals.
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	..	..	..	1	..	1	..	1	..	..	..	1
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	..	..	..	7	4	3	..	7	..	..	2	5
Whooping Cough	..	..	..	2	..	2	..	2	..	1	1	..
Measles	..	..	..	..	..	..	..	..	..	..	..	..
Other Zymotic Diseases	..	..	..	11	6	5	..	10	1	2	9	..
Tubercular Diseases	..	..	..	34	19	15	2	30	2	17	16	1
Cancer	..	..	..	8	4	4	..	7	1	3	5	..
Rheumatism	..	..	..	1	1	..	..	1	..	..	1	..
Respiratory Diseases	..	..	..	23	15	8	2	14	7	10	13	..
Circulatory Diseases	..	..	..	18	9	9	..	15	3	7	10	1
Nervous Diseases	..	..	..	28	16	12	..	18	10	11	15	2
Other Diseases	..	..	..	32	18	14	3	17	11	12	17	2
Violence	..	..	..	13	8	5	..	13	..	..	13	..
TOTALS	..	..	..	177	99	78	7	135	35	63	102	12

It will be observed by the above table that 63 persons died in the Union Infirmary, 102 in the general hospitals of the Metropolis, including the County and other lunatic asylums, and that 12 deaths occurred in the Hospitals of the Metropolitan Asylums Board amongst the persons removed thither during the year for infectious diseases.

Ages at
Death.

Under one year of age, 427 deaths took place, being 37·8 per cent. of the total mortality. Between one and five years of age, 245 deaths were recorded, being equal to 21·7 per cent. In all 672 deaths under five years of age were registered, being equal to 59·5 per cent. of the total mortality. Last year this was 56·4, and in 1884 the high per centage of 65·4 was reached. The average rate of deaths under five years has been for many years about 60 per cent. of the total number of deaths at all ages, and is an invariable accompaniment of a high birth rate, such as occurs in this sub-district which, like all others more recently inhabited, contains a young and vigorous population of child-producing age, in contrast to districts such as Kensington, with a birth rate of 22·6, and a death rate of 14·9; St. George's, Hanover Square, birth rate 20, death rate, 17·5; St. James', Westminster, birth rate, 19·4, death rate, 19·3; and Hampstead, birth rate 24·7, and death rate 14·3. It will be seen that the death rate of the sub-district compares favourably with some of these favoured localities; but to place our mortality in a more equitable aspect it is well to refer to some other Metropolitan districts with large birth rates and deaths in proportion. Thus in St. Giles's the birth rate is 31·2, and the death rate 25·6; Bethnal Green 40·1 and 28·5; Whitechapel 37·2, and 28·9; and St. George's-in-the-East 39·2 births and 29·8 deaths per thousand. Now the birth rate for the sub-district as shewn in Table I.

has during the last ten years, varied from 42 per thousand to 36·2, and the extremes of the death rate have been 19·2 down to 16 per thousand.

This conclusively demonstrates that notwithstanding the high birth rate which prevails in the sub-district, the healthful condition resulting from its excellent subsoil and large open spaces and the unremitting vigilance with which sanitary measures have been pursued by the Sanitary Authorities, have to a very great extent neutralised the tendency to a high death rate which is the result of a high birth rate. This would have been more distinctly apparent during late years but for the greater stringency with which children dying at, or soon after, birth, are now registered, it having been a common practice until lately to register children as stillborn who only lived for a short time after birth. Adult life has during late years been so enormously prolonged that probably but little remains to be done from the sanitarian's point of view in that direction, and any future diminution of the death rate can only arise either from a diminished birth rate or from a greater saving of life among the very young.

The number of persons dying above 80 years of age was twenty-five—the number certified as dying of old age being the same.

TABLE IV.

Zymotic Mortality in the East Battersea Sub-district.

	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886
Small-pox	28	5	1	1	17	..	..	3	1	..
Measles	47	6	47	22	60	33	95	92	49	44
Scarlet Fever	18	19	44	63	20	36	17	17	3	9
Simple Continued Fever } ..	17	12	13	15	17	14	14	{ 2	1	..
Enteric Fever .. ..	..	..	..	..	..	..	..	{ 23	8	10
Whooping Cough	26	63	39	43	37	56	53	60	47	62
Epidemic Diarrhoea } ..	47	71	43	78	45	37	51	93	63	82
Infantile Cholera .. ..	..	..	..	..	..	..	..	..	..	..
Other Zymotic Diseases	22	20	25	13	18	11	19	20	13	24
Total Deaths from Zymotic Diseases	208	194	218	237	217	194	185	317	193	232
Zymotic Death-rate	4·3	3·7	3·9	4·3	3·7	3·2	3·0	4·9	2·8	3·3
Death-rate from all Diseases	19·2	17·3	17·5	18·9	16·8	16·4	16·5	18·5	16·0	16·2

Zymotic Diseases.—In Table IV. will be found a synopsis of the mortality which has occurred from infectious diseases during the past decade, the population of 1886 being 66,602 ; and that of 1876 about one-half that number. It is necessary to remember this to be able to judge fairly of the relative numbers.

Small-pox caused no death in the sub-district. Three cases came under notice and were at once removed to the Hospital Ships, the premises and clothing disinfected with the result of absence of recurrence of the disease. It is much to be desired that the Metropolitan Asylums Board may be able to maintain the ships and the excellent arrangements for transference of patients thereto, instead of having recourse to the old system of inland hospitals which were proved to be centres of infection to the neighbourhoods in which they were situated. The cost of maintenance, now that the first outlay has taken place may be considered as a moderate premium of insurance against this dreaded, loathsome, and fatal disease.

Epidemic Diarrhœa was the most fatal of the zymotic diseases during 1886, causing 82 deaths, some few cases being returned as infantile cholera, a distinction without any practical difference. The number of deaths from this disease always corresponds very closely with the duration of hot, dry weather, a lowered temperature or abundant rainfall at once arresting an epidemic. This points out the probability of the origin of the disease from decomposing organic matter, more especially such as is found in the modern system of house drainage into sewers, both of which latter require frequent and copious flushing. During its prevalence, drinking water and all food under the influences of high temperatures are found to prove to develop *ptomaines* or poisonous organic

alkaloids, the result of a partial or incipient state of decomposition, and to which the diarrhoeal epidemic is probably due. The majority of the victims, it is proper to state, were hand-fed infants.

Whooping-Cough caused 62 deaths, the largest number since 1878, and has for the last four years been extremely prevalent.

Measles was fatal in 44 instances, in many cases in conjunction with the preceding disease.

Both these two diseases combined caused 106 deaths. There are the greatest practical difficulties in insuring isolation of those affected, the only means by which they could be effectively controlled, seeing the success which has attended isolation by removal to special hospitals in the case of Small-pox, Typhoid, Typhus and Scarlatina, for those for whom there is no means of isolation at home. It is certain that before long the popular intelligence will be educated to the point of insisting upon the effectual isolation of all affected by any infectious disorder. The result would be the saving of many lives and the prevention of a great amount of human suffering.

Enteric Fever. caused 10 deaths, being much below the average. Sixteen cases came under cognisance, and where possible, were at once removed. Many other cases doubtless occurred in the private practice of medical men, of which no notice was received.

Erysipelas caused 10 deaths also. *Puerperal Fever*, a cognate disease, caused the comparatively large number of 8 deaths.

Scarlet Fever was fatal in 9 instances. This was until the last few years the most formidable of all the zymotic diseases, but the removal of cases where isolation was not possible has for some time past almost suppressed its manifestations.

There are however, some symptoms indicative of a renewed outbreak, with which should it arrive, the Sanitary Authority will be at once enabled to deal.

Diphtheria caused 6 deaths, and has like all this class of disease, become much less formidable and fatal than formerly, as the result of improved sanitation.

Other Zymotic Diseases are but few in number and of comparative rarity.

Other Diseases of the non-zymotic class.—Reference to table V. will illustrate the comparative prevalence of these diseases during 1886 compared with the years of the preceding decade.

It will be observed that there is very little variation in the numbers if compared with the increase in the population, with the exception of a progressive decrease, which quite as forcibly as the decrease in the zymotic mortality points to a lowered death rate, and consequently to less sickness and prolonged life.

TABLE V.

Comparative Table of Deaths from Non-Zymotic Diseases for 11 years, 1876-86.

DISEASES.	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886
Tubercular	205	193	116	167	248	173	192	175	213	181	202
Nervous System, Brain, &c.	67	32	110	97	110	128	112	119	128	104	120
Circulatory (Heart, &c.) ..	36	38	52	38	28	53	47	44	53	51	55
Respiratory	189	203	217	271	190	188	258	248	241	303	268
Digestive	35	32	33	32	41	39	22	42	22	36	27
Urinary	16	9	9	11	18	12	20	16	15	16	10
Generative, including Pen- turbation	1	1	3	2	4	7	3	9	4	7	3
Locomotor, Bones, &c. ..	4	..	..	3	1	..	2	..	4	3	2
Integumentary .. ..	..	..	1	..	5	1	1	..	..	1	..
Premature Birth.. ..	66	67	45	55	69	67	63	74	116	82	114
Uncertain Seat (Cancer, Syphilis, Dropsy, &c.)..	14	23	18	21	12	27	15	22	25	36	38
Old Age	13	16	9	20	22	14	18	21	19	22	25
Violence	32	26	25	26	33	24	30	24	18	32	28
Not Specified	9	9	13	17	12	11	14	24	9	4	5
TOTALS	687	699	701	760	793	649	798	818	867	878	897

Deaths not
Certified.

The number of deaths not certified by a registered medical practitioner was nineteen, exactly the same number as in the preceding year. Eleven were submitted to the Coroner, who decided that in the respective circumstances an inquest was unnecessary; the remaining eight cases were attended by midwives, and not submitted to the Coroner or any other authority, but registered as follows:—

Age 1 day	..	Convulsions.
„ 11 hours	..	Premature Birth.
„ 20 „	..	do.
„ 1 day	..	do.
„ 1 „	..	do.
„ 2 „	..	do.
„ 12 hours	..	Convulsions.
„ 22 „	..	Exhaustion after protracted labour.

Inquests were held by the Coroner in sixty instances, in addition to investigation of the nineteen cases mentioned above.

Seven per cent. of the total deaths were included in the total number of seventy-nine cases which were therefore not registered in the usual manner by medical certificate.

Inquests. Sixty inquests were held in 1886, a considerable increase on the number of the preceding year—forty-five—and much above the average.

The respective verdicts of the Juries were:—

From Natural causes	29
From Accidental causes—	
Asphyxia (infants)	7
Drowned	9
Concussion, Fracture, &c.	4
Killed on Railway	3
Septicæmia from injury	1
Tetanus from injury	1 — 25
Homicidal—	
Poison—Opium—Manslaughter, 1,	
Suicide 1,	2
„ Hydrochloric Acid, Suicide	1
Drowned, Suicide	1 — 4
Found Dead, newly-born	2
	—
	60

The proportion of inquests to deaths was 5·3 per cent.

The deaths of the infants who were asphyxiated were recorded as having taken place upon the following days, and at the ages here given:—

Thursday, Dec. 31, 1885	..	..	Age 1 year.
Friday, Jan. 31, 1886..	..	..	„ 7 weeks.
Saturday, Feb. 1, „ ..	..	..	„ 4 „
Tuesday, Mar. 2, „ ..	..	..	„ 3 months.
Friday, „ 5, „ ..	..	..	„ 3 „
Friday, „ 19, „ ..	..	..	„ 8 days.
Thursday, Nov. 11, „ ..	..	..	„ 2 months.
Sunday, Dec. 5, „ ..	..	..	„ 7 weeks.

Vaccination. The following gives the number of cases successfully vaccinated and re-vaccinated by the Public Vaccinator during 1886, and is compiled from the official register.

Primary Vaccinations..	..	..	1250
Re-vaccinations	..	..	29
Total	..	..	1279

No case of small-pox has yet been known to occur in any person vaccinated at the public vaccination station, although such an occurrence has been looked for in every case of the disease which has come under notice.

Social Position. The steady increase in the professional and trading classes in the sub-district is shewn by the constantly-increasing proportion of deaths in persons belonging to those classes. The gentry diminish year by year as do the working classes relatively.

In 1886 the following deaths were registered of such persons:—

	No.	Per cent.
Nobility and Gentry	4 =	0·35
Professional Classes	38 =	3·37
Middle and Trading Classes..	145 =	12·84
Industrial and Labouring Classes	942 =	83·44
Totals ..	1129	100·00

Sanitary
Operations.
(See Table,
page 22).

The sanitary work of the past year shews that 7,711 houses have been inspected ; and that the number of notices served continues to increase year by year. During 1886, 848 first notices were served to remedy 2,156 sanitary defects, against 617 like notices in 1883. Of second notices to enforce such works before taking proceedings, 119 were issued and served in contrast with 188 in the previous year, shewing that owners comply with the Board's requirements more readily each year.

The ill-concealed aversion with which the domiciliary visits of the Board's Inspectors were received a few years ago has given way to a knowledge of the fact that their visits are for the assistance and protection of the poor, in what would otherwise probably be as of old, unhealthy conditions of houses, drainage, water supply, &c., &c. All classes now welcome the visits of the sanitary inspectors, and afford them every possible information and assistance, with scarcely an exception. Out of the large number of cases mentioned above it was only necessary to invoke magisterial aid on six occasions, in each of which orders were made and the works executed.

The number of houses disinfected after the existence of infectious diseases was 73—in the preceding year 269 houses being so treated—in itself an illustration of the smaller amount of epidemic disease existing in 1886 as compared with the former year. No case was found to recur after such disinfection, which could be in any way traceable to failure of the method of disinfection by sulphurous acid gas, which has been in successful use in the sub-district for many years, and which time has proved superior to and less expensive than any other method. Filthy and unserviceable bedding was destroyed by fire in two instances.

Several cases of overcrowding, in all 19, apparently in every case the direct consequence of poverty, were discovered by the visits of the Sanitary Inspectors. In every case the order to discontinue such overcrowding was enforced.

Drains requiring clearing, cleansing and repairing to the number of 384, have received the necessary attention, and 188 syphon traps have been fixed to the same in order to prevent the access of sewer gas to houses, and 59 sinks have had their connexion with drains cut off by being altered so as to discharge outside the houses over open gullies.

Water closets have been found to be out of order with great frequency, more especially in the poorer parts of the sub-district. Cleaning and repair in 43 cases have been enforced, many others having but minor defects which were remedied without notice being necessary. The large number of 383 water-closets have had a supply of water laid on, those not so supplied now being very few indeed. Six urinals have been similarly supplied in addition to repairs and cleansing.

Dust-bins have as usual been a continual source of trouble, being frequently destroyed in the poorer neighbourhoods, and in 187 instances replaced by new ones. It is to be hoped that the measures now being adopted to deal with the question of the removal and disposal of house refuse in Battersea will increase the frequency of collection, so that dust-bins with their accompanying annoyances and sanitary defects may become superfluous and no longer needed. A systematic collection of house refuse once or twice a week would be a great boon to all classes, and an inestimable benefit from a sanitary point of view.

