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REPORT

ON THE

VITAL AND SANITARY STATISTICS

OF THE BOROUGH OF LAMBETH DURING THE YEAR 1906

[With an Account of the work done by the Sanitary Inspectors, and of the Proceedings taken under the Food and Drugs, Factory and Workshops, and Public Health, Acts.]

BY

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1907.



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

Mr. Mayor and Gentlemen,

It is my privilege to present to you a most satisfactory Report for the year 1906. The mortality and morbidity rates are below the averages, shewing that the Borough of Lambeth still holds a foremost place amongst the metropolitan sanitary districts and amongst the large provincial towns.

I would draw attention to the good work that has been accomplished during the year 1906 in connection with the Lambeth Municipal Milk Depôt, which was opened to the Public on February 12th, 1906.

The sanitary staff, as a whole and individually, has worked well, as shewn by the records tabulated in this Report.

To the heads of departments my thanks are due, as also to the members of the Borough Council, for support readily given.

I am, Mr. Mayor and Gentlemen,

Your obedient Servant,

Joseph

Medical Officer of Health.

I. VITAL STATISTICS.

The Borough of Lambeth contains 4079.6 statute acres, exclusive of 82.1 tidal water, 0.8 inland water, and 31.1 foreshore, with an *estimated* total population of 315774 persons to the middle of 1906, consisting of 149491 males and 166283 females, or an excess of 16792 females.

The total estimated increase (1905-1906) of the population is 2729, but the "natural increment," *i.e.*, the excess of births over deaths (uncorrected) is 3944, so that an exodus of 1215 in excess of those who came into the Borough during 1906 must be assumed.

The estimated Populations of the Borough of Lambeth to the middle of 1906 may be tabulated as follow :—

ESTIMATED POPULATIONS.

(Estimated, Middle 1906.)

I. Wards.

Ward	ls.	Males.	Females.	Total.
Marsh		 fficient prough Parish	fficient brough Parish	26420
Bishop's		 sufficient Borough d Parish	sufficient Borough / Parish	31626
Prince's	·	 with sufficient e <i>New</i> Borough ne <i>Old</i> Parish	d with sufficient the New Borough the Old Parish	49308
Vauxhall		 d w the the.	d wi the / the	32604
Stockwell		 ivided int of from Vards.	ivided nt of 1 from Vards,	33680
Brixton		 sub-divided account of t ering from Wards.	sub-divided account of t ering from Wards,	45592
Herne Hill		 0	0	33523
Tulse Hill		 2		29746
Norwood		 Cannot accurac Wards	Cannot accurac Wards	33275
Borough of La	mbeth	 149491	166283	315774



Sub-Districts.	Males.	Females.	Total.
Waterloo	 13469	12951	26420
Lambeth Church (1st)	 9104	9297	18401
Lambeth Church (2nd)	 19962	20073	40035
Kennington (1st)	 27366	27580	54946
Kennington (2nd)	 20556	24425	44981
Brixton	 41956	48842	90798
Norwood	 17078	23115	40193
Borough of Lambeth	 149491	166283	315774

II. Registration Sub-Districts.

5

Age-Periods.	Males.	Females.	Total.	
0—1	3823	3818	7641	
1—5	13182	13092	26274	
Fotal under 5	17005	16910	33915	
5-20	43510	45441	88951	
20-40	52216	59316	111532	
40-60	27622	31043	58665	
60-80	8630	12475	21105	
80 upwards	508	1098	1606	
Total over 5	132486	149373	281859	

III. Age-Periods.

6

<i>Old</i> Parliamen Division			Males.	Females.	Total.
North			29095	29080	58175
Kennington			40401	40584	80985
Brixton			36204	42111	78315
Norwood			42571	52649	95220
Parliamentary Lambeth	Area	of 	148271	164424	312695

IV. Parliamentary Divisions (Old).

N.B.—The Parliamentary Divisions have not been altered by the London Government Act, 1899, nor by the Proceedings that fixed the Boundaries of the Metropolitan Boroughs, so that the above figures do not agree with those for the Borough as a whole, but are comparable with those of the old Parish of Lambeth given in previous Reports.

* <i>Adju</i> Parliam Divisi	entary		New War	Total.	
North) Marsh) Bishop's	···· }	58046
Kennington			Prince's Vauxhall	7	81912
Brixton			Stockwell Brixton	2	79272
Norwood			Herne Hill Tulse Hill Norwood	{	96544
* <i>Adjusted</i> Pa Area of Lar		ntary 	_		. 315774

V. Parliamentary Divisions (Adjusted).

* N.B.—By the adjustment of the old Parliamentary Divisions so as to be co-terminous with the new wards.

1906-Groups of M	etropolitan Borough	s (corrected	rates).
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		Enumerated Population, 1891 (Census).	Enumerated Population, 1901 (Census).	Estimated Population, 1906 (middle of year).	Birth-Rate.	Death-Rate.	Zymotic Death- Rate.	Deaths under 1 year to 1000 Births.	
London		 4228317	4536541	4721217	26.7	15.1	1.9	130	
South Group		 1524472	1749956	1877334	27.0	14.7	1.9	129	
West Group		 770022	826985	861086	21.6	13.7	1.6	131	
North Group		 1013707	1056070	1083593	24.6	14.1	1.5	115	
Central Group	·	 214464	187791	174638	31.3	19.4	2.6	120	
East Group		 705652	715739	724566	33.9	18.2	2.8	148	

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N.B.—This table has been again added for purposes of comparison with previous Lambeth Reports, but is unsatisfactory on account of the differences between the boundaries of the *old* Sanitary Districts, and the *new* Cities and Boroughs, of the Metropolis.

Houses.*

At the time of the Census, 1901, there were within the Borough of Lambeth 41511 inhabited houses and 1825 uninhabited (881 in occupation and 944 not in occupation), whilst 137 were in process of building. At the time of the 1891 Census, the inhabited houses numbered 38899.

The estimated number of inhabited houses to the middle of 1906 is 42881, which, with an estimated population (to the middle of 1906) of 315774 gives an average of 7*3 persons per inhabited house.

RATEABLE VALUE.

The rateable value of the Borough for the year ending April 6th, 1906, was $\pounds 1954165$, and a 1d. rate per $\pounds 1$ is estimated to produce $\pounds 7604$ net for the year ending March 31st, 190^e, in both cases inclusive of Government property.

STATISTICS FOR THE COUNTY OF LONDON (UNCORRECTED).

The Registrar-General returns the estimated population of London for the middle of the year 1906 as 4721217 consisting of 2228438 males, and 2492779 females, and states that there were registered during the year 40212 marriages, 125652 births (64201 males and 61451 females), and 73990 deaths (38136 males and 35854 females). There were registered 9179 deaths from the seven chief zymotic diseases. The excess of registered births over deaths, *i.e.*, the natural increment, is 51662, and the estimated increase of population from the middle of 1905 to the middle of 1906 is 36423.

^{*} The definition of a "house" laid down by the Registrar-General for Census purposes is "any building that is separated from the next adjoining building by an unbroken party wall." This definition has not been strictly adhered to by the Enumerators in taking the Census.

TA	B	LE	A.	

Giving the number of Births and the Birth-Rates in each Registration Sub-District of the Borough of Lambeth during 1906 (arranged Quarterly).

			Total for the	Rate			
Registration Sub-District	s.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Year 1906.	per 1000 Inhabitants
Waterloo Road 1st		111	108	110	112	441)	50.08
, 2nd		248	266	265	206	985 }	53.9*
Lambeth Church 1st		167	132	122	143	564	30.7
,, 2nd		403	403	368	313	1487	37.1†
Kennington 1st		475	478	451	446	1850	33•7
" 2nd		243	241	248	268	1000	22.2
Brixton		485	486	513	414	1898	20.9
Norwood		182	174	207	184	747	18.6
Borough of Lambeth		2314	2288	2284	2086	8972	28.4

* Including Lying-In Hospital (589 cases, of which 171 belong to Lambeth)-corrected rate (i.e., excluding non-Lambethian births) = 38.2.

† Including Workhouse (192 cases, of which 166 belong to Lambeth)-corrected rate (i.e., excluding non-Lambethian births) = 36.5.

Inner Districts, 40.9; Outer Districts, 23.8 per 1000—uncorrected (whole Borough=28.4). Inner Districts, 35.7; Outer Districts, 23.8 per 1000—corrected (whole Borough=27.1).

TABLE **B**. Shewing the Estimated Populations, Numbers of Inhabited Houses, Marriages, Births, and Corrected Deaths in the Borough of Lambeth during 1906, and in the Parish of Lambeth for ten years (1891-1900).

		. p.	р р.	o,	pa	C	orrected Num	ber of Death	s.	s ic eth ed).
	Year.	Estimated Population.	Estimated No. of Inhabited Houses.	Marriages,	Registered Births.	Fotal – Ages.	Under 1 Year.	Under 5 Years.	Deaths from 7 Chief Zymotic Diseases.	Deaths in Public Institutions in Lambeth uncorrected)
Boro'	5									1005
New I	1906	315774	42881	2489	8972	4709	1088	1561	522	1925
Z	1891	276162	38634	2140	9097	5886	1387	2251	692	1438
	1892	280032	38950	2107	9226	5457	1250	2091	705	1578
	1893	283956	39265	2233	9222	5219	1325	1925	748	1741
sh.	1894	287935	39580	2224	9232	4837	1223	1936	680	1484
Parish.	1895	291970	39895	2220	9341	5559	1420	2187	732	1511
Pa	1896	296061	40210	2445	9592	5098	1313	2045	708	1588
P	1897	300048	40525	2445	9388	5251	1425	2096	734	1546
PIO	1898	304073	40840	2589	9256	5430	1426	2089	726	1543
	1899	308108	41155	2523	9433	5886	1488	2198	782	1680
	1900	312152	41470	2454	9167	5430	1328	1884	497	1576
A	verage									
	391-1900	294049.7	40052.4	2338	9295.4	5405.3	1358.5	2070.2	700.4	1568.5

NOTE.—(a) Enumerated Population for old Parish at Census 1896 was 295,033, and the enumerated number of Inhabited Houses at Census 1891 was 38,556. (b) Enumerated Population for the new Borough at Census 1901 was 301,895, and the enumerated number of Inhabited Houses at the same Census, 41,511. TABLE C. Shewing the number of persons per house, the Marriage-, Birth-, and Death-Rates (corrected), and proportion of Deaths in Public Institutions, in the Borough of Lambeth for the Year 1906, and in the old Parish of Lambeth for ten years (1891-1900).

	The Year	Estimated No. of Persons per house.	Marriage-Rate per 1000 Population.	Birth-Rate per 1000 Population.	Corrected Death-Rate per 1000 Population.	Corrected Deaths of Children under 1 year, per 1000 total Births.	Deaths of Children under 1 year, per 1000 Deaths (corrected).	Deaths of Children under 5 years, per 1000 Deaths (corrected).	Corrected Zymotic Death- Rate, per 1000 Population.	Deaths in Public Institutions per 1000 total uncorrected deaths.
·0.)									
New Boro'	1906	7.3	15.8	28.4	14.9	121.3	231.04	331.5	1.7	382*9
Nev	1891] /	15.5	32.9	21.3	152.5	235.6	382.4	2.5	236.6
	1892	A PARTY ALL	15.0	32.9	19.5	135.5	229.1	383.2	2.5	272.4
	1893		15.7	32.5	18.4	143.7	253.9	368.8	2.6	305.9
sh.	1894		15.4	32.1	16.8	132.5	252.8	400.3	2.4	284.7
ris	1895		15.2	31.9	19.0	152.0	255.4	393.4	2.5	257.9
Pa	1896	7.3	16.5	32.4	17.2	136.9	257.6	401.1	2.4	295.7
Old Parish.	1897		16.3	31.3	17.5	151.8	271.4	400.1	2.4 2.4 2.4	281.8
ō	1898		17.0	30.4	17.9	154.1	262.6	384.7	2.4	277.1
	1899		16.3	30.6	19.1	157.7	252.8	373.4	2.5	277.1
1	1900	j	15.7	29.4	17.4	144.9	244.6	346.9	1.6	282.5
Ave 891-	erage 1900.	7.3	15 [.] 9	31 [.] 6	18.4	146.1	251.3	382.9	2.4	276.7

Note.—(a) Enumerated number of Inhabited Houses for the old Parish at Census 1891 was 38556. (b) Enumerated number of Inhabited Houses for the new Borough at Census 1901 was 41511.

THE BIRTH-RATE.

The total number of Births registered in the Borough of Lambeth during the year 1906 was 8972. Of the total 8972 births, 4562 were males, and 4410 females, showing an excess of 152 males.

Of the total 8972 births registered in the Borough of Lambeth, 589 took place in the Lying-In Hospital (York Road), and of these, 171 belong to the Borough; whilst 192 took place in the Workhouse (Brook Street), and of these, 166 belong to the Borough. Thus, there are 444 births belonging to other districts, but these may be assumed to counteract in number the births (amongst Lambethians) that have taken place *outside* the Borough, together with any *un*registered births. The Lying-In Hospital and the Workhouse tend to abnormally increase the birth-rates in Waterloo Road and Lambeth Church Second Districts, and the necessary corrections are, consequently, made in a footnote to Table A (see p. 10).

The birth-rate for Lambeth is 28.4 per 1000 inhabitants (30.5 for males, and 26.5 for females); whilst in the various Registration Sub-Districts the birth-rates work out as shown in Table A, from which it will be seen that the uncorrected birth-rate in the Inner Districts is 40.9, and that in the Outer Districts 23.8, per 1000—the corrected birth-rates being respectively 27.1 for the whole borough, 35.7 for the Inner, and 23.8 for the Outer, Districts.

Tables B and C shew, for comparison, the number of births, and the birth-rates for 10 years (1891-1900) in the old Parish of Lambeth.

The birth-rate for Lambeth (Parish and Borough) has been recently slowly, but steadily, declining. This decline is not peculiar to Lambeth, nor even to England, but is to be found in nearly all civilised countries, and is greater in reality than would appear on the surface; for it must be remembered that *pari passu* with this declining birth-rate is a declining death-rate.

Returns of all Births (*with* addresses of mothers) that occur in Lambeth are now obtained from the District Registrars, and this information is of great use in connection with the Borough Council's endeavours to lessen the high mortality amongst infants (under 1 year of age), by distributing amongst the mothers and others responsible, pamphlets dealing with the proper management and feeding of infants. The time allowed for birth registration is 42 days, and the Council approved during 1906 of this time being reduced to 21 days (as in Scotland).

THE MARRIAGE-RATE.

The number of Marriages registered in the Borough of Lambeth during the year 1906 was 2489 as compared with 2525 during 1905, and a yearly average of 2338 in the old Parish of Lambeth for the 10 years 1891-1900.

The marriage-rate for Lambeth Borough during 1906 is therefore, 15.8 per 1000 inhabitants, as compared with 16.3 for London.

Tables B and C show the number of marriages and the marriage-rates for the last ten years in the old Parish of Lambeth, and it will again be noticed that the marriage-rate has been gradually, but persistently, falling during that period (as also during the previous decennium). Marriage statistics are of little value.

THE DEATH-RATE.

The total number of deaths registered in the Borough of Lambeth, during the year 1906, was 5028 as compared with 4896 during 1905, and a yearly average of 5716.7 in the old Parish of Lambeth for the 10 years 1891-1903. Of the total 5028 deaths, 2610 were males and 2418 females, showing an excess of 192 males. The death-rate for Lambeth is, therefore, 15.9 per 1000 inhabitants (17.5 for males and 14.6 for females), as compared with 15.7 for London (17.1 for males and 14.4 for females). These rates are, however, uncorrected, and, on analysing the 5028 deaths registered in the Borough of Lambeth, it is found that 811 represent deaths occurring within the Borough amongst persons not belonging thereto. These deaths are to be deducted, but, on the other hand, there are 492 deaths registered outside the Borough of persons belonging thereto, and these must be added, giving a corrected number of deaths for Lambeth during 1906, of 4709, and a corrected death-rate of 14.9 per 1000 inhabitants, as compared with 15.1 for London (the total corrected number of London deaths being 71155).

I. General Hospitals.

Charing Cr	OSS	 17
Guy's		 30
King's		 10
London		 6
Middlesex		 15

Royal Free	 1
St. Bartholomew's	 16
St. George's	 8
University	 2
Westminster	 59

1

2

1

4

2

II. Special Hospitals.

Bolingbroke	1	Hospital for Epilepsy,
Brompton	4	Maida Vale
Cancer	2	Hospital for Incurables,
Central London Sick	1	Wandsworth
Evelina	30	Hospital of St. John
Fridenheim	3	and Elizabeth
Grosvenor Hospital	1	Hostel of God
Gt. Ormond Street	8	Infants' Hospital,
Heart Hospital, Soho	2	Hampstead
Homœpathic	2	Italian

II. Special Hospitals-continued.

Kensington General	1	Poplar
London Throat	1	Royal Chest, City Road
Maternity, Hackney	1	Royal Ear, Westminster
Metropolitan	1	St. Joseph's Hospice
Mount Vernon,		St. Luke's
Hampstead	1	St. Mary's
N. E. Children's		St. Peter's
Hospital	1	Temperance Hospital
New Hospital for Wome	n 1	Victoria Hospital
N. W. London	1	West London

Fever.

Gore Farm	 	2
Grove	 	20

London	Fever	 1
Western		 1

2

1

1 2

1

2

2

1

1

1

III. Infirmaries and Workhouses.

Battersea Infirmary	2	Southwark Infirmary	3
Bermondsey Infirmary	1	St. George's Infirmary	2
Camberwell Infirmary	. 2	St. Giles' Workhouse	1
Chelsea Infirmary	1	Wandsworth Infirmary	1
Holborn Infirmary	1		

IV. Asylums.

Banstead		32
Belmont Asylum		1
Camberwell Hous	se	1
Caterham		21
Cane Hill		24
City of London		1
Claybury		8
Colney Hatch		4
Darenth		4

Dartford		 14
Hanwell		 2
Horton Asy	ylum,	
Epsom	·	 20
Leavesden		 3
Manor		 5
Peckham He	ouse	 6
Tooting Bec		 25

V. Unclassifiable Places.

Brought dead to	Projectile Co.'s Works,
Hospital 1	Battersea 1
Elephant Stn. (Baker-	Pond, Clapham Com-
loo Railway) 1	mon 1
H.M. Prison, Wands-	Railway Carriage 1
worth 1	River Thames 5
Peckham Rye 1	Streets 5
Private Houses 14	Tunnel (District Rly.) 1

SUMMARY.

I.	General Hospitals	 	164
II.	Special and Fever Hospitals	 	111
III.	Infirmaries and Workhouses	 	14
IV.	Asylums	 	171
V.	Elsewhere (unclassifiable)	 	32
			492
			102

Whether the corrected or uncorrected death-rates for the Borough of Lambeth (as a whole) be taken, they are very satisfactory for the year 1906, the sixth year of existence of the newly-formed Borough. Sub-dividing the death-rates amongst the several Registration Sub-Districts, it will be again noted that the Inner Districts, e.g., Waterloo, Lambeth Church 1st and 2nd, have, collectively and individually, suffered more than the Outer Districts, e.g., Kennington 1st and 2nd, Brixton and Norwood. So, too, if the death-rates be sub-divided amongst the 9 new Wards, it will be noted also that the Inner Wards, e.g., Marsh, Bishop's, Prince's, and Vauxhall, have collectively and individually, suffered more than the Outer Wards, e.g., Stockwell, Brixton, Herne Hill, Tulse Hill, and Norwood. The reason for this difference is the fact that the Inner Districts and Wards are more congested than the Outer. The status of the inhabitants and the general conditions (sanitary and otherwise) under which

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they live, are also matters to bear in mind when dealing with this subject.

Taking the Registration Sub-Districts (Table E), and the new Wards (Table F), into which the Borough is sub-divided, the corrected death-rates for 1906 will be found to vary between the Inner and the Outer Districts as follows :—

1000	Registration Sub-Districts.		New Wards.	
1906.	Inner.	Outer.	lnner.	Outer.
General Death-rate (corrected)	20.5	12.8	18.4	12.1
Zymotic Death-rate (corrected)	2.9	1.2	2.3	1.2

Of the Registration Sub-Districts, Waterloo has the highest, and Norwood the lowest, general death-rates, and Lambeth Church 2nd the highest, and Norwood the lowest, zymotic deathrates; whilst of the New Wards, Marsh has the highest, and Tulse Hill the lowest, general death-rates, and Bishop's the highest, and Tulse Hill the lowest, zymotic death rates.

Tables G, H and I shew the uncorrected returns (male and female) arranged as to Registration Sub-Districts, age periods, and quarters respectively, and are given for comparison with similiar tables in former Lambeth Reports.

The place that the Borough of Lambeth takes during 1906 in the Registrar-General's corrected Returns amongst the Metropolitan Districts is satisfactory, there being 16 other districts (out of 29) with a less general death-rate, 14 with a less zymotic death-rate, and 10 with a less infantile mortality-rate. Taking the 10 South Metropolitan Districts, Lewisham has the smallest general death-rate per 1000 of the population, viz.: 12:0, and

Bermondsey the highest, viz.: 19.7, as compared with 14.9 for Lambeth, 13.4 for Battersea, and 18.1 for Southwark.

London, as a whole, has a birth-rate of 26.7, corrected deathrate of 15.1, a corrected zymotic (death-) rate of 1.9 per 1000 population, and an infant mortality (corrected) of 130 per 1000 births; and England and Wales a birth-rate of 27.0, a death-rate of 15.4, a zymotic death-rate of 1.7 per 1000 population, and an infantile mortality of 133 per 1000 births; and the Registrar-General's 76 great towns of England and Wales a birth-rate of 27.9, a death-rate of 15.9, a zymotic death-rate of 2.2 per 1000 population, and an infantile mortality of 145 per 1000 births.

Age-Periods of Corrected Deaths.

The 4709 corrected deaths during 1906 may be further analysed, and tabulated as follow :---

1088, i.e., 23.1 per cent. of the total (corrected) deaths took

		place under 1 year of age.
473, i.e., 10.04	,,	between 1 and 5 years.
1561, i.e., 33·2	"	under 5 years.
253, i.e., 5·4	>>	between 5 and 20 years.
500, i.e., 10.6	"	20 to 40 years.
872, i.e , 18.5	""	40 to 60 years.
1203, i.e., 25.5	,,	60 to 80 years.
320, i.e., 6.8	,,	80 years and over.
3148, i.e., 66.9	? 3	over 5 years.

These results may be compared with those for London given in the Table on p. 22 which shows the estimated mortalities per 1000 persons at each age-period for London during 1906 and the London averages for the 10 years 1881-90.

TABLE D.

Shewing the number of Births and Deaths, with Birth- and Borough during 1906. The Deaths are from all causes, and Lambethians who die outside the Borough, by omitting strangers (who die in Public Institutions) into the Districts from which

REGISTRATION SUB- DISTRICTS	Persons per Acre, 1906	Estimated Population (middle 1906).	Total Births (uncorrected).	Birth-rate per 1000 of the Population.	Total Deaths (corrected).	General corrected Death- rate per rooo of the Population.
Waterloo Road 1st	158.2	$26420\left\{ ight.$	$\left.\begin{array}{c}441\\985\end{array}\right\}$	53*9{	279 267	22.04
Lambeth Church 1st	113.6	18401	564	30.7	292	16.9
", ", 2nd…	215.2	40035	1487	37.1†	832	21.2
Kennington 1st	112.1	54946	1850	33.7	780	14.6
" 2nd	90.3	44981	1000	22.2	631	14.4
Brixton	63.5	90798	1898	20.9	1084	12.1
Norwood	39.8	40193	747	18.6	398	10.4
District not stated					146	
Borough of Lambeth	80.1	315774	8972	28.4	4709	14.9

N.B.—In the 146 cases where the District is not stated, the deaths were sub-divided equally in the eight Districts. water, inland water and foreshore.

> * Excluding all the Lying-In Hospital births, † Excluding all the Workhouse births,

TABLE D.

Death-rates in each of the Registration Sub-Districts of the from the chief zymotic diseases, and are corrected by adding who die within the Borough, and by re-distributing persons they have been removed during illness.

		Total	Death	s (corr	rected) from			aŭ.	ber	er hs	ber n.	d),
Small Pox.	Measles.	Scarlet Fever.	Diphtheria and Membranous Croup.	Whooping Cough.	Typhus.	Typhoid or Enteric.	Continued Fever.	Diarrhœa.	Total Zymotic Deaths.	Zymotic Death-rate per rooo of the Population (corrected).	Zymotic Death rate per rooo of the Total Deaths (corrected).	Diarrhœa Death-rate per roooo of the Population.	Infantile Mortality per 1000 Births (uncorrected)
§	2	3	2	1		5	1	15	29	2.6	99.2	14.5	145.1
(8	2	4	1		1		23	39∫	20	138.5∫	14.0	94.4
	7	1	11	8		1		16	44	2.4	143.4	8.8	239.4
	17	6	13	17		2		73	128	3.5	151.1	18.3	173.5
	11	4	4	15		6		27	67	1.2	84.6	4.9	82.7
	5	3	7	7		3		29	54	1.2	83.9	6.2	209.0
	25	7	5	14		4	•••	57	112	1.2	102.1	6.3	105.9
	2	2	5	6				30	45	1.1	109.2	7.5	100.4
				2				2	4				
	77	28	51	71		22	1	272	. 522	1.7	109·3	8.6	132.4

death-rates have been calculated on the assumption that these Census 1891 Returns as to acreage are used, excluding tidal

the corrected birth-rate = 31.7 per 1000. the corrected birth-rate = 32.3 per 1000.

TABLE

 Shewing Mortalities in Lambeth Borough at different Age-periods during 1906, compared with (1) those for London 1906, and (2) the averages for London 1881-90.

 LAMBETH.
 LONDON.

		-						
Age-Periods.			Estimated Populations (middle 1906).	P	opulatio	on, 1906.	Mortality Rates per 1000 Population, 1906. Uncorrected.	Average of Ten Years, 1881—90, per 1000,
			33915	0.0	46.03	51.3	49.1	$68.4 \\ 4.3$
 	 		111532	4.5	6.3	6.8	6.9	4.5 7.7 20.2
			21105	1 (1) (2) (2) (1) (2) (2)	}67.1	67*2	68.3	63·3 206·3
			$\begin{array}{r} 7641 \\ 315774 \end{array}$		121·3 14·9	$132.4 \\ 15.9$	$132.6 \\ 15.7$	$152.0 \\ 20.5$
	···· ··· ···	···· ··· ··· ··· ··· ··· ··· ···	···· ··· ··· ··· ··· ··· ··· ·· ··· ···	33915 88951 111532 21105 1606 7641 815774	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Estimated Populations (middle 1906). Populations Corrected. 33915 $46\cdot03$ 88951 $2\cdot8$ 111532 $4\cdot5$ 58665 $14\cdot9$ 21105 $57\cdot0$ 1606 $199\cdot3$ 7641 $121\cdot3$ 7641 $121\cdot3$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Periods. Estimated Populations (middle 1906). Population, 1906. per 1000 33915 46.03 51.3 49.1 88951 2.8 45.5 6.3 6.8 6.9 58665 14.9 67.1 67.2 68.3 1606 199.3 67.1 67.2 68.3 7641 121.3 132.4 132.6 7641 14.9 15.9 15.7

The Age-periods adopted in previous Lambeth Reports, are used for purposes of comparison, though it is considered more accurate to sub-divide as follows :---1-5, 5-15, 15-25, 25-35, 35-45, 45-55, 55-65, 65-75, 75-85, 85 and over.

*N.B.—The Rates under 1 year are given in terms of 1000 births.

TABLE E. BOROUGH OF LAMBETH. COMPARISON BETWEEN STATISTICS FOR 1905 AND 1906.

and the second second	Death-Ra	tes (corrected	l) per 1000	population.	Birth- (uncorr			ntile Mortal (uncorrected	
	General.		Zyn	iotic.		opulation.		per 1000 birt	
	1905.	1906.	1905.	1906.	1905.	1906.	1904.	1905.	1906.
INNER DISTRICTS-	19.4	20.5	1.9	2.9	30.8	41.1	170.4	134.7	157.7
*Waterloo	21.7	22.03	1.8	2.6	52.1	53.9	123.9	97.6	110.1
Lambeth Church 1st	16.2	16.9	1.6	2.4	28.9	30.7	289.9	2124	237-3
†Lambeth Church 2nd	19.7	21.3	$2 \cdot 2$	3.2	36.7	37.1	165.9	141.2	173.04
OUTER DISTRICTS-	13.2	12.8	1.2	1.2	23.9	23.3	- 132.2	123.1	116.3
Kennington 1st	14.2	14.5	1.5	1.2	31.2	33.7	124.9	105.8	82.4
Kennington 2nd	14.5	14.4	1.3	1.2	21.04	22.2	168.2	206.8	213.3
Brixton	12.5	12.1	1.03	1.2	22.5	20.9	133.8	105.2	105.5
Norwood	10.9	10.4	1.04	1.1	20.3	18.6	104.3	101.5	101.4
Borough of Lambeth	14.8	14.9	1.4	1.7	28.2	28.4	146.6	127.6	132.4

REGISTRATION SUB-DISTRICT

* Excluding the 589 Lying-In Hospital Births, the birth-rate is 31.7, and the infantile mortality rate 187.6, for 1906.
† Excluding the 192 Workhouse Births, the birth-rate is 32.3, and the infantile mortality rate 198.6, for 1906.
§ N.B — The infan'ile mortality statistics for 1904 have been added because, from a meteorological point of view, the years 1904 and 1906 are comparable, and the infantile mortality-rates, on comparison, show a marked decline in 1906.

		TABLE	F.				
	BOROUC	GH OF	LAM	BETH.			
COMPARISON	BETWEEN	STATIS	STICS	FOR	1905	AND	1906.

NEW WARDS.

	New Wards.				(correcte			notic e per 1000	Total Nu Deaths (c		
New Wa	New Wards.		Gen 1905.	eral. 1906.	Zym 1905.	otic. 1906.		lation. 1906.	General. Zymotic. 1906. 1906.		Cases. Zymotic 1906.
						1		1			1000.
INNER-			17.9	18.4	1.8	2.3	6.5	7.5	2573	316	1048
Marsh .			21.7	24.7	1.8	2.2	6.6	10.1	639	58	268
Bishop's .			24.4	20.8	2.1	3.1	7.8	8.2	657	99	260
Prince's .			14.2	16.2	1.2	2.1	6.4	7.04	796	103	347
Vauxhall .			14.4	14.8	1.9	1.7	5.3	5.3	481	56	173
Outer-			12.3	12.1	1.1	1.2	5.4	5.8	2136	206	1026
Stockwell .			12.9	12.2	0.7	1.2	5.7	8.1	412	50	273
Brixton .			14.5	13.2	1.2	1.1	5.8	4.5	600	48	207
Herne Hill .			10.2	11.8	0.8	1.1	4.2	6.2	397	36	209
Tulse Hill .			11.2	10.1	1.1	0.9	4.2	4.3	299	28	127
Norwood .			11.8	12.9	1.1	1.3	7.1	6.3	428	44	210
Borough of La	mbe	th	14.8	14.9	1.4	1.7	5.9	6.6	4709	522	2074

TABLE G.

Shewing the uncorrected Mortality (Male and Female) in the different Registration Sub-Districts of the Borough of Lambeth (arranged Quarterly) during the year 1906.

	1st Quarter.			2nd Quarter.			3rd Quarter.			4t	h Qua	Total No. of Deaths	
	М.	F.	Total.	М.	F.	Total.	М.	F.	Total.	М.	F.	Total.	in each District.
		-							10				100
Waterloo Road 1st	18	27	45	19	17	36	18	31	49	33	29	62	192
" 2nd …	36	28	64	22	11	33	31	25	56	22	20	42	195
Lambeth Church 1st		84	222	112	62	174	132	93	225	134	100	234	855
	196	171	367	157	124	281	177	144	321	191	141	332	1301
Kennington 1st	01	94	178	62	79	141	69	68	137	71	68	139	595
and		73	144	53	57	110	73	83	156	78	82	160	570
D int		151	298	103	137	240	120	105	225	91	104	195	958
Norwood	10	54	- 96	35	42	77	43	53	96	32	61	93	362
Totals	732	682	1414	563	529	1092	663	602	1265	652	605	1257	5028

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-5

Shewing the uncorrected Mortality (*i.e.*, including that of Strangers) at different Ages in each Registration Sub-District of the Borough of Lambeth during the year 1906.

Sub-District.	Under 1 year.			1 to 5 years.			5 to 60 years.			60 yr	TOTAL.		
	М.	F.	Total.	М.	F.	Total.	М.	F.	Total.	М.	F.	Total.	
Waterloo Road 1st	31	33	64	15	12	27	30	45	75	12	14	26	192
" 2nd	59	34	93	13	8	21	30	29	59	9	13	22	195
Lambeth Church 1st	69	66	135	80	48	128	289	188	477	78	37	115	855
" 2nd	152	106	258	32	50	82	298	181	479	239	243	482	1301
Kennington 1st	89	64	153	32	34	66	86	86	172	84	120	204	595
" 2nd …	113	96	- 209	33	25	58	63	74	137	64	102	166	570
Brixton	115	86	201	70	69	139	127	130	257	146	215	361	958
Norwood	42	33	75	20	11	31	40	65	105	50	101	151	362
Totals	670	518	1188	295	257	552	963	798	1761	682	845	1527	5028

26

FAB	E.	T
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Shewing the uncorrected Deaths (*i.e.*, Parishioners and Strangers) that have been registered in the Borough of Lambeth at various Age-periods in each quarter during the year 1906.

		ls	1st Quarter.			2nd Quarter.			3rd Quarter.			4th Quarter.			
		М.	F.	Total.	М.	F.	Total.	М.	F.	Total.	Ň.	F.	Total.	Total.	
Under 1 year		162	125	287	119	100	219	249	175	424	140	118	258	1188	
Between 1 and 5 years		106	89	195	57	46	103	59	83	142	73	39	112	552	
Between 5 and 60 years	·	259	230	489	207	154	361	233	205	438	264	217	481	1761	
60 years and upwards		205	238	443	180	229	409	118	143	261	179	235	406	1527	
Totals		732	682	1414	563	529	1092	659	606	1265	656	609	1257	5028	

INFANTILE MORTALITY, 1906.

Of the 4709 corrected deaths, 1088 were infants under one year of age. The total number of births is 8972, and of these 418 occurred at the Lying-In Hospital, and belong to districts outside Lambeth Borough, and 26 occurred at the Workhouse, and belong also to districts outside Lambeth Borough. In this way, the corrected number of births for Lambeth Borough is 8528. The corrected infantile mortality (*i.e.*, rate of corrected deaths under one year per 1000 corrected births) is, therefore, 127.6. In calculating this infantile mortality, it must be remembered that, whilst we substract the births that belong to outside districts, we do not add the births of infants of Lambethian mothers who may happen to be residing outside the Borough at the time of such births. Taking the uncorrected births and the corrected deaths under 1 year, the infantile mortality rate is 121.3.

Taking the uncorrected number of births (8972), and the uncorrected number of deaths under 1 year of age (1188), the uncorrected infantile mortality is 132.4, as compared with 127.6 during 1905, and an average of 150.5 for the old Parish of Lambeth during 10 years (1891-1900). The chief causes of these deaths were debility, atrophy and inanition, whooping cough, bronchitis and other diseases of the respiratory organs, diarrhœa, premature births, and convulsions (*vide* p. 92 and Table V. in the Appendix pp. 8-9). Table J gives the infantile mortality in different towns in England and Wales, and in theLondon Districts.

In the Registration Sub-Districts of Lambeth the uncorrected infantile mortality varies from 237.3 per 1000 births in Lambeth Church 1st to 82.4 in Kennington 1st (the rates of 94.4 in Waterloo Road 2nd and 173.04 in Lambeth Church 2nd being due to the fact that these Sub-Districts contain the General Lying-In Hospital and the Workhouse respectively), thus :—

		Total No. of Births.	Total Deaths under 1 year (uncorrected).	Infantile Mortality per 1,000 births (uncorrected).
Waterloo Road 1st		441	64	145.1
" " 2nd*		985	93	94.4*
Lambeth Church 1st		569	135	239.4
" " " 2ud	t	1491	258	173.5†
Kennington 1st		1856	153	82.7
" 2nd		980	209	209.0
Brixton		1905	201	105.9
Norwood		745	75	100.4
Lambeth		8972	1188	132.4

Inner Districts=157.7; Outer Districts=116.3. N.B.—Waterloo Road 1st and 2nd have been amalgamated by the Registrar-General, and now form one District called Waterloo. *Excluding all the Lying-In Hospital births, the rate is 234.8. †Excluding all the Workhouse births, the rate is 199.2.

The Infantile Mortality is regarded as a sensitive index of the Sanitary state of a District, and, judged by this index, Lambeth Borough takes a good position amongst Sanitary Districts. Taking the Registrar-General's old 33 Large Towns of England and Wales, the uncorrected infantile mortalities vary from a minimum 111 in Brighton, to a maximum 212 in Burnley, Lambeth and London being 132 and 130 respectively. Lambeth ranks eighth lowest in such list, 26 Towns having higher infantile mortality rates. Taking the uncorrected births and the corrected deaths, the rate for Lambeth is 121, and of the 29 Metropolitan Sanitary Districts, 10 have lesser rates than Lambeth Borough; and of the 10 South Metropolitan Districts, 3 only have lesser rates, viz. :--Greenwich, Lewisham and Woolwich with 119, 113 and 110 per 1000 births respectively. The 2 highest rates amongst the South Metropolitan Districts are registered in Bermondsey and Southwark, viz., 154 and 147 respectively.

The question of infantile mortality and its prevention has been brought prominently forward during 1906 by the National Conference on Infantile Mortality, held in London on June 13th and 14th—the subject being dealt with administratively, educatively and legislatively. The outcome of the Conference may be summed up in the resolutions which were carried as follows :—

1. That the Education Department be urged to add instruction in Elementary Hygiene with reference to the dietary and rearing of infants, to their present scheme for systematically training girls in the senior classes in the practice and principles of personal hygiene and the elements of dietary.

2. That immediate legislation is required enabling Sanitary Authorities to establish or support depôts for the supply of pure, or modified, or sterilized milk, and to defray any cost out of the monies available for public health purposes.

3. That, in view of the information submitted, all still births should be notified within 48 hours to the Medical Officer of Health of the district in which they occur, and that no burial should take place without a medical certificate.

4. That notification of all births be given within 48 hours to the Medical Officer of Health of the district in which they occur.

5. That the question of the insurance of infant lives under 12 months is one demanding serious consideration, and, with a view to receiving reliable information, the Government should be asked to appoint a departmental committee of enquiry on the whole question.

6. (a) That the period of one month's abstention from factory work away from home now imposed on mothers be extended to at least three months, and that, on their return to work, evidence must be produced satisfactory to the Local Authority that proper provision has been made for the care of the child.

(b) That no employer of labour shall permit a woman advanced in pregnancy to engage in factory labour unless her ability therefor has been certified to the satisfaction of the Local Authority.

7. (a) That, having regard to the ascertained fact that in centres of industries where women are largely employed away from their homes, an excessive number of deaths of infants takes place, and that this is contributed to by the improper conditions existing at the houses in which infants are placed out to nurse, it is necessary that the persons by whom, and the places into which infants are received, should be under supervision by the Local Sanitary Authority.

(b) That the Infant Life Protection Act be amended to remedy abuses which are not at present provided against.

8. That all preparations offered or sold as food for infants should be certified by a Government Analyist as non-injurious, and that each packet should contain its analysis.

9. That the Dairies, Milkshops, and Cowsheds Order is defective, and that any amendment should extend the definition of disease as applied to animals, and should make the provision of Regulations by Local Authorities compulsory. That the scope of the Regulations should be extended to cover dirty milk, and should enable Local Authorities to prohibit the sale of any milk which fails to comply with the conditions of purity agreed upon.

10. That the Midwives Act, 1902, should be extended to-Scotland and Ireland.

At the close of the Conference it was unanimously agreed-

"That the Conference resolve itself into a Committee to give effect to the foregoing resolutions, and with power toremit to an Executive Committee to carry out the same."

TABLE J.

England and Wales (33 Large T		Deaths under one year per 1000 Births.	Average Ten Years, 1896—1905.
Brighton		 111	143
Derby		 115	153
Halifax		 115	140
Croydon		 127	133
Bristol		 127	138
Portsmouth		 130	153
London		 130	150
Huddersfield		 135	138
Cardiff		 138	148
Bolton		 140	167
Sunderland		 140	167
Wolverhampto		 140	172
Oldham		 146	170
West Ham		 150	167
Leeds		 151	172
Newcastle-on-		 151	167
Birkenhead		 151	167
Plymouth		 152	165
Bradford		 152	159
Blackburn		 156	184
Swansea		 157	161
Sheffield		 158	182
Salford		 159	192
Hull		 160	170
Gateshead		 161	170
Manchester		 167	183
Birmingham		 168	185
Leicester		 168	176
Nottingham		 171	181
Liverpool	1	 172	180
Norwich		 172	176
Preston		 199	209
Burnley		 212	208
ondon Districts-			
Central		 120	
North		 115	
South		 129	
West		 131	
East		 148	
		191	

Shewing the uncorrected Infantile Mortalities in the Registrar-General's old 33 Large Towns of England and Wales (including London), and in Lambeth Borough, during 1906, with averages for ten years (1896-1905).

N.B.—The rates for London Districts (including Lambeth) are corrected as regards the deaths under 1 year of age. The uncorrected rate for Lambeth is 132.4.

...

...

Lambeth

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CLASS I.-ZYMOTIC DISEASES.

PRINCIPAL ZYMOTIC DISEASES.

The principal Zymotic diseases are seven in number, viz., smallpox, measles, scarlet fever, diphtheria (including membranous croup), whooping cough, "fevers" (including typhus, typhoid or enteric, and simple or continued), and diarrhœa; and the zymotic death-rate is made up from the total deaths from these diseases. As a test of the sanitary condition of a Community, the zymotic death-rate is of approximate value, and the statistics for the Borough of Lambeth are very satisfactory for 1906, being 29.2 per cent. *below* the average (1891-1900).

In the Borough of Lambeth, during 1906, there were registered 575 deaths from the seven zymotic diseases, and of these 103 were strangers belonging to other districts, and 472 parishioners who died within the Borough. 50 parishioners, however, died without the Borough. Subtracting the strangers, and adding on the parishioners who died without the Borough, there is a correcled total of 522, giving a zymotic corrected death-rate of 1.7 per 1000 inhabitants, the corrected rate for London being 1.9, varying in the different Metropolitan Districts, as shown on page 8. The zymotic death-rates (corrected) for the different Registration Sub-Districts of the Borough of Lambeth vary also, as shown in Tables D and E, which in addition gives the deathrates and birth-rates for comparison. Lambeth Church 2nd shows the highest, and Norwood the lowest, zymotic death-rates respectively. The corrected zymotic death-rate for the Inner Districts is 2.9, and for the Outer, 1.2-a difference explainable, as before, from the crowding and absence of proper means of home isolation and nursing in the former, as compared with the latter, districts. Crowded districts naturally suffer more in this respect than those more sparsely populated.

C

Similar conclusions are obtainable by comparing the zymotic death-rates and zymotic incidences for the different new Wards of the Borough, as shewn in Table F, from which it is seen that, of the 9 new Wards into which the Borough is now divided, Bishop's shows the highest, and Tulse Hill the lowest, zymotic death rates, and zymotic incidences respectively.

During the year 1906, under the Notification Clauses of the Public Health (London) Act, 1891, 2074 cases of Infectious Diseases have been reported, and of this number 1592, i.e., 76.8 per cent. were removed to the Hospitals of the Asylums Board, or to other Hospitals, and 482, i.e., 23.2 per cent., remained under treatment at their homes. It is satisfactory to note the very large percentage (larger than ever before) of cases removed to Hospital, showing the growing favour with which the Isolation Hospitals are being looked upon, and pointing to the fact that it is coming to be more and more realised that infectious diseases cannot be properly isolated in the homes of the people. The percentage removed during 1906 is well Thus, since the introduction of the above the average. Public Health (London) Act, 1891, the percentages of notified infectious cases (excluding chicken-pox) removed from Lambeth are as follow :---

1891-36.6,	1895-30.4,	1899 - 61.2,	1903 - 64.2
1892-33.7,	1896-43.0,	1900-64.5,	1904-69.8
1893-23.0,	1897-49.0,	1901-66.1,	1905-68.9
1894-33.9,	1898 - 55.9,	1902-70.3,	1906-76.8

Examining the removals more in detail (e.g., nature of disease), it is seen that during 1906 in the Borough of Lambeth, the following are the percentages :--

Scarlet Fever	87.9	Typhoid	 78.7
Diphtheria)	(80.0	Continued	 100.0
Membranous { 78'-		Puerperal	 37.0
Croup)	(18.2	Erysipelas	 23:5

No case of genuine Smallpox was notified during 1906 within the Borough.

Taking the total number of notified cases of infectious diseases during 1906, it will be noticed that the zymotic incidence throughout the Borough of Lambeth is 26.9 per cent. *less* than the average 1891 1900 for the old Parish of Lambeth.

There is again a marked decrease in the number of Diphtheria certificates received during 1906, *i.e.*, 41.9 per cent. below the average of the statistics of the Parish of Lambeth for 10 years (1891-1900), and a slight increase of 4.2 per cent. over the average received in the Borough during 1901-5.* The 415 Diphtheria cases occurred in 391 infected houses, and in only 14.3 per cent. of these were the drains, on testing, found defective.

The Scarlet Fever notifications were 4.8 per cent. *below* the average of the Parish of Lambeth statistics for the 10 years 1891-1900. The 1268 cases occurred in 1124 infected houses, and in 13.1 per cent. of these, the drains were, on testing, found defective.

The Enteric Fever (or Typhoid) notifications received were 53.1 per cent. *below* the average for 10 years (Parish of Lambeth), and represent 86 infected houses, of which 12.8 per cent. of the drains were found, on testing, to be defective.

No cases of plague, nor of *suspected* plague, nor of cholera have been notified during 1906, within the Borough.

In the case of each of the 1900 infected houses, an inspection was made, and the drains and the sanitary fittings tested with chemical, with the following results as tabulated :---

- (a) **240** (*i.e.*, 12.6 per cent.) were found to have defective drains.
- (b.) 935 (*i.e.*, 49.2 per cent.) were found to have defective traps, fittings, or appliances.

^{*} Excluding the 64 notified cases in connection with the Norwood Parochial Schools during 1905.
(c) 725 (*i.e.*, 38.2 per cent.) gave no results with the tests.

It will be noted that only 12.6 per cent. of the total infected houses showed, with the test, defective drains, no results being obtained from the tests in the other cases; and 49.2 per cent. showed defective traps, fittings and appliances.

Drains and sanitary fittings are tested, as a routine, in all infected houses, though it does not follow that, when defects are found, such defects are the causes of the diseases under investigation. They *may* indirectly be so.

The test used is the chemical test (Kingzett's), and, when a result is obtained, the drain (tested) is defective, but, when no result is obtained, it would be unsafe to state that, therefore, the drain (tested) was sound. A negative result proves nothing with the chemical (or smoke) test. The hydraulic (water) and pneumatic (air) tests are the only reliable tests, but too severe for the routine testing of drains of old buildings. The pneumatic (air) test is comparatively new, and most delicate, but is not much used in London at the present day.

Bearing this explanation in mind, the statistics are still useful as showing that, year by year, the number of defects found decreases. Taking the statistics for the Parish of Lambeth during 10 years (1891-1900), and those for the Borough of Lambeth during 5 years (1901-6), it will be noticed that the percentage of houses showing defective drains has decreased from 22.3 in 1891 to 12.6 in 1906. Table L gives full particulars, with the averages for the 10 years worked out, for the old Parish of Lambeth, and comparing these with those for 1906 for the Borough of Lambeth, it will be seen that the latter show a *decrease* of 35.4 per cent. *below* the average for the old Parish (1891-1900) in respect of defective drains. Sub-divided according to the different notifiable diseases, the results show as follow :---

		sted		bers shev efects as t	ewing cts.	giving cts.	
Disease.		No. of Infected Houses.	Drains,	Traps, Fittings and Appliances.	Total.	Percentage shewing Total Defects.	Percentage given the provided t
Smallpox		_	-	_	_	_	-
Cholera		-	-	-	-	-	-
Diphtheria		391	56	204	260	66.2	33.5
Membranous Ci	roup	11	-	1	1	9.1	90.9
Erysipelas		260	25	94	119	45.8	54.2
Scarlet Fever	1	124	148	585	733	65.2	34.8
(Typhus		-	-	-	-		-
) Typhoid		86	11	44	55	63.9	36.1
) Continued or							-
lapsing		1		1	1	100.0	0.0
Puerperal		27	-	6	6	22.2	77.8
Totals	1	900	240	935	1175	61.8	38.2

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TABLE K.

Shewing the number of Certificates for the Notifiable Zymotic Diseases received in the Borough of Lambeth during 1906, and in the old Parish of Lambeth for the ten years 1891-1900.

I	Disease,			PARISH OF LAMBETH.										Annual Average of 10 years	Borough of Lambeth. Notifications
				1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1891—1900 (Parish.)	received during 1906.
Smallpox				3	22	99	26	51	16			1	_	22.0	_
Cholera				4	26	23	10	16	6	18	7	3	2	11.2	
Diphtheria				330	504	789	521	614	652	704	813	1080	844	715.1	415
Membranous	s Croup			29	47	49	26	23	27	17	16	22	6	26.2	11
Erysipelas				258	420	587		355				330		347.0	263
Scarlet Feve	r			858	1832	2275	1198	1389	1550	1375	1009	1006	821	1331.3	1268
(Typhus				1	3	3	2	-	1			1	-	1.1	_
{ Typhoid o				149	117	160	268	201	162	185	163	219	272	189.6	89
(Continued	or Rela	psing		33	34	58	48	20	16	11	13	7	17	25.7	1
Puerperal				11	20	27	19	16	19	26	14	24	13	18.9	27
"Plague				-	-	-	-		-	-	-	-	-	-	_
	Totals			1676	3025	4070	2433	2685	2801	2663	2329	2693	2209	2658.4	2074
Average per	1000 of	popula	tion	6.1	10.9	14.5	8.6	9.4	9.5	8.9	7.7	8.7	7.1	9.04	6.6

The Health Department has also heard of, and dealt with, the following non-notifiable infectious diseases :--Chicken-pox, 354; Measles, 836; Whooping Cough, 455; Consumption, 592; Cancer, 18; other diseases (e.g. Mumps, Ringworm, Influenza, Pneumonia, etc.), 133. * Plague was made notifiable on September 19th, 1900.

TABLE L.

