

Report on the sanitary condition of the Borough of Bermondsey for the year 1903.

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Metropolitan Borough of Bermondsey.

REPORT

ON THE

SANITARY CONDITION

OF THE

BOROUGH OF BERMONDSEY,

For the Year 1903.

BY

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Metropolitan Borough of Bermondsey.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH.

TO THE MAYOR, ALDERMEN, AND COUNCILLORS OF THE
METROPOLITAN BOROUGH OF BERMONDSEY.

GENTLEMEN,

I have the honour to submit my Third Annual Report on the Sanitary condition of the Metropolitan Borough of Bermondsey during the year 1903. The report deals with the 52 weeks which commence on the 3rd of January, 1903, and end on the 2nd of January, 1904. This being the year of the Registrar General it is universally adopted in Great Britain and Ireland in those Reports which deal with Vital Statistics.

The subject matter, as in previous reports, will be dealt with under the following heads:—

- I.—Vital Statistics.
- II.—Infectious Diseases and Notification.
- III.—Sanitary Administration.
- IV.—Factories and Workshops.

In the Appendix will be found the various tables required by the Local Government Board, along with other tables which give summaries of the various matters dealt with in the body of the Report.

I desire to express my thanks to the Chairman and members of the Public Health Committee for the cordial manner in which they have supported the various sanitary measures suggested by the Department, and also to the Chief Inspector and other officers for their valuable assistance.

I am, gentlemen,

Your obedient servant,

R. K. BROWN.

I.—VITAL STATISTICS.

Population.

The populations of the Borough of Bermondsey and its constituent parts as enumerated in the Census of 1891, 1896 and 1901 were—

	1891.	1896.	1901.	Estimate, 1903.
Bermondsey	84,682	85,475	82,483	82,129
Rotherhithe	39,225	40,379	38,460	38,347
St. Olave's	12,723	11,731	9,817	9,178
Borough	136,660	137,585	130,760	129,654

It will be seen from these figures that there was an increase in the population between 1891 and 1896, and that between 1896 and 1901 there was a very large decrease. The change in the latter period, as pointed out in the last two reports, is due principally to the pulling down of a number of houses for railway extension. During 1903 a large number of houses in Rotherhithe, near the premises of the South Metropolitan Gas Company, were pulled down to make provision for the south approach of the projected Thames Tunnel. To accommodate the inhabitants displaced 255 tenements have been erected in Swan Lane, the majority of which are now occupied. The 129 tenements in Abbey Street and Tower Bridge Road are now partly occupied. Considering these facts, I do not think that if there were an enumeration of the population for the years under consideration that anything like the decline which took place between 1896 and 1901 would be found. For the sake of uniformity with previous years, however, I have taken the Registrar General's assumption that a population increases or decreases in geometrical progression at the same rate as it did between the two latest enumerations, and have therefore placed the estimated population for 1903 beside the previous census figures. The various rates are calculated on this figure, but in the most important rate, viz., the death rate, a calculation based on the census figures of 1901 has been added, so that a comparison can be made between the rate of 1901 and 1903, on the assumption that the population has not changed.

Overcrowding.

The following table has been taken from the Annual Report of the Medical Officer of the London County Council. It will be seen from it that while both in London and Bermondsey there has been a decrease in the percentage of the population living in the smaller class of tenement as well as the percentage of the population living more than two in a room in these same tenements, that the decrease has been greater in the administrative County of London:—

Sanitary Area.	Tenements with	Percentage of total population in each group of tenements.			Overcrowding.		
					Percentage of total population living more than two in a room in tenements of less than five rooms.		
		1891.	1901.	Increase or Decrease.	1891.	1901.	Increase or Decrease.
Bermondsey ...	1 room ...	9.2	7.5	— 1.7	5.11	3.66	— 1.45
	2 rooms ...	19.0	20.0	+ 1.0	8.63	7.77	— 0.86
	3 rooms ...	19.1	20.4	+ 1.3	5.53	5.78	+ 0.25
	4 rooms ...	22.8	20.2	— 2.6	4.03	3.27	— 0.76
	Total ...	70.1	68.1	— 2.0	23.30	20.48	— 2.82
London, Administrative County of	1 room ...	9.2	6.7	— 2.5	5.10	3.25	— 1.85
	2 rooms ...	16.4	15.3	— 1.1	7.84	6.52	— 1.32
	3 rooms ...	15.8	16.5	+ 0.7	4.57	4.13	— 0.44
	4 rooms ...	14.1	15.2	+ 1.1	2.19	2.07	— 0.12
	Total ...	55.5	53.7	— 1.8	19.70	15.97	— 3.73

In Bermondsey there was a decrease in the one-room and four-room tenements, while there was an increase in the two and three-room tenements from 1891 to 1901. In London the decrease was confined to the two smallest tenements, while there was an increase in the three and four-room tenements.

The action taken in this Borough on the matter of overcrowding will be found on page 26 *et seq.*, under the head of Administrative Work.

Births.

The total number of births registered in the Borough for the 52 weeks ending January 2nd, 1904, was 4,200, consisting of 2,153 males and 2,047 females. This is 534 below the average for the last ten years, and 146 below the figures for 1902.

This total includes 2,801 for Bermondsey, being 54 below that for 1902, and 262 below the average for the last ten years; 1,116 for Rotherhithe, being 54 below the number for 1902, and 162 below the average for the last ten years; 283 for St. Olave's, being 38 below the number for 1902, and 110 below the average for the last ten years.

In Table II. of the Appendix will be seen the particulars of these numbers for the last ten years in the three registration sub-districts, and in Table I. figures for the whole Borough.

The birth rate for 1903 was 32.4 per thousand persons living, which is 1.0 below the rate for 1902, and 2.8 below the average for the last ten years. Particulars of the birth rate will be found in annexed Table A. The birth rate for London is included for purpose of comparison:—

TABLE A.—BIRTH RATES.

Year.	Bermondsey.	Rotherhithe.	St. Olave's.	Whole Borough.	London.
1893	37.53	34.68	33.50	36.3	31.0
1894	36.31	33.83	39.77	35.9	30.1
1895	37.63	32.43	36.04	35.9	30.5
1896	37.53	33.41	36.03	36.2	30.2
1897	37.48	31.53	38.68	35.8	30.0
1898	36.73	32.85	32.97	35.3	29.5
1899	36.67	32.38	34.55	35.2	29.4
1900	34.07	30.56	39.67	33.5	28.6
1901	35.42	31.73	32.73	34.1	29.0
1902	34.70	30.47	33.92	33.4	28.5
Average for years 1893-1902	36.41	32.39	35.79	35.2	29.7
1903	34.12	29.10	30.83	32.4	28.4

From this table it is evident that the birth rate is falling steadily for Bermondsey, as it is doing not only in London, but in almost all civilized countries. I mentioned in my last annual report those general causes which are said to contribute to this fall, viz.:—(1) postponement of marriage to a later age. (2) Easy attainment of divorce, *e.g.* France and America. (3) Voluntary avoiding among married couples of having families.

The question of sterility is a very difficult one, and cannot be fully explained by any or all of the above causes. While famine and luxury seem to have a lowering effect on the birth rate, a moderate degree of prosperity, with a generally high degree of vitality, would seem to have the opposite effect. As Darwin points out in his "Origin of Species," certain native races seem to die out from pure sterility. As far as Bermondsey is concerned, none of the above causes in my opinion explains the fall fully. Other factors, such as a change in the constitution of the population as to age and sex, employment of so many young women in factories and workshops, etc., have to be taken into account.

Marriages.

The total number of marriages in 1903 was 1101, being 22 below that for 1902, and 37 above the average for the last ten years.

In table VI. of Appendix will be found the figures for the three registration sub-districts. These have been supplied by the Superintendent Registrar.

Deaths.

The total number of deaths registered in the Borough during the 52 weeks ending January 2nd, 1904, was 1,973, which is 350 less than 1902, and 600 less than the average for the last ten years. When this figure is corrected by exclusion of deaths of non-parishioners occurring in the district, and inclusion of deaths of parishioners occurring outside the district, the number is raised to 2,382. This is 374 less than 1902, and 554 less than the corresponding average for the last ten years. The annexed Table shows the distribution of deaths in quarters. The largest number of deaths occurred in the first and fourth quarters. There is, however, a more even distribution of deaths in the quarters than usual. This is probably due to the mild winter of 1902-3

TABLE B.—DEATHS.

Quarter.	Bermondsey.	Rotherhithe.	St. Olave's.	Whole Borough.
First	400	179	48	627
Second	330	160	58	548
Third	362	132	51	545
Fourth	431	184	47	662
Total Deaths	1523	655	204	2382

The death rate of the Borough for 1903 was 18·4 per 1000 living inhabitants, being 2·8 below that for 1902, and 3·4 below the average for the last ten years. This is the lowest death rate recorded in the Borough of Bermondsey or any of its sub-divisions during the last twelve years at least, and probably ever recorded. As will be seen by examining Table C, the same remarks would apply to the sub-divisions with the exception of St. Olave's. I am inclined to think that the last sub-division gets more than its proper share of deaths, since relatively to its area there is a large and important river frontage, where bodies of unknown persons are found. A single death more than the average makes a much greater difference in the rate here, owing to the smallness of the population, than in Bermondsey or Rotherhithe.

This lowered death rate is very satisfactory. The causes which principally contributed to it were the small number of deaths in bronchitis and pneumonia, the absence of small-pox deaths, and a much lowered mortality in measles, diarrhoea, and cancer.

In column 1, at the foot of Table I. of the Appendix, will be found a list of places where the deaths of non-parishioners occurred in the district. 13 such deaths occurred in the St. Olave's Infirmary, 14 in the River Thames, 3 in the Surrey Commercial Docks, 3 in St. Olave's Workhouse, 1 in Railway Arch, Silwood Street, 1 at 21, Camilla Road, 1 at Lloyd's, Mill Street, 1 at Horseferry Dry Dock, 1 at Deptford Road Station, 1 at 211, Lower Road, and 1 at 5, Fair Street.

There were 40 deaths of non-parishioners registered as occurring in the district in 1903. This is about the average number, the number 63 which occurred last year being due to small-pox deaths at the wharf.

449 parishioners belonging to this Borough died in outlying institutions, against 496 in 1903. The names of the various places where the deaths occurred will be found in columns 2 and 3 at foot of Table I. of Appendix. The numbers for the previous ten years will be found in Table I., and it will be seen, though they vary considerably, that, as stated in last year's report, they show a tendency to increase. The decrease this year is a part of a general decrease in nearly all causes of death.

TABLE C.—DEATH RATE.

Year.	Bermondsey.	Rotherhithe.	St. Olave's.	Whole Borough.	London.
1893	23.56	23.31	25.37	23.6	21.0
1894	20.35	19.10	22.20	20.1	17.4
1895	21.89	19.47	26.44	21.6	19.4
1896	21.95	20.70	22.44	21.6	18.2
1897	22.22	19.20	22.54	21.4	17.7
1898	21.05	19.56	21.42	20.6	18.3
1899	24.70	22.11	26.42	24.1	19.3
1900	23.49	22.79	22.91	23.2	18.3
1901	21.44	19.43	20.93	20.8	17.1
1902	21.66	19.30	24.62	21.2	17.2
Average for years 1892-1903	22.23	20.50	23.53	21.8	18.4
1903—					
On estimated population..	18.54	17.08	22.23	18.4	15.1
On Census population..	18.46	17.03	20.78	18.2	

Since the mortality per thousand living is much greater among children under 5 and old people, and is higher at practically all ages among men, it follows that a community which has a preponderance of these elements will have *ceteris paribus* a higher death rate than one which has not.

The age and sex distribution of the population of England and Wales being taken as a standard to all communities within their borders, the death rates of different localities can be calculated on the assumption that they have the same proportions of children under 5, old people and women, as have the population of England and Wales: By thus eliminating this disturbing factor of age and sex distribution different communities can be brought into strict comparison with one another.

In 1883 the Registrar-General commenced a method of correcting the death rates of the great towns of England and Wales. Taking account of the differences of age and sex distribution between these and the latter, he has calculated a factor for each great town by which the recorded death rate must be multiplied so as to allow for the differences of age and sex, and thus places them as regards these matters on an equal footing. You thus get death rates, the differences in which can be put down to general sanitary conditions alone. In illustration of this I have taken the following rates for a Table calculated on the Registrar's method by the Medical Officer of the London County Council, published in his Annual Report for 1902.

It will be seen from this that in London and the Boroughs the correction raises the death rate, showing that there is in them a preponderance of people living at ages when the death rate is low (*viz.*, between 5 and 50) and also of women, sufficient to keep the recorded death rate down, notwithstanding the great number of children under 5.

TABLE D.—DEATH RATES CORRECTED FOR AGE AND SEX CONSTITUTION OF THE VARIOUS POPULATIONS.

District.	Year.	Factor for Correction of Age and Sex Distribution.	Crude Death Rate.	Corrected Death Rate.
London	1902	1.05107	17.2	18.1
Camberwell	1902	1.03788	16.3	16.9
Deptford	1902	1.05107	16.5	17.3
Southwark	1902	1.04684	21.4	22.4
BERMONDSEY	1902	1.03375	21.2	21.9
"	1903	1.03375	18.4	19.0

Infantile Mortality.

To get the true death rate of any age period, it is necessary to know the number of persons living at that period. This is generally supplied by the census, but in the case of infants under one year the information on this head is inaccurate since young children who may be a month or two under the year, are often returned as a year old owing to the tendency at the census to return round numbers for ages. The number for one year is certainly under-estimated. It has therefore been thought that a better estimate of the infantile population is got by taking the number of births. It would be more logical to take the births of the year previous to the one in question, but for all practical purposes those of the same year are sufficient, and this plan is now

universally adopted. The total number of infantile deaths in the Borough in 1903 was 657, viz:—428, 179 and 50 for the sub-divisions of Bermondsey, Rotherhithe and St. Olave's, the corresponding figures for 1902 being 678 for the whole Borough, and 455, 174 and 49 for its divisions. This gives an infantile mortality of 156 for the Borough, the other figures being 153 Bermondsey, 160 Rotherhithe and 176 St. Olave's. It is very regrettable that while our mortality is decreasing at all ages up to 60, our infantile mortality is practically at a standstill. It shows that while hygiene has increased the well being of all classes and all ages, it has left untouched the principal cause of mortality among infants. As pointed out in my report for 1901 the chief causes of infantile mortality are:—

1. Premature birth, congenital defects, and debility.
2. Hereditary tendencies. Under this head is included such diseases as syphilis, and other diseases brought on by vice and drunkenness of the parents.
3. Neglect of mothers from carelessness or inexperience.
4. Employment of mothers in various industries both during pregnancy and shortly after childbirth. In these cases the infants are generally left to the care of an older daughter or a neighbour. They are improperly fed, generally on some unwholesome farinaceous food instead of milk, and when the latter is given it is seldom boiled.
5. Insanitary and dirty surroundings, and overcrowding.
6. Improper food—fed on artificial foods generally instead of the natural food, viz., the breast.
7. By accident and negligence, such as suffocation in bed. This cause of death is closely allied to drunkenness in the parents. Dr. Ogle found that these deaths generally occurred on Saturday night, when drunkenness is most prevalent.

In my report for 1902 in commenting on the causes here mentioned the following statement is further made:—

In commenting on this subject in last year's Report, I mentioned some seven causes of infantile mortality. Some of the causes are much more important than others, so much so that they might also be reduced to two, viz., improper feeding, and insanitary surroundings, and of these two the first cause is the principal. The more one considers the subject the more importance does improper feeding assume in infantile mortality. In looking at Table IV. of Appendix it will be seen that in deaths under one year of age, gastro-intestinal diseases (including tubercular diseases) and respiratory diseases account for the majority. But these do not quite represent the true state of matters, for improper feeding, when not giving rise to distinct intestinal disorders, undoubtedly paves the way for many of the deaths from respiratory and other diseases by weakening and undermining the system, so that I am inclined to give it a much more important rôle than a glance at this table would suggest. Improper feeding is due mainly to poverty, ignorance and actual carelessness on the part of parents with regard to the feeding of their infants. On making enquiries on this matter I have been greatly struck by the want of knowledge among mothers respecting the methods of infant feeding. Improper feeding takes two forms, and consists (1) of not feeding children on their mother's milk, and (2) giving unsuitable artificial food.

The principal cause of infantile mortality being then, in my opinion, due directly or indirectly to gastro-intestinal disorders, it naturally follows that modern hygiene should be directed to feeding of infants and the improvement of the natural food of infants—viz., milk. This is a part of hygiene which is very sadly neglected in all our large towns, and could be remedied by attention to our milk supply and systematic instructions to mothers on infant feeding. The question of the milk supply is adverted to later. In the following table will be found the figures relating to this subject:—

TABLE D.—INFANTILE MORTALITY.

Year.	Bermondsey.		Rotherhithe.		St. Olave.		Whole Borough.		London.	
	No. of Deaths.	Rate per 1000 Births.	No. of Deaths.	Rate per 1000 Births.	No. of Deaths.	Rate per 1000 Births.	No. of Deaths.	Rate per 1000 Births.	No. of Deaths.	Rate per 1000 Births.
1893	537	168	227	165	58	141	822	165	21,746	164
1894	451	146	218	161	55	114	724	147	18,604	143
1895	520	162	193	148	88	205	801	162	22,013	165
1896	513	160	214	159	64	153	791	159	21,695	160
1897	605	190	219	174	67	154	891	183	21,106	158
1898	485	157	220	169	47	132	752	158	21,931	166
1899	574	187	215	169	53	147	842	180	22,129	166
1900	526	186	243	205	48	120	817	185	20,730	158
1901	497	170	215	176	42	132	754	169	19,412	148
1902	455	159	174	149	49	153	678	156	18,478	139
Average for years 1893 to 1902.	516	168	214	167	57	145	787	166	20,784	157
1903	428	153	179	160	50	176	657	156	16,978	130

Senile Mortality.

The number of deaths over 65 years of age in 1903 was 396. This is much less than the same figure in 1902, which was 473. This is due to the diminution of deaths from respiratory disorders.

Death Certification

There were 5 uncertified deaths during 1903.

Zymotic Diseases.

The following table gives the death rates for the principal zymotic diseases. Corresponding figures are given for London for comparison.

TABLE E.

Year.	All Causes.		Principal Zymotic Diseases.		Small-Pox.		Measles.		Scarlet Fever.		Diphtheria.		Whooping Cough.		Typhus Fever.		Enteric Fever.		Simple Continued Fever.		Diarrhœa.	
	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.
1893	3243	23·6	440	3·21	18	·13	47	·34	52	·38	118	·86	82	·60	1	·00	18	·13	—	—	104	·76
1894	2766	20·1	449	3·27	1	·00	139	1·01	42	·31	100	·73	71	·52	1	·00	18	·13	—	—	77	·56
1895	2966	21·6	411	2·99	1	·00	136	·99	24	·17	64	·46	37	·27	—	—	22	·16	—	—	127	·92
1896	2968	21·6	542	3·95	—	—	129	·94	35	·25	108	·79	146	1·06	—	—	24	·17	—	—	100	·73
1897	2902	21·4	537	3·95	—	—	103	·76	58	·43	85	·62	87	·64	—	—	16	·12	—	—	188	1·38
1898	2776	20·6	375	2·79	—	—	97	·72	30	·22	58	·43	73	·54	—	—	11	·08	—	—	106	·79
1899	3204	24·1	440	3·31	—	—	92	·69	23	·17	129	·97	43	·32	2	·01	31	·23	—	—	120	·90
1900	3062	23·2	437	3·32	—	—	87	·66	14	·11	88	·67	94	·71	—	—	37	·28	—	—	117	·89
1901	2719	20·8	387	2·96	14	·10	76	·58	45	·34	36	·27	56	·42	—	—	22	·16	5	·03	133	1·0
1902	2756	21·2	396	3·06	31	·24	154	1·19	18	·14	29	·22	64	·49	—	—	12	·09	—	—	88	·68
Average for years 1895-1902.	2936	21·8	441	3·28	6·5	·05	106	·79	34	·25	81	·60	75	·56	4	·00	21	·15	·5	0·00	116	·86
1903	2382	18·4	251	1·96	—	—	50	·39	25	·19	18	·14	41	·32	3	·02	11	·09	—	—	103	·80
London 1903	6973	15·1	8088	1·75	13	·00	2046	·44	361	·08	740	·16	1627	·35	3	·00	368	·08	5	·00	2925	·63

Examination of this table shows that with the exception of scarlet fever, typhus and diarrhœa, there has been a great diminution all round, i.e., both in the number and rate of zymotic diseases. The latter is 1·96 per thousand living in 1903, compared with 3·06 for 1902. There has been a similar but not quite so marked decline all over London.

Small-pox.

There were no deaths from this disease in Bermondsey in 1903.

Measles.

There were 50 deaths due to this disease, which is about half the average for the last ten years and a third of what occurred in 1902.

The deaths occurred in quarters as follows, viz.:—31, 11, 7, 1. The first quarter is the highest. As explained in last year's report uncomplicated measles very rarely produces death. By far the commonest and most dangerous complication is broncho-pneumonia, and this will largely account for the preponderance of deaths in the first quarter of the year.

Whooping Cough.

41 deaths were attributed to this cause against 56 during the year 1902; of these 7 occurred in the first quarter; the numbers in the remaining quarters being 18, 7 and 9 respectively. This gives a death rate of ·32 per thousand.

Typhus Fever.

4 deaths were attributed to this cause, the ages being 9 (f), 29 (f), 23 (m), and 44 (f): The matter is fully dealt with under the head of notification *vide* p. 11, *et seq.*

Enteric Fever.

11 deaths were due to this cause, viz., 7 in Bermondsey, 2 in Rotherhithe, and 2 in St. Olave's. This is exactly half the number of deaths that occurred from this cause in 1901.

Simple Continued Fever.

No deaths occurred which could be placed under this cause.

Diarrhœa.

Under this head are included:—

Epidemic enteritis.

Zymotic „

Epidemic or summer diarrhœa.

Dysentery or dysenteric diarrhœa.

Choleraic diarrhœa, Cholera, and Cholera nostras (in absence of Asiatic Cholera).