Unwholesome and dilapidated houses have been cleansed and repaired during the year to the number of 84, in addition to which 58 dirty rooms have been cleansed and made habitable, besides 23 staircases and passages which were in a filthy condition. Also 66 leaky house roofs and gullies have been made good, 27 houses supplied with water, and the large number of 471 water-cisterns covered and repaired. Nearly the whole of these numerous works have been carried out at the expense of the owners of property, and are evidence of the interest taken in the dwellings of the poorer classes in the sub-district by the sanitary authority and its officers, and have been the result of much care and exertion, necessitating frequent re-inspections and close supervision.

Reference was made in the report for 1885 to the great necessity for improved ventilation for the sewers by means other than surface ventilators. Much has since been done in this direction by upcast shafts affixed to the sides of houses in proper positions. Of the efficacy of the system there can be no doubt, as a stream of evil smelling sewer gas constantly flows from the opening at the summit. Many practical men, members of the Board and others, who were doubtful of the result of attempting to ventilate the sewers by this means, having convinced themselves by experience, are now amongst its most earnest advocates.

The Metropolitan Board of Works has now adopted this method of ventilating the Bridge Road sewer, and the engineer in charge has expressed his satisfaction at the result, and is prepared to erect shafts at other points where available.

Much credit is due to Mr. Pilditch, the Surveyor for the method of construction by which he collects the

gases so that their pressure is exerted upon the interior of the outcast shafts and a steady and continuous outflow ensured.

Amongst the prosecutions undertaken at the Police Court by the Board's order, the following are of interest and importance.

A pork-butcher in the Battersea Park Road was fined £20 and £3 5s. 0d. costs for having the carcase of a diseased pig prepared for human food upon his premises. The pig in question was suffering from swine fever, and would but for the prompt action of Chief Inspector Richards, have in all probability been speedily disposed of for human food, and with possibly serious results, as the flesh of swine suffering from this disease is apt to cause severe illness.

A costermonger from Bermondsey was fined £10 and £2 2s. 0d. costs for having prepared for human food the carcase of a diseased bullock. Mr. Richards in this case made the seizure just in time to prevent the meat being disposed of for human food.

These cases should for the future be dealt with by more severe punishment, as much illness and many deaths have in the past been caused by the sale and consumption of the flesh of diseased animals, indeed it is urged by many scientists that a large number of the diseases which affect the human body are thus derived.

The dust depots in the parish have been constantly inspected and their condition reported upon at each meeting of the Local Committee. Their condition generally has been better than heretofore, but their entire abolition is much to be desired, and will doubtless obtain in time.

Mr. Covington's depot, adjoining the Southwark and Vauxhall Water Company's premises, has been removed to the other side of the railway at a much greater distance than before.

Cow & Slaughter-
houses.

These have been periodically inspected and have been found cleanly and well conducted, and have been lime-whited at the proper time. There has been no necessity for opposition to the renewal of any license.

The only offence in contravention of the regulations was committed by a cow-keeper who used his premises as a slaughter-house, the same not being so licensed. He was prosecuted by the Board's order and fined 40s. and costs.

The bakehouses were inspected, found in good order, and with no ground for complaint.

The articles destroyed as unfit for human food have not been numerous this year, the close supervision exercised over the street salesmen having rendered them apparently very careful as to the condition of the goods they offer for sale in this parish. They comprised 500 herrings, 120 smoked haddocks, 8 stone of plaice, 108 mackerel, 6 boxes of kippered herrings.

I have again to express my acknowledgment of the great and unvarying support I have received from the members of the Board generally, and more especially from those constituting the Battersea Local Committee, in the discharge of the duties of my office, and hope that I may be fortunate enough to receive like assistance in the future to that which has been extended to me in the past. The condition of the sub-district which I have been enabled to lay before them in this report is the

best evidence that their exertions, as the sanitary authority of the District, have been of the greatest value to its inhabitants, whether judged by the death rate, the amount of sickness, or any other test which can be applied to the health-condition of a district.

To Mr. Pilditch, the Surveyor, I have again to express my thanks for his ready and valuable assistance upon all occasions.

Of Mr. Richards, the Chief Sanitary Inspector, I cannot speak too highly, and I feel certain that the parish is fortunate in possessing such an efficient officer. His assistants, Mr. Freeman and Mr. Poole, have given me much satisfaction during the past year by the energetic and capable manner in which they have fulfilled their duties.

W. H. KEMPSTER, M.D.,

Medical Officer of Health for East Battersea.

WEST BATTERSEA.

The excellent condition of health which has prevailed in this sub-district for years past has been more than maintained during the year 1886 now under report, for taking the mortality as a whole, there is a decrease of 47 as compared with 1885. Further, on comparing the zymotic mortality, which represents the sanitary condition under which we live, there is a decrease of 68 on that year, and a death rate from this class of disease, which is the lowest that has prevailed for the past ten years. I believe it is the constant supervision over all sanitary matters, the regular house to house inspection always going on, the immediate attention given to all complaints, and the speedy removal of infectious sick persons to hospital, which conduces very materially to the lowness of the mortality from infectious disease.

The ambulance system of the Asylums Board may be said to be as perfect as it well can, for not more than two or three hours elapse after notice is sent before the ambulance, with every comfort, is at the patient's door. It would much facilitate removal, if all medical men were empowered to fill in the necessary certificates, and in the absence of compulsory notification of infectious disease, to be requested to communicate the fact to the sanitary authorities.

That there has been a great diminution in infectious cases is shown by the number of houses disinfected as compared with last year, when it was 169; this year it is 54. This is satisfactory, as it is against this class of disease that sanitarians are constantly at work.

Population. The population estimated on the basis proposed by the Registrar-General for the middle of the

year would be 67,265. This I think is too low, as it gives a birth rate of 39 per 1000, being 6·7 more than that of London, which was 32·3 per 1000.

Mortality. The total number of deaths returned by the Registrar as having taken place in this sub-district was 1,348—of which 682 were males and 666 females. In 1885, 1,395 were returned; there is therefore a decrease of 47 on that year. In addition to the above, 63 took place in public institutions outside the district, making a total of 1,411 persons who died in and connected with this division of the parish.

Of the 1,348, 272 occurred in institutions within the sub-district, viz:—261 in the Infirmary and 11 in the Bolingbroke Hospital; these are 3 above those of the previous year, when 269 were returned.

Of the deaths which took place in the Infirmary, 64 belonged to West Battersea, the remainder to other divisions of the Union.

Deducting the 272 deaths in public institutions, 1,076 will be the correct number for this out-door district.*

The number of deaths registered in each quarter of the year was as follows:—

First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.
426	301	319	302

Total deaths from all causes, including all deaths in the Infirmary in the respective years were:—

1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886
854	820	908	1002	1010	1195	1222	1341	1319	1395	1348

* Out-door with reference to Infirmary.

The deaths in the Infirmary were 261—males, 144; females, 117.

The death rates per 1,000, including Infirmary deaths belonging to this sub-district and outlying Institutions:—

1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886
19·5	17·1	18·5	20·0	16·8	19·0	18·0	18·6	18·8	19·8	18·1

The deaths during the past year, not including those occurring in its Institutions, nor those in outlying Institutions, numbered 1,076; these give a death rate of 15·9 per 1,000.

Birth rate. The number of births registered were 2,617, of which 1,356 were males and 1,261 females, being a difference of 95 in favor of the males, and an increase of 59 above those of the previous year.

The rate is 39· per 1,000, being 2 per 1,000 more than that of the census year, at the same time the same increase of population as in the preceding decennial period has been allowed.

The return for each quarter was as follows:—

First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.
709	645	646	617

Natural Increase. The above number of births are 1,477 in excess of the deaths, and constitute the year's natural increase.

The following table shows the cause of all deaths, classified according to age, sex, and social position, which have taken place in this sub-district during the year:—

TABLE I.

WEST BATTERSEA			Total Deaths from each Class of Disease, &c., in the Sub-District.	SEX.		AGE.								SOCIAL POSITION.				
Population (Census) 1881 52,587 Official Population in middle of June, 1886 67,265				Males,	Females,	Under 1 year.	From 1 to 5 years,	From 5 to 10 years.	From 10 to 20 years,	At 20 and under 40 years of age,	At 40 and under 60 years of age,	At 60 and under 80 years of age,	80 years and upwards.	ability and Gen t r	Professional Class, Merchants, Bankers, &c.	Middle & Trading Class, Shopmen, Clerks, &c.	Industrial and Labouring Classes	
CAUSES OF DEATH.																		
I. Zymotic.	{	Small-pox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Measles	26	14	12	4	21	1	1	6	19
		Scarlet Fever	5	2	3	..	5	1	..	4
		Typhus Fever
		Enteric Fever	13	6	7	..	2	..	2	4	4	1	5	8
		Puerperal Fever	1	..	1	1	1
		Diphtheria	3	2	1	..	2	..	1	3
		Whooping Cough	42	16	26	24	17	1	1	2	39
		Erysipelas	6	3	3	1	..	2	3	5
		Diarrhoea, Dysentery, and Cholera	70	41	29	54	7	..	..	4	1	3	1	..	2	9	59
{	Other Zymotic Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals of Zymotic Class			166	84	82	82	54	2	4	9	7	7	1	1	5	23	137	
II. Constitutional.	{	Gout and Rheumatism.	13	10	3	..	..	1	1	4	1	5	1	..	..	2	11
		Cancer & other Tumours	33	15	18	..	1	..	..	4	15	13	..	2	..	5	26
		Other Constitutional Diseases	5	2	3	..	1	..	2	..	2	..	..	..	1	..	4
		{ Tubercular	Phthisis	114	61	53	1	1	1	15	49	35	11	1	1	4	11	98
			Tabes Mesæ	92	43	49	70	13	..	2	5	2	2	2	10	78
			Hydrocephalus	23	14	9	9	9	3	1	1	2	21
			Scrofula	8	6	2	7	..	1	2	6
III. Local.	{	Nervous	169	89	80	54	19	1	3	9	28	48	7	5	8	..	140	
		Circulatory	104	53	51	4	..	2	3	6	37	46	6	3	5	11	85	
		Respiratory	315	153	162	84	54	4	5	16	46	91	15	10	8	40	257	
		Digestive	69	34	35	14	3	2	4	4	24	18	..	3	6	16	44	
		Urinary	21	10	11	..	..	1	..	5	9	5	1	2	1	2	16
		Generative	11	..	11	..	..	..	..	9	2	..	..	..	..	..	11
		Locomotor	18	11	7	4	..	1	3	3	3	4	..	..	..	2	16
{	Integumentary	6	1	5	..	1	1	..	..	1	3	..	..	1	..	5	
IV. Develop- mental.	{	Premature Birth and Low Vitality	61	36	25	60	1	..	..	..	..	..	..	..	..	4	57
		Congenital Defects .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Old Age	74	29	45	..	..	..	..	..	..	39	25	2	1	8	63
V. Violence			35	25	10	7	..	2	3	14	5	4	..	..	..	1	34
VI. Illdefined and Not Specified	{	Illdefined	11	6	5	6	..	3	..	..	2	..	..	..	..	2	9
		Not Specified .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTALS			1348	682	666	402	157	25	46	138	219	294	67	31	42	157	1118	

Including all deaths in the Infirmary.

Zymotic
Mortality.

The deaths from this class of disease were 166, of which 84 were males and 82 females, and are 68 less than those of the previous year. The greatest fatality was from Whooping-cough, Diarrhœa, and Measles, which collectively gave 138 of the total number. There is, compared with last year, a decrease in Whooping-cough and Measles, and an increase of Diarrhœa.

From Fevers other than Scarlet and Measles there were 14 deaths, classified as follows:—

Typhoid or Enteric ..	..	..	13
Puerperal ..	..	..	1
			<hr/>
			14

Of the total number 82 were under 1, 54 from 1 to 5 years of age, 6 from 5 to 20, and 24 from 20 upwards. No less than 136 of the total 166 were under 5 years of age, clearly showing the ages most susceptible to this class of disease.

The following table contrasts all deaths from zymotic causes during the past 10 years; also the death rate:—

TABLE II.

Zymotic Mortality in the West Battersea Sub-district.

	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886
Small Pox	13	2	2	..	4	1	..	2	1	..
Measles	8	34	43	8	50	30	52	42	63	26
Scarlet Fever	8	4	55	30	25	35	26	14	5	5
Diphtheria	2	4	7	3	9	4	2	11	2	3
Enteric Fever	25	15	27	10	10	14	12	20	9	13
Whooping-Cough	18	36	11	23	31	47	46	46	74	42
Epidemic Diarrhœa	22	41	17	61	53	39	64	82	63	70
Other Zymotic Disease	11	14	12	11	16	24	16	34	17	7
Total Deaths from Zymotic Diseases	107	150	174	146	198	194	218	251	234	166
Zymotic Death rate	2.8	3.8	4.2	2.9	3.8	3.6	3.6	4.0	3.6	2.4
Death rate from all Diseases	17.1	18.5	20.0	16.8	19.0	18.0	18.6	18.8	19.8	18.1

Other causes
of Death
than Zymotic. From these classes 1,182 deaths were returned, being 21 in excess of those of last year. There were 187 from Bronchitis, Pneumonia, 86. Other Lung Diseases, 42 ; from Circulatory Disease, 104, Brain and Nerves, 169 ; Digestive Organs, 69 ; Premature Birth, Low Vitality, 61 ; Old Age, 74 ; Cancer, 33 ; Violence 35, &c.

Cancer, Premature Birth, Old Age, Violence, and disease of Digestive Organs, show an increase as compared with last year, whilst those of the Respiratory Organs, Brain and Nerves, a slight decrease.

From the Tubercular Class, 237 were returned, viz:—Phthisis, 114 ; Tabes Mesenterica, 92 ; Scrofula, 8 ; and Hydrocephalus, 23. Of those from Phthisis, 18 were under 20 ; and 84 from 20 to 60 years of age.

In analysing the mortality of the respective sexes in this class of disease (Phthisis), it would appear that females die at a greater rate than males, between the ages of 20 and 40—30 out of a total of 49 being females, whilst in the next 20 years, 40 to 60, the males die at a far greater rate, for out of 35 deaths, only 6 were females.

The deaths from old age were 74, against 54 of last year, the eldest being females—97, 96, 92, 90, 90, 90, whilst four males reached the great age of 96, 95, 92, and 90 years respectively. Reverting now to the opposite extremes of the duration of life, we find that in 4 instances it was a few minutes—20, a few hours, and in 74 a few days.

The following table (III.) contrasts all deaths from non-zymotic causes during the past 10 years.

	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886
Tubercular, including Phthisis..	172	143	163	196	210	198	255	266	232	237
Of Brain, Nerves, &c.	148	137	136	117	147	173	168	170	178	169
Of the Heart, &c.	55	53	56	72	94	83	81	95	108	104
Of the Respiratory Organs, ex- cluding Phthisis	124	204	260	215	266	272	318	248	327	315
Of Digestive Organs	37	27	27	47	51	59	61	63	52	69
Of Urinary Organs	14	10	20	15	26	21	31	19	30	21
Of Organs of Generation	8	3	9	9	14	14	11	12	16	11
Of Joints, Bones, &c.	1	2	2	3	15	12	11	12	5	18
Of Cancer	22	23	14	22	21	25	33	17	31	33
Premature Birth, Low Vitality, Malformation, &c.	30	31	36	70	37	78	30	33	55	61
Of Uncertain Seat and other diseases	25	29	17	36	27	27	13	39	29	24
Age	47	58	57	35	31	37	64	45	54	71
Violence	23	28	13	23	40	30	20	39	29	35
Constitutional	7	11	16	4	10	6	7	10	8	11
TOTALS	713	751	828	864	997	1028	1123	1068	1161	1182

Of the 1,182 deaths, 593 were those of males and 584 of females.