Giving number of Infected Houses, with percentages of (1) General Defects, and (2) Defective Drains, throughout the Borough during 1906, and throughout the old Parish during ten years (1891-1900).

and the second second second second			Catalan	+ Frank		a arman	-
	1891	1892	1893	1894	1895	1896	
Number of Infected Houses	1417	2430	3179	2012	2111	2417	39
Number of Houses with defects found	903 = 63.7%	$1474 \\ \pm 60.7\%$	1641 = 15.6%	1089 = 54.1%	993 = 47.04%	1177 =48.7%	0
Number of Houses with de- fective drains found	316 = 22.3%	720 = 24.7%	658 = 20.6%	464 = 23.06%	392 =18.6%	423 =17.5%	
Number of Houses with no defects found	514 = 36.3%	956 = 39.3%	1538 = 48.4%	928 =45 [.] 9%	1118 = 52.96%	1240 = 51.3%	
			1 Sugar				

N.B.-Only 12.6 per cent, of the houses in 1906 shewed, with the test, defective drains, no results being obtained in the other cases.

TABLE L-continued.

Giving number of Infected Houses, with percentages of (1) General Defects, and (2) Defective Drains, throughout the Borough during 1906, and throughout the old Parish during ten years (1891-1900).

	1897	1898	1899	1900	Average for ten years 1891-1900.	1906
Number of Infected Houses	2374	2094	2435	1992	2246.1	1900
Number of Houses with defects found	1210 = 50.9%	1044 = 49.9%	1163 = 47.5%	886 = 44.5%	1158.0 = 51.6%	1175 = 61.8%
Number of Houses with de- fective drains found	390 = 16.4%	351 = 16.9%	384 = 15.8%	285 = 14.3%	438.3 = 19.5%	240 = 12.6%
Number of Houses with no defects found	1164 = 49.1%	1050 = 50.1%	1272 = 52.5%	1106 = 55.5%	1088.1 = 48.4%	725 = 38.2%

N.B.—Only 12.6 per cent. of the houses in 1906 shewed, with the test, defective drains, no results being obtained in the other cases.

TABLE M.

Shewing corrected zymotic seasonal variations (deaths) in the Borough of Lambeth in the different Registration Sub-Districts during 1906.

Registration S	Registration Sub-District.			1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Year 1906.	Zymotic Death-rate per 1000 inhabitants.
Waterloo Road 1st ", 2nd Lambeth Church 1st ", 2nd Kennington 1st ", 2nd Brixton Norwood District not stated	···· ··· ··· ···	···· ··· ···	····		$ \begin{array}{c} 2 \\ 4 \\ 8 \\ 14 \\ 9 \\ 7 \\ 18 \\ 4 \\ - \\ - \\ \end{array} $	$\begin{array}{c} 21 \\ 24 \\ 19 \\ 72 \\ 27 \\ 21 \\ 60 \\ 30 \\ 4 \end{array}$		$ \begin{array}{c} 29\\ 39\\ 44\\ 128\\ 67\\ 54\\ 112\\ 45\\ 4 \end{array} $	$ \begin{array}{c} 2 \cdot 6 \\ 2 \cdot 4 \\ 3 \cdot 2 \\ 1 \cdot 2 \\ 1 \cdot 2 \\ 1 \cdot 2 \\ 1 \cdot 1 \\ - \\ \end{array} $
Borough of Lambetl	h			121	66	278	57	522	1.7

N.B.—In the case of the 4 zymotic deaths occurring in Districts which are not stated, they have been distributed equally amongst the 8 sub-districts before working out percentages. Inner Districts 2.9; Outer Districts 1.2 per 1000 inhabitants.

TABLE N.

Shewing the total cases notified under the Compulsory Notification Clauses of the Public Health (London) Act, 1891, in the Borough of Lambeth during 1906 (arranged Quarterly).

			1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total for 1906
Smallpox		 	 -	-		_	
Scarlet Fever		 	 297	289	276	406	1268
Diphtheria		 	 84	107	125	99	415
Membranous	Croup	 	 1	1	5	4	11
(Typhus		 	 			-	
Typhoid		 	 14	30	22	23	89
Continued]		 	 	_		1	1
Erysipelas		 	 56	63	64	80	263
Puerperal		 	 7	8	6	6	27
Cholera		 	 -	_	-	-	
Plague		 	 —	-		-	-
	Totals		 459	498	498	619	2074

Т	A	R	Γ.	F.		0	
-	**	~	~	~	27	0	

		carino ne	an zy	moti	c urse		(Sua	ngers	ucuu	icicu)	150	0.				
For the 4 w	eeks endi	ing		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Smallpox Measles Scarlet Fever Diphtheria Membranous Croup Whooping Cough Typhus Enteric Continued Fever Diarrhœa* Total of Seven Chief	· · · · · · · · · · · · · · · · · · ·	 c Diseas	 es	$5 \\ 3 \\ \\ 11 \\ \\ 1 \\ \\ 0$	$ \frac{1}{20} \\ 5 \\ 3 \\ 10 \\ 2 \\ - 5 \\ 45 $	9 3 5 9 2 3 3 1	-72 -72 -8 -1 -1 -122		$ \begin{array}{c} -4 \\ 4 \\ $	$ \begin{array}{c} - \\ 2 \\ 1 \\ 2 \\ - \\ 4 \\ - \\ 6 \\ 1 \\ 23 \\ 39 \\ \end{array} $	$-\frac{3}{7}$ 	$ \begin{array}{c} 2 \\ 1 \\ $	$ \begin{array}{c} 2 \\ 2 \\ $	$ \begin{array}{c} \\ \\ \\ $	$ \begin{array}{c} 2 \\ 2 \\ 4 \\ - 3 \\ 2 \\ - 3 \\ - 2 \\ - 13 \end{array} $	$ \begin{array}{r} $
Erysipelas Puerperal Fever		 			1	2	2	1 1	21	2 1	-	1	2.3	1 1		13 12

Deaths from zymotic diseases	(Strangers deducted)	1906.
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* Including the four cases registered as Cholera Nostras during July (1), August (2) and September (1).

1	* A	R	LE	P
1	1.23	LD.	LE	т.

Shewing the number of Deaths (corrected) from the 7 principa in the ten years 1891-1900, and in the new

		-			
Disease.	1891	1892	1893	1894	1895
Smallpox	 _	1	5	1	2
Diphtheria	 76	127	172	138	103
Membranous Croup	 2	9	11	4	9
Scarlet Fever	 46	76	69	64	53
(Typhus	 1	-	1	-	-
Typhoid or Enteric	 28	22	36	46	26
Simple Continued	 7	2	4	0	2
Measles	 128	187	113	182	151
Whooping Cough	 239	135	151	110	132
Diarrhœa (and Cholera)	 166	167	205	142	263
Borough of Lambeth	 693	726	767	687	741
County of London	 9675	11983	13223	11544	11467

TABLE **P**.

zymotic diseases in the old Parish of Lambeth and in Londor Borough of Lambeth and in London during 1906.

1896	1897	1898	1899	1900	Annual Average of ten years 1891—1900 (old Parish).	Proportion of Deaths to 1000 Total Deaths (corrected) in 10 years.	Total (corrected) Deaths in 1906.	Proportion of Zymotic Deaths to 1000 Total Deaths (corrected) 1906.
• 2	_	_	_	_	1.1	0.2	_	_
129	138	108	153	101	124.5	23.03	49	10.4
11	7	7	6	2	6.8	1.3	2	0.4
63	42	30	25	20	48.8	9.03	28	5*9=
1	-	_	_	-	0.3	0.06	_	_
24	26	35	50	54	34.7	6.4	22	4.7
1	-	-	_	1	1.7	0.3	1	0.2
185	139	133	169	69	145.6	26.9	77	16.4
140	144	159	130	97	143.7	26.6	71	15.1
152	238	254	249	153	198.9	36.8	272	57.9
708	734	726	782	.497	706.1	130.6	522	110.9
14009	11525	12482	11147	10136	11575.3	130.8	9047	127.1

45

The seasonal mortality (corrected) from the different important zymotic diseases during 1906 is well shown by arranging the deaths quarterly, thus :—

			ch.			up.	F	EVEI	R.			r.			
1906.	 Smallpox 	Measles.	Whooping Cough.	Scarlet Fever.	Diphtheria.	Membranous Croup.	Typhus.	Typhoid.	Continued.	Diarrhœa.	Erysipelas.	Puerperal Fever.	Cholera.*	Influenza.	TOTAL.
1st Qr.	-	54	30	12	11	_	-	ð	-	9	2	3	_	8	134
2nd Qr.	-	16	20	8	13	1	-	2	-	6	5	2	_	11	84
3rd Qr.	-	6	13	3	16	-	-	10	1	225	3	2	4	4	287
4th Qr.	-	1	8	5	9	1	-	5		28	3	5	-	19	84
TOTALS.	-	77	71	28	49	2	-	22	1	268	13	12	4	42	589

* The four Cholera Cases were, in all probability, Epidemic Diarrhœa.

Taking the zymotic diseases collectively, it is noticed that the 3rd quarter shewed the highest mortality, and the 2nd and 4th quarters the lowest. Measles, Whooping Cough and Scarlet Fever reached their maxima in the 1st quarter; Erysipelas in the 2nd; Cholera, Diarrhœa, Typhoid and Diphtheria in the 3rd; and Puerperal Fever and Influenza in the 4th.

Table M shews the zymotic seasonal variations in the different Registration Sub-districts, while Table O gives the monthly mortalities from the zymotic diseases.

Table P gives the deaths registered in the Borough of Lambeth from the seven principal zymotic diseases during 1906, and for ten years (1891-1900) in the old Lambeth Parish. For comparison, the deaths registered in London for the same period are also given.

SMALLPOX.

During 1906 no single case of genuine Smallpox was notified, nor was a single death from Smallpox registered, within the Borough. Eight doubtful cases were reported to the Medical Officer of Health, who visited the patients and found them to be suffering from Erythema (1), Echthyma (1), Lichen (1), and Chicken-pox (5).

6 "contacts" were watched for 16 days within the Borough during 1906, in connection with Smallpox cases that had occurred (a) on board vessels arriving from abroad (5), and (b) in other boroughs (1), as follows :—

S.s. "Gaelic" (South America) 1; s.s. "Macedonia" (Bombay) 2; s.s. "Highland Harris" (South America) 1; s.s. "Danube" (South America) 1; and Camberwell Borough 1, but in no single instance did Smallpox develop amongst these "contacts."

In London 31 cases of Smallpox were notified, but no deaths were registered from the same disease, during 1906.

VACCINATION.

The Vaccination Returns of the Local Government Board for the Borough of Lambeth are to be found in Tables Q and R dealing with the whole year 1905, and the first half of 1906, respectively.*

The total number of conscientious objectors who have obtained certificates during 1906, irrespective of the dates of birth of the children to which they relate, is 133, whilst the total number of certificates of successful primary vaccinations at all ages received during 1905 and 1906 are 7275 and 7280 respectively.

^{*} The yearly returns are not made up by the Local Government Board until August of the following year, so that only the Returns for the first half of the year 1906 can be given in this Report.

	TAX		0
A	RI	E	Q
 * *	200	- a a a	- 100

VACCINATION RETURNS (LAMBETH BOROUGH), 1905.

Registration Sub-Districts.	No. of Births. (corrected).	Successfully Vaccinated.	Insusceptible to Vaccination.	Dead Unvaccinated.	Conscientious Objectors.	Removed to other Parishes	
Lambeth Church 1stLambeth Church 2ndKennington 1stBrixton	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	985406102812717391504655	$ \begin{array}{c} 1 \\ 2 \\ 1 \\ 2 \\ 7 \\ 3 \\ 2 \end{array} $	$ \begin{array}{r} 105 \\ 42 \\ 144 \\ 138 \\ 61 \\ 168 \\ 60 \\ \end{array} $	$ \begin{array}{r} 13 \\ $	$271 \\ 70 \\ 264 \\ 86 \\ 123 \\ 25 \\ 8$	48
Lambeth	8850	6588	18	718	112 ģ	847	

* Hospital Cases (573) included. + Workhouse (163) cases included.

1

‡Maternity cases (190) included,

TABLE R.

VACCINATION RETURNS (LAMBETH BOROUGH) FOR THE FIRST HALF-YEAR, 1906.

	Regist	ration	Sub-Dis	stricts.		No. of Births (corrected).	Successfully Vaccinated.	Insusceptible to Vaccination.	Dead Unvaccinated.	Conscientious Objectors.	Removed to other Parishes.	
Waterloo						 734	469	_	57	7	174	
Lambeth C						 299	219	1	23	5	38	Ţ
Lambeth Cl		nd				 806	568	1	79.	2	129	
Kennington	1st					 953	669	-	66	12	96	
Kennington	2nd					 491	354	1	29	12	. 79	
Brixton						 971	685	2	73	29	26	
Norwood						 356	295	1	18	8	2	
Lambeth					• •••	 4610	3259	6	345	75	544	-

The Yearly Returns are not made up for the Local Government Board until the August in the following year.
 *Hospital cases (305) included. †Workhouse cases (111) included. ‡Maternity cases (100) included.

CHICKEN-POX.

Chicken-pox was not compulsorily notifiable during 1906, but through the Head Teachers of the various schools 522 cases were brought to the notice of the Council, and the necessary disinfection was carried out in connection therewith. Three schools (Licensed Victuallers', St. Matthew's and a private one in Norwood) were disinfected on account of outbreaks of chickenpox amongst the pupils, one school (St. Matthew's) being closed on account of the same disease having broken out amongst the scholars in the Infants' department (10 cases) on November 8th, 1906, and remaining closed until November 19th, 1906, with the result that the outbreak was stamped out. One death was registered as having occurred within the Borough of Lambeth from chicken-pox during 1906.

SCARLET FEVER.

During 1906, in the Borough of Lambeth, 1268 cases of Scarlet Fever were notified, and 28 deaths registered, giving a casemortality of 2.2 per cent.—3.1 for the Inner, and 1.8 for the Outer Districts. In 1905, there were 1025 cases notified and 31 deaths registered, *i.e.*, a case-mortality of 3.02 per cent.—2.4 for the Inner, and 3.8 for the Outer Districts. The annual averages for 10 years (1891-1900) in the old Parish of Lambeth are (1) notified cases 1331.3, and (2) deaths 53.6.

Of the 1268 persons notified in the Borough of Lambeth during 1906, 1115^* (*i.e.*, 87.9 per cent.) were removed to Hospital, and of these, 25 died (*i.e.*, 2.2 per cent.), whereas 153 (*i.e.*, 12.1 per cent.) were treated at home, and of these, 3 died (*i.e.*, 1.9 per cent.). This slight difference in case-mortality as between Hospital and home-treated patients is to be explained by the greater severity of the cases sent to Hospital.

^{*} Of the 1115 cases of Scarlet Fever removed to Hospital, 33 proved at Hospital not to be suffering from that disease.

The attack-rate and death-rate of Scarlet Fever per 1000 of the population have been steadily decreasing during the last few years in Lambeth Parish, and are below the average during 1906 in the Borough—a satisfactory condition of things, which seems to point to the value of isolation (following notification) as an important preventive measure in this disease.

The age and sex incidence and mortality for the 1268 Scarlet Fever cases notified in Lambeth Borough during 1906 are as follow:—

Age.		ber of Notifie	Cases d.		Death Rate per 100 Notified		
	М.	F.	Total.	М.	F.	Total.	
Under 1 year	 8	6	14	_			_
1 to 2	 11	15	26	2	2	4	15.4
2 to 3	 31	35	66		2	2	3.03
3 to 4	 48	50	98		3	3	3.1
4 to 5	 49	56	105	7	1 .	8	7.6
5 to 6	 71	80	151	2	1	3	2.0
6 to 7	 40	55	95		2	2	2.1
7 to 8	 54	70	124	1		1	0.8
8 to 9	 40	53	93		1	1	1.1
9 to 10	 42	38	80		1	1	1.3
Over 10 years	 167	249	416	1	2	3	0.7
Total	 561	707	1268	13	15	28	2.2

It will be noted that, of the total 1268 persons reported as suffering from Scarlet Fever during 1906 within the Borough of Lambeth, 309 (*i.e.*, 24.4 per cent.) were under five years of age, and 852 (*i.e.*, 67.2 per cent.) under 10 years of age : whilst the mortality was greatest amongst those between 1 and 2 years of age. Of the 416 persons over 10 years of age, 3 (*i.e.*, 0.7 per cent.) died. The distribution of the cases of, and the mortality from, Scarlet Fever amongst the different Registration Sub-Districts of the Borough of Lambeth during 1906 is seen from the following :----

	of Cases ed.	treated ome.	removed ospital.	No.	of Dea	ths.	Mortality r 100.	Persons per 1000 itants.
Registration Sub- Districts.	Total No. of Notified	Cases treate at Home.	Cases remove to Hospital.	At Home.	In Hospital.	Total.	Case Mor per 10	Rate of Perso Notified per 1(Inhabitants
Waterloo Road 1st	66	11	55		3	3	5.5	1
Waterloo Road 2nd	74	4	70	1	1	2	2.9	\$ 5.3
Lambeth Church 1st	75	3	72		1	1	1.4	4.1
Lambeth Church 2nd	175	21	154		6	6	3.9	4.4
Kennington 1st	173	14	159	1	3	4	2.5	3.2
	178	36	142	1	2	3	2.1	3.8
Brixton	338	30	308		7	7	2.3	3.7
Norwood	189	34	155	-	2	2	1.3	4.7
Borough of Lambeth	1268	153	1115	3	25	28	2.2	4.01

Rate of Persons notified per 1000 inhabitants-4.6 Inner Districts, and 3.8 Outer Districts.

Of the 1115 cases removed to Hospital, 31.5 per cent. were from the Inner, and 68.5 per cent. from the Outer, Districts.

In London, during 1906, there were registered 533 deaths out of a total of 20343 cases of Scarlet Fever notified, giving a casemortality of 2.6 per cent. (uncorrected).

As far as could be traced, no Scarlatinal Milk outbreak occurred in the Borough of Lambeth during 1906, but nine schools (Addington Street, Church Street, Priory Grove, St. Michael's, Woodland Road, Stockwell College and three private) had to be disinfected on account of outbreaks of Scarlet Fever amongst the inmates.

MEASLES AND WHOOPING COUGH.

These two non-notifiable infectious diseases cause more deaths than all the notifiable infectious diseases together. In the Borough of Lambeth, during 1906, 77 and 71 deaths were registered from Measles and Whooping Cough, giving death-rates per 10000 of the population of 2.4 and 2.2 respectively. In London, during 1906, there were registered 1918 and 1239 total deaths from Measles and Whooping Cough, giving corresponding death-rates of 4.1 and 2.6 per 10000 of the population respectively.

Taking the Lambeth Registration Sub-Districts it will be seen that Lambeth Church 2nd suffered most, and Norwood least, from Measles; whilst Lambeth Church 1st suffered most, and Norwood least, from Whooping Cough (*vide* pages 63, 98-99).

The Inner Districts suffered (deaths per 10000 of the population) more than the Outer Districts, thus :---

	Inner.	Outer.
Whooping Cough	3.3	1.8
Measles	4.01	1.9

Comparing the Borough statistics for 1906 with those for the old Parish for 10 years (1891-1900), it will be seen that there has been a saving during 1906 of 67 deaths from Measles over the average for that decennium, and a saving of 78 deaths from Whooping Cough over the average during the same period.

MEASLES.

With regard to Measles, extra precautions are taken in connection with disinfection of Measles-infected houses, exclusion of children (both infected children and also children from infected houses) from schools, the closing of classes or whole schools on account of outbreaks of Measles, the distributing of leaflets and posters, and the educating of parents to regard Measles as a serious or dangerous infectious disease, and not as a trivial complaint of childhood. Measles is not compulsorily notifiable, but, through L.C.C. Schools, 1581 cases (during 1906) were reported to the Borough Council. Measles being chiefly a "School" Disease, this voluntary system of notification is most desirable, and will, it is hoped, be, in the future, extended (*vide* Appendix, pp. 36-37).

Of the 77 deaths from Measles in Lambeth Borough during 1906, 73 (*i.e.*, 94.8 per cent.) occurred amongst children under 5 years of age, shewing that Measles is a disease of young children, and especially fatal to such. 19 of the deaths (*i.e.*, 24.7 per cent.) occurred amongst infants under 1 year of age.

During 1906 in the Borough of Lambeth disinfection has been carried out in connection with 836 Measles-infected houses as compared with 1970, 1294, 1346, 364, 728, and 941 during 1905, 1904 1903, 1902, 1901 and 1900 respectively.

Measles is spread chiefly through Schools, especially Infants' Departments, and during 1906 special precautions have been taken in respect thereto, as follows :---

St. John's Schools, Canterbury Road (Infants' Department).— The Infants' Department (3 classes) was closed for 14 days on January 29th, 1906, on account of an outbreak of Measles amongst the scholars (rising epidemic), an average of 11 per cent. of the infants being absent suffering from the disease. Usual disinfection was carried out. Result of closure was a decline in the number of Measles cases.

St. Michael's Schools, Halstead Street (Infants' Department).— The Infants' Department was closed for 12 days on February 15th, 1906, on account of an outbreak of Measles amongst the scholars (rising epidemic), 12 per cent. of the infants being absent suffering from the disease. Usual disinfection was carried out. Result of closure was a decline in the number of Measles cases.

. Corpus Christi Schools, Trent Road, Brixton Hill (Mixed and Infants' Departments).- The Infants' and Mixed Departments

were closed for 12 days on February 15th, 1906, on account of an outbreak of Measles amongst the scholars (rising epidemic), 10 per cent. of the pupils being absent suffering from the disease. Usual disinfection was carried out. Result of closure was a decline in the number of Measles cases.

Church Street School (Infants' Department).—Classroom A of the Infants' Department was closed for 14 days from April 30th, 1906, on account of an outbreak of Measles amongst the scholars (rising epidemic), 4 per cent. of the infants being absent suffering from the disease. Usual disinfection was carried out. Result of closure was a decline in the number of Measles cases.

St. Stephen's Schools, Dorset Road (Infants' Department).— The Infants' Department was closed for 16 days on June 15th, 1906, on account of an outbreak of Measles amongst the scholars (rising epidemic), 7 per cent. of the infants being absent suffering from the disease. Usual disinfection was carried out. Result of closure was a decline in the number of measles cases.

Santley Street School (Infants' Department).—The Infants' Department was closed for 14 days on April 6th, 1906, on account of an outbreak of Measles amongst the scholars (rising epidemic), 14 per cent of the infants being absent suffering from the disease. Usual disinfection was carried out. Result of closure was a decline in the number of Measles cases.

Special investigations were also undertaken in connection with the following Schools on account of Measles outbreaks, but none of them were closed, it being found that the numbers of scholars affected were too small or that the epidemics were declining ;—

St. Paul's Schools, Gye Street (Infants' Department). Rosendale Road School (Infants' Department). Rosendale Road School (Mixed Department).

The Educational Department have altered during 1906 the

regulation with regard to the exclusion from school of children suffering from Measles, or coming from houses where Measles exists, as follows :---

"Children suffering from Measles must be excluded for at least one month.

"Children coming from houses where Measles exists, but who are not themselves suffering from the disease, should be dealt with as follows :---

"(i.) A child attending other than an infants' school, who has had Measles, need not be excluded from attendance at school.

"(ii.) A child attending other than an infants' school, who has not had Measles, must be excluded from attendance at school until the Monday following the expiration of 14 days from the occurrence of the *first* case.

"(iii.) A child attending an infants' school, whether or not it has had Measles, must be excluded from attendance at school until the Monday following the expiration of 14 days from the occurrence of the last case."

Accommodation for the treatment of Measles is much needed for London, and if provided would tend to lessen the present high mortality from that disease, which, in the generality of cases, requires only proper nursing and attention to secure a favonrable convalescence. In many homes such nursing and attention is impossible, the matter is one that concerns the different metropolitan sanitary districts, and the Lambeth Council decided during 1906 to approach the Local Government Board with a view to some sort of hospital accommodation being provided for measles-patients who live in poor and crowded homes.

WHOOPING COUGH.

Whooping Cough is also a serious disease, especially to young

Of the 71 deaths registered in Lambeth Borough children. during 1906 from this disease, 69 (i.e., 97.2 per cent.) occurred in children under 5 years of age, and 33 of the deaths (i.e., 46.5 per cent.) occurred amongst infants under 1 year of age. It is, therefore, a disease of childhood, and its prevention is being systematically attempted, chiefly in the way of disinfection of Whooping Cough-infected houses, exclusion from school of children (both infected and from infected houses), and the educating of parents up to the dangerous nature of the disease and the importance of careful nursing of the patients when suffering from this complaint. Unfortunately, Whooping Cough, like Measles, is, at present, regarded as a harmless complaint of childhood, and the ignorance displayed, and the apathy shown, in regard to these diseases are well known to all who visit amongst the poorer classes.

During 1906, in the Borough of Lambeth, disinfection has been carried out in connection with 455 Whooping Cough-infected houses, as compared with 440, 380, 325, 110, 72 and 126 during 1905, 1904, 1903, 1902, 1901, and 1900 respectively; and leaflets (dealing with the dangers and treatment of this disease) left at all known Whooping Cough-infected houses.*

No School nor Class was closed during 1906 on account of Whooping Cough, but disinfection was carried out at St. Michael's School, Halstead Street, on account of several cases of Whooping Cough amongst the scholars.

Details of the incidences of Measles and Whooping Cough in the different Registration Sub-Districts of Lambeth Borough during 1906 are as follow:----

.

^{*} Whooping Cough is not a compulsorily-notifiable disease, but 485 cases were voluntarily notified during 1906 by L.C.C. School Teachers (vide Appendix, p. 36-37).

Registration Sub-Districts,	Number of Deaths from Whooping Cough.	Number of Deaths from Measles,	Whooping Cough Deaths per 10000 Inhabitants.	Measles. Deaths per 10000 Inhabitants.
Waterloo Road 1st	1	2 8	0.9	9.0
Waterloo Road 2nd	1	8	505	3.8
Lambeth Church 1st	8	7	4.5	3.8
Lambeth Church 2nd	17	17	4.3	4.2
Kennington 1st	15	11	2.8	. 2.0
Kennington 2nd	7	5	3.2	1.1
Brixton	14	25	0.7	2.8
Norwood	. 6	2	0.6	0.2
District not stated*	2	-	-	—
Borough of Lambeth	71	77	2.2	2.4

In connection with outbreaks of infectious diseases, such as Measles and Whooping Cough, amongst infants, the Council has already approved of the principle of all children under 5 years of age being excluded from the Public Elementary Schools.

CHOLERA AND PLAGUE.

In Lambeth Borough, during 1906, no case of Plague, suspected or otherwise, was notified; but 4 "contacts" or "suspects" were watched in connection with Plague in Bombay, arriving in Lambeth by the s.s. "Arabia."

4 deaths from Cholera were registered during 1906 as having occurred within the Borough of Lambeth, but these were, probably, deaths from Epidemic Diarrhœa (all in infants under 1 year of age), and have, consequently, been included amongst the

^{*} Where the District is not stated, the deaths (or death) are divided equally amongst the other Districts before calculating percentages.

Diarrhœa deaths (vide pp. 73-76). No case of Cholera was notified within the Borough during 1906, and no "contacts" nor "suspects" were watched in connection with Asiatic Cholera abroad.

No case of Plague, and no case of Cholera, were notified in London during 1906.

DIPHTHERIA.

During 1906, 49 deaths were registered in the Borough of Lambeth from Diphtheria, and a total of 415 cases notified, giving a case-mortality of 11.8 per cent. Of the 415 cases notified, 332* (*i.e.*, 80 per cent.) were removed to Hospital, and 38 died, giving a case-mortality of 11.4 per cent. amongst the patients treated in Hospital; whilst 83 (*i.e.*, 20 per cent.) were treated at home, and 12 died, giving a case-mortality of 14.5 per cent. amongst the patients treated at home.

The case-mortality rate for the whole of the Borough of Lambeth during 1906 is low, pointing to (1) the mildness of the majority of cases notified, and (2) the great value of antitoxin in the treatment of Diphtheria, especially in the very early stages of the disease.[†]

The sudden decrease in the number of Diphtheria deaths throughout the new Borough of Lambeth during 1906 is again remarkable, as it was during 1905, 1904, 1903, 1902 and 1901, and will be seen, on comparison with the yearly mortality average of the 10 years (1891-1900) for the old Parish of Lambeth. This yearly average is 128, so that during 1906 there has been a decrease in the mortality-rate, in comparison, of 60 per cent. So, too, if the number of notifications of Diphtheria received

^{*} Of the 332 cases of Diphtheria removed to Hospital, 21 proved at Hospital not to be suffering from that disease.

^{+ 59} bottles of antitoxin have been gratuitously distributed in Lambeth Borough during 1906 as compared with 74 during 1905.

during 1906 in the Borough of Lambeth be compared with the yearly average of the 10 years (1891-1900) for the old Parish of Lambeth, *i.e.*, since the Notification Clauses of the Public Health (London) Act, 1891, came into force, a similar decrease will be noticed, viz., a decrease of 42 per cent. The yearly average of notifications for the old Parish is 715, and the number received for the Borough for 1906 is 415. Fortunately the comparison can be extended further, and made for many years past, as the statistics for Diphtheria have been worked out in connection with the old Parish, as well as the new Borough, and are shewn on the following page (62), as far as mortality is concerned. A slight increase during 1906 will be noted.

Even allowing for the slight fallacy that may arise from comparing statistics of the old Parish with those of the new Borough of Lambeth, the extraordinary sudden decrease in the mortality from Diphtheria is most remarkable, and, when taken in conjunction with the equally extraordinary and equally sudden decrease in the number of notifications of the same disease received, points to a sudden decline in the prevalence of Diphtheria throughout the Borough of Lambeth during 1906, as well as during 1905, 1904, 1903, 1902 and 1901; and that, too, although Diphtheria has been rising slowly but surely in epidemic proportions for the previous 20 years ending 1900 (*vide* table on page 61). The statistics for London, as a whole, are no less remarkable,

Q	uinquennial Period.	Population (estimated).	Number of Deaths.	Death-Rate per million living.
	(1863—1867	902119	148	164
f	1868-1872	1021165	96	94
Old Parish of Lambeth.	1873-1877	1132106	184	163
d Parish ambeth	1878-1882	1245913	255	205
Par	1883-1887	1313211	365	278
[a]	1888-1892	1367734	537	393
5	1893-1897	1443857	683	483
	1898-1900	924333	362	392
ro'	1901-5	1538750	194	126
Boro	1906	315774	49	155

The age and sex incidence and mortality from Diphtheria cases notified in the Borough of Lambeth during 1906 are as follow :---

DIPHTHERIA.

Ages.		No. of	Cases N	otified.	1	Death Rate per 100.		
		М.	F.	Total.	М.	F.	Total.	
Under 1 year		9	4	13	3	1	4	30.8
1 to 5		83	74	157	21	10	31	19.7
5 to 10		60	96.	156	5	8	13	8.3
10 to 20		23	32	55	-		-	—
20 to 40		8	19	27	1	-	1	3.7
40 to 60		3	4	7	-	-	-	-
60 and over		_	-	-	-	-	-	-
Total		186	229	415	30	19	49 -	11.8

During 1906, one school had to be closed on account of Diphtheria, viz., the Infants' department of Upper Kennington Lane Schools. Exclusion of infected scholars (bacteriological examination*) was tried at first but without complete success, the disease increasing. It was thought advisable, therefore, by the Sanitary Authority to close the class affected, and this was done, with the result that the outbreak was stamped out. It is for the Sanitary Authority to decide whether or not school or class closure is desirable, in view of an outbreak of infectious disease. It may be stated that, speaking generally, school closure is unnecessary for preventing the spread of diphtheria. Instances crop up, however, from time to time, as in that mentioned above, where school closure is necessary, e.g., where home-contacts play an important part, and in a district that has not been leavened by some continuance of diphtheria prevalence, whereby a large amount of immunity has been acquired.

An outbreak of Diphtheria in June, connected with St. Mary's Infants' School (Lambeth Road), was traced to an open sewer— 10 cases in all. Bacteriological examinations were conducted, and all children who shewed in their throats or noses either true diphtheria bacilli or suspicious germs (pseudo bacilli) were excluded from school—a total of 17. In this instance, child exclusion was sufficient, and class closure was unnecessary.

The distribution of the disease in the different Registration Sub-Districts of the Borough of Lambeth, together with the numbers of deaths amongst both hospital-, and home-,treated patients, etc., during 1906, are as follows :—

^{*} Diphtheria bacilli were found in 18 cases, and the pseudo bacilli in 11. All these 29 scholars were excluded from school.

	l No. of Notified.	treated fome.	removed ospital.	No.	of Dea	aths.	ality).	Persons per 1000 itants,
Registration Sub-Districts.	Total No. Cases Notif	Cases treat at Home.	Cases remove to Hospital.	At Home.	In Hospital.	Total.	Case Mortality per 100.	Rate of Perso Notified per 1 Inhabitants
Waterloo Rd. 1st	29	1	28	1	1	2	6.9	1,
Waterloo Rd. 2nd	31	5	26	_	4	4	12.9	2.3
Lambeth Ch. 1st	63	20	43	2	9	11	17.5	3.4
Lambeth Ch. 2nd	75	7	68	ī	11	12	16.0	1.9
Kennington 1st	55	7	48	ĩ	3	4	7.3	1.0
Kennington 2nd	60	13	47	3	3	6	10.0	1.3
Brixton	92	25	67	-	5	5	5.4	1.01
Norwood	10	4	6	3	2	5	50.0	0.2
Borough of								
Lambeth	415	82	383	11	38	49	11 8	1.3

Rate of persons notified per 1000 inhabitants-2.3 Inner Districts, and 0.9 Outer Districts.

"CARRIER" CASES OF DIPHTHERIA.

The Educational Department of the London County Council have decided that when Diphtheria is about, and children have been kept from school on account of attacks of Diphtheria or sore throat, such children shall not be allowed to return to school without a medical certificate, based on bacteriological examination, to the effect that they are free from infection. This decision will cause much extra work in connection with the bacteriological examinations of the throats and noses of all Diphtheria " contacts " or "suspects." Such work is, however, necessary when it is remembered that Diphtheria is easily spread during an outbreak by persons who carry in their noses or throats the Diphtheria germs, but who are, apparently, in good health. This infectivity of "carrier" cases is one of the most troublesome things to deal with-more especially in children, who are always more or less susceptible when aggregated together in schools. It is clear that it is unsafe to re-admit

children who have been excluded from school on account of sore throats until a certificate of freedom from infection has been furnished; and, further, such certificate to be of value must be based on bacteriological examination.

Rate of persons notified per 1000 inhabitants-2.3 Inner Districts, and 0.9 Outer Districts.

431 swabs from suspected diphtheria throats were examined at the Laboratory during 1906, and, of these, 33, *i.e.*, 7.7 per cent., shewed the presence of the true Klebs-Lœffler (diphtheria) bacilli.

The value of antitoxin^{*} as a remedy for Diphtheria is now acknowledged, more especially when used in the early stages of the disease, *e.g.*, first or second days. During 1906, 59 vials have been distributed gratuitously in Lambeth Borough by the Council for use by Medical Practitioners.

MEMBRANOUS CROUP.

During 1906, in the Borough of Lambeth, 11 cases were notified from Membranous Croup, and 2 deaths were registered, as compared with a yearly average of 26 cases notified and 8 deaths registered throughout the old Parish of Lambeth during 10 years (1891-1900). 2 cases were removed to Hospital.

In London, during 1906, there were registered 703 deaths, out of a total of 8035 cases of Diphtheria and of Membranous Croup notified, giving a case-mortality of 8.7 per cent.[†] uncorrected).

^{*} Antitoxin first gratuitously distributed in Lambeth by the late Vestry on August 3rd, 1899.

[†] In London Statistics, Diphtheria and Membranous Croup are now grouped together by the Registrar-General.

TYPHOID FEVER.

During 1906, 22 deaths were registered in the Borough of Lambeth from Typhoid (Enteric) Fever, and a total of 89 cases notified, giving a case-mortality of 24.7 per cent. Of the 89 cases notified, 70^* (*i.e.*, 78.7 per cent.) were removed to Hospital, and 18 died, giving a case-mortality of 25.7 per cent. amongst the patients treated in Hospital; whilst 19 (*i.e.*, 21.3 per cent.) were treated at home, and 4 died, giving a case-mortality of 21.1 per cent. amongst the patients the patients treated at home.

If a comparison be made between the number of cases of Typhoid notified, and the number of deaths from Typhoid registered, in the Borough of Lambeth during 1906, and the yearly averages for 10 years (1891-1900) in the old Parish of Lambeth, it will be noted that there is a marked decrease. The yearly average of cases notified in the Parish is 189.6, and the yearly average of deaths registered is 32.8, as compared with 89 and 22 respectively as the numbers of notified cases and deaths in the Borough of Lambeth during 1906.

Ages.			ber of (Notified	the second s	1	Death- rate per 100.		
		М.	F.	Total.	M.	F.	Total.	
Under 1 year 1 to 5 5 to 10 10 to 20 20 to 40 40 to 60 60 and over	· ··· ··· ··· ···	-1 17 23 5 1	$ \begin{array}{c} 1 \\ 1 \\ 3 \\ 13 \\ 15 \\ 2 \\ \end{array} $	$egin{array}{c} 1 \\ 2 \\ 10 \\ 30 \\ 38 \\ 7 \\ 1 \end{array}$	-1 -5 -6 -1	- 1 2 5 1 -	1 1 7 11 1 1 1	$ \begin{array}{r} 50.0 \\ 10.0 \\ 23.3 \\ 28.9 \\ 14.3 \\ 100.0 \\ \end{array} $
Total		54	35	89	13	9	22	24.7

The age and sex incidence and mortality for Typhoid cases notified in Lambeth Borough during 1906 are as follow :----

* Of the 70 cases of Typhoid Fever removed to Hospital, 13 proved at Hospital not to be suffering from that disease.

It will be noted that there was only one case notified, and no death registered, in infants under 1 year of age; two cases notified, and one death registered, amongst children between 1 and 5 years of age; whilst the greatest numbers of both cases and deaths occurred amongst persons between 10 and 40 years of age, and the mortality-rate was high also amongst persons at the same age periods.

Sub-dividing the Typhoid cases and deaths amongst the various Registration Sub-Districts, it will again be seen that the casemortality is lower in the Inner than in the Outer Districts, viz., 17.3 per cent., as compared with 35.1 per cent. The reason for this is not clear, as the contrary generally is the case, the casemortality from infectious diseases being greater in the Inner, more congested, and less sanitary Districts. The incidence of the disease per 1000 inhabitants in the Inner and Outer Districts respectively during 1906 is as 4 to 1.

Details as to the incidence of the disease during 1906 upon the different Registration Sub-districts of the Borough of Lambeth are as follow :—

	Total No. of Cases Notified.	Cases treated at Home.	Cases removed to Hospital.	No. of Deaths.			tality 0.	f Persons per 10,000 bitants,
Registration Sub-Districts.				At Home.	In Hospital.	Total.	Case Mortality per 100.	Rate of Perso Notified per 10 Inhabitants
Waterloo Road 1st	22	2	20	_	5	5	22.7	1
Waterloo Road 2nd	5	1	4	1	_	1	20.0	1.02
Lambeth Church 1st	12	2	10	-	1	1	8.3	0.7
Lambeth Church 2nd	13	1	12	1	1	2	15.4	0.3
Kennington 1st	6	2	4	1	5	6	100.0	0.1
Kennington 2nd	13	5	8	1	2	3	23.1	0.3
Brixton	15	5	10	-	4	4	26.7	0.2
Norwood	3	1	2	-	-	-	-	0.02
Borough of Lambeth	89	19	70	4	18	22	24.7	0.3

Rate of Persons notified per 1000 inhabitants :--0.6 Inner Districts, and 0.2 Outer Districts.

Of the 86 Typhoid-infected houses 55 (*i.e.*, 63.9 per cent.) showed, on inspection, defective drains, traps, fittings or appliances. In 11 (*i.e.*, 12.8 per cent.), the drains themselves were found to be defective.

21 cases out of the 89 were traced to sources outside the Borough, and 23 were secondary cases, i.e., derived from previous cases in the Borough. No case could be traced definitely and conclusively to infected ice-creams, water, milk, oysters or watercress, though a slight outbreak of 19 cases appeared to be connected with infected cockles, one of 2 cases with an open sewer, and one of 3 cases with infected ice-cream. The cockles outbreak took place in Marsh and Bishop's Wards-19 cases in all (June to July), with 4 deaths-3 males, aged 20, 32 and 38 years respectively, and 1 female, aged 25 years. Samples of the infected cockles were taken from 2 separate stalls in the New Cut and Lower Marsh respectively, and submitted to bacteriological examination-the samples being, in the first instance, washed in sterile water to remove, as far as possible, surface contamination. Afterwards, mice were fed with portions of the cockles or with emulsions of the cockles, but without any ill effects, and the inoculation experiments on guinea-pigs were likewise negative. The plate cultures made from the cockles yielded a variety of micro-organisms -the media employed for their isolation being Conradi, Drigalski Agar and neutral red lactose Agar. Of the culture plates, all suspicious colonies were transplanted, and submitted to a detailed examination. In neither sample of cockles were specific pathogenic organisms of the typhoid, paratyphoid or food poisoning type (the bacillus enterilidis of Gaërtner) detected; but both samples contained large numbers of colon bacilli of the intestinal type, and of these colon bacilli, a culture, which was tested for pathogenic properties, proved virulent to

the guinea-pig. The feeding experiments made with the pure cultures were in all instances negative.

To sum up :—specific pathogenic organisms were not detected in the cockles, but colon bacilli of the intestinal type were in large numbers—this latter fact pointing to exposure of the cockles to fœcal contamination, either before, or after, collection from their "beds" or "layings." It is probable that the cockles were also specifically contaminated with typhoid bacilli, and caused directly the 13 cases which made up the outbreak.

The cockles collected were neither unsound nor in an offensive condition.

It is only fair to state that there was also a history in 29 other cases of other kinds of shell fish (oysters, lobsters, mussels, &c.), having been eaten by the patients notified 1 to 3 weeks previous to the disease developing; but in this connection the number of persons who eat shell fish, and do not get typhoid, must be remembered.

The histories in connection with the two "open sewer" cases, and the three "ice-cream" cases, were not conclusively proved.

55 samples of blood were examined at the Bacteriological Laboratory during 1906 (see p. 162) for the Widal Reaction of Typhoid, and in 15 cases (*i.e.*, 27.3 per cent.) such reaction **w**as obtained.

In so far as Typhoid Fever is regarded as a sanitary index of a district, the statistics for Lambeth Borough during 1906 are, in that respect, of a satisfactory character though not so satisfactory as the returns of 1905.

In London during 1906 there were registered 272 deaths (uncorrected) out of a total of 1606 cases of Typhoid notified, giving an uncorrected case-mortality of 16.9 per cent.

CONTINUED AND TYPHUS FEVERS.

During 1906, one case of Continued Fever was notified in the Borough of Lambeth, and one death was registered, as compared with yearly averages for 10 years (1891-1900) in the Parish of Lambeth of 25.7 and 2.2 respectively. The one case was removed to Hospital.

In London, 9 cases were notified and 4 deaths registered from Continued Fever during 1906, giving a case-mortality of 44.4 per cent. (uncorrected).

No case of Typhus was notified during 1906 in Lambeth Borough, though one "contact" from another Borough was watched but did not sicken with the disease. 7 cases of Typhus were notified in London (no deaths).

PUERPERAL FEVER.

During 1906, in the Borough of Lambeth, 12 deaths were registered from Puerperal Fever (a disease of child-bed), and 27 cases notified, giving a case-mortality of 44.4 per cent. 10 of the patients were removed to Hospital.

The annual averages for 10 years (1891-1900) in the Parish of Lambeth are (1) notified cases, 18.9; and (2) deaths, 11.5; whilst, in the Borough of Lambeth during 1905, 12 cases were notified, and 6 deaths registered.

Puerperal Fever is a preventable disease, and is caused through want of care on the part of the nurse, or the medical practitioner, attending upon a lying-in woman. 8972 births were registered in the Borough of Lambeth during 1906, and in only 27 cases was Puerperal Fever notified—a most satisfactory fact to be able to report. In each case enquiries were made, and the Midwives (when in attendance) were visited at their homes, their rooms (or houses) and clothes disinfected, and their other cases (being attended at the time) followed up and watched for periods varying from 2 to 3 weeks each as required. Four Midwives were cautioned, but in no instance was it found necessary to take legal action against any Midwife.

In London, during 1906, there were registered 187 deaths out of a total of 297 cases of Puerperal Fever notified, giving a case-mortality of 64.9 per cent. (uncorrected).

ERYSIPELAS.

During 1906, in the Borough of Lambeth, 263 cases of Erysipelas were notified, and 13 deaths registered, giving a casemortality of 4.9 per cent. Of the 263 cases, 62 (*i.e.* 23.6 per cent.) were removed to Hospital. The yearly averages for the 10 years (1891-1900) in the Parish of Lambeth are (1) notified cases, 347; and (2) deaths, 17.5.

During 1905, 287 cases were notified, and 15 deaths registered from Erysipelas, within the Borough of Lambeth.

In London, during 1906, there were registered 245 deaths out of a total of 5026 cases of Erysipelas notified, giving a casemortality of 4.9 per cent. (uncorrected).

The advantages from the notification of Erysipelas are few, and the majority of cases notified as Erysipelas are not such as were contemplated by the framers of the Notification Act.

Registration Sub-Districts.			PUER	PERAL F	EVER.	ERYSIPELAS.			
			Number of Cases Notified.	Number of Deaths,	Case Mortality per 100.	Number of Cases Notified.	Number of Deaths.	Case Mortality per 100.	
Waterloo Road 1st			2	_	_	24	2	8.3	
Waterloo Road 2nd			1	1	100.0	8	_	_	
Lambeth Church 1st			2	1	50.0	27	1	3.7	
Lambeth Church 2nd			8	1	12.5	55	1	1.8	
Kennington 1st	`		3	2	66.7	37	4	10.8	
Kennington 2nd			3	3	100.0	40	1	2.5	
Brixton			6	2	33.3	55	4	7:3	
Norwood			2	2	100.0	17	-	—	
Borough of Lambeth			27	12	44.4	263	13	4.9	
DIARRHŒA.

During the year 1906 there were registered in the Borough of Lambeth 272 deaths from Diarrhœa,* as compared with 178 and 260 during 1905 and 1904 respectively (*vide* p. 83, deaths from Enteritis).

Taking the statistics of the old Parish of Lambeth for 10 years (1891-1900), it will be seen that the annual average is 188.4, so that the figures for 1906 for the Borough are 44.4 per cent. more.

Of these 272 deaths, 257 (*i.e.*, 94 5 per cent.) were in children under 5 years, and 217 (i.e., 79.8 per cent.) in infants under 1 year of age. July, August, September and October were the most fatal months (see Table S). In this connection, it is again interesting to note that the mean monthly air temperature registered at the Westminster Meteorological Office was, in June, 59.1 deg.; in July, 63.9 deg.; in August, 65.4 deg.; in September, 60.1 deg.; and in October, 54.7 deg.; whilst the 4-ft. earth thermometer registered 56 deg. F. on June 14th, rising to a maximum 64.0 deg. F. on August 9th to 11th and September 4th, and sinking to 56 deg. F. again on October 20th. 56 deg. F. is the so-called "critical" earth temperature for Diarrhœa, i.e., the temperature at which the germs of this particular disease begin to multiply, and prove themselves dangerous.⁺ Hence its importance statistically, in connection with this disease, which, though it kills chiefly young children, attacks at times persons of all ages-a fact not generally recognised.

^{*} Including 4 deaths registered from Cholera-Nostras.

[†] The 4-ft. earth temperatures were taken in Regent's Park, and thanks are due to Mr. Wm. Marriott, of the Royal Meteorological Society 70, Victoria Street, S.W., for the information in connection therewith.

	Age.		r	Percentage of Total Deaths from Diarrhœa.						
-			М.	F.	Total.					
Under 1 y	ear	 	127	90	217	77.6				
1 to 5		 	19	21	40	14.7				
5 to 20		 		1	1	0.4				
20 to 40		 	1	1	2	0.8				
40 to 60		 	3	3	6	2.2				
Over 60		 	2	4	6	2.2				
		-								
Tota	al	 	152	120	272	100.0				

Age mortalities from Diarrhœa were as follow :---

In London there were registered, during 1906, 4507 deaths from Diarrhœa, giving an uncorrected rate of 9.5 per 10000 living, and one of 6.1 per cent. of total deaths (uncorrected).

The details as to the Diarrhœa incidence (mortality) during 1906 upon the different Registration Sub-Districts of Lambeth Borough are as follow :—

BOROUGH OF LAMBET			Number of Deaths.	Diarrhœa Death-rate per 10000 Population.
	···· ··· ··· ··· ···	···· ··· ···	$15 \\ 23 \\ 16 \\ 73 \\ 27 \\ 29 \\ 57 \\ 30 \\ 2$	$\left.\begin{array}{c}14.6\\8.7\\18.2\\4.9\\6.5\\6.3\\7.5\\-\end{array}\right.$
Borough of Lambeth			272	8.6

In the Inner Registration Sub-districts, the Diarrhœa deathrate per 10000 inhabitants was $15\cdot1$ as compared with $6\cdot2$ for the Outer Districts *i.e.*, $2\cdot4$ to 1—a condition of things which is generally found to obtain, and which is readily understood when the crowded state of the Inner Districts is remembered.

It will be noted that the 4-ft. earth temperature had a high register during 1906, and, as a natural consequence, the Diarrhœa deaths were many in number.

Under the heading of Diarrhœa have been classed the 4 deaths from Cholera-Nostras registered, as there is no reason to regard them otherwise than as deaths from "Summer Diarrhœa"; and also the 129 deaths registered from "Enteritis." The yearly average number of deaths from Enteritis in the old Parish of Lambeth for the 10 years 1891-1900 is 101.8. During recent years there has been a marked improvement in the diagnosis of deaths from diarrhœal diseases, so that, to obtain comparable figures, attention should be paid not only to diarrhœa deaths certified, but also to all deaths arising from diseases of an enteritic nature, *i.e.*, those in which the intestines are affected.

Comparison must be made with the corrected infantile mortality rate for the Borough, which is 121.3 per 1000 births (vide p. 28).

The female Inspectors have visited every house wherein a death has taken place from Diarrhœa, with the result that valuable statistics are being tabulated in connection therewith, and from these statistics (when in sufficient numbers) important deductions may be able, hereafter, to be drawn.