103 deaths were attributed to these causes, 66 for Bermondsey, 29 for Rotherhithe, and 8 for St. Olave's. This, though comparatively low figure, is not so low as 1902, when the number was 88. The low figure for 1902 was attributed by me to the cold wet summer of that year, but will not explain why the figure for 1903 is higher since the summer of that year was much wetter than that for 1902. The rainfall as recorded at Greenwich for the 3 months, July, August and September (the diarrhoea months) in 1902 being 1·09, 2·93 and 1·65 ins. respectively, the corresponding numbers for 1903 being 5·27, 4·82, 2·24 ins. As diarrhoea is essentially a disease of infants under 1 year old and is due to a contamination of food (chiefly milk) one is driven again to the conclusion that faulty feeding and contaminated milk, especially if aided by a hot dry summer, are the chief causes of the deaths under this head. Apparently in the year under survey the wetness of the summer was not able to counteract the effects of improper food and feeding.

Table appended shows the results of the investigation into the subject initiated in 1901.

TABLE H.—DIARRHŒA.

Year.	Cases Inquired into.	State of Premises.			Family.		Method of Feeding.			Over-crowding.
		Good.	Fair.	Defective.	Clean and Careful.	Dirty and Improvident.	Breast.	Artificially.	Partially by Both Methods.	
1901 ...	74	49	23	2	70	4	13	59	2	—
1902 ...	40	21	18	1	37	3	6	33	1	1
1903 ...	40	15	22	3	38	2	8	29	3	—
Total	154	85	63	6	145	9	27	121	6	1

Tubercular Diseases.

The number of deaths due to all forms of tubercular diseases in 1903 was 363, viz., 230 for Bermondsey, 103 for Rotherhithe and 30 for St. Olave's. Of the 363, 221 were due to phthisis and 142 to "other tubercular diseases." The striking thing about these figures is that while phthisis shows a decrease from 1902, the figures of other tubercular diseases have increased from 106 to 141. In 1901 the deaths from this division were 114. I have not the detailed figures under this heading for the last three years, so am unable to specify the exact cause of this increase. I purpose remedying this in a future report. Taking the deaths, however, under this head in the age period under 5, I find that the number of deaths in 1901 was 79; 1902, 84; and 1903, 115. Since, therefore, abdominal tuberculosis is most common at this age, these figures are very suggestive of the entrance of the tubercle bacillus along with the food either in the form of contaminated milk or other food, or from infected houses.

Phthisis.

The number of deaths from phthisis in the Borough in 1903 was 221—against 239 for the year previous. Happily there seems to be a steady decline in the deaths due to this cause. This, no doubt, is to be attributed to the increasing attention paid to the preventive measures which are gradually being adopted everywhere. The matter is alluded to again under the head of notification of phthisis:—

TABLE I. PHTHISIS.

SUB-DIST.	BERMONDSEY.		ROTHERHITHE.		ST. OLAVE'S.		WHOLE BOROUGH.		LONDON.	
Year.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.
1894	188	2·21	66	1·65	32	2·65	286	2·08	7334	1·69
1895	190	2·22	76	1·89	32	2·69	298	2·16	7742	1·77
1896	176	2·06	90	2·23	26	2·24	292	2·13	7567	1·68
1897	174	2·05	64	1·60	33	2·94	271	1·99	7629	1·71
1898	184	2·19	74	1·87	25	2·31	283	2·10	7746	1·72
1899	183	2·19	75	1·92	28	2·68	286	2·15	8275	1·82
1900	169	2·04	47	1·21	29	2·88	235	1·78	7809	1·71
1901	150	1·82	57	1·48	19	1·95	226	1·73	7514	1·66
1902	163	1·98	55	1·43	21	2·22	239	1·83	7424	1·62
Averages for years 1894-1902.	175	2·09	67	1·70	27	2·51	268	2·00	7671	1·71
1903	147	1·79	56	1·46	18	1·96	221	1·70	7124	1·54

Alcoholism and Cirrhosis of the Liver.

28 deaths are attributed to these causes, against 33 for 1902. As previously pointed out this only represents a very small percentage of those whose deaths might be attributed more or less directly to alcohol.

Cancer and Malignant Disease.

108 deaths were attributed to this cause, the largest number, as usual, occurring over 25 years of age. This is a decrease of 12 from the figures for last year. The cause of these diseases are being investigated by medical men in every part of the world, and by a special commission in England—so far no definite conclusions have been arrived at.

The following table is compiled to show the different parts affected, the age periods in smaller divisions as well as the sex.

A distinction has been made between sarcoma and cancer or carcinoma proper. The origin of the two is quite different. The former arises in the deeper tissues such as muscle, bone, etc., whereas the latter is derived from the skin or epithelial tissues and those parts which are really prolongations of the skin, such as the larynx and the alimentary canal including the œsophagus, stomach and rectum. This, which is generally understood when the word cancer is used, most commonly affects people in later life, whereas sarcoma belongs to the earlier periods and is not uncommon in infants and young children where ordinary cancer is practically unknown. From the table it would seem that cancer of the rectum affects male and female about equally, and that while men are more liable to cancer of the stomach and tongue, women have practically a monopoly of cancer of the genital organs and breast.

A table like this will be useful when continued for a number of years.

TABLE J. CANCER.

Forms of the disease.	All ages.	15 to 20.		20 to 25.		25 to 35.		35 to 45.		45 to 55.		55 to 65.		65 to 75.		75 to 85.		85 and upwards.	
	Sex.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Cancer of rectum	15	...	...	...	...	...	1	3	3	3	2	1	1	...	1	...	...	...
Cancer of stomach	11	...	...	...	...	...	2	...	3	...	2	1	...	2	...	1	...	...
Cancer of Bowel	5	...	...	...	2	1	...	...	...	...	1	...	1	...	...	...	...	...
Cancer of liver	11	...	...	...	...	...	...	1	...	...	2	2	3	...	2	...	1	...
Cancer of breast	12	...	...	...	...	1	...	2	...	5	...	4	...	...	...	...	...	...
Cancer of female, pelvis and uterus	25	...	...	...	...	2	...	4	...	6	...	10	...	2	...	...	...	...
Cancer of œsophagus	6	...	...	...	...	...	...	...	2	...	2	...	...	1	...	1	...	...
Cancer of mouth, tongue and pharynx, cheek and lower jaw...	...	9	...	...	...	...	...	1	...	1	...	5	1	1	...	...	...	...	...
Cancer of other parts	7	...	...	...	...	...	...	...	2	...	2	2	1	...	...	...	...	...
Malignant disease, kind not stated.	3	...	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...
Sarcoma	4	...	...	1	...	...	1	...	1	...	...	...	1	...	...	...	...	...
TOTALS	108	...	...	1	...	2	4	8	13	15	15	23	7	10	...	5	...	1

Heart Disease.

159 deaths were due to this cause, the numbers for 1901 and 1902 being 157. Only organic disease of the heart is here included, indefinite disorders, such as heart failure, fatty heart, etc., being put under the head of "all other causes."

Suicides.

7 parishioners committed suicide during 1903, 1 by cutting throat, 2 by hanging, 1 by poison, 1 by railway train, 1 by illegal operation, and 1 by shooting.

Accidents.

There were 98 deaths due to this cause as against 108 in 1902.

Other Violent Deaths.

There was 1 cause of wilful murder and 1 case of manslaughter.

II.—NOTIFICATION OF INFECTIOUS DISEASE.

In Table III. of Appendix will be found full particulars of the diseases notified in Bermondsey during the fifty-two weeks ending January 2nd, 1904.

This year I have to report a great diminution in the total cases of infectious disease. The number notified in 1903 was 867, against 1315 (exclusive of chicken pox) in 1902. This great diminution is chiefly due to the practical cessation of the small-pox epidemic, and a great diminution of cases of diphtheria and scarlet fever. The small-pox notifications numbered 7 against 219 in 1902, diphtheria 172 against 277, scarlet fever 400 against 491, enteric fever 76 against 125 in 1902.

The numbers for the sub-registration districts (exclusive of chicken-pox) were—for Bermondsey, 1903, 575; 1902, 856; Rotherhithe, 1903, 186; 1902, 357; and St. Olave's, 1903, 106; 1902, 102.

This makes an attack rate per thousand inhabitants of 6·7 for the whole Borough; the rate for the sub-districts being 7·0 Bermondsey, 4·8 Rotherhithe, 11·5 St. Olave's. The corresponding figures for 1902 (chicken-pox excluded) were, the whole Borough 10·1; and 10·4, 9·3, 10·8 for the sub-districts respectively.

As 47 cases were returned as not suffering from the notified diseases, the above figures, in calculating a net result, would require to be slightly reduced. As remarked in previous annual reports, I am inclined to look upon the number of notifications, despite these errors of diagnosis, as representing approximately the amount of infectious disease in the district. I am convinced that numerous cases occur as mild attacks, and are often unrecognised either by the parents or medical attendant as infectious. Many infectious diseases apparently originate in this way.

Small-pox.

There were 7 notifications of small-pox during the year, of which 6 were genuine cases, and one was returned as not being small-pox. There were no deaths. The following are particulars of the individual cases:—

March 14th.—R. N., 27, male, 6, Foxlow Street. Patient was vaccinated in infancy. Source of infection could not be traced.

March 27th.—H. P., 41, male, Casual Ward, Rotherhithe. Patient was vaccinated in infancy. Source of infection could not be traced.

April 9th.—E. C., 14, female, Gillhams Court. Patient was vaccinated in infancy. Source of infection could not be traced.

April 20th.—P. O., 1½, Gillhams Court. This case was returned as not suffering from small-pox.

May 1st.—F. F., 19, male, Forsyth Street. Patient was vaccinated in infancy. He came from a house in Ford Road, Poplar, in which several cases of small-pox had occurred.

May 5th.—A. E., 52, male, Weston Street. Patient was vaccinated in infancy. Source of infection could not be traced.

October 22nd.—W. T. P., 39, male, Eugenia Road. Patient was vaccinated in infancy. Source of infection could not be traced.

Typhus Fever.

Bermondsey, and what were originally the neighbouring Vestries and Districts, have always been liable to outbreaks of typhus fever.

The latest occurred in 1899, in connection with houses in Minto and Weston Streets, and amounted to 10 cases, nine of which belonged to Bermondsey. Special reference to this and other outbreaks in London since then will be found in the Annual Reports of the Medical Officer of the London County Council for this and subsequent years.

Only one case occurred in Bermondsey since 1899, viz., in Rothsay Street, at the south-west end of the Borough, till the outbreak which is here recorded commenced in January, 1903. For convenience I have tabulated all the cases which occurred, with short notes of the source of infection, etc., in the last column. I shall refer to the cases by their numbers in column 1. I also append a temperature chart to illustrate my remarks on some clinical aspects of the disease. For the notes on which these are based I am indebted to the Medical Superintendents of the South-Eastern and Brook Hospitals, where the cases were treated.

Case 1 occurred on January 20th, 1903, in Jamaica Road, at a fish shop, close to the neighbourhood where the majority of the cases occurred, but I was unable to discover any connection between this and the subsequent cases, since a cross-examination of the patients and their friends failed to elicit that there had been any dealings between them and the occupiers of the shop where the first case occurred. The patient was a fish porter, and may have contracted the disease at Billingsgate.

Case 2 occurred 14 days later, on February 4th, in Stevens Street, about a mile and a quarter from the first one. There was no traceable connection between the two. I wrote to the Medical Officer of Health for the City of London, where the lad worked, but he could suggest no source of infection. In both these cases the families were clean, in good circumstances, and not over-crowded.

Case 3 occurred on February 22nd, after an interval of 18 days from the last case, in Warford Place, quite close to Case 1, though the connection, if any, could not be traced. This patient before removal was seen by several doctors, one of whom was an old resident in one of the M.A.B. Hospitals. This gentleman informed me that the rash was scarlatiniform, and so like scarlet fever, that he made up his mind to discard the history of the late appearance of the

rash and notify it as scarlet fever. She was removed to hospital on February 28th, and died on March 8th. The diagnosis of scarlet fever was not confirmed, but typhus was suspected, though the evidence of its existence (*viz.*, "so very faint a rash that a positive diagnosis was out of the question") as stated by the medical superintendent was very slight, and the post-mortem showed only pneumonia.

Cases 1 and 2 seem to have been sporadic and accidental, since beyond the fact that Case 1 occurred in the neighbourhood of Case 3, there seems no other ground for suggestion of a connection between them and the subsequent cases.

Case 4 was a little girl of nine years; she fell ill on March 3rd, nine days after the last. Her residence was about three quarters of a mile from Cases 1 and 3, and the only thing in common between her and the last was that they attended the same school, which was situated about midway between their homes. Case 3 was at school during the early stage of her attack, for the teacher described her as "sitting shivering by the fire, and vomiting once or twice." They were not in the same class, but had opportunities of meeting out of class hours in the playground and class rooms.

Case 5 is not so clear; she fell ill five days after the last, *viz.*, on March 8th. She was married, and lived in a small street just round the corner—certainly not more than 50 yards—from Case 4. This latter occurred in an annexe to a beer-house, with which it communicated directly, where Case 5 frequently went for beer. Her children went to a different school than the last two cases, and situated in a different direction, but do not seem to have been personally acquainted with Case 4, though owing to the proximity of their respective houses I do not see how they could have failed to play with one another occasionally in the street, without necessarily knowing one another's names. The onset of the illness in this case was so close, in point of time, to that of Case 4, that unless a very short incubation period is assumed it seems difficult to establish a direct connection.

Cases 6 and 7 were sisters, and Case 8 a brother of Case 3, and arose from her by direct contagion, 20 days after her removal to hospital, proving that Case 3 was typhus.

Case 9 was brother to the last three, and was infected directly by them after an incubation period of about a fortnight.

Case 10 was a very well-marked typical one, but presents great difficulties as to its origin; she fell ill on March 29th, nine days after Cases 6, 7, and 8, and 20 days after Case 5. It occurred in one of the best residential houses in the Borough. Her friends were well-to-do. The patient assisted her mother in house work, had not been visiting anywhere the previous month, and had only occasionally gone in the street, and then not in the immediate neighbourhood of the previous cases. The house is in the main road, and about a quarter of a mile from Warford Place, where Cases 3, 6, 7, and 8 occurred. Her father and brothers, however, have a wood yard at the back of but not communicating directly with Warford Place, and her sister, who had had influenza a couple of weeks before *she* developed typhus, and was attended by the medical man who notified the latter, did office work in this yard. I was informed that none of the inhabitants of 14, Warford Place had worked in this wood yard during the last 10 years, and that the sister who worked in the office did not come in contact with the hands, except when paying them once a week through a small window.

Case 11 occurred on March 31st. In this case children from the same house and family attended the Paradise Street school, in connection with which were Cases 3, 5, 6 and 7. An illness in a young brother of this patient, which occurred between March 16th and 21st, may possibly have been the connecting link between this and the other cases which attended the school.

Case 12 occurred on April 1st in a street in the same neighbourhood, but the only traceable connection with previous ones was that a sister and young brother attended the Paradise Street school, there being in addition a history of the young brother having been ill on or about March 6th with diarrhoea.

The remaining cases require no special comment, since they were all infected directly by the cases mentioned above. In all the seventeen cases, with the exception of 1, 2, 5 and 10, the only meeting-place common to all where they might have acquired infection was the St. Joseph's Schools, Paradise Street. Of the thirteen cases which had this school in common, eleven were scholars, and the remaining cases, 11 and 12 in the table, though they did not attend the school, had brothers or sisters who did, and in both cases there was a history of some indefinite illness among these scholars previous to the case of typhus. It is hard to ascertain the nature of the illnesses in the members of the families of 10, 11 and 12, which preceded the typhus; but in one case at least, that of S. R., *æt.* eight years, brother to Case 11, the illness was described as febricula, and was of sufficient duration to be compatible with an anomalous attack of typhus. He was sent to the Infirmary, and the Medical Superintendent, who had seen a good deal of typhus in Ireland, stated that he had no symptoms suggesting this complaint. It is just possible that as our knowledge of infectious diseases becomes fuller, these indefinite illnesses in families which precede the case of typhus may be classed as "latent" or "masked" typhus, in which the virus after "passage" through one or more human beings becomes more virulent, or getting into more favourable soil culminates in a typical attack of typhus fever.

That similar mild cases occur in other infectious diseases has been shown in the case of diphtheria by the late Sir Thorne Thorne in the Milroy Lectures for 1891; by Koch in his description of the suppression of endemic typhoid in a group of German villages in the district of Trier; and more recently in the case of scarlet fever by Caziot, who describes an outbreak of 19 cases in a school, which originated in the so-called "latent" or "masked" cases. The mildness of typhus in children, coupled with the not infrequent absence of or poor development

of the rash, has long been known, and from one or two of the cases I saw, I can quite understand the disease being overlooked when not associated with more typical cases.

In no other way does it seem possible to account for cases appearing suddenly where there were no previous ones, unless an extraordinary vitality of the virus in houses and clothes is assumed. As regards the general surroundings of the patients, in the Cases 1, 2, and 10, the people were clean, in comfortable circumstances and not overcrowded, and in the absence of an outbreak one would not have thought of looking for typhus.

In the remaining cases, though the people were poor, they were by no means destitute. One or two families were dirty, but taken on the average they were by no means the worst in the Borough; and employing as a standard of cubic space the figures of the bye-laws for houses let in lodgings, viz., 400 cubic ft. living and sleeping, and 300 for sleeping only, and half these figures for children, they were not over-crowded.

Coming to the question of diagnosis, the cases with the exception of the first three and last were examined by me prior to removal to the M.A.B. hospitals. Here the diagnosis was confirmed with the one exception mentioned (Case 3). Among the diagnostic points common to the large majority of the cases, I may mention: (1) The sudden onset; (2) the late appearance and character of the rash; the sudden rise of temperature to the maximum in those cases where it could be observed, and (4) the dulling of the faculties.

1. *Sudden onset.*—Almost every patient was quite decided as to the *day* of onset of the disease, and some went even so far as to state the hour of the day on which it occurred; one stating she left work for dinner, and was attacked during the interval; and another that she took ill just as she was putting on her hat to go out. Murchison draws attention to this characteristic.

2. *Late appearance and character of rash.*—This generally made its appearance from the fifth to the seventh day of disease, and usually appeared as small roseolous spots on the trunk and extensor aspects of the limbs. They were not elevated at first, but occasionally became so later, and though fading at first on pressure, very soon became permanent and often petechial.

As this roseolous rash became marked, it was nearly always accompanied by subcuticular mottling, giving a brownish sunburnt appearance to the skin. In addition to the petechiæ which appeared as the result of the gradual change in the roseolous spots, there were frequently other petechiæ present, which appeared early and independently of the roseolous rash, and were very often indistinguishable from flea bites. These latter are said to be easily recognised by the puncture in the centre and the light-red areola around, but this criterion applies only to the early stage, since when old they lose these characters and resemble closely the petechiæ of small-pox or typhus. The latter can, however, generally be distinguished by their want of uniformity in size when a sufficient number are closely examined, when a certain percentage will often be found larger and somewhat deeper seated than flea-bites. Other considerations which go to show that in many cases we had not to do with flea-bites but petechiæ, are that they were seen on many of the patients whose habits and surroundings were perfectly clean, and also that in one family where three children were lying ill together in one bed, the two elder were covered with petechiæ, whereas the baby had less than half-a-dozen altogether. Had flea-bites been so numerous as the appearance of the elder members suggested, I think it highly improbable that a baby with a tender skin should be immune.

I have gone into this symptom somewhat fully, since the medical practitioners and myself found it a very practical difficulty, and a feature of diagnosis on which opinion differed very much.

The amount and visibility of the rash differed greatly in different cases. In one case, No. 6, the child above mentioned, the rash seemed to be absent except for those half-dozen petechiæ. She was in the same bed as her elder brother and sister, who had typical attacks of typhus, and was in the same stage as they were. The child looked ill, had a temperature of 102° , furred tongue, etc., and but for the surrounding circumstances I don't doubt that the case would have been undiagnosed, and put down to some complaint of childhood. I never realised before how easy it is for this disease to be kept going among young children, in the same manner as happened in the outbreak in Nazareth House, recorded in the Public Health Text-books.

3. *The sudden rise of temperature to the maximum.*—In those cases where they were under observation from the first, such as contacts, the temperature rose very rapidly, within forty-eight hours to 102° , 104° , or higher. In this respect they differed markedly from enteric.

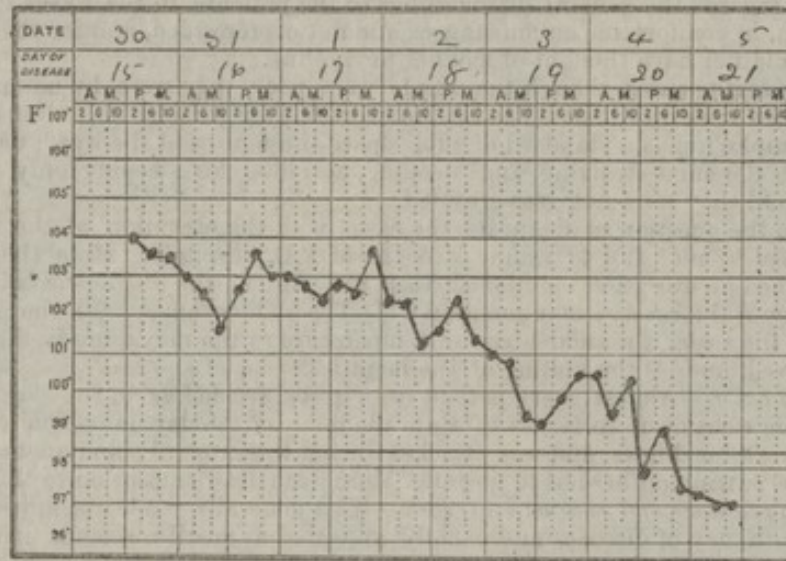
4. *The dulling of the faculties.*—This is always looked upon as a very important symptom, but in one case at least it appeared to be absent throughout the disease; she was mother of patients 3, 6, 7 and 8, and was otherwise typical. In a majority of the cases it was very marked, and was accompanied by deafness. Suffusion of the conjunctivæ was common, but some did not show this.

Having seen several cases of typhus in Belfast and Dublin, I had no hesitation in arriving at a diagnosis in the majority of the cases, though as a whole they did not seem so severe or typical as the cases one sees in Ireland. This is, however, probably to be explained by the fact that the circumstances of the patients in Ireland as regards overcrowding, want of good food, and general poverty are worse than in London, and render attacks not only more severe on the individual, but more liable to spread through a community.

There seemed to be only one feature in the course of the illnesses which was not strictly followed in these cases, and that was the occurrence of a crisis from the twelfth to the fourteenth day.