The causes of death of persons dying without the district will be found in the table following; they were 63 in number.

TABLE IV.

Deaths in Outlying Institutions.

WEST BATTERSEA.	SEX.			AGE.			INSTITUTIONS.		
	Total.	Male.	Female.	Under 1.	1 to 60.	60 and upwards.	Union Infirmary	General & Special Hospitals.	Asylums Board Hospitals.
DISEASE.									
Small Pox .. ..	..	..	..	..	..	..	..	..	..
Scarlet Fever .. ..	..	..	..	..	..	..	..	..	..
Typhus Fever .. ..	..	..	..	..	..	..	..	..	..
Enteric Fever	2	1	1	..	2	..	..	1	1
Diphtheria	3	2	1	..	3	..	..	3	..
Whooping Cough .. ..	..	..	..	..	..	..	..	..	..
Measles .. ..	..	..	..	..	..	..	..	..	..
Other Zymotic Diseases .. ..	..	..	..	..	..	..	..	..	..
Tubercular Diseases	9	7	2	..	9	..	..	8	1
Cancer	3	2	1	..	1	2	..	3	..
Rheumatism .. ..	..	..	..	..	..	..	..	..	..
Respiratory Diseases	14	10	4	..	13	1	..	14	..
Circulatory Diseases	10	6	4	..	10	..	..	10	..
Nervous Diseases	7	5	2	..	4	3	..	7	..
Other Diseases	10	6	4	1	8	1	..	10	..
Violence	5	4	1	..	3	2	..	5	..
TOTALS	63	43	20	1	53	9	..	61	2

Those occurring in Institutions within the district are included in the General Mortality table.

Inquests.

Enquiries were held on the bodies of 39 males and 25 females, in all 64, being 9 more than those of the previous year. The verdicts were as follows:—

From Natural Causes	32
„ Accidental	19
Found Drowned	3
„ Dead	4
Suicide	6
	<hr/>
	64

Of the Accidental causes—3 by falls, 3 from burns, 4 suffocated in bed, 7 drowned in the Thames, 1 run over, 1 fractured skull.

The suicides were respectively—2 by poison, 1 by shooting, 2 cut-throats, 1 hanging.

Of the found dead, 2 were on the railway, 1 a newly born infant on Clapham Common, and a verdict of wilful murder was returned against some person unknown on the body of a newly-born female child found with its throat cut, in Bolingbroke Grove.

In addition to the above inquests, 28 cases of sudden death were submitted to the Coroner, who did not deem an enquiry necessary.

Of Infants suffocated in bed with their parents there are 3, and occurred on the following dates:—

Monday, September 20th.
Saturday, December 25th.
Sunday, December 26th.

Social
Position.

The per-centage of deaths, in relation to social position is as follows:—

Nobility and Gentry ..	31	=	2·300
Professional ..	42	=	3·116
Middle and Trading Class ..	157	=	11·646
Labouring ..	1118	=	82·938
	<hr/>		<hr/>
	1348	=	100·000

Diseases and
Mortality
amongst the
Union Poor.

The number of cases which came under treatment was 686, being 76 in excess of the previous year. Indeed there has been a tendency to increased numbers for the last five years. In Table III. will be found the nature of the illness these persons suffered from. Of the above number 27 died, giving a death rate of 3.9 per cent.

Dispensary.

A new Parochial Dispensary with residence and offices for the Relieving Officers of East and West Battersea, has been erected in Latchmere Road, situate about the centre of the two districts, an arrangement which will have many advantages for the poor, as the relief officers and the medical officers will attend at the same hour, and thus save the long distance most of the patients have to travel at the present time. It is expected to be in working order by the June quarter.

Sanitary
Matters.

Sanitary operations have been carried out during the year with the usual vigour. On reference to the Table of Sanitary matters (page 22), it will be seen that 8,178 houses were inspected during the year, which shows that nearly all the houses in the district are kept under the Inspector's observations once within the year. These inspections brought to light 1,782 defects, which 830 notices were served to remedy. Of these, 685 were complied with; in the remainder 145 second notices were served, and in only 7 instances was it necessary to apply to the Magistrate to enforce compliance. The number of drains cleansed and repaired was 376 more than in the previous year.

Water Supply.

To 405 closets, water was laid on. In 18 cases notice was received from the Water Company that certain houses were without water supply. On enquiry it was found that the water had been cut off by the

company through the non-payment of the rate; they then sent notice of no supply to the Board, and so endeavour to make it through the Sanitary Act the means of enforcing payment of their claims, and to compel the tenants to repair that which they themselves have directly destroyed. I question if the legislature ever contemplated the Act being used for such a purpose.

Cisterns.

The large number of 245 cisterns were covered or recovered during the year, including many situated under the floor boards of the room where they are placed, thus preventing any matters during sweeping or cleansing finding their way into them. The same remarks apply equally to those situated immediately under the roofs of houses. The best remedy for these imperfect arrangements would be a constant supply, and so do away with any contamination the storage of water in cisterns is liable to.

Overcrowding.

Six cases of overcrowding came under notice, in two of which proceedings were ordered to be taken. In the first case, living and sleeping in one room was father, mother, two sons aged 21 and 25 years, and two daughters aged 12 and 17 respectively. In the second case, father, mother, two children, and two men lodgers lived and slept in the same room.

Meat Unfit for Food.

About 200 pounds of beef was seized from a shop in the York Road, where it had been placed in pickle. Proceedings were taken. Every effort was made by the defendant to overthrow the evidence of your officers. The Magistrate was however satisfied that the meat was quite unfit for food, and that it was intended for sale. The defendant was fined £40

The undermentioned articles were destroyed by the Nuisance Inspector as being unfit for food :—

120 Pairs of kippered herrings,

140 Mackerel,

100 lbs. Currants,

4 Bushels of Cherries.

Bakehouses. These have been kept under constant supervision, and are all in good condition. Two new ones were opened during the year, neither of which complied with the requirements of the Act. Notices were served and the necessary alterations carried out.

Cow and Slaughter-Houses were all inspected. They were found to be in good order, and in no case was it necessary to oppose the renewal of the licence.

Mortuary. The Mortuary has been used more extensively this year than ever. The bodies of 108 persons were placed in it, far more than sufficient to prove its necessity. The condition in which it is kept is good.

I have to express my satisfaction with the manner in which the several Inspectors have carried out their duties. Mr. Richards, as heretofore being most energetic, using every endeavour to maintain the condition of the district as being one of the best inspected in the whole of the Metropolis.

J. OAKMAN,

Medical Officer of Health for West Battersea.

CLAPHAM.

The following report requires but few words of introduction. The tables of mortality (page 59 and 60), and of sanitary work executed (page 22), give in a succinct form the causes of death which are in operation, and the efforts made to diminish the incidence of preventible diseases. The year 1886 was on the whole a healthy one, and the general death-rate was lower than in any except the last preceding year. One striking feature of the year's sanitary history was the complete absence of Small-Pox. Another important point is the increasing number of persons who apply to have their houses disinfected after the occurrence of infectious diseases, or to have an inspection made for the detection of suspected nuisances. Such cases are unfortunately still in a small minority; but there is abundant evidence that the public is beginning to regard the visits of the sanitary inspectors not as an inquisition into their private affairs, but as a necessary safeguard to health. The educative value of the sanitary inspections made on the householders of Clapham should not be forgotten in any estimate of the sanitary work executed during the year.

Population. The official method of estimating the population in any year between two census enumerations, is based on the assumption that the rate of increase is the same as in the previous decade. Accepting this basis of calculation, the estimated population of Clapham for the middle of 1886 is 41,945. It is highly probable, however, that the population of Clapham has increased in a much greater proportion since 1881 than in the ten years before that period, and that the death rates, &c., are therefore really lower than appears on the basis of the official population.

Births and
Birth rate.

The number of births registered during 1886 was 1,071, of which 530 were boys and 541 girls. The annual birth-rate was 25·53 of the estimated population (see Table I.), which with the exception of last year, was the lowest for ten years. The birth rate for the whole Metropolis was 32·3, which was the lowest since the year 1850.

This considerable diminution in the birth-rate must be allowed to have had some influence in producing the very favorable death rate of Clapham. A low birth rate is necessarily followed by a smaller proportion of children under 5 years of age; and as will be afterwards seen, the mortality at these ages is higher than at any subsequent period of life. The low birth-rate by no means however completely accounts for the low death-rate, which must be chiefly ascribed to improved vital conditions of the sub-district.

Deaths and
Death-rate.

During the year 1886, 545 deaths—255 of males and 290 of females, were registered in the sub-district. These are equivalent to an annual death

rate of 12·99 per 1,000, the lowest hitherto recorded, with the exception of the previous year (see Table I.) The death rate for the whole of the Wandsworth District during the same period was 17·06, for the whole of South London, 19·2, and for the whole of London, 19·9 per 1,000 of the population.

The *natural increase* of the population of Clapham, *i.e.*, the excess of births over deaths was 526, giving a rate of 12·5 per thousand.

TABLE I.
Birth and Death rates.

YEARS.	Births.	Birth rate.	Deaths from all Causes.	Death rate.	Rate of Natural Increase.
1877 ..	1,029	32·4	467	14·8	18·5
1878 ..	1,019	34·2	580	18·1	15·9
1879 ..	1,125	34·1	561	17·0	17·0
1880 ..	1,082	29·7	544	14·9	15·1
1881 ..	1,059	28·9	499	13·5	15·3
1882 ..	1,081	28·8	544	14·5	14·3
1883 ..	10,85	28·25	580	15·1	13·1
1884 ..	1,123	28·32	543	13·7	14·6
1885 ..	1,030	25·22	508	12·44	12·7
1886 ..	1,071	25·53	545	12·99	12·5

Deaths in
Out-lying
Institutions.

The deaths already enumerated do not include those of inhabitants of this sub-district who have died in out-lying institutions, such as the Union Infirmary, the Asylums Board Hospitals for Infectious Diseases, and the General and Special Hospitals of the Metropolis. In the following table, these additional deaths, 76 in number, are arranged so as to shew the causes of death, age and sex of patients, and character of the Institution in which they died.

TABLE II.

Deaths in Outlying Institutions.

DISEASE.	SEX.			AGE.			INSTITUTIONS.		
	Total.	Male.	Female.	Under 1.	1 to 60.	60 and upwards.	Union Infirmary.	General & Special Hospitals.	Asylums Board Hospitals.
Small-pox .. ..	..	..	..	..	..	..	..	..	..
Scarlet Fever	1	1	..	..	1	..	..	..	1
Diphtheria	1	..	1	..	1	..	..	1	..
Enteric Fever .. ..	..	..	..	..	..	..	..	..	..
Whooping Cough	1	..	1	1	..	..	1	..	..
Measles .. ..	..	..	..	..	..	..	..	..	..
Other Zymotic Diseases .. ..	..	..	..	..	..	..	..	..	..
Tubercular Diseases	10	5	4	..	10	..	6	4	..
Cancer	4	1	3	..	2	2	1	3	..
Rheumatism	1	1	..	..	..	1	1	..	..
Respiratory Diseases	10	8	2	..	7	3	6	4	..
Circulatory Diseases	14	7	7	..	8	6	9	5	..
Nervous Diseases	8	7	1	..	6	2	3	5	..
Other Diseases	23	14	9	3	10	10	12	11	..
Violence	3	2	1	1	2	..	..	3	..
TOTALS	76	47	29	5	47	24	39	36	1

It will be seen that 39 of the external deaths occurred in the Wandsworth and Clapham Union Infirmary, 36 in various hospitals, and only 1 in the Asylums Board Hospitals.

If these 76 deaths be added to the 545 occurring in Clapham, the death-rate becomes 14·80 per 1,000, as compared with 14·32 in the preceding year. This remarkably low inclusive death-rate bears out the statements already made as to the excellent vital condition of Clapham during the past year.

Deaths occurring
in Clapham.

In the following table the deaths registered as occurring within Clapham are classified according to cause, age, sex and social position; and a more detailed list is given of the deaths from zymotic diseases.

STATISTICS OF MORTALITY.

CLAPHAM.			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.	From 5 to 10 years.	From 10 to 20 years.	At 20 and under 40 years of age.	At 40 and under 60 years of age.	At 60 and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle and Trading Class, Shopmen, Clerks, &c	Industrial and Labouring Class.
Population (Census) 1881			36,380														
Official population in middle of 1886			41,945														
CAUSES OF DEATH.																	
I. Zymotic.	Small Pox	.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles	.. ..	11	7	4	2	7	2	..	..	..	..	..	..	1	4	6
	Scarlet Fever	.. ..	1	1	..	..	1	..	..	..	..	..	..	..	..	..	1
	Typhus Fever	.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Enteric Fever	.. ..	3	2	1	..	..	..	..	3	..	..	..	..	..	..	3
	Puerperal Fever	.. ..	2	..	2	..	..	..	..	1	1	..	..	..	..	..	2
	Diphtheria	.. ..	6	6	..	1	2	2	1	..	..	..	..	..	1	2	3
	Whooping Cough	.. ..	34	12	22	16	17	1	..	..	..	..	..	..	3	3	28
	Erysipelas	.. ..	2	1	1	1	..	..	..	..	..	1	..	1	..	..	1
	Diarrhoea, Dysentery, and Cholera	.. ..	25	12	13	21	3	..	..	..	..	..	1	1	4	6	14
Other Zymotic Diseases		.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals of Zymotic Class			84	41	43	41	30	5	1	4	1	1	1	2	9	15	58
II. Constitutional.	Gout and Rheumatism	.. ..	3	1	2	..	..	..	..	1	1	1	..	..	..	..	3
	Cancer & other Tumours	.. ..	23	6	17	..	..	..	..	2	12	8	1	3	5	7	8
	Other Constitutional Diseases	.. ..	6	3	3	2	1	..	..	1	2	..	..	..	1	1	4
	Tubercular { Phthisis	.. ..	42	23	19	2	1	1	6	16	13	3	..	..	8	11	23
	{ Tabes Mesa	.. ..	21	11	10	11	7	..	1	..	2	..	..	..	3	3	15
	{ Hydrocephalus	.. ..	14	10	4	8	5	1	..	..	..	..	..	..	..	1	13
	{ Scrofula	.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
III. Local.	Nervous	.. ..	79	42	37	20	10	2	3	5	9	24	6	9	10	18	42
	Circulatory	.. ..	35	9	26	1	..	2	2	2	11	16	1	6	4	5	20
	Respiratory	.. ..	103	52	51	23	22	2	..	6	10	31	9	7	16	23	57
	Digestive	.. ..	39	16	23	11	1	..	1	3	13	9	1	3	6	12	18
	Urinary	.. ..	16	9	7	1	..	..	..	2	8	4	1	..	5	6	5
	Generative	.. ..	5	..	5	..	..	..	..	5	..	..	..	..	1	1	3
	Locomotory	.. ..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	1
	Integumentary	.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Developmental.	Premature Birth & Low Vitality	.. ..	28	17	11	28	..	..	..	..	..	..	..	..	2	5	21
	Congenital Defects	.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Old Age	.. ..	33	10	23	..	..	..	..	..	..	10	23	4	9	7	13
V. Violence		.. ..	12	6	6	5	2	..	..	1	2	2	..	..	1	4	7
VI. Illdefined and Not Specified		{ Illdefined .. Not Specified	.. .. 1	.. .. 1	.. .. 1	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. 1	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. 1
TOTALS			545	255	290	153	79	13	15	48	84	109	44	34	80	119	312

Ages at
Death.