Registration Sub-Districts.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Waterloo Road 1st	-	1	1	-	1	_	_	5	4	3	_	_	15
Waterloo Road 2nd	-	2	-	_	_	_	3	9	8	1	_	-	23
Lambeth Church1st	-	_	-	_	_	_	1	11	2	2	_	_	16
Lambeth Church 2nd	-	1	1	-	-	_	11	32	20	4	4	-	73
Kennington 1st	1	-	-	-	-	1	4	10	7	4	-	_	27
Kennington 2nd	-	1	-	1	1		_	11	9	6	-	-	29
Brixton	-	-	—	—	-	1	3	24	26	3	_	_	57
Norwood	1	-	-	-	1	-	2	9	16	1	-	_	30
District not stated							_	1	1	_			2
Total	2	5	2	1	3	2	24	112	93	24	4	_	272

TABLE **S.** Shewing the Diarrhœa Mortality in Lambeth Borough in each month during the year 1906

N.B.—Including 4 cases registered from Cholera-Nostras, viz., 3 in Lambeth Church 2nd (July, August and September), and 1 in Brixton (August), respectively. The increase in the Diarrhœa deaths during 1906 must be read in connection with the extraordinary meteorological conditions that obtained during the summer months (June to September). The barometer was high (except during portion of August) and the temperature was above the average during July, August and September with an exceptional heat wave from August 29th to September 3rd, during which the temperature varied from 85 deg. to 95 deg. F. Further, sunshine was abundant, rainfall slight (except 2 or 3 heavy falls, *e.g.*, June 28th), wind light in force, and the air extremely dry.

The meteorological conditions were conducive to a very high mortality rate from Diarrhœa amongst infants and children during the summer of 1906, but the statistics show that the increase in the infantile mortality from this cause was not *pro ratā*. It would seem that the preventive measures being taken in Lambeth (not to mention the influence of the milk depôt) are beginning to bear fruit.

TUBERCULOSIS.

During 1906, 411 deaths were registered in Lambeth Borough as due to phthisis (tuberculosis of the lungs), 75 as due to tabes mesenterica and tubercular meningitis, and 76 as due to other forms of tuberculosis, making a total of 562 deaths from tuberculosis (all forms)—*i.e.*, 11.9 per cent. of the total deaths (corrected) registered from all causes. The total deaths within the Borough during 1905, 1904, 1903, 1902 and 1901 from all forms of tuberculosis were 582, 621, 639, 701 and 695 respectively. Sub-dividing the tuberculosis deaths during 1906, amongst the different Registration Sub-Districts, it is found that the rates (per 1000 living) vary as follows :—

	D	eaths fr	om	ths sis,	000
Registration Sub-Districts.	Phthisis.	Tabes. Mes. and Tub. Men.	Other forms Tuber- culosis.	Total Deaths Tuberculosis,	Rate per 1000 living
Waterloo 1st	 48	1	5	54	1
" 2nd	 24	6	3	33	3.2
Lambeth Church 1st	 17	10	3	30	1.8
" " " 2nd	 83	16	16	115	2.9
", ", 2nd Kennington 1st	 71.	13	19	103	1.9
" 2nd	 52	10	9	71	1.6
Brixton	 79	11	14	104	1.2
Norwood	 22	. 7	4	33	0.9
District not stated	 15	1	3	19	-
Borough of Lambeth	 411	75	76	562	1.8

| Inner Districts—2.7 per 1000 living. | Outer Districts—1.4 per 1000 living.

N.B.—In the case of the 19 deaths occurring in Districts which are not stated, they have been distributed equally amongst the eight Sub-Districts before working out rates per 1000.

In addition to the usual precautionary measures taken in connection with registered deaths from tuberculosis (disinfection, distribution of leaflets, etc.), the voluntary notification of consumption (with tuberculous expectoration) has also been in vogue during 1906 (having been commenced by the Borough Council on June 1st, 1902)—332 cases having been notified in 1906 as compared with 293 during 1905, 306 during 1904, 339 during 1903, and 315 during the seven months from June 1st to December 31st, 1902. In each notified case, enquiries have been made, disinfection carried out as required, and leaflets distributed. Much valuable information is in this way collected, and there is every reason to believe that much good is accruing also from the measures taken in preventing not only the spread of the disease but also its development in susceptible persons. Meanwhile, it may be noted that the tuberculosis rates per 1000 living during 1906 and 1905 are 1.8 and 1.9 as compared with 2 during 1904.

230 samples of sputum were examined bacteriologically during 1906, and in 27.4 per cent. tubercle bacilli were found (*vide* p. 161).

The distribution of the disease in Lambeth Borough, judging by the voluntary notifications received during 1902-6, will be seen from an examination of Tables I. and II. following, dealing with (a) Wards and (b) Registration Sub-Districts :—

I.-CONSUMPTION NOTIFICATIONS, 1902-6.

(Arranged in Wards so as to shew the varying incidences.)

	Ward	ls.	Total 1902-5	Incidence Rate Population 1902–6	1906	Incidence Rate per 1000 Population 1906
Marsh			 205	1.9	62	2.3
Bishop's			 332	2.6	75	2.4
Prince's			 251	1.3	86	1.7
Vauxhall			 138	1.1	37	1.1
Total In	ner W	Tards	 926	1.7	260	1.9
Stockwell			 62	0.5	16	0.5
Brixton			 103	0.6	28	0.6
Herne Hill			 78	0.6	12	0.4
Tulse Hill			 41	0.4	3	0.1
Norwood			 41	0.3	13	0.4
						-
Total Ou	ter W	Fards	 325	0.2	72	0.4
Borough of	Lambo	eth	 1251	1.01	332	1.05

II.—CONSUMPTION NOTIFICATIONS, 1902-6.

(Arranged in Registration Sub-Districts so as to shew the varying incidences).

Sub-Districts.		Total 1902-5	Incidence Rate per 1000 Population 1902-6	1906	Incidence Rate per 1000 Population 1906
Waterloo Road 1st Waterloo Road 2nd Lambeth Church 1st Lambeth Church 2nd	••••	$\left.\begin{array}{c} 96\\ 109\\ 177\\ 339\end{array}\right\}$	1.9 2.4 2.1	$\left. \begin{array}{c} 30 \\ 32 \\ 44 \\ 101 \end{array} \right\}$	$2 \cdot 3$ $2 \cdot 4$ $2 \cdot 5$
Total Inner Districts		721	2.1	207	2.4
Kennington 1st Kennington 2nd Brixton Norwood	···· ····	$204 \\ 114 \\ 173 \\ 39$	0.9 0.7 0.5 0.3	$51 \\ 40 \\ 21 \\ 13$	0.9 0.9 0.2 0.3
Total Outer Districts		530	0.6	125	0.5
Borough of Lambeth		1251	1.01	332	1.05

It will be seen from the voluntary notifications received that the disease appears to have a greater incidence on the Inner than on the Outer Districts (whether Registration Sub-Districts or Wards). This result was to be expected, bearing in mind the more crowded conditions (persons in houses or houses over area) that exist in the Inner as compared with the Outer Districts and the different status of the inhabitants—the patients notified being chiefly of the artisan and working class. It must be remembered, however, that the notification of consumption is voluntary, and that only a percentage of the cases are heard of. Voluntary notification of consumption obtains in 18 Metropolitan Districts (including Lambeth), and the time appears ripe for the extension of such a voluntary system to the 11 remaining Metropolitan Districts, and for making it compulsory upon the authorities of Metropolitan Hospitals and Dispensaries to notify all phthisical patients (names and addresses) attending their institutions to the medical officers of the sanitary authorities concerned. This would be a useful step in advance. Arrangements should also be made for the isolation or segregation in sanatoria of all *advanced* cases, which are a source of such danger to others living in the same rooms. This isolation or segregation might, with advantage, be made compulsory by new legislation.

EPIDEMIC INFLUENZA.

During 1906, 42 deaths were registered from Influenza in the Borough of Lambeth, as compared with 50 during 1905, and an average of 107.5 for ten years (1891-1900) in the old Parish of Lambeth. Of the 42 deaths, 8 were registered during the first, 11 during the second, 4 during the third, and 19 during the fourth quarter, of the year.

In London, there were registered 895 deaths (uncorrected) from Influenza during 1906.

Reviewing the past ten years' history of the old Parish of Lambeth in relation to Epidemic Influenza, it will be seen that the disease has been practically epidemic since 1891, rising to the maximum in 1892, 1895, 1899, and 1900. The yearly average for ten years (1891-1900) in the old Parish of Lambeth is 107.5, so that the 1906 statistics for the new Borough of Lambeth show a sub-epidemic state. Table shewing the number of deaths from Epidemic Influenza in Lambeth Borough, and London, during 1906, and during ten years (1891-1900) in Lambeth Parish and London.

		Old Parish of Lambeth.												
-	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	Average for 10 (1891-1900	061 (Borough		
Lambeth	131	142	85	44	148	51	45	126	151	152	107.5	42		
London (including Lambeth).	2336	2264	1526	750	2156	496	671	1283	1817	1950	1524.9	898		

N.B.—The term "Influenza" is too indefinite in medical practice to permit of any satisfactory deductions being drawn from the above statistics.

The 38 deaths from venereal affections (Syphilis, etc.) are the only other point calling for note in the class of Zymotic Diseases.

Classes II. and III .- Parasitic and Dietetic Diseases.

33 deaths were registered in these classes from chronic Alcoholism and 5 from Delirium Tremens.

Class IV.—Constitutional Diseases.

Of the total 983 deaths under this class, 297 were due to Cancer, 411 to Phthisis, and 151 to Tubercular Meningitis and other forms of Tuberculosis.

Class V.—Developmental Diseases.

The total number of deaths in this class was 320, consisting of 152 from Premature Birth, 119 from Old Age, and 49 from Atelectasis and Congenital Malformations.

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Class VI.-Local Diseases.

- Diseases of the Nervous System caused 415 deaths, including 42 from Convulsions, 192 from Apoplexy, and 20 from Epilepsy.
- 2. 546 deaths were due to diseases of the Circulatory System.
- The diseases of the Respiratory Organs caused 837 deaths (402 from Bronchitis, and 165 from Pneumonia).
- Diseases of the Digestive Organs caused 335 deaths, of which 129 were due to Enteritis, 12 to Peritonitis, 69 to diseases of the Liver and 26 to Dentition.
- 5. Diseases of the Urinary System caused 179 deaths.
- Diseases of the Reproductive System, Integumentary System, Locomotive System, Lymphatics, Organs of Special Senses, etc., caused together 92 deaths.

Class VII.—Deaths from Violence.

164 deaths in all, including 126 from Accidents, 14 from Burns and Scalds, 11 from Drowning, 17 from Suffocation in bed (15 being infants under 1 year) and 34 from Suicide.

Class VIII.—Other Causes.

151 deaths were registered in this class, consisting of deaths from Dropsy, Tumours, Hæmorrhages, or other ill-defined or non-specified causes.

Different rates of mortality from different diseases and groups of diseases are given in terms of the total deaths (corrected and uncorrected) in Tables T and U; whilst Table T gives also the deaths from the chief Infantile Diseases, expressed in terms of the Infantile population (or number of Births). Allowing for the slight differences between corrected and uncorrected death returns, it will be noted that, in regard to both infantile and other diseases, Lambeth again compares favourably with London (*vide* Table U).

Deaths amongst infants under 1 year are a sensitive index (amongst others) of the sanitary state of a Community, and in this respect the Lambeth Borough statistics, as a whole, are satisfactory. The Table on p. 22 is important, too, in this connection, as comparing the Lambeth Borough statistics with those for London as a whole, taken in different age-periods.

Bearing in mind the unfavourable meteorological conditions during 1906, unfavourable in so far as infantile life was concerned, the statistics for Lambeth throughout the year are satisfactory. The corrected infantile mortality rate, as a whole, 1s 127.6 per 1000 births, i.e., taking the corrected number of deaths of infants under 1 year of age and the corrected number of births registered. The position that Lambeth Borough takes is satisfactory, whether comparison be made with the large Provincial Towns or with the separate Metropolitan Districts and in this connection the influence of the precautionary measures that are being taken in Lambeth Borough must be remembered, e.g., the systematic visiting of houses wherein births and deaths of infants under 1 year of age have been registered, the influence of the milk depôt and the distribution of pamphlets dealing with the proper feeding and management of infants, &c. The statistics for the 3rd quarter of 1906 for Lambeth Borough are specially noteworthy, the corrected infantile mortality rate being only 173 per 1000 births.

TABLE T.

Shewing Classification of Causes of deaths (corrected) in the Borough of Lambeth during 1905 and 1906.

A.—Total Deaths from all causes and at all ages with percentages of deaths to total deaths (corrected).

		оидн 05.		оидн 06.
Class of Disease.	No. of Deaths (correct-	Percent- age of Total Deaths (correct- ed).	No. of Deaths (correct-	Percent age of Total Deaths
I.—Zymotic Diseases	546	11.8	641	13.6
· · ·	431	9.3	522	11.1
Influenza	50	1.1	42	0.9
II.—Parasitic	3	0.06	1	0.2
III.—Dietetic	35	0.8	45	0.9
IVConstitutional	995	2.1	983	20.9
Cancer	320	6.9	297	6.3
Phthisis	416	8.9	411	8.7
Tubercular Diseases, ex- cluding Phthisis Rheumatism (Acute and	167	3.6	151	3.2
Chronic) and Gout	27	0.6	42	0.3
VDevelopmental	323	6.9	320	6.8
Old Age	118	2.5	119	2.5
VILocal Diseases	2413	51.9	2404	51.1
Circulatory System	587	12.6	546	11.6
Bronchitis	394	8.5	402	8.5
Pneumonia and Broncho- Pneumonia Pleurisy and Pleuro-Pneu-	341	7.3	305	6.5
monia Respiratory System, ex-	. 55	11.8	55	1.2
cluding Phthisis	000	18.5	837	17.7
VII.—Violence		3.7	164	3.5
Suicide	25	0.2	34	0.7
VIII.—Other Causes	100	3.4	151	3.2

TABLE **T**—continued,

CARTON B.—Deaths (corrected) of Infants under One Year of age from the chief infantile diseases, and from all causes, expressed in terms of 1000 births.

					Bord 19		Boro 190	
					Total Deaths under One Year (Corrected),	Proportion to 1000 Births.	Total Deaths under One Year (Corrected).	Proportion to 1000 Births,
From all causes					1014	114.0	1000	101-0
Diarrhœa						114.8	1088	121.3
Convulsions						16.1	217	24.2
				•••		5.2	40	4.5
Respiratory Diseas	es	••••		••••		18.9	150	16.7
Premature Births					4 152	17.2	152	16.9
Tubercular Disease	es (incl	uding	Phthisis)		51	5.8	42	4.7
Measles	 seases ns eases (including Ph gh Bed			19	2.2	19	2.1	
Whooping Cough					190 Total Deaths under One Year (Corrected). 1014 167 167 <t< td=""><td>4.5</td><td>33</td><td>8.7</td></t<>	4.5	33	8.7
Suffocation in Bed						2.2	15	1.7
Enteritis						5.1	82	9.1
Dentition						1.02	17	1.9

TABLE U.

Shewing Classification of certain Causes of Deaths (uncorrected) in the Borough of Lambeth, compared with London, during 1905 and 1906.

A.—Deaths at all Ages.

		LAMB	ЕТН.	LONDON.						
	•	Percent total D (uncorre	eaths	Percent total D (uncorr	eaths					
		1905.	1906.	1905.	1906.					
I.	PRINCIPAL ZYMOTICS	10.3	11•4	10.9	12.4					
	Influenza	1.02	0.9	0.9	1.2					
	Measles	2.1	1.7	2.3	2*6					
	Whooping Ccugh	1.7	1.4	2.1	1.7					
	Diarrhœa and Dysentery (including Cholera)		5*3	4.7	6.1					
II.	RHEUMATIC FEVER AND HEART RHEUMATISM	0.3	0.2	0.3	0.4					
III.	DISEASES OF CIRCULATORY SYSTEM	12.1	11.2	12.8	12.5					
IV.	BRONCHITIS, Pneumonia and Pleurisy	16.01	15.4	18.2	16.4					
	Phthisis	7.8	7.8	9.3	9.4					
v.	INJURIES	4.2	3.9	4.2	4.1					
B	–Deaths under 1 Year of Ag	re (per 10	00 Birth	s).						
	All Causes	. 127.6	132.4	131.4	132.6					

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BOROUGH OF LAMBETH.

SUMMARY OF VITAL AND MORTAL STATISTICS, &c., FOR 1906.

- Area of Borough—4080'4 statute acres (exclusive of tidal water 82'1, and foreshore 31'1 statute acres respectively) divided, into 7 Registration Sub-Districts, 4 Parliamentary Divisions, and 9 new Wards. The Parliamentary Divisions and New Wards are not co-extensive.
- Population—estimated middle of 1906—315774 (males 149491, females 166283).
- Density—77.4 persons per acre (exclusive of tidal water and foreshore).

Inhabited Houses-41511 at Census, 1901.

Rateable Value-£,1954165 for year ending April 6th, 1906.

Marriages-2489, being 15.8 per 1000.

Births—8972, being 28.4 per 1000.

Deaths (corrected)-4709, being 14.9 per 1000.

Infantil Mortality — 1088 deaths (corrected) under 1 year being 121.3 per 1000 total births.

Zymotic—Death-rate, 1.7 per 1000 (total deaths, 522).

Estimated increase of Population 2729, but the natural increase or increment (*i.e.*, excess of Births over Deaths) is 3944 (uncorrected)

T	A	B	LE	T	1

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[Local Government Board Old Table A.]

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T

			AT			0								_						_	-									_	_
	M			FROM		GES.	ses,			М	ORTA	LITY	FROM	SUB	JOINE	D CA	USES,	DIST	INGU	ISHIN	G Di	EATHS	6 OF	Сни	DREN	UND	er F	IVE	YEAR	S OF	Ag
NAMES OF LOCALITIES adopted for the purpose of		ar.	-La	L	er	er		COLUMN T	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	L
these Statistics, public in- stitutions being shewn as separate localities. (a)	At all ages. (b)	 Under I year. 	(b) 1 and under		S 15 and und 25.		(y) 65 and upwards.	(i)	Smallpox.	Scarlatina,	Diphtheria.	Membranous Croup.	Puerperal.	Relapsing, H	Continued,	1.	Typhus.	Cholera.	Erysifelas.	Measles.	Whooping Cough.	Diarrhœa and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia and Pleurisy.	Heart Disease.	Influenza.	Injuries.	All other Diseases.	TOTAL.	
Royal Infirmary (Women and Children)	> 30	9	8	9	1	8		Under 5 5 upwds.													1	2		2		5			9 12		
Remainder of Waterloo Road 1st	} 157	55	19	3	6	57	. 17	Under 5 5 upwds.						 	1					2	1	9 		20 ²	16 17			1 4	42 31		
General Lying-in Hos- pital, York Road	} 33	30			2	1		Under 5 5 upwds.		 			'								···· ····	1				1			29 2		
Remainder of Waterloo Road 2nd	} 162	63	21	5	8	50	15	Under 5 5 upwds.		1	1 					1				8		17 		 11	16 18			1 15	40 20		
St. Thomas's Hospital	686	75	93	74	72	321	51	Under 5 5 upwds.			16	1	3			5			1	6 	3 1		2	8	29 21			18 71	75 342	168 518	
Remainder of Lambeth Church 1st	} 169	60	35	3	3	51	17 {	Under 5 5 upwds.												9		10 	2		17 17	1 13	1	3 8	48 25		
Lambeth Workhouse	} 108	8				18	82 {	Under 5 5 upwds.								•••									 10			1	8 26	8 100	
Lambeth Infirmary	714	74	16	5	24	356	239 {	Under 5 5 upwds.			1		6			2			$^{1}_{6}$	1	4	$16 \\ 2$		2 189				 15	54 240	90 624	
Remainder of Lambeth Church 2nd	} 479	176	66	7	12	153		Under 5 5 upwds.			1	1				1		3		14		36 1	2	1 47	58 55	 30		4 12			
Clapham Maternity	} 27	25				2	{	Under 5 5 upwds.														1 			1				23 2	25 2	
St. Peter's House	45					6	89 {	Under 5 5 upwds.																1		2	1			 45	
Remainder of Kenning- ton 1st	> 020	128	66	20	18	161		Under 5 5 upwds.		1	1		₁			1			2	10	14 1	22	7		37 63	1 55	3		103 143		

TABLE OF DEATHS

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TABLE V.



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TABLE V.-continued.

[Local Government Board Old Table A-continued.]

TABLE of **DEATHS** during the year 1906 in the Borough of Lambeth, classified according to DISEASES, AGES, and LOCALITIES-continued.

the second second second	Mo			ROM			es,			Mo	RTAL	ITY	FROM	SUI	JOIN	ED CA	USES	, DIS	TINGU	JISHI	NG D	EATH	5 OF	Сни	DREN	UND	ER F	IVE	YEAR	SOF	Age.
NAMES OF LOCALITIES	15								1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	1
adopted for the purpose of these Statistics, public in-	A + -11	year.	under 5.	nder	ande	inde	nd.				a.	18		Fr	VERS	3.	-	-	12	-		pud .		-	pe		-				-
stitutions being shewn as separate localities. (a)	At all ages.	© Under 1		 5 and under 15. 	1	(a) 25 and t (b) 65.		(1)	Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Puerperal.	Relapsing.	Continued.	Enteric or Typhoid.	Typhus.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhœa ai Dysentery	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia an Pleurisy.	Heart Disease.	Influenza.	Injuries.	All other Diseases.	TOTAL.	
(a)	(0)	(c)	(a)	(e)	0)	(8)	(11)	1 (1)					1	-				1		1											
{Belgrave Hospital	} 135	97	84	4				Under 5 5 upwds.			1	••••	•••	 		1			1	2		24		1	15	··· 2	•••	8	83 2		
Kennington 2nd	} 435	112	24	17	17	121		Under 5 5 upwds.		1	$2 \\ 1$		··· ₁			1				3 1		25 	₂	1 35	19 42	2 52		5 5		$\begin{array}{c} 136 \\ 299 \end{array}$	
South Western Hospital	} 120	4	67	28	17	9		Under 5 5 upwds.		40 11	25 13									2					···· ₁	1			$^{4}_{6}$		
Remainder of Brixton	} 838	197	72	15	17	249	288 {	Under 5 5 upwds,			1		··· ₁					1	1 2			45 4		 53	42 101	2 93	 24	2 8	$\frac{140}{273}$	269 569	
Lambeth Workhouse Schools	} 15	4	6	5			{	Under 5 5 upwds.				••••												1	1	4			8 1	10 5	
British Home of Incur- ables	} 7					5	2 {	Under 5 5 upwds.		•••	•••															··· ₁			···- ₆	···- ₇	
Remainder of Norwood	} 340	71	25	17	5	100	122 {	Under 5 5 upwds.			2 1		···· ₁							2 	6 	24 2		1 18		1 43		··· ₄	48 134	96 244	
		1100				1000		Under 5		41	51	1			1	1		4		80		251	1	11	277				807	1740	_
Totals	5028	1188	502	207	202	1008		5 upwds.		13			18			30			10			10	24	381	496	558	45			3288	
					The	subj	oined	numbers h	nave a	also t	o be	taker	into	accou	int in	judg	ing o	of the	abov	e rec	ords o	of mo	rtalit	y.							
Deaths occurring outside the district among per- sons belonging thereto	} 492	49	39	38	26	246	94 {	Under 5 5 upwds.		47	44		1							1	1 	19 6	2	1 30	17 37	 56		 31	41 226	88 404	
Deaths occurring within the district among persons not belonging thereto	} 811	149	118	73	66	308	97	Under 5 5 upwds.		28 9	20 7		₂			 12				8	 1 	17 1	₂	. 9		 71	3		143 343		

TABLE **V**.-continued.

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TABLE W.

Table of Population, Births, and of New Cases of Infectious of Health, during the year 1906, in the Metropolitan

[Local Government Board Old Table B.]

Sickness, coming to the knowledge of the Medical Officer Borough of Lambeth, classified according to Localities.

	Populati Ag	on at all res.	Births.	P						each edical		lity, o er of		ng to lth.							ses re ities f Hosj	or Tr					
Registration				1	2	3	=1	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Sub-Districts,	Census 1901. (<i>b</i>)	Esti-	Registered				IS	I	Fever	s.	Fev	ers.			2				50	_	F	ever	s.				3
		mated to middle of 1906.	(p) Reg	Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Typhoid or Enteric. Continued,	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Chickenpox.	Smallpox.	Scarlatina.	Diphtheria	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Cholera. Erysipelas	Chickenpox	
WATERLOO ROAD 1st)		441	-	66	29	-	-	22	-	-	2	_	24	_	-	55	28	-	-	20	-	_	_	_	6	
WATERLOO ROAD 2nd	\$ 27440	26420 {	985	_	74	31	1	-	5		-	1	-	8	-	-	70	26	1	_	4	_	-	1	_	4	-
LANBETH CHURCH 1st	18423	18401	564	-	75	63	1	-	12	1	-	2	-	27	-	-	72	E43]		-	10	1	-	1	-	12	_
LAMBETH CHURCH 2nd	39818	40035	1487	-	175	75	2	-	18	-	-	8	-	55	-	-	154	67	17	-	12	-	-	8	-	16	-
KENNINGTON 1st	53198	54946	1850	-	173	55	1	-	6	-	-	3	-	37	-	-	159	48	-	-	4	-	-	-	-	9	-
KENNINGTON 2nd	42896	44981	1000	-	178	60	3	-	13	-	-	3	-	40	-	-	142	47	1	-	8	-	-	2	-	4	-
BRIXTON	84232	90798	1898	-	338	92	2	-	15	-	-	6	-	55	-	-	308	67	-	-	10	-	-	2	_	9	-
Norwood	35888	40193	747	-	189	10	1	-	3	-	-	2	-	17	-	-	155	6	-	-	2	-	-	1	-	2	-
Totals	301895	815774	8972	-	1268	415	11	-	89	1	-	27	_	263	-	_	1115	332	2	_	70	1	-	10	-	62	-

Diseases and

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TABLE W.



CLASS II.-SANITARY WORK.

Return shewing the total number of Notices served in the Borough of Lambeth, from the 1st January to the 31st December, 1906.

Total number of Notices ... 14768

NOTIFIABLE INFECTIOUS DISEASES.

(Public Health, London, Act.)

No. of Notices served		 	 2074
No. of Infected Houses		 	 1900
Smallpox		 	 —
Scarlet Fever		 	 1124
Typhoid		 	 86
Typhus		 	 —
Continued Fever		 	 1
Diphtheria		 	 391
Membranous Crou	p	 	 11
Puerperal Fever		 	 27
Erysipelas		 	 260
English Cholera		 	 —

PARTICULARS OF SANITARY WORK

Carried out in Lambeth Borough during 1906, and for 24 years (1877-1900) in Lambeth Parish (for comparison).

Year.	Total Number of Notices (excluding those under Housing of the Working Classes Act).	Sanitary Works, Structural and Permanent.	Sanitary Works, not Structural.
of Lambeth.	14768	9650	2941
ſ 1900	10065	, 10291	2303
1899	10583	10042	2273
1898	10469	9905	2224
1897	11088	9058	1884
1896	7475	6702	982
1895	7645	8581	1104
1804	6975	7672	1911
1893	8769	9207	2046
Old Parish of Lambeth. 1893 1893 1893 1891 1890 1889 1888 1888 1885 1885 1884	7173	6931	2190
la 1891	5557	7232	3173
1890	5588	5053	3251
5 1889	6854	4192	2662
- 1888 .	4891	2969	1922
·E 1887	4565	2430	2135
Å 1886	4504	2433	2071
D 1885	3567	1459	2108
ō 1884	3727	1621	2106
1883	3000	1294	1766
1882	3239	1267	1972
1881	3730	1293	2437
1880	8259	1106	2153
1879	3075	960	2115
1878	3310	1169	2211
1877	3563	1299	2264
Average for)			
24 years, 1877-1900	5944.6	4756.9	2135.9

N.B.—The increase in the numbers since 1896 is due to the increased Inspectorial Staff.

A. Public Health (London) Act and	d Metropolis
Local Management Acts	5.
Notices (Preliminary and Statutory)	12694
Works, Structural :	
Drainage defective	1378
Intercepting Traps with Fresh Air Inlets require	d 241
Ventilating Pipes required	261
Indoor Sinks connected with the Drain	571
Rain Water Stack Pipes connected with the Dra	in 750
Bath Waste connected with the Drain	68
Traps Defective, or of Obsolete Pattern	763
Closet Pan and Connections Defective	1041
Water Supply to Closet Defective	906
Closet Dilapidated	608
Draw-off from Main for Drinking Purposes requi	red 101
Dust Bins Defective	907
Premises Dilapidated	207
Ventilation under Floors required	58
Roofs Dilapidated	406
Soil Pipes Defective	89
Paving Defective	1205
Damp and Unwholesome Houses	69
Dung Receptacles required	21
WORKS NOT STRUCTURAL :	
Cisterns Dirty	104
Manure Accumulations	49
Underground Rooms occupied	12
Animals Improperly Kept	21
Stopped Drains	356
Overcrowding	65
Foul Urinals	
Refuse Accumulations	51
No Water Supply or Defective Water Supply	178
Dirty Premises	2081

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2. Infootious Diseases Notification.		
Notices served (1900 infected houses)	2074	
SUMMARY OF WORK DONE BY THE	SANITARY	
INSPECTORS DURING 1906.		
Inspections	9896	
Re-inspections	63021	
Infectious Houses visited	63021	
Complaints attended to	2074 7540	
Cases of Infection Diana dia 1	0074	
(a) Cases under treatment at II-		
(b) Conservation 1. II in 1	482	
Coose of New North 11 D'	1592	
	2388	
Houses disinfected	1941	
Rooms disinfected	4061	
Bedding, etc., disinfected		
Bedding, etc., destroyed		
Dust Yards, Manure Depots and Brickfields, inspect of	tions	
of Drains tested (with chemical, water, or both)		
Sanitary Works completed	10389	
Sanitary Works completed	6075	
Plans of drainage reconstructions received and appro	oved 486	
Premises the Drains of which have been totally partly reconstructed	y or 714	
Articles procured for the Analyst—	/11	
(a) Food and Drugs	1500	
(b) Water	1500	
(b) Water		
Special Smoke observations and enquiries	560	
New Workshops inspected and registered		
Bakehouses inspected (including 79 underground)	214	
Cowhouses inspected	15	
Slaughter-houses inspected	27	
Restaurants (new) inspected and registered	—	
Outworkers' Rooms visited	181	

B. Infectious Diseases Notification.

97

G

Notices-									
Sanitary Work (Pr						12683			
Infectious Diseases	Infectious Diseases (Public Health Act, 1891)								
Housing of Workin		2074							
Metropolis Local M	lanag	ement 4	Acts			11			
Sanitary nuisances abat	ed-								
(a) Structural						9650			
(b) Non-structural						2941			
Persons received at the	Shelt	ers							
Summonses issued						54			
Convictions obtained-						01			
Public Health Act						7			
Food and Drugs Ac	ts					35			
						00			

MALE SANITARY INSPECTORS.

During 1906, no change has taken place in the *personnel* of the Male Inspectorial Staff, which, individually and collectively has worked well, as shewn by the results of inspections, reinspections, &c., tabulated throughout the Report. It is again satisfactory to note that during 1906 in but very few cases (0.1 per cent. of the total notices served) has it been found necessary to resort to legal proceedings before the magistrate in connection with sanitary work carried out under the Public Health and Metropolis Management Acts—15 summonses in all.

EXEMPTION OF GOVERNMENT PROPERTY.

The Crown is not bound by any of the provisions of the Public Health (London) Act, 1891, so that property in the occupation of the Crown, or in that of persons using it exclusively in and for the service of the Crown, that is to say, for the purposes of the public government of the country, is entirely exempt from the provisions of the Act or the Bye-laws. It has, however, been held by Counsel that the provisions and Bye-laws of the London Act, 1891, apply to property not exclusively in

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and for the service of the Crown and to Crown property occupied under lease by private persons for private purposes.

A conference on the subject was held during 1906 (the Lambeth Borough Council being represented), and a resolution passed to the effect that "it is undesirable that any lands or buildings situate in the County of London should be exempt from the provisions of the Public Health (London) Act, 1891, or from the sanitary provisions of the Metropolis Management Acts, or from the bye-laws made thereunder, and that a memorial be addressed to His Majesty's Government urging them to introduce a Bill to ensure that all lands and buildings owned by or on behalf of the Crown or at present otherwise exempt are brought within the provisions of the said Acts and Bye-laws."

COMBINED DRAINAGE.

Many combined drainages have been reconstructed by the Council during 1906, at a cost amounting to \pounds 1301 (estimated), as the direct result of inspections carried out by the 1nspectors in the course of their daily routine duties. The law, as it at present stands, throws the responsibility upon the Borough Council of repairing certain combined drainages, as Sewers, and as the property of the Sanitary Authority, but a large number of combined drainages are relaid by private owners as the result of voluntary work or of the service of notices by Inspectors. In these latter cases, the owners are either responsible, or prefer that the combined drains should be regarded as "drains," and not as "sewers." The Council during 1906 took part in a Conference of Metropolitan Councils in relation to this question of combined drainage, and communicated with the President of the Local Government Board urging legislation to amend the existing law.

HOUSE TO HOUSE INSPECTIONS.

A house to house inspection of a district is a duty laid upon Sanitary Authorities by section 1 of the Public Health (London) Act, 1891 and section 30 of the Housing of the Working Classes Act, 1890. The duty is an important one, but such work can only be carried out with a sufficiently large sanitary staff. Within the Borough, during 1906, a total of 2755 house to house inspections have been made, dealing with the following streets (whole or part):—

- Marsh Ward.—Aquinas Street, Burdett Buildings, Burdett Street, Coral Street, Commercial Road, Cornwall Place, Cory Square, Elizabeth Place, Lanfranc Street, Milan Place, Oakley Street, Perry's Place, St. Mary's Buildings, Salutation Place, Sidwell Place, Tenison Street, Victoria Place.
- Bishop's Ward.—Distin Street, Fram Place, Grave's Place, Globe Court, Karl Place, Norfolk Row, Over Place, Surrey Lodge Buildings, Saunders Place, Saunders Street, Topaz Street, Thrift Place, Trowes Place.
- Prince's Ward.—Abernethy Cottages, Ashmole Place, Albert Embankment, Broad Street, Bloomfield Place, Cleaver Street, Clayton Street, Clayton Place, Claylands Road, Dolland Street, Dunmow Place, Duke's Head Passage, Dorset Road, Frank Street, Garden Cottages, Gunnell's Court, Hampshire Street, Joan Place, Kennington Grove, Kennington Oval, Lemon Place, Lilac Place, Lapford Place, Little Clayton Street, Meadow Place, Malmsley Place, Magee Street, Newburn Street, Oval Mansions, Orsett Street, Osborne Place, Palfrey Place, Princes Road, Queens Buildings, Salamanca Street, Salamanca Court, Salamanca Place, Trigon Mansions, Vauxhall Street, Wilder's Court.
- Vauxhall Ward.—Archer Street, Bond Street, Bolney Street, Cobbett Street, Dorset Road, Gladstone Place, Heman's Street, Kibworth Street, Keillier's Cottages, Lansdowne Road, Milton Street, Neptune Street, Priory Grove, Paradise Road, Pascal Street, Pleasant Place, Portland Cottages, Spring Gardens, Southville.

- Stockwell Ward.—Barnes Cottages, Broomgrove Road, Bricknell Cottages, Crossford Street, Eastcote Street, Ingleboro' Street, Linom Road, Lingham Street, Mary's Cottages, Northall Street, Robsart Street, Rose Cottages, Stockwell Grove, Southesk Street, Tunstall Street. Thornton Street.
- Brixton Ward.—Baker Street, Belgrave Mansions, Connaught Mansions, Eskdale Villas, Grosvenor Mansions, Kenyon Mansions, Loughboro' Mansions, Lilford Road, Millbrook Road, Myatt's Road, Pomfret Road, Redan Terrace, Ridgway Road, Rosslyn Avenue, St. Agnes Place, St. Mark's Road.
- Herme Hill Ward.—Carlton Mansions, Dexter Road, Effra Parade, Hardess Street, Hinton Road, Lewis Road, Mayall Road, Padfield Street, Sussex Dwellings, Sussex Road, St. George's Residences.
- Tulse Hill Ward.--Bartley Street, Comrie Road, Cornwall Road, George Place, Mauleverer Road, Mandrell Road.
- Norwood Ward.—Auckland Place, Beaconsfield Cottages, Change Alley, Clive Road, Chalford Road, East Place, Hamilton Road, Railway Cottages, Romany Road, Surrey Mews, Waltham Cottages.

Of the 2755 houses that have been inspected, 403 (*i.e.*, 14.6 per cent.) shewed a result from the chemical test applied to the drains. A total of 4446 nuisances were found to exist in 1771 houses (*i.e.*, in 64.3 per cent. of the total houses inspected), but many were of a trifling nature, and in no sense dangerous to the health of the inmates.

Summary.

Number of 1	houses i	nspecte	b				2755
Number of 1	houses i	n whic	h a re	sult w	as obta	ined	
from tes	st (chem	ical) ap	oplied t	o drain	s		403
Number of 1	nouses in	n which	n nuisa	nces we	ere four	nd to	
exist							1771

Nature of Nuisances found and dealt with under the Public Health (London) Act, 1891.

Dirty walls and ceilings of rooms				794
Defective roofs or rain water pipes				319
Defective yard paving				514
Defective flushing apparatus in wat	er clos	ets		263
Water closet pan foul				107
Gully or drains stopped				85
Drinking water tap defective, making				32
Floors defective				75
No dust-bins (or dust-bins defectiv	ve or d	lilapida	ted)	344
Damp premises				226
Overcrowding				21
Defective water closets				266
Defective drains				364
Defective or deficient vent pipes or	soil pi	pes		102
Defective sink wastes (or not under				250
Defective manhole covers				8
Animals improperly kept				26
Cisterns uncovered or dirty				117
Improper water supply				100
Forecourts insufficiently paved or un				118
Water closets insufficiently lighted of				6
Want of proper dung receptacles				11
Want of ventilation under floors				109
Mica valves defective				
Underground rooms illegally occupi				3
Accumulations of manure				
Defective traps				
Sinks connected direct to drains				
Verminous rooms				20
	То	TAL		4446

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INSPECTION OF MARKET THOROUGHFARES.

The Market Thoroughfares have been, during 1906, under bi-weekly special inspection by the Inspectors (2 being on duty at a time)—Saturday nights (9 to 12) and Sunday mornings (9 to 12). The Market Thoroughfares are Atlantic Road, Wandsworth Road, New Cut, Lower Marsh and Lambeth Walk. No unsound food has been seized by the Inspectors under the sections of the Public Health (London) Act 1891.

OUTSIDE URINALS OF PUBLIC HOUSES.

During 1906, the Outside Urinals connected with Public Houses have been under inspection, and notices have been served in those instances where the Inspectors reported a nuisance. In connection with 90, High Street, West Norwood ("Foresters" Beer-house), action was taken under section 22 of the London County Council General Powers Act, 1904, on the ground that the urinal was in an insanitary state and an offence against public decency. The result was the alteration of the position of the urinal with the consequent abatement of the nuisance and the offence against public decency. This power conferred upon Sanitary Authorities throughout London is of importance.

RAILWAY ARCHES (CONVERTED INTO SHOPS) WITHOUT SANITARY CONVENIENCES.

Action was taken during 1906 in respect of certain railway arches, situated at 1-49, Atlantic Road, and used as shops, on account of no proper sanitary conveniences having been provided in connection therewith, as required by section 38 of the Public Health (London) Act, 1891. A test case was tried first before the magistrate in connection with Arch No. 7 (Provision Shop), wherein 5 males and 2 females were at the time in attendance. The magistrate adjourned the case for two months to enable the necessary work to be completed meanwhile to the satisfaction of the Council. This work was completed during 1906, and the other arches have since provided sanitary accommodation as necessary.

No action was taken by the Council in respect of the onestoried shops in the Station Road, opposite the Arches, on account of practical difficulties in carrying out the structural alterations necessary, *e.g.*, small size of shops, one external wall only to each shop, &c.

UNSOUND FOOD.

No legal seizures of unsound food have been found necessary during 1906, though in 5 instances voluntary surrenders have been made by the vendors, and the food destroyed, as follows :---March 3rd, 1 box of roes (Vauxhall Ward); April 18th, 2000 cases of tinned salmon* (Marsh Ward); July 30th, 54 cases of meat essence (Vauxhall Ward); September 2nd, 1 cwt. of rabbits (Brixton Ward); October 15th, 1½ cwts. of Mussels (Brixton Ward).

The Council during 1906 decided to ask the Local Government Board to simplify the law with regard to unsound food so as to enable proceedings to be taken against the wholesale dealer as the person responsible for the sale of unsound food by himself or his servant.

SEWER VENTILATORS IN NORWOOD.

From time to time, the sewer ventilators in certain of the roadways in Norwood have been complained of, and during 1906 the Council decided, as an experiment, to deal with the nuisance by coupling up certain stunt ends of sewers and by erecting ventilating shafts (Gipsy Road, Romany Road, Casewick Road, Auckland Hill, &c.).

^{*} Samples were picked out and examined, and a large proportion found to be "blown." The 2000 cases were a ship load, and were, consequently, returned to the Dock from which they had been sent into Lambeth Borough.

ROUTINE WORK OF MALE INSPECTORS.

During 1906, 714 houses have been re-drained throughout, or in part; and 486 plans (representing the 714 houses) have been received in connection therewith. The drainage work is carried out under the personal supervision of the Inspectors, the drains being in every case water-tested.

10389 tests (hydraulic, smoke or chemical) have been made by the Sanitary Inspectors during 1906.

71 Water Certificates (representing 468 houses separate or in blocks) have been issued during 1906 in accordance with Section 48 of the Public Health (London) Act, 1891; and in this connection, it is to be noted that a Water Certificate is not granted until all the drainage work is completed satisfactorily also.

In addition to drain-testing and supervision, other duties fall to a Sanitary Inspector, and, as fairly representing the work carried out, the numbers of (1) notices served, and (2) inspections and re-inspections made, are a fair criterion. In Lambeth Borough, during 1906, 14757 notices have been served under the Public Health Act (8193 preliminary, 4490 statutory and 2074 in connection with infectious diseases), and 11 under the Metropolis Management Acts, making a total of 14768, dealing with 9650 structural, and 2941 non-structural, defects. 7540 complaints were attended to during 1906.

The numbers of inspections and re-inspections carried out during 1906 by the Male Inspectors were 9896 and 63021 respectively, and to these must be added the summary of work carried out by the Female Inspectors and Smoke Inspector (*vide* pages 115-119 and 126-129).

15 summonses were taken out, and 8 were withdrawnthe owners having, meanwhile, done the works necessary to comply with the notices as originally served, whilst, in the remaining 7, convictions were obtained (including one closing order).

OTHER INSPECTIONS.

The work in connection with disinfection, smoke abatement factories and workshops, bakehouses, restaurants and dining (coffee) rooms, and the carrying out of the Food and Drugs Acts, is dealt with under special headings in this Report (vide post).

SULPHUR IMPURITIES IN GAS.

Two Acts of Parliament (South Suburban Gas Act and London Gas Act were passed on June 30th and August 4th, 1905, respectively, dealing with sulphur impurities in gas and making the Gas Companies no longer liable (as heretofore) to any forfeiture by reason of the presence in the gas supplied of sulphur impurities other than sulphuretted hydrogen. Formerly, sulphur was not to exceed 22 grains from October 1st to March 31st, and 17 grains from April 1st to September 30th, in the 100 cubic feet of gas, on an average of 3 days. Sulphur compounds (chief of which are sulphurous and sulphuric acids) are the principal impurities of gas. Sulphurous and sulphuric acids have a very destructive effect on vegetation, mortar, and the softer kinds of building stones, but they do not appear to have any known marked effect on healthy people, though the sulphurous acid is a source of danger to persons with weak or diseased lungs (vide report in Appendix pp. 47-48). This change in scientific opinion is noteworthy as shewing the different methods adopted to-day in dealing with trade The advantages to the Gas Companies of this processes. decision are far-reaching from a financial point of view, and this, too, without apparent detriment to the Public Health. The experiment will be watched with much interest by all concerned.

WORKSHOPS*.

During 1906, 112[†] new Workshops have been added to the Register,[†] consisting of the following :---

 A consisting of Name of Trade		in the second			No. of
or Business.				W	orkshops
Dressmakers					49
Laundries					10
Milliners					10
Tailors					13
Blouses					4
Corsetiere					2
Mantles					3
Fancy Goods					2
Salt Packing					1
Wool and Felt	Work				1
Boxmaking					2
Dress Agency					1
Eider-Down Fi	itting				1
Surgical Instru	ments				1
Milk Can Make	ers				1
Rag Sorting an	nd Mari	ne Stor	re		2
Pinafores					1
Costumes					2
Cork Cutter					1
Lace Ties					1
Tin Smith					1
Pyjamas					1
Waistcoat Mak	ers				1
Motor Repaire	r				1
					112

* The new Factory and Workshop Act, 1901, came into force on January 1st, 1902, and entails much extra work, e.g., outworkers, etc.

† Excluding 9 factories, viz.:—3 laundries, 1 mineral waters, 2 brewers, 1 boot polish, 1 mantles, 1 box making.

[‡] The Register contains (up to the end of 1906) a total of 1337 workshops with 2225 workrooms.
Full particulars concerning these 112 Workshops have been entered up in the Register, and it is found that there are connected therewith 147 workrooms, in which were working at the time of inspection 402 persons—63 males and 339 females (*females alone* being employed in 80 workshops). There were found being employed—

			Μ.	F.	Total.
Children		 		_	_
Young Per	rsons	 	2	64	66
Adults		 	61	275	336
			63	339	402

Notices as to the "protected persons" (*i.e.*, children, young persons, and women) employed were sent on to the Factory Inspectors, from time to time, as required (*i.e.*, where no Abstract under the Act was found to have been posted up in a workplace).

39 Notices of occupation of 75 workshops have been received during 1906 by the Borough Council from the Factory Inspectors, as compared with 16 during 1905, 28 during 1904, 62 during 1903, 25 during 1902 and 32 during 1901, and 3, 32, 60, 31, and 29 received by the late Vestry during the five years 1886-1890 respectively.

17 written Notices have been received during 1906 by the Borough Council from the Factory Inspectors with reference to contraventions of the Public Health Acts in connection with Factories and Workshops, and all such nuisances have been abated, and due notice sent to the Factory Inspectors within one month as to action taken in each case. The number of notices received in 1905, 1904, 1903, 1902 and 1901, were 9, 10, 9, 5 and 17, as compared with 16, 8, 27, 25 and 66 received by the late Vestry during the five years 1886-1890 respectively. In connection with the 112 new workshops inspected during 1906, the following insanitary conditions were met with at the time of the inspections :—

1. As to Ventilation and Warming and Lighting.

In 3 out of the 112 workshops (*i.e.*, 2.6 per cent.), the ventilation was found to be unsatisfactory, and, with 2 exceptions, all the workrooms, at the time of inspection, were found to be reasonably warmed by open fireplaces, open or closed stoves, gas jets, steam pipes, etc., and sufficiently lighted.

2. As to Cleanliness.

In 13 workshops (*i.e.*, 11.8 per cent.) the workrooms were found to be dirty, and to require cleansing.

3. As to Sanitary Appliances.

In 19 (*i.e.*, 16.9 per cent.), the sanitary fittings and appliances were found to be bad. The w.c.s were outside in 50.9 per cent., inside in 36.6 per cent., and outside and inside in 12.5 per cent. In no single case was separate closet accommodation for the sexes found to be wanting, where the two sexes were employed.

The soil pipes were found to be unventilated, or insufficiently ventilated, in 44 cases (*i.e.*, $39\cdot3$ per cent.), a condition of things which may, or may not, be a nuisance; and in 2 cases there was found to be direct communication between w.c.s and workrooms.

4. As to Dampness.

In 2 workshops (*i.e.* 1.8 per cent.), the workrooms were found to be damp.

5. As to Overcrowding

The cubic capacities of the different workrooms were, naturally, found to vary considerably, and in 5 workrooms (*i.e.*, 3.4 per cent.) over-crowding was found to exist. In addition to inspecting the above workshops wherein females were employed, the special work done by the Female Inspectors is dealt with on pages 114-118.

The inspections made during 1906 in connection with the 9 factories were made with a view to seeing if the requirements of the Acts as to w.c. accommodation for the employees had been complied with. This is the only duty in regard to factories that falls to the Sanitary Inspector. In the 9 factories there were 19 workrooms, wherein were employed, at the time of inspection, 382 persons—3 young persons (females) and 379 adults (5 males and 374 females).

The importance of workshops and workplaces being kept under constant supervision is now admitted by all, and the details tabulated in the present Report go to shew the great increase of work thrown upon a Sanitary or Health Authority in the systematic carrying out of the provisions of the Factory and Workshop Acts. In this connection, the value of the Female Sanitary Inspectors is noteworthy (*vide* Special Report dealing with this particular work, pp. 114-118).

WORKSHOPS REGISTERED DURING 1906.

New	Wards and Inspec	tors in		No. of Workshops.	. of rooms.	Child	dren.		oung sons.	Ac	lults.		TOTAL	.S.
	charge thereof.			No. Works	No. of Workrooms	М.	M. F.	М.	F.	М.	F.	М.	F.	Total
			1			-								
Marsh	Scorrer			13	16	-			4	5	. 34	5	38	43
	(Clements			16	20	-			5	1	26	1	31	32
Bishop's	Hooper			14	17		-	1	3	23	26.	24	29	53
Prince's) Howes			5	8		-	1	10	4	15	5	25	30
	(Jones			13	21	-			12	1	45	1	57	58
Vauxhall	j Jackson			8	12	-	-		6	1	11	1	17	18
Stockwell) Baxter			12	16	-	-	-	11	18	31	18	42	66
Brixton	f Gavin			5	6		-		3	4	10	4	13	17
DITATON	··· (Bott			3	4		-		1	1	11		12	12
Tulse Hill	∫ Wallis			2	2	-	-	-		1	5	ĩ	5	6
	··· Smith			8	9	-			3	_	19		22	22
Norwood	Barfoot			13	16		-	-	6	3	42	3	48	51
	Total			112	147	_	-	2	64	61	275	63	339	402

Number of Rooms and Persons employed.