Of the seventeen cases eleven fell by lysis, which generally lasted two or three days, and occurred in or about the time the crisis might be expected. Two had a fairly typical crisis. There were four deaths, which occurred on the 9th, 11th, 11th, and 16th day of the disease. Although I

have stated that eleven fell by lysis, I do not mean it to be inferred that it was gradual and prolonged, like that of enteric. It was usually short as stated above, and began about the 14th and 15th day. The chart shows the temperature in such a case.



In the cases in which it was prolonged beyond this, it was due to complications. That the cases were infectious admits of no doubt, but the disease was exceedingly capricious in the victims it selected for attack. Several cases occurred within two or three weeks from the removal of a previous case in the family; but the danger of infection does not appear to have been very great to casual visitors, or even to many of those whose contact with the patient is very close. It was rare for the nurse in attendance upon the patient previous to removal to be attacked. Of the two families which suffered most, in one the father, and in the other the mother escaped, though both were in very close attendance. No doubt had the disease gained a firmer footing at first, and occurred at the beginning of the winter instead of towards the end, the virulence of the poison would have become exalted, especially if the usual predisposing conditions of over-crowding and poverty existed in the neighbourhood attacked.

PREVENTION.

The usual methods were adopted to stamp out the outbreak, viz., isolation in hospital, disinfection, and keeping contacts under observation. This latter was done in the case of three families, several members of which were attacked, by keeping them in quarantine during the period of incubation in the Council's shelters. The advantage of this is shown by a reference to the table, which shows that four cases occurred in these dwellings. Under ordinary circumstances the last case would have occurred here also, but the existence of this contact was unknown until he became a victim of typhus.

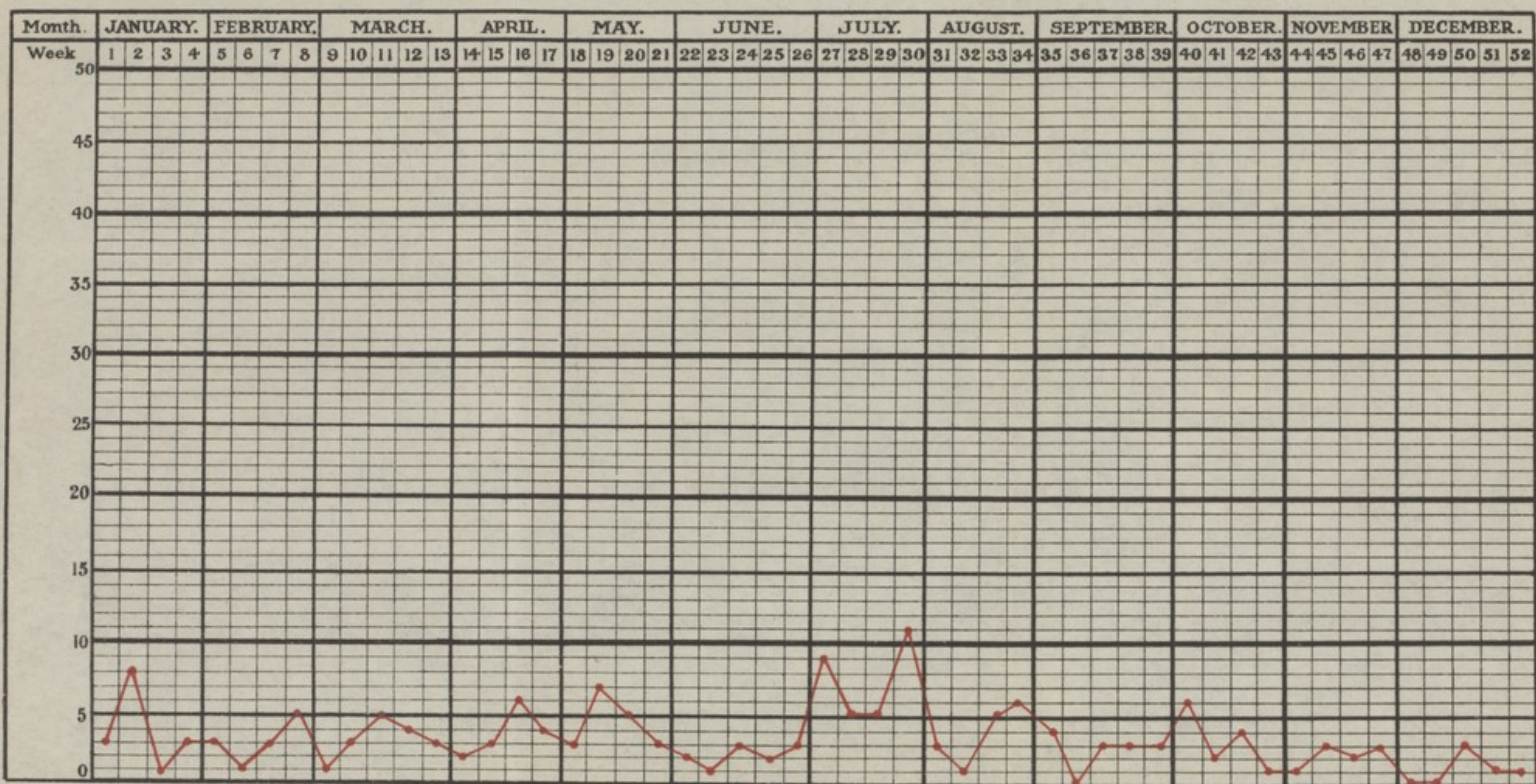
Another preventive method which I took was the closing of St. Joseph's Schools, Paradise Street. This was done on April 20th, for a period of fourteen days, which brought it up to the Easter Holidays. The reasons given to the Council for this action were as follows:—

1. With the exception of the first two cases in the Borough, the earliest discoverable case, viz., No. 3, occurred among children attending that school and was unrecognised, and a number of other cases are apparently connected with this.
2. Several of the families where adults have been attacked have had children attending this school, and in two cases at least there has been a previous history in the family of some indefinite form of illness, which may have been an unrecognised attack of typhus.
3. Judging from the mild form which the disease takes among children, I am inclined to think that some unrecognised case or cases have been infecting the school, and it is therefore advisable to have it closed for a period to prevent the spread of the disease.

That this action was justified, appears from the fact that no fresh cases occurred among the children in the neighbourhood, and the outbreak very speedily came to an end. This outbreak was instructive, inasmuch as it showed how typhus may be kept up by mild, unrecognised cases among children, analogous to "masked" or latent scarlet fever; and also that the origin of the first case was as obscure and difficult to trace as when Murchison propounded his theory that it arose *de novo*.

Failing the "masked" or "latent typhus" theory, the only other feasible suggestion is that the poison is harboured for long periods in old second-hand clothes which find their way from certain endemic centres to London, and—given favourable soil—start the disease.

DIPHTHERIA



No.	Date of Onset of Illness.	Date of Rash.	Initials of Patient.	Sex.	Age.	Address.	Removed.	Remarks.
1	Jan. 20th	Jan. 25th	C. D.	M.	25	211, Jamaica Road	Jan. 31st	Ill first with blood poisoning. Removed as enteric fever. Worked all day at Billingsgate Market, and had his meals at Thames Steps.
2	Feb. 4th	Feb. 7th	S. E.	M.	16	11, Stevens Street	Feb. 12th	Notified as enteric. Worked at tailor's in Cheapside as messenger and porter.
3	Feb. 22nd	Feb. 27th	E. M.	F.	9	14, Warford Place	Feb. 28th	Notified as scarlet fever. Died March 8th with diagnosis of pneumonia. Attended St. Joseph Schools, Paradise Street. 3rd Standard. Was last there on February 23rd. This is not far from No. 1, but there seems to have been no dealings between the families at any time.
4	March 3rd	March 8th	N. C.	F.	9	29, Neptune Street	Mar. 12th	Attended St. Joseph Schools, Paradise Street. 1st Standard. Last there March 2nd. Took ill 8 days after February 23rd. Not in same class as No. 3.
5	March 8th	March 12th	S. L.	F.	29	7, Aylton Street	Mar. 14th	Lives near No. 4. Children attend Albion Street Board School and Clarence Street Church School. Unknown to No. 3. Patient a trousers finisher for a Jew, East End, but had no work for fortnight previous to illness. Died March 19th.
6	March 20th	About March 25th or 26th	M. M.	F.	2	14, Warford Place	Mar. 30th	Attended St. Joseph's Infants. Last there February 26th. Source of infection, No. 3.
7	March 20th	Do.	E. M.	F.	7	14, Warford Place	Mar. 30th	Attended St. Joseph's Infants. Last there February 26th. Source of infection, No. 3.
8	March 21st	Do.	I. M.	M.	11	14, Warford Place	Mar. 30th	Attended Dockhead School. Absent March 2nd to March 13th, and from March 20th onward. Source of infection, No. 3.
9	April 3rd (said to be)	April 3rd	E. M.	F.	35	New Cottage Row Shelter	April 3rd	Source of infection, Nos. 6, 7 and 8.
10	March 29th	April 2nd	E. E.	F.	33	127, Jamaica Road	April 5th	Sister, aged 29, had an illness, said to be influenza, lasting from March 15th to March 22nd. Works in father's office in James Place. No one from No. 14, Warford Place, works in this business place. The patient assists her mother in house work, and has not been near any known source of infection.
11	March 31st	April 4th	W. R.	M.	23	5, Donne Place	April 7th	Casual labourer at the Docks and not acquainted with the families in which any of the previous cases occurred. Two children in family and two downstairs attend St. Joseph's School. Died April 10th. S.R., brother, 8 years, attended St. Joseph's School—ill between March 16th and 21st.
12	April 1st	April 6th to 7th	R. D.	M.	18	8, Salisbury Street	April 7th	Van guard for Pink's, Staple Street. Was at work on April 1st. Sister attends St. Joseph's School (4th Standard), and T.H., on same landing, also attends that school. Visited within the fortnight previous to his taking ill, many country districts in the immediate neighbourhood of London. Brother, J.D., 8 years, attended St. Joseph's Schools—ill about March 6th with diarrhoea.
13	April 6th	April 10th	J. D.	F.	15	New Cottage Row Shelter	April 10th	Source of infection, No. 12—is sister of this patient
14	April 8th	April 10th	M. A. D.	F.	44	New Cottage Row Shelter	April 10th	Mother of No. 12. Same source of infection.
15	April 10th	April 14th	E. M. R.	F.	5	New Cottage Row Shelter	April 10th	Sister of No. 11, by whom she was infected.
16	April 14th	April 19th	W. M.	M.	6	New Cottage Row Shelter	April 19th	Source of infection, Case 9.
17	April 20th (about)	April 25th	S. R.	M.	15	5, Donne Place	April 29th	Source of infection, Case 11.

Diphtheria.

There were 172 cases of diphtheria notified in 1903, of which 115 occurred in Bermondsey, 38 in Rotherhithe, and 19 in St. Olave's. This shows a remarkable decrease since 1901, when the figure was 329, that for 1902, viz. 277, standing in a medium position. Sixteen cases were returned from hospital as not suffering from this disease, but, as explained in the opening paragraph to this section, I prefer to take the notification as the true figure of the cases. Diphtheria is a disease which is kept going by the presence of the bacillus diphtheriæ in the throats of persons who have either had it or been in contact with a case. Unfortunately this bacillus often exists there without producing any symptoms suggestive of its presence, so that while this infected person may be in no danger of contracting the disease, he may be a source of great danger to others, and, as a matter of fact, often is. The cause of the present reduction in notifications is not very capable of explanation. We are at present at the bottom of an epidemic wave which affects both diphtheria and scarlet fever. This marked reduction of prevalence exists all over London and began in 1901. It is probably partly due to the increased attention paid to these diseases. The cases were pretty evenly distributed over the year, the greatest numbers occurring in the first and fourth weeks of July, viz., 9 and 12 respectively. The work of examining the contacts was proceeded with.

During the first nine months of the year the contacts were generally the children of all ages and occasionally the mothers of those families in which diphtheria occurred. During the last three months this plan was slightly modified and more systematised, inasmuch as the examination of contacts was practically limited to those attending school, the remaining ones only being examined if they showed sore throat.

The plan of procedure is as follows: On the notification of a case of diphtheria the Inspector visits the house and sees that the necessary precautions of removal, disinfection, etc., are duly carried out. He then requests the parents to send up those children attending school to the Town Hall during the second week after removal of the case, to have their throats examined by the Medical Officer. If no diphtheria bacilli are found the headmaster and parents are notified that the children may return to school at once, but if they are found a request is sent to the headmaster to exclude them until further examination. The parents are at the same time notified of this and asked to bring the children to their medical attendant for an anti-septic gargle and requested to bring them up for a second bacteriological examination in 14 days.

If, of course, any of these "contacts" at the time the inspector calls or during the subsequent period develop sore throats the parents are advised to call in their medical attendant at once.

Before carrying out this plan I consulted the Medical Officer of the School Board as to its feasibility and got encouragement and promise of help from him. The Board has now appointed an assistant Medical Officer, who, when he sees any particular school or class attacked or threatened with an outbreak of diphtheria, visits and examines the suspicious cases bacteriologically and immediately notifies the Medical Officer of Health if diphtheria bacilli are found. These two plans so far have worked very well and I have experienced, as yet, no difficulty in carrying out my part, and hope to see it before long adopted all over London and applied to all schools. I, of course, see difficulties in following it completely in a district like Bermondsey if there was anything like a large epidemic or a very large number to be examined. If such unfortunately took place the only plan would be to appoint a temporary assistant to examine throats. Another difficulty would be if all the cases had to be visited, but the parents so far have shown themselves willing to co-operate by bringing their children to the Town Hall, when the advantages of the early warning of an impending attack were explained to them.

The number of contacts examined during the year was 193, belonging to 64 families. Of these 20 were found to have diphtheria bacilli in their throats, and of these 16 three developed sore throats and were notified as diphtheria. Seventeen of these contacts were boys from the Home, Shad Thames. A case of diphtheria occurred there on May 28th, 1903, which was immediately isolated. At the request of the medical attendant, who acted very promptly in this matter, I examined the throats bacteriologically. Fortunately no second case occurred.

I hope in my next annual report to be able to give a fuller account of the working of the plan sketched above, after it has been working for a year.

Membranous Croup.

There were two notifications from this cause. They were not removed to hospital as the medical attendant was not prepared to certify that they were diphtheritic in nature. They both recovered.

I hope medical men will soon cease to use this term, and call the cases diphtheria if they are diphtheritic in nature, or if not prepared to say this call them simple croup or laryngitis.

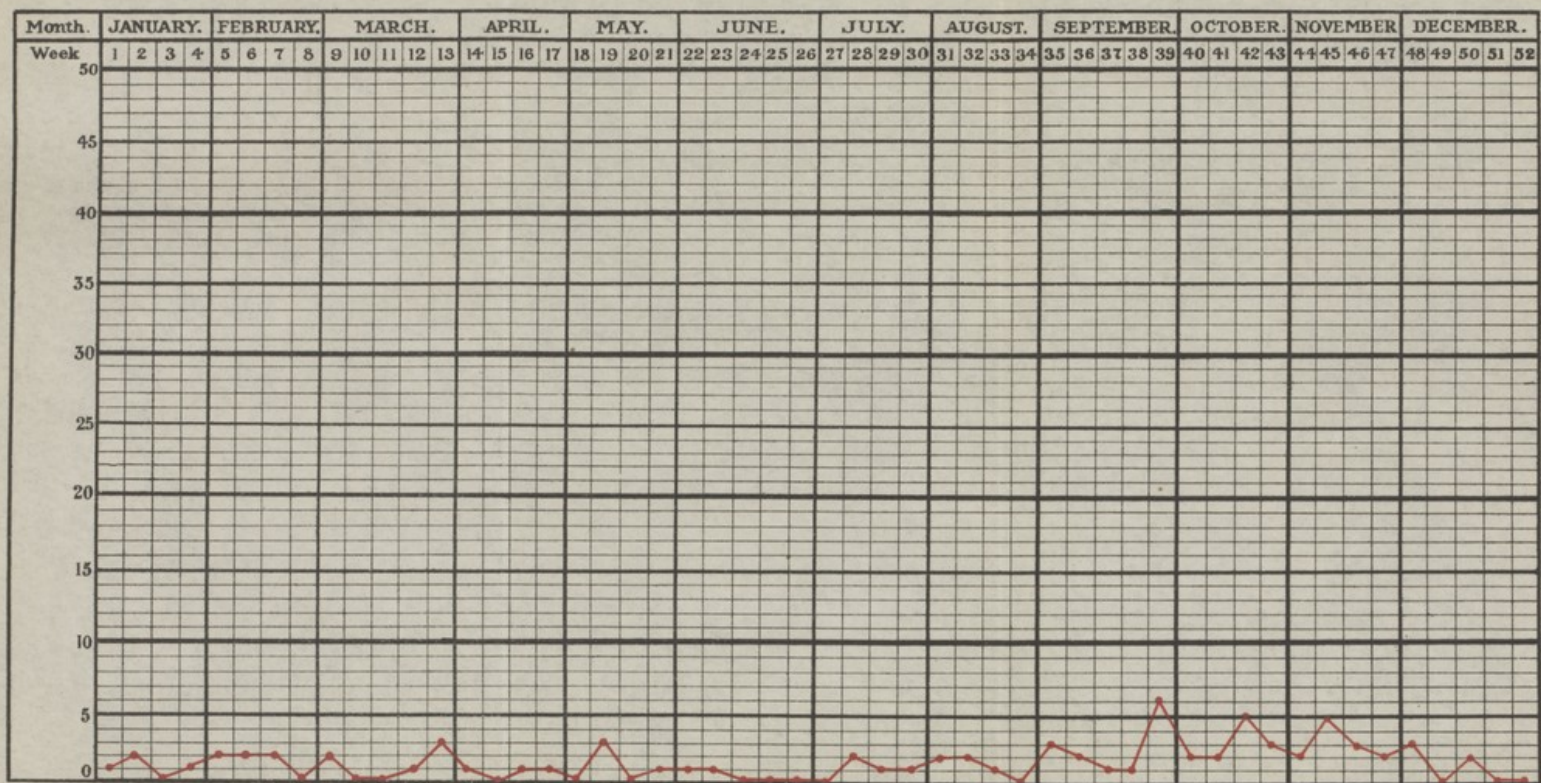
Scarlet Fever.

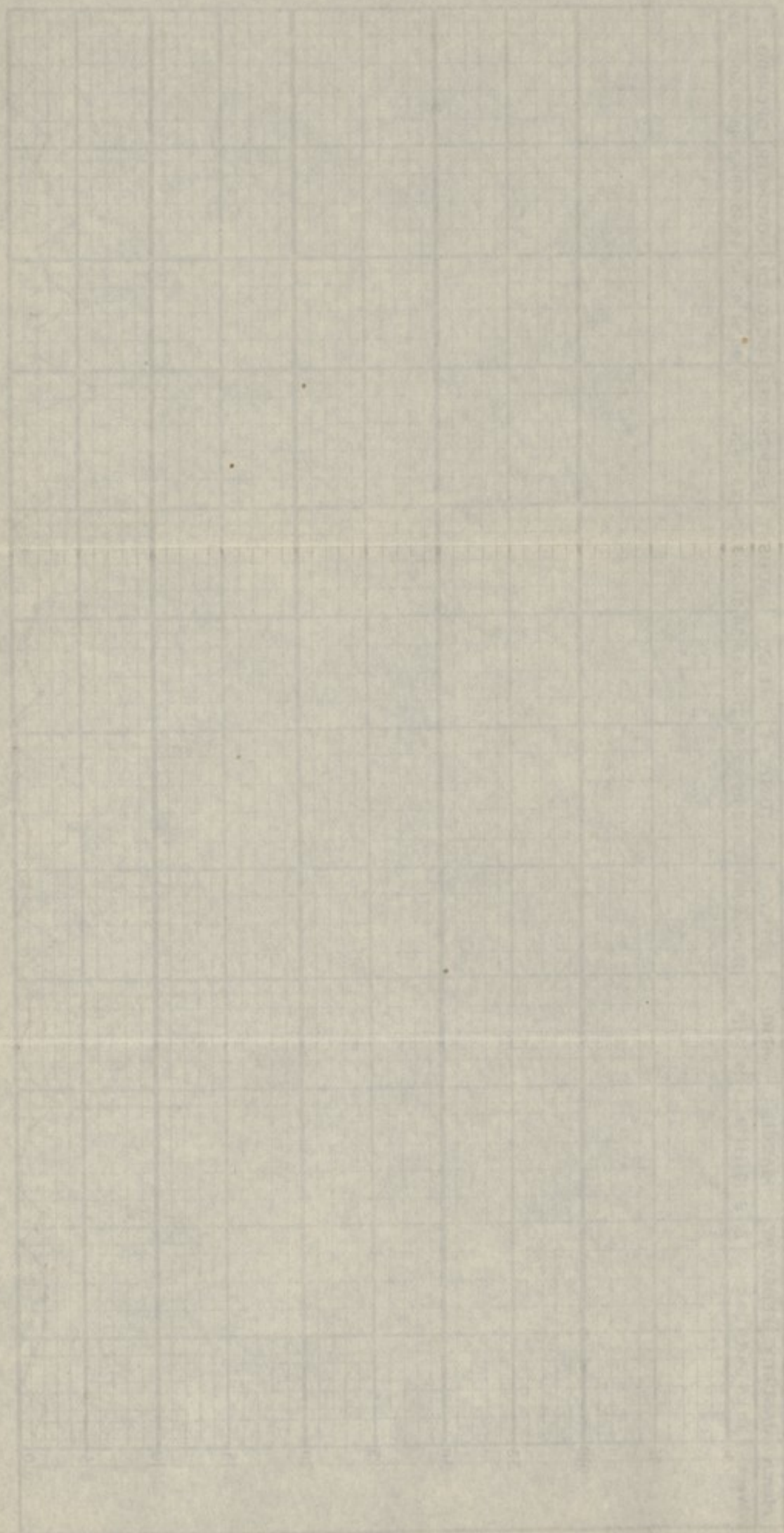
There were 400 notifications of scarlet fever, 259 for Bermondsey, 71 for Rotherhithe, and 70 for St. Olave's. These figures show a diminution since 1901, when the figures were 932 Borough, 657 Bermondsey, 216 Rotherhithe, and 59 St. Olave's. The greatest diminution followed immediately this year, as the figures for 1902, viz., 491 Borough, 336 Bermondsey, 112 Rotherhithe, and 43 St. Olave's, show.

18 cases were returned as not suffering from scarlet fever, i.e., Bermondsey 14, Rotherhithe 3, St. Olave's 1.