Of the total deaths, 47·7 per cent. occurred at various ages under 20 years, 28 per cent. being under 1 year, and 14·4 per cent. between 1 and 5. In the preceding year 42·8 per cent. of the total deaths occurred at ages below 20, 24·5 per cent. under 1 year, and 12·8 per cent. between 1 and 5.

Infantile
Death-rate.

The proportion of deaths under 1 year to total deaths obviously will vary with the birth-rate. The larger the number of children of this age, and the greater the incidence of the causes of infantile mortality. It is therefore desirable to check the previous percentage of deaths under 1 year, by ascertaining the proportion of deaths of infants in the first year of life to registered births during the year, known as the *Infantile death-rate*. In Clapham this was 142 per thousand births, as compared with 120 in the preceding year, and with 159 for the whole Metropolis during 1886. The increase of infantile mortality was chiefly due to the higher mortality from Diarrhoea at this age, 21 deaths as compared with 11 in the previous year.

Senile
Mortality.

The deaths of persons over 60 years formed 28 per cent. of the total deaths, as compared with 29 per cent. in the previous year. 24·2 per cent. of the total deaths occurred between 20 and 60 years of age, as compared with 29·6 per cent. in the previous year.

Social Position
of Deceased.

The relative number of deaths in the several social grades were as follows:—

Nobility and Gentry	..	..	34	=	5·5 per cent.
Professional Class	..	..	80	=	14·6 „
Middle and Trading Class	..	..	119	=	21·8 „
Industrial and Labouring Class..	..	..	312	=	57·1 „

In the absence of knowledge of the proportionate population belonging to each of these classes, it is impossible to state their separate death rates. It is important to note however, that while the industrial classes only furnished 57·1 per cent. of the total deaths, 69 per cent. of the total deaths from zymotic diseases belonged to them.

Zymotic
Diseases.

The following table gives the number of deaths from specific fevers, as compared with previous years, and a similar comparison of zymotic and general death-rates. The zymotic death-rate was 2 per 1,000. or including the 3 deaths in external institutions, 2·07 per 1,000 of the estimated population. The corresponding rate for the whole Metropolis was 2·69 per 1,000.

TABLE IV.

Zymotic Mortality in Clapham.

	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886
Small-pox ..	12	3	..	2	7	1	..	2	..	..
Measles ..	5	23	17	19	10	15	33	33	3	11
Scarlet Fever ..	4	12	12	21	15	26	8	3	..	1
Diphtheria ..	..	3	1	3	3	4	7	8	4	6
Enteric Fever ..	4	5	9	4	3	7	3	4	8	3
Whooping-Cough ..	12	29	25	25	13	17	16	15	25	34
Epidemic Diarrhoea ..	18	26	17	36	20	4	19	18	16	25
Other Zymotic Diseases ..	9	9	21	9	7	7	26	12	5	4
Total deaths from Zymotic Diseases	64	110	102	119	78	81	112	95	61	84
Zymotic Death-rate ..	2·0	3·4	3·1	3·4	2·1	2·1	2·9	2·3	1·49	2·00
Death-rate from all Diseases ..	14·8	18·1	17·0	14·9	13·5	14·5	15·1	13·7	12·4	12·9

No deaths from *Small-pox* occurred in Clapham during the year, and no cases of this disease were admitted from Clapham into the Asylums Board Hospitals (21 in the previous year).

Measles, for which no isolation hospitals are provided, caused 11 deaths, and Whooping Cough 34 deaths.

There was only one death from *Scarlet Fever*, and that from a remote complication of the disease. 59 cases of Scarlet Fever of a mild type came under our notice in 40 houses, and 2 cases in the Victoria Hospital for Children; the latter having been removed from this neighbourhood a considerable period before they acquired the disease.

Particulars of some of Scarlet Fever Cases.

33, Thurlow Street. A boy $3\frac{1}{2}$ years was brought down stairs each day by the mother during illness, and a few days later two other children started with the disease.

12, Heath Road. A girl $4\frac{1}{2}$ years. Fifteen days before this case started, the drains of the house were found to be defective, and a notice served on the owner or occupier. The work was not executed till some days after the patient's removal to hospital.

123, Heath Road. A boy 3 years and girl at 5 years. An older sister attended Tennyson Road Board School, and sat next a girl who was attending school while peeling after Scarlet Fever.

Crichton Street. Two children at No. 1, one child at No. 3, and one at No. 19 came in contact with and ap-

parently received infection from a girl recovering from Scarlet Fever at No. 16.

4, Courland Grove. This child had three cousins in Southville who died from Malignant Scarlet Fever a few days previous.

8, Rectory Grove. A boy $2\frac{1}{2}$ years. Found other children from this house attending Board School previous to disinfection of premises.

Diphtheria caused 6 deaths, and Enteric Fever 3 deaths.

Particulars of some of cases of Diphtheria.

53, Manor Street. Child 10 years, died. Drains on testing found defective, sewer gas escaping into house.

132, Wirtemberg Street. Child 10 years died in hospital. Another child was subsequently taken ill and removed to hospital. Drain proved to be defective.

Typhoid or Enteric Fever.

37, Hazelrigge Road. Male 20 years. On testing drains, a leakage was discovered at foot of soil-pipe; sewer-gas escaping into dining room.

21, Oldridge Road. Male. Drains and soil-pipe defective on testing.

10, Heath Road. Two cases; mother and daughter; one month between each case. The main drain of this and three adjoining houses passed under this house, and on testing was found to be in a most defective condition.

Inquests. Twenty-nine inquests were held during the year, and the following verdicts returned :—

1.	<i>From Natural Causes</i>	..	..	..	15
2.	<i>Accidental—Overlaying</i>	..	..		4
	Suffocation while swallow-				
	ing bread	..	..		1
	Run over by train..	..			1
	Injuries from fall ..	..			3
	„ „ burn	..			1 — 10
3.	<i>Suicidal,—Cut-throat</i>	..	..		1
	Hanging	..	..		1
	Drowning	..	..		1 — 3
4.	<i>Open Verdict.—Found dead</i>	..	..		1 — 1
Total					29

Four uncertified deaths occurred during the year, no medical evidence being taken as to the cause of death. It is obvious that in all such uncertified cases the possibility of homicide or suicide can only be eliminated by a medical examination and inquiry, and that the Coroner's judgment, founded as it must necessarily be on hearsay, should not be allowed to decide the question as to whether an inquest is required or not.

Sanitary
Proceedings
of the Year.

The number of houses inspected during the past year was 3,919, as compared with 3,441 in the previous year. The total number of nuisances dealt with amounted to 4,259, of which 3,835 were abated under notice, and 424 under promise. The table on page 22 gives a statement of the nuisances dealt with which can be conveniently tabulated. In addition to the cases stated in the table, the following works were executed :—122 new ventilating pipes inserted, 47 ventilating pipes repaired, 121 closet valve air-pipes removed from inside drinking-water cisterns, 32 soil-pipes repaired, 11 water-closets ventilated, 6 new sinks constructed, 3

cow-sheds limewhited, 1 cow-shed properly ventilated, 4 windows made to open, 3 leaky water mains repaired, 2 cellars drained, 2 dung pits provided, and the following miscellaneous nuisances removed:—2 dirty bake-houses, dirty filter, fish frying, leaky gas-fittings, dirty water-supply, stagnant water, privy removed, 2 cases of keeping goats in an unsanitary condition, animals kept in dwelling-houses, 2 cases of cats and dogs, 2 of rabbits, 1 of chickens and 1 donkey. 34 premises were disinfected after infectious disease, and 16 lots of bedding burnt.

All the Cow-houses and Slaughter-houses were visited and their sanitary condition being satisfactory, the licenses were renewed. The Bake-houses were visited twice during the year and with the exceptions named above, were found in a satisfactory condition.

The proposed
Dust
Destructor
for Clapham.

It will be convenient before concluding my report for 1886, to refer to the question of the proposed Dust Cremator, although the final decision (after prolonged consideration) of the Local Committee to erect such Cremator and the subsequent agitation on the part of a section of the public in opposition to it have occurred in 1887, before this report had gone through the press.

An unbiassed judgment on the subject can only be obtained by a careful consideration of the difficulties attending the alternative plans for dust disposal. Each year removal of dust-refuse into the country is becoming more expensive and difficult. The increased cost has been very marked in every part of the Metropolis, and is strikingly shewn in the recent experience of Chelsea. Early in this year (1887) the Chelsea Vestry came to the end of a three years' contract for barging the dust down the river, under which the price paid was 8d. per load of

three cubic yards, and accepted a new contract for the same work, under which it pays 2s. 3d. per load ; shewing an increase in three years of 340 per cent in the cost of removal. This increasing difficulty in the disposal of dust, and the prospect that each year the difficulty and expense would become greater (as well as the consideration that it is not the highest policy to cart away our nuisances for the poisoning of other neighbourhoods) led the Clapham Committee to investigate whether some plan for destruction of the offending materials immediately after their collection by the dust carts was not feasible. It was found that in various large towns the dust was disposed of effectually and economically by cremation, the waste heat being utilised for various collateral operations by generating steam power. The experience of these towns was found to vary so far as the success of the cremating process was concerned. At Richmond, for instance, the furnace was constructed on a wrong principle, and the draught was so great, that even pieces of paper escaped up the chimney ! In the City of London the cremator is not at present satisfactory, owing to the fact that various refuse materials are burnt in a separate small furnace, from which a hole has been opened into the main chimney. The consequence is, imperfectly burnt matter gets up the chimney and the efficiency of the Destructor is interfered with. In over 20 provincial towns Dust Cremators have been adopted, and in the cases where Fryer's Destructors have been used the result has been successful.

The Clapham Committee were determined however, that no possibility of nuisance should arise, and with this object, they adopted the plan already at work in Ealing. According to this plan, the furnace in which the dust is burnt is in communication with a larger chamber furnished with cross-walls, which latter prevent

the current going direct into the chimney, and ensure the settlement of any dust and solid particles. Finally the products of combustion are passed through a muffle furnace, known as Jones' Fume Cremator, in which the heat is raised to 1,500° Fahrenheit, and thus all incompletely oxidised solids and gases are effectually burnt. Even without this additional fume cremator the results obtained have been satisfactory, and there is every reasonable presumption that with it, a complete immunity from nuisance will be obtained.

It has been urged that even supposing the combustion is complete, poisonous oxides of carbon and sulphur will be evolved; but it is forgotten that every gas-light and every fire in Clapham is producing these gases in abundance, in the latter case unfortunately with the addition of a large quantity of unburnt soot, very little above the level of the street, instead of 160 feet high (as in the proposed destructor chimney).

It is not poisonous gases, the products of combustion, which from a sanitary standpoint are to be feared; these are rapidly dissipated and dispersed. It is rather the micro-organisms which find a fertile soil for their development during the putrefactive changes undergone by the animal and vegetable matters in dust-refuse, that cause sore throat, diphtheria, and other diseases. These are completely got rid of by the process of burning: and if combined with this cremation we have more frequent removal of house-refuse there is little doubt that great improvement in the health of Clapham will be secured.

The opposition to the proposed Destructor originates in two quarters; the householders in the neighbourhood of the Parish Yard (the proposed site for the

Destructor), who have been inaccurately and imperfectly informed on the subject; and the owners of suburban villas in the neighbourhood who fear the depreciation of the value of their house-property. It is an open question whether the presence of a tall chimney will from an aesthetic standpoint depreciate the value of the houses in its neighbourhood; but the usual experience in such cases is that the existence of the supposed nuisance is after the first alarm forgotten. As the matter has now been postponed, it may be mentioned that a Destructor like that proposed for Clapham, is in process of construction at Battersea, and I believe the majority of the Members of the Clapham Committee are prepared to be guided as to the desirability of erecting a Clapham Destructor, by the result of the experience of Battersea.

ARTHUR NEWSHOLME, M.D.,

Medical Officer of Health for Clapham.

PUTNEY & ROEHAMPTON.

The report which I have the honour to submit for the first time as Medical Officer of Health reveals a condition of things in this Parish eminently satisfactory from a sanitary point of view. Last year's report, Dr. Walker was able to describe as the most favourable he had ever been able to present. And during 1886 I can say that the sanitary condition, as shown by the following tables, quite maintains the very high standard then obtained.

Population. For statistical purposes, the population of Putney and Roehampton in the middle of 1886 may be put down at 15,210. This is arrived at by calculating the increase at the same rate as during the former decade.

**Births and
Birth-rate.**

The birth-rate has shown a slight tendency to rise as compared with 1885, but is still very low compared with that of London generally. During the year 350 births were registered in this sub-district—176 boys and 174 girls. This is equivalent to an average of 23·01 per 1,000.

**Deaths and
Death-rate.**

The number of deaths registered during the year 1886 was 179, making an average of 11·8 per 1,000. This average shows a slight increase on that of the previous year. This increase as shown on table I. is more than accounted for by the increased number of deaths registered under Zymotic diseases. Almost half the number of deaths under this class is due to Whooping Cough, generally accompanied with bronchitic or pneumonic complication. Whooping Cough raged rather severely for some months in the sub-district and naturally we find the vast majority of its victims were very young children under the age of 5 years.

TABLE I.
Birth and Death Rates.

YEARS.		Births.	Birth-rate.	Deaths from all Causes.	Death-rate.	Rate of Natural Increase.
1877	..	351	31.1	170	15.0	16.0
1878	..	338	29.1	186	16.0	13.1
1879	..	327	27.4	179	15.0	12.2
1880	..	347	27.3	177	13.6	13.2
1881	..	340	25.5	167	12.5	12.9
1882	..	361	26.3	208	15.1	11.1
1883	..	349	24.7	24	17.1	7.6
1884	..	377	25.3	199	13.7	11.6
1885	..	322	21.7	167	11.2	10.4
1886	..	352	23.1	179	11.8	11.2

In regard to the other Zymotic diseases, we have every reason to be satisfied. Those diseases which we have more directly under our control by attention to the sanitary condition of dwelling houses—such as Diphtheria and Enteric Fever, were much less prevalent than during the previous year. They may be said to have practically died out. Only 2 deaths were registered as due to these diseases as opposed to 8 during 1885.

The other classes of disease bear very much the same proportion to each other as before. The diseases of the tubercular and respiratory systems still claim their large share of victims.