N.B.—With 6 exceptions, the Inspections were made in connection with the above 112 Workshops by the Female Inspectors,

112

WORKSHOPS :- Details as to Sanitary

113

		0	ld Parish	Districts	s, and the
Details as to Sanitary Conditions and Defects found.	Marsh.	В	ishop's ar	d Prince	e's.
	Scorrer.	Ciem- ents.	Hooper.	Jones.	Howes.
Ventilation { satisfactory { not	12 1	16	14	13 —	5
Cleanliness { satisfactory not	$11 \\ 2$	$ \begin{array}{c} 14\\ 2 \end{array} $	14	· 11 2	5
Workrooms { damp not	$1 \\ 12$	$1 \\ 15$	14	$\frac{-}{13}$	
Workrooms {warm	12 1	16 —	14	13	5
State of sanitary { good fittings, &c. } bad	12 1	16	18 1	13 —	4 1
Soil pipe { ventilated not ventilated no soil pipe	7 2 4	8 3 5	$\begin{array}{c}11\\1\\2\end{array}$	$\begin{array}{c} 6\\ 4\\ 3\end{array}$	$\frac{4}{1}$
Position of W.C. otwide and inside No W.C		$\begin{array}{c} 12\\ 4\\ -\\ -\end{array}$	5 7 2 —		23
Separate W.C. ac- { Yes commodation { No	4 9	2 14	3 11	4 9	1 4
Communication (direct) between W.C.'s & rooms	1 12	$\frac{1}{16}$	- 14	1 12	

Conditions and Defects found during 1906.

Vauxhall &	Stockwell.	Brix	Tulse I	Tulse Hill, Norw'd.				
Jackson.	Baxter.	Gavin.	Bott.	Wallis	Smith.	Bar- foot.		
8	$\begin{array}{c} 10 \\ 2 \end{array}$	5	3	2	8	13	109 3	
8	8 4	3	3	1 1	8	13	99 13	
	${12}$			2		${13}$	$\begin{array}{c}2\\110\end{array}$	
8	12 —	4 1	3	2	8	13	$110 \\ 2$	
7 1	7 5	$\frac{3}{2}$	3	2	7 1	$\frac{6}{7}$	93 19	
3 2 3	11 _1	4 - 1	$\frac{2}{-1}$		7 1 	5 	$\begin{array}{c} 68\\14\\30\end{array}$	
5 3 	$2 \\ 6 \\ 4 \\ -$	1 3 1 —	1 2 —	2	2 2 4	8 2 3 	$57 \\ 41 \\ 14 \\$	
3 5	8 4	1 4		2	$\frac{2}{6}$	$1 \\ 12$	29 *83	
	$\frac{1}{12}$					<u> </u>	2 110	

N.B.—The Wards of the old Parish of Lambeth are retained so that this The above Workshops (with 6 exceptions) were inspected * In none of these cases was separate W.C. accommodation Table may be comparable with those in previous Reports (1897-1905). by the Female Sanitary Inspectors.

required-persons of one sex only being employed

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FEMALE SANITARY SINSPECTORS.

1906 is a year's record of good work carried out by the Female Sanitary Inspectors (Miss Gamble and Miss Pearson*) in connection with (a) Factories, Workshops (Work-places*), Shops Out-Workers' Homes, Laundries, etc., wherein women and girls are employed; (b) Underground Conveniences (belonging to the Council), and other Ladies' Sanitary Conveniences (Railway Stations, Hospitals, etc.); (c) Houses wherein births have occurred, or deaths amongst infants under 1 year of age: (d) schools wherein there have been infectious disease outbreaks; etc.

The year's work, 1906, may be tabulated as follows :---

Summary of work carried out by Female Sanitary Inspectors during the year 1906, and during the preceding four years 1902-5 (for comparison).

Workshopst visited and	inspec	ted-	1	1906	1905	1904	1903	1902
(a) Dressmakers				143	103	80	157	142
(b) Milliners				37	21	14	12	20
(c) Laundries				117	17	37	72	70
(d) Tailors				42	22	7	22	14
(e) Upholsterers				9	1			1
(f) Dyers				3	1	2	2	1
(g) Others				66	59	23	48	32
Workrooms inspected				703	330	495	669	325
Workshops† re-inspected				188	81	98	163	333
Workrooms re-inspected				256	90	113	214	305
Restaurants, etc., re-insp				523			87	118
Workshops†: workroom		in meas		360	314	265	450	318
Workshops† removed fr			Juiou	118	32	9	19	29
Workshops† reported to	HM	Inspect	or	27	63	31	19	48
Workshops† reported by	HM	Inspec	tor	47	22		46	102
Workshops newlydiscov	vered at	ndregis	tered	120	±92		152	3
§Premises visited but no	female	hands	found	120	+			
to be employed (inclu	uding C)ut-wor	kers)	1041	259	135	231	80

* Miss Gamble was elected on October 3rd, 1901, and Miss Pearson on December 8th, 1905.

+ Workshops include Workplaces.

[†] Including 6 factories.

§ Houses where the business plate, or the local directory, or advertisements in newspapers, or other sources of information implied a probability that females workers would be employed, but at which none were found at the time of visit.

Female Conveniences visi	ited &	inspect	ed-	1906	1905	1904	1903	1902
				597	577	597		276
Private (visits paid)				15	-		5	.35
Schools visited-							-	-
Public				25	18	13	20	10
Private				5	1	2	-	1
Special places visited and	l inspe	ected-						0.00
(a) Restaurants and	Hote	ls, etc.		T	1		22	220
(b) Private Houses				1341	224			199
(c) Out-workers				181	145	134	107	-
(<i>d</i>) Others					-		3	5
Written Intimations and	Statu	tory No	otices					~ ~ ~
served				647	194	200	198	262
No. of Workshops, † etc	., in	which	no					
defects were found of	on ins	pection		1255	507	508	371	382
No. of Workshopst in wh								
found on inspection				764	245	254	292	322
Particulars of dej	fects f	ound					12.5	
	ceis j						-	
Workrooms-				20	14	11	16	4
Overcrowded				36	9	10		1
Damp			•••	295	135	184	1.	
Dirty			•••	13	200	1	5	200
Ill-ventilated				8	3	-	0	2
Otherwise				0				
Defects-				75	11	12	19	29
Yards				27	4	11	100000	1000
Floors				17	5	6	13	1
Roofs		••••		10.00	1.	1	10	4
Windows				5 33		9	00	17
Ceilings					4	5	23	
Rain Water Pipes				13	#	4	9 5	18
Premises generally				17		4	9	
Sanitary Appliances : W				910	0.0	01	00	00
Dirty				219	83	64	83	86
Ill-lighted				2	1			1
Unventilated				17	7	1	16	5
Choked				37	5	3	3	15
Defective				67	44	28	51	44
Defective Flushing	Fanks	and W	ater					
				137	39	35	43	91
No separate suitable	e acco	mmoda	tion					
				14	7	1	8	
Drainage-								
Defective, unventila	ted, et	tc		23	2	6	7	9

† Excluding the 1041 premises wherein no female hands were found to be employed.

Dustbins-				1	1906				
Wanting					69	25			72
· TO C .!					120	23	21	33	34
Lavatories-								-	
Defective or d	irty				3	12	-	2	8
Miscellaneous def above)	fects	(not	includ	ed					
Animals impro	operly	kept			7	-	1	1	3
Accumulations					11	9.	7	2	20
Sink wastes de					10		-		8
					1			1	-
Nuisance referred t by Male Inspe	ctors (defec	tive dra	ins,		10	-0	0.0	00
w.c.s, etc.)					154]	48	59	86	68

The Female Public Conveniences are under constant supervision by the Female Inspectors, 597 visits having been paid thereto during 1906.

The Female Inspectors have during 1906 been engaged in visit ing 262 houses wherein deaths from infantile (summer) diarrhœa have been reported as having occurred, with a view to helping to further elucidate the predisposing causes of this disease; and in inspecting schools (30), and the homes of the scholars, in connection with outbreaks of disease (more especially measles).

It will be noted, in connection with the inspections and reinspections of workshops and workplaces (where women are employed), that the principle defects found are dirty workrooms, dirty sanitary appliances, defective flushing tanks to closets, defective closets, and defective dustbins. Overcrowding was only found in 20 cases—in each instance being slight.

OUT-WORKERS.

The work commenced by the Female Inspector in 1902, and continued during 1904 and 1905, connected with the visiting and inspecting of out-workers' premises and homes (situated within the Borough of Lambeth), has been further continued during 1906.

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This is a special duty devolving upon the Borough Council under Sections 107-110 of the Factory and Workshop Act, 1901, under which Orders (known as the Home-work Orders) have been made by the Home Secretary (*vide* Annual Reports, 1903, pp. 118-122 and 1905 pp. 125-126). The latest Order is 1905.

During 1903-6 a total of 567^{*} out-workers' premises have been inspected and registered (181 during 1906), connected with the following trades and businesses :

Mantles	1903. 6	1904. 12	1905. 20	1906. 11	1903-6. 49
Blouses and Skirts		14	24	24	72
Ties and Belts and Braces		19	14	17	74
	6	4	4		14
Baby Clothing	0	Ŧ	T		
Children's Undercloth- ing and Costumes	5	10	9	9	33
Women's Underclothing	5	2	7	9	23
Tailors		15	8	42	75
Upholsterers	1	_	1	2	4
Embroidery	9	3	9	2	23
Dressing Gowns	2	5	3	_	10
Shirts	13	7	7	3	30
Aprons	1	_	2	_	3
Waistcoats	4	8	4	14	25
]ersey s	2	_	1	1	4
Hosiery	1	_	_	1	2
Widows' Caps	1		_	1	2
Men's Caps	1	1	1	3	6
Vamp Beader	1	_	. 1		2
Wigs	2	_	_	_	2
Incandescent Mantles	1		_		1
Boots and Shoes	1	4	2	3	10
Umbrellas	1	_		_	1
Dresses	_	9	7	1	17

*The total numbers of premises visited 1903-06 were 289, 277, 303 and 216 respectively, but in 518 cases no out-workers were found to be employed at the time of the inspector's visit.

		1903.	1904.	1905.	1906.	1903-6.
Waterproofs	· · · ·	 - '			2	2
Millinery		 -	2	5	5	12
Collars		 	5	3	4	12
Sacks		 -	1	-	-	1
Paper Bags		 -	2	2	3	7
Boxes		 _	4	2	7	13
Mattresses		 —	1	-	-	1
Lace		 _	2	1	1	4
Pinafores		 -	1	-	-	Ι
Sheets		 -	4	-		4
Smocking		 —	2	1	2	5
Needlework		 	1	1		2
Curtains		 	-		1	1
Carpets		 -	1	1	-	2
Brushes		 —	-		2	2
Dyers and C	leaners	 —	—	1	2	3
Buttonhole l	Making	 —	-	1	2	3
Book Foldin	g	 -	—	—	1	1
Straw Hats		 -	—	1		1
Bottle Cover	ring	 -	-	1	_	1
Fur-pulling		 —		1	3	4
Artificial Flo	owers	 	-		3	3
T	otals	 107	134	145	181	567

The Wards in which the houses (wherein these 567 outworkers were found to be working during 1903-6) are situated, are as follows :--

	1903.	1904.	1905.	1906.	1903-6.
Marsh	 12	14	8	37	71
Bishop's	 10	16	29	14	69
Prince's	 38	13	18	42	111
Vauxhall	 12	4	5	5	26
Stockwell	 18	9	19	20	66
Brixton	 17	37	42	32	128
Herne Hill	 -	26	12	18	56
Tulse Hill	 _	10	8	5	23
Norwood	 -	5	4	8	17
Totals	 107	134	145	181	567

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DISINFECTING DEPARTMENT.

During 1906 good work has been done by the Staff (individually and collectively) in connection with the Disinfecting Department—4061 infected rooms and 22850 infected articles (bedding, etc.) having been disinfected, as compared with 4636 and 51552 respectively during 1905. A total number of 2074 notifiable infectious diseases have been reported during the year 1906, but a large amount of disinfection has also been carried out in connection with cases of Measles (836), Whooping Cough (455), Tuberculosis (592), Chicken-pox (354), Verminous Houses (45), Cancer (18), and Other Diseases (133). Full details are to be found on page 122.

Of the compulsorily notifiable diseases, 2074 have been dealt with, whilst 23 Schools (19 public and 4 private) have been disinfected in connection with outbreaks of infectious disease, viz., Measles 7, Scarlet Fever 10, Chicken-pox 3, Diphtheria 2 and Typhoid 1.

Particulars as to disinfection carried out in the Borough of Lambeth during 1906.

Total No. of rooms of	lisinfected	d by Co	ouncil		4061
Cases in which bedd	ing has l	been di	isinfect	ed at	
home					881*
Do. do.	do.		at Chai	mber	2 484
Do. do.	do.		destr	oyed	33
Bedding replaced by	the Coun	cil			1
Premises disinfected	and disi	infectar	nts sup	plied	11735
Infected cabs disinfe	cted				4
No. of Cleansing No.	otices ser	ved in	conne	ction	
with infected ho	ouses				2939
Certificates of Med	ical Prac	titione	rs rece	eived	
in lieu of disinf	ection by	the Co	uncil		31
Certificates of disinfe	ection left	t with	occupie	rs of	
disinfected prem	nises				2919

^{*} This number is increased, compared with previous years, owing to bedding no longer being removed to the Disinfecting Chamber in the cases of Measles, Chicken-pox and Whooping Cough.

Beds							1565
Bolsters							1302
Pillows							3654
Mattresse	S						1128
Pallia ses							126
Chair Cus	hions						714
Clothing							5036
Sheets							948
Blankets							3421
Rugs and	Mats						63
Counterpa	nes ar	nd Eid	erdown	Quilts			1644
Carpets							83
Extras (i.e	. artic	les not	t mentio	oned in a	above)		3166
						-	

Articles of bedding, etc., disinfected.

Total 22850

Articles of bedding, etc., destroyed.

Beds		 		 	18
Bolsters		 	··· ··	 ····	4
Blankets		 		 	8
Pillows		 		 	12
Quilts		 		 	7
Mattresses	5	 		 	12
Palliasses		 		 	18
Sheets		 		 	12
Chair Cus	hions	 ••••••		 	17
Clothing		 		 	40
Carpets		 		 	6
Sundries		 		 	265
			Total	 	419

Practically *all* the disinfection was carried out by the Council's officers — only 31 certificates being received from Medical Practitioners during 1906, as compared with 58 during 1905. Particulars as to the 31 certificates (received during 1906) are as follow:—

Medical	Certificates	accepted	in	lieu o	of	Disinfection	being	carried	out
		by the	B	oroug	rh	Council.			

Nature of Certificate.	1st Q.	2nd Q.	3rd Q.	4th Q.	Total.
For Rooms only	_	-	1	_	1
For Bedding only	-	_	_	-	_
For Rooms and Bedding	11	8	9	2	30
	11	8	10	2	31

Refuges.

There are 2 Refuges in the Borough, one at Wanless Road, and the other at the Wharf (Belvedere Road). Neither Refuge has been used during 1906—a fact that is understood, when it is remembered that the old method of sulphur fumigation has given place to the new one of formalin spray for the disinfection of houses.

In this latter case, it is unnecessary to leave the houses shut up for several hours, and the disinfecting process takes only 1-2hours to complete.

Temporary housing of occupiers is unnecessary.

	1st Q.	2nd Q.	3rd Q.	4th Q.	Total. 1906.	1905	1904.	1903.	1902.	1901.	1900.	1899.	Yearly average 7 years (1899-1905)
Measles	539	243	39	15	836	1970	1294	1346	364	728	941	773	1059.4
Whooping Cough	108	177	54	116	455	440	380	325	110	72	126	58	215.9
Chicken-pox	133	125	22	74	354	733	305	356	1625	78	88	21	458.0
Consumption*	217	122	108	145	592	598	659	269	488	483	524	474	499.3
Cancer	4	5	6	3	18	16	20	13	34	15	23	13	19.1
	1001	672	229	353	2255	37507	2658	2309	2621	1376	1702	1339	2251.7

NON-NOTIFIABLE INFECTIOUS DISEASES, ETC. 1899-1906.

* Consumption voluntarily notifiable throughout the Borough since June 1st, 1902.

N.B.-133 other diseases (not classified) *i.e.*, Mumps, Ringworm, Influenza, Scabies, Pneumonia, Glanders, Diseases not stated, etc., and 45 Verminous Houses, were also dealt with during 1906.

DISINFECTION STATISTICS.

For eight years prior, and fifteen years subsequent, to the passing of the Notification of Infectious Diseases Act; and for the year 1906.

			1	1000			1	1			
		1882.	1883.	1884.	1885.	1886.	1887.	1883.	1889.	Yearly average for 8 years pre- ceding the Not- ification Act.	1906.
No. of Cases in which Bedding, etc., has been		332	258	278	10	62	52	7	144	142.8	881
disinfected. No. of Cases in which Bedding,	At Chambe	er 85	56	162	509	236	722	902	951	452.8	2484
etc., has been destroyed. No. of Articles of	ſ	37	23	62	52	8	57	48	79	45.7	33
Bedding, etc., disinfected. No. of Articles of	}	1526	1437	1895	2275	916	3078	3121	3778	2153-2	22850
Bedding, etc., destroyed, Premises Disin-	}	63	104	114	. 144	59	92	61	267	_113.0	419
fected and Dis- infectants Sup- plied.]		680	657	727	736	1276	1255	1277	916.8	11735
Infectious dis- eases dealt	lotifiable†	-	-	-	-	-	-		-	-	2074
	lon-notifiable [.]	+ -	-	-	-	-	-	-	-	-	2388

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† vide footnote on page 124,

DISINFECTION STATISTICS—continued.

	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1 90.3	1904	1905	Yearly average for 15 yrs. suc- ceeding the Notifica- tion Act.	1906
No. of cases in which Bed- ding, etc., has been disin-																		
fected.—At Home	179	246	593	343	177	251	368	217	132	81	62	37	20	19	6	1	170.8	881§
	1391									2998	1 2 2 2 2	75.5		3253	3107	3583	2653.2	2484
No. of cases in which Bed- ding, etc., has been des- troved.	185	275	314	224	119	6	49	39	27	44	59	75	134	62	53			33
No. of Articles of Bedding, etc., disinfected.	3013	6747	9909	11513	8022	13516	20349	21487	21597	27923	27528	27265	41029*	26957	26359	51552	21546.9	22850
No. of Articles of Bedding, etc., destroyed	333	467	605	674	544	186	178	162	126	326	1783	959	1006*	587	479	519	558.4	419
Premises disinfected and dis- infectants supplied	1722	1816	3157	5896	5742	7146	7210	8715	8441	9146	9124	9522	12607	10984	12367	13212	7925.4	11735
Infectious Diseases dealt with Notifiable†		1676	3025	4070	2433	2685								1587				2074
Non-Notifiable†	-	-	-	-	-	-	20	87	144	1339	1702	1376	1094	2269	2638	3927	1469.6	2388

* Including 26145 and 355 Smallpox articles disinfected and destroyed respectively in 1902.

† The Notification Clauses of the Public Health (London) Act, 1891, came into force on January 1st, 1812, and previous to 1896 practically no attention was paid to disinfection in connection with the non-notifiable infectious diseases.

§ This number is increased for 1903 on ac ount of bedding, etc., not being removed to the Disinfection Station in connection with Measles, Whooping Cough and Chicken-pox.

N.B.-The Statistics for 1901-6 refer to the Borough Council; those for all previous years, to the late Vestry.

INFECTED CLOTHING AND LAUNDRIES.

During 1906, the London County Council decided to ask Parliament for powers to enable Sanitary Authorities in London to prohibit the sending to laundries of infected clothing-no such powers being contained in the Public Health London Act, 1891, at least in respect of *all* infectious diseases. Section 68 of the 1891 Act, provides against the transmitting, removing and exposing, without previous disinfection, articles that have been exposed to infectious disease, i.e., the notifiable infectious diseases as laid down in section 55. In this way, such important infectious diseases as Measles, Chicken-pox, Whooping Cough, Consumption, Glanders, Anthrax, &c., are not dealt with. Further, it should be made definite that section 68 of the Act has reference to laundries to which no infected clothing, without previous disinfection, should be sent. From time to time, outbreaks of infectious disease have been traced to laundries.

UNDERGROUND CONVENIENCES.

The conveniences have been kept under regular inspection during 1906—the male conveniences by the male inspectors and the female conveniences by the female inspectors.

The staff of attendants, individually and collectively, have given satisfaction, and on March 15th, 1906, three temporary attendants were transferred from the *temporary* to the *permanent* list, viz., Miss Ward, *temporary* since May 4th, 1904; Miss Swift, *temporary* since September, 12th, 1904; Mrs. Hulbert, *temporary* since February 12th, 1904.

On November 3rd, 1906, the Stangate conveniences (male and female) were closed in connection with the L.C.C. Tramways Extension Schemes and handed over to the London County Council for a sum of $\pounds_{3,500}$, by powers given under

section 16 of the L.C.C. Tramways and Improvement Act, 1906. Six attendants (3 males and 3 females) were, consequently, thrown out of employment, viz., George Cooper (8 years), William Clark (3 years), Alfred Gould (2 years), Mrs. Luckett (13 years), Mrs. Sinclair (3 years), and Miss Ward (3 years). Finally, the following attendants were discharged from the service of the Council as such :--Edward Vass (3 years), Alfred Gould (2 years), Miss Ward (2 years) and Miss Swift (2 years).*

A tender was accepted during 1906, for the construction of the underground convenience to be erected at Kennington Gate, at a cost of ± 2520 .

ANALYSIS OF FOOD AND DRUGS, WATER, &c.

1.-Food and Drugs.

During the year 1906, 1500 samples have been purchased through the Food and Drugs inspector (Mr. Perrin) within the Borough of Lambeth, and submitted to the Public Analyst for analysis. Of the 1500 samples, 69 (*i.e.*, 4.6 per cent.) were reported by the Analyst to be adulterated, varying quarterly as follows:—1st quarter, 2.7 per cent.; 2nd, 8.8 per cent.; 3rd, 4.4 per cent.; and 4th, 3.1 per cent.; and 38 summonses were issued, with the result that 35 convictions were obtained, together with £52 in penalties, and £27 3s. 7d. in costs. In 12 cases the vendors were cautioned. Full details are to be found on pp. 129—131, and in the Appendix (pp. 27—33).

Taking the average of 10 years (1891-1900), the annual number of samples taken in the old Parish of Lambeth is 501, of which 74 (*i.e.*, 14.8 per cent.) were found, on analysis, to be adulterated; whilst the annual average number of summonses

^{*}The years given in brackets after the attendants' names are the numbers of years of service as attendants.

issued is 53, with 52 convictions and $\pounds 104$ 5s. 5d. in penalties, and $\pounds 35$ 0s. 3d. in costs. In 16 cases (average), the vendors were cautioned. In the Borough, 710, 704, 1010, 1200 and 1500 samples were taken during 1901, 1902, 1903, 1904 and 1905 respectively.

During 1906, no samples were submitted to the Public Analyst by private purchasers.

Particulars of the 1500 articles submitted by the Food and Drugs Inspector during 1906 are as follows :---

(a) MILK.

962 samples were taken, and of these 63 (*i.e.*, 6.5 per cent.) were declared by the Analyst to be adulterated. 5 of the samples were purchased as "separated" milks (none adulterated). The 63 adulterations found were as follows :—

(1) Added water (23), varying from a *minimum* 2 to a *maximum* 14 per cent., viz.:-2, 3, 3, 3, 3, 3, 3, 3, 3, 4, 4, 4, 4, 4, 4, 4, 5, 6, 6, 6, 7, 11 and 14 respectively.

(2) Deficient in milk-fat (40), varying from a *minimum* 6 to a *maximum* 40 per cent., viz. :-6, 6, 6, 6, 6, 6, 6, 7, 7, 8, 9, 9, 10, 10, 10, 10, 12, 12, 13, 13, 14, 15, 15, 15, 16, 16, 18, 18, 19, 19, 20, 20, 22, 22, 22, 24, 27, 32, 34, 40 and 40 respectively.

In 32 cases of milk adulteration, summonses were taken out, and in 29 cases convictions were obtained, with penalties varying from a *minimum* 5s. (with 12s. 6d. costs) to a *maximum* $\pounds 10$ (with 16s. 6d. costs). In the remaining 3 cases the results of the summonses were as follows :—

(a) summonses dismissed (2)—warranty proved ;

(b) summons withdrawn (1)—legal technicality, a wrong name having been given.

In 31 cases no action was taken for the following reasons :---

- (a) bottles burst (5).
- (b) amount of adulteration too small (26).

One summons was taken out against a milk seller for refusing to sell milk to the Inspector. The defendant was fined $\pounds 2$ and 2s. costs.

The total fines amounted to $\pounds 44$ 15s., with $\pounds 23$ 6s. 7d. costs.

(b) BUTTER.

215 samples were taken, and of these 6 (*i.e.*, 2.8 per cent.) were declared by the Analyst to be adulterated—the adulterations consisting of added margarine, varying from a *minimum* 90 to a *maximum* 100 per cent., viz. :—90, 90, 91, 94, 98 and 100 respectively.

In 6 instances summonses were taken out, and 6 convictions obtained, with penalties varying from 5s. (with 12s. 6d. costs) to $\pounds 2$ (with 14s. 6d. costs).

The total fines amounted to ± 7 5s., with ± 3 17s. costs.

(c) COFFEE.

70 samples were taken, but in no instance was the sample declared by the Analyst to be adulterated.

The other samples of Food and Drugs (253 in number) taken by the Inspector were declared by the Analyst to be unadulterated.

The expenses connected with the carrying out of the Food and Drugs Acts in Lambeth Borough during 1906 amounted to \pounds 98 9s. 2d.—consisting of \pounds 26 10s. 11d. for samples, \pounds 25 4s. 0d. for Assistant (Deputy), \pounds 7 13s. 6d. for Witnesses, 10s. for Collecting Evidence, \pounds 37 16s. 6d. for Travelling Expenses, and 14s. 3d. for Sundries. The salary of the Food and Drugs Inspector (\pounds 120, rising by \pounds 10 annual increases to \pounds 200), and the cost of the summonses (\pounds 5 14s. 0d.), are not included in the above.

SALE	OF	FOOD	AND	DRUGS	ACTS.
				and the second	

Samples procured, together with the results of Analyses, during the year 1906.

		Sample	es.			Number Analysed.	Number Adulterated
*Milk						0.62	
Butter	••••					962	63
(11	••••					215	6
	•••				•••		
Margarine				•••		.3	
Wheaten	Flour	• • • •			••••	3	-
Lard	•••				•••	5	-
Bread						1	-
Coffee	•••-					70	-
						33	-
Pepper	•••					51	
	•••					25	
Tea						3	
Ground R						18	-
Oatmeal						17	
Olive Oil						13	
Arrowroo	t					9	<u> </u>
Pea Flour						13	
Vinegar						14	_
Chocolate	Powe	der				15	_
Beer						11	_
Whisky						4	_
Rum						2	_
Gin						1	_
Ground A						3	_
Sugar							
Tapioca						6 3	
	276					0	
					-		
		Totals				1500	69

* Separated milk 5. + Cream of tartar 8, tartaric acid 8, milk of sulphur 3, Gregory's powder 6.

I

	Year,	No. of Samples Analysed.	No. of Samples adulterated.	Percentage of Samples adulterated.	No. of Summonses issued.	No. of Convictions.	No. of Cautions,	_		Penalties, Cost		
Borough Council.	- 1906	1500	69	4.6	38*	35	12	~	s d. 0 0	£ 27	s. 3	d. 7
	1900 1899	603 600	$\begin{array}{c} 73 \\ 65 \end{array}$	$12.1 \\ 10.8$	57	52	10	104 1		42	6	6
ý.	1895	602	65 74	10.8	$52 \\ 57$	$\begin{array}{c} 49 \\ 54 \end{array}$		$ \begin{array}{c c} 76 & 1 \\ 69 \end{array} $		29 34	12 9	6 0
Vestry.	1897	546	41	7.5	7	21	2		0 0	24	5	0
Ve	$1896 \\ 1895$	$549 \\ 500$	66 87	$\frac{12.02}{17.4}$	66 64	60 62	$\frac{2}{23}$	$\begin{array}{c} 93\\149 1\end{array}$	$\begin{array}{ccc} 0 & 0 \\ 5 & 0 \end{array}$	35	11 18	6
ate	1894	495	107	21.6	81	79	26		0 0	45	10	0
Γ	1893	498	120	24.09	79	79	41	207 1		48	19	0
	1892 1891	$\begin{array}{c} 832\\ 292\end{array}$	$\begin{array}{c} 65\\ 48\end{array}$	$19.5 \\ 16.4$	$\begin{array}{c} 43\\ 25\end{array}$	$\begin{array}{c} 43\\24\end{array}$	$\frac{22}{23}$	$\begin{array}{c} 66\\ 28 \end{array} 1$		32 15	9 1	0 0
10	rage of years —1900.	501.7	74.6	15.1	53.1	52.5	16.1	104	5 5	35	0	3

Particulars as to samples analysed, and proceedings taken, during 1906 (Borough), and during the ten years 1891-1900 (Parish).

Inspector Perrin commenced his duties on February 21st, 1898, vice Inspector Wiggs, who did the work from August 1892, to November 1897.

* 2 Summonses were dismissed, and 1 withdrawn, during 1906.

Year.	Milk.	Butter.	Coffee.	Bread and Flour.	Cocoa and Chocolate.	Cheese and Lard.	Other Groceries.	Sundries.	Spirits.	Brandy.	Gin.	Rum.	Whisky.	Ale and Porter.	Wines.	Aërated Waters.	Drugs.
Late Vestry. Boro'. Council 10061 8000 10061 1000 1000 1000 1899 1898 1891 1893 1892 1893 1893 1892 1891 1893	$\begin{array}{c} 6\cdot 5\\ 14\cdot 2\\ 10\cdot 9\\ 13\cdot 6\\ 10\cdot 5\\ 11\cdot 06\\ 21\cdot 05\\ 27\cdot 6\\ 30\cdot 4\\ 31\cdot 3\\ 47\cdot 8\end{array}$	$\begin{array}{c} 2\cdot 8 \\ 11\cdot 0 \\ 14\cdot 5 \\ 14\cdot 5 \\ 7\cdot 3 \\ 17\cdot 7 \\ 14\cdot 7 \\ 22\cdot 4 \\ 35\cdot 04 \\ 36\cdot 4 \\ 5\cdot 0 \end{array}$	$\begin{array}{c} 0.0\\ 17.8\\ 6.9\\ 10.3\\ 3.03\\ 15.1\\ 26.4\\ 30.0\\ 11.1\\ 18.4\\ 3.8\end{array}$	0.0 	.0.0 	0.0 0.0 0.0 0.0 0.0 0.0 0.0	$\begin{array}{c} 0.0\\ 3.5\\ 2.7\\ 0.0\\ 2.0\\ 0.0\\ 0.0\\ 5.3\\ 3.3\\ 2.1\\ 2.6\end{array}$	0.0 0.0 0.0 0.0 11.1 0.0 16.6 0.0 0.0 0.0 0.0	$\begin{array}{c} 0.0\\ -0.0\\ 21.4\\ 11.1\\ 17.7\\ 0.0\\ 16.0\\ 0.0\\ 8.7\\ 0.0\\ 0.0\\ 0.0\\ \end{array}$		0.0 	$\begin{array}{c} 0.0 \\ \hline 0.0 \\ 50.0 \\ 18.2 \\ 0.0 \\ 25.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ \hline 0.0 \\ 0.0 \\ \hline \end{array}$	$\begin{array}{c} 0.0 \\ 0.0 \\ 20.0 \\ 5.9 \\ 0.0 \\ 0.0 \\ - \\ 0.0 \\ 11.1 \\ - \\ 0.0 \end{array}$	0.0	0.0	0.0	0.0 0.0 0.0 18.8 14.3 0.9 12.5 0.0 0.0 0.0 0.0

Shewing percentage of different adulterated Samples during 1906 (Borough), and in ten years 1891-1900 (Parish).

00. means that all samples were reported to be genuine and unadulterated. - means that no samples were taken during the year.

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Adulteration of Butter.

Communications have been addressed to the Board of Agriculture during 1906, asking for consideration of the questions of the limit of warranties, the use of preservatives and the result of the use by trades of notices to the effect that no guarantee of purity is given, and the ways in which the intention of the Food and Drugs Acts is in many instances defeated in regard to butter.

ALTERATION IN ANALYST'S QUARTERLY KEPORTS.

Alterations have been made by the Public Analyst during 1906 in connection with the quarterly reports which he issues for the use of the Council. By means of these alterations, the samples are grouped under headings of the different substances analysed, *e.g.*, milk, butter, pepper, &c., giving the total number of genuine samples in each group (with observations as required as to the general character of such samples).

PRESERVATIVES IN MILK.

The Council, during 1906, approved of communications being sent to the Local Government Board and the Board of Agriculture and Fisheries to the following effect :—

(1) That statutory effect should be given to the recommendation of the Departmental Committee of the Local Government Board in 1901, prohibiting the use of preservatives in milk; or (2) That regulations under section 4 of the Sale of Food and Drugs Act, 1899, should be made by the Board of Agriculture and Fisheries, defining the exact amount of formalin and boron preservatives, which may be added to milk, where disclosure of the presence of preservatives is made at the time of sale. In this connection, the presence in ordinary milk of formalin to an amount which is ascertained by examination within three days of collecting the sample to exceed 1 part in 40000 (1 part in 100000 of formic aldehyde) raises a strong presumption that the article has been rendered injurious to health and that the purchaser has been prejudiced; and also that similar presumption is raised when boron preservatives are present to an amount exceeding 57 parts of boric acid per 100000, or 40 grains of boric acid per gallon.

The addition of preservatives to skim milk, separated milk and condensed milk is equally to be avoided.

During 1906, the Council sent round to the milk traders throughout the Borough a circular letter giving notice that action is to be taken under the Sale of Food and Drugs Acts in instances where preservatives are reported by the Public Analyst to be present in milk samples, which are to be specially analysed for such purpose on and after September 1st, 1906.

The terms of the circular letter are as follows :----

Borough of Lambeth, 333, Kennington Road,

LONDON, S.E.

27th July, 1906.

DEAR SIR OF MADAM,

The Lambeth Borough Council, at its meeting held last night, considered a circular letter from the Local Government Board, addressed to all Authorities under the Sale of Food and Drugs Acts, suggesting the advisability of action being taken under the Sale of Food and Drugs Acts, with regard to preservatives when found to be present in milk—the addition of such being dangerous to health. The Borough Council gave instructions to their officers to take the necessary action as suggested by the Local Government Board, throughout the Borough of Lambeth, on and after September 1st, 1906, and to send meanwhile, a circular letter to the milk traders throughout the Borough, giving due notice of this decision of the Borough Council.

Please note, therefore, that, on and after September 1st, 1906 systematic examination will be made by the Public Analyst, for, the presence of added preservatives in connection with all samples of milk which are taken under the Sale of Food and Drugs Acts, and action taken as required in connection therewith.

Yours faithfully,

JOSEPH PRIESTLEY,

Medical Officer of Health

CONFERENCE ON MILK WARRANTIES.

During 1906, the Council was represented at a Conference of Metropolitan Sanitary Authorities on Milk Warranties, &c., when the following resolutions were passed :—

(a) That, in the opinion of this Conference, the provisions of section 25 of the Sale of Food and Drugs Act, 1875, and section 20 of the Food and Drugs Amendment Act, 1899, operate to the prejudice of the purchaser and the public health, and should be repealed, leaving the seller of milk to his remedy at common law against the person from whom he purchases it.

(b) That notices in shops, &c., to the effect that milk sold therein is not warranted as pure, shall be no defence.

(c) That the act of mixing water or separated milk with whole milk for the purpose of sale, should be made a penal offence.

(d) That any Metropolitan Borough Council should be enabled to sample at any railway station, milk coming to dealers in the area of that borough, although the station may be in another district. (e) That copies of the foregoing resolutions be forwarded to the President of the Local Government Board and the President of the Board of Agriculture.

TINNED, CANNED AND OTHERWISE PRESERVED FOODS.

In view of the Chicago "revelations," the Council, during 1906, gave instructions for samples of different tinned or canned goods on sale throughout the Borough to be purchased by the Inspectors and submitted to systematic analysis. Special reports on the subject were drawn up by the Medical Officer of Health (vide Appendix pp. 62-73). 30 samples were obtained, (chiefly from the smaller shops), and the analyses carried out were (a) Chemical; and (b) Bacteriological. The results shewed that the samples of tinned or canned goods were sound and the food contained therein fit for human consumption. The kinds of food, &c., selected were as follows :--Salmon (7), Lobster (3), Condensed Milk (3), Potted Meat (4), Pineapple (5), Pears (1), Boiled Rabbit (2), Roast Mutton (1), Corned Beef (1), Sardines (2), and Peas (1). In one instance only (Sardines) was the food found to be unsound and non-sterile as shewn by the presence, on bacteriological examination, of putrefactive bacilli (streptococci, &c.). In 16 samples, metallic contaminations of tin, copper and lead were found in "traces"-in 11 the "traces" being slight and in 5 heavy. In the former, the contaminations may be disregarded, and in the latter it is probable that they were in an insoluble and harmless combination with vegetable and animal matters.

Arising out of the analyses, the Council decided to communicate with the Local Government Board, the Board of Agriculture and Fisheries, and the London County Council, with a view to promoting legislation embodying the following reforms :—

(a) That in the case of all canned or tinned foods, the food shall be inspected by independent officials prior to

being canned or tinned, and shall be canned or tinned under strict hygienic conditions;

(b) That it shall be unlawful to sell, for any purpose, canned or tinned goods that are unfit for human consumption (including those cans or tins which are known in the trade as "doubtfuls"), and it shall be the duty of any person or persons in possession of unsound canned or tinned goods to surrender them to the Local Sanitary Authority, who shall destroy the same free of charge;

(c) That the use of preservatives in canned or tinned foods, being unnecessary, shall not, in any circumstances be permitted.

(d) That the date of canning or tinning, together with the name of the canner or tinner, and the place of canning or tinning, shall be impressed on all cans or tins.

The Council also decided in 1906 to support the Public Health (Regulations as to Food) Bill, which was introduced into Parliament by the President of the Local Government Board.*

II.-Water.

No sample of water was examined during 1906.

SMOKE ABATEMENT.

During 1906 there have been made 560 special observations and enquiries in connection with smoke abatement throughout the Borough, as compared with 600, 540, 720, 679 and 620 during 1905, 1904, 1903, 1902 and 1901 respectively. This is an important duty, and one that a Sanitary Authority is right in carrying out rigorously.

^{*} This Bill has since been withdrawn.

During 1906, 72 smoke notices have been served, and the nuisances abated. In no case was it found necessary to proceed to summonses, though the following 41 fiirms have been under special observation during 1906 by the Borough Council's Smoke Inspector :--

Charing Cross and Strand Electricity Supply Company 85, Commercial Road. Messrs. Clowes & Sons, Duke Street. City and Waterloo Railway Generating Station, Launcelot Street. Messrs. Walkers, Parker & Co., Belvedere Road Messrs, Seth Taylor, Commercial Road. Messrs. McGaw, York Road, Westminster Bridge. New London Brewery, Durham Street. Beulah Laundry, South Lambeth Road. Sunnybank Laundry, South Lambeth Road. Messrs. Doulton & Co., Albert Embankment Messrs. Hammerton & Co., Stockwell Brewery. Messrs. Stiff & Sons, Albert Embankment. Arlington Laundry, Wanless Road. Belvedere Laundry, Acre Lane. Messrs, Judge, Milverton Street. Washington Laundry, Langton Road. Electric Light Works, Electric Avenue. Messrs. Clarke, Brixton. Messrs. Howell, Belvedere Road. Jews' Hospital, Knight's Hill Road. Messrs. Mumford, Albert Embankment. Messrs. Nightingale, Albert Embankment. Messrs. Crosse & Blackwell, Belvedere Road. L.C.C. Works, Belvedere Road. Messrs. Meredith & Son, Belvedere Road. Messrs. Barrett, Wandsworth Road. Messrs. Higgs & Hill, South Lambeth Road. Messrs. Holloway Bros., Belvedere Road

Bon Marché, Electrical Works, Nursery Road.
Guardians Premises, Brook Street.
Messrs. Hade & Sons, Wandsworth Road.
India Stores, Belvedere Road.
City and South London Electrical Railway, Generating Station, Clapham Road.
Messrs. Hyde, Harold Street.
Lion Brewery Company, Belvedere Road.
South Metropolitan Gas Company, Works, Vauxhall.
Messrs. Francis & Sons, Brixton.
Bonanza Bakery, 213, Lyham Road.
Messrs. Webb & Sons, Albert Embankment.
Messrs. Brotherhood, Belvedere Road.

The above list will give an idea of the amount of work involved in carrying out the Nuisance Clauses of the Public Health Act, which have reference to the emission of black smoke from a chimney (other than the chimney of a private dwelling-house) in such quantity as to be a nuisance. In addition to this special work carried out by the Borough's Smoke Inspector, the London County Council has, during 1906, written 12 letters to the Borough Council, drawing attention to smoke nuisances observed by their own officers as follow :—

Lambeth Infirmary, Brook Street.
Messrs. Doulton & Co., Albert Embankment (4 occasions).
Messrs. Stiff & Sons, Albert Embankment.
Messrs. Brotherhood, Belvedere Road.
South London Electric Supply Corporation, Limited, Bengeworth Road.
Sir Joseph Causton, Clapham Road.
Messrs. Hade & Sons, Wandsworth Road.
58, Knight's Hill Road, West Norwood.
Messrs. Hammerton's Brewery, Stockwell Road.
94, High Street, West Norwood (Bakery).
New London Brewery, Durham Street.

The whole of these Firms reported by the London County Council were already under observation by the Borough Council's Officer at the time of the receipt of the complaints; as also were the following Firms, reported to the Borough Council in the 13 communications of the Coal Smoke Abatement Society:—

Lion Brewery (2 occasions).
Messrs. Mumford, Albert Embankment.
Messrs. Meredith & Son, Belvedere Road (3 occasions).
Messrs. Howell, Belvedere Road (2 occasions).
Messrs. Walkers, Parker & Co., Belvedere Road (2 occasions).
Shot Tower Wharf, Commercial Road (2 occasions).
Messrs. Doulton, Lambeth (3 occasions).
Charing Cross & Strand Electricity Corporation, Commercial Road (9 occasions).
Messrs. McGaw, York Road.
Messrs. Holloway Bros., Belvedere Road (3 occasions).
Messrs. Brotherhood, Belvedere Road (3 occasions).
Messrs. Nightingale, Albert Embankment (2 occasions).

The Act lays down that *black* smoke only is a nuisance liable to be dealt with summarily under Section 2 of the Act, and there is, consequently, great difference of opinion (at times) as to what is, and what is not, *black* smoke, amongst observers.

Special series of observations have been again taken during 1906 (not only by the Smoke Inspector, but also by a Special Inspector temporarily appointed by the Council for that purpose), in connection with the firms whose manufactories are situated on the south side of the Thames, along Belvedere and Commercial Roads, but in no single instance was a nuisance discovered with which the Council could deal. The observations were daily, extending uninterruptedly from 8 a.m. to 4 p.m., or 9 a.m. to 5 p.m., and a careful log was kept with particulars of all kinds of smoke emitted and the durations.

Special observations (daily from 9 a.m. to 5 p.m.) have been

taken during 1906, with reference to the Belvedere Laundry, Acre Lane, but in no instance was a nuisance discovered. Alterations have recently been effected at the laundry as follows :—

- (1) Gas engine fixed.
- (2) Electric engine provided for ironing.
- (3) Fan placed in shaft to induce draught, and
- (4) Stoker is employed only in looking after fires.

REFUSE AND MANURE DEPOTS.

The 13 public depôts, situated in Lambeth Borough, have been under constant (daily during the summer months) supervision during 1906.

The Council, on July 26th, 1906, ordered a summons to be taken out in connection with a recurring nuisance from manure at stables at 261, Brixton Road ("The White Horse" Publichouse), and the magistrate adjourned the case to enable arrangements to be made for the manure to be placed in a van, which, for that purpose, was to stand in the yard.

EFFLUVIUM NUISANCES.

(1) 1A, PARADISE ROAD, CLAPHAM ROAD.

The trade nuisance connected with the above premises was effectually abated during 1906 by the business being transferred to the country. Proceedings had to be taken in July, 1906, before the magistrate, when an undertaking was given to the Court that the trade processes complained of (*e.g.*, making bookbinders' glue and builders' size) should be discontinued. The defendant was fined \pounds with \pounds 5 5s. costs.

(2) ST. JOHN'S LODGE ESTATE, CASEWICK ROAD, WEST NORWOOD. Complaint was received during 1906 as to offensive odours proceeding from refuse shot on the St. John's Lodge Estate, at the back of Casewick Road, and from pools of stagnant water lying there. Special inspections by the Inspector and the Medical Officer failed to find any nuisance with which the Council could be advised to deal, though the shooting of the refuse on the estate is unsightly.

(3) SHOT TOWER WHARF DESTRUCTOR, BELONGING TO THE WESTMINSTER CITY COUNCIL.

No complaints have been received during 1906 as to nuisance in connection with the working of the Westminster City Council's Dust Destructor, situated at Shot Tower Wharf, Commercial Road; but a special Report, dealing with the destructor, has been submitted by the Medical Officer of Health to the Local Government Board (*vide* Appendix pp. 43-46).

(4) MESSRS. HYDE'S FACTORY, REDAN TERRACE.

A complaint (signed by 19 inhabitants of the adjoining houses) was received during 1906 as to a nuisance from smoke and effluvia connected with the premises of Messrs. Hyde and Co., bird seed manufacturers. Careful observations carried out by the Inspector failed to discover any nuisance connected with the boiler or oven shafts, which were, however, heightened. Coke only is used, instructions having been given for no rubbish to be burnt in the boiler or oven furnaces.

(5) GUARDIANS' PREMISES, BROOK STREET.

Complaints were received during 1906 of grit emitted from the chimney shaft connected with the Guardians' premises in Brook Street. It appears that the boiler power is insufficient for the extra demands made upon it since the erection of the Nurses' Home and the new offices, and consequently the coke breeze is unsuitable as a fuel, particularly as the chimney is low and in close proximity to houses. The Guardians have given orders for small coke (without dust) to be used instead of the coke breeze for a trial period of three months from July, 1906. Failing the grit nuisance being abated satisfactorily, extra boilerage will be required, or supplementing with steam from the workhouse boilers carried to the heaters in the basement of the Nurse's Home.

MR. DAVID GREIG'S WAREHOUSE, FERNDALE ROAD, BRIXTON.

A memorial (signed by 16 inhabitants of the District) was received during 1906, complaining of an alleged effluvium nuisance in connection with the warehouse and bacon-curing department of Mr. David Greig, Ferndale Road, Brixton. The Inspector and Medical Officer have failed to find any nuisance, after repeated observations.

DUST DESTRUCTOR IN CLARKSON'S YARD, TINWORTH STREET; AND COPPER IN COLLINS' YARD, VAUXHALL WALK.

A petition (signed by 22 inhabitants of the district) was received in 1906, drawing attention to an alleged nuisance arising from the dust destructor in Clarkson's yard, Tinworth Street and from the copper in Collins' yard, Vauxhall Walk, and the frequent burning of rubbish in both yards. The petition is still under the consideration of the Council.

HOUSES LET IN LODGINGS.

The 372 registered houses have been visited regularly, but no new house has been registered under the Bye-laws during 1906.

COMMON LODGING HOUSES.

The Common Lodging Houses (for men), situated within the Borough of Lambeth, have been inspected during 1906, sanitary defects, where found, being made good, and the following 6 licensed by the L.C.C. at the Annual Licensing Meeting held June 21st, 1906, in accordance with the requirements of Section 46 of Part IX. of the London County Council General Powers Act, 1902 :—

Date when reg	istered.		Situation.								
27th January, 1905 18th July, 1900 30th October, 1890 21st December, 1883 24th October, 1885 12th February, 1887	 	 10A 108 55 90-92 89 & 91 126	Belvedere-crescent Lambeth-walk (с.н.) (house Belvedere-road Westminster-bridge-road Wandsworth-road Wandsworth-road	e in re 	ar). ³ 	 	99 36 49 197 188 133				

The sanitary defects found were :--

- Stopped gully and defective water supply to W.C., and defective vent pipe at 108, Lambeth Walk.
- (2) Broken manhole cover at 90—92, Westminster Bridge Road.
- (3) Defective urinal flushing tank and improperly covered drinking water cistern at 89—91, Wandsworth Road.
- (4) Defective rain-water pipe, sink and lavatory waste pipes badly constructed with brick catch pit, urinal without water supply, cisterns dirty and not properly covered, at 126, Wandsworth Road.

HOUSING OF THE WORKING CLASSES.

No house has been condemned during 1906 under the Housing of the Working Classes Acts, but in this connection it must be remembered that, in respect of dwelling houses, many notices have been served under the Public Health Act, and that, had these notices not been complied with, proceedings would have been taken in the usual way for the closing of the houses. The Housing Acts are only brought into use in extreme cases.

SITES FOR ERECTION OF WORKING CLASS DWELLINGS.

During 1906, the question was raised by the Housing Committee of the Council as to whether there were any areas in Lambeth, and especially the north part of Lambeth, which could be used for the purpose of erecting working class dwellings, under the Housing Acts. A special report was presented by the Medical Officer (vide Appendix pp. 49-53).

REVENUE ACT, 1903.

During 1906, 279 Certificates under the Revenue Act, 1903, in connection with tenements (or dwellings) so constructed as to
afford suitable separate accommodation for such of the families inhabiting the same, have been applied for, and, of these, 143 have been granted *unconditionally*; 12 have been granted *conditionally*, *i.e.*, subject to certain alterations and improvements being carried out; and 124 have been refused.

Certificates granted unconditionally.

Address.		cks or ouses.	ene- nents,
183a, Auckland Hill, West Norwood		1	 1
27, Belvedere Road		1	 2
1-53 (inclusive), Briscoe Buildings, Brixt	on		
Hill		4	 53
54-113 (inclusive), Briscoe Building	gs,		
Brixton Hill		3	 60
20, Brixton Road		1	 2
130—132, Broadwall		1	 3
Lollard and Dereham Houses, Lollard Stree	et	2	 . 10
85—87, Lambeth Walk		2	 3
229, Westminster Bridge Road		1	 3
79 and 81, Whitehart Street		2	 6
Totals	•••	18	143

Certificates granted conditionally.

1-9, Trigon Ma	nsions,	Chu	rch St	reet,			
Kennington					1	&	9
4, Vauxhall Walk			,		1		3
	Tota	als			2		12
						K	

Certificates refused.

11 to 39 (inclusive), Comrie	Road			29	 58
50 and 52, Comrie Road				2	 4
1-8 and 9-16, Kennin	ngton	Mansi	ons,		
Kennington Road				2	 16
41, Lansdowne Gardens				1	 2
17, New Cut				1	 2
97 and 98, Prince's Road				2	 6
2, South Island Place				1	 3
7a, 9a, 7, 9, 11, 15, 17,	19, 5	21, 23,	25,		
Tunstall Road				11	 33
Tota	ls			49	 124

BAKEHOUSES.