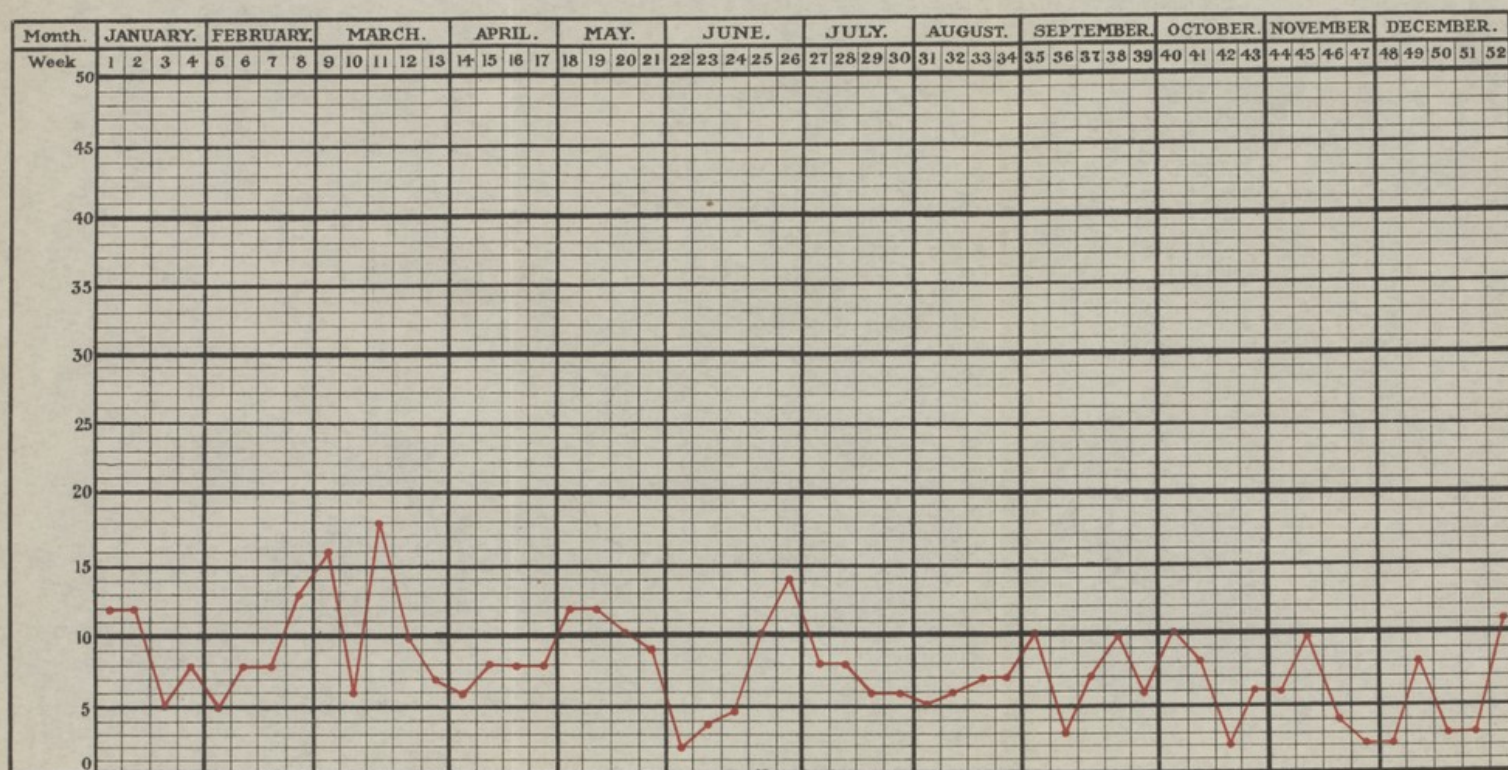
The unequal distribution of cases in the three sub-registration districts is caused by Bermondsey and St. Olave's having rather more than their average of cases compared with Rotherhithe, which seems to have escaped lightly.

ENTERIC FEVER





SCARLET FEVER



The excess in St. Olave's was mainly due to an outbreak of scarlet fever in Parish Street Workhouse. The outbreak consisted in all of 18 cases, and occurred in Ward 27 of the Workhouse, which is devoted to small children. It occurred in two parts, separated by an interval of a little over a month. Part one commenced on May 1st, when K. G., female, 6 years of age, developed scarlet fever. The source is quite obscure since she had been an inmate here since February 14th, 1902, and had not been visited recently. This case was followed by two more on May 3rd, one May 13th, and one May 18th.

The second part of the outbreak began on June 21st, and the following account after special investigation was given to the Public Health Committee on July 14th:—

"A second small outbreak has occurred among the children in Parish Street Workhouse. The last case of the previous outbreak occurred on May 18th, and on this date the children were moved from the infected Ward, No. 27, to Ward No. 41.

"On June 11th they were moved back to No. 27, and on Sunday morning, June 21st, J. B., 1½ years, took ill with what subsequently proved to be scarlet fever. He was removed to hospital on June 25th. This case was followed on the 24th and 25th by two other cases, and up to July 3rd there have been 13 cases in all. On the occurrence of this second outbreak the children were again moved to Ward 41. I visited the Workhouse on July 2nd, and investigated the outbreak. It seems that visitors who had been excluded from the Workhouse owing to the previous attack were again admitted on Sunday afternoon, June 21st, from 2 to 4 p.m.

"As this first case evidently sickened in the morning of that day, the outbreak cannot be considered due to the visitors.

"On visiting Ward 27 in which the first outbreak occurred, I found it had been sulphured in the usual way, the bed and bedding disinfected in the Council's disinfectant, and the floor washed with soap and water. I found, however, in it a large mat, several waterproof sheets, a number of small boots, and various articles in the cupboard, which had not been subjected to steam disinfection, and could not be considered adequately disinfected by sulphur.

"As the outbreak occurred 11 days after the children were moved into the ward, I considered that these articles may have been the source of infection in the second outbreak.

"Instructions were consequently given to have the room again fumigated, the mat disinfected by steam, the other articles in question destroyed, and the furniture and floors thoroughly soaked in a 2 per cent. solution of "miscible" carbolic acid.

"The last case, which occurred on July 3rd, died suddenly at the beginning of the illness, before removal. The body was immediately wrapped in a strong solution of carbolic acid, and removed to the mortuary, Parish Street, pending burial. There are eight contacts still under observation, and so far no other cases have occurred.

No more cases followed this one.

Out of the 400 cases notified there were 25 deaths, making a case mortality of 6.25 per cent. against a case mortality of 3.7 in 1902. Thus the cases in 1903, if fewer in number, were more severe in type.

The attack rate per thousand living was 3.08, as compared with 3.8 in 1902.

As regards the distribution in time the greatest number, as seen by the accompanying chart, occurred in the first and third weeks of March, and the third week of June, otherwise the distribution was fairly even.

As sources of infection the following table is the result of enquiries by the inspectors:—

- 45 from previous cases in family.
- 21 from school playmates.
- 6 from cases recently returned from hospital.
- 2 from playmates.
- 1 patient came from barracks at Portsmouth where several cases had occurred.

The percentage of "return" cases (that is, cases due to, or rather, occurring within 14 days of the return of a brother or sister from one of the Board hospitals after recovery from scarlet fever) appear to be diminishing. The percentage alleged to be due to this cause was 3 per cent. in 1901, 2.2 per cent. in 1902, and 1.5 per cent. in 1903.

The following notes from my diary of the origin of a case of scarlet fever illustrates the difficulty of finding out the source of infection, and at the same time emphasise my view that a great many cases of infectious disease originates from mild unrecognised attacks (vide report on typhus fever):—

"On December 9th, 1903, I was requested to see E. S. (f.) 17 years of age, with a scarlet fever rash. I found her on this date with high fever, sore throat, and well-marked rash, and on enquiry as to the origin, was given the following history:—

"November 10th, 1903, (Tuesday). B. S., 5½ years, male, took ill with shivering; Wednesday, lay about, with loss of appetite, thirst, sore throat ("ulcerated," according to the mother, who examined it). This lasted 3 or 4 days. Skin looked "muddily," as if there were a rash under it, but no distinct rash was visible, skin itched. After recovery nose was sore; whole illness lasted about 10 days. On December 12th hands were skinning.

"November 30th, 1903. W. S., 12 years, male, took ill at school, was sick and shivering all day, lay about, languid and heavy, "ulcerated" throat a few days. Skin "muddily," loss of appetite, sores about mouth. On December 12th, when I saw him, looked ill, and some skinning about the fingers.

December 2nd, 1903. H. S. 2½ years, female, had sore throat, loss of appetite, no appearance of rash, but seemed to have same symptoms as others, diarrhoea came on later and still continues.

December 5th, 1903. E. S., 17 years, female, well marked, attack of scarlet fever.

There is no doubt that all the cases here mentioned were mild attacks which culminated on December 5th with a typical case. I may mention that the first and second were seen by a doctor about the eruption period, and he found no evidence of a rash, and had scarlet fever in his mind at the time. I give this as an example of what happens very often, though the chain of connecting cases is by no means always so distinct.

Enteric Fever.

76 cases of this disease were notified in 1903, being 50 for Bermondsey, 20 for Rotherhithe and 6 for St. Olave's. 11 cases were returned as not suffering from enteric, viz., 7 Bermondsey, and 2 each from Rotherhithe and St. Olave's. The actual cases thus numbered 65. The diminution for this year seems to be part of a general diminution in London since the number of cases in the Metropolis in 1903 was 2,343, the other numbers being 3,194 for 1901 and 3,412 for 1902.

The sources of infection in the great majority of the cases could not be ascertained, but in 11 the disease was attributed to the following:—

- 1 case—London County Council sewerman who complained of sickness as the result of a bad smell.
- 2 cases—defective drains were found in the house.
- 2 patients frequently ate fried fish.
- 3 patients ate raw mussels.
- 1 patient ate raw cockles.
- 1 patient complained of water at Cranbrook, Kent, where he had been hop-picking.
- 1 patient had been hopping at Maidstone.

Oysters and other shell fish eaten raw have been amply proved by the investigations of the Medical Officers of Health for the City of London and Southend-on-Sea to be a common source for conveying the infection, but do not appear to have played an important part in its causation in Bermondsey, for though mentioned in the above Table the causation at the time of investigation appeared doubtful.

Puerperal Fever.

9 cases of puerperal fever were notified, and 4 deaths took place. In 1902 there were 6 notifications and 4 deaths. The number of notifications in this disease do not give data for comparison with past statistics, since what was looked upon formerly as puerperal fever was really puerperal septicæmia, and was almost uniformly fatal, whereas now many cases of puerperal fever are cases of mild pelvic cellulitis, which generally recover.

The nurses and midwives in attendance on these cases were kept from attending other cases for from a fortnight to a month, and were in addition required to have their clothes and hands disinfected to the satisfaction of the Medical Officer of Health.

Four of these notifications were from Guy's Hospital, where the cases were attended by extern students, under the supervision of the physician for that department. In making enquiries I ascertained that frequently a case is attended by two or three of these "externs," and accordingly wrote to the Hospital suggesting that the first to visit the case should be responsible for it throughout, since a number of attendants must multiply the chances of infection.

Measles.

In the Spring of 1903 the County Council made an Order applying certain Sections of the Public Health (London) Act, 1891, to measles. This came into operation on April 1st. The following are the Sections which apply, viz.: 60, 61, 62, 63, 64, 65, 68, 69, 70, 72, 73, 74.

These Sections refer to cleansing and disinfecting of premises, etc., disinfection of bedding, disinfection of infective rubbish thrown into ashpits, etc., penalties for letting infected houses, and other matters connected with letting, penalties for exposure of infected persons and things, and lastly, regarding carrying on milk trade, etc., in infected houses, and the use of public conveyances for infected persons. The Sections which are omitted are those which deal with notification and removal to hospital.

Practically the only method we have of becoming cognisant of measles in any house is through the School Board notifications, and in this way we heard of 74 cases between April 1st, 1903, when the Order came into force, and January 2nd, 1904. These 74 occurred in 53 houses. When the new Education Act comes into force I hope to see all private schools brought into line with the Board Schools and obliged to send notification to the Medical Officer of Health of all exclusions from School through infectious disease. On receipt of the notification these cases were handed to the Sanitary Inspectors with instructions to see that as soon as the illness was complete the rooms where the patients were treated were to be disinfected. This was done in the majority of the cases. In some cases it was objected to and in others certificate of satisfactory disinfection were received from the Medical Attendant.

In the School Board certificates there is a natural confusion between Rôtheln or German measles and the genuine form, which is a much severer complaint, as the following report to the Public Health Committee on April the 14th shows:—

"I received information from Alexis Street School that there were 23 cases of measles among the scholars, and 8 exclusions (among contact) from this cause. The patients were mostly about Lucey Road, Alexis Street, Macks Road, Blue Anchor Lane, etc. There have been, however, a great many more cases than here reported. I visited some 15 houses, made enquiries, and examined some of the cases, and discovered that the children were not suffering from measles but 'epidemic roscola,' or Rôtheln, often called German measles. The nature of the complaint in the remaining cases was ascertained from the medical attendants. It is a very mild complaint and rarely renders the patient seriously ill. No action has been taken beyond excluding the children of the affected families from school."

Outbreaks of this sort might cause a great deal of trouble were the nature of the complaint not discovered, but the School Board appointed early in 1903 an assistant medical officer to look after the infectious diseases in the various schools under their charge, and in such cases as the above he at once visits the school and ascertains the extent to which it is affected and advises on preventive measures, at the same time communicating with the Medical Officer of Health.

Relapsing Fever.

On May 20th a notification was received of the above disease, viz., R.L. (F.) 11 years, of Marcia Road. The medical attendant kindly communicated the following history. "The first time I saw her, her temperature was 105 F., with usual febrile disturbances which was maintained for two or three days when a crisis occurred, accompanied with profuse sweating and diarrhoea, the temperature remaining normal for a few days then shooting up again to 105 F. In a few days another crisis occurred similar to the first, the temperature remaining normal for a few days then shot up again when I reported the case."

He further states that there were petechiæ and a well developed roseolous rash all over her like typhoid.

This disease is rarer nowadays than typhus with which it is generally associated, but the above history shows the advantage of still retaining it on the list of dangerous infectious diseases.

On admission to hospital the Medical Superintendent informs me her temperature was 99.6 F., but rose in the evening. Her blood gave the Widal reaction and the spirillum of Relapsing Fever could not be found. This case must therefore be considered as one of typhoid with an abnormal onset resembling Relapsing Fever.

Notification of Phthisis.

I gave a detailed account in last year's Annual Report of the steps which led up to the voluntary notification of phthisis in Bermondsey and I purpose now giving a short account of the result.

In April, 1903, the permission of the Borough Council was obtained to make phthisis voluntarily notifiable.

The following is the form of notification adopted. It is a modification of one already some time in use in Finsbury:—

THE PUBLIC HEALTH (LONDON) ACT, 1891. VOLUNTARY NOTIFICATION OF PHTHISIS.

CERTIFICATE OF MEDICAL PRACTITIONER.

To the Medical Officer of Health.

TOWN HALL, LOWER ROAD, S.E.

I hereby certify that in my opinion the person hereinafter named is suffering from Phthisis (with muco-purulent discharge of infective sputum); and I further certify the following particulars in respect of such person:—

Name in full of the Patient	...	...	...	...
Age of Patient	...	...	...	...
Sex	...	...	...	...
Full Postal Address of House of which Patient is an Inmate	...	...	...	...
If the Patient is an Inmate of a Public Institution	...	...	...	...
Place from which the Patient was brought and date of Admission	...	...	...	...
State whether disinfection be desired at the time of notification or periodically, or not at all	...	...	...	...
Whether the case has occurred—				
(a) In the private practice of the Practitioner certifying				
or				
(b) In his practice as Medical Officer of a Public Body or Institution; and if so, of what Body or Institution	...	...	...	...

Dated the _____ day of _____, 190 _____.

(Signed) _____ Medical Practitioner.

Address of Person signing _____

NOTE.—This certificate is a voluntary one. There will be no official interference as the result of notification with your patient, either at home or in connection with his occupation, the steps taken being confined to the distribution of leaflet relating to the general hygiene and methods of preventing the spread of tuberculosis, to enquiries by the Medical Officer of Health where deemed necessary, the remedying of sanitary defects, and disinfection when required. No case should be notified without the consent of the patient. Cases should not be notified which have been notified by another practitioner, unless there has been a change of address in the meantime.

The first notification was received on April 24th, and from this till the end of the 52 weeks under report 67 in all were received.

On the receipt of a notification the following leaflet is at once posted to the patient:—

Metropolitan Borough of Bermondsey.

Town Hall, Spa Road, S.E.

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PRECAUTIONS RECOMMENDED FOR PREVENTING CONSUMPTION.

CONSUMPTION is an **INFECTIOUS DISEASE**, and is spread by the microbes which swarm in the sputum. These are scattered broadcast when the sputum is allowed to dry and to mix with the dust of the room. Persons suffering from **CONSUMPTION** should **NEVER SPIT** on the floor either of their own rooms, or in any Bus, Tram, Railway Carriage, or other public place.

When the patient is confined to the house, he should either spit into a special **MUG** or **JAR** containing water to which has been added a little crude **CARBOLIC ACID**, or into a rag which should be immediately burnt. The cup when full, can be emptied down the W.C., and scalded with **BOILING WATER** before being used again.

The utensils used by consumptives should on no account be used by the other people in the house. They must have their own cup and saucer, spoons, etc., kept for their special use.

When not confined to the house the patient should carry a suitable bottle for spitting into. This can be obtained from almost any chemist. When the patient returns to his home the bottle should be carefully emptied and disinfected with boiling water.

These precautions are for the benefit of the patient as well as his friends, since it is possible for him to be re-infected by his own sputum, as well as to infect others.

Consumptives should avoid swallowing their own sputum because this causes disease to arise in the stomach or bowels, and other parts of the body. They ought not to kiss their friends or be kissed by them on the mouth.

INFECTION is sometimes received through infected milk or other food. This is especially the case in children. To prevent **CONSUMPTION** being spread by meat or milk, the former must be thoroughly well cooked and the latter boiled before use.

Healthy people do not catch consumption easily, but a low state of health predisposes to it. This condition may be inherited, or induced by **OVERCROWDING**, want of **VENTILATION**, **DARK, DIRTY** and **DAMP HOUSES**, **BAD FOOD**, **INTEMPERANCE**, **INFECTIOUS DISEASE**, or anything that lowers the general state of health.

CONSUMPTION is both **PREVENTABLE** and **CURABLE**, and the two great agents by which this is accomplished are:—

SUNLIGHT and FRESH AIR.

Live in the fresh air as much as possible, and take every opportunity of being in the Sun and allowing it to shine in your rooms. Where possible the patient should sleep in a room by himself, or, if this is impossible, he should at any rate have a bed to himself. The bedroom window should be **OPEN** at the top, **NIGHT** and **DAY**, the patient being protected from wind and rain by other means than closing the window. It is always better to keep warm by putting on extra clothes than trying to raise the temperature of the room by shutting the windows, fireplaces, etc. The house should be kept free from dust, and, when cleaning, damp dusters should be used. These dusters can be boiled afterwards. Tea leaves should be used to keep down the dust when sweeping, and burnt afterwards.

In the event of a **DEATH** from **CONSUMPTION**, or removal of a patient to another house, the room which has been occupied should be thoroughly **DISINFECTED**.

R. K. BROWN,

Medical Officer of Health.

NOTE.—Disinfection will be carried out by the Council

FREE OF CHARGE.

And this is followed by a visit from myself in the course of the next week or two. The object of the visit is to make enquiries into the history and circumstances of the patient, to amplify the recommendations on the leaflet and recommend disinfection.

Two registers are in use, one for the patients and one for the houses where phthisis cases have occurred.

In the former the information concerning each patient is put down under the following headings:—

No., Date of Notification, Name, Age, Sex, Addresses during Illness, Occupation, Place of Employment, Date of beginning of Illness, Personal History of Patient, Family History, Result of Illness, Sources of Infection (probably—possible), Milk Supply, General Condition of Premises, Bacteriological Examination Result, Action taken.

In the House Register of Phthisis the information is placed under the following headings: House in which case of Phthisis has occurred, Room occupied, Length of Residence during Illness, Age, Sex, Date of Notification or Death, Removal of Patient (Address and Folio if necessary), Remarks.

These Registers are indexed to fit in with one another so that a particular patient who changes his residence as well as a house which changes its tenants can be followed up.

The following Table gives the occupations and ages of the cases visited. The figures, at present are too small in number to draw any reliable conclusions as to the influence of occupation in the spread of the disease:—

OCCUPATION.	Under 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	ALL AGES.
Barmaid	1	...	...	...	...	1
Collar Ironer	1	...	...	...	...	...	1
Compositor	1	...	...	...	...	1
Charwoman	1	...	...	1
Clerk	1	...	...	...	...	...	1
Cook	1	...	...	1
Cork Cutter	1	...	1
Dressmaker	1	...	...	...	...	1
Domestic Servant	1	...	...	...	...	...	1
Engine Driver	1	...	...	...	...	1
Housewife	2	5	5	3	1	1	17
In Cold Store...	1	...	...	...	...	...	1
In Confectioner's Shop	1	1
Grocer's Assistant	1	...	...	...	...	...	1
Fitter	1	...	...	...	...	1
Printer's Warehouseman	1	...	...	...	1
Jam Factory hand	1	...	...	...	1
Labourer	2	...	...	...	...	...	2
Lighterman	1	...	...	...	1
Machinist	1	1	...	1	...	...	3
Mat Weaver	1	...	...	1
Night Watchman	1	...	1
Office Cleaner	1	...	...	...	1
Printing Machine Minder	1	...	...	...	...	...	1
Stevedore	1	1	...	...	2
Sackmaker	1	...	...	1
Seamstress	1	1	...	...	...	2
Scholar	4	...	...	...	...	...	...	4
Tinsmith	1	...	...	...	...	1
Telegraphist	1	...	...	...	...	...	1
Warehouseman	1	1	...	1	...	3
Waitress	1	...	...	...	...	1
Woodchopper	1	...	...	1
No Information	2	...	...	3	3	...	...	...	8
TOTALS	2	4	12	18	15	10	4	2	67

In the case of 14 there was a family history of phthisis in near relatives, in 7 of these was a similar history in distant relatives, in 2 cases the patient's husband was said to be phthisical, and in 37 there was no evidence of phthisis in the family, while in 8 patients no information could be obtained as to their families. On the whole my short experience is in favour of voluntary notification. It is a step towards compulsory, which would be much more useful, especially if we can get sanatoria for the treatment of suitable cases.