It appears to me the statistics given in Table II. reveal a condition of public health, on which the sanitary authorities have every reason to congratulate themselves. For the last three years the death-rate in this locality has shown a most marked and continued decrease. To my mind this is directly traceable to the sanitary precautions observed and sanitary measures regularly and systematically carried out. During the same period with this markedly diminished death-rate there has been a great increase in the density of the population with its attendant disadvantages from a sanitary point of view. Increased density of population taken by itself has, invariably an injurious influence on the public health.

TABLE II.

PUTNEY AND ROEHAMPTON.			Total Deaths from each Class of Disease.	SEX.		AGE.								SOCIAL POSITION.			
CAUSES OF DEATH.				Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	From 10 to 20 years.	At 20 and under 40 years.	At 40 and under 60 years.	At 60 and under 80 years.	80 years and upwards.	Nobility and Gentry.	Professional, Merchants, Bankers, &c.	Middle and Trading Class, Shopmen, &c.	Industrial & Labouring Classes.
Population (Census) } 13,221 1881 }																	
Official Population in } 15,210. middle of 1886 ... }																	
Acres 2,176																	
CAUSES OF DEATH.																	
I. Zymotic.	Small-pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles	4	2	2	1	3	..	..	..	..	..	..	..	..	1	..	3
	Scarlatina	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	Diphtheria	1	..	1	..	..	1	..	..	..	..	..	..	..	1	..	..
	Typhoid & Typhus Fever	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	1
	Remittent & other Fevers	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Puerperal Diseases	2	..	2	..	..	..	..	2	..	..	..	..	..	..	1	1
	Croup .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Whooping Cough	18	7	11	4	13	1	..	..	..	..	..	..	..	..	2	16
	Erysipelas	1	..	1	1	..	..	..	..	..	..	..	..	..	1	..	..
	Diarrhoea	9	2	7	9	..	..	..	..	..	..	..	..	..	2	3	4
	Dysentery & Cholera ..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Other Zymotic Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals of Zymotic Class		38	14	24	16	17	2	..	3	..	..	..	..	5	6	7	
II. Constitutional.	Gout & Rheumatism ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cancer & other Tumours	2	..	2	..	..	..	..	..	1	1	..	..	..	..	..	2
	Tubercular	19	10	9	10	2	..	..	5	2	..	..	..	..	1	1	17
III. Local.	Nervous	29	16	13	14	2	1	1	1	2	7	1	..	4	6	19	
	Circulatory	18	10	8	2	1	..	..	3	3	7	2	..	5	5	8	
	Respiratory	35	17	18	7	6	..	2	3	4	11	2	..	10	3	22	
	Digestive	10	7	3	1	1	1	..	..	3	4	..	..	2	5	3	
	Urinary	8	3	5	..	..	..	..	1	3	3	1	..	3	3	2	
	Generative	4	..	4	..	..	..	..	1	1	2	..	..	2	..	2	
	Locomotor .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Integumentary .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Developmental.	Premature Birth :																
	Atrophy	7	5	2	7	..	..	..	..	..	..	..	..	1	1	5	
	Old Age	6	3	3	..	..	..	..	..	..	2	4	..	2	2	2	
	Cause Unknown	1	..	1	..	..	..	..	1	..	..	..	..	..	..	1	
V. Violence		2	2	..	..	..	1	..	1	..	..	..	..	..	..	2	
TOTALS		79	87	92	52	32	5	3	18	18	41	10	..	36	37	106	

Table I. shows at a glance our relative birth and death rate during the last 10 years, and in Table II. are enumerated all the deaths registered in the sub-district, and classified according to the nature of the disease.

From the retrospect given in Table III. the death-rate from Zymotic diseases is seen to be greater during 1886 than during either of the two preceding years. There is some ground for satisfaction however in knowing that the higher death-rate is not due to diseases traceable to neglect of the sanitary condition of houses. The great number of deaths from Whooping Cough occurring among children of infantile age is the prominent feature in the table.

TABLE III.

ZYMOTIC MORTALITY.	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886
Small-pox .. ..	..	1	..	..	..	..	..	1	..	..
Measles	2	7	..	..	6	13	2	1	4	4
Scarlet Fever ..	6	..	3	1	8	4	7	..	..	1
Enteric Fever ..	4	1	2	4	1	4	2	10	3	1
Diphtheria	1	1	..	..	1	29	24	..	5	1
Whooping-cough ..	..	4	8	9	3	8	2	8	1	18
Epidemic Diarrhæa ..	7	10	7	10	3	5	5	8	4	9
Other Zymotic Diseases	2	12	7	1	5	6	2	..	1	4
Total Deaths from										
Zymotic Diseases ..	22	36	27	25	27	69	44	28	18	38
Zymotic Death-rate ..	1·8	2·9	2·1	1·3	2·0	5·0	3·1	1·9	1·2	2·49
Death-rate for all Diseases	15·0	16·0	15·0	13·6	12·5	15·1	17·1	13·7	11·2	11·8

Constitutional
and other
diseases.

Under this table (Table IV.) there is nothing very unusual to remark upon. The tubercular and respiratory diseases maintain their usual prominence.

TABLE IV.

Years.		1877	1878	1879	1880	1881	1882	1883	1884	1885	1886
C	Gout & Rheumatism ..	..	3	1	4	4	4	5	5	1	..
	Cancer & Tumours ..	..	7	3	6	1	6	8	5	8	2
	Tubercular ..	26	32	23	18	17	12	21	24	25	19
	Nervous ..	29	28	34	33	21	33	34	39	26	29
L	Circulatory ..	8	12	13	13	14	12	14	11	17	18
	Respiratory ..	29	37	42	27	24	29	30	31	29	35
	Digestive ..	12	10	9	13	17	15	15	12	13	10
	Urinary ..	11	2	4	6	2	6	6	10	6	8
	Generative ..	2	..	1	..	2	2	4	1	1	4
	Locomotor ..	2	..	..	..	..	..	..	..	..	..
	Integumentary ..	1	..	2	1	1	1	..	2	1	..
D	Premature Birth, Atrophy, &c. ..	8	7	8	16	18	7	17	13	9	7
	Old Age ..	8	7	5	9	6	5	10	7	7	6
V	Violence ..	9	5	7	6	13	7	15	11	4	2
	(Other diseases) ..	3	..	..	..	..	..	..	..	2	1
Totals ..		148	150	152	152	140	139	196	171	149	141

Ages of the
deceased.

The year 1886 has been somewhat remarkable for the large number of deaths occurring among very young children. No less than 84 deaths occurred out of a total of 179 in children under 5 years of age—making the very high percentage of about 47. The diseases which have proved so disastrous to infant life have been Whooping Cough, Diarrhoea, Tubercular disease and Convulsions.

Social
Position.

About 60 per cent of the fatal cases occurred among that part of the population included under the industrial and labouring classes. This percentage, which is larger than that of 1885, again brings out very forcibly the much greater danger which the working classes incur—partly from density of population and its attendant disadvantages, and partly also no doubt from the want of regard to the most ordinary sanitary

precautions. As one might expect, the mortality arising from Zymotic diseases has fallen on the poorer classes to a large extent. Out of the 18 deaths from Whooping Cough, 16 occurred among the labouring classes.

Another striking feature under this heading is the large proportion of deaths from Tubercular diseases occurring among the poorer classes. Out of a total of 19 deaths 17 fell amongst this class. This goes far again to prove the pernicious influence of bad air and bad nourishment on the health of the community.

Inquests. Seven inquests have been held during the year. Of these the causes of death according to the verdicts were :—

- I. Natural Causes, 2.
- II. Accidental, 3—Drowning, 2; Hydrophobia, 1.
- III. Suicidal, 1.
- IV. Found Dead, 1.

The number of inquests have been fewer than usual during the year. One of these inquests which resulted in a verdict of 'Hydrophobia but cause unknown' created considerable interest. It occurred in the case of a woman rather past the term of middle life. She was ill for three or four days and died with all the symptoms of hydrophobia, which the post mortem examination so far as it went confirmed. The source of infection was very obscure. She had a small dog which she was in the habit of kissing and fondling in various ways. She had an abrasion on the inner side of the lip, and it was considered possible the poison may have been thus communicated. The old dog which died soon afterwards was in a wretched state of health at the time—thick viscid saliva constantly dribbled from its mouth. The difficulty was however, that it did not possess any of the characteristic symptoms of rabies, and the question arose

whether Hydrophobia could be communicated to man by the saliva of a dog in a bad condition but showing no characteristic symptoms of rabies.

Deaths in Public Institutions. Thirteen deaths occurred in various public institutions of persons claiming to belong to this Parish. There have been absolutely no cases of Zymotic disease amongst this class. (See Table V.)

TABLE V.

Deaths at Outlying Institutions.

DISEASE.	SEX.			AGE.			INSTITUTIONS.		
	Total.	Male.	Female.	Under 1.	1 to 60.	60 and upwards.	Union Infirmary.	General & Special Hospitals.	Asylums Board Hospitals.
Small-pox - - -	..	..	..	..	..	..	..	..	..
Scarlet Fever - - -	..	..	..	..	..	..	..	..	..
Typhus Fever - - -	..	..	..	..	..	..	..	..	..
Enteric Fever - - -	..	..	..	..	..	..	..	..	..
Whooping-cough - - -	..	..	..	..	..	..	..	..	..
Measles - - -	..	..	..	..	..	..	..	..	..
Other Zymotic Diseases - - -	..	..	..	..	..	..	..	..	..
Tubercular Diseases - - -	1	..	1	..	1	..	..	1	..
Cancer - - -	2	1	1	..	2	..	1	1	..
Rheumatism - - -	..	..	..	..	..	..	..	..	..
Respiratory Diseases - - -	3	2	1	..	2	1	1	1	2
Circulatory Diseases - - -	4	2	2	..	1	3	2	2	..
Nervous Diseases - - -	3	..	3	..	..	3	2	1	..
Other Diseases - - -	5	4	1	2	2	1	4	1	..
Violence - - -	1	1	..	..	1	..	..	1	..
Totals - - -	19	10	9	2	9	8	10	9	..

Sanitary Proceedings.

The sanitary proceedings (Table XIV. page 22) commenced some time ago, have been continued, and there is reason to think with very great good to the community. All the sub-district has been regularly inspected by a house-to-house visitation.

The condition of drains has been tested, water-supply looked after, cisterns kept in good condition. The sanitary inspection is now looked upon as a matter of course by the public, and the inspector is (now) often welcomed to houses where formerly he was regarded as a legal intruder and nuisance.

In almost every case defects have been remedied after the first notice. In only six cases were second notices required. No cases had to be investigated by the Magistrate, nor had any compulsory orders to be obtained.

There is still much to be done in regard to the removal of dust. In too many cases the dust-bin has been allowed to remain until it has become a veritable nuisance. This however may be easily prevented by going round the parish systematically and removing the refuse from a certain district on a certain day. This plan would avoid the accumulation of the dust-bin from four to six weeks which has occurred to my knowledge in several cases. This is really an important matter, affecting in a vital way the health of the community.

WM. Y. ORR, M.B.,

Medical Officer of Health for Putney & Roehampton.

STREATHAM,
INCLUDING
BALHAM AND TOOTING.

I am enabled to give a favourable report on the health of this sub-district during the year 1886, though it declined somewhat from the exceptionally high standard attained in the previous year. The death-rate rose to 15·0 per 1,000 in consequence of the increased rate of mortality that resulted from Measles, Whooping Cough and Diarrhœa.

On the other hand there was a marked decline in the mortality arising from other diseases in the infectious class. No death took place from either Small Pox or Scarlet Fever, only 2 from Typhoid Fever and 6 from Diphtheria.

The decline in the prevalence of and the mortality from the latter diseases clearly indicates a good sanitary condition of the sub-district and affords satisfactory evidence that the care and vigilance of those entrusted with the carrying out of sanitary measures are fully maintained.

The following statistics derived as usual from an analysis of the Registrar General's Returns and from the local records of Sickness, Mortality and Sanitary Operations, will, I believe, corroborate these observations and disclose in detail the state of the public health in Streatham and Tooting during the year 1886.

VITAL STATISTICS.

Population. It is impossible to estimate exactly the population of a growing suburb like this without the aid of an annual census and yet it is essential if we are to obtain a correct knowledge of its vital statistics.

The official method of calculation assumes that the population has increased during the year under review in the same ratio as obtained in the ten years before the last census. It is very obvious that this mode of computation must yield an under-estimate of the population in this sub-district, seeing that it does not take into account the results of immigration. That our population has increased beyond the official estimate may be fairly inferred from a study of the births and birth-rate for the last four or five years, and from the number of new houses that have become occupied since 1881. However, as the official estimate is the one generally adopted, it

may not be departed from here. In accordance with this method of calculation the population of Streatham and Tooting in the middle of the year 1886 was 31,400.

Births and Birth-rate. The number of births registered during the year was 1,078, a large increase on the decennial average; 568 were of males and 510 of females.

The birth-rate calculated from the total number of births and the foregoing estimate of the population was 34·3 per 1,000 persons living during the year as compared with 35·6 per 1,000 in 1885.

Natural Increase. The rate of natural increase is represented by the excess of births over deaths; there was an excess this year of 605, giving a ratio of 19·2 per 1,000 of the population.

Deaths and Death-rate. The total number of deaths registered during the year was 473, an increase of 50 on the number registered in 1885. Of these deaths 246 were of males, and 227 of females. The death-rate calculated from the whole of the deaths registered, and the official estimate of the population was 15·0 per 1,000 persons living during the year, though this rate is slightly above the decennial average, it is by no means a high one, and if we were to calculate the death-rate of the true population it would be seen to be still lower. I learn from the Vestry Clerk that there are 5,737 occupied houses in Streatham alone; calculating six persons per house, this would give us a population of 34,422, adding for Tooting 5,000, we have as the total population of the sub-district 39,422. Not to overstate

the case we will take the total population as being in round numbers 38,000, the death-rate calculated from this estimate of the population would be 12·4 per 1,000 persons living during the year. The death-rate for the whole of London was 19·9 per 1,000 in 1886, and the death-rate in the twenty-eight great towns of England and Wales was in the proportion of 20·9 in a year per 1,000 persons living.

TABLE I.

Births and Death Rates.

YEARS.	Births.	Birth-rate.	Deaths from all Causes.	Death-rate.	Rate of Natural Increase.
1877 ..	585	34·0	244	12·5	20·0
1878 ..	609	34·4	284	16·7	18·0
1879 ..	636	34·3	290	15·6	18·7
1880 ..	703	28·1	348	13·9	14·2
1881 ..	830	32·1	313	12·1	20·0
1882 ..	891	33·0	341	12·6	20·4
1883 ..	1,027	36·9	419	14·9	21·5
1884 ..	1,138	39·2	445	15·3	23·9
1885 ..	1,078	35·6	423	13·9	23·6
1886 ..	1,078	34·3	473	15·0	19·2

Deaths in Outlying Institutions. The deaths already tabulated as occurring in this sub-district do not include the deaths of persons belonging to Streatham and Tooting who died in various outlying general and special hospitals.

These additional deaths are exhibited in the following table, which shows the nature of the cause of death, the age and sex of the deceased, and the character of the Institution in which they died.

TABLE III.

Deaths in Outlying Institutions.