There are 214 Bakehouses (135 above ground and 79^{*} underground) situated within the Borough of Lambeth, and these have been inspected during 1906, and the necessary annual whitewashing and cleaning carried out.

OFFENSIVE TRADES.

During 1906, no nuisance has been reported in connection with the 6 Offensive Trades, which exist in the Borough of Lambeth, and which are now under the supervision of the Borough Council :--

- 1. Fat Melters-Upper Marsh (Messrs. J. C. & J. Field).
- Tallow Melters—144, Broadwall (Messrs. Harris, Blackman & Sons).
- 3. Soap Boilers-Upper Marsh (Messrs. J. C. & J. Field).
- 4. Soap Boilers—144, Broadwall (Messrs. Harris, Blackman & Sons).

^{* 72} have been certified as "suitable" for occupation as underground bakehouses.

- 5. Tripe Boilers-103, Lambeth Walk (Messrs. Bennett Son & Co.).
- 6. Tripe Boilers-115, Lower Marsh (Messrs. Bennett, Son & Co.).

SLAUGHTER-HOUSES.

There were within the Borough of Lambeth at the end of 1905, 27 registered Slaughter-houses, and at the annual Licensing of the London County Council, held on October 18th and November 30th, 1906, respectively, the licenses were renewed in all cases.

LIST OF THE 27 SLAUGHTER-HOUSES LICENSED IN THE BOROUGH OF LAMBETH DURING 1906.

Ward.		Situation of Premises.	Name of Licensee.		
Marsh		106, Lower Marsh		Thomas, Robert Edwin	
"		99,, *		Horton, George Holdstock, Jno. Thos.	
Bishop's		151, Lambeth Walk		Wright, Samuel	
"		165, " " …		Wright, Samuel	
,,		172, " " …	•••	Cotching, Wm.	
Prince's		406, Kennington Road		Parsons, W. B.	
"		60, Kennington Park Road		Grellier, Frederick	
,,		171, Lower Kennington Land	e	Clark, Arthur	
,,		4, Clapham Road		Holdsworth, Chas	

Ward.	Situation of Premises	Name of Licensee.
Vauxhall	302, Clapham Road	Holdsworth, Geo.
,,	152, ", ",	Lawrence Bros.
" …	18, Paradise Road (rear of)	Smith, Wm. Geo.
" … Stockwell…	1, Lansdowne Road, Clapham Road 97, Stockwell Road	George
" …	27, Bedford Road, Clapham Rd.	
Brixton	Near Railway Hotel Brewery, Electric Lane	Elphick, Edwin
,,	000 D' . D. I	Copp, Albert
,,	10, Foxley Road*	Malden, Robert Levers
" …	Industry Terrace (yard leading to), Canterbury Road	
Herne Hill	207, Coldharbour Lane	Clark, Albert John
**		Ford, Hy., & Co., Ltd.
"	77, Dulwich Road	Atkin, Jim Cook
Tulse Hill	45, New Park Road	Beaumont, Edith Mary (trading as Martin & Beau-
,,	12, Lower Tulse Hill	mont) Haydon, Wm.
Norwood	120, High Street*†	Bull, Mary Ann
,,	121, ,, ,, (rear of)	Griffiths, Fredk.
,,	125, Hamilton Road	Forss, Thomas Lionel

* Small cattle only to be killed.

† Special conditions laid down.

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Sanitarily, these 27 Slaughter-houses are in good condition, and the chemical test, which was applied to the drains in each case, failed to give a single result. Inspection of the Slaughterhouses within the Borough is now carried out by the officers of the Borough Council, who are responsible for the due enforcement of all Bye-laws and Regulations made in pursuance of the Slaughter-houses, etc. (Metropolis) Act 1874 and the Local Government Act 1888—an important duty, which was formerly carried out by the officers of the London County Council. During 1906 minor sanitary defects have been found as follows : defective flooring and paving, defective dung cage, dirty closetpan, defective fresh air inlet, &c.

One slaughter-house has changed hands during 1906, viz.:-120, High Street, West Norwood, which is now licensed to Mary Ann Bull *vice* John Bull (deceased).

COWHOUSES.

There were, within the Borough of Lambeth, at the end of 1905, 15 registered Cowhouses, and at the Annual Licensing of the London County Council, held on October 18th, and November 30th, 1906, respectively, the licenses were renewed with the following exception:—1, Elliott Road—License not applied for.

LIST OF THE 14 COWHOUSES LICENSED IN THE BOROUGH OF LAMBETH DURING 1906.

Ward.	Situation of Premises.				No. of ws kept
Marsh	 6, Coral Street, Lower Marsh		1		10
Bishop's	 Cambria Cottage, 36, Tracey 3	Street	: 1		13
,,	 24, Distin Street		2		9
Prince's	 30, Upper Kennington Lane		1		7
Vauxhall	 38, Hartington Road		1		22
"	 9, Dawlish Street		1		12
	Carried forward		7.	1	73

	No. of ws kept
	73
	5
	20
3	26
3	27
L	10
l	4
2	35
l	3
) -	203

Sanitarily, these 14 Cowhouses are in good condition, and they have been inspected during 1906, and the drains in each case tested with the chemical test, without a result being obtained in any single instance. A few minor sanitary defects were found, $e.g_{\bullet}$, defective paving, defective walls and floors, defective dung receptacle, broken manhole cover, defective vent-pipe, defective flushing cistern, &c.

The Borough Council is now responsible for the periodical inspection of the Cowhouses, and the due enforcement of all Byelaws and Regulations which have been made in connection therewith under the Dairies, Cowsheds, and Milk-shops Orders, 1885-86-99. Such duties were carried out by the London County Council previous to the passing of the London Government Act, 1899. During 1906 no action has been taken in regard to infringement of Bye-laws before the Magistrate.

Two cowhouses have changed hands during 1906, viz., 36, Tracey Street, to Sarah Ann Lambie and Margaretta Catherine Smith, and Elder Road Dairy, West Norwood, to Charles Bacon, respectively.

DAIRIES, MILK-SHOPS AND MILK-STORES.

10 new Milk-shops and Milk-stores have been registered during 1906, as compared with 7 during 1905, and all existing ones have been, from time to time, under inspection, as required. The total number registered up to date is 490.

MUNICIPAL MILK DEPÔT.

The Milk Depôt, situated at 66, York Road, Westminster Bridge Road (near Waterloo Station), was opened to the public on February 12th, 1906, and since then, up to December 31st, 1906 (i.e., 323 days), 190 infants and children have been fed for varying periods of time, and a total of 102413 bottles of milk distributed-91127 to the general public and 11286 to the Guardians.* The 190 infants and children fed belong chiefly to the poorer classes, including 27 under the care of the Guardians and 7 connected with a Crèche, and were, at the time of commencing the milk, below the average as regards bodily healthover 70 per cent. actually suffering from general wasting or disease. Excluding the Guardians' and Crèche cases, so as to deal only with those infants and children who have been under . inspection as well as fed from the Depôt, the statistics are noteworthy, showing a great lessening of infantile mortality and morbidity. Thus :--

		Corrected rates.
Depôt-fed children		 47-76 per 1000
Whole Borough		 134 per 1000 †
Marsh and Bishop's Wa	rds	 187-272 per 1000 †

The varying rates from 47 to 76 per 1000 depend upon the varying lengths of time during which the infants and children were fed upon the Depôt milk as follows :—

* The weekly average of infants and children fed was 45.7. † These are quinquennial rates.

		No				
Length of time during wh	a	and children				
Milk was used.			fed.		Deaths.	
26 weeks and over			19			
13-26 weeks			22		2	
6—13 weeks			42		2	
4-6 weeks			22		. 1	
Under 4 weeks			51		7	
			156		12	
		-	-			

To be statistically correct, only those infants and children should be tabulated who have been fed upon the Depôt milk for continuous periods of 13 weeks and over—a total of 41, of whom 2 died from epidemic diarrhœa. This gives a mortality rate of 48.8 per 1000. Including all infants and children who were fed upon the Depôt milk for consecutive periods extending over four weeks—a total of 105, of whom 5 died, the mortality rate per 1000 was 47.6. Even if all the infants and children are included, irrespective of the varying periods during which they were fed upon the Depôt milk, the mortality rate is only 76.9 per 1000, and is much lower than those for the Borough of Lambeth in general, and for Marsh Ward (where the Milk Depôt is situated) and part of Bishop's Ward in particular. The ages of the infants and children fed upon the Depôt milk were as follow :—

Under 3 months	 	60
36 months	 	55
6—9 months	 	18
9—12 months	 	12
Over 12 months	 	11
	-	
		156

The states of their healths at the time of commencing the Depôt milk were —

 		37
 	54	
 	8	
 	57	
profile-		119
		156
· 	···· ··· ··· ···	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$

* Cancer and paralysis, 1; double rupture, 1; weak chest and spine, 2; consumption of the bowels, 6; sickness and diarrhœa, 30; sickness and constipation, 1; bronchitis, 3; jaundice, 1; sickness, 11; and indigestion, 1.

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A special report dealing medically with the first 100 cases fed was published during 1906, and is printed in the Appendix (p. 81-97).

The Borough Accountant has drawn up a statement of the expenses connected with the establishment and maintenance up to date of the Milk Depôt, and the maintenance account for the six months ending September 30th, 1906, fairly represents the average cost of working, and is within the estimate of $\pounds 200$ net yearly approved by the Council on July 14th, 1904. Complaints against the management and administration have been conspicuous by their absence—a satisfactory record, having regard to the hot summer weather during July and August.

EXPENDITURE AND INCOME FROM OCTOBER 1st, 1904, TO SEPTEMBER 30TH, 1906.

The total cost of fitting up the Milk Depôt is given in the Borough Accountant's statement as £880 18s. 3d., £563 4s. 1d. for structural alterations, including the reconstruction of the drains, at 66, York Road, and £317 14s. 2d. for fittings and utensils for Milk Depôt purposes. The Maintenance Accounts are as follow :—

1. Period ending March 31st, 1905:

E

		Expenditure		;	£40 17	6
		Income			Nil.	
2.	Period	of 12 months	ending	March	h 31st, 19	06:

xpenditure	 	£170	1	11
ncome	 	15	11	1
		£155	0	10

3. Period of 6 months ending September 30th, 1906 :

Expenditu	re .,.	 £197	8	5
Income		 106	1	3
		£91	7	2
			-	-

The Milk Depôt was opened to the Public on February 12th, 1906.

The whole of the expenses were defrayed out of revenue, so that the only further expenditure out of revenue in respect thereof will be such expenditure as may be necessary for the proper up-keep of the premises and plant, and for the renewal of bottles, teats, &c.

The Lambeth Milk Depôt is run on the lines of the French type, viz., strict medical supervision, discriminating and careful distribution of the milk to infants who cannot be breast-fed, and the systematic, medical, and clinical study of the effect of the milk on the infants using it; and it is noteworthy that the London County Council suggest that for the County of London future milk depots that may be established should be run on the Lambeth lines. (For further particulars, *vide* Appendix pp. 81-104.)

The contents of the Milk Depôt are insured against fire for the sum of $\pounds 500$, and the boiler and steriliser for $\pounds 40$ and $\pounds 60$ respectively.

MILK SUPPLY.

The Council during 1906 approved of the following resolutions, which were submitted to the Board of Agriculture and Fisheries :—

- (1) That the Board of Agriculture be urged to bring into force and carry out the Dairies, Cowsheds, and Milkshops Order in the country, with such variations as are applicable in various districts.
- (2) That the Board of Agriculture be requested to take steps to ensure that the udders of the cows and the hands and

arms of the person milking shall be clean at the time of milking, and that the vessel used shall be clean and be kept solely for the purpose of milking.

- (3) That all Railway Companies carrying milk should provide proper insulated trucks, as now used by the London and North Western Railway Company for the purpose.
- (4) That the Board of Agriculture be urged to take steps to ensure the carriage of milk in sealed churns.
- (5) That all dairies should be licensed annually, and only licensed dairies should sell milk for consumption on or off the premises, and that all milk on the counter for sale in open vessels should be covered with muslin or other suitable cover.
- (6) It was generally admitted that preservatives are not necessary.

1

MORTUARIES AND CORONERS' COURTS.

The total number of bodies received at the two Borough Mortuaries (High Street and Wanless Road) during 1906 was 407, as compared with 391 during 1905, and an annual average for the old Parish of Lambeth for 5 years (1896-1900) of 450. Of the 407 bodies, 296 were received at High Street and 111 at Wanless Road

39 bodies were brought in by the Police (27 to High Street and 12 to Wanless Road), and the rest by undertakers or private persons.

The Coroner's Court sat 41 times at Wanless Road, 119 times at High Street. Wanless Road Mortuary alone is provided with a separate room for bodies dead from infectious disease, and during 1906 two infectious bodies (diphtheria) were received there.

For comparison, details are given in tabular form of the work carried out by the late Vestry of Lambeth in connection with the Wanless Road and High Street Mortuaries during the 5 years (1896-1900). Taking the average, it will be seen that the total number of bodies received during 1906 in connection with the new Borough is 43 less than the yearly average (450) received in connection with the old Vestry during the 5 years (1896-1900).

The number of post-mortems conducted for the Borough during 1906 is 197, as compared with 200 during 1905 and with 253, 281, 275, 285 and 267 respectively during the 5 years (1896-1900) for the old Parish, *i.e.*, 75.5 less than the *yearly* average (272.5) during the same quinquennium. Of the postmortems, 50 took place at Wanless Road, and 147 at High Street.

During 1906 a new waiting room has been built in connection with the High Street Coroner's Court, which has also been redecorated, repaired, heated and ventilated at an estimated cost of £535. The London County Council now pay a rent of £100, instead of £80, per annum for the use of the improved accommodation. A mortuary for Norwood will now be able to be provided on a small part of the freehold site $(1\frac{3}{4} \text{ acres})$ in Romany Road, adjoining the Norwood Cemetery, which the Council has purchased for £2000. A separate mortuary for Norwood has long been wanted, and the principle has been agreed to, on several occasions, both by the late Vestry and by the present Borough Council.

			Lai	nbe	th 1	Pari	sn 1	vior	tuai	ries	dur	ing	the	b 5 yea	ars (18	898-19	00).			
1906.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total 1906		Total 1899	Total 1898	Total 1897	Total 1896	Yearly Average for 1896- 1900.
High Street—																				
Males		24	12	20	15	8	16	10	18	16	25	16	16	196	237	239	222	218	221	227.4
Females		11	7	14	9	5	6	4	10	5	5	11	13	100	142	126	143	109	152	134.4
Wanless Road	_																			
Males		9	4	8	6	7	6	6	1	6	2	5	7	67	58	71	72	41		60.5
Females		4	4	5	5	- 3	4	1	3	4	2	5	4	- 44	62	47	58	32	-	49.75
Totals		48	27	47	35	23	32	21	32	31	34	37	40	407	499	483	495	400	373	450

Numbers of bodies received at the Lambeth Borough Mortuaries during 1906 and at the Lambeth Parish Mortuaries during the 5 years (1896-1900).

N.B.—The new Wanless Road Mortuary was opened on April 12th, 1897, and is under the superintendence of Mr. Joshua Fazey—High Street Mortuary being under Mr. S. G. Albin. Mr. Pierce is the Deputy Mortuary Keeper.

	1906.		Boro'		Yearly				
Registered Ages of Bodies.	High Street.	Wanless Road.	Total 1906.	Total 1900,	Totalı 1899.	Total 1898.	Total 1897.	Total 1896.	Average for 1896-1900.
01	48	32	80	133	121	160	101	121	127.2
15	28	4	32	47	44	50	39	22	40.4
5-10	11	3	14	12	22	17	9	12	14.4
0-20	16	4	20	17	13	8	18	9	13.0
0-30	21	5	26	31	29	26	26	24	27.2
0-40	33	15	48	43	59	45	35	35	43.3
0-50	37	10	47	80	67	64	48	37	59.2
0-60	32	10	42	61	53	42	59	46	52.2
0-70	30	16	46	50	47	39	30	35	40.2
0-80	25	9	34	16	19	32	20	22	21.8
0-90	6	2	8	6	8	5	9	7	7.0
0 upwards	_	1	1		1	1		3	1.0
Age not stated	9	-	9	3	-	6	6	-	3.0
Totals	296	111	407	499	483	495	400	373	450

Ages of bodies received at the Lambeth Borough Mortuaries, 1906, and at the Lambeth Parish Mortuaries during 5 years (1896-1900).

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						Boro'	Boro' Parish of Lambeth.					Average			
		Hi	igh Sti	reet.	Wanless Road.		Total 1905.	Total 1900.	Total 1899.	Total 1898.	Total 1897.	Total 1896.	5 years 1896- 1900,		
Suicides Drowning Poisoning Hanging Jumping off heights and i trains Cutting Arteries Cutting Arteries Shooting Railway Accidents Accidental Death (sudden) Street Accidents (run over) Murder Burning (scalding) Falling Bicycle Accidents Strangulation and Suffocation Found Dead Bursting Blood Vessel Killed Manslaughter Under Chloroform	n front o		F. 2 2 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1	Total. 15 12 - 1 - 2 3 - 1 - 2 3 - 1 - - - - - - - - - - - - -	M. 6 1 1 1 1 1 4 	F.	Total. 6 1 1 1 1 1 4 4 5 1 1 4 5 1 1 1 4 5 1	$ \begin{array}{c} 21\\ 12\\ 1\\ 2\\ 1\\ -\\ 5\\ 4\\ 4\\ 1\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\$	14 6 3 4 3 1 1 2 4 6 3 1 1 2 4 6 3 1 1 1 2 4 6 3 1 1 2 4 6 3 1 1 2 4 5 1 1 1 2 4 5 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	13 1 4 3 4 - 1 1 4 1 9 2 2 1 - - - - - - - - - - - - - - - - -	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 6\\ 13\\ 4\\ -\\ 1\\ -\\ 1\\ 1\\ 1\\ -\\ 4\\ 2\\ 1\\ 4\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\ -\\$	13 16 4 2 2 2 3 3 3 2 	$\begin{array}{c} 13.4 \\ 7.4 \\ 3.6 \\ 3.6 \\ 3.0 \\ 0.6 \\ 0.4 \\ 2.2 \\ 2.6 \\ 3.8 \\ 5.2 \\ 1.4 \\ 1.4 \\ 2.0 \\ 0.6 \\ 0.4 \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ $	159

Particulars as to cases of Drowning, Accidental Death and Suicide that have occurred in the Borough of Lambeth during 1906, and in the old Parish during 5 years (1896-1900).

N.B.--Two female bodies (dead from diphtheria) were admitted during 1906 into the special room provided for infectious bodies at Wanless Road Mortuary.

INQUESTS.

During the year 1906, within the Borough of Lambeth, 372 Lambeth cases were submitted to the Coroner (who, in 38 instances, decided that no further inquiries were necessary, the deaths being due to natural causes). In the remaining .334 cases inquests were held with the following results:—

I. NATURAL CAUSES					181
II. Accidental Causes					107
Burns and Scalds	5			12	
Drowning				4	
Run over				18	
Falls, etc			/	35	
Suffocation				14	
Fracture				9	
Misadventure				1	
Crushed				7	
Blood Poisoning				3	
Kick				1	
Knocked down b	y draii	1		1	
Improper Feedin	g			2	
III. HOMICIDAL CAUSES					39
Suicide				35	
Murder				1	
Manslaughter				3	
IV. Open Verdicts					7
Found Drowned				7	
	•	Total			334

BACTERIOLOGICAL LABORATORY.

The Bacteriological Laboratory has proved of great service during 1906—a total of 761 examinations having been carried out. The *local* and *central* position of the Laboratory is specially advantageous, enabling the results of examination to be quickly obtained and at a *minimum* cost.

The Laboratory was originally fitted up by the late Vestry in 1899, and since then (up to the end of 1906) 5644* examinations have been made, viz :—Tuberculosis 1368, Typhoid Fever 623, Diphtheria 3564, and Others 89.

The total 761 bacteriological examinations carried out during 1906 deal with 230 sputa (suspected consumption), 55 bloods (suspected typhoid fever), 431 throat and nose membranes and discharges (suspected diphtheria) and 45 other materials (*e.g* 6 milks, 3 urine, 1 pus, 1 pleuritic effusion, 31 tinned goods, and 3 scabs (from skin of child and mouse).

Details are as follow :---

Tuberculosis-

230 samples of sputa from doubtful tuberculosis cases have been examined, and in 63 (*i.e.*, 27.4 per cent.) tubercle bacilli have been found. In 167 instances (*i.e.*, 72.6 per cent.), no tubercle bacilli were found. In 4 instances the pneumococcus (Friedländeri) was found; in 2 lung tissue; and in 1 pus cells.

Consumption (with tuberculous expectorations) was made voluntarily notifiable throughout the Borough on (and after) June 1st, 1902. By means of bacteriological examinations, greater exactitude in diagnosis is secured.

L

^{*1899—389; 1900—703; 1901—479; 1902—466; 1903—525; 1904—} 447; 1905—1874; 1906—761. Total—5644.

Typhoid Fever-

55 samples of blood from suspected Typhoid Fever cases: have been examined, and in 15 (*i.e.*, 27.3 per cent.) the characteristic Widal reaction was obtained, although in 5 of the cases (*i.e.*, 33.3 per cent.) the reaction was but slightly (or feebly) marked. In 40 cases (*i.e.*, 72.7 per cent.) no reaction was obtained. A high dilution of blood-serum is used (1-60 to 1-100).

Diphtheria-

431 samples of throat and nose membranes and secretions from doubtful diphtheria cases have been examined, and in 33 (*i.e.*, 7.7 per cent.) the true (Klebs-Lœffler) bacilli have been obtained. In 23 instances (*i.e.*, 69.7 per cent.) the Klebs-Lœffler bacilli were obtained in pure cultivation—*i.e.*, without admixture with other bacilli, whereas in the remaining 10 (*i.e.*, 30.3 per cent.) the Klebs-Lœffler bacilli were found combined with other well-known bacilli as follows :—

Klebs-Læffler bacilli + staphylococci		6
Klebs-Læffler bacilli + staphylococci + torulæ		2
Klebs-Lœffler bacilli + pseudo (Hoffmann) bacilli		1
Klebs-Læffler bacilli + pseudo (Hoffmann) bacilli	+	
torulæ + micrococci		1

In 398 (*i.e.*, 92.3 per cent.) of the total number of throat and nose samples examined, the Klebs-Lœffler bacilli were not isolated, but other bacilli were found as follow :---

Staphylococci				 	 	264
Streptococci				 	 	52
Staphylococci	+ str	eptococc	i	 	 	34
Staphylococci	+ sat	rcinœ		 	 	1
Staphylococci	+ to	rulæ		 	 	16
Staphylococci	+ mi	icrococci		 	 	3

Streptococci + torulce	 	3
Streptococci + staphylococci + torulæ	 • •	2
Streptococci + staphylococci + sarcinæ	 	1
Pseudo (Hoffmann) bacilli	 	6
Pseudo (Hoffmann) bacilli + staphylococci	 	3
Torulæ	 	8
Torulæ + micrococci	 	2
Diplococci	 	2
Micrococci	 	1

The Pseudo bacilli (Hoffman) were found in pure cultivation in 6 instances, and mixed with staphylococci in 3 instances.

Other Examinations.

45 samples of other materials were examined, viz., 6 milks (for sterility), 31 tinned goods (for sterility), 2 urines (suspected tubercle), 1 pus (suspected gonorrhœa), 1 urine (suspected gonorrhea), 1 pleuritic effusion (suspected tubercle), and 3 skin scabs (1 from a child, and 2 from mice, with suspected *favus* disease).

In connection with the skin scabs, the parasite, which causes the skin disease known as *favus*, was isolated, and the disease traced from 2 mice to a child who had played with them. Afterwards, a cat became inflicted with the same disease at the next door house. The parasite is the achorion Schonleinii.

All the milks were found to be sterile, as also 30 of the 31 tinned goods.

Antitoxin-

The Borough Council has distributed during 1906, free of cost to Medical Practitioners, practising in Lambeth Borough, 59 vials of antitoxin.

1906.		Sputa Bac. f		T	BLOODS yphoic eaction otained	i n	THROAT AND Nose Membranes AND Discharges. Klebs-Læffler Bac. found.			
· · · · · · · · · · · · · · · · · · ·	Yes	No.	Total,	Yes.	No.	Total.	Yes.	No.	Total.	
January	 7	16	23	1	3	4	-	19	19	
February	 4	13	17	-	. 3	3	1	21	22	
March	 5	16	21	-	_	_	-	14	14	
April	 11	17	28	-1	-	1	3	39	42	
May	 3	12	15	-	2	2	3	39	42	
June	 5	13	18	3	6	9	3	44	47	
July	 3	17	20	1	8	9	4	32	36	
August	 6	8	14	1	8	9	6	19	25	
September	 4	5	9	1	1	2	7	47	54	
October	 9	20	29	3	1	4	3	40	43	
November	 4	16	20	3	5	8	3	62	65	
December	 2	14	16	1	3	4	-	22	22	
Totals	 63	167	230	15	40	55	33	398	431	

* In 5 samples (*i.e.*, 33.3 per cent.) of suspected Typhoid Fever blood, in connection with which there was a reaction, the reaction was slightly (or feebly) marked.

N.B.—45 other samples were also examined during 1906, viz. :-6 milks, 3 urine, 1 pus, 1 pleuritic effusion, 31 tinned goods, 1 human skin scab, and 2 skin scab of mouse.

A suggestion of the London County Council (in a letter dated June 14th, 1906), to establish a Central Bacteriological Laboratory for the use of the County and Borough Councils, was not agreed to by the Lambeth Council, on the ground that, as far as Lambeth Borough is concerned, such a Central Laboratory is unnecessary, a local laboratory having been already provided, and having proved of the greatest use to the Borough.

CLERICAL STAFF.

The Clerical Staff consists of 4 Clerks—1 first class (W. R. Lawrence), 2 second class (Messrs. A. L. Baxter and W. J. Lawrence), and 1 boy (Albert E. Ruel).

The Clerical work in connection with the Department during 1906 is again given in the form of a Statement, shewing certain items of work done in the Borough during 1901, 1902, 1903, 1904, 1905, and 1906, as compared with the yearly average for the old Parish of Lambeth during 5 years (1896-1900).

	1906.	1905.		1903. Borougi			Average 5 years (1896- 1900). PARISH.
Letters, etc., received (entered							
in letter book)	8875	8540	7476	7808	8760	9417	8611.4
Letters, etc., sent out (entered in postal book)	16411	15830	14427	16555	19504	21703	26096.6
Notices—							
Infectious Diseases	1900	1594	1681	1336	2430	1848	2290.2
Public Health Acts (Pre- liminary)	8193	7446	6624	8248	9113	7211	7812 ·0
Public Health Acts (Statu- tory)	4490	3990	3463	3432	3931	3974	2015.0
Metropolis Managem't Acts	11	23	10	27	23	18	20.0
Housing of the Working Classes Acts	_	2	9	_	14	13	43.6
Cases entered in Inspectors' Report Books	11084	9404	8343	8372	8930	7821	830 7·0
Complaints entered in book .	7540	6650	6630	6199	4378	5421	5474·0
Copies of Infectious Diseases Notifications—							
(a) Entered in Notification Book	2074	1853	2023	1587	4426	2025	2619.2
(b) Sent off to Asylums Board	2074	1853	2023	1587	4426	2025	2619-2
Notices of Infectious Diseases sent to Schools	1575	1359	1492	2117	3410	2425	1953·6
New Workshops (with full particulars) entered up in Register	121	92	82	162	105	69	144.6

	1906.	1905.	1904. Boro	1903.	1902.		Average 5 years (1896- 1900).
	_		DORO	L			PARISH.
New Milkshops (with full particulars) entered up in Register	10	7	.5. 7	5	5	458	-
New Cowsheds (with full particulars) entered up in Register	_	_	_	_		-	6.6
New Slaughter-houses (with full particulars) entered up in Register	_	_	_	_		-	9.2
New Bakehouses (with full particulars) entered up in Register		_		_	-	_	51.6
Water Certificates for new buildings given out	468	184	385	520	420	183	112.2
Disinfection Certificates given out	2919	3212	3707	3036	5186	2710	1010.2
Reports to Committee (Fort- nightly)	21	21	21	20	20	21	20.2
Reports to Vestry or Council (Quarterly)	4	4	4	4	4	4	4.0
Special Reports	16	14	13	13	15	12	12.2
Letters Typed	4357	5271	5052	4883	5816	4867	4905.4
Bacteriological Reports	761	1874	447	525	466	479	546.0
Inland Revenue Certificates given out	155	446	375	715	2723	360	719.5
Summonses and Orders en- tered in Book	63	44	109	95	50	72	98.6



APPENDIX.

Local Government Board.	Table i.	
VITAL STATISTICS	OF LAMBETH BOROUGH DURING 1905, AND OF L	AMBETH
	PARISH DURING 10 YEARS (1891-1900).	

			Birt	bs.	TOTAL		GISTERED RICT.	IN THE	TOTAL	Deaths of Non- residents	Deaths of Residents	NETT DEAT AGES BELO THE DIS	NGING TO
		Population estimated			Under 1 Y	ear of Age.	At all	Ages.	IN PUBLIC	registered	registered in Public		
AR	YEAR.	to Middle of each Year.	Number.	Rate.•	Number.	Rate per 1000 Births. registered.	Number.	Rate.4	DISTRICT.	in Public Institu- tions. in the District.	Institu- tions beyond the District.	Number.	Rate.*
THOMS	1	2	3	4	5	6	7	8	9	10	11	12	13
	(1891 1892 1893 1894 1895 1896 1897 1898 1898 1899 1900	276162 280032 283956 287935 291970 296061 300048 304073 308108 312152	9097 9226 9222 9231 9341 9592 9388 9256 9433 9167	$\begin{array}{c} 32 \cdot 9 \\ 32 \cdot 9 \\ 32 \cdot 5 \\ 32 \cdot 1 \\ 31 \cdot 9 \\ 32 \cdot 4 \\ 31 \cdot 3 \\ 30 \cdot 4 \\ 30 \cdot 6 \\ 29 \cdot 4 \end{array}$	$\begin{array}{c} 1433\\ 1303\\ 1415\\ 1264\\ 1470\\ 1371\\ 1459\\ 1447\\ 1527\\ 1350\\ \end{array}$	$\begin{array}{c} 157 \cdot 2 \\ 141 \cdot 2 \\ 148 \cdot 5 \\ 136 \cdot 9 \\ 157 \cdot 4 \\ 142 \cdot 9 \\ 155 \cdot 4 \\ 156 \cdot 3 \\ 161 \cdot 9 \\ 147 \cdot 3 \end{array}$	$\begin{array}{c} 6073\\ 5794\\ 6165\\ 5213\\ 5857\\ 5370\\ 5486\\ 5567\\ 6064\\ 5578\\ \end{array}$	$\begin{array}{c} 21 \cdot 9 \\ 20 \cdot 7 \\ 21 \cdot 7 \\ 18 \cdot 1 \\ 20 \cdot 6 \\ 18 \cdot 1 \\ 18 \cdot 3 \\ 18 \cdot 3 \\ 19 \cdot 7 \\ 17 \cdot 9 \end{array}$	$\begin{array}{c} 1438\\ 1578\\ 1578\\ 1741\\ 1484\\ 1511\\ 1588\\ 1546\\ 1543\\ 1680\\ 1576\\ \end{array}$	539 651 811 775 702 705 664 592 663 606	$\begin{array}{c} 351\\ 314\\ 338\\ 399\\ 404\\ 433\\ 429\\ 455\\ 485\\ 458\\ \end{array}$	5886 5457 5219 4837 5559 5098 5251 5430 5886 5430	$\begin{array}{c} 21 \ 3 \\ 19 \ 5 \\ 18 \ 4 \\ 16 \ 8 \\ 19 \ 0 \\ 17 \ 2 \\ 17 \ 5 \\ 17 \ 9 \\ 19 \ 1 \\ 17 \ 4 \end{array}$
	Averages for years 1891-1900		9295-3	31.6	1403.9	151·03	5716·7	19.4	1568.5	670.8	406.6	5405.3	18.4
	Boro' 1906	315774	8972	28.4	1188	132.4	5028	15.9	1925	811	492	4709	15.1

• Rates in Columns 4, 8 and 13 are calculated per 1000 of estimated population.

Rates in Columns 4, 8 and 13 are calculated per 1000 of estimated population.
NOTE. - The deaths included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the Borough of Lambeth. The deaths included in Column 12 are the numbers in Column 7, corrected by the subtraction of the numbers in Column 10 and the addition of the numbers in Column 12 are the numbers in Column 7, corrected by the subtraction of the numbers in Column 10 and the addition of the numbers in Column 12 are the numbers in Column 7, corrected by the subtraction of the numbers in Columa 10 and the addition of the numbers in Column 11.
By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.
The "Public Institutions" (taken into account for the purpose of these Tables) are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums. A list of the Institutions in respect of the deaths in which corrections have been made, will be found on pp. 15-17, 88-91 of the Report. The Union Workhouses are situated within the District.
Area of Lambeth Borough in acres (erclusive of area covered by water) 4079-6 Statute Acres.
Area of Lambeth Borough in acres (erclusive of area covered by water)
4079-6 Statute Acres.

N

Local Government Board.

Table ii.

VITAL STATISTICS OF REGISTRATION SUB-DISTRICTS OF LAMBETH BOROUGH DURING 1906, AND OF LAMBETH PARISH DURING 10 YEARS (1891-1900).

	NAMES OF LOCALITIES.		1.—WA	TERLOO.		2.—LA	MBETH	CHURCE	ı lsr.			CHURCE Workhou	
	Year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages (corrected).	Deaths under 1 year (unsorrected).	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages (corrected).	Deaths under 1 year (uncorrected).	Population esti- mated to middle of each year.	Births registered	Denths at all Ages (corrected).	Deaths under 1 year (uncorrected).
Parish.	[1891 1892 1893 1894 1895 1896 1897 1898 1899	a. 28657 28601 28545 28489 28433 28377 28333 28282 28232 28183	b. 1431 1473 1521 1505 1516 1445 1397 1381 1398 1348	$\begin{array}{c} c.\\ 866\\ 687\\ 688\\ 691\\ 755\\ 642\\ 683\\ 715\\ 733\\ 678\end{array}$	$\begin{array}{c} d.\\ 230\\ 179\\ 222\\ 203\\ 212\\ 201\\ 203\\ 193\\ 189\\ 202\\ \end{array}$	a. 18110 18249 18388 18522 18666 18805 18947 19090 19234 19377	b. 605 610 624 618 649 597 581 627 582	$\begin{array}{c} c.\\ 468\\ 432\\ 448\\ 384\\ 457\\ 364\\ 442\\ 438\\ 436\\ 423\end{array}$	$\begin{array}{c} d,\\ 158\\ 160\\ 165\\ 139\\ 189\\ 169\\ 188\\ 175\\ 151\\ 153\\ \end{array}$	$\begin{array}{c} a,\\ 39191\\ 39571\\ 39951\\ 40331\\ 40711\\ 41091\\ 41476\\ 41864\\ 42252\\ 42642 \end{array}$	<i>b</i> . 16 30 16 39 16 32 1553 1629 1687 1595 1613 1517 1543	c. 987 907 858 789 995 930 934 853 1048 840	<i>d.</i> 299 259 272 266 284 262 301 265 315 266
	Averages of Years 1891 to 1900	28413·2	1441.5	713.8	203.4	18739-3	610.3	429·2	164.7	40908 •0	1603 8	914.1	278.9
Bo	prough 1906	26420	1426	582	157	18401	564	311	135	40035	1487	851	258

	1112				Т	able	ii.—	continu	ued.		1.1.2.2		-			
NAMES OF LOCALITIES	4.—B	ENNIN	GTON 1	ST.	5.—K	ENNIN	FTON 21	SD.	(6.—Bri	XTON.		7	.—Nor	wood.	
YEAR.	Fopulati n esti- mated to middle of each year.	Births registered.	Deaths at all Ares (corrected).	Deaths under 1) ear (uncorrected).	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages (corrected).	Deaths under 1 year (uncorrected).	Population esti- mated to middle of each year.	Births registered.	Deatus at all Ages (corrected).	Deaths under 1 year (uncorrected).	Population esti- mated to middle of each year.	Births registered	Dearhs at ail Ages (corrected).	Deaths under 1 year (uncorrected).
(1891 1892 1893 1893 1895 1896 1896 1897 1897 1897 1897 1898 1899 1900 Averages of Years 189 to 1900	 <i>a.</i> 50681 51002 51241 51721 52201 59591	<i>b.</i> 1722 1733 1759 1802 1736 1886 1859 1888 1871 1856 	$\begin{array}{c} c.\\ 1092\\ 1008\\ 953\\ 871\\ 969\\ 902\\ 952\\ 989\\ 1086\\ 1018\\ \hline \end{array}$	<i>d</i> , 252 226 270 212 263 232 249 259 309 233 259-5	$\begin{array}{c} a.\\ 40065\\ 40695\\ 41004\\ 41713\\ 42222\\ 43429\\ 44136\\ 44852\\ 45570\\ 46289\\ \end{array}$	b. 1039 1058 1059 1053 1099 1125 1110 1009 1089 990	c. 802 756 719 672 742 742 742 742 721 727 812 732 743.0	<i>d.</i> 136 123 127 167 169 157 132 141 154 123 136.9	a. 73707 75431 77812 79507 81267 83946 85647 87350 89057 81599-1	<i>b</i> , 2014 2051 2002 2037 2093 2139 2131 2143 2143 2179 2112 2090-1	c. 1335 1305 1182 1050 1259 1174 1145 1274 1342 1283 12339	d. 291 237 286 254 2.6 281 286 281 286 281 286 279 287.4	<i>a.</i> 25751 26483 27015 27647 28470 29511 30239 30977 31717 32453 29026-8	b 626 662 639 657 650 662 699 641 752 - 736	c. 336 362 371 380 382 339 384 434 429 456 387 3	<i>d.</i> 67 69 73 79 77 69 100 80 113 94 82·1
Boro', 1906	 54946	1850	798	153	44981	1000	649	209	90798	1898	1102	201	40193	747	416	75

NOTES-(a) Deaths of residents occuring in public institutions beyond the district are included in sub-columns c of this table, and those of the non-resident registered in public institutions in the district are excluded. (See note on Table i. as to meaning of terms "resident" and "non-residents.")
 (b) Deaths of residents occuring in public institutions, whether within or without the district, are alloted to the respective localities according to the addresses of the deceased.
 (c) Deaths under 1 year are not corrected, and the gross total of sub-columns d agrees with the total of column 5 in Table i.

N B .- Where the District is not stated, the deaths are sub-divided equally amongst the Registration Sub-Districts.

Local Government Board.

Table iii.

CASES	OF	INFECTIOUS	DISEASE	NOT	IFIED	WITH	IN	THE	BOROUGH	OF	LAMBETH	
			DUR	ING	THE	YEAR	1906	3.				

		CA	SES		FIED		THOL	Æ	т				LITY			NC		PITAI	ES RE FRO	MEA		0
NOTIFIABLE D	ISEASE.	At all Ages.	Under 1.	1 to 5. P	5 to 15.	15 to 25.		65 and upwards.	Waterloo.	Lambeth Church 1st.	100	Kennington 1st.	Kennington 2nd.	Brixton.	Norwond.	Waterloo.	Lambeth Church 1st.	Lambeth Church 2nd.	Kennington 1st.	Kennington 2nd.	Brixton.	Norwood.
Small-pox Cholera Diphtheria		 415	 13	 157	 199	 27	 19		 60	 63	 75	 55	 60	 92	 10	 54	 43	 67	 48	 47	 67	 ₆
Membranous Cro Erysipelas Scarlet Fever	-	 $ \begin{array}{r} 11 \\ 263 \\ 1268 \end{array} $	 6 14	6 11 295	4 33 783	 26 120	$\begin{array}{c}1\\161\\56\end{array}$	 26	1 32 140	1 27 75	2 55 175	1 37 173	3 40 178	2 55 338	1 17 189	10 125		16 154	 9 159	1 4 142	 9 308	 2 155
Typhus Fever Enteric Fever Relapsing Fever		 	1	2	 26	 27	 32	₁	27	 12	 13	···· 6	 13	 15	 3	 24	10	12	4	 8	10	···· 2
Continued Fever Puerperal Fever		 1 27			1 	5			3	1 2		'	· 3	6	₂	1	1			 2	 2	···· 1
Plague Totals		 2074	 34	471	 1046	205	291		263	181	328	275	297	508	222	215		252		204		

NOTES.—(a) The localities adopted for this table are the same as those in Tables ii. and iv.
 (b) Patients are removed to the Isolation Hospitals of the Metropolitan Asylums Board, one of which is situated in Brixton Registration Sub-district.

Local Government Boara.

CAUSES OF, AND AGES AT, DEATH

Name of District-BOROUGH

	D	EATHS DIST			ING TO		E
CAUSES OF DEATH.	All ages.	Under 1 year.	1 and under 5.		15 and under 25.		65 and up- wards.
1	2	3	4	5	6	7	8
Small-pox							
Measles	77	19	54	4			
Scarlet Fever	28	15	17	9	2	-	
Whooping Cough	71	33	36	2	4	-	-
Diphtheria and Mem-	11	00	00	4	-	-	-
branous Croup	51	4	32	14			
	2	Ŧ	2	14	-	1	
Croup	4	_	4	-	-	-	-
Fever {Typhus	22	-	-	-	-	-	
		- 1	1	3	8	9	1
(Other Continued	1	1	-	-	-	-	-
Epidemic Influenza	42 4	-	-	3	2	21	16
The l		4		-	-	-	-
Diarrhœa	268	213	40		1	9	4
Enteritis J	129	82	12	1	7	14	7
Puerperal fever	12	-	-	-7	-	12	-
Erysipelas	13	3	-	-	-	7	3
Other Septic diseases	12	2	3	-	1	6	-
Phthisis	411	2	7	10	34	333	25
Other Tubercular diseases	151	40	53	23	7	22	6
Cancer, malignant disease	297	-	-	3	2	171	121
Bronchitis	402	65	28	3	1	97	208
Pneumonia	165	15	22	3	6	89	30
Pleurisy Other diseases of	14	-	2	-	2	4	6
Respiratory Organs	256	70	78	8	3	59	38
Alcoholism	38	_	_	_	_	34	4
Cirrhosis of Liver	45	_	_			35	10
Venereal diseases	38	28	2		1	4	3
Premature birth	152	152			1	Ť	0
Diseases and Accidents	102	102			-		-
of parturition	8		_			8	
Heart diseases	392	5	3	23	25	185	152
Accidents	126	19	10	16	9	41	31
Suicides	34				4	26	4
				in the second		20	T
All other causes	1448	331	71	41	47	419	539
All causes	4709	1088	473	172	162	1606	1208

Table

iv.

(CORRECTED) DURING THE YEAR, 1906. OF LAMBETH.

DEATHS IN OR BELONGING TO REGISTRATION SUB-DISTRICTS (AT ALL AGES).

	5	0 0-0101	- NICIS	(ar an	L AGAS	,.		TOTAL DEATHS
e Waterloo.	Lambeth 0 Church 1st.	E Clurch 2nd.	The Kenning- 57 ton 1st.	Et ton 2nd.	H Brixton	C Norwood.	91 District 92 not . stated.	IN PUBLIC INSTITUTIONS IN DISTRICT (UNCORRECTED).
	10	11	12	10	14	10	1 10	
-10 5 2	 7 1 8	17 6 17	 11 4 15		25 7 14			11 51 9
_6	11	$13 \\ 2$	_4	7	5	5	=	57
- 6 1	1	-2	-6	-3	-4	_	=	26
	_1	33	3	8	22 1	_5	=	_1
38 10 1	$ \begin{array}{c} 16 \\ 14 \\ 1 \\ 1 \end{array} $	70 25 1	27 17 2 4 3 71 32	29 23 3	56 25	30 13 2	2 2 —	66 9
$\begin{array}{c}1\\2\\1\\72\end{array}$	17	1 2 83	4 3 71	$\begin{array}{c}1\\2\\52\end{array}$	2 4 2 79	2 22		9 157
15 19 46	13 13 22	32 35 74	50 78	$ \begin{array}{r} 19 \\ 47 \\ 46 \end{array} $	25 87 95	11 37 28	4 9 13	, =
23 1	13	$42 \\ 2$	24 2	17 4	30 2	10 1	6 2	\$ 209
32 3	17 5 1	55 9	44 4	24 5	56 10	20	8 2	=
3 11 8 28	1 4 6	6 5 20	4 7 4 28	7 2 20	10 8 40	3 5 10	2	=
1	-	2	1	1	3	_	-	-
31 27 4	24 9 4	51 31 6	73 22 4	58 16 4	105 14 6		10 3 1	250 108 —
143	* 83	217	240	218		135	65	961
546	292	832	780	631	1084	398	146	1924

Local Government Board.

Table v.

BOROUGH OF LAMBETH.

INFANTILE MORTALITY DURING THE YEAR 1906.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under	1 Week. 1-2 Weeks.	2-3 Weeks.	8-4 Weeks.	Total under 1 Month.	Months.	2-3 Mcnths.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Month₄.	Months.	11-12 Months.	Total Deaths under One Year.
All Causes-	1	1	1	1					1				1	1	1	1	1
Certified		63 45	38	37	283	119	71	92	60	66	66	63	52	47	54	50	1023
Uncertified		14 3	6	1	24	8	6	3	6	3	4	3	3	1	2	2	65
Common Infectious Diseases-	-	9				1											
Small-pox																	
Chicken-pox														1			1
Measles			1		1			1	1		3	2	2	3	6	1	19
Scarlet Fever																	
Diphtheria : Croup									1			1			1	1	4
Whooping Cough			1		1	2	2	1	2	1	3	4	6	4	4	3	33
Continued Fever							1										1
Diarrhœal Diseases-																	
Diarrhœa, all forms, inclu	iding		1											12.1			
Cholera and Dysentery			2	7	9	17	19	24	26	24	17	21	20	13	15	12	217
Enteritis, Muco-enteritis,														1 2000			
Gastro-enteritis			2	2	4	8	10	13	õ	9	10	7	3	3	4	6	82
Gastritis, Gastro-intestina	1																
Catarrh, Ileo-Colitis		1	1	1	3	2	2	1	1	1				2	1	1	14
Wasting Diseases-								-						-	-	-	
Premature Birth	!	99 16	.9	4	128	13	3	6		1			1				152
Congenital Defects		19 9	2		30	6	1		1		2	3	1		1		45
Injury at Birth		1			1												1
Want of Breast-Milk Starva						1	1	1				2				10000	5
Atrophy, Debility, Marasmu	15	26 8	4	8	46	33	12	20	9	3	2	3	1	5	1		135
Tuberculous Diseases-													-		-		200
Tuberculous Meningitis								1		2	2	1		2	1	3	12
Tuberculous Peritonitis : T				-								-		-	-	0	10
Mesenterica	1000	1		2	3	1 1	5		1	1	1	3	1				16

Other Tuberculous	Diseases				1		1	1	2	1	1	1	1	1 1	2	1	2	1 1	14
her Causes-								-							-				
Erysipelas								2				1			1				3
Syphilis			4		3	2	9	6	5	1		2		2		2		1	28
Rickets											1	1					2		4
Meningitis (not Th	(berculous)		2				2	2		1	2	4	3		3		1	2	2
Convulsions			9	5	2		16	3	2	3	2	3	5	1	1	3	1		40
Bronchitis			1	1	8	4	14	14	5	7	3	3	2	5	2	1	3	6	65
Laryngitis								1					2					1	4
neumonia						1	1	2		a contra	1	1	2	1			9	5	17
suffocation, overly			4		2		G	2	2	9	2	-	-	î			-		15
longestion of Lun	ØR			1	1		2	-	-	-	-			2					4
Pleuro-Pneumonia		••••				1		1					2						4
have a la a			1	2		2		õ		7	5	7	7	2	4	3	4	6	58
Pentition "						1.2					1000		3	1. 1. 1. 1.	4 5	2	4 5	2	17
ntestinal Obstruc	tion	•••		••••	••••							•••) 1		o			2	
aundice and othe	o a or an		••••	•••	•••			1		2			T	1			1		6
C 11			2			1	2												
			-				2			1	•••	2			1				6
ccident (other that		on)	•••	***		+++				1			***	1	1	1			3
			••••	•••						1					1				2
	***		•••	1	1		2							1					3
Double Middle ear										1	1	1			***				3
ntra Cranial Hœn	norrhage		1				1												1
cute Pemphigus			1		1		2									1			3
,, Nephritis												1				1			2
yncope			2	***			2		1						1				4
morrhage from	Bowels			1		1	2												2
hrush								1											1
afantile Purpura			1	1	1	1	4												4
									1										1
cute Exfoliative]						2	2												2
nilanan								1									1		2
name of Clathin													1					1	2
anitan hlitin		•••						1									••••	-	i
ot classified (111 d	ofined ata		3	2	2	1	8	2					···· 1	1					12
a a a a a a a a a a a a a a a a a a a	enneu, etc.	1	_	_	_	-		-						_			-		12
			177	48	44	38	307	127	77	95	66	69	70	66	55	48	56	52	1088

District of Lambeth Borough-Population (estimated to middle of 1906), 315774.

Births in the year 1906-8972. Deaths in the year 1906, of infants-1088. Deaths from all Causes at all Ages, 4709.

9

	т		0
		8	0

LAMBETH BOROUGH.—Deaths Registered Nore.—The Deaths of Non-Residents occurring in Public Institutions occurring in Public Institutions situated beyond

from all Causes during the Year 1906. situated in the District are excluded, and the Deaths of Residents the limits of the District are included.