It is difficult to put the advantages of voluntary notification into numbers, but it is impossible to think that the literature on the prevention of consumption followed by visits in which attention is still further drawn to its infectivity among notified patients, is productive of no good.

The restrictions as to non-interference with the patients, as well as the permissive character of the disinfection while having advantages in paving the way for an extension of notification have the disadvantage of restricting greatly the action which might be taken, especially as regards disinfection.

While disinfection has been accepted in a few cases during the lifetime of the patients, it has been insisted on after death and change of residence.

The number of rooms disinfected for phthisis during 1903 was 46.

Shellfish and Typhoid Fever.

No case of typhoid fever occurring in Bermondsey during 1903 was directly traced to the ingestion of shellfish. Still, owing to the action of the Corporation of London the matter was brought prominently before this Council. I brought up the following report on April 28th, and am still of opinion that the matter is a very important one, and that oyster beds and places where shellfish of various sorts are cultivated should be the subject of immediate legislation.

In the report on the above subject by the Sanitary and Port of London Sanitary Joint Committee they have adduced ample evidence of sewage contamination in oysters and cockles. In one case typhoid bacilli have actually been found. They recommend that the Local Government Board be asked to introduce a Bill into Parliament giving power to the Port Sanitary Authorities which have layers within their limits to deal with these when they show any evidence of contamination. The Corporation of London ask us to support this recommendation.

The Committee did not make any recommendation the last time the matter was brought before them, but on the fresh evidence of contamination which has been produced I would recommend that the Committee support this recommendation.

Anthrax.

Eight cases of anthrax occurred in connection with this Borough during the year 1903. Six came to my knowledge through certificates from the Home Office, and the remaining two came direct from Guy's Hospital. Five of them were due undoubtedly to foreign hides; in three of these the hides were from China, one from Russia, and one from the Cape.

In one case the man was employed at a wharf where tinned goods were received, and the only possible source of infection would seem to be the strips of hide which bound the boxes, or else that the wood of the boxes was infected.

One case occurred at Gun and Shot Wharf, which does not usually, but occasionally, lands hides. In the eighth case the source of infection cannot be traced. Some days previous to the notification of the disease the patient had been employed for a couple of hours with a leather merchant in Railway Approach, but as he was dealing with finished hides this was probably not the source.

A ninth case was reported, but I have not included this among the Bermondsey cases as it was a child of 3 years who was only in this Borough one day, and the relatives gave this address to the Guy's Hospital authorities. The case belonged to Southwark.

In all these cases the pustule developed either on the neck or the side of the face, and was evidently caused by the bacillus of anthrax being conveyed by the finger nails to these parts. The neck is particularly liable to have small pustules due to irritation of the collar, and if the hands happen to be infected it is very easy to imagine how it is conveyed to the parts in question. Bills drawn up by myself, at the request of the Public Health Committee, were given to each firm, and the precaution as to the importance of early treatment of all pustules contained therein was evidently carried out, since in all the cases except one the patient underwent prompt treatment at Guy's Hospital and recovered. In one case the treatment was delayed with the result that the patient died of general anthrax poisoning. The poison is quite local at first, but very soon becomes generalised if not promptly removed.

Lead Poisoning.

Two cases of lead poisoning came to my knowledge during the year. The following are the reports submitted to the Public Health Committee:—

"I was informed by the Medical Officer of Health of Southwark that M. H., of Clifton Buildings, in that Borough, was suffering from lead poisoning. He works at Messrs. Miles, Druce & Co.'s, Long Lane. I have visited this place and found that the man has been there three years and had an attack of lead poisoning previous to coming to this firm. He contracted the complaint while at work dipping the ends of drums in lead. It seems there have been very few cases of lead poisoning in connection with this firm. They are taking the ordinary precautions of providing the men with nail brushes, basins, soap and towels, so that they can always keep their hands clean before taking meals. In these cases it is mostly through the medium of the hands that lead gains access to the system.

On October 12th notification was received from Guy's Hospital that T. W., 31 years, male, living in St. James's Road, was suffering from lead poisoning. I visited the house and found the patient was an in-patient at Guy's Hospital with acute lead poisoning, and that he was potman at a public-house close by. In view of finding a possible source of infection I visited the public-house and was informed that two or three weeks before the patient's illness he had taken to drinking considerable quantities of cider. This drink, as is well known, is liable to dissolve and hold in solution any lead with which it may come in contact, and the publican, who showed himself very willing to afford me facilities in the inquiry, gave me a pint of the cider, which I submitted to the Public Analyst.

The Public Analyst has reported that, after careful examination of the cider, he found it to contain "distinct traces of copper but only a most infinitesimal trace of lead, an amount so small as to be only just detected by the most delicate test for that metal. Neither the copper nor the infinitesimal trace of lead present is sufficient to render the cider injurious to health. Traces of salicylic acid were present."

In this connection, another possible source of lead poisoning is beer which is left standing over night in the lead pipe leading from the cellar to the counter. At least one case is known where an early customer, in the habit of receiving the first glass drawn in the morning, contracted lead poisoning. The habits of this patient, however, would not render this source probable, since the public-house is opened at 5 a.m., and he never arrived until 7 a.m. The publican informs me in addition that the first glass drawn is always thrown away, since it is liable to taste and smell bad. The patient is recovering."

III.—SANITARY ADMINISTRATION.

In Table XIV. of Appendix will be found particulars of the general sanitary work for 1903, and in Table VII. the numbers of premises on the register, to which special attention has been paid, such as milkshops, etc. Looking at the first of these two tables it will be seen that house-to-house inspection has been vigorous, as the number of inspections of this kind was 5,415 against 4,532 in 1902. The Public Health Committee have always insisted, and I think very properly, that special attention should be paid to house-to-house inspection. It is the only way to ensure that all premises in the Borough receive attention.

Table XIV. shows, also, an increase of 4,000 in the re-inspections, and a large increase in the number of intimation and statutory notices, the figures for 1902 being—Intimations 3,430, statutes 1,057; and for 1903—Intimations 4,251, statutes 1,314.

Offensive Trades.

The same number of offensive trades, viz., 13, are on the register as in 1902. 58 inspections were made, and 7 notices served. No prosecutions were necessary, as the defects were mostly of a minor nature, and the nuisance readily abated.

One prosecution for the removal of offensive matter, however, was in connection with one of the offensive trades.

The number of inspections given above does not include a number of independent inspections by myself.

Offensive Matter.

Four summonses were taken out under the London County Council bye-laws for the removal of offensive matter during prohibited hours, or in improperly covered receptacles. Two were taken out against the owners, two against the carmen. Conviction being obtained against the owners, the summonses against the carmen were withdrawn on payment of costs.

Milk Premises.

There were 265 milk premises on the register in 1902, and in 1903, 21 were added, making a total of 286. The number of inspections was 325, and 26 notices were served. On the receipt of a request to place a shop on the register, it is first inspected to see if it is suitable for selling milk.

Cowsheds.

There are 7 cowsheds in the Borough, the same number as in 1901 and 1902. 31 inspections were made and 1 notice served.

Slaughter-houses.

There were 5 slaughter-houses in the Borough at the end of 1902, and 2 were removed from the register during 1903, so that at the end of that year there were only 3. 23 inspections were made and 3 notices served.

Ice Cream Premises.

There are 68 premises where ice cream is manufactured in the Borough. The owners of these premises are mostly of Italian nationality. 218 inspections of these premises were made, and 31 notices served. Owing to the London County Council (General Powers) Act, 1902, which came into force in November of that year, special attention was paid to these premises during the early part of 1903 by myself and the Chief Inspector.

We visited all the places where this commodity is made, and had such structural alterations made as were necessary to bring them into conformity with this Act. On the whole we had little trouble in getting the owners of these premises to do what was required.

I think, however, some regulations such as were made by the Corporation of London for the manufacture of ice creams could be adopted in this Borough with advantage.

The section of the London County Council (General Powers) Act, relating to these premises, as well as the regulations made by the Corporation of London, will be found in full in my last annual report.

Houses let in Lodgings.

In 1902 there were 206 "houses let in lodgings" on the register, and during 1903, 2 more were added and 1 taken off, making a total of 207 on the register at the end of the year. The

Public Health Committee gave instructions during the year that they were to be visited quarterly. The total number of inspections was 569, 167 notices being served for sanitary defects. No prosecutions were found necessary.

The following is a list of the houses let in lodgings :—

11, Aberdour Street	14, Gedling Street	13, Marcia Road
17, "	60, Gainsford Street	2, Oldfield Road
5, "	9, Grange Walk	3, "
13, "	76, "	1A, Osborne Buildings
14, "	81, "	10, Pages Walk
56, Arnolds Place	87, "	9, Porlock Place
82, Abbey Street	91, "	19, "
86, "	5A, Green Walk	21, "
98, "	6, Hatteraick Street	21, Paulin Street
100, "	9, Kenning Street	10, Parkers Buildings
95, "	10, "	2, "
26, Bermondsey Street	11, "	13, "
131, "	19, Kipling Street	28, "
136, "	31, "	11, Reed Street
50, Bermondsey Wall	6, Lamb Alley	9, Riley Street
52, "	7, "	556, Rotherhithe Street
6, Bell Court	8, "	1, Suffolk Street
8, "	46, Larnaca Street	42, "
9, "	47, "	1, Salisbury Place
12, "	54, Leroy Street	4, "
15, "	58, "	10, "
18, "	62, "	14, "
24, Bermondsey New Road	72, "	16, "
7, Cloyne Row	74, "	20, "
1, Curlew Street	76, "	8, Salisbury Street
2, "	78, "	24, "
10, Crosby Row	82, "	27, "
19, Debnams Row	86, "	29, "
21, "	22, Littlington Street	55, "
23, "	11, London Street	57, "
13, "	12, "	58, "
42, Decima Street	13, "	59, "
28, Enid Street	14, "	66, "
2, Emba Street	15, "	43, Snowfields
4, "	16, "	14, "
28, East Lane	17, "	16, St. Helena Road
29, "	18, "	78, St. Marychurch Street
3, Elim Street	19, "	80, "
7, "	20, "	19, The Grange
9, "	31, Lafone Street	21, "
18, "	230, Long Lane	86, Tanner Street
19, "	201, Lower Road	23, Trident Street
21, "	35, Mellicks Place	26, "
40, "	39, "	13, Turners Retreat
41, "	41, "	40, Vauban Street
45, "	43, "	41, "
24, Freda Street	63, "	3, Warford Place
1A, Flockton Street	4, Maze Pond	4, "
7, Foxlow Street	6, "	14, Wilds Rents
7, "	8, "	1, William Square
8, "	10, "	29, West Lane
15, "	12, "	43, "
16, "	14, "	45, "
17, "	16, "	48, "
19, "	18, "	50, "
20, "	7, Morris Court	62, "
21, "	8, "	40, "
22, "	9, "	20, Westlake Road
23, "	10, "	22, "
25, "	11, "	199, Weston Street
23, Faustin Place	12, "	247, "
31, "	19, Manor Lane	253, "
35, "	6, Marigold Street	4, Woods Place
4, Fendall Street	10, "	11, "
30, Ferrand Street	12, "	14, "
31, "	1, Marshalls Place	15, "
16, Fulford Street	21, "	16, "
18, "	9, Maynard Road	1, Woolf Street
12, Gedling Street	9, Marcia Road	2, "

Section 48 Public Health (London) Act, 1891.

Certificates were granted to the following premises for a proper and sufficient water supply:—

“White Swan” p.h., Slippers Place,
32, 33, 34, 35, 41 and 42, Richardson Street,
Rye Buildings, Swan Lane,
Sandwich Buildings, Swan Lane,
Presbytery, Debnams Row,
Pottens Flats, Cherry Garden Street,
13, tenements of Tower Buildings, Tower Bridge Road,
Fire Brigade Station, Rotherhithe Street,
111 and 113, Albion Street.

Food Inspection.

Owing to the enquiry of the Local Government Board as to the methods of inspecting food, which was held at the Guildhall in 1902, the general inspection of food in the various wharves and riverside premises, as well as the places where food is manufactured, stored or retailed, has been much more systematically done than hitherto on the part of the district inspectors. As regards the wharves, the London Customs Bill of Entry (Bill B) arrives every morning and the contents examined by the Chief Inspector, who marks off the wharves in connection with the district to which food stuffs are consigned. The district inspectors receive particulars of these, and make a 10 per cent. examination of the food in question. Should anything be found which is wrong or suspicious a fuller examination is made and the articles in question detained until they have been suitably dealt with. The wharfingers have been found anxious and willing to give every assistance.

Disinfection.

The following table shows the number of articles passed through the steam disinfector during the year:—

Beds	1037	Pillows	1663
Blankets	1600	Quilts	1000
Bolsters	578	Sheets	1353
Carpets	223	Wearing apparel, etc. ...	8478
Cushions	128		
Mattresses	804	Total	17046
Palliassees	182		

Food and Drugs.

In Tables XII. and XIII. of Appendix will be found a list of the samples taken during the year and the action taken.

Altogether there were 721 samples taken, compared with 759 in 1902. Of these 7·6 per cent. were found adulterated, against 11 per cent. in 1902. I am afraid this lower percentage does not necessarily mean that there is less adulteration, but probably indicates that the adulteration has escaped the inspectors.

The administration of the Food and Drugs Acts is extremely important and owing to the constant influx of new articles of food into the market and the rapid increase of new and more refined methods of adulteration, there has grown up recently a large amount of literature on the subject which renders it very difficult for the ordinary Inspector to keep up to date with the question of adulteration, while performing the multifarious duties which he is called upon to undertake.

In my opinion, therefore, it would be well for the Public Health Committee to consider the advisability of appointing an Inspector, whose sole duty would be to administer the Food and Drugs Acts.

Specialising in this, as in many other branches, leads to a man taking an interest in the particular subject he has to deal with, and makes him much more efficient in carrying it out.

Another advantage is that the Act could be more uniformly administered by the single Inspector. Under the present regime, there is a considerable and unavoidable difference in the methods by which the various Inspectors take samples, and the discovery of adulteration depends very largely on the way this is done.

About half the Sanitary Authorities in the Administrative County of London have special Inspectors for this purpose, and, from enquiries made, in those cases in which experience has been had of both plans, opinion is greatly in favour of having a Special Inspector.

I think that there would be quite sufficient work to keep one man occupied in the administration of this Act for the whole Borough. If this were not so he could perform other special duties, such as smoke, food inspection, etc.

Address.	Occupants of overcrowded part of house.	Space required.	Rooms occupied and cubic feet space.	Deficiency.	State of Premises and Family.
Salisbury St.	Man, wife and 2 children, 17 (r) and 15 (u)	Living and sleeping, 1600 cubic feet	Back room, first floor, 1228 cubic feet	cubic ft. 372	Man is a carman in regular work earning about £1 per week. His wife, son and daughter are all in regular work, the total earnings amounting to 52s. per week, and they can well afford to abate the overcrowding. The room is clean.
Coxsons Place	Man, wife and 4 children, 5 (u), 1 (u), 6 (r) & 4 (r).	Living and sleeping, 1177 cubic feet	Two rooms, 1600 cubic feet	423	Husband is a clerk earning 25s. per week, but his work is irregular. The rent is 6s. per week. The room and bedclothes are fairly clean.
Emba Street	Man, wife and 4 children, 13, 12 and 4 (females), and 5 (male)	Living and sleeping, 1266 cubic feet	Front room, first floor, 2000 cubic feet	734	Husband is a painter earning 25s. per week. The rent is 3s. 6d. per week. They state they are unable to get two rooms. The room is dirty and untidy, and the bedclothes scanty and dirty.
Vine Street Buildings	Man, wife and 8 children, 14, 6 & 4 (males), 13, 11, 9, 3 and 4 mos. (females)	Living and sleeping, 2553 cubic feet	Two rooms, 3000 cubic feet	447	Husband a hop porter earning 26s. per week, and in regular work. The rooms are clean, but bedclothes scanty.
Braddon St.	Man, wife and 6 children, 15, 9, 7 and 1 (males), 13 and 11 (females)	Living and sleeping, 2200 cubic feet	Two left hand rooms, ground floor, 1965 cubic feet	235	Husband a foreman at a corn factors, earning 30s. per week and in regular work. Rent 5s. 6d. Rooms fairly clean. They could afford more room.
Do.	Man, wife and 6 children, 16, 14, 13, 11 (males), 9 and 6 (females)	Living and sleeping, 2800 cubic feet	Three right hand rooms, first floor, 2255 cubic feet	545	Husband a dock labourer in irregular work, earning only a few shillings a week. The two eldest boys earn 8s. and 6s. per week respectively, and this pays the rent. The people seem very poor. The back bedroom is infested with bugs, but otherwise the rooms are all clean.
Do.	Widow and 3 children, 14 and 12 (females), and 2 (male)	Living and sleeping, 1400 cubic feet	Front room, ground floor, 1185 cubic ft.	215	Mother earns 4s. to 5s. per week at laundry work, and the eldest girl earns about the same amount, but is at present out of work. Rent 2s. 9d. per week. They are very poor.
Do.	Woman and 4 children, 10, 9, 8 and 3 (males)	Living and sleeping, 1400 cubic feet	Back room, ground floor, 901 cubic feet	499	Husband a dock labourer, allows his wife 18s. to 23s. per week. Rent 2s. 9d. per week. Husband does not live here. The wife is lame. These people could afford another room or two.
West Lane	Man, wife and 5 children, 11 and 4 (males), 10, 7 and 1 (females)	Living and sleeping, 2200 cubic feet	Back addition rooms, 1228 cubic feet	972	Husband a waterside labourer, said to earn on an average 10s. per week. His wife earns 4s. to 5s. a week. The light and ventilation is fair. The rooms and bedclothes are dirty.
Paradise St.	Man, wife and 3 children, 5, 3 and 1 (females)	Living and sleeping, 1400 cubic feet	Back room, ground floor, 1096 cubic ft.	304	Husband a labourer at Mark Brown's, Tooley Street, his wages averaging 25s. to 30s. a week. Rent 3s. per week. The people are clean.
Decima St.	Man, wife and 1 child, 13 months	Living and sleeping, 1000 cubic feet	Front room, first floor, 818 cubic feet	182	Husband a newspaper seller, and earns between 15s. and £1 per week. Light and ventilation fair. Room and bedclothes very dirty.
Dunlop Place	Man, wife and 3 children, 3½ (u), 2½ (u) & 6 wks. (r)	Living and sleeping, 1400 cubic feet	Front room, first floor, 1050 cubic feet	350	Husband a waterside labour with precarious living. The ventilation is bad and the light fair.

Underground Conveniences.

There are at present five underground conveniences, four of which have accommodation for males and females, under the charge of the Public Health Committee. They are each under the immediate supervision of the Inspector in whose district they are situated. There is both w.c. and lavatory accommodation. They are open from 9 a.m. to 12.30 a.m., and each of them is provided with one free w.c., the others being charged for. The takings during 1903, were £436 5s. for w.c.'s, and £27 8s. for lavatories, making a total of £463 13s.

Smoke Nuisances.

176 observations were made of chimneys and shafts, and 56 offences reported to the Public Health Committee. Fines and costs were inflicted in the following cases:—

		FINES.			COSTS.	
		£	s.	d.	s.	d.
Messrs. Gillman & Spencer	...	2	0	0	2	0
"	"		5	0	2	0
"	"		5	0	2	0
Messrs. Peek Frean & Co.	...	2	0	0	2	0
"	"	10	0	0	2	0
TOTAL	...	£14	10	0	10	0

Water Supply.

Owing to the frequent floodings of the Thames valley caused by the excessive rainfall in 1903, the waters supplied to the Metropolis from this source showed frequent signs of grave pollution.

I drew the attention of the Public Health Committee to the matter first in June, in a short report. The borough is supplied by three water companies, viz., the Kent, which supplies a small strip which adjoins the Surrey Commercial Dock and the Borough of Deptford; the Lambeth, which supplies a small square bounded by Pages Walk, Brandon Street, Bermondsey New Road and Old Kent Road; and the Southwark and Vauxhall, which supplies the rest of the Borough. The Kent water is organically the purest in London, because its source is the deep wells from the chalk in Kent. The Lambeth and Vauxhall Companies derive their supply from the River Thames. Owing to the excessive rainfall in 1903 and the consequent flooding referred to above, the last two waters assumed on several occasions a very peaty aspect, the deep brown colour being specially noticeable when the swimming baths were first filled.

In the Local Government Board Report for March, 1903, the organic matter was stated to be chiefly vegetable in origin, and was attributed to insufficient storage.

On the first report to the Committee on the matter, I was instructed to take samples when advisable, and submit them to the Public Analyst.

During the last half of the year I took three, viz., two from the Southwark and Vauxhall on July 8th and October 27th respectively, and one from the Lambeth on November 3rd. The following are the reports of the Public Analyst:—

Sample from Southwark and Vauxhall Co., taken on July 8th, 1903.

Colour in 2 ft. tube	...	pale greenish yellow
Odour	...	none
Suspended matter	...	none
		Grains per gallon.
Total solid residue (120 deg. C.)	...	23.10
Loss on ignition	...	1.19
Combined chlorine	...	1.30
Equal to common salt	...	2.14
Nitrogen as nitrates	...	0.18
Nitrites	...	none
Saline and free ammonia	...	0.003
Albuminoid ammonia	...	0.010
Oxygen absorbed from permanganate (4 hours at 80 deg. F.)	...	0.096
Hardness	...	15.4 degrees

On comparing the above figures with those obtained from the analyses of the Southwark and Vauxhall Co.'s water made by me some years ago for the late St. Saviour's District Board of Works, I find this sample to be *worse than any I have yet analysed*.

Usually this Company's water is free from saline ammonia, whereas now it contains 0.003 grains per gallon (0.043 parts per million).

The normal albuminoid ammonia is about 0.005 grains per gallon, whereas it is now 0.010 grains per gallon, or 0.14 parts per million.

Nitrates have increased from about 0.08 to 0.18 grains per gallon, and the figure for oxygen absorbed is also very much higher than before.

In its present condition the water is in my opinion unfit for a public supply.

(Signed) R. BODMAN, F.I.C.

Sample from Southwark and Vauxhall Water Co., taken on October 27th, 1903.