DISEASE.	Total.	SEX.		AGE.			INSTITUTIONS.		
		Male.	Female.	Under 1	1 to 60.	60 and upwards.	Union Infirmary	General & Special Hospitals.	Asylums Board Hospitals.
Small-pox .....	..	..	..	..	..	..	..	..	..
Scarlet Fever .....	..	..	..	..	..	..	..	..	..
Diphtheria .....	..	..	..	..	..	..	..	..	..
Enteric Fever .....	..	..	..	..	..	..	..	..	..
Whooping-Cough .....	..	..	..	..	..	..	..	..	..
Measles .....	..	..	..	..	..	..	..	..	..
Other Zymotic Diseases	2	1	1	..	2	..	..	2	..
Tubercular Diseases	3	2	1	..	1	2	1	2	..
Cancer	3	2	1	..	2	1	1	2	..
Rheumatism .....	..	..	..	..	..	..	..	..	..
Respiratory Diseases	11	8	3	..	5	6	8	3	..
Circulatory Diseases	8	4	4	..	7	1	3	5	..
Nervous Diseases	5	3	2	..	3	2	2	3	..
Other Diseases	15	8	7	3	8	5	7	8	..
Violence	1	1	..	..	..	..	..	1	..
TOTALS	48	29	19	3	28	17	22	26	..

It will be seen that 48 deaths occurred in Outlying Institutions, of these 29 were of males, and 19 of females, 22 took place in the Union Infirmary, 26 in general and special Hospitals, and none in the Hospitals set apart for infectious diseases.

If these 48 deaths are added to those actually occurring in the sub-district, the death-rate would be raised 1·5 per 1,000, giving an inclusive rate of 16·5 per 1,000 of the population.

This inclusive rate must not be compared with the death-rate of former years, because the deaths of persons in Outlying Institutions have only recently been included in the local rate. I think it ought to be noted that some of these outlying deaths are only nominally of parishioners, whilst others are of persons so long resident in the institution in which they died, as to have lost their claim to be considered parishioners, and lastly there are the deaths of new comers and temporary residents to set off against the total outlying deaths.

STATISTICS OF MORTALITY.

STREATHAM, INCLUDING TOOTING & BALHAM.				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.	From 5 to 10 years.	From 10 to 20 years.	At 20 and under 40 years of age.	At 40 and under 60 years of age.	At 60 and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle and Trading Class, Shopmen, Clerks, &c.	Industrial and Laboring Classes.	
Population (Census) 1881				25,553															
Official population in middle of 1886				31,400															
CAUSES OF DEATH.																			
I. Zymotic.	Small Pox	11	3	8	2	9	..	..	..	..	..	..	..	..	..	2	1	8
	Measles .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Scarlet Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Typhus Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Enteric Fever	3	..	3	..	..	..	2	1	..	..	..	..	..	..	..	1	2
	Puerperal Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Diphtheria	6	5	1	2	1	3	..	..	..	..	..	..	1	2	1	2	..
	Whooping Cough	26	12	14	12	13	1	..	..	..	..	..	..	..	3	12	11	..
	Erysipelas	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..
	Diarrhoea, Dysentery, and Cholera	20	11	9	17	3	..	..	..	..	..	..	..	..	3	8	9	..
Other Zymotic Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals of Zymotic Class				67	35	32	33	26	4	2	1	..	1	..	1	10	24	32	
II. Constitutional.	Gout and Rheumatism ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cancer & other Tumours	17	5	12	..	..	..	..	..	..	6	11	..	2	4	6	5	..
	Other Constitutional Diseases	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	1	..
	Tubercular {	Phthisis	26	13	13	1	1	1	2	9	12	..	..	1	5	14	6	..
		Tabes Mesa	4	2	2	3	..	..	1	..	..	..	..	..	1	3	..	..
		Hydrocephalus	8	4	4	4	2	2	..	..	..	..	..	..	1	2	5	..
Scrofula	2	..	2	..	..	..	..	1	1	..	..	..	..	..	2	..	..
III. Local.	Nervous	79	37	42	28	9	1	..	5	6	24	6	9	12	35	23	..	..
	Circulatory	40	21	19	..	..	..	3	5	14	17	1	1	7	17	15	..	..
	Respiratory	96	55	41	17	17	2	2	8	10	30	10	7	14	25	50	..	..
	Digestive	40	19	21	12	..	2	..	4	9	10	3	5	6	12	17	..	..
	Urinary	16	11	5	..	..	1	..	2	6	7	..	5	1	5	5	..	..
	Generative	4	..	4	..	..	..	..	4	..	..	..	..	1	2	1	..	..
	Locomotor	2	1	1	..	2	..	..	..	..	..	..	..	..	..	..	2	..
	Integumentary .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Develop- mental.	Premature Birth & Low Vitality	40	26	14	40	..	..	..	..	..	..	..	..	4	9	27	..	..
	Congenital Defects	3	1	2	1	..	2	..	..	..	..	..	..	1	1	1	..	..
	Old Age	21	9	12	..	..	..	..	..	..	..	10	11	4	6	4	7	..
V. Violence				6	5	1	4	1	..	..	..	1	..	..	..	..	1	5
VI. Illdefined and Not Specified				1	1	..	..	..	..	1	..	..	..	..	..	1	..	..
Totals				473	246	227	144	58	15	10	40	65	110	31	35	73	163	202	

Zymotic
Diseases—
their
Prevalence
and
Fatality.

There were 67 deaths in this class, 35 were of males and 32 of females; they yield a per centage of 14·1 upon the deaths from all causes during the year, and give a death-rate of 2·1 per 1,000 of the estimated population, this is double the extremely low zymotic death-rate of 1885, but it is below the rate recorded in several years of the decennium as may be seen in Table IV. The increased death-rate from infectious diseases is due to the mortality arising from Measles, Whooping Cough, and Diarrhœa.

The subjoined Table contrasts all the deaths resulting from the several principal epidemic diseases, with the death-rate therefrom, as well as the death-rate from all diseases during the last ten years.

TABLE IV.

Zymotic Mortality in the Streatham & Tooting Sub-district.

	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886
Small-pox ..	4	1	..	..	..	..	..	..	..	..
Measles ..	2	11	2	1	3	5	7	8	2	11
Scarlet Fever ..	1	2	5	31	13	9	2	8	..	..
Diphtheria ..	3	3	2	7	1	4	13	3	5	6
Enteric Fever ..	5	1	3	5	2	1	8	4	6	3
Whooping-Cough	6	11	21	8	9	9	11	9	7	26
Epidemic										
Diarrhœa ..	4	13	3	6	9	3	9	11	12	20
Other Zymotic										
Diseases ..	4	..	10	10	9	10	15	11	2	1
Total deaths from										
Zymotic Diseases	29	42	41	68	44	41	65	53	34	67
Zymotic Death-										
rate ..	17	2·3	2·2	2·7	1·7	1·6	2·3	1·8	1·1	2·1
Death-rate from										
all Diseases..	12·5	16·7	15·6	13·9	12·1	12·6	14·9	15·3	13·9	15·0

On referring to the Table it will be seen that there was no death from Small Pox, nor did any case die in

Hospital coming from this sub-district; there has been in fact complete immunity from this disease: whereas in 1885 twenty cases of Small Pox were sent into hospital, where two died.

No death arose from Scarlet Fever, and there has been a marked decline in its prevalence and intensity during the two last years, in neither year has there been any fatal case and only eight cases were sent into Hospital in 1886.

There can be little doubt that our present immunity from Small Pox and the decline in the prevalence and intensity of Scarlet Fever is in a large measure due to the more complete system of isolation now adopted and to the early removal of these infectious cases to special Hospitals, as well as to the systematic and thorough fumigation, disinfection and cleansing of infected houses, clothes and bedding, after the removal of patients to Hospital, or after recovery from the disease at home.

The mortality from Diphtheria considered in relation to the increase of population was below the average, and Typhoid Fever was very markedly so; only two deaths were ascribed to this latter disease and one to simple continued fever, and no death from Typhoid took place in Hospital. It may be inferred from the low rate of mortality from these diseases that they were not prevalent during the year. The decline therefore in their prevalence and mortality is an indication of the improved sanitary condition of the sub-district, in relation more especially to house drainage, the syphoning off of foul gases, the supervision and cleansing of cisterns and the abatement generally of nuisances.

As regards the Mortality from some other diseases in the zymotic class, I cannot report so favourably.

Measles to wit caused eleven deaths, and was prevalent throughout the year. This disease is regarded very lightly amongst the industrial classes, it is treated at home without medical aid and without any effort at isolation, the children on recovery at once mix with others, and so the disease spreads indefinitely. The only check to its dissemination is in the case of children attending school; such children absent from school through illness, are not permitted to return unless they bring with them a medical certificate of their freedom from infection; but unfortunately this rule is, I believe, too often evaded. Whooping Cough again was very prevalent if we take the 26 deaths as the measure of its extent. The mortality from this disease exceeded that of any year of the decennium.

Diarrhœa was prevalent during the hot weather, it caused 20 deaths chiefly of sickly and hand-fed children.

Other Diseases. These are grouped under five heads in the Mortality Table, viz:—Constitutional, Local, Developmental, Violence and Ill-defined.

All the deaths from the diseases included under these various headings slightly exceeded the number recorded in 1885, without correction for increase of population. Separately considered, the number of deaths from some of the diseases differ considerably from that of the previous year.

The deaths from consumption were only 26 as against 43 in 1885, forming only 5.4 per cent of all deaths.

Respiratory diseases were not so fatal as in 1885, the deaths from these diseases formed 20·2 per cent of all deaths as against 24 per cent last year.

Diseases of the nervous system resulted in 79 deaths, giving a per centage of 14·5 upon all deaths.

There were forty deaths from Diseases of the Circulation as compared with 26 in the previous year, forming 8·4 per cent of all causes of death.

The mortality from the other diseases under the various headings do not differ sufficiently from their averages to call for special remark.

Age at Death— It will be gathered from what has gone before that there was a higher ratio of Infant Mortality. deaths of infants under one year of age than in 1885, 144 children died in the first year of life, being 30·4 per cent of all deaths, 42·7 per cent of all deaths took place before the age of five, and 47·5 before twenty years of age.

The mortality from Tubercular and Respiratory diseases in early life fell below that of the previous year, whereas the deaths from Measles, Whooping Cough, and Diarrhoea rose considerably.

The infantile death-rate was 133 per 1,000 births as compared with 110 last year.

Senile Mortality. There are only 21 deaths ascribed solely to old age, though no less than 141 deaths took place at

and over sixty. The ages of 42 of these ranged from 70 to 80, and 30 from 80 to 90, several of these being nearly 90. Senile deaths yield a per centage of 31·2 on all deaths as compared with 25·5 per cent in 1885. Of the persons who died at 70 and upwards, 33 were of males and 39 females.

Sickness and
Mortality
amongst the
Out-door
Parish Poor.

The number of persons who were under treatment, together with the nature and extent of the sickness that prevailed, and the deaths that took place amongst the out door parish poor will be found in Table XIII. page 2; 218 new cases came under treatment throughout the year, 34 of these were in the Zymotic class, they include 8 cases of Scarlet Fever, 16 of Measles, 8 of Diarrhœa, 1 of Fever, and 1 of Erysipelas; none of these were fatal. The cases of Scarlet Fever were sent into Hospital, there were 5 deaths in the other classes. The ratio of deaths to cases treated was 2·2 per cent.

Social Position.

The following Table shows the per centage of deaths in the various classes during the year.

Nobility and Gentry	35 = 7·4 per cent.
Professional Class, Merchants, &c. ..	73 = 15·4 "
Middle and Trading Class ..	163 = 34·5 "
Industrial and Labouring Class ..	202 = 42·7 "
Total deaths in 1886 ..	473 100·0

There was a higher Mortality in the Professional and Mercantile Class as well as in the Trading and Middle Class, and a decrease of Mortality amongst the Industrial Classes.

Inquests. Seventeen inquests were held with the
Violent Deaths. following results:—

I. Natural	..	Convulsions	..	1
		Spasm of the Glottis	..	2
		Syncope	..	6
		Rupture of Aneurism	..	1—10
II. Accidental	..	Suffocation in bed	..	4
		Injury to head from fall	..	1
		Accidental scalds	..	1—6
III. Homicide	..	Neglect at birth	..	1—1
				<hr/> 17

Uncertified Deaths. Eleven deaths were uncertified, they were all submitted to the Coroner before being registered as having probably died from the following causes:—

Premature Birth	..	..	1
Bronchitis	..	..	1
Hæmorrhage	..	..	1
Rheumatism of the heart	..	..	1
Spinal affection	..	..	1
Syncope	..	..	1
Convulsions	..	..	2
Morbus Cordis	..	..	1
Senile Paralysis	..	..	1
Atrophy	..	..	1
			<hr/>
			11

Sanitary Proceedings. A summary of the principal Sanitary operations of the year will be found in Table XIV. page 22.

From this it will be seen that a very large amount of Sanitary work has been done, 3,680 houses and premises were inspected and their sanitary condition recorded; 329 first notices were served to remedy the several defects discovered on inspection, only 9 second notices were required to ensure compliance. It was not found necessary in any case to appeal to a Magistrate.

Amongst the more important operations of the year may be mentioned the lifting and relaying of imperfect drains, and the cleansing of foul drains and the syphoning off of sewer gases, altering sinks, baths, lavatories, and rain-water pipes to discharge over gullies outside, cleansing and repairing of water-closets, causing water to be laid on to closets, and providing cisterns, dust-bins, &c. The figures in respect of these sanitary improvements are shown in the Table.

In addition to this 15 pig nuisances were removed, and 52 accumulations of manure got rid of; 23 dilapidated and unwholesome houses were cleansed and repaired, and 15 unclassified nuisances were removed.

The number of complaints of the non-removal of dust and house refuse, have greatly diminished since the adoption of a system for the regular and orderly clearing of the dust-bins of certain districts on certain days under the direction of an Inspector appointed for the purpose.

Only 23 houses were disinfected after infectious diseases as compared with 32 last year. It is satisfactory to be able to report that there has been no occurrence of disease after disinfection.

There are 33 bake-houses in the sub-district, they are all now regularly inspected and are in good condition.

The cow-sheds and slaughter-houses have been regularly inspected. I personally visited each one and saw no reason to oppose a renewal of the owners' licenses.

F. F. SUTTON, M.D.,

Medical Officer of Health for Streatham & Tooting.

WANDSWORTH.

The mortality of the past year has been considerably higher than that of its predecessor; the excess however, will be found to have resulted from a proportionally greater increase in the population than has hitherto obtained. The increase in the number of deaths occurred generally from all classes of disease, but Whooping-Cough, Measles and Diarrhoea, which were the prevailing epidemics, were attended with more than usual fatality; the deaths from the last named disease, which prevailed almost wholly in the summer months, were exclusively confined to infants. It is worthy of special note that Small-pox was entirely absent throughout the year. The following statistics are submitted in evidence of the foregoing conditions, with the other usual details of the health and sanitary state of the Sub-district.

VITAL STATISTICS.