		-	_	_	-		_	-	_	-		_	-	-	_	_			_	-	_	
12110511111-1-1	1. 19 1. 19		SU	B-DIS	TRIC	TS.							Su	B-DIS	TRIC	TS.						
		Wate Ros	id	Wate Ros 2nd	ad	Lam) Chu 1st	rch	Oht	abeth arch ad.	Keniton	ning- 1st.	Kenr ton S	ning- 2nd.	Brix	ton.	Norv	vood.	N Add		A11 .	Ages.	Total.
		ar I		25	n	3.5	TR	35	1 77	1.	-	20	-	-	-		-	75 1	-		-	
I. SPECIFIC FEBRILE, OR	ZYMOTIC	M.	F.	M.	F.	M	F.	М.	F.	M.	F.	М.	F.	M.	F.	М.		M.	F.	M.	F.	
DISEASES		22	14	25	19	22	29	78	62	42	43	36			75	30	29	4	2	334	307	641
II. PARASITIC DISEASES								•••					1								1	1
III. DIETETIC DISEASES				$\frac{1}{27}$	19	3 24	3 25	5 69			5		2					1	1			45 983
IV. CONSTITUTIONAL DISEASES		1	22	12	13	24 6	6	22			72 32		71 18			34 10	57 15	19 5	9 5		473	320
V. DEVELOPMENTAL DISEASES VI. LOCAL DISEASES		0.0	70		53		84	226						282							1198	
VI. LOCAL DISEASES VII. DEATHS FROM VIOLENCE			4		5		7	28			10		5		9	6	3	2		110		164
VIII. DEATHS FROM ILL-DEFIN			-									10		**	Ĩ				~			
NOT SPECIFIED CAUSES		7	3	5	4	3	5	15	17	20	7	10	12	19	11	7	5]	86	65	151
																-	-					
TOTALS		159	120	153	114	133	159	443	389	418	362	314	317	549	535	170	228	82	64	2421	2288	4709
I.—Specific Febrile, or Zy Diseases.	motic																					
1MIASMATIC DISEASES																						
(Vaccinated																						
Small-pox Unvaccinated																						
(No Statement		1																				
Measles			2	7	1	2	5	6	11	5	6	1	4	14	11	1	1			36	41	77
Whooping Cough			1			4	4	8	9		11	4	3	3	11	3	. 3	1	1	28		71
Scarlet Fever		. 2	1	1. 1. 1.	1	1		4	2	2	2	1	2	1	6	2				14	14	28
Typhus	···· ··																10000					1
Simple Continued and Ill-defined			1 2				•••					***		2	2	***		***			1 9	22
Enteric or Typhoid Fever Diphtheria			1	1 N R		4	7	11	i		1	····_4	2		2		,			30		19
Diphtheria Membranous Croup								1				1					'			2		2
Influenza						1		2	1	3		3	5		8	1				24		42
Other Miasmatic Diseases]	1									1	1	2
2DIARRHEAL DISEASE	s.																					
Cholera, Nostras								3						1						4		4
Cholera, Asiatica																						
Diarrhœa, Dysentery		. 11	4	12	11	8	8	37	33	14	13	19	10	30	26	16	14	1	1	148	120	268
3MALARIAL DISEASES.													1		1							
Remittent or Relapsing Fever																						
Ague																						
4.—Zoogenous Diseasi	ES.												1		1						1	
- Cow-pox and effects of Vaccination																						
Other Diseases (e.g., Hydrophobia,	Glanders.																					
«Splenic Fever)																						
5VENEREAL DISEASE													-									
Syphilis		. 1	2	1	3		4	8	1	4		1		5	2	1	4	1		17	16	33
Gonorrhœa, Stricture of Urethra		1						1				1		1				1		5		5
6.—SEPTIC DISEASES.				1																		
Erysipelas		. 2		1		1		1		2 1	2 2		1	1	3					7	6	13
Pyæmia, Septicæmia		1 1							2		2	1	1		2	0				5	7	12
Puerperal Fever				I	1		1		1		2		31]	2		2				12	12
		and the second second																				

II

M

		12
	LAMBETH	BOROUGH,-Deaths Registered
NOTEThe	Deaths of Non-Res	idents occurring in Public Institutions in Public Institutions situated beyond

13 from all Causes during the Year 1906. situated in the District are excluded, and the Deaths of Residents the limits of the District are included.

1 ⁻¹		Su	B-DIS	TRIC	TS.							Su	B-DI	STRIC	TS.						1	
	Re	erloo ad	Wate Ro 2n	ad	Lamb Chu 1s	rch	Chu	beth urch id.	Kenn ton	ning- 1st.	Kenn ton	ning- 2nd.	Brix	ton.	Norv	Norwood.		lo ress.	All Ages.		Total.	
II.—Parasitic Diseases.	-	-		-		_	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Thrush. and other Vegetable Parasitic	M.	F.	Μ.	F.	M.	F.				2.1		1								1		
Diseases				••••	•••																	
IIIDietetic Diseases. Want of Breast Milk, Starvation			 	 	 2 1	1 2	1 *** 2 2	1 5		2 3	 ₂ 1	 	1 3 1	1 			 	 	2 13 5			
IV.—Constitutional Diseases. Rheumatic Fever Rheumatism of the Heart Rheumatism Gout Gout Cancer, Malignant Disease Cancer, Malignant Disease Cancor Oris (Noma) Tabes Mesenteriaa Tubercular Meningitis, Hydrocephalus Puthisis Scrofula Other forms of Tuberculosis Purpura, Hæmorhagic Diathesis Anæmia. Chlorosis, Leucocy thæmia Other Constitutional Diseases		 15				2 1 7	3 1 7 4 4 2 7 2 	$ \begin{array}{c} $	 1 7	4 .:.1 .:.29 .:.32 21 .:.9 12 .:	 1 33 	1 30 19 3 11 3 3 	 1 5	$ \begin{array}{c} 6 \\ \vdots & 2 \\ 1 \\ 2 \\ 44 \\ \vdots & \vdots \\ 5 \\ 28 \\ \vdots \\ 9 \\ 1 \\ 5 \\ 1 \\ 3 \\ \end{array} $	··· ··· 12 ··· 3 7 ··· 3 ··· 1 6	3 1 25 2 2	 	···· ··· ··· ··· ··· ··· ··· ··· ··· ·	$12 \\ \\ 3 \\ 4 \\ 115 \\ \\ 7 \\ 28 \\ 259 \\ 1 \\ 38 \\ 4 \\ 8 \\ 24 \\ 4 \\ 4 \\ 1 \\ 1 \\ 1 \\ 1 \\ 2 \\ 1 \\ 1 \\ 2 \\ 1 \\ 1$	$ \begin{array}{c} 13 \\ \\ 7 \\ 4 \\ 6 \\ 182 \\ \\ 14 \\ 26 \\ 152 \\ \\ 37 \\ 3 \\ 10 \\ 11 \\ 8 \\ \end{array} $	21 10 10 297 217 544 4111 11 755 21 12 12 12	
	-	3	5 8 2 1 1 2				11 8 4 4	9 3 2 2	13 5 5	15 1 2 14	14 2 2 9	6 12	22 1 5 12	18 30	4 1 2 3	6 9	 5	 5	82 9 22 42	70 6 12 77	155 18 34 119	
VILocal Diseases. 1DISEASES OF NERVOUS SYSTEM. Inflammation of Brain or Membranes Apoplexy, Softening of Brain, Hemiplegia, Brain Paralysis Insanity, General Paralysis of the Insane Epilepsy Convulsions Laryngismus Stridulus (Spasm of Glottis) Disease of Spinal Cord, Paraplegia, Paralysis Agitans Other Diseases of Nervous System 2DISEASES OF ORGANS OF SPECIAL		1 2	4	2		 2 1 2	7 9 2 5 2 2	4 8 5 1 3 2 2	7 11 5 3 2 2 3	8 19 2 2 3	4 15 2 4 2 3	2 24 4 2 5	6 25 4 3 8 2 2	1 36 3 2 2 3 6	4 7 1 1 1	4 16 1 1 1	1 2 6 1 1	 2 4 4 1	35 78 29 11 26 1 9 12	22 114 17 9 16 1 13 22	57 192 46 20 42 2 2 22 34	
Sense.			1				2	3	2	1	2	1	2	1	2	. 1		1	10	9	19	

LAMBETH BOROUGH .- Deaths Registered

Note.—The Deaths of Non-Residents occurring in Public Institutions occurring in Public Institutions situated beyond

from all Causes during the Year 1906.

situated in the District are excluded, and the Deaths of Residents the limits of the District are included.

Total.

48 129

 $27 \\ 12$

. 45 24

 $\begin{array}{r}
 17 \\
 122 \\
 26 \\
 5 \\
 9
 \end{array}$

All Ages.

 $\begin{array}{r}
 14 \\
 2 \\
 18 \\
 79 \\
 14 \\
 6
 \end{array}$

6

···· 22

54

68

20 19

50 13

18

No Address,

M. F. M. F.

 $\frac{1}{9}
 \frac{9}{3}
 \frac{1}{2}
 \frac{2}{3}$

...

		SU	B-DI	STRIC	TTS.		SUB-DISTRICTS.												
	Ro	erloo ad st.	Wate Ro 2n	ad	Lam Chu Is			Chu	abeth arch ad.		ning- 1st.		ning- 2nd.	Brix	ton.	Norv	wood.		
3DISEASES OF CIRCULATORY SYSTEM.	M.	F.	M.	F.	M.	F.		31	12	35	177	N	177	10	-	20			
Pericarditis Acute Endocarditis Valvular Diseases of Heart Other Diseases of Heart Aneurism Embolism, Thrombosis Other Diseases of Blood Vessels	ш. 1 2 5 2 2 2 1	1. 4 3 1 5	 4 4 	1. 		2		M. 3 1 17 11 1 1 16	F. 11 8	M. 1 4 12 17 3 10	16		F. 2 12 19 1 2 5	M. 1 16 32 3 2 17	F. 1 24 30 2 9	12	F. 8 14 1 1 6		
4.—DISEASES OF RESPIRATORY SYSTEM. Laryngitis Croup Emphysema, Asthma Bronchitis Pleurisy Broncho-pneumonia Pleuro-pneumonia Other Diseases of Respiratory System	 6 7	1 11 7 6 2 1	1 10 9 1 7 	··· 19 ··· 1 ··· 1 ···	8	 13 5 5 1		1 2 32 20 2 14 7 4	1 42 22 16 2 2	1 39 16 14 2 5	1 39 8 2 8 6 6	1 19 6 3 9 3 3	 27 11 1 7 	2 35 94 1 13 2 4	3 60 6 1 10 7 6	2 8 4 6 1	2 1 20 6 1 4 1 2		
5.—DISEASES OF DIGESTIVE SYSTEM. Dentition Sore Throat, Quinsy Diseases of Stomach Enteritis Obstructive Diseases of Intestine Peritonitis Cirrhosis of Liver Jaundice and other Diseases of Liver Diseases of the Pancreas Other Diseases of Digestive System 6.—DISEASES OF LYMPHATIC SYSTEM. (e.g., of Lymphatics and of Spleen) 7.—DISEASES OF GLAND-LIKE ORGANS OF	 1 2 1 2 5 1	:: 2 3 :1 : 3 1 : 3 1 : : : :	3 2 1 	1 :: 22 3 :: 22 2 : : 2 2 : : : :	 8 2	2 6 1 2 		2 3 15 4 2 1 1 	2 10 2 1 4 1 1 	1 1 1 1 1 1 2 1	 5 2 3 	2 12 8 1 1 2 1 2 1 2 1 4 	1 6 11 2 1 5 3 4 	4 17 18 1 1 4 2 2 		2 9 2 	1 2 4 2 2 3 2 		
UNCERTAIN USE. e.g., Bronchocele, Addison's Disease) 8.—DISEASES OF URINARY SYSTEM. Nephritis Bright's Disease, Albuminuria Disease of Bladder or of Prostate Calculus (Stone) Other Diseases of the Urinary System	1 5 	···· ••• ••• •••	 1 3 1 		 6 2 	 8 		2 18 3	 3 8 2 	2 11 2	1 9 	280	8 2 	1 15 8	1 6 		 4 1 2		
9.—DISEASES OF REPRODUCTIVE SYSTEM. A. Of Organs of Generation. Male Organs Female Organs	10003	2		2															

LAMBETH BOROUGH .- Deaths Registered

Norz.—The Deaths of Non-Residents occurring in Public Institutions occurring in Public Institutions situated beyond

from all Causes during the Year 1906.

situated in the District are excluded, and the Deaths of Residents the limits of the District are included.

Total.

8 1

10

1

Il Ages.

F.

							1	STRIC	1.0.							50	B-DI	STRI	CTS.					
					R	erloo oad st.	R	terloo oad nd.	Chu	abeth urch st.	Ch	nbeth urch nd		ning- 1st.	Kenn ton	ning- 2nd.	Briz	cton.	Nor	wood		io lress.	All	As
В	. Of Partur	tion.			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	-
Abortion, Misc	carriage																							
Puerperal Con	vulsions																							
Placenta Præv	na, Flooding													1				1	1000000					
Other Acciden			•••			••••		1				2				1		2						
10DISEAS	SES OF BONE	S AND	JOINT	s.																				ł
Caries, Necrosi	is				1	1		1		1]	1		1			1	1	1				4	
Arthritis, Ostit	tis. Periostiti		***			***				1		1		1		1	2	2					2	
Other Diseases						***											L						1	
11DISEASE C	OF INTEGUM	ENTARY	r Syst	EM.																				ı
Carbuncle, Phl	legmon				1	2			1	1	2	1				1	1		1				6	
Other Diseases				1									2			1		1		1			4	
VIID	eaths from	Viol	ence.																					l
	IDENT OR NI																							l
Fractures and	Contusions				3	1	5		4						1	I		1						l
Gunshot Woun	ids					1.1.1.1.1.1.1			-	3	10	4		3		1			1	1	· · · ·	2	30	
Out. Stab				***			••••		•••											***		***		
Burn, Scald					2	2		1		1	1												···· 4	
Poison											i		2		1			3					4 3	
Drowning						1	3		1		4		ĩ	-								***	10	
Suffocation					.1		1		1	1	3	1	2	1	4	1	1						13	
Otherwise							3			1	-4		5	î	3	2	4	5		2	1		20	
	2HOMICID	E.															-							
Manslaugther														3							1000			
lurder														1										
	3SUICIDE													1										
Junshot Wound							1							i			0					1.65		
ut, Stab											***						2 1				•••	***	3	
Poison							3]	1	2				1		1		3				4	
Drowning									1				î		1								3	
langing									1		2		2		ĩ				1		1		8	
therwise	••• •••						***										1						1	
	-EXECUTIO	N.									110										1000	10.200		
Ianging																								
VIIIDea	aths from t Specified	Ill-De	fined																					
		Jauc	506.								1. 22. 1			-										
ebility, Atroph	Inonition		•••															1	1				1	
		•••			7	3	.4	3	3	5	14	17	19	7	8	11	17	9	6	4		1	78	
umour			•••		3332						1												1	
bscess			***							••••														
æmorrhage										•••					1		1						2	
	anao mat ana	artaine	(be		10.58								1										1	
udden Death (c auses not speci	sause not asc	OI DOULLE																						

I. Note.—The deaths	AMBETH of Non-Re occurring	sidents oc		Public In	stitutions
			AGES.		-
	Under 1 Year.	1-5	Under 5 Years.	5-10	10-15
PECIFIC FERRITE OF 7.540	M. F.	M. F.	M. F.	M. F.	M. F.

18

19

all Causes during the Year 1906. situated in the District are excluded, and the Deaths of Residents the limits of the District are included.

	occurring in Fublic Institutions situated beyond											C III	arus	or or	10 201		OF LEAS										- 1	
	AGES.																		AGE	s.								
		der ear.	1	-5	Une 5 Ye		5-	10	10	-15	1	5-20	20	-25	25-4	10	40-60	6	0-65	65-	80	80 ove		Ove Yea			11 ges.	TOTAL.
II. PARASITIC DISEASES III. DIETETIC DISEASES IV. CONSTITUTIONAL DISEASES .	M. 173 	87	 25 3	94 1 42 	265 2 59 113	1 4 59 87	 17	21 14	 4 22	3 12 20		4. F 5 10 1 24 1	1 (8 10 14	9 3 102 74 1	20 8 80 00 2	12 71 13 265 21	1 9 7 3 1 0 11	6 6 1 1 7 44 . 1 1 96	13 2 82 18 274	11 81 25 348	M. 1 7 24 66	2 19 50 142	42 871	78 21 414 78	20 510 155 1206	307 1 25 473 165 1198	983 320 2404
TTTT The second second Trees second			3			13 61	7	4	6			7	-	2			27 3.	9		14			2	93 6	4			
TOTALS	610	469	252	221	871	690	49	55	38	35							195 37				484	101	219	1550	1598	2421	2288	4709
1.—Specific Febrile, or Zymotic Diseases.										-	-		T															
1.—MIASMATIC DISEASES. Smallpox { Vaccinated No Statement Whooping Cough Scarlet Fever	9 15		12 10 	24		 38 42 7 1	3 	··· 3 1 5 ··· 1		 2:					···· ··· ···		···· · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·			•••			······································	 36 28 14 18	43 14 1 9	28 1 22
Diphtheria Membranous Croup Influenza Other Miasmatic Diseases		1 1	21 1 	10	24 1 1	11 		8 2 	₁	 			1			 1 			4 8	6			2	1		2		2
2.—D'IARRHŒAL DISEASES. Cholera, Nostras Cholera, Asiatica Diarrhœa, Dysentery			 19	 21	4 142	 111		 ₁	 	 						 1				2 2				 ₆	 ₉			4 268
														10000						10000								
Cow-pox and effects of Vaccination Other Diseases (e.g., Hydrophobia,																												
5.—VENEREAL DISEASES. Syphilis	. 16	12		2	16											1	1				1						7 10 5	
6.—SEPTIC DISEASES. Erysipelas Pyæmia, Septicæmia Puerperal Fever	2		₁	• 2	1 3 	2 2 										 1 12	1	23	1	1 2	1 3			62		5		6 13 7 12 2 12
20

Norg.—The deaths of Non-Residents occurring in Public Institution occurring in Public Institutions situated beyond	LAN	MBETH	BOROUGH Deaths Registered from

21

all Causes during the Year 1906—continued. situated in the District are excluded, and the Deaths of Residents the limits of the District are included.

						ES.				-										AGE			-		_			_	m
	Un 1 Y	der ear.	1	-5	Uno 5 Ye		5-1	10	10	.15	-	15-5	20	20-5	25	25-4	0 4	0-60	60)-65	65-	80	80 ove		Ove Yea		All Age		TOTAL.
IIParasitic Diseases. Thrush and other Vegetable Parasitic Diseases			M.	F.	M.	F. 1	M.	F.	М.	F.								4. F.			M.	F.	M.	S	M.	F.	M.	F. 1	1
Worms, Hydatids, and other Animal			1											191															
III.—Dietetic Diseases.																						1					2	5	7
Want of Breast Milk, Starvation		3		1	2		***															0.000			***				
C1 7 17 1 12					•••												8	9	9	1 1	2	2						20	83 5
The Hartman III.																2		3							5		9		0
IVConstitutional Diseases.																									12	12	12	13	25
						1	3	3	1	3		1	3			1			1										
Rheumatism of the Heart	1												1				100	100			1 01			0.00	3	7	3	7	10
<i>n</i> .]				1	1 1		1	1000	1	3	4	8 4	4	7 10
Rickets		2	2	4	4	6										•••		18 7	2 1	1 80	51	56	4	10	115	182		182	
				***	***		***	2	1						1			222											
Tabes Mesenterica	1000			7	6	10	1	1		1							1								1	4	28	14 26	21 54
Tubercular Meningitis, Hydrocephalus	9		14	16		19	4	3		1						1			1		14				5 953	149		152	411
	. 1			2	6	3	4		1	5		3	9	1000		87		22									1		1
Other forms of Tuberculosis	1 30			12	16	18				2		2	3		2						2 3	1		1			38	87	75 7
Purpura, Hæmorrhagic Diathesis	. 2				2	2						2												200	27	1	4 8	10	18
Anæmia, Calorosis, Leucocythæmia					1	10000			1			2		-						1 5	2 4				1		24	11	
A 1							•••					2	_				-	2		1			1	2	4	8	4	8	
V.—Developmental Diseases.	1																												
Premature Birth	82	70			82	70																					82	70	
Atelectasis	. 9				9	6									-												9 22		
Congenital Malformations		1000	1.1.1.1		22	11													ï :		1 18				42	77	42		
· · · · · · · · · · · · · · · · · · ·								***						***					1										
VILocal Diseases.																													
1DISBASES OF NERVOUS SYSTEM.	12	0	18	10	20	18	3	1	1	1							1		1 .		. 1				5	4	35	22	57
Inflammation of Brain or Membranes Apoplexy, Softening of Brain, Hemi-		0	10	10	00	10	0	-	1	1								-									-		192
plegia, Brain Paralysis	. 1				1			1								3	3	24 5	26 1	0 1	2 31	53	3 9	19	1 17	114	78	114	192
Insanity, General Paralysis of the															1	4	5	18	3	2	4	1	1	4	29	17			
NO. 11	2				2			***		1				1	2		2	2			1 1	1			9	9			20
Epilepsy Convulsions	9.41				26	10000000																					26	16	42
Laryngismus Stridulus (Spasm of		-]				1	1	2
Glottis)		T		••••	1	1		••••						***		***	***									10.11			
Disease of Spinal Cord, Paraplegia, Paralysis Agitans																	2	3			8 2		1						
Other Diseases of Nervous System					1					1		1		1		2	ð	8	10	2	1 2	5 19	1	1	11	22	12		01
2.—Diseases of Organs of Special Sense.									1																	6	10	g	19
(e.g., of Ear, Eye, Nose)	. 1	2	3	1	4	8	1	2	2	1		2	2						· ' ·		. 1	11 1			1 0	0	10		1 15

22

LAMBETH BOROUGH.—Deaths Registered from Norg.—The deaths of Non-Residents occurring in Public Institutions occurring in Public Institutions situated beyond all Causes during the Year 1906—*continued*. situated in the District are excluded, and the Deaths of Residents the limits of the District are included.

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										-	_		UD OI							-	_	-		-	_	-	
					AG	ES.												A	ES								
		der ear.	1	-5		der ears.	5.	-10	10	-15	15	-20	20-2	5	25-40	40	-60	60-	35	65-80) & /er.	Ove Yea	er 5 ars.		11 (es.	TOTAL.
3.—DISEASES OF CIRCULATORY SYSTEM.	M.	F.	M.	F.	М.	F.	M.	F.	M.	F.	M.	F.	M.	F	M. F	. M.	F.	M.	F. 1	M. F	M	F.	M.	F.	M.	F.	
Acute Endocarditis			 1 2 		 1 4 	··· 1 2 ···	3 	· ··· 22 22 22 	2	2 3 1 	4 6 1	2 1 8 	3 2 1 		5 3	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		1 8 13 2 	7 10 1	18 2 35 4		6 18	$ \begin{array}{r} 13 \\ 76 \\ 89 \\ 13 \\ 4 \end{array} $	12 85 100 5 5	13 4	3 12 86 102 5 54	9 25 163 195 18 9 127
4DISEASES OF RESPIRATORY																		+									
SYSTEM. Laryngitis	 36 7 33 3	8 25 1	17 1 40	 14 5 1 22	2 50 24 1 73	 48 13 13 47 3	···· ··· ··· 1	1 		···· ··· ··· ··· 2' ··· ··· 2' 1	1	 1 1	 2 	 2 	14 4 14 14 8	. 5 2 31 2 31 2 31 2 1 2 1 2 1 8 6	26 26 15 	$ \begin{array}{c} 1 \\ 14 \\ $	20 20	13 4 4 4	4 1		 11 117 73 7 10 15	 192 55 5 10 17	2 11	68 6 57 20	16 2 19 402 165 14 140 41 38
5DISEASES OF DIGESTIVE SYSTEM.																											
Diseases of Stomach	 50 4 1 2	 13 32 2 1 4 	 9 2 1	···2 3 ···1 ···	7	 15 35 2 2 2 4 		···· · · · · · · · · · ·			··· ·· ·· ·· ··	2	 8 	 4 1 	···· 3 8 ··· 2 ··· 1	1 1	$ \begin{array}{c} $	1 2 1 1 6 1 	 2 2 1 4	3 2 2 2 1	2 5 1 5 1 1 5 1 5 1		2 11 20 8 5 18 3 	15 15 11 4 27 14	14 2 18 79 14 6 18 6 11	 30 50 13 6 27 18 	26 2 48 129 27 12 45 24 22
6.—DISEASES OF LYMPHATIC SYSTEM.																											
(e.g., of Lymphatics and of Spleen) 7.—DISEASES OF GLAND-LIKE ORGANS OF UNCERTAIN USE. (e.g., Bronchocele, Addison's Disease)									1						•••• •										2	1	
Other Diseases of the Urinary System			 	1 1 	1 	2 1 	1 1 			1 1 			4 1 	1	8			5		1	. 1 0 2 2 4 1 1 1	2 2	22	4	9 74 22 1 7	8 48 4 4 2	17 122 26 5 9
Themala D																7											22

LAMBETH	BOROUGH Deaths Registered from
	Residents occurring in Public Institutions ng in Public Institutions situated beyond

all Causes during the Year 1906—continued. situated in the District are excluded, and the Deaths of Residents the limits of the District are included.

Abortion, Miscarriage	F. M. F.	rs	5-10 M. F. 		F	M. 	F. 1		M.		. F.	M. 1	F. M	. F.		r. F.		F. 2	Al Age M. 4		Тотаl. 2 б
Abortion, Miscarriage	1 		···· ··· ···· ···		 		••••	···· · · · · · · · · · · · · · · · · ·	••••	2 6 1 1	· ···		1					 2 6		 2 6	 2 6
Puerperal Convulsions .	1 		···· ··· ··· ···		 1					2 6 1 1			1					 6		 2 6	 2 6
10.—DISEASES OF BONES AND JOINTS.		1												2					4	6	
Caries, Necrosis 1 Arthritis, Ostitis. Periostitis 1 Other Diseases of Bones and Joints 11.—DISEASES OF INTEGUMENTARY SYSTEM. Carbuncle, Phlegmon 2 Other Diseases of Integumentary		1												1 2				6	4	6	
SYSTEM. Carbuncle, Phlegmon 2 1 1. Other Diseases of Integumentary		1												10.03			2 1	5	2 1	6	10 8 1
Other Diseases of Integumentary		1											1								
System 1 9 1.	2	3								2 1						1	3	4	6	5	11. 10
VII.—Deaths from Violence.																			1		
1ACCIDENT OR NEGLIGENCE.																					
Fractures and Contusions	1	1	3 S	2 2	···· ···		_	1		1 11		1	1 8				30	18	30	19	49
Cut, Stab			1 1								1.00	33.63		2	10000		2		4		14
Poison	1000 M 100 M 100 M		1					ï]			1	à			3 10	1	3 10	1	4 11
	11 4	4 2	···· ₂			2		ï ï		··· 1]		1	1 4				2 16		13 20	4	17 31
2.—Homicide.	i																				
Manslaughter	1	1								1								2		3	3
					***					1				• •••				1		1	1
3.—SUICIDE.						1		1									0				3
				1				1							2		34		4		4
									-	1 (0					11	4	11	4	15
														2			3		3		3
And burg the second sec								1		1	3	1					8		8		8
					***	1											1		1		1
4.—EXECUTION.														1							
Hanging			S																		
VIII.—Deaths from Ill-Defined and Not Specified Causes.																					
					***							1000			1000		1	1	1	1	2
Debility, Atrophy, Inanition 76 59 2 Mortification		60																	78	60	138
	Sec. 1 (1993) (1)	1000									10000										1
						1861	- 1							1			1		2		2
	10 M H H H H H H H H H H H H H	0.000								11000	1	0.000					1		1		1
Causes not specified, or ill-defined 1 1 1	1	Ц		1 1]		1		1	1		1		2	2		3	4	7

SUMMARY OF TOTAL	CORRECTED .	DEATHS IN	LAMBETH	BOROUGH	DURING	1906.
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	No.of	Deaths.	Total.		No.of D	eaths.	Total
	M.	F.			м.	F.	
I.—Specific Febrile, or Zymotic Diseases				Brought forward	2098	2049	4142
1. Miasmatic Diseases 2. Diarrhœal "	148 152	146 120	294 272	VILocal Diseases-continued.			
3. Malarial ,, 4. Zoogenous ,,				 Diseases of Lymphatic System Diseases of Gland-like Organs of Uncertain Use 	2	1	3
5. Venereal ",, 6. Septic ",	22 12	16 25	38 37	8. Diseases of Urinary System 9. Diseases of Reproductive System	 113	 66	179
II.—Parasitic Diseases		1	1	(a) Diseases of Organs of Generation		22	22
III.—Dietetic Diseases	20	25	45	(b) Diseases of Parturition10. Diseases of Bones and Joints	7	$\begin{array}{c}8\\12\end{array}$	8 19
IV.—Constitutional Diseases	510	473	983	11. Diseases of Integumentary System	10	11	21
V.—Developmental Diseases	155	165	320	VII.—Violence. 1. Accident or Negligence	80	46	126
1. Diseases of Nervous System 2. Diseases of Organs of Special	201	214	415	2. Homicide 3. Suicide	 30	-4	120 約 4 34
Sense 3. Diseases of Circulatory System	$\begin{array}{c} 10 \\ 279 \end{array}$	9 267	$\begin{array}{c} 19 \\ 546 \end{array}$	4. Execution			
4. Diseases of Respiratory " 5. Diseases of Digestive "	416 168	$\begin{array}{c} 421\\ 167\end{array}$	837 335	VIII.—Ill-Defined and not Speci- fied Causes.	86	65	151
Carried forward	2093	2049	4142	Total	2421	2288	4709

Offences under the Food and Drugs, and Public Health Acts, during 1906.

27

NATURE OF OFFENCE AND AMOUNTS OF PENALTIES AND COSTS IN EACH CASE.

Offence.	Р	ENAL	FY.		Cost	rs.
On 28th February, a summons was heard before Mr. Hopkins, at Lambeth Police Court, re selling Milk deficient in Milk	£	s.	d.	£	s.	d.
Fat to the extent of 20 per cent	2	0	0	0	12	6
On 14th March, a summons was heard before Mr. Hopkins, at Lambeth Police Court, re selling Butter containing 91 per cent. of Margarine	I	0	0	0	12	6
n 18th April, two summonses were heard before Mr. Hopkins, at Lambeth Police Court, re selling Milk deficient in Milk Fat to the extent of 15 per cent	0	10	0	1	0	0
e selling Milk deficient in Milk Fat to the extent of 18 per cent.	0	10	0	T	0	0
n 16th May, an adjourned summons was heard before Mr. Hopkins, at Lambeth Police Court, re selling Milk con- taining added water 6 per cent.	2	0	0	0	12	6

SALE OF FOOD AND DRUGS ACTS .- SUMMONSES.

Re selling Milk deficient in Milk Fat to the extent of 23 per cent	2 0 0	1 9 0	
Re selling Milk deficient in Milk Fat to the extent of 34 per cent.	2 0 0		
Re selling Milk containing added water 4 per cent	1 0 0	0 12 6	
Re selling Milk deficient in Milk Fat to the extent of 40 per cent	0 5 0	0 12 6	
On 13th June, three summonses were heard before Mr. Hop- kins, at Lambeth Police Court, re selling Milk containing added water 6 per cent			
Re selling Milk deficient in Milk Fat to the extent of 13 per cent.	IOO	0 12 6	29
Defendant not appearing, magistrate granted a war- rant for his arrest.			
Re selling Butter containing Margarine (not butter) 90 per cent.	I 0 0	0 12 6	
On 4th July, four summonses were heard before Mr. Francis, at Lambeth Police Court, re selling Milk deficient in Milk Fat to the extent of 15 per cent.			
	0 10 0	0 16 6	
Carried forward	13 15 0	8 13 0	

Offence.	PI	ENALT	Υ.		Cost	s.	
Brought forward	£ 13	s. 15	d. o	128	s. 13	d. o	
Re selling Milk deficient in Milk Fat to the extent of 19 per cent	0	10	o	0	16	6	
Re selling Milk deficient in Milk Fat to the extent of 32 per cent	I	0	0	2	6	9	
Re selling Milk deficient in Milk Fat to the extent of 27 per cent.	I	0	0				
On 5th July, a summons was heard before Mr. Horace Smith, re selling Milk deficient in Milk Fat to the extent of 13 per cent.	10	0	0	0	16	6	
On 25th July, four summonses were heard before Mr. Curtis Bennett, at Lambeth Police Court, re selling Milk deficient in Milk Fat 19 per cent	5		0	4	5	4	
Re selling Milk deficient in Milk Fat 22 per cent.				0	4	q	

Sale of Food and Drugs Acts.-Summonses.-continued.

30

Re selling Milk deficient in Milk Fat 22 per cent	1			: O	2	õ	
Re selling Milk deficient in Milk Fat 20 per cent				0	2	0	
On 15th August, three summonses were heard before Mr. Hop- kins, at Lambeth Police Court, re selling Milk deficient in Milk Fat 15 per cent.	0	5	0	0	12	6	
Re selling Milk containing added water 11 per cent	2	0	0	0	12	6	
Re refusing to sell to the Inspector, for analysis, an article of food, to wit, Milk	2	о	0	0	2	0	
On 26th September, three summonses were heard before Mr. Hopkins, at Lambeth Police Court, re selling Milk deficient in Milk Fat 13 per cent	2	0	0		12		31
Re selling Milk containing added water 4 per cent	2	C	0		12	6	
Re selling Milk deficient in Milk Fat 14 per cent	2	0	0	0	14	6	
On 8th November, a summons was heard before Mr. Francis, at Lambeth Police Court, re selling Milk containing added water 6 per cent.	0	5	0	0	12	6	
Carried forward	41	15	0	F2I	31	I	

Offence.	Pi	ENAL	ΓY.		Созт	s.
	£	s.	d.	£	s.	d.
Brought forward	41	15	0	2 1	3	I
on 5th December, a summons was heard before Mr. Hopkins, at Lambeth Police Court, re selling Milk deficient in Milk Fat 10 per cent	2	0	0	I	9	0
12th December, three summonses were heard before Mr. Hopkins, at Lambeth Police Court, re selling Milk deficient in Milk Fat 40 per cent	ı	0	0	0	12	6
e selling Milk deficient in Milk Fat to the extent of 16 per cent	1	0	0	o	12	6
e exposing a parcel of Margarine for sale, by retail, without having a label attached and marked in printed capital letters, not less than 1 ¹ / ₂ inches square—"Margarine."	0	5	0	0	12	6

	1			1			
On 9th January, 1907, four summonses were heard before Mr. Francis, at Lambeth Police Court, re selling Butter con- taining Margarine (not butter) 100 per cent			0			6	
	2	Ő	0	0	14	0	
Re exposing a parcel of Margarine for sale, by retail, without having a label attached and marked in printed capital							
letters, not less than 11/2 inches square"Margarine."	2	0	0	0	12	6	
Re exposing a parcel of Margarine, as above	I	0	0	0	12	6	
							3
Re selling sample of Milk deficient in Milk Fat 10 per cent	I	0	0	0	14	6	3
TOTALS	£.52	0	0	£27	3	7	

PUBLIC HEALTH AND METROPOLIS LOCAL MANAGEMENT ACTS.- SUMMONSES.

Offence.	Penalty.	Costs.	
On 23rd August, a summons was heard before Mr. Hopkins against the owner for non-compliance with the Notice of the Council to provide proper sanitary conveniences for em-	£ s. d.	£ s. d.	
ployees at No. 9, Atlantic Road. Order made to complete work in one month and defendant to pay costs		370	
On 4th July, a summons was heard before Mr. Francis against the owner for non-compliance with the Notice of the Council to repair yard paving, cleanse first floor rooms, and put drain into proper order and condition at No. 7, Broom- grove Road.			
Order made to do the work in seven days		040	
On 13th July, a summons was heard before Mr. Garrett, against the owner for causing an effluvium nuisance through making book-binders' glue and builders' size at 1a, Para-			
dise Road	2 0 0	5 5 0	

On 5th September, a summons was heard before Mr. Hopkins against owners for causing the removal from livery and bait stables' yard, rear of 261, Brixton Road, of horse dung in a carriage not properly constructed, contrary to Bye-laws of London County Council. Adjourned for two months to effect a satisfactory arrangement with Borough Council (viz. : for a van to be placed in the yard and the manure to be placed therein direct		0 2	0
On 19th September, a summons was heard before Mr. Hopkins against the owner for non-compliance with Notice of Council to put the drain into proper order and properly pave yard and forecourt at No. 25, Kildoran Road. Order made to do the work in 14 days		0 6	0
On 28th November, a summons was heard before Mr. Hopkins against the owner for non-compliance of Notice of Council to put drain, roof and water supply into proper order and condition at 147, Stockwell Road. Order made to do the work in 14 days		° 4	0
On 19th December, a summons was heard before Mr. Francis for non-compliance of Notice of Council to provide a proper water supply at 5, Broomgrove Road. Closing order made		0 4	0
Totals	£2 0 0	£9 12	0

N.B.-Eight other summonses were taken out, but afterwards withdrawn, the work having been carried out to the Council's satisfaction meanwhile.

1906.

CASES OF ILLNESS NOTIFIED FROM BOARD SCHOOLS, &c., TO MEDICAL OFFICER OF HEALTH.

SCHOOLS.		Measles.	Chicken Pox.	Whooping Cough.	Scarlet Fever.	Ringworm.	Mumps.	Diphtheria.	Typhoid.	Eczema.	Blight.	Itch.	Erysipelas.	Influenza.	Ophthalmia.	Croup.	'Infect. Catarrh.	Scabies.	Consumption.	Glass Pox.	Tonsillitis.	TOTAL.
Archbishop Sumner's Addington Street Aristotle Road Beresford Street Cormont Road Church Street Church Street Cancell Road Corpus Christi, Brixton Hill Dulwich Hamlet Effra Parade Effra Parade Eden Road Grosvenor Terrace Gipsy Road Holy Trinity, Upper Tulse Hill Hazelrigge Road Hatfield Street Hatfield Street Hitherfield Road Heygate Street Johanna Street Jessop Road Jessop Road		2 2 3 40 3 40 3 37 9 9 2 5 9 9 2 5 9 9 40 10 26 866 122 544 2 5 9 9 2 5 9 5 3 7 10 10 10 10 10 10 10 10 10 10	1 3 2 8 8 14 6 29 27 14 12 14 9 12 30	I I I I I I I I I I I I I I	$\begin{array}{c} 2 \\ 3 \\ \cdots \\ 1 \\ 4 \\ 6 \\ 1 \\ \cdots \\ 4 \\ 8 \\ 2 \\ 3 \\ 1 \\ 6 \\ 1 \\ 16 \\ 2 \\ 3 \\ 10 \\ 14 \\ 8 \\ 5 \\ 3 \\ 5 \\ 5 \\ \cdots \\ 5 \\ 5 \\ \end{array}$	I 	3 1 10 43 7 38 1 43 7 38 1 15 1 4 13 3 1 7 142 10 3 1 4 1 4 3 3 1 1 1 5 1 4 3 3 1 1 1 5 1 4 3 3 1 1 1 4 3 3 1 1 1 4 3 3 1 1 1 4 3 1 1 1 1 4 3 1 1 1 1 1 1 1 1 1 1 1 1 1		···· ··· ··· ··· ··· ··· ··· ··· ··· ·	···· ··· ··· ··· ··· ··· ··· ··· ··· ·	···· ··· ··· ··· ··· ··· ··· ··		······································	······································	···· ··· ··· ··· ··· ··· ··· ··· ··· ·	······································	··· I ··· ··· ··· ··· ··· ··· ··· ··· ··	···· ··· ··· ··· ··· ··· ··· ··· ··· ·	···· ··· ··· ··· ··· ··· ··· ··· ··· ·	······································		$\begin{array}{c} 17\\ 16\\ 3\\ 5\\ 34\\ 129\\ 96\\ 53\\ 37\\ 14\\ 172\\ 34\\ 2\\ 71\\ 126\\ 46\\ 17\\ 69\\ 316\\ 70\\ 30\\ 3\\ 84\\ 89\\ 61\\ \end{array}$
Larkhall Lane Lingham Street Leipsic Road Lyham Road	··· ··	55	···· 3 ····	 5 19	1 33 1 14	 17 48	34 37	 19 9	···· ····	 2 1	••••				 I	 I	···· ····	 2	···· ····	···· ···	···· ····	2 168 1 154

Lollard Street			37	6 3	1 5	12	1 4	3	3	1	4	4	1					2				73
Marlboro' Street			I I		1							T										2
New Road			IO I				I	I			2				I						***	16
New Park Road			8		1											***				••••		
Priory Grove			10.00 Million		23	27				•••		••••	***		••••						•••	9
Rosendale Road				39			9	2	•••	1							***		***			155
St Mark's Qual		••••			5	5	150		1.4.4							I		3		* * *		345
Ct Manu's Taulath D 1			28 2	13	3	9	19	4						***	I					* * *		79
Ct And IT 1 11			21					17									7					45
			7 4	6	2	5	2	I	I	6		2	I		4							41
St. Saviour's, Herne Hill			2		1	I	23	I														28
St. Michael's, Halstead Street			47 11	24	II	I	II	2		3												IIO
St. Paul, Gye Street			113 2	3	22	22	104	3		I	19				4			2			+	295
St. John's, Exton Street			20 4	34	6	2	1	I	2		I		2									73
St. Barnabus, Devonshire Road			8 3	2	2		I															16
St. Stephen's, Dorset Road			23		6	2	20					•••						***			1000	
St. John's, Warham Street					I	-			***		•••	***							•••		•••	51
St. John's, Canterbury Road							6	••••					•••					I				2
St. Matthew's, Camberwell New F	Load		44 5	3	***	••••			***					I						***	***	59
St. Matthew's, Church Road			8 60		I			***			***.				***				***			3
St. Andrew's, Roupell Street	•••			4																•••	***	72
St. Judo's Deilter De 1			I	24	2	2	***										i.e.					29
St. Jude's, Railton Road			3 19	3	19	9	27	I		·		I				***				2		84
St. James', Regency Square			1								***											ICO
St. Mary-the-less, Prince's Road					3	I	30				2		2					I		***		39
St. Patrick's, Stamford Street			7	1.00	3																	IO
St. Peter's, Vauxhall			60 6	2	19	9	14	3		I					12				I		5	132
South Lambeth Road			24 10	20	2	13	48	I														118
Santley Street			62 7	2	13	20	24	1												I		130
Salter's Hill			2 3	33	6	13	5	6							I							60
Sussex Road			7 17	36	13	5	8	4		3	3									2		98
Stockwell Practising, Stockwell R	oad		10 13		11		15	2		-			••									1
Stockwell Road			99 14	17	18	14	41	-				**				***					•••	51
Tenison Street, Battersea			10 - 1	1	I	1		1			•••	•••										210
Unner Konnington Lana	••••	***	HT		1 2 2 1		···· 6 x		***												***	I
Trank II Co.			71 11	10	3	I	61	16								I		***				174
Walnut Tree W 11		***	79 8		30	9	29	18		I	19	I					***	2	***	I		205
117' , I C.			18 20	4	6	3	23	I		I					I							77
Wirtemburg Street	•••		· · · · ·																			2
Wycliffe Street, Battersea					2	I	I															2
Waterloo Road			14 3		3	3	Ι	2														26
Westminster Bridge Road			I 7		4	I	4	4														21
Woodland Road			I		II	4		2														18
West Square			4 5		5	2																16
		-																				
TOTAL		I	581 522	485	497	351	1099	180	9	23	55	8	6	4	28	8	IO	25	2	8	6	4907
												-										1301

			ALL CAUSES.	PrincipleEpidemic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Pyrexia† (Origin uncertain.)	Diarrhœa.	Phthisis.	Deaths under I year to 1000 Births.
COUNTY OF LONDON			15.1	1.93		0.41	0.11	0.12	0 26		0.05	0.00	0 94	I.44	131
WEST. Paddington Kensington Hammersmith Fulham Chelsea City of Westminster	···· ··· ···	··· ··· ···	12.5 13.8 14.8 13.7 15.7 12.9	1.30 1.56 2.13 2.40 2.03 0.84	11111	0.11 0.45 0.47 0.33 0.78 0.10	0'12 0'6 0'12 0'11 0'12 0 08	0°10 0°11 0°22 0°20 0°20 0°20	0.08 0.11 0.16 0.19 0.23 0.13	11111	0.05 0.03 0.07 0.08 	10.0	0.84 0.80 1.09 1.49 0.70 0.40	1.12 1.27 1.25 1.13 1.57 1.39	105 132 138 134 133 110
North. St. Marylebone Hampstead St. Pancras slington Stoke Newington Hackney	···· ··· ···	···· ··· ···	14.9 9.4 15.9 14.7 11.5 13.3	1·2 ³ 0·57 1·65 1·62 1·10 1·58	11111	0.37 0.11 0.41 0.56 0.21 0.28	0'11 0'06 0'14 0'11 0'02 0'10	0.09 0.09 0.10 0.09 0.08 0.09	0.09 0.02 0.30 0.22 0.32 0.17	11111	0.02 0.03 0.06 0.06 0.06		0.60 0.26 0.64 0.58 0.47 0.88	1.56 0.67 1.81 1.23 1.04 1.30	117 77 123 124 102 119

DEATH-RATES (CORRECTED) IN METROPOLITAN BOROUGHS DURING 1906 PER 1000 PERSONS LIVING.

30

CEN	TRAL.										2					
CEN	IRALA															
Holborn		 	 18.0	1.44		0.45	0.02	0.11	0.18		0.05		0.63	2.37	120	
Finsbury		 	 20.7	3'59		1.27	0.12	0.24	0.20	-	0.14	-	1.23	2.18	160	
City of London		 	 17.3	1.08		0.14	0.33	0.03	0.19		0.02	-	0.58	1.24	101	
EA	ST.															
Shoreditch		 	 10.6	3.13	-	0.65	0.16	0.13	0.53		0.04	_	1.62	2.01	163	
Bethnal Green		 	 18.9	2.55		0.46	0.17	0.12	0.48		O'II		1.18	2.25	155	
Stepney		 	 17.7	2.74		0.57	0.12	0.50	0.34		0.08		1.43	1.72	134	
Poplar		 	 17.6	2:95		0.63	0.08	0.10	0.31		0.00		1.21	1.55	152	
Sot	лтн.															
Southwark		 	 181	2.23		0.46	0.22	0.12	0.26		0.06	_	1.08	2 06	144	39
Bermondsey		 	 197	2.94		073	0.23	0.26	0.40		0.03		1.20	2.01	153	
Lambeth		 	 150	1.69		0.24	0.00	0.10	0'23	_	0.07	0.00	0.00	1.37	131	
Battersea		 	 13:4	1.82	-	0.23	0.13	010	0 44		0.04	_	0.88	1.28	126	
Wandsworth		 	 12.8	1.60		0.24	0.07	0.18	0.22		0.06		0.83	1.01	121	
Camberwell		 	 14.6	1.88		0'41	0.00	0.12	0.28		0.02		0.00	1.26	130	
Deptford		 	 16.1	2.69		0.60	0.13	0.12	0.54		0.05	-	1.20	1.28	143	
Greenwich		 	 13.5	1.87		0.29	0.16	0.28	0.40		0.05	-	0.69	1.10	119	
Lewisham		 	 12.0	1.45		014	0.00	0.14	0.18	_	001	0.01	0.88	0.82	113	
Woolwich		 	 13.1	1.52	-	0.24	0.04	0'17	0.12	_	007	_	0.83	1.33	100	

N.B.--o'oo indicates that the deaths were too few to give a rate of o'oo5; where no death occurred, -- is inserted.

† Called Simple Continued Fever previous to 1901. The above table is taken from the Registrar General's Annual Summary, and the rates for Lambeth Borough differ slightly from those given in this Report.

Home Office.

METROPOLITAN BOROUGH OF LAMBETH, 1906.

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES AND HOMEWORK.

I.-INSPECTION.

Including Inspections made by Sanitary Inspectors.

n .		Number of					
Premises.	Inspec- tions,	Written Notices,	Prose- cutions.				
Factories (Including Factory Laundries.)	 9	1					
Workshops (Including Workshop Laundries.)	 940	} 647					
Workplaces							
Homeworkers' Premises	 181]					
Total	 	647					

	T		-	
2	1351	PPATE	H O	TTRITE
1000	1 21	FECTS	1.0	UND.

Particulars.	Nui	nber of D	efects	Number of Pro-
	Found.	Remedied	Referred to H.M. Inspector	secutions
Nuisances under the Public Health Acts* :		1		
Want of Cleanliness	295	295		
Want of Ventilation	13	13		
Overcrowding	20	20		
Want of drainage of floors				
Other nuisances	475	475		
Sanitary (insufficient				
accommodations (unsuitable or defective)	479	479		
(not separate for sexes	14	14		
Offences under the Factory and Workshop Act:—				
Illegal occupation of underground bake- house (S. 101)				
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)				
Failure as regard lists of outworkers (S. 107)				
Giving out work to be (unwholesome (S. done in premises (108)				
which are (infected (S. 110)				
Allowing wearing apparel to be made in				
premises infected by scarlet fever or smallpox (S. 109)				
Other offences				
Total	1,296	1,296		

* Including those specified in Sections 2, 3, 7 and 8, of the Factory Act as remediable under the Public Health Acts.

3. Other Matters.

	Class.					Nun	nber.
Matters notified to H.I Failure to affix Act (S. 133)				Work	shop		27
Action taken in ma by H.M. Inspect able under the	ors as remedi-	lotified	by H.M	l. Insp	ector		47
Acts, but not Factory Act (S.	under the F		(of act o H.M.				47
Other							
Underground Bakehou In use during 190	5					-	72
Certificates grante	d { in 1905						***
In use at end of I	906						72
						Numb	er of
Homework :—						Lists.	Out- workers
List of Outworker Lists received						35	309
Addresses of ou	tworkers {torwa	urded to zed from	o other A	Author	rities	50 181	175 632
						Wearing Apparel.	Other.
Homework in unu Notices prohibi (S. 108)	<i>pholesome or infec</i> ting homework i				nises		
	ctious disease n	otified	in hon	newor	kers	8	
Orders prohibiti	ing homework in	infected	l premis	ses (S.	110)		
Workshops on the Re	gister (S. 131) at	the end	l of 190	6:			
		j Un	dergrou	ind		-	72
	Bakehouses	Ab	ove grou	und		I	35
	Restaurants					2.	43
	Other Works	hops				13	37

SHOT TOWER WHARF DESTRUCTOR-CITY OF WESTMINSTER.

(Special Report presented to the Council on Jan. 18th, 1906.)

The Dust Destructor belonging to the City of Westminster, and situated at Shot Tower Wharf, Commercial Road, was formally opened for work on November 7th, 1900. The Destructor is of the Horsfall type, and was erected by the Horsfall Furnace Syndicate, Ltd., of Leeds and London. It has six back-to-back cells or furnaces, to treat 12 tons of refuse per cell per day, with a maximum residue of 33 per cent. in weight. The refuse is tipped directly into the cells or furnaces from the carts or vans through cone-shaped hoppers (fitted with covers), which hold several loads of refuse each; and so the refuse does not require to be stored, or handled, in any way previous to burning. The stoking is done from below on a clinkering floor, which is unfortunately situated underneath the ground level. The hot clinker (as it is formed) is removed, at once, away by means of a single overhead railway carried round the furnaces, and furnished with clinker trucks of steel, with a hoist to convey the trucks (when filled) from the clinkering floor to the level of the Wharf, and so by means of another overhead railway to the jetty at the end of the Wharf, where the barges are moored.