Colour in 2 ft. tube	...	...	...	...	greenish yellow
Odour	...	...	...	...	none
Suspended matter	...	...	...	...	none
					Grains per gallon
Total solid residue (120 deg. C.)	...	...	...	...	23.80
*Loss on ignition	...	...	...	...	3.85
Combined chlorine	...	...	...	...	1.25
Equal to sodium chloride	...	...	...	...	2.06
Nitrogen as Nitrates	...	...	...	...	0.13
Nitrites	...	...	...	...	nil
Saline ammonia	...	...	...	...	0.0010
Albuminoid ammonia	...	...	...	...	0.0123
Oxygen absorbed from permanganate	...	...	...	...	0.146
Hardness	...	...	...	...	15.5 degrees

* NOTE—Much blackening on ignition. This figure is particular high.

With the exception that this sample contains less saline ammonia, it is a *worse* water than the one analysed in July.

The figures for albuminoid ammonia and oxygen absorbed are very high, the former being 0.17 parts per million. This is nearly three times the normal figure yielded by the Southwark and Vauxhall Co.'s water.

No doubt much of the organic matter present in the water is of vegetable origin and due to the flooded condition of the Thames, but it is evident that the water has been imperfectly purified by filtration, and in its present condition is not a fit water for the public supply.

While the water is coloured it should be well boiled before being used for drinking.

(Signed) R. BODMER, F.I.C.

Sample from Lambeth Co., taken on November 3rd, 1903.

Colour in 2 ft. tube	...	...	...	...	greenish yellow
Odour	...	...	...	...	none
					Grains per gallon
Total solid residue (120 deg. C.)	...	...	...	...	21.35
Loss on ignition	...	...	...	...	3.50
Combined chlorine	...	...	...	...	1.25
Equal to sodium chloride	...	...	...	...	2.06
Nitrogen as nitrates	...	...	...	...	0.10
Nitrites	...	...	...	...	nil
Saline ammonia	...	...	...	...	0.0020
*Albuminoid ammonia	...	...	...	...	0.0135
Oxygen absorbed from permanganate	...	...	...	...	0.216
Hardness	...	...	...	...	14.2 degrees

* NOTE—Albuminoid ammonia = 0.19 parts per million.

REMARKS.—This is a *worse* water than the sample analysed in October. Albuminoid ammonia is slightly higher, and oxygen absorbed very much higher than in the previous analysis. The water is still much coloured, showing the presence of vegetable matter in solution.

A certain small amount of saline ammonia is also present—twice the amount found in October.

On igniting the total solid residue (heating to dull redness) very much blackening was noticed.

In its present condition the water is certainly not fit for the public supply, being most imperfectly purified. It is a most undesirable drinking water, and should not be used without being boiled.

(Signed) R. BODMER, F.I.C.

On July 6th, I sent a circular letter to all the medical men practising in the Borough, asking them if they had any cases of illness in their practices which they could not account for and might possibly be due to the drinking of the water supplied by these companies. Out of 28 replies received, there was only one who stated he had had some cases of diarrhoea which he could not quite account for, but the evidence inculcating the water was insufficient. Still there is no doubt that water with the abnormal amount of vegetable matter which this contained, is more liable to become contaminated than water which is organically pure.

The attention of the companies concerned was drawn to these reports.

Mortuary, St. Olave's.

On the amalgamation of the the three districts of Bermondsey, Rotherhithe and St. Olave's, to form the Metropolitan Borough of Bermondsey, each district had a mortuary of its own. Those of Bermondsey and Rotherhithe were in good condition, especially the one at Rotherhithe. St. Olave's Mortuary, however, seemed to the Public Health Committee unsuitable and unnecessary, and I was therefore instructed to draw up a report with a recommendation. The following is the report:—

This Mortuary is situated on the north-west corner of the disused burial ground which abuts on Weavers Lane and Tooley Street. From this it is separated on the east side by a wall of the building, on the south side by a wall $14\frac{1}{2}$ ft. high, from Weavers Lane by a wall 9 ft. high, and from the curtilage of Vine Street Buildings on the north side by a wall 11 ft. high.

It is 20 ft. distant from Vine Street Buildings, and the ground on which it stands is oblong in shape and measures 32 ft. from east to west, by 19 ft. from north to south. The building itself, which takes the shape of the ground, measures 27 ft. 7 in. by 14 ft. 11 in. This leaves a narrow passage running between the building and the outside wall on the south and west sides, the outside walls on the remaining sides constituting the walls of the building.

The Mortuary is entered by a gate from Weavers Lane and the court-yard in this part of the ground is completely overlooked by the upper stories of Vine Street Buildings. It consists of two rooms, viz., a receiving room and a post-mortem room.

Dealing first with the post-mortem room, this measures 13 ft. 11 in. by 14 ft. 2 in., and is lighted by two skylights, each measuring approximately, $2\frac{1}{2}$ ft. by 2 ft., and a narrow window in the south side measuring 4 ft. by 1 ft., including heavy wooden frames. The window space is thus one-fourteenth of the floor area. This ratio is rendered worse by the necessity of having all the windows glazed with dark buffed glass to prevent anyone seeing through them. The light is therefore very deficient so that it would be impossible to carry out a post-mortem examination during any time of the day without artificial light. The walls are plastered and oil painted.

The external walls on the east and south sides are very damp and the former is cracked. This crack is open and has apparently been filled up from time to time showing that it is getting worse.

Permanent ventilation is provided for by a large louvre in the ceiling. In the roof of this louvre the skylights before-mentioned are situated. The ventilation is very bad since there is no provision for a through draught, and when the doors are shut, as they must be when the room is in use, the only ventilation for that portion below the louvre in the roof is the chimney, and this cannot afford much except when there is a fire. The atmosphere must therefore be very oppressive and unhealthy in hot summer weather.

The second room is used for the reception and retention of bodies awaiting burial. It measures 14 ft. 1 in. by 11 ft. 11 in. and is lighted and permanently ventilated in a similar manner to the post-mortem room, but has two narrow windows and two doors opening into the external air. The skylights are smaller than those in the adjoining room. The walls which are plastered and oil painted are not quite so damp in this room, but at the front entrance the wall is cracked and has been mended from time to time.

The number of bodies received here during the last seven years is 260, making an average of 37 per annum, as against about 150 at Bermondsey Mortuary and 80 at Rotherhithe Mortuary. The greatest number of bodies in the building at one time has been 7, and a not infrequent number is 5.

The space in this reception room is insufficient for the number of bodies liable to be received.

The gullies for carrying off water are situated in improper places inside the building, and consist of old traps similar to that known as the "D" trap, now universally condemned.

In addition to the defects above mentioned, viz., insufficient light and ventilation in the post-mortem room, insufficient light, ventilation and floor space in the reception room, defective gullies and dampness, may be mentioned, the absence of any reception room for infectious cases, of an out-house or shed for keeping shells, etc., of proper slabs on which to place the bodies, of suitable presses for keeping the clothes of deceased, of proper provision for hot water in the post-mortem room, the absence of a w.c. or urinal; and, lastly, the site of the building itself. It is too close to Vine Street Buildings, and no part should be capable of being overlooked by any neighbouring building.

The dampness is due to the absence of a proper horizontal damp course at the ground level, and on the east side, where the soil is heaped up to a height of nearly 4 ft., there should be a vertical damp course. Taking these defects into consideration, I am of opinion that this Mortuary, both in regard to its position, structure, and size, is unsuitable for the reception of dead bodies, and should therefore be done away with.

The recommendation was accepted, and the Mortuary has since been demolished.

Storage of Bread.

Owing to a letter which was written to the Public Health Committee, I drew up the following report on this subject:—

I beg to say that I have visited 30 small shops in the poorest parts of the Borough where bread is sold, and beyond such general regulations as to cleanliness of making and storing which should apply to all articles of food, do not see any necessity for special regulations as to the sale of bread analogous to those for milk, as suggested by the writer of the letter.

Bread, from its mode of manufacture and nature, cannot be compared with milk as regards its tendency to absorb noxious matters from its surroundings. It is

thoroughly sterilized during the manufacture, and when baked becomes comparatively dry. The longer it is kept the drier it becomes, and at no time is the dampness sufficient to permit it absorbing noxious micro-organisms. The worst keeping can do is to render it hard and unpalatable. It is kept in dairies and small general shops, where oil is often sold, but I have not in any case seen it kept in greengrocers or in juxtaposition to old clothes or marine stores, or pure and simple oil shops.

Of all foods, bread, after thorough baking, is probably the least liable to absorb noxious effluvia, and I did not see it stored in any shop in a position likely to specially expose it to such absorption. The only way it might convey disease is by being handled by a person suffering from some infectious complaint, and this applies to all articles, whether food or not. I am not aware of a single instance of infectious disease being conveyed by the food in question, and considering the amount of bread consumed, some case would surely have been discovered had such taken place.

Ice.

The following report was brought before the Public Health Committee on June 30th:—

Ice is used mainly for two purposes in London, viz.:—Cold storage (when it is used all the year round) and making cooling drinks (during summer). The latter being the most important one in respect of the purity of the ice from a public health point of view, I think the present an appropriate time to enquire from what source this ice comes.

There are two kinds of ice used in London, viz., natural ice (which is imported) and manufactured ice. In making the latter there are three sources of water; distilled, metropolitan companies' water, and deep well water.

It is impossible to give the total amount of ice used in London unless one could find out the amount manufactured. But to give some idea the following figures of the amount of ice imported into London during the last three years are taken from "Cold Storage," the ice trades Review:—

			Tons.		Value.
1900	...	...	205,390	...	£123,463
1901	...	...	206,978	...	119,486
1902	...	...	185,257	...	100,364

Allowing that one-fourth of the ice used in London, and this is probably not very wide of the mark, is manufactured, this would give an average consumption of ice per annum of about 267,000 tons. Of this amount about 25,000 tons per annum pass through our Borough from the Surrey Commercial Docks. It is obvious that, although only a very small proportion is used as a food, from whatever source the ice comes it should be above suspicion, since any particular consignment may be used either for drinking or cold storage purposes.

The imported natural ice comes from lakes, rivers and fjords in Norway and similar natural waters in Canada, and though I do not doubt that the most of it is perfectly pure, still what guarantee have we that villages and towns do not drain into these places whence the ice is derived? Evidences of contamination may be difficult to obtain by chemical and bacteriological methods, but it is well known that it may exist when not demonstrable by ordinary methods, and that freezing does not kill but only inhibits the growth of pathogenic bacteria.

Similar remarks apply to the ice made from deep well waters. The ice, however, made from the waters of the London companies is presumably suitable for manufacturing ice from, as long as it is considered fit for drinking purposes. Distilled water is of course the best for the purpose. Still, however pure the water used may be, it will avail little as regards the purity of ice made from it, unless it is strictly guarded from contamination during the freezing process and the subsequent handling. It must be remembered that ice is eaten uncooked and can only be sterilised before freezing. As in the case of the manufacture of aerated waters, its innocuousness or otherwise depends upon the source of the original water.

I would recommend the Council to send a copy of this report to the London County Council with the suggestion that they should hold an inquiry into the ice trade of London, on similar lines to their recent investigation into the manufacture of aerated waters.

I understand the London County Council are holding an enquiry in the matter.

Aerated Water.

Owing to a report on the above subject by Dr. Hamer, Assistant Medical Officer to the London County Council, I was asked to give synopsis of this and express an opinion on the matter. I advised the Committee to support Dr. Hamer's recommendation that "there would clearly be an advantage in requiring registration of makers of aerated waters, and in insisting that in the premises upon which these waters are manufactured a proper standard as regards sanitary conditions shall be complied with."

Milk Supply.

A great deal of attention has been given during the past year to the milk supply of the Metropolis. The milk clauses of the London County Council General Powers Bill, 1902, were, I regret much to say, knocked out on the second reading. Later, the subject of physical degeneration, which has recently been brought prominently before the public, both in the medical and lay press has given occasion for another onslaught on the milk supply of London.

It has been estimated that the consumption of milk at present in the Metropolis is 63,000,000 gallons per annum, about 2,000,000 of which is derived from cows in the Metropolis, the rest being imported from the country. There is no doubt whatever that our high infantile mortality, and the largest share in the production of the present physical degeneration is due to improper feeding of infants. This applies very particularly to Boroughs like Bermondsey, where the population is practically composed of the working classes. Even if mothers in Bermondsey knew how to feed their infants properly they can't get the means to do it. There is at present very little clean or wholesome milk here. From the time it leaves the cow till it comes into the hands of the consumer it is open at every stage to contamination, not to speak of adulteration. This contamination or dirt cannot be remedied under the Food and Drugs Acts, and is more injurious to infant life than at least the milder degrees of adulteration.

I certainly think it is a standing disgrace that the largest and richest city in the world should have one of the worst milk supplies. There is at present no method at all of dealing with dirt or bacteria unless they produce one of the notifiable diseases, and as regards adulteration the only powers are those possessed by the individual Boroughs, which are confined to their respective areas. What is wanted are powers by some central body such as the London County Council to enable them to deal with the milk supply of the metropolis as a whole, beginning with the source of supply in the country till it is distributed among the various sanitary authorities, and further joint powers should be given both to the local and county authority to deal with general contamination as distinct from adulteration.

As pointed out in a previous report, about 50 per cent. of the poorer inhabitants of Bermondsey use condensed milk, either alone or in conjunction with cow's milk, but more commonly alone. About 90 per cent. of these use condensed skim milk, at prices varying from 2½d. to 3d. per tin.

In order to get some idea of the quality of the samples of milk taken, I asked the Public Analyst to state on all his certificates the percentages of ingredients. Out of the 374 samples of whole milk which were taken I have made a rough classification according to the amount of fat of 371 in which the certificates were available, as follows:—

Under 3 per cent.	32 = 8.63 per cent. of total
3 per cent. and under 3.5 per cent....	134 = 36.12 " "
3.5 " " 4 " ...	135 = 36.38 " "
4 " and over	70 = 18.87 " "

From these figures it appears that 42 per cent. of the samples show a milk of very poor quality, for no milk can be considered passable which has not at least 3.5 per cent. of butter fat. The Board of Agriculture standard of 3 per cent. is much too low, and is only met with in cows poorly fed and housed and milked at improper times, and no farmer would have any difficulty if the standard were 3.5 per cent., by paying attention to the breed of his cows and the other details which conduce to a high standard of milk and are perfectly well known to farmers.

There is a lot of adulteration of milk going on in Bermondsey unpunished, and in many streets skimmed and separated milk are sold to the unwary as whole milk at a cheap rate.

To detect these frauds a considerable amount of sharp practice must be used by the inspectors in taking samples. The number of prosecutions may thus represent as much the skill of the inspector who takes the samples as the amount of adulteration prevalent in the Borough.

Many other articles of food and drugs were taken, as a glance at the Table will show, but they do not require special mention since milk is much the most important.

The question of punishing those who adulterate milk is becoming more difficult every day and it will soon be impossible to do so.

The defence of "Warranty" which the Act allows, is becoming the most common one, and the only method I see of dealing with it is either to do away with warranty altogether, or to give additional powers in proceeding against the giver of the warranty.

The difficulties of the subject are illustrated by the following report of the Public Health Committee, presented to the Council on October 6th, 1903:—

ADULTERATED MILK—WARRANTY.

We report having had under consideration two prosecutions in regard to the sale of milk, both of which prosecutions resulted in failure.

In the first case the milk was sold by Mr. A. Handsley, and was found on analysis to be deficient in cream to the extent of 10 per cent. Handsley gave notice that he relied on a warranty which was duly proved and the summons dismissed. The summons against the farmer for giving a false warranty was also dismissed, the farmer submitted evidence to prove that he delivered the milk as it came from the cow.

In the second case a Mr. Jones, of Tabard Street, was summoned for selling milk which the analysis proved contained 16 per cent. of added water. Jones gave notice of a warranty from the Great Western Dairy Co., against whom a summons was taken out for false warranty. The Great Western Dairy Company gave notice of defence, relying upon warranties from three farmers. Summonses were therefore issued against the three farmers for giving the false warranties, but these summonses were eventually withdrawn. Mr. Bodkin represented the Council and Mr. Ricketts represented the Defendants. The retailer, Jones, produced evidence to prove the warranty from the Great Western Dairy Co., and that he sold the milk as received, and that he had no reason to suspect that it was not pure, with the result that the summonses against him and his servant were dismissed with £1 1s. costs in each case. The Great Western Dairy Co. then gave evidence to prove that the milk was sold in the same condition as received, that they had no reason to suspect the quality of the milk, they had

repeatedly had the milk of the particular farmer analysed, and always found it to be pure, and they had a warranty with each delivery. In addition to the merits of the case, their solicitor submitted that the summons must be dismissed on several points of law, and in particular because the proceedings were not taken within six months from the date of the warranty as decided recently in a case at the High Court. The Magistrate felt bound by this decision, and dismissed the summons against the Dairy Company, but refused costs.

It will be seen that in the first case, although the abstraction of cream was proved, and all the parties responsible were summoned, the prosecution was futile, and apparently, if the warrantor and warrantee stand together, and their defence is properly handled there is not much prospect of getting a conviction. In the second case the aspect is much worse, because as the law stands at present, a person has only got to give a warranty and let 6 months elapse, when he will be able to sell adulterated milk with impunity so long as he and the retailer are prepared to stand together, because the retailer could prove the warranty and the wholesale dealer plead the 6 months' limit. In addition to this difficulty there is also another serious drawback, because no provision is made in the Sale of Food and Drugs Act for taking proceedings where there are successive warranties unless such proceedings are taken in the district where the successive warranties are given. We recommend—

(a) That the attention of the Local Government Board be called to the difficult and anomalous position of local authorities in regard to the use or abuse of warranties, and that the Board be urged to promote legislation to put the law in a clear and more equitable position.

(b) That the question of the other Metropolitan Borough Councils be called to this matter, and that they be asked to support the action above mentioned.

I trust the Local Government Board will see their way soon to introduce legislation in order to do away with this difficulty.

Collection of Dust.

House dust is collected bi-weekly in Bermondsey, the Council supplying dust pails of about two cubic feet capacity. This system was introduced in 1889 by the present Chief Sanitary Inspector, who organised and had complete control of it until the formation of the Borough. It is now carried out on the same lines, but is under the control of the Surveyor's department.

Trade refuse is removed as requested at 7s. 6d. per load.

The following figures give the amount destroyed in the destructor, and the amount barged away during the year ended March 31st, 1904:—

HOUSE REFUSE.				
	Loads.	Tons.	cwt.	qrs.
Bermondsey Destructor ...	6,858	12,582	4	2
Rotherhithe Destructor ...	2,689½	5,280	7	2
Bermondsey Wharf ...	212	419	3	3
Rotherhithe Wharf ...	348	718	18	3
Total House Refuse ...	10,107½	18,950	14	2

TRADE REFUSE.				
	Loads.	Tons.	cwt.	qrs.
Bermondsey Destructor ...	304	558	11	3
Bermondsey Wharf ...	1,520	2,792	19	2
	1,824	3,351	11	1

It is the custom to dispose of the dry refuse in the destructor, and refuse such as tinned foods, etc., which is damp, is barged away per contract.

Bacteriological Laboratory.

The Bacteriological Laboratory still continues to do good work. The total number of specimens examined during the year, as the accompanying table shows, was 485 against 522 in the previous year.

The diminution is entirely due to the lessened prevalence of diphtheria. As anticipated, there was a great rise in the number of specimens for tubercle bacilli, owing to the voluntary notification of phthisis, the number for 1903 being 134 against 67 during the previous year.

Nature of Specimen.	Number Examined.	Result of Examination.	
		Positive Result.	Negative Result.
Diphtheria (specimens taken by the Medical Officer of Health ...)	193	20	173
Ditto (taken by private practitioners)	110	22	88
Diphtheria (total specimens taken)...	303	42	261
Tubercle	134	41	93
Enteric... ..	43	9	34
Various	5	2	3
Total specimens examined	485	94	391

Unsound Food Seizures during 1903.

The following are particulars of unsound food seized during the year:—

May 16th	...	2 sides of pork	...	Fined £20 and 5s. costs
July 4th	...	3 crates of bananas	...	" 10s. " 5s. "
Sept. 8th	...	102 packages of fruit	...	Summons dismissed
Sept. 9th	...	68 boxes (56 lbs. each) plums	...	Not summoned
"	...	185 packages of plums	...	"
"	...	15 baskets of plums	...	"
"	...	5 trucks of plums	...	"
"	...	197 half sieves of plums	...	Fined £20 and £10 10s. costs
Sept. 25th	...	17 boxes of pears	...	Fined £2 and 2s. costs
Oct. 9th	...	2½ sacks of potatoes	...	Not summoned
"	...	Half box of apples	...	Fined £2 and 2s. costs.

IV.—FACTORIES AND WORKSHOPS.

In Tables VIII., IX., X. and XI. of the Appendix will be found the figures on which this report is based.

On examining these, two sets of figures are particularly noticeable. Under the heading of workshops it will be seen that in 1902 there were 966 on the register, that during 1903 177 were added, and 821 removed from it. This great difference in the figures of 1902 and 1903 is accounted for by the fact that the report on the former year was based on an old register which was started by the late Vestry of Bermondsey in 1894, and was continued in use till the latter half of 1903, when a new register was adopted with headings suitable for keeping records in accordance with the Factory and Workshop Act of 1901.

There do not appear to have been systematic registers of workshops kept in the late Vestry of Rotherhithe and the Board of Works of St. Olave's. On the institution of the new register in the latter half of 1903, all the addresses of workshops in the old register were given out to the District Sanitary Inspectors, who visited, inspected, and measured up such of them as were in existence, and reported on removals.

As a result of this, it was found that the large number of 821 had either removed or given up business, or lived in houses which have recently been pulled down, and had consequently to be struck off the register.

I do not think for a moment that 322 represents more than at most a third of the workshops which ought to be on the register, and I consider that the figure for 1902 more nearly represents the truth.

In this connection I trust the Council will see the wisdom of considering at an early date, if the Factory and Workshop Acts are to be efficiently administered, the appointment of at least one female Sanitary Inspector.

The Factory and Workshop Act of 1901 is a very large and comprehensive measure, and besides consolidating the previous Acts on the same subject has created new and increased responsibilities for the local sanitary authorities; such are the registering of all workshops, the complete control of all sanitary matters in connection with them, the control of infectious diseases, inspection, taking legal proceedings, etc., as pointed out fully in my report for 1902.