Population. The mean number of inhabitants during the year 1886, amounted to 32,320, if according to the official method of calculation the same

rate of increase that prevailed during the last intercensus decennium then continued. It may be confidently assumed however, that this estimate is an understatement to a very great extent, the effect of which would be to unduly raise both the death-rate and birth-rate if determined from that datum. The correctness of such assumption will become apparent on a consideration of the following circumstances. 1. The extraordinary large increase in the number of births. 2. The great increase in the number of inhabited houses. 3. The proportion of births to population in the preceding decennium compared with the like proportion in the past year. Each of these points requires separate examination.

Births, Birth-rate, Rate of Natural Increase.—The births registered during the year numbered 1255,—657 of males and 598 of females, or 133 more than in 1885. The average number during the preceding ten years, allowing for increase of population during that period, was 1022. The births therefore of the past year exceeded the average by 233 or 22·7 per cent. Such an amount is much too great to be attributable to any other cause than immigration.

No. of inhabited houses, 1886. From an examination of the parochial Rate-Book it appears that the number of inhabited houses during the past year was 5676. The Census of 1861 gave 7·05 persons to each house, the Census of 1871, 6·67 persons, and that of 1881, 6·58 persons to each house. If the moderate computation of six persons be allowed to each house, a population of 34,056 is arrived at which is probably much below the real number.

Proportion of
Births to
Population.

Determined by the proportion which the mean number of births bore to the mean population during the ten preceding years, the mean population of 1886 would be 33,983, and the birth-rate 36·97 per 1,000.

The two foregoing estimates taken in conjunction with the unusually great increase in the number of births, and the circumstance that the birth-rate for all London was the lowest on record since 1850, furnish strong presumptive evidence of the existence during the past year of a much larger population than that determined by the official mode of calculation which gives a birth-rate of 40·40 per 1,000, and a rate of natural-increase—(the excess of births over deaths) of 21·35 per 1,000.

Mortality.

The total deaths registered during the year numbered 722,—379 of males and 343 of females. The annual average number during the ten preceding years, allowing for increase of population, was 597. The deaths in the past year therefore exceeded the average by 125, or 20 per cent.

No less than 144 of the total deaths occurred in public institutions, viz:—in the County Lunatic Asylum, 112; in the Hospital for Incurables, 11; in St. Peter's Hospital, 4; in the Prison, 14; and in the Workhouse, 3. In addition to the foregoing deaths that were registered within the sub-district, 78 deaths of Wandsworth parishioners took place in the following outlying institutions, viz:—in the Union Infirmary, 58; and 20 in various Metropolitan Hospitals; these with the sex, age, and cause of death are shewn in the following table:—

Deaths in Outlying Institutions.

DISEASE.	Total.	Sex.		Age.			Institutions.		
		Male.	Female	Under 1.	1 to 60.	60 and upwards	Union Infirmary.	General and Special Hospitals.	Asylums Board Hospitals.
Small Pox .. ..	..	..	..	..	..	..	..	..	..
Measles .. ..	..	..	..	..	..	..	..	..	..
Scarlet Fever ..	..	..	..	..	..	..	..	..	..
Diptheeria .. ..	..	..	..	..	..	..	..	..	..
Whooping Cough ..	..	..	..	..	..	..	..	..	..
Typhus Fever .. ..	..	..	..	..	..	..	..	..	..
Enteric Fever .. ..	..	..	..	..	..	..	..	..	..
Diarrhœa .. ..	..	..	..	..	..	..	..	..	..
Other Zymotic Diseases.	..	..	..	..	..	..	..	..	..
Total Zymotic Diseases	..	..	..	..	..	..	..	..	..
Tubercular Diseases ..	12	4	8	2	9	1	11	1	..
Cancer	3	..	3	..	2	1	2	1	..
Rheumatism	1	..	1	..	1	..	1	..	..
Respiratory Diseases ..	10	5	5	..	2	8	9	1	..
Circulatory Diseases ..	9	7	2	..	4	5	9	..	..
Nervous Diseases	13	7	6	1	4	8	8	5	..
Other Diseases	26	11	15	1	9	16	17	9	..
Violence	4	3	1	..	3	1	1	3	..
TOTAL	78	37	41	4	34	40	58	20	..

Death-rate.

Calculated from the deaths registered and the official estimate of the population, the death-rate of the past year was 22·33 per 1,000 persons living. But, as has been explained in previous reports, determined in this manner it cannot be accepted as representing the natural death-rate of this sub-district, inasmuch as the death-register embraces the whole mortality of the County Lunatic Asylum, St. Peter's Hospital, and the Hospital for Incurables, the inmates of which institutions are, with a fractional exception, derived from without the Parish, undergo no natural increase, and are subject to a very high mortality; the latter constituting on an average about one fifth of all deaths registered. It is found necessary therefore to eliminate from the calculation, the population, and

mortality of these institutions, and to add to it the deaths of Wandsworth parishioners that occurred in the Union Infirmary. Calculated in accordance with these conditions the death-rate of the past year was 19·05 per 1,000. This rate is at least 1 per 1,000 higher than that deducible from the number of occupied houses, or from the average proportion of births to population already referred to. Inclusive of the deaths that occurred in institutions external to the sub-district, and which are probably fully compensated by the deaths of non-parishioners, the rate would be 21·1 per 1,000. The latter, therefore, cannot be accepted as correct, for while the deaths of the parishioners dying without the parish are accurately recorded, there is no means of ascertaining the number of deaths that occur within the parish of persons who belong to other districts, and which ought to be excluded.

The Birth and Death-rates for the past and ten preceding years are shewn in the subjoined table.

Birth and Death Rates.

Years.	Births.	Birth-rate.	*Deaths from all causes.	Death-rate.		Rate of Natural Increase.
				Corrected.	Un-corrected.	
1876 ..	679	30·53	461	16·73	19·89	13·80
1877 ..	684	29·90	384	12·59	16·13	17·31
1878 ..	718	30·53	422	14·41	17·26	16·12
1879 ..	744	37·97	516	18·04	20·56	19·93
1880 ..	810	30·53	484	15·45	17·67	15·08
1881 ..	901	33·70	507	17·43	17·97	16·61
1882 ..	972	35·28	544	17·49	18·70	17·79
1883 ..	907	32·07	499	16·17	16·71	15·90
1884 ..	1,072	36·72	576	17·23	18·77	18·84
1885 ..	1,122	37·37	628	18·82	19·93	18·55
1886 ..	1,255	40·40	722	19·05	22·33	21·35

* Deaths in Outlying Institutions not included.

In the following table all the causes of death will be found classified according to the sex, age at death, and the social position of the deceased persons, the diseases of the zymotic class being severally set forth:—

STATISTICS OF MORTALITY.

WANDSWORTH.			Total Deaths from each class of Disease, &c., in the Sub-District.	SEX.		AGE.							SOCIAL POSITION.				
CAUSES OF DEATH.				Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	From 10 to 20 years.	At 20 and under 40 years of age.	At 40 and under 60 years of age.	At 60 and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class Merchants, Bankers, &c.	Middle and Trading Class, Shopmen, Clerks, &c.	Industrial and Labouring Class.
Population (Census) 1881 28,000																	
Official Population in middle of 1885 31,497																	
CAUSES OF DEATH.																	
I. Zymotic.	Small-pox	28	21	7	9	18	1	3	25
	Measles	6	3	3	..	5	1	6
	Scarlet Fever
	Typhus Fever	8	3	5	2	1	4	1	3	5
	Enteric Fever
	Puerperal Fever	10	6	4	2	4	2	..	1	..	1	3	1	6
	Diphtheria	31	16	15	15	16	1	8	22
	Whooping Cough	4	3	1	1	3	1	..	2	1
	Erysipelas	28	15	13	26	2	1	6	21
	Diarrhoea, Dysentery, and Cholera	1	..	1	1	1
Other Zymotic Diseases		116	67	49	54	45	5	1	6	4	1	..	1	5	23	87	
Totals of Zymotic Class																	
II. Constitutional.	Gout, and Rheumatism	6	3	3	..	..	..	..	1	1	4	..	..	..	2	4
	Cancer & other Tumours	21	9	12	..	..	2	..	1	7	11	..	3	1	8	9
	Other Constitutional Diseases	3	2	1	1	..	..	..	..	1	1	..	..	..	1	2
	Tubercular {	Phthisis	54	24	30	8	7	..	2	21	16	3	3	17	31
		Tabes Mesenterica..	24	15	9	17	6	1	4	20
		Hydrocephalus	8	5	3	2	5	1	3	5
		Scrofula	1	1	..	1	1
III. Local.	Nervous	151	82	69	34	11	1	1	29	45	29	1	2	8	50	91	
	Circulatory	46	16	30	1	2	1	1	4	16	20	1	1	4	18	23	
	Respiratory	135	70	65	31	41	5	1	8	17	26	6	3	1	32	99	
	Digestive	30	17	13	11	..	2	1	4	9	3	..	3	3	7	17	
	Urinary	26	17	9	..	..	..	1	3	10	10	2	1	..	15	10
	Generative	4	..	4	..	..	..	..	3	..	1	..	..	..	2	2
	Locomotor .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Integumentary .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Develop- mental.	Premature Birth and Low Vitality	37	23	14	37	..	..	..	..	..	..	..	..	3	8	26
	Congenital Defects	8	5	3	7	1	..	..	..	..	..	..	..	1	3	4
	Old Age	32	7	25	..	..	..	..	..	..	12	20	3	1	14	14
V. Violence		17	14	3	2	2	..	1	3	6	3	..	..	..	1	16
VI. Ill-defined and Not specified { Ill-defined, { Not specified		2	2	..	..	..	..	..	1	1	..	..	..	..	..	2
		1	..	1	1	..	..	..	..	..	..	..	..	..	..	1
TOTALS		722	379	343	207	120	17	9	85	133	121	30	20	30	208	464	

As might be anticipated from the circumstance of the death-register containing the whole mortality of the County Lunatic Asylum, diseases of the Brain and Nervous System formed the largest number of deaths, amounting to no less than 151 or nearly 21 per cent. of the whole, 112 of the number having occurred in the Asylum. Withdrawing this class from consideration, for the reasons explained in reference to the death-rate, the following are the proportions borne by the several classes of disease in the causation of mortality. As in the previous year, diseases of the Respiratory Organs shewed a considerable numerical excess forming upwards of 18 per cent of all deaths and thus displacing from their accustomed position Zymotic diseases which contributed 16 per cent. Tubercular diseases formed 12 per cent, considerably more than three-fourths of which were furnished by Consumption; Other Constitutional diseases which were formerly grouped under the heading of Cancer, Dropsy, and Diseases of Uncertain Seat, 41 per cent; forming a total of the Constitutional Class slightly in excess of the Zymotic Diseases of the organs of Circulation caused 6·3 per cent; Premature Birth, Malformation, &c., nearly the same amount; Old Age, 4·4 per cent to which diseases of the Digestive Organs closely approximated; Urinary Organs, 3·6 per cent; and Violence, 2·3 per cent. With the exception of diseases of the Digestive Organs, which were 3 less than the average, and those of the Integument and the Organs of Locomotion which shew a minute diminution, all deaths from Diseases of the Non-zymotic Classes were in excess of their respective decennial averages; some greatly so, as those from diseases of the Respiratory Organs which exceeded the average by 39 per cent., from Constitutional diseases over 18 per cent., from diseases of the Circulation, 58 per cent., and from Premature birth, &c., 40 per

cent. The numerical variation of the deaths from all causes in the past year compared with their corresponding numbers in the preceding ten years and with their respective averages are exhibited in the two following tables, the first comprising the mortality of the Non-zymotic, and the second that of the Zymotic class of diseases :—

Non-zymotic Mortality.—Table shewing the number of Deaths in 11 years 1876—86, with the increase or decrease of deaths in 1886, compared with the annual average deaths in 1876—85 raised in proportion to increase of population.

CAUSES OF DEATH.		1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1886.	
													No. above corrected average.	No. below corrected average.
<i>Constitutional.</i>	Tubercular ..	64	54	60	62	60	51	69	64	85	90	87	9	..
	Other Constitutional ..	18	17	14	12	17	19	19	20	18	28	30	9	..
	Nervous ..	125	111	111	96	106	121	106	116	128	145	151	14	..
	Circulatory ..	26	21	19	20	23	28	28	25	22	36	46	17	..
	Respiratory ..	58	42	86	125	89	90	87	69	70	101	135	38	..
	Digestive ..	29	18	29	21	21	28	28	35	47	22	30	..	3
	Urinary ..	6	9	4	10	11	4	20	13	15	12	26	15	..
	Generative ..	2	3	4	10	1	..	4	..	3	6	4	1	..
	Locomotor ..	..	..	1	..	3	2	1	..	2	2	..	..	1
	Integumentary ..	..	..	..	..	..	..	1	..	..	3	..	..	4
<i>Developmental.</i>	Premature Birth ..	22	19	18	18	27	37	27	23	40	37	45	13	..
	Malformation ..													
	Low Vitality ..													
	Age ..	16	13	14	26	23	27	27	33	42	34	32	2	..
	Violence ..	14	11	13	11	11	20	18	32	21	15	17	..	3
	Ill-defined or Not specified ..	1	3	1	1	..	4	1	..	..	..	3	2	..

Zymotic Mortality.
Epidemic Diseases,
their prevalence
and fatality.

The following table exhibits the total deaths that occurred from Zymotic diseases, particularizing those that resulted from the seven principal Epidemic Diseases during the past and ten preceding years, and the relative proportion which they bore to the deaths from all causes. It also shews the increase or decrease of deaths in 1886 compared with the annual average deaths in 1876-85, raised in proportion to increase of population:—

DISEASES.	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1886.	
												No. above corrected average.	No. below corrected average.
<i>Seven principal Epidemic Diseases.</i>													
Small Pox	1	..	..	1	..	9	..	..	1	3	..	..	1.7
Measles ..	17	..	4	16	9	5	18	14	6	19	28	15	..
Scarlet													
Fever ..	12	21	2	15	24	19	9	5	5	3	6	..	7
Diphtheria ..	1	..	4	1	4	1	3	11	4	6	10	6	..
Fever { Typhus	12	9	3	8	6	4	9	12	4	4	8	..	..
{ Enteric }													
Whooping													
Cough ..	10	11	6	44	15	12	26	5	17	24	31	11	..
Diarrhœa }	16	16	19	7	20	19	29	10	27	35	28	5	..
Cholera }	2	..	..	..	..	..	..	..	..	..	..	..	..
Total Deaths from above Epidemic Diseases	71	57	38	92	78	69	94	57	64	94	111	27	..
Other Zymotic Diseases ..	9	6	10	12	14	7	14	20	19	3	5	..	8
Total Deaths from Zymotic Diseases	80	63	48	104	92	76	108	77	83	97	116	1.9	..
Zymotic Death-rate per 1,000 ..	3.45	2.64	1.96	4.14	3.35	2.71	3.72	2.57	2.70	3.07	3.58	57	..
Total Deaths from all causes	461	384	422	516	484	507	544	499	576	528	722	125	..
Per centage of Deaths from Epidemics to Deaths from all causes	15.4	14.8	9.0	17.8	16.1	13.6	17.2	11.4	11.1	14.9	15.3	1.2	..