The advantages of the Horsfall type of Destructor may be summarised in the words of the Special Report, published in 1898 by Lord Kelvin and Prof. Barr, as the maintenance of high glowing temperatures from energetic combustion, both inside the fires themselves and in the walls of the flues, temperatures which are assisted and increased by the production of forced draughts (on the plenum system) by means of steam jets—the blast air, on its way to the grates, passing through, and being heated in, flue boxes specially built at the sides of the furnaces. There is only a small chimney draught. The products of combustion from each cell discharge into one main flue and pass through a circular centrifugal dustcollector or catcher, before passing on to the boilers, and thence out into the outside air. The charging holes of the cells are placed at the backs, and the flues for the emission

0

of gaseous products in the fronts, of the furnaces, so that any gases given off from the raw material, with which the cells are fed, have to pass over the hottest portions of the fires, and so complete combustion is ensured.

The Shot Tower Destructor is the most recently erected Destructor of the Horsfall Company, and, consequently, in construction and planning, contains all the most recent improvements. As originally designed the Destructor did not work in practice as satisfactorily as was prophesied, and within a few weeks of being opened and worked, caused a serious nuisance to the neighbourhood-unburnt, or insufficiently burnt, gases, etc., escaping from the chimney shaft into the air. A memorial (signed by 48 persons) was received by the Lambeth Borough Council, and a summons was, on May 30th, 1901, ordered by the Council to be taken out unless the nuisance (complained of) was abated to the satisfaction of the Council's Medical Officer of Health, who, in connection therewith, made many visits and inspections. The result was that many important alterations and improvements in connection with the Destructor plant were suggested, and carried out, as follows :---

- The hopper covers over the feed-holes, which were previously narrowed to be fitted into 3-in. water seals (automatically fed with water), so as to prevent the escape of fumes and smoke during, cr after, the process of feeding;
- (2) Instructions to be given for the red-hot clinker to be at once removed to the jetty at the end of the Wharf without being first cooled down by water near the furnace doors—thereby avoiding the formation of "water gas";
- (3) Iron or steel barges to be provided instead of wooden barges, so that the hot clinker could be at once tipped without being previously cooled down;
- (4) The clinkering floor, which is unfortunately below ground, to be better ventilated;
- (5) The different cells to be more regularly fed, and kept fed, and the fires to be stoked regularly and

systematically (at stated intervals), and, for this purpose, such sufficient and suitable supplementary plant to be provided as necessary;

- (6) The chimney (90ft. high and 4ft. 6ins. internal diameter) to be raised, if necessary, so as to improve the draught in the main flue;
- (7) The furnace doors to be made to automatically shut off the forced draughts when such doors are opened for the purpose of clinkering and stoking the fires;
- (8) The flues underground to be re-modelled and rebuilt, so as to efficiently dam back the ground water.

In view of these important structural and other alterations, and having regard to the fact that the Destructor was only opened in November, 1900, and had not, consequently, been in continuous uninterrupted working for a lengthened period, the Lambeth Borough Council, on July 25th, 1901, decided to give the City of Westminster Corporation reasonable time in which to get the Destructor into proper order and condition.

A further Report was presented to, and approved by, the Borough Council on February 10th, 1902, stating that there was apparently a great improvement in connection with the working of the Destructor — a satisfactory condition of affairs that was practically maintained during 1902-4—as shown by the absence of complaints.

During 1905, up to date, complaints have again been frequent in respect of the nuisance from the Destructor, and further investigations and inquiries have been carried out, with the result that the present nuisance appears to be due entirely to mismanagement.

Putting aside all sentiment in connection with the erection of Destructors, I am satisfied that the Destructor, as originally planned and constructed (and since improved), at Shot Tower Wharf, need not cause a nuisance in practical working if carefully managed, *e.g.*, by the cells being regularly and systematically fed, and kept fed, day and nighteach cell being charged and clinkered in rotation. The amount of refuse guaranteed to be burnt, viz., 12 tons per cell per day, is, in my opinion, too large an estimate, and the City Corporation of Westminster will have to be satisfied with a smaller amount of work per cell. I have satisfied myself, from personal observations, that endeavours have been made hitherto to overwork the cells, whilst their feeding has been most irregular and spasmodic, due principally to the irregular manner and the insufficient amount in which the refuse is brought to the Wharf.

I have suggested to the City Corporation of Westminster that, in view of the apparent mismanagement of the Destructor by their officials, it might be of advantage to allow the Horsfall Destructor Company to take over the management for a trial period of (say) three months. I am satisfied that care in management is all that is required to abate the nuisance.

It is unfortunate that the clinkering floor is underground, and it is equally unfortunate that the land on which the Destructor is built, and in which the flues are buried, is water-logged, making it extremely difficult to dam back the water from the flues and foundations.

Given a properly constructed and equipped plant, a Destructor (if also properly administered) causes no nuisance—even in a populous district. The Shot Tower Destructor should, in my opinion, form no exception to such a sanitary rule.

Previously, the refuse was deposited, sorted, and barged —a condition of affairs causing a serious nuisance from time to time.

The original contract for the Destructor plant was $\pounds_{10,241}$, and this sum has been largely added to in consequence of the important alterations and additions that have since been carried out.

The Destructor is daily under observation by the Inspector.

JOSEPH PRIESTLEY.

October 16th, 1905.

SULPHUR IMPURITIES IN GAS.

(Special Report presented to the Council on March 15th, 1906.)

Illuminating gas is obtained by the destructive distillation of coal in retorts, without access of air. Coke is produced and various volatile products are given off, e.g., compounds of carbon and hydrogen, of carbon and oxygen, of carbon and sulphur, of sulphur and oxygen, of sulphur and hydrogen, and of nitrogen and hydrogen; whilst tar and an ammoniacal liquor are also produced. The gases are purified at the Gas Works first by condensation and washing, then by being passed through coke scrubbers and iron purifiers, and afterwards being treated with lime. In this way, sulphur and ammonia compounds are separated out, and got rid of-at least, in great part. When properly purified, coal gas should contain on an average :---hydrogen, 45 per cent.; marsh gas, 35 per cent.; carbonic oxide, 6 per cent.; illuminants (ethylene, acetylene), 6 per cent.; carbonic acid, 3 per cent.; nitrogen and sulphurous acid, etc., 5 per cent.

The sulphur compounds (chief of which are sulphurous and sulphuric acids) are the principal impurities of gas. Sulphurous and sulphuric acids have a very destructive effect on vegetation, mortar, and the softer kinds of building stones. They do not appear to have any known marked effect on healthy people, but the sulphurous acid is a source of danger to persons with weak or diseased lungs, *e.g.*, those suffering from asthma, bronchitis, consumption, etc.

Sulphuretted hydrogen (a compound of sulphur and hydrogen) is poisonous, and, consequently, a danger to the health of persons inhaling it. It is met with in badly purified coal gas, requiring special precautionary measures to be taken by Gas Companies. When inhaled, it depresses vitality, and is specially obnoxious to infant life. In this connection it will be noted that recent Acts dealing with sulphur impurities in gas only impose penalties upon Gas Compunies producing gas which contains sulphuretted hydrogen as an impurity—other sulphur compounds being apparently now disregarded as dangers to health (*vide* South Suburban Gas Act, 1905, section 2, and the London Gas Act, 1905, sections 5 and 7).

Under these circumstances I am unable to recommend any action being taken under the Public Health Acts with regard to sulphur impurities generally in gas, excepting, of course, sulphuretted hydrogen.

JOSEPH PRIESTLEY.

February 19th, 1906.

SITES FOR ERECTION OF WORKING CLASS DWELLINGS.

(Special Report presented to the Council on March 15th, 1906.)

I have considered the reference to the Public Health Committee from the Housing Committee (dated November 16th, 1905), and am of opinion that there is no insanitary area in the Inner Wards of Lambeth Borough which I could, conscientiously, advise the Council to condemn, and clear, as a whole, under the Housing of the Working Classes Acts, with a view to working-class dwellings being erected on the cleared site. In my opinion, as Medical Officer of Health, and with a special local experience of 10 years, area condemnation as opposed to house condemnation is, as far as Lambeth Borough is concerned, undesirable, and unnecessary-not only for financial reasons but also from the point of view of efficient sanitary administration. I am of opinion, however, that systematic house-to-house inspections are most desirable, especially in the inner wards of the borough, so that all houses may be gradually levelled, and kept up to a fair and proper sanitary standard, and any individual houses, which may be found to be sanitarily unfit, dealt with under the Public Health Acts, or condemned under the Housing Acts, as may be required, with a view to them being put into proper order and condition, and so rendered fit for human habitation. To secure this, systematic houseto-house inspection is merely a question of the number of sanitary inspectors to be employed.

When a Sanitary Authority (e.g., Lambeth Borough Council) decides to take action under the Housing of the Working Classes Acts, there are practically two ways of doing so. The Medical Officer of Health may condemn (or, in the words of the Acts, *represent*) on the ground of danger to health,

- (1) a large or small sized area; or
- (2) an individual house.

The former course (*i.e.*, condemning large or small sized areas) displaces large numbers of persons on account of

houses being pulled down, and, in course of time, rebuilt on improved lines, but at a very considerable financial cost to ratepayers (compensation and otherwise). As a rule, all the houses within a condemned area are closed and pulled down —good, bad and indifferent, sanitarily. Further, such action is officially and legally dilatory, and leads to inspectorial neglect, with the result that dilapidated and insanitary houses become more and more dilapidated and insanitary, and matters pass from bad to worse. The London County Council deals with large or small sized condemned areas under Part I. of the 1890 Act, provided no such small sized area contain 10 or less houses.

The latter course (*i.e.*, condemning individual houses) avoids the displacement of persons, and throws any financial cost involved upon the owner or owners concerned. By this method only really insanitary houses need be condemned. Further, action in this way is officially and legally less dilatory than in the former case, and has recently been rendered more expeditious by the new amending Housing Act. The Lambeth Borough Council deals with individual house condemnation under Part II. of the 1890 Act, and is empowered also, under the same part of the Act, to deal with a collection of houses not exceeding 10 in number.

Individual house condemnation under the Housing Acts has proved most satisfactory in Lambeth Borough for the past 10 years, during which I have had the honour of being Medical Officer of Health. Local knowledge of the amount of congestion and crowding (whether of houses over areas, or of persons in houses) has always made it desirable to avoid, in Lambeth, the necessary wholesale displacing of persons consequent upon the clearing of an area (large or small). Such area condemnation simply tends, by the displacement of persons, to increase the congestion or crowding in other immediately neighbouring parts, and so to create, by means of one Act of Parliament (the Housing, Act) serious nuisances, which it then becomes the duty of a Sanitary Authority to abate by the powers invested in them under another Act of Parliament (the Public Health Act). Indeed, experience shews that, where an area (large or small) is cleared on account of its so-called slumminess, neighbouring properties, which were previously (considering all things) passable, are apt to become rookeries, requiring, in their turn, to be dealt with. It is common knowledge

that, amongst the persons displaced, there are those who must live in the immediate neighbourhood, so as to be near their work, which may be of a casual or irregular kind, or for other equally cogent reasons, and they necessarily tend to still more crowd and overcrowd, and so perpetuate all the evils (sanitary and moral) attendant thereon. As houses become scarce, rents increase, and over-crowding, consequently, results from the sub-letting of rooms. In this way, the difficulty is not overcome, but simply transferred from one district to another, or from one house to another, and so the continuity of the vicious circle is ensured. In view of the well-known fact that, in the Inner Wards of Lambeth, house accommodation (good or bad) for the poorer classes is already scarce, the Council would be advised to pause before deciding to take steps with a view to closing an area or areas, thereby accentuating the housing difficulty.

The method adopted in Lambeth, and approved by the late Vestry on January 18th, 1900 (vide Minutes 1900, p. 22), has been to deal with houses, singly or in the form of courts or streets, and condemn them, as required, under Part II. of the Housing of the Working Classes Act, 1890, as unfit for human habitation, on account of the premises being dirty, damp, dilapidated, badly constructed, ill planned, defective in drains and sanitary appliances, insufficiently provided with water or w.c. accommodation, deficient in light and ventilation, generally worn out, etc. Displacement of persons has been, in this way, avoided.

The result of these condemnations has been that the houses in question have been put into proper order and condition to the satisfaction of the Lambeth Sanitary Authority. In a few instances, the conditions found have been such that the houses could not be rendered fit for human habitation; they have been, consequently, closed and demolished, *e.g.*, Chartley Place, Lower Marsh (11 houses); Commercial Buildings, Belvedere Road (10 houses); Fountain, Francis and Paved Courts, Lambeth Walk (27 houses); Le Grand Place, Waterloo Road (24 houses); Isabella Row, Whitehart Street (10 houses); Windmill Court, New Cut (3 houses); Queen's Place, Newburn Street (6 houses); Eden Cottages, St. Gothard's Road, West Norwood (2 houses); Park Cottages, New Park Road (2 houses); 101-103 Lambeth Road (2 houses); etc., etc.

As against these comparatively few instances, a tabular statement could be given of hundreds of houses that, during the same period, have been levelled up to a fair and proper sanitary standard-not only in the Inner, but also in the Outer, Wards of the Borough. This has been accomplished by systematic house - to - house inspection (as far as the size of the Sanitary Staff would allow, followed by the service of notices, under both the Housing and Public Health Acts. Large amounts of money have been spent by the different owners concerned; in fact, owners have been compelled to improve their own insanitary properties-a most desirable condition of things, and one to be preferred to owners being offered a premium for slum property, as is apt to be the case where a Sanitary Authority compulsorily purchases such property with a view to clearing an area under the Housing Acts.

Even when model dwellings are erected, on the cleared site, it does not follow that the displaced tenants will occupy them. Experience teaches the reverse.

The owners under Part II. of the Housing Acts, 1890, are freeholders, or, at least, lease-holders who have not less than 21 years' interest; and they naturally desire to render their condemned houses fit for human habitation, and not to close them, thereby avoiding even a small amount of displacement of tenants.

It must be remembered that the Housing Acts need only be put into motion in exceptional cases. In the larger (by far) majority of cases, it is found to be sufficient to proceed under the Public Health Act, which also enables the Sanitary Authority (if necessary) to apply for closing orders in connection with houses unfit for human habitation by reason of the existence therein of ordinary nuisances mentioned in that Act-such ordinary nuisances as are met with in houseto-house inspections. Taking the averages since I have been Medical Officer of Health, there have been served yearly, under the Public Health (London) Act, 1891, 10,722 Notices, as compared with 32 Notices only, under the Housing of the Working Classes Act of 1890-the former dealing with averages of 9,485 structural, and 2,347 non-structural defects (11,832 total), rendering the premises, more or less, unfit for habitation, and the latter with an average of 32 houses, which were generally in such a dirty, damp, dilapidated and insanitary state as to be quite unfit for human habitation, in their then conditions. All the yearly notices served under the Public Health (London) Act, 1891, have been complied with, and the 11,832 defects (to which the Notices refer) made good; whilst the yearly 32 houses condemned under the Housing Acts, have been rendered fit for human habitation (in few instances only being closed and demolished).

Before leaving the subject of area condemnation, mention may be made of the so-called *unavoidable displacements* connected with railway extensions, improvement schemes, increase of business premises (factories, workshops, etc.) such as are going on in the most northerly parts of the Borough (Marsh Ward, etc.). The difficulties connected with the displacement of persons is well exemplified, and should prevent the Council from adding to such difficulties by area condemnations under the Housing Acts.

In the past, the late Vestry has done well to insist upon a *pro ratâ* amount of suitable accommodation in the neighbourhood being provided *before any unavoidable displacement of persons is allowed to take place*, and that the displaced tenants should have the first refusal of the new rooms which are to be let at (or about) the same rents as the old ones. This is a counsel of perfection—somewhat difficult to accomplish in practice, and one that has not been carried out in London in the past.

In conclusion, I may be allowed to remind the Council that they now, by the Amendment Housing Act, 1900, have powers, concurrently with the London County Council, to adopt and carry out Part III. of the Housing Act, 1890 (workmen's dwellings or lodging houses) *outside* their district, as well as *inside*.

JOSEPH PRIESTLEY.

January 22nd, 1906.

5,000 BACTERIOLOGICAL EXAMINATIONS MADE IN THE LAMBETH BOROUGH LABORATORY.

(Special Report presented to the Council on March 29th, 1906.)

The Bacteriological Laboratory was established in 1899, and, since that date, a total of 5,000 Bacteriological Examinations have been conducted therein, in connection with the following specimens :—

(a) Sputa (suspected Consumption)	1190
(b) Bloods (suspected Typhoid Fever)	575
(c) Throat and Nose Membranes and Dis-	
charges (suspected Diphtheria)	3188
(d) Other Materials, e.g., Milks, Ice Creams,	
Urines, Tumours, Pus, Crusts from	
Skin Disease, Ham, etc	47
Total	5000

The number of examinations made each year are as follows :--

Year.	No. of Exams.				Year.	No. of Exams.		
1899				389	1903	· · · ·		525
1900				703	1904			447
1901				479	1905			1874
1902				466	1906 (up to	o Ma	rch)	1179
			То	tal			5	000

These numbers shew a yearly average of 700, or a daily average of 2, examinations carried out up to date at the Laboratory since its establishment in 1899, and justify the late Vestry, and the present Borough Council, in having established locally, and maintained, for the sole use of Lambeth, such an Institution, without which no Sanitary Authority is properly equipped for battling against infectious disease outbreaks. The great value of bacteriological examinations in doubtful cases of infectious disease is now universally acknowledged, and there can be no doubt as to the good that has accrued to Lambeth. In this connection may be mentioned the following particulars (amongst others):---

- The concurrent decrease in the Diphtheria-rate since the establishment of the Laboratory, viz., from 438 deaths during 1894—1899 to 160 deaths during 1900—1905 per million living, *i.e.*, an average saving of 80 deaths yearly.
- (2) The stamping out of an outbreak of Typhoid Fever on the Springfield Estate, Wandsworth Road, during 1899—1900.
 - (3) The stamping out of Diphtheria and Pseudo-Diphtheria outbreaks in connection with the City of London Schools (Ferndale Road) and the Lambeth Parochial Schools (West Norwood), in 1900 and 1905 respectively.
 - (4) The success of the preventive measures taken in connection with the spread of Consumption in 1902-5, owing to the greater precision in the diagnosis of the disease.

The Laboratory has also been of great service to the medical men practising within the Borough—the *local* and *central* position being, in this respect, specially advantageous, enabling the results to be quickly obtained, and at a *minimum* cost (the up-keep of the Laboratory being under \pounds 50 yearly). Further, the Medical Officer, being the Director of the Laboratory, is directly responsible to the Council for its management and efficiency, thereby ensuring trustworthy results.

The value of a bacteriological examination is as an aid to diagnosis: it cannot take the place of a clinical examination. There are, however, certain cases of infectious disease, which, by virtue of the mildness or apparent absence of clinical symptoms, are extremely difficult, if not impossible, to diagnose without the help of bacteriology, and in such cases the laboratory has been found invaluable. Mild cases of Typhoid Fever and Diphtheria have, in this way, been discovered, and the patients isolated, and other measures taken, thereby preventing the spread of these diseases. The results obtained from the bacteriological examinations of the 5,000 specimens are as follows :---

	Specific bacilli found or reactions obtained.				
	Yes.	No.	Totals.		
Sputa Bloods Throat and Nose Membranes and	416 234	774 341	1190 575		
Discharges Other Materials— Milks, 19 Ice Creams, 6	433	2755	3188		
Urines, 10 Pus, 3 Tumours, etc., 9	29	18	47		
	Total		. 5000		

Tuberculosis.

1,190 samples of sputa from doubtful Tuberculosis (Consumption) cases have been examined, and in 416 (*i.e.*, 35 per cent.) the *bacillus tuberculosis* has been found. In many of these cases, the clinical symptoms of Consumption were conspicuous by their absence, and the fact that *bacilli tuberculosis* were discovered shewed that the patient's suffering were in the early stages of the disease, when sanatorium treatment was most likely to prove successful. Several of the cases, after open air treatment for lengthened periods (6 to 9 months), failed to show, after repeated examinations, the presence of *bacilli tuberculosis*, thereby pointing to the disease having, in all probability, been arrested.

The large number of samples of sputa submitted is explained by the fact that the Council on June 1st, 1902, made Consumption (with tuberculous expectorations) a voluntary notifiable disease throughout the Borough.

Typhoid Fever.

575 samples of blood from suspected Typhoid Fever cases have been examined, and in 234 (*i.e.*, $40^{\circ}7$ per cent.) the

characteristic Widal reaction has been obtained. This reaction consists of the cessation of movement and the agglutination (or clumping) of the Eberth-Gaffky bacilli of Typhoid Fever (bacilli typhosus), when treated with a drop of serum, or blood, taken from a patient actually suffering at the time, or previously having suffered, from the disease. The typhoid antitoxin (naturally formed in the blood of persons infected with the disease) causes this reaction-a high dilution of the blood serum $\left(\frac{1}{60} \text{ to } \frac{1}{100}\right)$ being necessary. In 63 samples (i.e., 26.9 per cent.) the Widal reaction was but slightly or feebly marked, but, in these instances, the afterhistories of the cases shewed that the patients were, in all probability, suffering from Para-Typhoid Fever, which affects (chiefly) young adults, and the symptoms of which resemble closely those of Typhoid Fever, though less severe, as a rule. Para-Typhoid Fever is due to what is known as the Para-Typhoid bacillus-a bacillus (with many varieties) closely related to the bacillus typhosus.

The great value of this aid to diagnosis in Typhoid Fever has been specially proved in connection with an outbreak of Typhoid Fever that occurred on the Springfield Estate, Wandsworth Road, in 1899—1900, many doubtful cases having been discovered by this means, afterwards isolated in hospital, and the further spread of the disease thereby prevented. In several instances, the well-known clinical symptoms of the disease were entirely absent, and the diagnosis of the cases could only be made by means of the bacteriological test.

Diphtheria.

3,188 samples of throat or nose membranes and secretions from doubtful Diphtheria cases have been examined, and in 433 (*i.e.*, 15'7 per cent.) Klebs-Loeffler Diphtheria bacilli have been obtained. In this way, on the one hand, patients suffering from true Diphtheria have been isolated in hospital, as required, and the necessary precautions taken to prevent the extension of the disease, whilst, on the other hand, patients suffering from doubtful Diphtheria have not been sent to the hospital and thereby run the risk (an actual one at times) of contracting the true disease whilst there. Again, there are infectious throats other than diphtheritic, and by means of bacteriological examinations such throats have been found at times to be associated with the pseudo-

bacilli of Hoffman. These pseudo-cases have been in this way discovered and isolated, and the disease prevented thereby from spreading from person to person. There is still doubt as to the true significance of the presence of these pseudo-bacilli of Hoffman, it being held by some that they are apt to develop into the Klebs-Loeffler Diphtheria bacilli or vice-versa under certain favourable conditions-a view which has received apparent confirmation in connection with two outbreaks of Sore-throats at two large schools in the Borough of Lambeth. The first outbreak occurred in 1900-1901, and out of a total of 137 scholars, bacteriological examinations shewed the presence of Kleb-Loeffler Diphtheria bacilli in four, and the pseudo-bacilli of Hoffman in 38. The four cases of Diphtheria were at once sent to hospital, whilst the 38 pseudo-patients were isolated in the infirmary belonging to the school, but distinct and away from the main building, and not allowed to return to the main building until successive bacteriological examinations of their throats and noses failed to shew the presence of the pseudobacilli of Hoffman. It is interesting to note that Klebs-Loeffler Diphtheria bacilli were obtained from the slimy deposits in the waste pipes of the lavatory basins in the dormitories, and in the outlets of the open rectangular troughs beneath the basins.

The other outbreak was connected with a school of 600 children, of whom 64 shewed in their throats and noses the presence of the Klebs-Loeffler Diphtheria bacilli, whilst 176 shewed the presence of the pseudo-bacilli of Hoffman. The 64 cases of Diphtheria were at once sent to hospital, whilst the 176 pseudo-patients were isolated in the Special Isolation Block and Infirmary belonging the school, but distinct and away from the main building. In this case, as in the other, these pseudo-patients were not allowed to return to the main building of the school until successive bacteriological examinations of their throats and noses failed to shew the presence of the pseudo-bacilli. Vincent's organisms were also found in five cases — in two, in pure cultivation, and, in three, in conjunction with Klebs Lœffler bacilli.

Necessary disinfection was carried out as required.

In both instances, the results justified the means taken, as the outbreaks of Diphtheria and pseudo-Diphtheria have been successfully stamped out. There can be but little
doubt that pseudo-throats form a suitable breeding ground upon which true Diphtheria bacilli may, at any time, become engrafted and spread rapidly, whilst it may even be that, at times, the pseudo-bacilli change into the true Klebs-Loeffler bacilli, or *vice-versâ*. This being the case, it is safest to regard these pseudo-throats as infectious, and to have the patients isolated—a view that is now taken by the Education Department of the London County Council.

In connection with the 3,188 examinations made of throat and nose membranes and discharges, full particulars were noted of the different bacilli found and cultivated. The Klebs-Loeffler bacillus was found in pure cultivation in 251 (*i.e.*, 58 per cent.), and combined with other well-known bacilli as follows :—

Klebs-Loeffler + Streptococci		 	60
Klebs-Loeffler + Staphylococci			64
Klebs-Loeffler + Staphylococci + S			23
Klebs-Loeffler + others		 	17
Klebs-Loeffler + Pseudo-bacilli		 	2
Klebs-Loeffler + Pseudo + others			13
Klebs-Loeffler + Vincent's organis	sms	 	3

In connection with the 2,755 cases in which the Klebs-Loeffler Diphtheria bacilli were not isolated, other bacilli were found as follows :---

Streptococci (pure cultivation)		220
Streptococci + others		30
Staphylococci (pure cultivation)		1099
Staphylococci + others		136
Streptococci + Staphylococci		566
Streptococci + Staphylococci + others		118
Pseudo-bacilli (Hoffman), pure cultivation		60
Pseudo-bacilli (Hoffman) + Staphylococci		271
Pseudo-bacilli (Hoffman) + Streptococci		75
Pseudo-bacilli (Hoffman) + Staphylococci +		15
Streptococci		76
Pseudo-bacilli + others		83
Same (and antitionalism)		
		3
Smegma + others	••••	3
Diplococci (pure cultivation)	+ * 5	Y
Micrococci (pure cultivation)		7
Torulæ (pure cultivation)	•••	3
Torulæ+Micrococci		2
Vincent's organisms		2

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Out of the total 3,188 cases examined, the pseudo-bacilli (Hoffman) were found in pure cultivation in 60 instances, and in two instances the pseudo-bacilli of Hoffman and the Klebs-Loeffler Diphtheria bacilli were found together.

Other Examinations.

47 bacteriological examinations have been carried out in connection with the following different materials submitted :

(1)	Urines: for the suspected presence of tubercle bacilli, gonococci, casts, etc	10
(2)	Ice Creams : for the suspected presence of bacillus coli	6
(3)	Milks : for quantative analysis as to the numbers of germs present	19
(4)	Pus: for the suspected presence of tubercle bacilli and Diphtheria bacilli	3
(5)	Tumours : for the suspected presence of anthrax, tubercle bacilli, or hydatids	4
(6)	Ham: for the suspected presence of trichina spiralis	I
(7)	Fœces: for the suspected presence of tubercle bacilli	I
(8)	Skin Crusts : for the suspected presence of achorion Schonleinii	3
		47

The details as to the examinations of the skin crusts is interesting, in that a skin disease, which had broken out amongst children living in a house in the Borough, was definitely traced to a similar skin disease infecting mice in the same house. Some of the mice were caught, and an examination of the skin crusts (left as the result of serious ulcerations of the skin), on their bodies, showed the presence of a parasitic fungus (the achorion Schonleinii), which was found also in connection with the crusts on the faces and arms of the children.

The milk examinations were carried out with a view of judging roughly of the cleanliness of the milk supply within the Borough, and different samples of milk from different districts were found to vary considerably in purity, varying from 50,000 to 5,000,000 bacteria per 100 c.c of milk—1 c.c. being equal to about 17 drops.

The samples of ice creams were examined for the purpose of discovering the presence of the *bacillus coli*, which is found as one of the normal inhabitants of the intestinal tract, and whose presence points to fæcal contamination of some of the ingredients used in the making of the ice creams. Of the six samples of ice cream examined, three were found to contain the *bacillus coli*.

Antitoxin.

The late Vestry decided on August 3rd, 1899 (vide Minutes, 1899, page 1283), to distribute gratuitously to medical men practising within the District, antitoxin, both for the treatment of Diphtheria and as a preventative or prophyllactic for use in the case of Diphtheria contacts. Up to date, a total of 527 vials have been distributed, each vial containing 2,000 units of antitoxin.

The value of antitoxin in the treatment of Diphtheria (early in the disease) is now an acknowledged fact, as also its use as a preventative, or prophyllactic, in the cases of persons who come into contact with the disease, e.g., nurses, children living in an infected house, etc. In this connection, the marked decrease in the Diphtheria deathrate in Lambeth during the past six years is worthy of note —such decrease being concurrent with the distribution of antitoxin throughout the district, and the systematic examining, bacteriologically, of doubtful nose and throat membranes and discharges.

JOSEPH PRIESTLEY.

March 1906.

INSPECTION AND EXAMINATION OF TINNED, CANNED, AND OTHERWISE PRESERVED FOODS.

(Special Report presented to the Council on July 12th, 1906.

There are many different kinds of tinned, canned and bottled hermetically-sealed preserved foods (meats, milk, vegetables, fruits, etc.) on sale throughout the Borough of Lambeth, and, speaking generally, such preserved foods are wholesome and fit for food, and a valuable addition, conquently, to the daily dietary of the inhabitants. The "turnover" is a large one daily, at least in connection with the large provision shops throughout the Borough, and care is at all times exercised by the managers to secure the well-known brands, and to see that only sound tins or cans, etc., of food are sold-the stocks being frequently replenished, and always carefully sorted for damaged or unsound ones. It may be that, in connection with the smaller shops in the poorer neighbourhoods, old stock is sometimes sold, in which case there may be, at times, a danger of the contents of the tins, cans, etc., being neither wholesome nor fit for food.

"Blown" Tins or Cans.

The commonest change met with in connection with tinned and canned foods is what is known in the trade as "blown" tins or cans, due to decomposition of the contents with the consequent formation of gases. A genuine "blown" tin or can is easily recognised by the bulging of the ends, and the contents of such a "blown" tin or can will, on examination, be found to be decomposed, and are, consequently, manifestly unfit for food. The unwholesomeness of the contents of these tins and cans is self-apparent to anyone-by smell and sight. A slightly "blown" tin or can is not so easy to recognise, and an expert is generally required for the purpose-such expert judging by the peculiar sound emitted on tapping the ends of the tins or cans with the finger tip. If any gas be present in the tin or can, a resonant note is produced as compared with a dull, or non-resonant, note which is emitted on tapping a sound or wholesome tin or can of

food. In connection with "blown" tins or cans, a trick in the trade is to prick holes in a "blown" tin or can, so as to allow of the escape of the pent-up gases, and to afterwards solder up such holes, selling the "faked" goods as genuine. These are known in the trade as "pricked" tins or cans. "Blown" tins or cans point to their contents being decomposed, and such contents should, in all cases, be rejected as food.

It is possible for the contents of a tin or can to be decomposed without such tin or can showing any sign of "blowing." In this case, the decomposition has taken place in the food before it is tinned, or canned, and antiseptics have been added thereto (also before tinning or canning) so as to arrest decomposition, and thereby prevent the formation of gases in the food when tinned or canned. The contents of these tins or cans are equally unwholesome and unfit for food, and should be rejected, for the reason that, though the antiseptics used may destroy, or arrest the growth of, the actual putrefaction or decomposition germs, the products (i.e., the ptomaines or enzymes or tox-albumens as they are generally called), to which the germs have given rise, would remain practically unaltered, and might cause acute poisoning (and death) in a susceptible subject, partaking of such infected food.

The same applies to pierced tins or cans, allowing of the access of air, which causes decomposition or putrefactive changes in the contents of such tins or cans.

Again, there is no doubt that tinned, or canned, foods (especially salmon and other fish), when opened and exposed to the air, are rapidly acted upon by germs and decompose —the putrefactive germs, that may gain entrance, causing a rapid formation of ptomaines, enzymes, or tox-albumens.

In these ways tinned, or canned, foods may prove deleterious on account of putrefactive changes having taken place (1) *before* or (2) *after* the food has been tinned, or canned, or (3) after the opening of the tin or can, and the exposing of its contents to the external air. Salmon is specially liable to undergo putrefactive changes, being often tinned or canned in a slightly decomposed state.

Tinned, or canned, fruits undergo alcoholic fermentation when kept in a warm temperature.

The symptoms of ptomaine poisoning are well-known, viz. :-giddiness and drowsiness, vomiting and diarrhœa (with or without pain), and subsequent collapse, to be followed by death or a prolonged convalescence.

Unfortunately, there is no satisfactory chemical or bacteriological test for these ptomaines, enzymes, or tox-albumens—the only trustworthy one being the physiological test, *i.e.*, feeding animals (guinea pigs, rabbits, etc.) with the suspected foods, and noting the effect on them.

Collapsed tins or cans must not be confounded with "blown" ones—the former are due to pressure, and their contents are wholesome and fit for food.

Diseased Food in Tins or Cans, etc.

When diseased food is used for tinning or canning, it is difficult to detect it after it has been put into the tins or cans. To take an instance. A bullock with tuberculous lungs might be killed, prepared and tinned (or canned) after the diseased lungs had been carefully removed. In this case, no germs of tuberculosis might be found in the carcase (apart from the lungs), though such carcase would be, none the less, unwholesome and quite unfit for food. To take another instance. Suppose a small piece of tuberculous meat were mixed up with sound meat before tinning, or canning, repeated examination of sample tins or cans might fail to discover the germs of tuberculosis unless the particular samples examined happened to contain part of the diseased portion of meat.

From these instances it will be seen that bacteriological examinations are not of much value in the examination of the contents of tinned, or canned, and preserved foods from the point of view of discovering actual germs of disease. All such a bacteriological examination can hope to discover is whether or not the food is sterile, *i.e.*, whether the process of tinning or canning has been efficient, and whether the food was free from putrefactive germs when first tinned or canned. What is wanted is a strict examination of all foods previous to tinning, or canning, with strict hygienic conditions under which such processes are carried on.

Preservatives in Tinned, or Canned Foods.

Properly tinned, or canned, wholesome food needs no added preservatives. Preservatives, when found, point (a) to the food being partly decomposed previous to being tinned, or canned, the preservatives being added to prevent such tins or cans "blowing," i.e., becoming distended with the accumulated gases of decomposition; or (b) to the fear of the tinning, or canning, process not being efficient and trustworthy, i.e., the tins or cans not being hermetically sealed. In this connection, reference may be made to the practice of tinned, or canned, foods being sent from abroad, and, on arrival in England, being transferred to glass bottles or jars, to meet a special demand amongst certain purchasers. In such cases, the addition of preservatives becomes important, so as to prevent any decomposition showing itself in the contents which are transferred from the tins and cans to the glass bottles or jars.

In any case it is desirable that, if preservatives be allowed, their quantity should be limited, and their presence and amounts declared on the labels on the tins or cans, *e.g.*, not more than one grain of salicylic acid per lb. weight of food, etc. No formaldehyde or formalin preparations should be used as preservatives, in view of their action on the digestive system.

Metallic Impurities in Tinned, or Canned Foods.

In certain preserved foods, tin and lead are, at times, found as impurities, arising from either the plating, or the solder used in soldering the lids on to the tins or cans. These metallic impurities are generally found in old tins or cans of preserved food (e.g., old ship stores, but in amounts, at times, sufficient to be injurious to health. Tinned, or canned lobster, salmon, apricots and pineapples may be mentioned in this connection—the acid juices dissolving out proportions of any tin, or lead, with which they may come into contact. A form of plating that is dangerous is the socalled "terne" or semi-leadplating, whilst some tins or cans are for quickness soldered with "spirits of lead" instead of with resin. The need for using suitable plating and proper solder, and of soldering only on the outside of tins or cans is self-apparent. To prevent old stock being used, every tin or can might be stamped with the date of tinning or canning.

Colouring Matters in Tinned, or Canned, or otherwise Preserved Foods.

The use of colouring matters in preserved foods is to please the eye of the consumer, and to render the particular article treated more saleable. Annatto and aniline dyes are used for such a purpose, *e.g.*, colouring butter and cheese, or raspberries and other fruit preserves. In this connection, copper salts are sometimes used for the purpose of "greening" preserved peas and beans.

Object of Analyses.

The object of the analysing of samples of tinned, canned, or otherwise preserved foods is to form a rough estimate of (1) the use of preservatives and colouring matters, in such foods as tinned or canned meats or fruits, sausages, etc.; (2) the presence of metallic impurities in old tins, or cans, of such foods as salmon, pineapple, apricots, pears, etc.

Method of taking Samples.

In taking samples, whole samples will be submitted for chemical analysis to the Public Analyst, so that the most trustworthy results may be obtained, although prosecutions will be, in this way, technically prevented in regard to those particular samples. This, however, is a matter of small moment, as a decision may be come to afterwards as to what legal action (if any) is to be taken, when the report of the results of the analyses has been presented to the Council. Duplicate samples will be taken in every case, so that one may be used for chemical and one for bacteriological examination.

Kinds of Samples to be taken.

The samples to be taken are as follows :---

- (a) Meat, e.g., beef, mutton, rabbit, tongue;
- (b) Fish, e.g., lobster, salmon, oysters, etc.;
- (c) Vegetables, e.g., peas, beans, tomatoes, etc.;
- (d) Fruits, e.g., pears, apricots, pineapple, etc.,
- (e) Other substances, e.g., condensed milk.

Conclusions.

All the above-mentioned points have to be carefully considered in dealing with tinned, or canned, preserved foods.

The tinned, or canned, food industry is an important one -an enormous amount of food being consumed in this form. It is estimated that over 600,000 lbs. of such food are daily consumed in this country. Indeed, tinned, or canned, salmon is so popular that about 2,000,000 people eat it daily-one Liverpool firm showing a yearly turnover of more than 20,000,000 tins, or cans. The American Bureau of Statistics shows yearly exports of tinned, or canned, foods to the extent of over 50,000,000 lbs. in weight. Having regard to the large amount of tinned, or canned, foods consumed, the reported cases of poisoning therefrom are almost a negligible quantity, though in this connection, it must be remembered that many cases of slight illnesses, though not attributed at the time to the partaking of unsuitable tinned, or canned, foods, may, in fact, be due to such. These slight illnesses do not appear in official records. Allowing for all this, it must be remembered that proper tinning, or canning, presupposes sterilisation of the food concerned-the food being partly boiled, then tinned, or canned, and afterwards sterilised, and this fact explains why it is that instances of ill effects, arising from the consumption of tinned, or canned, foods, are so few and far between.

The Chicago details, as retailed, are revolting, and are warranted to do an immense amount of harm to the tinned, and canned, food industries all over the world. No one will gainsay the need for strict hygienic measures being enforced at the tinning, and canning, centres, including the careful inspection and preparation of all foods, previous to tinning, or canning, which, further, must be efficiently carried out.

As useful, supplemental, articles of diet, tinned, or canned, foods have, for many years past, held a high position, and will continue to do so, it is hoped, for many years to come, when the Chicago "agitation" is forgotten.

It goes without saying that tinned, and canned, foods, must be carefully prepared, and used when freshly tinned, or canned, and under such conditions, little (if any) harm can arise from their use. Dietetically, they are not equal to fresh foods, but, with this reservation, they are of great value to the community, offering a great variety of diet to the working classes, and bringing into universal use in England the foods of other countries far beyond the seas.

JOSEPH PRIESTLEY.

July 2nd, 1906.

(Further Report presented to the Council on July 26th, 1906.)

I have to report that 30 samples of tinned, or canned, foods have been examined, consisting of salmon 7, lobster 3, condensed milk 3, potted meat 4, pineapple 5, pears 1, boiled rabbit 2, roast mutton 1, corned beef 1, sardines 2, and peas 1.

The examinations carried out were (a) Chemical, and (b) Bacteriological.

(a) Chemical.

Each tin, or can was opened, and its contents completely removed—the contents being first pulped and thoroughly mixed, and afterwards examined for (1) preservatives, (2)metallic contamination, (3) colouring matter.

The preservatives searched for were (1) boric acid and borax, (2) sulphites, (3) formaldehyde, (4) salicylic acid, and (5) benzoic acid; and the colouring matter searched for were chemical and aniline dyes, etc.

The condition of the interior of the tin, or can was also noted together with the manner in which the soldering had been effected, *i.e.*, whether soldered internally or externally.

(b) Bacteriological.

Each tin, or can was opened under aseptic conditions, and culture media were afterwards inoculated with scrapings from the outside and inside portions of the contents—the culture media being placed in the Incubator and kept at an equable temperature of 38 deg. C. for 12—24 hours.

The results obtained from the examinations are tabulated at length (*vide* Table), and may be summarised as follows:

Number of samples taken, 30.

Number found sound and sterile, 29, *i.e.*, 96'7 per cent. Number found unsound and non-sterile, 1, *i.e.*, 3'3 per cent.

The unsound and non-sterile tin was sardines.

Preservatives found in 2, *i.e.*, 6'7 per cent. Colouring matter found in 2, *i.e.*, 6'7 per cent. Metallic contamination found in 16, *i.e.*, 53'3 per cent.

The preservatives found were "boric" preservatives, and the two samples in connection with which such preservatives had been used were (a) potted ham and tongue paste, and (b) potted ham and tongue.

The colouring matters found were (a) oxide of iron, and (b) copper salts—the former in the potted ham and tongue sample, and the latter in the tin of preserved peas.

The metallic contaminations found were :---

- (a) tin 10, e.g., potted meat, pears, sardines, salmon, and pineapple.
- (b) tin and copper 2, e.g., lobster.
- (c) tin and lead 3, e.g., pineapple.
- (d) copper 1, e.g., preserved peas.

In four cases (pineapples, lobster and sardines), *heavy* traces of tin were found, but in the other 11 cases, the traces of tin were *slight*. The amount of copper found in the preserved peas was 2'5 grains per lb. of crystallised copper sulphate, or 0'56 grains per lb. of metallic copper.

Nature of Contents of Tin, or Can, as stated.	Conditi'n of Contents of Tin, or Can.	Sterile	Condition of Interior of Tin, or		Preser- vatives.	Col'ring Matter.	Metallic Contamination.	General Observations. (Nature of Soldering, etc.)
1. Salmon	Sound	Sterile	Bright		None	None	None	Some of the joints of tin or can soldered internally
2. Lobster	11	"	Slightly discolor	ured	"	"	Trace of copper with faint trace of tin	The contents of tin or can were encased in parchment paper. Joints were soldered exter- nally
3. Condensed Milk	- 11	"	Perfectly bright	t	"	"	None	This article contained 10.37 °/. Milk Fat and 39.1 °/. Cane Sugar
4. Salmon		"	Bright			33	,,	Some of the joints of tin or can soldered internally
5. Potted Beef	33	"	Discoloured		"	"	Trace of tin	Joints of tin or can soldered ex- ternally
6. Pineapple		"	Acted on		33		Appreciable amount of tin, with trace of lead	Side joints of tin or can soldered
7. Boiled Rabbit	"	"	Bright		,,	17	None	Joints soldered externally
8. Salmon	,11	"	,,		11	**	,,	17 IF
9. Roast Mutton	21		" …		,,	,,		. 11 11
10. Bartlett Pears			" …	• • • • •	,,	**	Slight trace of tin	Soldered internally
11. Lobster	a	"	Discoloured		"	"	Heavy traces of tin with trace of copper	
12. Pineapple	"	"	Acted on			"	Appreciable amoun of tin with trace of lead	Soldered internally
13. Whole Rabbit	33	,,	Discoloured		.,,	,,	None	Joints soldered externally

Tabulated Results of Examinations (Chemical and Bacteriological) of various Tinned or Cauned Food-Stuffs.

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14. F	'ineapple	"	"	Acted on		, .	"	Appreciable amount of tin with trace of lead	This tin or can was unlabled and the outside was corroded with rust. Joints soldered ex- ternally
	ardines à l'huile	"	"	Bright		• ••	,,	Trace of tin	Joints soldered externally
	densed Milk	"	"	,,		"		None	This article contained 10.59°/o Milk Fat, but no added Sugar
	otted Ham and Tongue Paste	"	"	n		A boric preserv- ative	"		Boric preservative equivalent to 3 grains per lb. Boracic Acid
	otted Ham and Tongue			» ···		"	Oxide of iron	.,	n n n
19. S	almon	"	"	Discoloured places	in	None	None	Slight trace of tin	Joints soldered externally
20. L	obster	"	"	Perfectly bright	••••	."		None	The contents of tin or can were encased in parchment paper
21. S	almon		"	Discoloured places	in		"	Slight trace of tin	Joints soldered externally
22. P	ineapple	,,	17	Acted on				Heavy traces of tin	Soldered internally
	orned Beef	33		Discoloured				None	Joints soldered externally
	almon			Pright				,,	
	reserved Peas	"	"			" .	Copper Salts	0.56 grains per lb. metallic copper	0 <u>1</u> 0
								=2.5 grains per lb.of crystallized copper sulphate	
	otted Beef	,,	,,	Very discoloured		.,,	None	Trace of tin	17 17 17 17
27. S	ardines à	Un-	Non-	Bright		"	,,	Heavy traces of tin	13 11 21
	l'huile	sound	sterile, strepto- cocci, &c.						
	fachined skimmedCon- densed Milk sweetened	Sound	Sterile	Perfectly bright		"	"	None	This article contained 44'0°/, Cane Sugar, and 1 23 °/, Milk Fat
29. 5	almon	,,		Slightly discolour	red		,,	Trace of tin	Joints solded internally
30. P	ineapple	"		Acted on			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Heavy traces of tin	

Conclusion.

The result of the examination of the 30 samples of tinned, or canned, foods, taken promiscuously from the smaller shops within the Borough of Lambeth, would appear to shew that the contained articles of food are wholesome and fit for human consumption. In one instance only (sardines) was the food found to be unsound and non-sterile, as shewn by the presence, on bacteriological examination, of putrefactive bacilli (streptococci, etc.).

Of the 16 samples in which metallic contaminations were discovered, in 11 the amounts of such metallic contaminations were mere traces, and, consequently, may be disregarded from a point of view of health to the consumer. In the other 5 cases however, heavy traces of tin (4), and copper (1), respectively, were found, but in this connection there is a question as to whether the presence of such tin and copper is in a form likely to be absorbed by the digestive organs of the consumer, it being a well-known chemical and physiological fact that copper and tin may combine, under certain conditions, with vegetable and animal matters, thereby forming a compound, which is, as far as the consumer is concerned, practically harmless.

The question of the conditions under which, and the places in which, foods are tinned, or canned, or otherwise preserved, is one calling for strict supervision at all times; whilst the importance of a systematic inspection and examination of all foods previous to canning, or tinning, goes without saying.

The law might, with advantage, be altered so as to -secure-

- that in the case of all canned, or tinned, foods the food shall be inspected by independent officials, prior to being canned, or tinned, and shall be canned, or tinned, under strict hygienic conditions;
- (2) that it shall unlawful to sell, for any purpose, canned, or tinned, goods that are unfit for human consumption (including those cans and tins which are known in the trade as "doubtfuls"), and that

it shall be the duty of any person or persons in possession of unsound canned, or tinned, foods to notify, and surrender, them to the local Sanitary Authority, who shall destroy the same, free of charge;

- (3) that the use of preservatives in canned, or tinned, foods being unnecessary, shall not, under any circumstances, be permitted;
- (4) that the date of canning, or tinning, together with the name of the canner, or tinner, and the place of the canning, or tinning, should be impressed on all cans or tins.

JOSEPH PRIESTLEY.

July 16th, 1906.

ANNUAL SANITARY CONGRESS AT BRISTOL.

(Special Report presented to the Council on Sept. 13th, 1906.)

We attended, as the Council's delegates, the Bristol Congress of the Royal Sanitary Institute. The total number of Delegates was 422, Congress Associates 84, Members of the Institute 260, together with Trades and Visitors 252, making a total attendance of 1,018.

The Congress consisted of three sections :

- (a) Sanitary Science and Preventive Medicine,
- (b) Engineering and Architecture,
- (c) Chemistry, Physics and Biology;

whilst there were also held five Conferences, as follows :— (1) Municipal Representatives; (2) Medical Officers of Health; (3) Engineers; (4) Veterinary Inspectors; (5) Sanitary Inspectors; (6) Women interested in Hygiene; and (7) Persons interested in the Hygiene of School Life. Addresses were delivered by the various presidents in connection with the different Sections and Conferences.

An Exhibition of Apparatus and Appliances relating to Health and of Domestic use was held in connection with the Congress.

A large number of Papers were read, and many interesting discussions took place, dealing with a variety of subjects of importance connected with the sanitary administration of local authorities. With all these subjects it is impossible to deal in the present report, but we subjoin a short account of those, which we have selected, as most interesting for the information of the Council, as follows :—

1.—The Lady Health Visitor and Health Visiting.

An important discussion took place in connection with the subject of "The Lady Health Visitor," whose presence is deemed to be necessary in country as well as in town districts, on account of the amount of ignorance that exists as to the proper feeding and rearing of infants. The Lady Health Visitor should be educated, patient and refined in manner, with an experience of general nursing, and the rearing (and feeding) of infants and children, together with a knowledge of hygiene and sanitary science. They might, with advantage, teach elementary hygiene in the elementary schools, so that the rising generation might be educated in the importance of fresh air, cleanliness, pure food, and a healthy mode of living, etc.

2.-Notification of Consumption.

Preventive measures to be adopted in connection with Consumption (Tuberculosis) came up for serious discussion, and it was agreed that the time had arrived for *compulsory* notification of the disease on the lines of the Sheffield (Compulsory Notification of Consumption) Act, together with the provision of sanatorium-treatment for both (a) advanced, and (b) early cases, to be followed by proper employment afterwards; the need for the education of the people in the infectious nature of consumption was insisted upon.

3.—The International Notification of Infectious Diseases.

It was agreed that there was need for an international notification of infectious diseases, and the following resolution was unanimously adopted: "That this Congress do strongly represent to His Majesty's Government the desirability of submitting to the next Imperial Conference proposals for a system of Imperial Notification of Infectious Disease."

4.-The Milk Supply and its Problems.