The duties of the district Sanitary Inspector in connection with ordinary nuisances, house-to-house inspection, inspection of food, and enquiries into cases of infectious disease (which latter have increased enormously since the measles Order of the London County Council) occupy his time fully, so that factories and workshops are liable to be neglected, and certainly do not get that systematic inspection which they require. Besides, women or young persons are employed in the large majority of workshops of Bermondsey, and in such cases when enquiries as to sanitary and other accommodation must be made from employés as well as the employers, it is obvious that the proper person to make them is someone of the same sex as the former.

Cases are of not infrequent occurrence in which the views of the employers of female labour, regarding the sufficiency or suitability of sanitary accommodation, or the existence of certain nuisances, do not agree with those of the Medical Officer of Health or Sanitary Inspector, and in such cases it is necessary to institute independent enquiries among the employés independently so as to arrive at the actual truth respecting the requirements. In such cases the duty of the District Inspector would be to hand the workshops over to the female inspector, who would also spend her time looking out for new workshops, and re-inspecting at regular periods the old ones.

The second figure on which I desire to draw attention is that under the heading of places where food is prepared. There is no figure under 1902 because there was no register. During 1903, however, a special register of such places was instituted; among such places are included five jam factories. During the fruit season these are visited practically every day by the Chief Inspector or one of the District Inspectors. The other food places included are factories for potted meats, soups, etc., pickle factories, and the places mentioned in Table VIII.

Home Work.

252 Outworkers' premises were on the register for 1902 and 93 were added in 1903, making a total on the register of 345. A great many of these are included among the 322 workshops, but some, where the amount of work done was confined to a particular family and was very small in

and did not constitute the principal means of livelihood, were not placed on the register as workshops.

Under Section 107 of the Factory and Workshops Act of 1901, the employers of labour in certain classes of work are obliged to send lists of places to which they give out work to be done to the District Council in the months of February and August. These lists are examined, and if the out-workers' premises are in our own Borough the addresses are handed to the District Inspector to visit and report on, while those addresses which are outside the Borough are forwarded to the Medical Officer of Health of the Borough in which the out-workers' premises are situated. The classes of work in which lists require to be sent are those connected with wearing apparel, upholstery work and such like, which are liable to retain infection should an infectious disease occur on their premises. Premises where this class of work is done are thus under complete control, no matter in what district they happen to be, and the spread of disease by wearing apparel prevented.

The administration of this section is most important and entails a great deal of work.

There was considerable difficulty in getting employers to send in lists, and during last year I communicated with those on the register, pointing out their responsibility in the matter, with the result that several sent in lists who had not done so previously. I am not able to state the classes of work for which lists were received since it is not the custom for the kind of work to be specified on the lists received from outside the Borough, in which respect we are partly to blame as our lists show the same omission. I think it would be well if all lists of out-workers transmitted from one authority to another stated the nature of the work done.

Bakehouses.

There are at present 105 retail bakehouses in Bermondsey, viz.: 41 underground and 64 above. Of the underground 33 are in use and 8 not; 6 of these 8 were not in use at the time the Factory and Workshops Act came in force, and 2 were not granted certificates as the owners did not bring them up to the requirements of the Borough Council. Of the 64 overground bakehouses, 56 are in use and 8 not.

The overground bakehouses were not subject to special legislation, so that they received only the usual attention during the year, i.e., were visited twice as a matter of routine to see that the regulations of the Factory and Workshops Act were carried out, and at other times as required.

Underground bakehouses were dealt with specially by the Factory and Workshops Act of 1901, and were the subject of section 101, which reads as follows:—

1. An underground bakehouse shall not be used as a bakehouse unless it was so used at the passing of the Act.
2. Subject to the foregoing provision, after the first day of January, One thousand nine hundred and four, an underground bakehouse shall not be used unless certified by the district Council to be suitable for that purpose.
3. For the purpose of this section an underground bakehouse shall mean a bakehouse any baking room of which is so situate that the surface of the floor is more than three feet below the surface of the footway of the adjoining street, or of the ground adjoining or nearest to the room. The expression "baking room" means any room used for baking, or for any process incidental thereto.
4. An underground bakehouse shall not be certified as suitable unless the district Council is satisfied that it is suitable as regards construction, light, ventilation, and in all other respects.
5. This section shall have effect as if it were included among the provisions relating to bakehouses which are referred to in section 26 of the Public Health (London) Act, 1891.
6. If any place is used in contravention of this section, it shall be deemed to be a workshop not kept in conformity with this Act.
7. In the event of a refusal of a certificate by the district Council the occupier of the bakehouse may, within twenty-one days from the refusal, by complaint apply to a court of summary jurisdiction, and if it appears to the satisfaction of the court that the bakehouse is suitable for use as regards construction, light, ventilation, and in all other respects, the court shall thereupon grant a certificate of suitability of the bakehouse, which shall have effect as if granted by the district Council.
8. Where any place has been let as a bakehouse, and the certificate required by this section cannot be obtained unless structural alterations are made, and the occupier alleges that the whole or part of the expenses of the alterations ought to be borne by the owner, he may by complaint apply to a court of summary jurisdiction, and that court may make such order concerning the expenses or their apportionment as appears to the court to be just and equitable under the circumstances of the case, regard being had to the terms of any contract between the parties; or in the alternative the court may, at the request of the occupier, determine the lease.

In compliance with this, I and the Chief Inspector were instructed by the Public Health Committee to draw up a set of minimum regulations to guide the Committee in the granting of certificates.

On March 31st we presented them with regulations, and as a result of this the Council adopted the following set of regulations which constituted the minimum which each bakehouse must comply with so as to come up to the standard for a certificate:—

Metropolitan Borough of Hermondsey.

REGULATIONS AS TO UNDERGROUND BAKEHOUSES.

(FACTORY AND WORKSHOP ACT, 1901.)

Section 101 (3)—An UNDERGROUND BAKEHOUSE means a bakehouse, any baking room of which is so situated that the surface of the floor is more than three feet below the surface of the footway of the adjoining street, or of the ground adjoining or nearest to the room. The expression "baking room," means any room used for baking, or for any process incidental thereto.

Section 101 (4)—An *Underground Bakehouse* shall not be certified as suitable unless the Sanitary Authority is satisfied that it is suitable as regards construction, light, ventilation, and in all other respects.

Section 101 (8)—Where the certificate required cannot be obtained unless structural alterations are made and the occupier alleges that the whole or part of the expenses of the alterations ought to be borne by the owner, he may, by complaint, apply to a Court of Summary Jurisdiction, and that Court may make such order concerning the expenses, or their apportionment, as appears to the Court to be just and equitable under the circumstances of the case, regard being had to the terms of any contract between the parties, or, in the alternative, the Court may, at the request of the occupier, determine the lease.

Construction—

- (a) The bakehouse to be of a minimum capacity of 1,000 cubic feet, to contain at least 500 cubic feet for each man employed.
- (b) The walls and staircase of bakehouse to be rendered in cement.
- (c) The ceilings to be properly ceiled and to be kept at all times impervious to dust, or, if made of brick, rendered smooth in cement.
- (d) The floors to be made with concrete, rendered smooth in cement, or with other jointless or impervious paving throughout, so that the bakehouse is free from damp.
- (e) All fixed woodwork, *e.g.*, window frames, doors, and door frames and staircasings within the bakehouse to be made sound and painted.
- (f) There is to be appurtenant to, but outside and totally distinct from, and not communicating directly with, the bakehouse, sufficient and suitable water-closet accommodation.
- (g) Any drain or sewer passing under the bakehouse to be properly constructed of a gas and water tight pipe, and no soil pipe or inlet to drain shall be within the bakehouse or storeroom.
- (h) Provision shall be made for suitable means of access to the bakehouse, properly constructed, so as to exclude dust and dirt.
- (i) All areas, whether for lighting or draining the bakehouse, shall be constructed with white glazed bricks, tiles, or other approved glazed faces.

Light—

- (j) The bakehouse shall be supplied with one or more windows, so as to be efficiently lighted in every part by daylight. Where it is impossible to have every part efficiently lighted by daylight artificial light may be allowed.

Ventilation—

- (k) The bakehouse shall be properly and effectually ventilated by permanent inlets and outlets, other than the windows, communicating directly with the open air in such a way and at such a height above the street level as to prevent the entrance of street dust and dirt.

General—

- (l) Dough-troughs, and all similar furniture or fittings shall be mounted on strong castors or wheels, so as to be readily movable for cleaning purposes.
- (m) Provision for the proper storage of flour and coals shall be made elsewhere than in the bakehouse itself. No flour to be stored in any room which communicates directly with a water-closet.

21st April, 1903.

These regulations are substantially the same as those recommended by us, the only structural regulation which the Committee did not accept being that requiring a minimum height of 7 feet 6 inches. We suggested further regulations for (a) storing of refuse, (b) forbidding of animals in the bakehouse, (c) water to come from the main, (d) provision of lavatory basins, (e) forbidding the depositing of wearing apparel in the bakehouse, but the Committee did not consider these necessary. Copies of these regulations were sent round to all the owners of underground bakehouses, with the intimation that they would be required to comply with them before being granted a certificate. We were next instructed to bring up a printed statement of the alterations which would be necessary in each case to bring the bakehouse up to the standard of the regulations. This we did, but this list consisted practically of a recapitulation, in the words of the regulations, of those defects which would require remedying. The part of this list which concerned any particular bakehouse was transmitted to the owner, who was at the same time requested not to commence any work without communicating first with the officials of the Council.

During the latter half of the year we kept in touch with the underground bakehouses, constantly visiting them and advising as to the best methods of carrying out the regulations when requested to do so. No doubt the owners sometimes felt our recommendations somewhat harassing since we refused to bind ourselves to regard them as final. If for example, after an additional window or ventilating pipe had been constructed we found that the light or ventilation were still deficient we extended our requirements as regarding these. Notwithstanding this we were received everywhere courteously, and our suggestions were carried out in their entirety. The following list of defects remedied will give a very good idea of the amount of work involved in this undertaking :—

Capacity of bakehouse increased	...	...	...	...	3
Walls and staircases of bakehouses rendered in cement	...	...	...	...	31
Ceilings ceiled	...	...	...	...	31
Floors concreted	...	...	...	...	28
Fixed woodwork painted	...	...	...	...	33
W.C. accommodation provided	...	...	...	...	6
Soil pipes and inlets to drains removed from bakehouse or storeroom	...	...	...	...	8
Waste pipes trapped	...	...	...	...	2
Catch pit trapped	...	...	...	...	1
Drain under bakehouse made gas and water tight	...	...	...	...	1
Areas faced with white glazed bricks	...	...	...	...	23
Light improved	...	...	...	...	20
Ventilation improved	...	...	...	...	32
Castors fixed on troughs	...	...	...	...	29
Provision made for the proper storage of flour and coal	...	...	...	...	24
Storeroom lighted and ventilated	...	...	...	...	12
Walls of storerooms rendered in cement	...	...	...	...	4
Trap doors abolished	...	...	...	...	4
Dampness abated	...	...	...	...	4
W.C.'s (2) and stable (1) separated from or removed from proximity to bakehouse or storeroom	...	...	...	...	3
Miscellaneous	...	...	...	...	15

CONSTRUCTION.—(a) the cubic capacity in those cases which required it was invariably increased by lowering the floor. (b) The ceilings were nearly all ceiled with lath and plaster, but in a few cases it was done with sheets of zinc.

LIGHT.—In 20 of the bakehouses one or two extra windows were constructed, but in addition pavement lights were inserted in those which had not them previously, and in those which had them they were, if possible, enlarged. Prism lights were always recommended and in the majority of the cases used.

VENTILATION.—This was carried out by Tobins tubes, two of which were generally placed in the back wall near the ceiling, while one or more were placed in front in a similar position, or under the stall board. Another method of increasing the ventilation was by having the upper half of each window on hinges, or if the windows consisted of single panes a space of 3 in. was left open by cutting this amount from the top of the pane. Dough requires a temperature of about 70° F. when rising, so that there may be such a thing as too much ventilation, and the difficulty we found was to hit the happy medium; the bakers themselves, however, do not require instruction in the matter of preventing an excess of cold air.

GENERAL.—In a few cases the storage of flour was provided for in a separate part of the house, but in the majority of the cases this was done by partitioning off a portion of the bakehouse by a partition which has a door and the walls of which extend from floor to ceiling, thus making it as completely separated as possible. Care was, of course, taken that the cubic capacity was not thereby unduly lowered. In the most cases provision for the storage of coal was made in the yard outside the bakehouse altogether, or if not there, it was in a recess communicating more directly with it but separated by a tightly fitting door.

The first few bakehouses which were finished were visited by the Public Health Committee, but they found that it would be a difficult undertaking to visit them all, and cause a great delay in issuing the certificates as they were done, so the recommendations were left in mine and the Chief Inspector's hands. Out of the 35 bakehouses in use at the beginning of the Act, 33 complied with the regulations and were granted certificates. In two cases, viz., 20, Alice Street and 126, Alscot Road, the landlord did not see his way to assist the tenant with the alterations, so they were closed.

On the whole the result has been very satisfactory, and the bakers themselves have been among the first to acknowledge the benefits of the change.

Factories and Workshops—General Summary.

Coming to the matters dealt with *vide* Table IX.—

WANT OF CLEANLINESS.—There were 83 notices, which were all complied with.

WANT OF VENTILATION.—This is a very difficult matter to deal with, especially small workshops on private premises in which there are no means of ventilation are provided except the windows, doors and fireplaces. In the larger workshops we have recommended Tobins tubes and louver ventilation in the ceilings, but these methods are not always satisfactory. In one large office where there were a great many clerks we had two large shafts a foot in diameter put into

the ceiling and carried out through the roof. The employees are frequently the objectors to ventilation, since it very often means draughts.

OVERCROWDING.—There were only two cases of this, both of which were abated.

SANITARY ACCOMMODATION.—81 notices were served to provide suitable and sufficient number of w.c.'s and urinals and separate sanitary accommodation for the sexes.

The Public Health Committee gave every consideration to this subject, and where any owner thought the requirements of the officials were too stringent, he was given an opportunity of appearing before the Committee, who, after a thorough investigation expressed their opinion in their report to the Council.

In this way they dealt with every applicant fairly and impartially, and where there was any point on which the report of the District Inspector required amplifying or confirming it was their custom to refer the matter to me and the Chief Inspector for further report. On some occasions they visited the place themselves.

Their decisions in every case were in full accord with our opinions.

Only five prosecutions were necessary.

DRAINAGE OF FLOORS.—22 defects in this matter were found and remedied.

OTHER NUISANCES.—Under this heading the principal items are defects of ordinary house drainage, defective roofs, gutters, etc.

APPENDIX.

APPENDIX.

TABLE I.—VITAL STATISTICS OF WHOLE DISTRICT DURING 1903 AND PREVIOUS YEARS.

Year.	Population estimated to Middle of each Year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Net Deaths at all Ages belonging to the District.	
		Number.	Rate.*	Under 1 Year of Age.		At all Ages.					Number.	Rate.*
				Number.	Rate per 1000 Births registered.	Number.	Rate.*					
1	2	3	4	5	6	7	8	9	10	11	12	13
1893	137,091	4983	36.3	836	168	2910	21.2	388	47	380	3243	23.6
1894	137,249	4928	35.9	745	151	2417	17.6	336	43	392	2766	20.1
1895	137,438	4944	35.9	818	165	2650	19.3	387	41	357	2966	21.6
1896	137,231	4968	36.2	807	162	2646	19.3	385	57	379	2968	21.6
1897	135,827	4868	35.8	903	185	2540	18.7	404	35	397	2902	21.4
1898	134,446	4745	35.3	779	164	2422	18.0	438	81	435	2776	20.6
1899	133,085	4690	35.2	855	182	2817	21.2	515	48	435	3204	24.1
1900	131,748	4410	33.5	837	190	2684	20.4	540	99	477	3062	23.3
1901	130,633	4459	34.1	711	159	2320	17.8	423	52	451	2719	20.8
1902	130,137	4346	33.4	636	146	2323	17.8	460	63	496	2756	21.2
Averages for years 1893-1902	134,488	4734	35.2	793	167	2573	19.1	428	57	420	2936	21.8
1903	129,654	4200	32.4	596	142	1973	15.2	414	40	449	2382	18.4

* Rates in columns 4, 8, and 13 calculated per 1,000 of estimated population.

Area of District in acres (exclusive of area covered by water), 1336.1.

At Census of 1901—Total population of all ages, 130,760.

„ „ Number of inhabited houses, 15,817.

„ „ Average number of persons per house, 8.26.

I.	II.	III.																																																																				
Institutions within the District receiving sick and infirm persons from outside the District.	Institutions outside the District receiving sick and infirm persons from the District.	Other Institutions, the deaths in which have been distributed among the several localities in the District.																																																																				
Column No. 10 includes deaths of non-residents which occurred in the following :—	St. Olave's Workhouse, Ladywell—50 deaths	<table><thead><tr><th></th><th>Deaths</th></tr></thead><tbody><tr><td>Guy's Hospital</td><td>198</td></tr><tr><td>South Eastern Fever Hospital</td><td>12</td></tr><tr><td>South Western „</td><td>1</td></tr><tr><td>Park „</td><td>2</td></tr><tr><td>Brook „</td><td>36</td></tr><tr><td>Children's Hospital, Great Ormond St.</td><td>3</td></tr><tr><td>Children's Hospital, Shadwell</td><td>10</td></tr><tr><td>Charing Cross Hospital</td><td>8</td></tr><tr><td>Brompton Hospital</td><td>2</td></tr><tr><td>Evelina Hospital</td><td>16</td></tr><tr><td>Homœopathic Hospital</td><td>2</td></tr><tr><td>General Lying-in Hospital</td><td>2</td></tr><tr><td>H.M. Hospital, Ratcliffe</td><td>1</td></tr><tr><td>King's College Hospital</td><td>3</td></tr><tr><td>London Hospital</td><td>5</td></tr><tr><td>London Temperance Hospital</td><td>1</td></tr><tr><td>Middlesex Hospital</td><td>3</td></tr><tr><td>Poplar Hospital</td><td>1</td></tr><tr><td>St. Bartholomew's Hospital</td><td>10</td></tr><tr><td>Royal London Ophthalmic Hospital</td><td>1</td></tr><tr><td>St. Thomas' Hospital</td><td>5</td></tr><tr><td>Seamen's Hospital</td><td>1</td></tr><tr><td>Westminster Hospital</td><td>1</td></tr><tr><td>Banstead Asylum</td><td>10</td></tr><tr><td>Cane Hill Asylum</td><td>11</td></tr><tr><td>Caterham Asylum</td><td>10</td></tr><tr><td>Claybury Asylum</td><td>1</td></tr><tr><td>Tooting Bec Asylum</td><td>5</td></tr><tr><td>Darenth Asylum</td><td>2</td></tr><tr><td>Horton Asylum</td><td>2</td></tr><tr><td>Leavesden Asylum</td><td>3</td></tr><tr><td>London County Asylum, Dartford</td><td>4</td></tr><tr><td>Manor Asylum, Epsom</td><td>3</td></tr></tbody></table>		Deaths	Guy's Hospital	198	South Eastern Fever Hospital	12	South Western „	1	Park „	2	Brook „	36	Children's Hospital, Great Ormond St.	3	Children's Hospital, Shadwell	10	Charing Cross Hospital	8	Brompton Hospital	2	Evelina Hospital	16	Homœopathic Hospital	2	General Lying-in Hospital	2	H.M. Hospital, Ratcliffe	1	King's College Hospital	3	London Hospital	5	London Temperance Hospital	1	Middlesex Hospital	3	Poplar Hospital	1	St. Bartholomew's Hospital	10	Royal London Ophthalmic Hospital	1	St. Thomas' Hospital	5	Seamen's Hospital	1	Westminster Hospital	1	Banstead Asylum	10	Cane Hill Asylum	11	Caterham Asylum	10	Claybury Asylum	1	Tooting Bec Asylum	5	Darenth Asylum	2	Horton Asylum	2	Leavesden Asylum	3	London County Asylum, Dartford	4	Manor Asylum, Epsom	3
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4. Metropolitan Asylums Board Wharf and Shelter, Rotherhithe																																																																						
5. Surrey Commercial Docks, River Thames, etc.																																																																						

I.	II.	III.
Institutions within the District receiving sick and infirm persons from outside the District.	Institutions outside the District receiving sick and infirm persons from the District.	Other Institutions, the deaths in which have been distributed among the several localities in the District.
		<div>Deaths</div> Camberwell Workhouse 1 Greenwich Workhouse 1 Greenwich Infirmary 1 Holborn Infirmary 1 Lambeth Infirmary 1 Lambeth Workhouse 1 Southwark Infirmary 2 Strand Workhouse 1 St. Olave's Workhouse, Ladywell ... 50 St. Olave's Children's Home 1 " Friedenheim " 1 H.M. Prison, Wandsworth 1 St. Peter's House 2 Barclay's Brewery, Southwark ... 1 Berkley Street, Lambeth 1 Grand Surrey Canal 2 Pragnell Street, Deptford 1 Waste Ground, Tooting 1 River Thames 4 Total 449

TABLE II.—VITAL STATISTICS OF SEPARATE LOCALITIES IN 1903 AND PREVIOUS YEARS.

Year.	BERMONDSEY.				ROTHERHITHE.				ST. OLAVE'S.			
	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
1893	85,038	3192	2004	537	39,757	1379	927	227	12,295	412	312	58
1894	85,197	3095	1734	451	39,983	1353	764	218	12,069	480	268	55
1895	85,256	3212	1869	520	40,208	1304	783	193	11,874	428	314	88
1896	85,323	3203	1873	513	40,281	1346	834	214	11,627	419	261	64
1897	84,717	3176	1883	605	39,890	1258	766	219	11,220	434	253	67
1898	84,116	3090	1771	485	39,504	1298	773	220	10,826	357	232	47
1899	83,518	3063	2063	574	39,121	1266	865	215	10,446	361	276	53
1900	82,925	2826	1948	526	38,742	1184	883	243	10,081	400	231	48
1901	82,441	2920	1768	497	38,446	1220	747	215	9,746	319	204	42
1902	82,281	2855	1782	455	38,394	1170	741	174	9,462	321	233	49
Averages of years 1893 to 1902.	84,091	3063	1869	516	39,433	1278	808	214	10,965	393	258	57
1903	82,129	2801	1523	453	38,347	1116	655	168	9,178	283	204	36

TABLE III.—CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1903.