On reference to the table it is seen that the total deaths that occurred from the above diseases amounted to 116, 111 of which were of the epidemic kind. The latter exceeded the average number by 27 or 32 per cent. The excess was due to Whooping-Cough, Measles, Diarrhœa and Diphtheria. *Whooping-Cough* was the most extensively prevalent and fatal of these diseases, having caused 31 deaths, or 11 above the average ; it prevailed for the most part during the first seven months of the year. During the same period *Measles* was also unusually prevalent, causing 28 deaths, or more than double the average. *Diarrhœa* was very prevalent in the hot season, and resulted in 28 deaths, or 5 more than the average. The deaths were exclusively confined to infants, and with two exceptions wholly under one year of age. *Diphtheria* caused 10 deaths, or 6 above the average. *Scarlet Fever*, as in the Metropolis generally, declined in amount, producing 6 deaths only, or 7 below the average. The deaths from *Fever* were 8 in number—the average amount. *Small-pox* was entirely absent from the sub-district, not a single case having occurred during the year.

Vaccination.—The record of Vaccination, as contained in the Return made by the Vaccination Officer to the Local Government Board, may be here satisfactorily considered. Respecting the vaccination of children whose births occurred in 1885, it appears from such Return that of 1,121 children born, 951 were successfully vaccinated, 1 was returned as “insusceptible,” 91 died unvaccinated, 15 were postponed on account of sickness, and 4 removed to places duly recorded, leaving 59 or 5·2 per cent. who had removed to places unknown or which could not be reached.

Recurring to infectious diseases, eight cases only of

the kind, viz:—4 Enteric Fever, and 4 Scarlatina were sent into the Metropolitan Asylum Board Hospitals during the year, and all recovered. The smallness of the number sent into hospital was due to the circumstance that the prevalent diseases were those for which hospital accommodation is not, but ought to be, provided.

The following table shews the months in which the deaths from epidemic diseases occurred and the mean temperature of each quarter of the year. By far the greater majority of the deaths is seen to have occurred, as in the previous year, in the first and third quarters; the bulk of those in the latter was due to Diarrhœa, and was attributable, as pointed out by the Registrar-General in his annual summary, to the hot weather that prevailed through the summer months.

DISEASE.	January	February	March	April	May	June	July	August	September	October	November	December
	Mean Temp. 36·5			Mean Temp. 52·5			Mean Temp. 61·2			Mean Temp. 44·6		
Small Pox.....	..	..	..	..	..	..	..	..	..	..	..	..
Measles	4	9	10	3	..	..	2	..	..	..	..	..
Scarlatina .....	..	..	1	1	..	..	1	1	..	..	2	..
Diphtheria .....	..	..	1	1	1	1	..	..	1	..	3	2
Whooping Cough ..	4	5	6	3	7	4	..	..	1	..	1	..
Diarrhœa	1	..	..	..	..	..	14	3	5	..	..	..
Fever .....	..	..	..	..	..	..	..	3	2	1	2	..
TOTALS.....	9	14	18	8	8	5	17	12	9	1	8	2
	41			21			38			11		

Deaths in relation
to Social Position.

The following table exhibits the proportion per cent. of deaths from zymotic diseases as well as of the total deaths in relation to the social position of the deceased:—

SOCIAL POSITION.	Total Deaths.		Deaths from Zymotic Diseases.	
	1886.	Decennial Average.	1886.	Decennial Average.
Nobility and Gentry... ..	2·77	3·50	0 86	1·33
Professional Class, Merchants, Bankers, &c. ..	4·16	4·96	4 31	4 61
Middle & Trading Classes, Clerks, &c.	28·81	21·35	19·83	19 61
Industrial and Labouring Classes	64 26	70·19	75·00	74·45
	100·00	100·00	100·00	100·00

The figures of last year, compared with those of the year preceding, shew a very considerable reduction in the relative amount of mortality suffered by the labouring classes, both as regards the total amount as well as that portion which occurred from zymotic disease, viz:— to the extent of 2·94 per cent. of the former and 2·32 per cent. of the latter. The latter result was scarcely to be anticipated in presence of a higher general mortality than usual from those diseases which afflict the labouring classes with greatest severity.

Infant Mortality.

The death rate of infants in the past year was unusually high, the result of a correspondingly greater prevalence of the zymotic diseases most obnoxious to infant life. All the deaths from Whooping-Cough and Measles occurred to children under 5 years of age, and those from Diarrhœa almost exclusively to infants under 1 year of age. The deaths of infants under one year formed 48·6 per cent. of all deaths, the average being 26·7; of children under 5 years, 45·2 per cent., the average being 42·8 per cent., whereas all deaths under 20 years of age formed 48·8 per cent., the average being 50·6 per cent. The proportion of deaths under 1 year

to the number of births was 16·4 per cent., the decennial average being 15·5 per cent.

Senile Mortality. Of the total deaths, 32 were registered as having resulted from old age *per se*, but 84 or 11·6 per cent. occurred at the age of 70 years and upwards, the highest age attained (that of a female), being 99 years. In the following summary of the number, sex, and age of the deceased, the deaths of females are seen to form considerably more than twice the number of those of males.

Age.	Males.	Females.	Total.
70 — 75	10	16	26
75 — 80	9	21	30
80 — 85	1	9	10
85 — 90	4	11	15
93	..	1	1
96	1	..	1
99	..	1	1
	25	59	84

As the attainment of high ages in relation to the total deaths in a locality may be accepted in some measure as an exponent of the latter's salubrity, it should be observed that the number of persons attaining the age of 80 years and upwards in this sub-district considerably exceeds that of the whole Metropolis.

Sickness and Mortality amongst the Parochial Poor. The nature, amount and fatality of disease that occurred amongst the parochial poor during the year are exhibited in Table III. in the Appendix. It is there seen that the total number of fresh cases of disease that came under treatment was

696, 25 of which ended fatally, or slightly over $3\frac{1}{2}$ per cent. There were 129 cases of infectious disease resulting in 6 deaths; 8 of the total viz :—4 of Enteric Fever, and 4 of the 5 cases of Scarlet Fever that occurred were moved to hospital and there recovered. There were 23 cases of Whooping-Cough with 3 deaths, 44 cases Measles with 2 deaths, and 44 of Diarrhœa with 1 death. The low relative proportion of deaths to cases treated both of general and infectious diseases indicates a comparatively slight intensity of the diseases that then prevailed. It is somewhat remarkable that although there was a considerable increase in the number of deaths from Diphtheria throughout the sub-district, there was not a single case of that disease amongst the parochial poor; in possible connection with this circumstance also there were but 5 cases of Scarlet Fever amongst them, four of which, as already stated, were removed to hospital.

Inquests.	The number of inquests held during
Violent Deaths.	
Uncertified Deaths.	

the year was 44, or 9 more than in 1885, with verdicts of death from natural causes returned in 26 instances, and from violence in 18 or 1 more than in the year preceding. The number of uncertified deaths has greatly diminished of late years; there were 17 in the year 1884, 8 in 1885, and during the past year there were 7 only, and these it appears were referred to the Coroner who considered medical inquiry unnecessary. As any of these cases *may* have resulted from other than natural causes, it would afford a greater sense of security to society if a preliminary medical investigation, in place of a non-professional inquiry, were made in every case in which the cause of death is not certified by a registered Medical Practitioner (see report for 1865 and following). The number and sex of the persons who formed the

subjects of inquests, with the verdicts of the latter, are shewn in the following tabulated form :—

			Males.	Females.	Total.
Deaths from natural causes	..	..	19	7	26
Deaths from violence, viz :—					
<i>Accidental</i> ..	Concussion of Brain from a Fall		—	1	13
	Scalds and Burns		—	2	
	Drowning		3	—	
	Fractures		2	—	
	Suffocation		3	—	
	Thrown from a Cart		1	—	
	Other Injuries		1	—	
<i>Suicidal</i> ..	Pistol Shot .. ..	..	2	—	2
<i>Homicidal</i> ..	Manslaughter .. ..	..	—	1	1
	Found Dead .. ..	..	—	1	1
<i>Not specified</i> ..	Found Drowned .. ..	..	1	..	1
			32	12	44

Sanitation. The number and nature of the ordinary sanitary operations carried out during the year will be found set forth in Table XIV., page 22, as far as they can be so tabulated, for it is obvious that a vast amount of work of the kind cannot be demonstrated in that manner. They will be found to have kept pace with the Sanitary requirements of the Sub-district,² and to have been wholly carried out without the necessity for an intervention of the law, a circumstance that speaks favourably of the tact and discrimination employed by the sanitary Inspectors who have performed their important duties in a highly satisfactory manner.

All³ the Bake-houses in the Sub-district, 38 in number, were as usual periodically inspected; and the Cow-

houses 18, with the Slaughter-houses 8 in number, were examined and reported on as to their condition previous to the renewal of their owners' licenses. They were all found in a satisfactory state. As regards the latter structures, however, a great sanitary improvement would be effected if the various private slaughter-houses were superseded by a public "Abattoir" for the entire District, or for South London.

Especial attention was paid to the disinfection and purification of houses after the presence of infective diseases. Sulphur-fumigation done thoroughly, having been, as hitherto, the agent employed in every instance of the kind; and experience continues to prove the complete trustworthiness of the process, for on reference to the Table it is seen that in 192 houses so disinfected there was not a single instance of a recurrence of disease; no stronger evidence could be adduced in its favour.

Amongst the many other important details contained in the Table relating to drainage, water supply, and the removal of nuisances, (some of which formed the subjects of special reports), one that deserves particular attention is that relating to the inspection of houses. No less than 4,105 houses and premises underwent careful examination during the year, and in 525 instances defects were found and remedied. This searching and systematic house-inspection, which is one of the greatest benefits conferred on the inhabitants by the powers vested in the Board, cannot be too sedulously pursued, and might be extended, so as to admit of more frequent supervision, with much advantage to the public health. By its means sanitary defects, more or less dangerous to health and life, are discovered, which, without such investigation, would remain unnoticed or

unheeded. It is a source of satisfaction to note that by its operation the houses of all classes, but especially of the working classes, have been rendered better adapted for the maintenance of health and the prevention of disease, that occupiers have acquired a better knowledge of what is right and wrong in the structural arrangements relating to the sanitary requirements of their houses; and that as a consequence, the visit of the inspector, instead of as formerly being resented as an intrusion, is now welcomed and often invited as a benefaction.

GEORGE EDWARD NICHOLAS, M.D.,

Medical Officer of Health for Wandsworth.

ANALYST'S REPORT.

TO THE WANDSWORTH BOARD OF WORKS.

GENTLEMEN,

It having become customary for me to annually supplement the dry figures of my official quarterly reports by a few remarks on the state of the food supply of the district, and on the working of the sale of Food and Drugs Act therein, I beg this year to be permitted to refer briefly to one or two points upon which it is desirable that those members of the public who take an interest in their local affairs, should have a clear understanding before they proceed to criticise the action of their representatives. I have found that persons who speak generally upon food without such understanding, usually repeat one of two hackneyed complaints, and I therefore propose to take these *seriatim*, and to show some of the difficulties which beset the present state of the law :—

- (1). It is said "our local officers favor the publicans, because they never find bad beer, while the Excise officers do continually." This is simply because the law has placed the excise chemist in a position enabling him to detect the addition of sugar and water to beer, which is denied to the public analyst. An exciseman has the power of entry into a publican's cellars and can take what samples he pleases. He therefore *takes a sample from the cask under draught, and at the same time, he takes one from an untouched cask of the same delivery.* In this way he supplies his analyst with specimens of the beer as it comes in and as it goes out, and then a very simple research enables the chemist to say whether or not water or sugar has been added. The local Inspector of food has no such power; he can only buy over the counter and, there being no legal definition of the word "beer" nor any standards of strength for such articles, it follows that all a public analyst can do is simply to see that the beverage is whole-

some, but whether it has been watered or not he cannot legally say. We therefore see that, were the food Inspector placed in the same position as the Exciseman, then the local officers and Boards would appear to the public to be quite as clever and active as they now seem helpless and supine in the matter of beer.

- (2). It is said :—"there is a lot of poor milk about which the Inspector never finds, and miserable stuff often passes public analysts as genuine." Here again we are indebted for such criticism to causes arising out of the state of the law. The cause of the first portion of the complaint lies in a decision of the High Court of Justice that milk *in transitu* from a vendor to the house of his customer in pursuance of a contract for a daily supply paid weekly, is not legally on sale to the public. The Inspector cannot therefore demand a sample, and even the person receiving the milk cannot take proceedings because he cannot comply with the needful formalities. Until Inspectors are vested with additional powers, people who engage in weekly contracts with their milkman thereby (unless they make a special written contract legally framed for the supply of milk of a definite purity), forfeit all protection from the public Inspectors. This is a point that should be more generally known, and it is a fact that the milk so delivered at houses is not, as a rule, so good as that sold over the counter. On the second head of complaint, the state of the law has also operated to tie the hands of the analyst. If a vendor who is charged with diluting his milk feels himself wronged, the law enables him, very properly, to appeal against the decision of the public analyst. This appeal is made to the Excise chemists at Somerset House, who, as public servants having no local interests, are presumably the best persons for such a purpose. Unfortunately this theoretically excellent law has become a potent factor in causing the supply of slightly diluted milk. All natural milk contains water, and the amount is variable according to food, season, &c. In judging of the purity of milk, the reference chemists have chosen for their standard that of the poorest possible natural milk, and public analysts are therefore driven to follow suit and pass all milk as legally genuine which exceeds this very low limit. If a public analyst chose to stand up against this standard, his decisions as to quantities of added water of about ten per cent. or under would be continually reversed on appeal, and his Board and the public

would both cease to have any confidence in his abilities. It pays a dairy farmer or large dealer much better to secure rich milk by proper feeding and breeding, and then to reduce it to the standard! than to deal with poor milk. When therefore the Board's officers catch a man it is generally where the retailer has been doing a little extra work on his own account upon a milk already "standardised" down to Somerset House strength before it comes into his hands. The result is that we get a regular dead level of milk as defined by the reference chemists, but do not, as formerly, get one day good rich milk when the supply is copious and real half-and-half when it is short. The remedy to this will be in the passing of a law making it necessary that all milk should be sold at a fair average standard fixed by Act of Parliament, and that poor bred cows which do not give a proper article should be discarded.

In conclusion, I have to report that the food supply of the district fully maintains its excellent quality. This is no doubt due to the care with which the Board carries out its excellent system of daily inspection by an officer specially appointed for the purpose. Such regular inspection is much better than sudden raids, and although we may not in Wandsworth figure in the eyes of the public every now and then with large batches of prosecutions alternated with periods of inactivity, I feel satisfied that in no other district is the Act better carried out. I believe that the regular action of the Board is universally more respected by the tradesmen, and that we have now very few in the district who do not honestly comply with the Act by selling mixed articles as such and not as pure. The very difficulty that the Inspector experiences in purchasing impure articles without such declaration (which then makes their sale legal in the present state of the law) is a proof of the success of the system originated and carried out since the first passing of the Act by the Wandsworth Board.

I have the honour to be,

Gentlemen,

Your obedient Servant,

JOHN MUTER, Ph.D., F.R.S. Ed., F.I.C.

Public Analyst.