This subject was fully dealt with at a Joint Conference of Veterinary Surgeons, Medical Officers of Health, and Sanitary Inspectors—the various well-known facts being again brought forward, the same stereotyped suggestions offered. It was agreed that a pure milk supply was a *desideratum*, but it was also emphasised that there were many difficulties in securing such under present-day conditions. The moment milk leaves the cow it enters upon its career of contamination. The hands of the milkers, the vessels into which the milk is milked, the cowsheds or dairies wherein the milk is deposited or stored, are the first well-known sources of contamination, to be followed by those met with in transit of the milk by rail, etc. Then comes the contamination during transference from (a) wholesale to (b) retail dealers, and from retail dealers to consumers. Finally, there is the home-contamination, *i.e.*, contamination of the milk in the homes of the consumers. All these facts show how hopeless it is, at present, to secure a pure milk supply, and in view of these difficulties, the Joint Conference contented itself by passing a somewhat general resolution, viz., "That present legislation in relation to milk is inefficient, and should be amended, and enactments should be made compulsory, and general."

It may be noted, in connection with the supply of pure milk, that the Gloucestershire and North Hants Dairy Company, Ltd., of London and Bristol, gave a demonstration, at their dairy premises in Bristol, of what can be effected by large dairy contractors in the way of purifying milk (prior to its distribution) by mechanically freeing it from all suspended "dirt," and cooling it down, immediately after pasteurisation, to a low temperature. The amount of "dirt" thus obtained, requires to be seen to be believed, whilst the resultant pure milk was, apparently, everything that could be desired—at least as far as sight, smell and taste could shew.

The subject of pure milk was also touched upon in other Sections and Conferences of the Congress, more especially in its relation to infantile mortality, in connection with which the importance of milk depots was emphasized, and generally acknowledged, not only in respect of practical good done, but also as object lessons of how properly to prepare (and modify) milk for infants' food. Legislation was asked for in connection with the annual licensing of all dairies, cowsheds and milkshops, in lieu of registration as at present.

"Dried" milks came in for discussion, but nothing satisfactory was reported in their favour to the Congress.

5.-Hygiene in School Life.

The Conference dealing with this subject was one of the most important held in connection with the Congress—the Opening Address by the President (Bishop Percival) being full of useful, practical suggestions, the result of his own experience gained as Head Master at Clifton College, and afterwards at Rugby School. Pure air, suitable clothing, proper diet (including the avoidance or limitation of the "tuck" shop), longer periods of sleep and rest, the abolition of alcohol for boys at schools, varieties in work, and the discouragement of "loafing," etc., were the items dealt with *ex tempore* by the President in his Address, which will be long remembered by those who were privileged to hear it.

The need for instructing teachers in biology in its bearing on hygiene, was held to be most necessary, so as to enable them to impart suitable sanitary knowledge to their pupils —the subject of hygiene and the laws of health being held to be specially needed for girls in secondary schools.

6.—Advantages of Public Abattoirs.

This subject was discussed at the Conference of Sanitary Inspectors, and it was generally agreed that private slaughter-houses were, from a sanitary point of view, inferior to Public Abattoirs-the former lending themselves, at times, to abuse, and frequently sheltering unprincipled butchers and permitting them to carry on a nefarious trade in diseased meat. The practical difficulties in abolishing all private slaughter-houses, without proper compensation, and the financial outlay that would be required for such compensation were pointed out, as also was the fact that some private slaughter-houses are kept in a very satisfactory condition, and that it would be wrong to assume that all private slaughter-houses, as private slaughter-houses, were insanitary. For administrative purposes, however, and in connection with a pure meat supply, there was general agreement that Sanitary Authorities (at least Urban Districts) should be provided with Public Abattoirs, wherein butchers could slaughter animals.

After a long discussion, the following resolution was finally carried unanimously: "That it be compulsory upon Urban Sanitary Authorities to provide Public Abattoirs, and to grant powers to suppress private slaughter-houses; that licensed slaughter-houses in rural districts be the only places in which animals intended for human food must be slaughtered; and that all meat, which had passed inspection, be stamped."

7.—Common Flock-beds in relation to Public Health.

This subject gave a touch of sensationalism to the Congress-the extremely filthy nature of common Flock-beds being extensively advertised. Certain experiments (chemical and bacteriological) have been carried out, showing the actual extent of this "filthiness"-Bristol and Glasgow Flock-beds being compared. The "filth" extracted from these beds (new beds) was shewn in bottles, and it was startling to be told that hundreds of thousands of persons in this country are nightly sleeping upon stuff, which, after rinsing in water, would produce a liquid, which, in respect of its chemical and bacteriological composition, was similar to sewage! It was stated that one gramme of the flock of a Bristol bed was found to contain no less than 10,500,000 bacteria, and one gramme of the flock of a Glasgow bed 22,100,000 bacteria, as compared with an average in sewage of 200,000 bacteria to the gramme. Washing was not sufficient, steam sterilisation being also necessary. These infected Flock-beds, on shaking and beating, give off thousands of germs to the surrounding atmosphere, settling afterwards upon food stored in rooms wherein such beds are.

The following resolution was unanimously adopted :— "That the Government be urged to make it illegal to manufacture unclean and non-sterilised rags and other material into bedding and other forms of upholstering."

8.-Hygienic Shoes.

This subject also gave a touch of sensationalism to the Congress—it being pointed out that the soles of boots and shoes may be made of adulterated leather or of no leather at all, and that the well-known "Bristol butts" (the thick sole leather for which Bristol was once so noted), were rarely used now-a-days. Lighter hides were now used by tanners, and adulteration had cropped up in many directions, especially amongst the American and Continental tanners, for the purpose of increasing the weight and lightening the colour of the leather used. Thus, glucose, Epsom salts and barium are used in the tanning process, but they do not *combine* with the leather at all as do the proper tanning materials. The result is a poor leather, which is porous and non-water resisting, with consequent damp feet and their attendant ailments. The boots and shoes are certainly cheap, but useless as proper coverings for the feet.

Even leather shavings and cardboard—the so-called leather board, are sometimes used in making boots and shoes.

9.—The Wastage of Human Life.

A feature of the Congress was the popular lecture dealing with "The Wastage of Human Life"-in the course of which lecture the great value of Municipal Milk Depots, both actually and as object-lessons, was extolled. Infantile mortality was a disgrace to civilisation, and the chief cause of such mortality was the improper feeding and rearing of infants and children, due to the lamentable ignorance of present-day mothers and their unwillingness (or inability) to naturally suckle their offspring. Every child born had the right to demand by all the laws of God and nature a fair chance. A series of lantern slides were shewn, illustrating the different methods of rearing children, and the remarkable savings of life that had been already accomplished by the Glasgow Municipal Milk Depot, since its institution (photographs of infants, before and after being fed with the Municipal Milk, being thrown upon the screen).

Whilst during 40 years the general death-rate had fallen 30 per cent., the present *average* infantile mortality rate is for England and Wales 152 per 1,000 (*i.e.*, out of every 1,000 infants born, 152 die before reaching the age of one year). The Scotland rate is 127, and the Ireland 104, whilst Sweden and Norway shew only rates of 99 and 94 respectively. Of this mortality, 75 to 100 per 1,000 may be taken as non-preventable, the rest is preventable. The mortality is much higher in some districts than in others, and in some parts of a district than in others; the rate may be, at times, as high as 300 per 1,000. Early information of all births is needed (compulsory registration within forty-eight hours, instead of, as at present in England and Wales, six weeks).

Health Exhibition.

There was nothing strikingly new in connection with the Health Exhibition, but many fittings and appliances and inventions were set out in such a way as to be interesting exhibits. There were about 100 firms exhibiting, and amongst these, Messrs. Doulton, of Lambeth, shewed two bathrooms splendidly fitted up with all modern improvements, and also other sanitary fittings (trough lavatories with spray supply, improved w.c.s, urinals, etc.) Many bronze medals were awarded, and also two silver ones, the latter to (a) Messrs. Glover & Sons, Limited, for their covered dust van, and their Warwick sprinkler, street washer and flusher, and (b) the Horsfall Destructor Company for their centrifugal dust catcher (such as is at work at Shot Tower Wharf, Lambeth).

We have to thank the Council for having appointed us the delegates to attend the Bristol Congress.

> COUNCILLOR PALMER, Chairman. J. PRIESTLEY, Medical Officer.

September 3rd, 1906.

LAMBETH MUNICIPAL MILK DÉPOT.

(Special Report presented to the Council on Oct. 25th, 1906.)

1.—Introductory Remarks.

In presenting my first Report on the working of the Lambeth Milk Depot, I have pleasure in congratulating the Borough Council on the good-I may even say excellentwork that has been accomplished in preventing not only deaths, but also illnesses, amongst the infants and children who have been fortunate enough to be fed upon the milk. The Milk Depot is situated at 66, York Road, Waterloo Bridge Road, in the crowded district of the Marsh Ward, or Waterloo, and was opened to the public on February 12th, 1906. The Report deals with the management and administration of the Milk Depot during the first six months (26 weeks) during which the depot has been in use, and, during this period, a total of 40,282 bottles of milk have been distributed-32,679 to the general public and 7,603 to the Guardians. In connection with this comparatively large out-put, it is noteworthy that complaints against the management and administration are conspicuous by their absence —a result for which the manageress (Miss Hartley) deserves praise, more especially when the practical difficulties inseparable from the establishing of a Milk Depot, and the distribution of milk in a wholesome and sweet condition during the hot summer weather (such as was experienced during July and August), are taken into account. Sample bottles of all milk distributed are kept.

The 40,282 bottles distributed represent the daily feeding, for varying periods, of a total of 100 infants and children, and the results obtained more than justify the establishment of the Milk Depot.

The infants and children fed upon the milk belong to the poorer classes, and, with very few exceptions, were, as regards bodily health, at the time of commencing the milk, much below the average—78 per cent. actually suffering from general wasting (the result of neglect, improper feeding and want of care), or from disease (4 being actually in a

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moribund condition), and 22 per cent., though not suffering: from wasting or disease, being, nevertheless, in the majority of cases, below par constitutionally.

The Milk Depot is under strict medical supervision, and, consequently, in dealing with the medical record of cases, I have taken the first consecutive 100 infants and children who have been entered upon the register, so that the record may be as fair and as representative as possible. These 100infants and children are taken from amongst the general public, and do not include the cases sent by the Guardians, for the reason that these latter have been under the medical care and supervision of the Guardians' own medical officers, who have been good enough to report to me direct. It may be mentioned, in passing, that the Report of Dr. Johnson (the Medical Officer of the Guardians' Norwood Schools) deals with five infants and children, who were suffering from grave constitutional diseases at the time of commencing the milk, and who did splendidly upon it, the results being as good as, if not better than, any tabulated in this Reportthe infants and children being fed on the milk for consecutive periods of four months each; whereas, with respect to the Lambeth Infirmary and Workhouse cases, the periods of time during which the infants and children were fed upon the milk are too short (average is under three weeks) to warrant any satisfactory conclusions being drawn (vide Addendum to this Report).

2.—Particulars as to states of Health of infants and children fed upon the Milk.

The 100 infants and children, dealt with in this Report, may be classified as to their states of health, at the time of being put upon the milk, as follows :---

Healthy (i.e.	, not	waste	d n	or	disea	sed,	but		
below p	oar con	stituti	onal	llv)					22
Wasting								46	
Moribund								4	
Diseased (e.g rupture consump diarrhœ	I, w	cer an reak of of boy	id pa ches wels	t ai 4,	sis 1 nd s sickr	, dou pine ness	uble 2, and		
							-		78
								-	

Total

100

The comparatively small number (22 per cent.) of healthy infants and children, and the correspondingly large number (78 per cent.) of unhealthy, or diseased, infants and children, at the time that they were put upon the milk, are important points to remember in considering the benefits that have been derived from the use of such milk.

Of the 22 healthy infants and children, one died from inflammation of the bowels (though for a period of seven weeks this infant had previously improved whilst being fed upon the milk), and the other 21 did well (improving and gaining regularly in weight)—a record that cannot be beaten even in the case of breast-fed, and is much above that of ordinary hand-fed, infants and children.

Of the 78 wasting, or diseased, infants and children, eight died 58 improved and only 12 shewed no improvement (but did not die)—a satisfactory record.

Of the four moribund infants and children, one died, two improved, and one shewed no improvement (but did not die).

Of the 28 diseased infants and children, two died, 20 improved and six shewed no improvement (but did not die).

No single case of infectious disease, with the exception of epidemic diarrhœa, occurred amongst the 100 infants and children, whilst they were being fed upon the milk, and it is clear that the cases of epidemic diarrhœa that did occur (13 in number), were in no way connected with the milk, having regard to the comparatively small number of infants and children affected, and must have arisen from some other source, e.g., infected dust and dirt, which gained entrance into the system through the mouth (1) by breathing, or (2) by means of the "baby comforters," which are in such general use, and so insanitary.

The infants and children have been sent to the Milk Depot by medical men, hospitals, charitable organisations, the Board of Guardians, or mothers whose own children have already derived benefit from the use of the milk, and, previous to using the Depot Milk, the infants and children had been fed upon all sorts of improper foods, *e.g.*, condensed milks, artificial foods, solid food suitable only for adults, white of egg and brandy, cow's milk and barley water, etc.

3.—Ages of infants and children fed upon the Milk.

The ages of the infants and children at the times they were put upon the Depot Milk, were as follows :---

(1) Under 3 months		 	31
(2) Between 3 and 6 months		 	42
(3) Between 6 and 9 months		 	12
(4) Between 9 and 12 months			
(5) Over 12 months		 	7
Tota	1	 	100
		-	

The large percentage of young infants under six months of age is noteworthy, more especially in its bearing upon the death-rates, which are, as is well known, much higher at that particular age-period than at any other subsequent one. These death-rates are dealt with later on in the Report.

4.—Periods during which the infants and children were fed upon the Milk.

The periods during which the infants and children continued to use the milk naturally varied, though 46 per cent. used it continuously from the time when they commenced up to the date of this Report, and in only six instances was the milk found to be unsuitable. The periods varied as follows :—

Length of period during the Depot Milk was consecutively.	No. of infants or children using the Depot Milk.				
(a) 26 weeks and o	over	 		18	
(b) 13—26 weeks		 		9	
(c) 6—13 weeks		 		26	
(d) 4–6 weeks		 		15	
(e) under 4 weeks					
Te	otal	 		100	

It will be noted that 53 per cent. used the milk for periods extending from 6 to 26 weeks and over, whilst only 32 per cent. used the milk for short varying periods under four weeks. The reasons assigned for discontinuing the milk, after varying intervals, were (1) leaving the neighbourhood; (2) unable, or too far, to send for the milk; (3) by order of medical attendant; (4) unable to afford to pay; (5) milk unsuitable. In connection with those parents who were unable to afford to pay, a private voluntary benevolent fund was opened at the depot, and from this fund deserving cases have been, as far as possible, assisted. It was felt that, where infants were doing well upon the milk, it was hard to have to stop it (with consequent danger to the health of the infant) because the father, through no fault of his own, lost his work from some cause or other. It is to be hoped that this benevolent fund will be augumented either privately by voluntary contribution, or publicly from the rates, e.g., through the Guardians or otherwise. Much good would accrue, and the manageress could be trusted to select carefully only deserving cases.

No serious difficulties have had to be met since the Milk Depot was opened, and there has been little, if any, adverse criticism. The Milk Depot is not a milk shop, worked in opposition to the trade, but simply a municipal institution for the proper feeding of infants and children who cannot be fed, satisfactorily, in any other way. This is an important fact to remember.

5.—Weekly numbers of infants and children fed upoñ the Milk.

The weekly numbers of infants and children fed upon the Depot Milk during the period of six months under review (*i.e.*, February 12th to August 11th, 1906) show a slow and steady increase week by week, as follows :—

Weeks E	Inding-		Weeks Ending-
February 17th	h	 21	June 9th 38
February 24th		 25	June 16th 39
March 3rd		 23	June 23rd 38
March 10th		 24	June 30th 38
March 17th		 26	July 7th 37
March 24th		 20	July 14th 37
March 31st		 21	July 21st 35
April 7th		 26	July 28th 39
April 14th		 31	August 4th 43
April 21st		 38	August 11th 41
April 28th		 38	
May 5th		 39	
May 12th		 41	Total 877
May 19th		 40	
May 26th		 40	Weekly average 33
June 2nd		 39	

Since then, the average has risen to 53 per week during the last six weeks (up to the date of this Report). This is a steady increase upon which the Council is to be congratulated, having regard to the fact that the Milk Depot has not yet been systematically advertised—it having been thought advisable to give the machinery, management, etc., a fair trial beforehand.

6.—Particulars of deaths of infants and children fed upon the Milk.

Amongst the 100 infants and children fed upon the depot milk, there has been a total of nine deaths, but these require careful analysis, and, consequently, the following details are set forth :—

- (1) E. N., female, aged 4 months, was put upon the depot milk on March 13th, 1906, suffering at the time from wasting. The milk was continued for 20 weeks, during which time the infant increased in weight, and improved in every way splendidly, until July 24th, when the infant was taken ill, dying on July 29th from sickness and diarrhœa—undoubtedly epidemic diarrhœa.
- (2) T. F., male, aged 3 months, was put upon the depot milk on March 16th, 1906, being at the time in a

moribund condition, and died three days afterwards (viz., on March 19th), from marasmus, or wasting.

- (3) A. N., female, aged 7 months, was put upon the depot milk on March 20th, 1906, suffering at the time from diarrhœa, the result of improper feeding, and died on March 23rd (three days afterwards).
- (4) T. A., male, aged 2 months, was put upon the depot milk on April 6th, 1906, suffering at the time from weak digestion. The milk was continued for 21 weeks, and the infant did very well, increasing in weight, until August 29th, when he was taken ill and died on August 31st from diarrhœa and sickness (probably epidemic diarrhœa) after two days' illness.
- (5) A. P., female, aged 4 months, was put upon the depot milk on July 3rd, 1906, being at the time in a healthy condition. The infant progressed during the seven weeks, during which she was fed upon the milk, but died suddenly, after 36 hours' illness, on August 22nd, from inflammation of the bowels.
- (6) P. C., female, aged 4 months, was put upon the depot milk on 26th July, 1906, suffering at the time from wasting. The depot milk was continued for three weeks, during which time the infant benefitted, until August 17th, when she had a convulsion fit, dying the next day (18th August) from diarrhœa and sickness (probably epidemic diarrhœa).
- (7) L. P., female, aged 4 months, was put upon the depot milk on July 28th, 1906, suffering at the time from wasting. The milk was continued for five weeks, during which time the infant improved, increasing in weight, until 28th August, when she was taken ill, dying on 31st August (three days afterwards), from diarrhœa and sickness (undoubtedly epidemic diarrhœa).
- (8) A. G., female, aged 4 months, was put upon the depot milk on 9th August, suffering at the time from wasting. The infant was fed upon the milk

for a period of three weeks with apparent advantage, but died suddenly after three days' illness, on 1st September, from diarrhœa and sickness (undoubtedly epidemic diarrhœa).

(9) E. S., male, aged 1 month, was put upon the depot milk on 18th August, 1906, suffering at the time from diarrhœa and sickness. The infant died on 24th August from diarrhœa (probably epidemic diarrhœa), having been fed upon the milk for one week only.

It will be noted that the nine deaths occurred in infants who had been fed upon the depot milk for periods varying from a minimum three days to a maximum 20 weeks, and it is clear, therefore, that, for purposes of correct statistics, at least three of these deaths (Nos. 2, 3 and 9) cannot fairly be included amongst the depot returns—the infants being fed upon the milk only three, three, and seven days respectively, and moreover being seriously ill when put upon the milk (one being moribund). The fairest way is to compare the deaths with the periods during which the deceased infants had been fed upon the depot milk previous to their decease, and these particulars may be tabulated as follows :

Length of time during which milk was used previous to death	No. o Infants : Children	and	No. of Deaths.
(a) 26 weeks and over	19		0
(b) 13 to 26 weeks	8		2
(c) 6 to 13 weeks	26		2
(d) 4 to 6 weeks			0
(e) Under 4 weeks	31		5
	100		9

7.—Comparative mortality rates amongst the infants and children fed upon the Milk.

To be statistically correct, only those infants and children should be tabulated who have been fed upon depot milk for continuous periods of 13 weeks and over—a total of 27, of whom two died (from epidemic diarrhœa, which was

evidently caught from some other source than the milk, as shown by the fact that these were the only two cases of such disease amongst the 27 infants and children who were being, and had been for 13 to 16 weeks, fed upon the depot milk at the time). This gives a mortality rate of 74 per 1,000. For the purposes of this Report, I have included all infants and children who were fed upon the depot milk for consecutive periods extending over four weeks-a total of 69, of whom four died, giving a mortality rate of 58 per 1,000. Even if all the infants and children were included, irrespective of the varying periods during which they had been fed upon the depot milk, the mortality rate amongst depot-fed children is only 90 per 1,000, and is much lower than those for the Borough of Lambeth in general, and for Marsh Ward (where the Milk Depot is situated) and part of Bishop's Ward in particular, the large decrease in favour of the depot-fed infants and children being conspicuous even after allowing for the comparatively small numbers of infants and children dealt with, and bearing in mind the different age-periods of the infants and children fed.

Thus-

			Rates.	
Depot-fed Infants				
Whole Borough of Lambeth	 134	per	1,000	
Marsh Ward	 187	per	1,000	
Bishop's Ward (part)	 272	per	1,000	

The rates for the whole Borough and for the Marsh and Bishop's Wards are quinquennial averages, and, in comparing them with the rate for the depot-fed infants and children, allowance must be made for the fact that in the case of the Borough and Marsh and Bishop's Wards, the rates are worked out for the whole of the infantile population (healthy or otherwise), whereas the rate for the depot-fed infants is based upon 100 infants, 78 of whom were unhealthy or weakly, if not suffering from some grave disease, at the time of being put upon the milk.

In this way the Milk Depot has been the means of saving a large number of infant lives, which may be estimated at the proportion of not less than 97 to 182 per 1,000, not to mention the large amount of infantile illness that must have been at the same time prevented, taking the highest depot rate and comparing it with the rates for the Marsh and Bishop's Wards. In any case the Council is warranted in drawing the conclusion that the Milk Depot established in Lambeth, has already more than justified its existence and the expenses connected with its establishment, many infantile lives having been saved, and a large amount of ill-health and suffering amongst the infantile population prevented.

8.—Home visitation of infants and children fed upon the Milk.

The infants and children (excluding those under the care of the Guardians) have been visited at their homes—an attention that has been much appreciated by the mothers and others concerned. This personal interest shown in the individual infants and children, coupled with the management of the depot by the manageress, have done much to secure the satisfactory results which it is my privilege, as Medical Officer of Health, to report to the Council.

9.—Medical or clinical record of infants and children fed upon the Milk.

For purposes of tabulation, in reviewing closely the effect of the milk upon the infants and children fed from the depot, the following classification, as a clinical record, has been adopted :—

(a) Infants and children who have shown improvement (including those who were found to be suffering, at the time of commencing the milk, from wasting and from disease).

Under this head, as typical of the infants treated, and of the good results obtained therefrom, the following cases may be noted :--

 E. S., 6 months old, was in a moribund state when first put upon the depot milk on the 12th February, 1906, the infant being in a wasted condition, with a history of persistent vomiting for the past month, during which time the only food given (but not kept down) had been white of egg and brandy. The infant was fed with the weakest depot milk mixture, which was gradually increased in strength from time to time. The infant lost all sickness, improved in appearance and gained rapidly in weight, being restored to perfect health from a collapsed and moribund condition. The infant used the depot milk for a period of 25 consecutive weeks.

- (2) A. A., aged 3 months, was first put upon the depot milk on 12th February, 1906, suffering from cancer and facial paralysis, wasting rapidly and in a moribund condition. For 16 weeks the infant was fed on the depot milk, and during that time made satisfactory progress, increasing slightly in weight. Unfortunately, the mother was unable to afford to buy the milk any longer.
- (3) R. C., aged 7 months, was first put upon the depot milk on 16th February, 1906, suffering from wasting and double rupture. The infant improved on the milk, gaining weight, and is still being fed upon it (*i.e.*, from 16th February up to date).
- (4) D. J., aged 9 months, was first put upon the depot milk on 16th February, 1906, suffering from a weak chest and spine, with consequent wasting and malaise. On being fed upon the depot milk, the infant improved in health and increased in weight, and is still taking the milk (*i.e.*, from 16th February up to date), with marked advantage, being now quite recovered and in good health.
- (5) J. T., aged 6 months, first put upon the depot milk on 19th February, 1906, suffering from consumption of the bowels with considerable wasting. The infant was fed upon the milk for eight weeks with much benefit to it's general health (gaining in weight and recovering from it's disease).
- (6) E. Z., aged 4 months, was first put upon the depot milk on 24th February, 1906, suffering from wasting and sickness. The child was fed upon the depot milk from 24th February up to date, and made a complete recovery, gaining rapidly in weight and is now in a healthy and robust condition.

- (7) E. B., aged 2 months, was first put upon the depot milk on 27th February, 1906, suffering from wasting, crying the whole day and night. The infant has been fed upon the depot milk from 27th February up to date, and has done well, increasing rapidly in weight, and the crying ceasing almost immediately when the depot milk was used.
- (8) B. G., aged 3 months, was first put upon the depot milk on 16th March, 1906, suffering from wasting and debility. The infant is still being fed upon the milk (*i.e.*, from 16th March up to date), and has made a complete recovery (rapidly gaining in wieght), being now in good health.
- (9) I. F., aged 6 months, was first put upon the depot milk on 11th April, 1906, suffering from wasting. The infant was fed upon the milk for 13 consecutive weeks, during which time it improved in weight and general health, being now a healthy and robust child.
- (10) R. M., aged 6 months, was first put upon the depot milk on the 17th May, 1906, suffernig from sickness and diarrhœa. On being fed upon the milk the infant increased rapidly in weight, made a complete recovery and has remained in good health ever since, being still fed upon the milk.
- (11) C. W., aged 5 months, was first put upon the depot milk on the 17th May, 1906, suffering from wasting. The infant did well on the milk, gaining in weight and improving in health, week by week, and is still being fed upon it.
- (12) H. C., aged 3 months, was first put upon the depot milk on the 24th May, 1906, suffering from sickness. The infant made a rapid recovery on being fed with the milk, and increased in weight, and has remained in good health since—being still fed upon the milk.

Of the 100 infants and children fed upon the depot milk, 16 were found to be suffering from epidemic diarrhœa at the time they were first brought to the depot, and, of these 16, 12 completely recovered and one died (being on the milk one week), whilst in the case of the remaining three, the milk did not suit, and other remedies (medicines) had to be employed by the medical men in attendance.

These typical illustrations are taken from the register and fairly represent all the cases dealt with. The results are eminently satisfactory.

(b) Infants and children who have died (with particulars as to the causes of death), whilst being fed upon the depot milk.

These cases are fully dealt with in a former part of the Report, and it will be noted that of the nine deaths, sixhave been certified by the medical men in attendance as due to epidemic diarrhœa—a disease which is now recognised to be infectious and due to a germ or germs, which gain entrance into the body through the medium of food, or otherwise. Milk has always been regarded as the medium through which this disease has chiefly spread during the hot weather, and, consequently, the comparatively few cases that have occurred in connection with the 100 infants and children fed upon the milk during the exceptionally hot weather of July and August is satisfactory, showing that the source of infection in the case of the depot-fed children was not the milk, otherwise a very much larger proportion of the infants and children would have been affected.

(c) Infants and children who, whilst taking the depot milk, have suffered from epidemic diarrhœa.

Of the 100 infants and children fed upon the depot milk, 13 have suffered from epidemic diarrhœa during the hot weather whilst taking the milk, and, of these 13, five died, the rest recovering. Of the five deaths, four infants were suffering from wasting, and one from weak digestion, at the time they were first put upon the milk.

10.—Concluding remarks and lessons to be learnt from the first six months working of the Lambeth Milk Depot.

The Lambeth Milk Depot is run on the lines of the French type, viz. : strict medical supervision, discriminating and careful distribution of the milk only to infants and children who cannot be breast-fed, and the systematic medical and clinical study of the effect of the milk on the infants and children using it. The infants and children dealt with belong to the poorer classes, and the large majority are, at the time of commencing to use the milk, in a weakly and wasted condition, as far as general health is concerned—the most suitable cases for treatment by a municipality. The lessons to be learned from the first six months of working of the Lambeth Milk Depot may be summed up as follows :—

- The lines upon which the Lambeth Milk Depot is being run are proving satisfactory, more especially the medical supervision of the depot and the infants and children using the milk, together with the systematic and careful medical study of the effects of such milk on those fed upon it.
- (2) The depot has already saved the lives of several infants and children and improved the general health of others, and even allowing for the smallness of the numbers of infants and children dealt with, and their different age-periods, together with the varying lengths of time during which the milk has been used, there has been amongst such a marked lessening of the infantile mortality rate— 58 to 90 per 1,000 amongst those fed upon the depot milk, as compared with 177 to 273 per 1,000 amongst those fed elsewhere in the neighbourhood (Marsh and Bishop's Wards), or 151 per 1,000 for the whole of the infants throughout the Borough of Lambeth.
- (3) The educational value of the depot is proving important for mothers and others—the visiting of the infants and children at their homes being specially noteworthy in this respect.
- (4) That the first six months of the work carried out in connection with the Lambeth Milk Depot has proved that infants and children properly and regularly fed (even on artificial lines) do well, and escape, not only death, but also ill-health—the common results of improper and irregular feeding.

Having regard to these lessons, which have been learnt from the first six months of working of the Lambeth Milk
Depot, I would suggest that the depot itself should now be systematically advertised, and that branch (distributing) depots should be opened so as to give all rate-payers and others living within the Borough, whose infants and children are suitable cases for being fed upon the depot milk, a participation in the advantages that have accrued to those in the neighbourhood of York Road. At present, it is impossible for people living away from the neighbourhood of York Road to send to the depot for the milk daily, whereas arrangements might be made for milk to be modified (prepared) and bottled at the depot, York Road, and sent to a few suitably selected distributing centres, *e.g.*, private houses, public libraries, etc., in those parts of the Borough where infantile mortality and illness chiefly abound.

The Lambeth Milk Depot Scheme, judging by its first six months of working, has proved an unqualified success, exceeding my own optimistic prophecies and expectations. The Borough Council is to be congratulated.

JOSEPH PRIESTLEY.

October 15th, 1906.

ADDENDUM.

The above Report does not include the Lambeth Board of Guardians' infants and children, who have been fed upon the depot milk, and the Reports of the Guardians' own Medical Officer may be mentioned.

With reference to the Lambeth Infirmary infants, Dr. Quarry reports that the depot milk was only used for a period of three weeks, from which it is impossible to give any statistics of value. It was found that the supply was difficult, in practice, to regulate, on account of the infants supplied varying in their wants from day to day, and being found, in many cases, at times, too ill to take milk in any shape or form.

With reference to the Lambeth Workhouse, Dr. Skerrett sends on notes of 10 infants fed upon the depot milk for consecutive periods, as follows :—8 weeks (1), 5 weeks (2), 4 weeks (1), 2 weeks (5), and 1 week (1). The ages of the infants fed were :—

2 weeks, 5 weeks, 10 weeks, 13 weeks, $2\frac{1}{2}$ months, 3 months, 7 months, $8\frac{1}{2}$ months, 9 months and 10 months.

Of the 10 infants fed on the milk, four gained weight (ounces), three lost weight (ounces), whilst in the cases of three there was practically no change, but here, again, the periods during which the infants were fed were of too short duration to warrant statistics of any value being given.

With reference to Norwood Schools, however, the case is different, and Dr. Johnson reports on five infants and children who were fed on the depot milk from 21st April until 17th August, 1906 (a period of four months), and who were at the time of being put on the milk suffering from grave constitutional diseases. The results obtained in these cases from the use of the milk are most satisfactory, as shown by the following details quoted from the notes of Dr. Johnson :—

- F. C., aged 9 months, was first put upon the depot milk on 21st April, 1906, suffering from severe marasmus and rickets. The infant improved on being fed with the depot milk from April 21st until August 17th, increasing in weight.
- (2) G. B., aged 17 months, was first put upon the depot milk on 21st April, 1906, suffering from rickets and bad eczema. The child improved greatly, increasing in weight, and the eczema nearly disappeared during the four months during which he was fed upon the milk.
- (3) W. M., aged 19 months, was first put upon the depot milk on the 21st April, 1906, suffering from rickets and constant bronchitis. The child at once improved greatly and was eventually cured during the time he was fed upon the milk, viz. : from 21st April to 23rd June, increasing in weight during that period.
- (4) W. C., aged 17 months, was first put upon the depot milk on 21st April, 1906, suffering from

rickets and bronchitis (with convulsions). The child improved slightly, increasing in weight whilst being fed upon the milk—the slightness of the improvement being due to the fact that the child came from a bad tubercular stock.

(5) A. N., aged 4 months, was first put upon the depot milk on the 21st April, 1906, suffering from very bad eczema and deep corneal ulcers. The child improved greatly whilst being fed upon the milk from 21st April to 17th August, the eczema disappearing, the corneal ulcers healing, and the weight increasing.

(Further Report presented to the Council on Jan. 31st, 1907.)

A Statement has been prepared by the Borough Accountant of the expenses connected with the establishment and maintenance, up to date, of the Lambeth Infants' Milk Depot.

The depot was opened to the public on 12th February, 1906, so that the maintenance account for the six months ended 30th September, 1906, fairly represents the cost of working the Milk Depot, and is within the estimate (\pounds 200) prepared by me, and presented to, and approved by, the Council on 14th July, 1904. (*Vide* Minutes 1904, *pages* 1,542 and 1,543.)

The expenses for the six months amount, according to the Acountant's Statement, to £197 8s. 5d., and the income for the same half-year amounts to £106 1s. 3d., leaving a net balance of expenditure in excess of income of £91 7s. 2d. This is a satisfactory result, and shews the economical lines upon which the Milk Depot is being run, and the careful management that is being exercised in connection therewith. It will be noted from the Accountant's Statement that a sum of £64 15s. 3d. has been expended for milk, cream, and sugar, for which there has been a return by sales of a sum of £89 17s. 3d., *i.e.*, a profit of £25 2s., or (nearly) 40 per cent. These figures represent (roughly) the feeding of a *weekly average* of 37 infants for six months, with the distribution of a total of 6,000 bottles of milk during that period. In this way, it would appear that the greater the number of infants fed, the larger should be the profit arising from the milk, cream, and sugar sold, and, consequently, the less the net loss on the rates in connection with the maintenance of the Milk Depot. There will be, concurrently, an increased expenditure for attendants, renewals of bottles and baskets, etc. The other establishment or maintenance charges will remain practically stationary, *e.g.*, rent, rates, taxes, etc.

In connection with the Financial Statement, the good that has been achieved medically and from a public health point of view, must also be considered. In a Special Report, which was submitted to the Council on October 25th, 1906, a detailed statement was given, shewing the numbers of infants and children fed, the bottles of milk distributed, and the advantages (medically considered) derived for the first six months during which the Milk Depot has been opened. These details may be taken as practically representing the work accomplished during the half-year dealt with in the Financial Statement ended 30th September, 1906, and are comparable, therefore, with the expenditure incurred during that time, practically representing the daily feeding for varying periods of a total of 100 infants and children, the weekly average being taken as 37.

The ages of the infants and children fed were :---

(1) Under 6 months, 73 per cent.

(2) Over 6 months, 27 per cent.

Further, 53 per cent. used the milk for periods extending from 6 to 28 weeks or over, whilst only 32 per cent. used milk for short varying periods under four weeks.

The medical report on the infants and children fed upon the depot milk is most satisfactory, and in many instances the results obtained have surpassed anything anticipated. Taking the infants and children fed upon the milk for periods of four weeks' consecutive use, the mortality rate is 58 per 1,000; taking only those infants and children who were fed upon the depot milk for continuous periods of 13 weeks and over, the mortality is 74 per 1,000; whilst, including all infants and children fed, irrespective of the times during which they were so fed, the mortality rate is 90 per 1,000.

Thus, the mortality rate varies from 58 to 90 per 1,000, and is much below the tabulated quinquennial rates for the Borough as shewn by the following :—

Depot-fed infants	 	 58-90	per	1,000.
Whole Borough	 	 134	per	I,000.
Marsh Ward	 	 187	per	1,000.
Bishop's Ward (part)	 	 272	per	1,000.

This difference becomes even more striking when we remember that the rates for the Borough represent the whole of the infantile population (healthy or otherwise), and the total deaths during a period of five years (all four quarters in each year), whereas the rates for the depot-fed infants represent an unhealthy and weakly infantile population, and that, too, during the worst quarter of the year (the 3rd or summer quarter being the crucial period of infantile mortality in relation to feeding). Taking the uncorrected infantile mortality rates for the 3rd quarter of 1906, the contrast will at once be seen to be even more startling, thus :—

Depot-fed infants	 	 58-90	per	1,000.
Whole Borough	 	 185	per	1,000.
Marsh Ward	 	 278	per	I,000.
Bishop's Ward (part)	 	 311	per	1,000.

The results (medically considered) more than justify, in my opinion, the establishing of the Milk Depot, and more than counterbalance the expenditure in excess of income of £91 7s. 2d., during the six months ended 30th September. This should in no sense be regarded as a *loss* in view of the good achieved. Indeed, taking the total expenditure (£197 8s. 5d.) and the total income (£106 1s. 3d.), for the six months ended September 30th, 1906, and dividing them each by the total number of bottles distributed (60,000) during the six months, it is found that the total cost of production per bottle of milk is 0'79d. and the income derived per bottle of milk is 0'42d., leaving a balance of 0'37d. per bottle of milk to be provided out of the rates. In this connection, it must be remembered, as already stated, that the greater the number of infants dealt with at the depot, the less this net cost per bottle of milk should be, as the establishment expenses will not increase *pro ratâ* as a whole. It is true that more milk, cream, and sugar will be required, with a larger staff of attendants, and that a greater number of bottles and baskets will be brought into use, but the extra profit from the sale of the extra milk, cream, and sugar will go somewhat towards counter-balancing some of the other establishment or maintenance expenses; whilst the remainder will be practically stationary.

With regard to the maintenance of the Milk Depot, I have always pointed out that no profit was to be expected. Thus, in my reports presented to the Council, and dated 15th June, 1903, and 4th July, 1904, I stated as follows :—

"As to the probable cost of the undertaking, it is clear that no profit must be expected. Profits are not expected from other Sanitary undertakings (e.g., the provision of Public Baths, Sanitary Conveniences, etc.). The utmost that a Sanitary Authority can do is to endeavour to limit the expenses, as far as possible, provided such a limitation does not interfere with the usefulness and efficiency of the undertaking. To save life and to prevent ill-health is the reason for a Sanitary Authority's existence, and the establishment of a Milk Depot will accomplish this at a cost to the ratepavers which is merely nominal when the good that must accrue to the public is considered. . . . Surely an expenditure out of the rates of £150 to £200 per annum ought not to be allowed to influence a Sanitary Authority against carrying out a scheme which is warranted to have far-reaching effects and to do incalculable good, practically and educationally. To save 50 infantile lives per annum, not to mention the amount of ill-health amongst infants which would be prevented, justifies the expenditure out of the rates of $f_{,3}$ to $f_{,4}$ per week."

I still hold to this opinion, and congratulate the Council on having been able to provide the milk so economically up-to-date as to require a subsidy from the rates of only o'37d. per bottle distributed. Public Baths and Sanitary Conveniences call upon the rate to a much greater extent. It must be remembered that the infants and children fed upon the milk belonged to the poorer classes, and, with few exceptions, were, as regards bodily health, at the time of commencing the milk, much below the average—78 per cent. actually suffering from general wasting (the result of neglect, improper feeding and want of care), or from disease (four being actually in a moribund condition), and 22 per cent. though not suffering from wasting and disease, being, nevertheless, in the majority of cases, below par constitutionally.

Reviewing all the facts, there is only one conclusion to be drawn, viz. : the necessity for the Council to advertise the Milk Depot as much as possible, and to spare no trouble to bring its advantages within the reach of all ratepayers and others, living within the Borough, who may wish to share them. It is unfair that only the infants in the neighbourhood of the Milk Depot (Marsh Ward) should benefit.

There are several ways in which this improvement may be effected, as follows :---

- Opening of Distributing Centres in selected parts of the Borough, e.g., at the Free Libraries, or elsewhere;
- (2) Delivering of the milk by the Council at consumers' homes;
- (3) Arranging with milk sellers to sell the Council's milk.

The number of infants being weekly fed is, at the date of this Report, 70, and whilst this number is fairly satisfactory, having regard to the comparatively short time that the Milk Depot has been open, and to the opposition that was experienced to its establishment at the onset, it can be, and should be, increased by advertisement or otherwise. Personally, I am of opinion that the best method would be to open distributing centres, and to make some arrangement by which the milk could be delivered by the Council at such distributing centres throughout the Borough. In this way several creches could be supplied, and the milk brought within the reach of all Lambeth ratepayers (and others) requiring the same, instead of the supply being limited, as at present, to the neighbourhood of Marsh Ward. There would be an increased cost for cartage, but this would be more than justified by the increased number of infants who would be fed at the depot.

This Report is to be read with due regard to the small numbers of infants and children fed upon the milk, and the short period of time during which the depot has been opened to the public. Despite these provisos, the results are satisfactory, and will compare most favourably with those of other Milk Depots, financially and otherwise.

No report dealing with the Lambeth Milk Depot would be complete without reference to the excellent work that is being done by the manageress and her one assistant. This amount of attendance is the lowest *minimum* possible for dealing with the present 70 infants and involves the working of overtime. Practically, it represents the *daily* distribution of 500-600 bottles of milk (double quantities on Saturdays). The present milk plant is capable of dealing with 400-500 infants daily, but for that purpose a much larger staff of attendants would be required, and a much larger number of bottles and baskets would be used. The increased amount of milk, cream, and sugar used would bring in a greater financial return from the sales of the milk mixture.

JOSEPH PRIESTLEY.

10th December, 1906.

ADDENDUM.

By instructions of the Public Health Committee, and after an interview with the Chairman of the Finance Committee, I have worked out further particulars, and prepared estimates, on the lines suggested as follows :—

- (1) How much more work can be got out of the present staff, and the present plant?
- (2) What additional quantity of milk, cream, and sugar would be required to work the staff and plant to its fullest capacity?
- (3) What would be the difference in income, *i.e.*, how many more bottles of milk would be produced?

The existing depot plant is capable of preparing the necessary milk mixture for 400-500 infants, but the existing staff (two attendants) is fully occupied in dealing with the 60-70infants at present being fed. Indeed, compared with other Milk Depots, Lambeth is at present under-staffed. The increase in staff that would be required to cope with increased work at the depot may be stated as follows :—

Infants to h		Attendants required.			
0-50	 	 		2,	(present staff),
50-100	 	 		3,	
100-200	 	 		4,	and

an extra attendant for every additional 100 infants. Extra bottles, rubbers, stoppers, baskets, etc., would also be required. To work the existing plant to its utmost capacity (*i.e.*, to feed 500 infants), with a correspondingly increased staff thereby required (viz. : seven attendants), the estimate would work out (roughly) as follows :—

Annual Estimate for 500 Infants.

	£	s.	d.
Rent (house)	70	0	0
Rates and Taxes		0	0
Lighting and Water	35	0	0
Fuel (boiler)	20		
Wages (seven attendants)	345	10	0
Milk, Cream, and Sugar	1750		
Extra Bottles, Stoppers, Baskets, etc.	50	0	0
Renewals of Bottles, etc	150		0
-	62450	10	0
Receipts from Sale of Milk	2275	0	0
	£175	10	0

The bottles required would number for one year for 500infants a total of (about) 1,622,000, *i.e.*, over 4,000 a day. On an average, each infant requires eight bottles a day, and the charge is 2s. per week.

^{*} N.B.—This loss of $\pounds 175$ (based on an average of 1s. 9d. per infant per week) would be converted into a gain of $\pounds 150$, if an average of 2s. per infant per week were taken.

Breakages of bottles work out in practice at about 2-3 per -cent. daily.

The estimates for milk, cream, and sugar are arrived at by taking the *averages* contained in the eight different milk mixtures used at the depot, viz. : milk 63 gallons, cream $1\frac{8}{4}$ gallons, and sugar $6\frac{1}{2}$ lbs., making a total cost of £3 10s. per infant per annum—a sum which is also the *actual* cost per infant for the first six months during which the Milk Depot has been opened to the public (*e.g.*, £64 155. 6d. for 6 months for the feeding of an average of 37 infants weekly, *i.e.*, £1 15s. per infant for 6 months, or £3 10s. per infant for 12 months).

The income to be derived from the sale of the milk mixture is estimated on the low basis of an average of 1s. 9d. per infant per week, *i.e.*, $\pounds 4$ 11s. per infant per annum. For 500 infants, the yearly income would be $\pounds 2,275$.

The Milk Depot will never prove a profit-making concern, but the greater the number of infants fed, the larger will be the profit from the sale of the milk mixture, and, therefore, the smaller will be the net loss out of the rates, and the nearer the income will approach the expenditure. This is excluding any consideration of the inestimable good that is being done in the way of preventing, or minimising, infantile mortality, and morbidity, and the value of the Milk Depot as a Municipal educative influence.

There is, in my opinion, only one conclusion to be drawn from the facts, and that is that the depot should be advertised, and its usefulness extended throughout the Borough.

JOSEPH PRIESTLEY.

21st January, 1907.

INFANTILE MORTALITY DURING THE THIRD QUARTER, 1906.

(Special Report presented to the Council on Dec. 20th, 1906.)

The past summer has been abnormally warm and drymeteorological conditions that are favourable to a high infantile mortality rate, due to the exceptional prevalence of epidemic diarrhœa. The temperature was above the average in July, August and September—there being great heat at the end of August and at the beginning of September, the rainfall was very slight, and the barometer high.

It is interesting to examine the mortality statistics for the 3rd quarter of the year 1906, in so far as Lambeth Borough is concerned, more especially when it is remembered that the 3rd (or summer) quarter of the year is the crucial period of infantile mortality in relation to the feeding of infants.

It is found that, when the 4ft. earth temperature reaches 56 degrees Fahrenheit and over, epidemic diarrhœa amongst infants becomes common and infants die off in large numbers. It is probable that some germ, or poison, is set free at that particular 4ft. earth temperature, and passes into infants' bodies either through food or through the air. As the 4ft. earth temperature again falls and reaches 56 degrees Fahrenheit, the infantile diarrhœa cases gradually disappear. Along with the increase of the 4ft. earth temperature, there is a corresponding increase in the mean temperature of the air. Rain-fall also plays an important part, in that a dry season increases the number of these deaths from infantile diarrhœa. A high mean air temperature, a 4ft. earth temperature of 56 degrees Fahrenheit and upwards, and a dry season, ensure a high mortality amongst infants; whereas a low mean air temperature, a 4ft. earth temperature of less than 56 degrees Fahrenheit, and a wet season, are followed by a very small number of such deaths. All these unfavourable conditions with respect to infantile mortality obtained during the 3rd quarter of 1906. The 4ft. earth temperature registered 56 degrees Fahrenheit at the end of June and continued above that temperature until the end of September. The mean air temperature was correspondingly increased, whilst the rain-fall was very slight. During the 3rd quarter, 1906, the corrected infantile mortality rate for Lambeth is 173 per 1,000 births, as compared with 187 for the County of London. Taking the 10 South Metropolitan Boroughs it is interesting to note the position which Lambeth takes amongst them, thus :—

			Cor	rected rate
District.			per	1,000 births
Woolwich	 	 		136
Greenwich	 	 		165
Lewisham	 	 		171
LAMBETH	 	 		173
Battersea	 	 		178
Deptford				200
Camberwell	 	 		200
Wandsworth	 	 		208
Bermondsey	 	 		214
Southwark	 	 		216

The three South Metropolitan Districts which show a lower infantile mortality rate, are not strictly comparable with Lambeth, in that such districts, are, in part, semicountry. In addition to the above, Kensington, Hammersmith, Fulham, Chelsea, Finsbury, Shoreditch, Bethnal Green and Poplar have a higher mortality rate than Lambeth. The year 1905 (3rd quarter) was also unfavourable to infantile life on account of the meteorological conditions, but not so unfavourable as 1906, and yet the infantile mortality for 1905 (3rd quarter) for Lambeth was 202, as compared with 173 for 1906 (3rd quarter).

It is somewhat difficult to account entirely for this difference in the mortality rate, but it may be claimed that some portion of its satisfactory nature is due to the special work of the Female Sanitary Staff in dealing with (a) deaths of infants under one year of age; and (b) notification of births; whilst the influence of the Milk Depot may also have contributed its share. Many factors are involved in dealing with the prevention of infantile mortality, and not the least important is the educative influence of the establishment in a district of a Milk Depot, and the visiting of mothers at their own homes by the Female Sanitary Inspectors.

JOSEPH PRIESTLEY.

s.

10th December, 1906.

WARM BATHS FOR SCHOOL CHILDREN.

(Special Report presented to the Council on Dec. 20th, 1906.)

I am of opinion that much good, from a public health point of view, would accrue from admitting school children to the public Warm Baths at reduced prices, as is at present done with regard to the Swimming Baths, and that the money spent in connection therewith would be well spent, were the scheme to be a success, if adopted, in Lambeth. Having regard to the success that has attended the opening of the public swimming baths to school children at reduced rates in Lambeth, there is no reason why provision of warm baths should not be equally successful, and I have every confidence, therefore, in making this suggestion for the consideration of the Council.

It is only right, however, that the Council should be in possession of the facts as to the action (if any) of the other Metropolitan Borough Councils. From a Return which I have obtained, I find that warm baths at public baths are available for school children at reduced charges as follows:

Bermondsey	·			 	One Penny.	
Bethnal Green						
school only)				 	One Penny.	
Poplar				 	Half-price.	
Woolwich (on a	certai	n da	ys)	 	One Penny.	

In connection with five of the Borough Councils, viz. :---Battersea, Finsbury, Wandsworth, St. Marylebone, and St. Pancras, provision of warm baths for school children has been made under the Cleansing of Persons Act, 1897, in connection with special stations (not the public baths). The question is still under consideration by the Chelsea and Fulham Borough Councils, whilst the remaining Borough Councils, including Lambeth (17 in number) have, as yet, made no special provision, though the Southwark Borough Council admitted school children into their public warm baths a few years ago, at a charge of one penny each—a

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scheme which was discontinued on account of it not being a success, owing to the small numbers of children who applied.

It is true that these facts, as tabulated, are not very satisfactory, but I hope that Lambeth will make the experiment, and become a pioneer in connection with the provision of warm baths at public baths for school children at reduced rates.

JOSEPH PRIESTLEY.

November 21st, 1906.



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