Notifiable Disease.	Cases Notified in Whole District:							Total Cases Notified in Each Locality.			No. of Cases Removed to Hospital from Each Locality.		
	At all Ages.	At ages—Years.						Bermondsey.	Rotherhithe.	St. Olave.	Bermondsey.	Rotherhithe.	St. Olave.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.						
Small-pox ...	7	—	1	1	1	4	—	2	5	—	2	5	—
Cholera ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria ...	172	6	65	84	11	6	—	115	38	19	104	33	18
Membranous croup	2	—	1	1	—	—	—	1	1	—	—	—	—
Erysipelas ...	182	5	10	23	37	98	9	127	45	10	—	—	—
Scarlet fever ...	400	11	145	205	30	9	—	259	71	70	239	58	70
Typhus fever ...	18	—	1	6	6	5	—	13	5	—	13	5	—
Enteric fever ...	76	—	2	23	23	28	—	50	20	6	40	17	5
Relapsing fever ...	1	—	—	1	—	—	—	1	—	—	1	—	—
Continued fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal fever ...	9	—	—	—	5	4	—	7	1	1	—	—	—
Plague ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals ...	867	22	225	344	113	154	9	575	186	106	399	118	93

TABLE VI.—MARRIAGES.

Year.	BERMONDSEY.		ROTHERHITHE.		ST. OLAVE'S.		WHOLE BOROUGH.	
	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.
1893	477	11.22	219	11.02	67	10.90	763	11.12
1894	547	12.84	225	11.26	105	17.40	877	12.78
1895	605	14.18	240	11.94	72	12.12	917	13.34
1896	686	16.08	268	13.30	73	12.56	1027	14.96
1897	831	19.62	280	14.04	86	15.32	1197	17.62
1898	833	19.80	302	15.28	81	14.96	1216	18.08
1899	826	19.78	288	14.72	68	13.02	1182	17.76
1900	783	18.88	334	17.24	69	13.68	1186	18.00
1901	800	19.44	296	15.42	58	11.92	1154	17.70
1902	799	19.55	270	14.22	54	11.50	1123	17.39
Average for years 1893-1902	719	17.14	272	13.84	73	13.34	1064	15.87
1903	794	19.56	238	12.65	69	15.23	1101	17.22

TABLE VII.—PROCEEDINGS DURING 1903.

PREMISES.	NUMBER OF PLACES.				Number of inspections, 1903.	Number of notices, 1903.	Number of prosecutions, 1903.
	On register at end of 1902.	Added in 1903.	Removed in 1903.	On register at end of 1903.			
Milk premises	265	21	—	286	325	26	—
Cowsheds	7	—	—	7	31	1	—
Slaughter-houses	5	—	2	3	22	3	—
Other offensive trade premises ...	13	—	—	13	58	7	—
Ice cream premises	68	—	—	68	218	31	—
Registered houses let in lodgings...	206	2	1	207	569	167	—

Overcrowding, 1903—

Number of dwelling rooms overcrowded	57
Number remedied	57
Number of notices issued	42
Number of prosecutions	Nil

Underground rooms—

Number closed during year	Nil
----------------------------------	-----

Insanitary houses—

Number closed under the Public Health (London) Act, 1891	Nil
---	-----

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

Number of persons accommodated during the year	90
---	----

Customs and Inland Revenue Acts—

Number of houses for which applications were received during the year ...	6
Number of dwellings comprised therein	91
Number of certificates granted	6

Number of prosecutions under bye-laws under Public Health Act, 1891—

(a) For prevention of nuisance arising from snow, ice, salt, filth, etc. ...	—
(b) For prevention of nuisance arising from offensive matter running out of any manufactory, etc.	—
(c) For the prevention of keeping of animals in such a manner as to be injurious to health	—
(d) As to paving of yards, etc., of dwelling-houses	—
(e) In connection with the removal of offensive matter, etc.	4
(f) As to cesspools and privies, removal and disposal of refuse, etc. ...	—
(g) For securing the cleanliness of tanks, cisterns, etc.	—
(h) With respect to water closets, earth closets, etc.	—
(i) With respect to sufficiency of water supply to water closets	—
(j) With respect to drainage, etc. (Metropolis Management Act, Section 202) ...	3
(k) With respect to deposit of plans as to drainage, etc. (Metropolis Management Act, section 202)	—

Mortuaries—

Total number of bodies removed	190
Total number of infectious bodies removed	Nil

TABLE VIII.—INSPECTION OF FACTORIES, WORKSHOPS, AND WORKPLACES.

Class of Works.		Number of Places.					Number of Inspections, 1903.	Number of Notices, 1903.	Number of Prosecutions, 1903.
		On Register at end of 1902.	Added in 1903.	Removed in 1903.	On Register at end of 1903.				
					Premises.	Rooms.			
Factories	Factory Laundries ...	1	—	—	1	—	5	1	—
	Factory Bakehouses ...	2	—	1	1	—	—	—	—
	Other Factories ...	128	11	—	139	—	136	23	—
Workshops	Workshop Laundries ...	46	—	23	23	56	68	26	—
	Workshop Bakehouses...	105	—	—	105	—	311	63	—
	Other Workshops ...	966	177	821	322	410	489	92	5
	Outworkers' Premises...	252	93	—	345	—	205	31	—
Workplaces	Workplaces where Food is prepared for Sale...	—	181	—	181	—	723	76	—
	Workplaces other than the above ...	—	—	—	—	—	70	15	—
	Total ...	1500	285	845	1117	—	2007	327	5

TABLE IX.—MATTERS DEALT WITH.

Particulars.					Number of Defects.				Notices Issued.	Prosecutions.
					Found.	Notified by Home Office.	Remedied.	Notified to Home Office.		
<i>Nuisances under the Public Health (London) Act, 1891.</i>										
Want of Cleanliness ...	...	...	...	...	83	4	83	—	83	—
Want of Ventilation ...	...	...	...	...	19	1	19	—	19	—
Want of Air Space : Overcrowding ...	...	...	...	...	2	—	2	—	2	—
Sanitary Accommodation : Insufficient ...	...	...	...	...	40	—	40	—	40	5
(s. 38) (Not Separate for Sexes ...)	...	...	...	...	30	1	30	—	30	—
Want of Drainage of Floors ...	...	...	...	...	11	—	11	—	11	—
Other Nuisances ...	...	...	...	...	22	—	22	—	22	—
					204	—	204	—	204	—
<i>Contraventions of Factory and Workshop Act, 1901.</i>										
Occupying Underground Bakehouse without Certificate ...	...	...	...	...	—	—	—	—	—	—
Breach of Special Sanitary Requirements for Bakehouses (ss. 97 to 100) ...	...	...	...	...	—	—	—	—	—	—
Failure as regards Lists of Outworkers (s. 107) ...	...	...	...	...	—	—	—	—	—	—
Giving out work to be done (Unwholesome (s. 108) in premises which are (Infected (s. 110) ...)	...	...	...	...	—	—	—	—	—	—
Allowing Wearing Apparel to be made in Premises infected by Scarlet Fever or Small Pox (s. 109) ...	...	...	...	...	—	—	—	—	—	—
Other Contraventions ...	...	...	...	...	—	—	—	—	—	—
Total ...					411	6	411	—	411	5

TABLE X.—WORKSHOPS.

Trade.	No. of Workshops on Register.	No. of Workrooms.	Persons Employed.		
			Males.	Females.	Young Persons.
Brushmakers	15	19	24	10	—
Bottle Washers	2	4	12	7	—
Boot Makers and Repairers ...	28	30	54	1	—
Buttonhole Makers	4	5	6	3	—
Collar Workers	13	15	—	16	—
Chair Making	2	3	3	—	—
Cycle Makers	3	4	4	—	1
Curriers	2	4	7	—	—
Coopers	3	3	11	—	—
Carmen, Stables	5	6	68	—	—
Carpenters' Shops (builders) ...	5	5	10	—	—
Dressmakers	27	36	1	73	10
Engineers and Smiths	5	5	9	—	2
Farriers	2	2	5	—	—
Harness Makers and Strap Workers	6	6	19	—	2
Leather Workers	7	7	32	5	—
Laundries	23	56	5	170	—
Mantle Makers	11	12	2	31	—
Paper Bag Makers	3	3	—	3	—
Picture Frame Makers	2	6	12	—	—
Rag Sorters	2	2	1	2	—
Sack Makers	4	4	3	4	2
Shirt and Blouse Makers... ..	5	5	—	6	—
Shirt Makers	19	19	—	26	—
Tailors	8	8	14	25	—
Tobacco Pipe Makers	2	4	—	—	—
Tie Makers... ..	9	9	—	23	—
Tin Workers	2	5	8	2	—
Underclothing	9	11	—	22	—
Undertakers	2	2	3	—	—
Wheelwrights	6	8	28	—	—
Waistcoat Work	4	4	—	8	—
Wood Choppers	6	6	7	2	—
Various	76	92	273	41	12
Totals	322	410	621	480	29

Cases reported to H.M. Inspector	Abstract not affixed	2
	As to action taken in cases notified by H.M. Inspector	6
	Other cases... ..	—
Number of underground bakehouses in use at the end of 1903	33	Certificates granted (S. 101) ... 33
Number of workshop rooms measured	299	

TABLE XI.—LIST OF OUTWORKERS (S. 107).

Class of Homework	1903. Number of Lists Received				Number of Addresses of Outworkers	
	Up to Feb. 1st		Up to Aug. 1st		Forwarded to Other Authorities	Received from Other Authorities
	No. of Lists	No. of Outworkers	No. of Lists	No. of Outworkers		
TOTAL	5	169	10	231	233	321

Number of Notices prohibiting homework in unwholesome premises (S. 108) ... nil
 Number of Orders prohibiting homework in infected premises (S. 110) ... nil

TABLE XII.—FOOD AND DRUGS.

Articles submitted for analysis.	Total samples taken.	Number genuine.	Number adulterated.	Percentage of articles adulterated.
Milk	374	346	28	7.5
Separated Milk	10	6	4	40.0
Skimmed Milk	6	5	1	16.7
Milk and Water	2	1	1	50.0
Butter	112	103	9	8.0
Milk Blended Butter	1	nil	1	100.0
Margarine	10	10	nil	...
Lard	29	29	nil	...
Cheese	9	9	nil	...
Bread	2	2	nil	...
Mustard	25	25	nil	...
Vinegar	11	11	nil	...
White Pepper	17	17	nil	...
Pepper	21	21	nil	...
Black Pepper	1	1	nil	...
Arrowroot	4	3	1	25.0
Demerara Sugar	6	3	3	50.0
Raspberry Jam	4	3	1	25.0
Black Currant Jam	5	4	1	20.0
Plum Jam	5	5	nil	...
Strawberry Jam	2	2	nil	...
Semolina	1	1	nil	...
Cocoa	1	1	nil	...
Ice Cream	14	14	nil	...
Green Peas	2	1	1	50.0
Mixed Pickles	3	3	nil	...
Golden Syrup	3	3	nil	...
Coffee	4	3	1	25.0
Coffee and Chicory	2	2	nil	...
Irish Whisky	7	7	nil	...
Scotch Whisky	1	1	nil	...
Gin	2	2	nil	...
Musk Lozenges	1	1	nil	...
Lemon Tablets	1	1	nil	...
Preserved Ginger	1	1	nil	...
Broken Cream	1	1	nil	...
Gregory's Powder	1	nil	1	100.0
Olive Oil	3	3	nil	...
Tartaric Acid	2	2	nil	...
Cream of Tartar	1	1	nil	...
Milk of Sulphur	1	1	nil	...
Glycerine	4	2	2	50.0
Oil of Eucalyptus	2	2	nil	...
Paregoric	1	1	nil	...
Citrate of Quinine and Iron	1	1	nil	...
Tincture of Rhubarb	1	1	nil	...
Flowers of Sulphur	1	1	nil	...
Borax	1	1	nil	...
Compound Liquorice Powder	1	1	nil	...
Compound Ginger	1	1	nil	...
	721	616	55	7.6

TABLE XIII.—PROSECUTIONS IN CONNECTION WITH SAMPLES TAKEN DURING 1903.
FIRST QUARTER.

No.	Sample.	Adulteration.	Result.
26H	Glycerine ...	Added water, 7 per cent ...	Ordered to pay 12/6 costs
30H	Black Currant Jam	Sample consisted almost entirely of apple jam with a very little black currant to flavour it	Fined 40/- and 12/6 costs
90W	Demerara Sugar	Consisted of white sugar coloured with a minute quantity of an aniline dye	Fined 5/- and 12/6 costs
146F	Milk ...	18 per cent. deficient in milk fat	Fined 20/- and 12/6 costs
228B	Milk ...	21 per cent. of added water ...	Fined 20/- and 12/6 costs
136A	Green Peas ...	Copper 0.013 per cent., equal to 3.57 grains per pound of sulphate of copper	Fined 20/- and 12/6 costs
41H	Milk ...	12 per cent. deficient in milk fat	Fined 20/- and 12/6 costs
46D	Milk ...	10 per cent. deficient in milk fat	Summons dismissed; warranty proved
49D	Demerara Sugar	Consisted of white sugar crystals coloured with a minute quantity of an aniline dye	Dismissed; prejudiced to purchaser not proved
101W	Butter ...	Margarine 100 per cent. ...	Fined 20/- and 14/6 costs
239B	Butter ...	Margarine 100 per cent. ...	Fined 10/- and 12/6 costs
143A	Milk ...	12 per cent. deficient in milk fat	Fined £2 and 12/6 costs
158T	Milk ...	11 per cent. deficient in milk fat	Fined 5/- and 12/6 costs
126S	Butter ...	Margarine 100 per cent. ...	Fined 40/- and 12/6 costs
147A	Demerara Sugar	Consisted of yellow crystals coloured with a minute quantity of an aniline dye	Fined 5/- and 12/6 costs
SECOND QUARTER.			
132S	Milk ...	6 per cent. added water, and 13 per cent. deficient in milk fat	Summons dismissed; warranty proved
53D	Milk ...	6 per cent. of added water ...	Summons dismissed; warranty proved
65H	Milk ...	20 per cent. deficient in milk fat	Fined 40/- and 12/6 costs
164A	Milk ...	8 per cent. of added water ...	Servant fined 20/- and 14/6 costs, as it was proved he watered the milk. Summons against proprietor withdrawn, 2/- costs
145S	Milk ...	15 per cent. deficient in milk fat	Fined £5 and 12/6 costs
THIRD QUARTER.			
79H	Milk ...	The sample was a separated milk containing 12 per cent. only of the milk present in standard milk	Fined £20 and 12/6 costs
84D	Milk and water ...	Summons for obstruction ...	£20 and 12/6 costs
277C	Milk ...	12 per cent. deficient in milk fat	Fined 40/- and 12/6 costs
184W	Milk ...	10 per cent. deficient in milk fat	Summons dismissed; warranty proved
168A	Milk ...	5 per cent. added water ...	Sec. 5. Fined £6 and 12/6 costs
		9 per cent. deficient in fat ...	Sec. 9. 2/- costs
169A	Milk ...	Water 16 per cent. ...	Both master and man were summoned. Warranty proved; summonses dismissed with £1 1s. costs against the Council in each case. The wholesale agents were summoned for giving a false warranty; summons dismissed. Three warranties were proved from three farmers, and summonses were issued, but withdrawn on the advice of Counsel.
175A	Milk ...	14 per cent. deficient in milk fat	Fined £12 and 12s. 6d. costs
149S	Milk ...	5 per cent. added water ...	Fined £2 and 12s. 6d. costs
132W	Milk ...	74 per cent. deficient in milk fat	Summons dismissed; magistrate held that bills on churns were sufficient disclosure
191T	Milk ...	8 per cent. of added water ...	Fined £4 and 12s. 6d. costs
300B	Milk ...	7 per cent. of added water ...	Fined £4 and 12s. 6d. costs
92D	Milk ...	5 per cent. of added water ...	Fined £2 and 12s. 6d. costs

FOURTH QUARTER.

No.	Sample.	Adulteration.	Result.
199T	Separated Milk...	6 per cent. of added water ...	Fined £2 and 15s. costs
150W	Arrowroot ...	Tapioca 100 per cent. ...	12s. 6d. costs
151W	Coffee ...	Chicory about 60 per cent. ...	Fined £1 and 12s. 6d. costs
103H	Raspberry Jam...	Red Currant Jam 50 per cent. ...	Fined 5s. and 12s. 6d. costs
124D	Margarine ...	Bulk not marked ...	Withdrawn; 2s. costs. Servant fined £1 and 12s. 6d. costs
197A	Margarine ...	Wrapper not marked ...	Fined 20s. and 12s. 6d. costs
198A	Margarine ...	Wrapper not marked ...	Fined 20s. and 12s. 6d. costs

SUMMARY.

			Fines.			Costs.		
			£	s.	d.	£	s.	d.
First Quarter ...	...	...	12	5	0	8	4	6
Second Quarter ...	...	...	8	0	0	2	1	6
Third Quarter...	...	...	72	0	0	5	14	6
Fourth Quarter	...	...	6	5	0	4	12	0
			£98	10	0	£20	12	6

In two cases £1 1s. costs were given against the Council.

TABLE XIV.—SANITARY WORK, 1903.

Houses and other places inspected:—	Urinals cleansed, supplied with water, and doors ...	65
House to house ...	...	...
Various ...	...	...
Re-inspections ...	Stables and other premises drained and paved ...	41
Notices and intimations served:—	Waste water pipes disconnected from drains and made to discharge in the open air, and new waste pipes provided ...	164
Intimations ...	...	...
Statutories...	...	...
Houses or parts of houses cleansed or repaired ...	Providing means of ventilation beneath ground floor ...	110
...
W.c. accommodation provided or reconstructed ...	Dung receptacles provided or repaired ...	57
...
W.c.'s repaired, ventilated and white-washed ...	Accumulations of manure removed ...	25
...
Closets panned and trapped or old pans cleansed or new ones fixed ...	Separating w.c. and domestic water supplies ...	15
...
Closets supplied with water or defective water supplies remedied ...	Effective means taken to prevent dampness ...	199
...
Defective drains reconstructed, repaired, ventilated or trapped ...	Yards cleansed ...	96
...
Stopped drains and w.c.'s cleared ...	Means of ventilation provided, or improvement in ventilation made ...	342
...
Yards and forecourts paved or paving repaired ...	Cisterns cleansed or covers provided ...	116
...
Houses supplied with water ...	Cowsheds cleansed ...	8
...
Defective roofs repaired ...	Miscellaneous ...	589
...
Defective rainshoots and gutters repaired, unstopped or disconnected from drain...	Drains tested ...	1704
...
Offensive accumulations removed ...	Rooms disinfected ...	828
...
Defective water apparatus in w.c.'s repaired ...	Articles disinfected ...	...
...
Animals kept so as to be a nuisance removed ...	Bodies received into mortuary ...	190
...
	Inquests ...	148
	Post-mortem examinations ...	105
	Houses disinfected to satisfaction of medical attendant...	62

TABLE XV.—LIST OF BAKEHOUSES IN THE BOROUGH.

Address.	Situation of Bakehouse.	Address.	Situation of Bakehouse.
49, Abbey Street ...	Underground	91, Old Kent Road ...	Above ground
157, " ...	"	69, " ...	"
20, Alice Street (closed)	"	7, Paradise Street ...	Underground
2, Alscot Road ...	"	246, Rotherhithe New	"
126, " (closed)	"	Road ...	"
186, Abbey Street ...	Above ground	365, " ...	"
66, Abbeyfield Road ...	"	173, " ...	"
218, Bermondsey Street	Underground	25, Parkers Row ...	Above ground
88, Bermondsey Wall	"	49, " ...	"
20, Bracton Road ...	"	25, Paradise Street ...	"
(not in use)	"	3, Plough Road ...	"
209, Bermondsey Street	"	1, Rosebery Street ...	"
(not in use)	"	79, Rouel Road ...	"
101, Bermondsey Street	Above ground	270, Rotherhithe Street	"
111, " ...	"	34, Rotherhithe New	"
31, Charlotte Street ...	"	Road	"
48, Cherry Garden	"	37, Rolls Road	"
Street ...	"	(not in use)	"
31, Crimscott Street ...	"	574, Rotherhithe Street	"
(not in use)	"	(not in use)	"
145, Drummond Road	Underground	39, St. James' Road...	Underground
51, Dockhead ...	Above ground	239, Southwark Park	"
27, Derrick Street ...	"	Road	"
20, Dockhead ...	"	351, Southwark Park	"
(not in use)	"	Road	"
51, Esmeralda Road ...	"	415, Southwark Park	"
49, Frean Street ...	"	Road (not in use)	"
(not in use)	"	479, Southwark Park	"
77, Grange Road ...	Underground	Road	"
31, George Row ...	"	3, Spa Mansions ...	"
68, Galleywall Road ...	"	(never been used)	"
163, Grange Road ...	"	49, Southwark Park	Above ground
(not in use)	"	Road	"
55, " ...	"	119, Southwark Park	"
(not in use)	"	Road	"
33, " ...	Above ground	158, Southwark Park	"
125, " ...	"	Road	"
2, Galleywall Road ...	"	198, Southwark Park	"
36, Gedling Street ...	"	Road	"
(not in use)	"	319, Southwark Park	"
1a, Ilderton Road ...	Underground	Road	"
16, " ...	"	355, Southwark Park	"
170, Jamaica Road ...	"	Road	"
53, " ...	"	208, Southwark Park	"
140, " ...	"	Road	"
75, " ...	Above ground	92, Snowsfields ...	"
203, " ...	"	92, Spa Road ...	"
227, " ...	"	61, Salisbury Street	"
29, Kipling Street ...	"	5, St. Marychurch	"
82, Keetons Road ...	Underground	Street	"
142, Long Lane ...	"	96, Tooley Street ...	Underground
2, Lucey Road ...	"	157, " ...	"
97, Lynton Road ...	"	167, " ...	"
132, Lower Road ...	"	95, Tower Bridge Road	"
93b, " ...	"	87, " ...	Above ground
184, Long Lane ...	Above ground	43, Tanner Street ...	"
49, Lucey Road ...	"	144, " ...	"
25, Lower Road ...	"	245, Tooley Street ...	"
160, " ...	"	53, Tower Bridge Road	"
182, " ...	"	26, " "	"
204, " ...	"	65, " "	"
47, Maltby Street ...	Underground	22, The Grange	"
17, Neckinger Street ...	Above ground	106, Union Road	"
16, Neptune Street ...	"	(not used)	"
69, New Church Street	"	22, Union Road	"
(not in use)	"	94, " "	"
333, Old Kent Road	"		

Name	Address	City	State
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
W. A. Rorer	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
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J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
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J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.
J. Edgar Hoover	Washington, D. C.	Washington	D. C.

