

Report on the sanitary condition of the Hackney District for the year 1898.

Contributors

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The Parish of Hackney.

REPORT

ON THE

SANITARY CONDITION

OF THE HACKNEY DISTRICT,

FOR THE YEAR 1898,

BY

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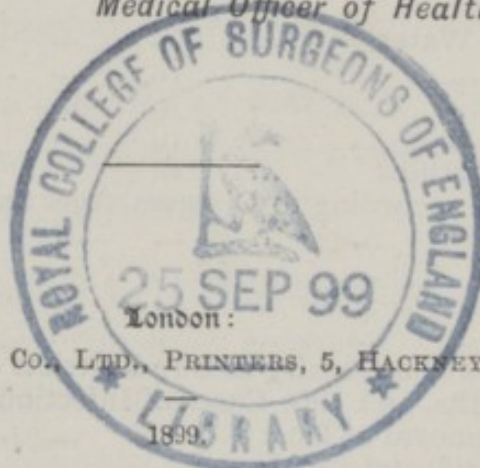
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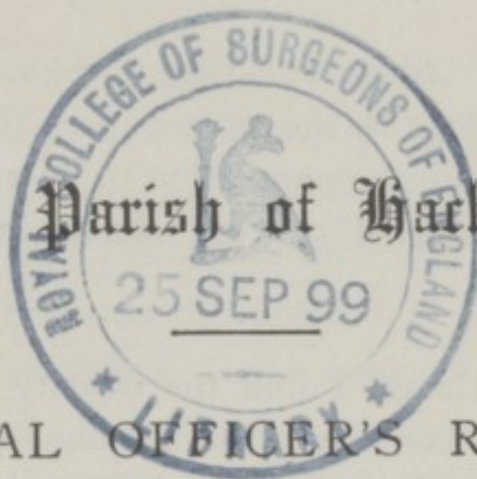
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The Parish of Hackney.



MEDICAL OFFICER'S REPORT

FOR THE YEAR 1898.

PUBLIC HEALTH DEPARTMENT,

TOWN HALL, HACKNEY, N.E.

To the Members of the Hackney Vestry.

GENTLEMEN,

I beg to present my Report upon the Health of the district of Hackney for the year 1898; and in doing so, I am pleased to state that judging from the death rate which was 17.1 per 1,000, against 18.3 per 1,000 for all London, the health record is more favourable than that of the year 1897, and shows that Hackney continues to occupy a high position amongst the healthy districts of London.

Infectious disease was not so prevalent as during the previous year, but summer diarrhoea and measles were very fatal.

The recurrence of a scarcity of water in the area of the East London Water Company, during the summer, left an unfavourable mark upon the health of the district.

In spite of the gradually increasing demands made upon the Officers of the department, the work executed continues to maintain the high standard of previous years.

I am pleased to record that the Sanitary Inspectors and other Officers of the department have carried out their duties to my satisfaction during the year.

POPULATION AND DENSITY.—Taking the rate of increase of the population of Hackney to be the same during the year 1898 as the previous year, I estimate the population to be 219,540 at the middle of the year. The rate, of course, varies in the different sub-districts.

On the above estimate I find the density of Hackney is 66·6 persons per acre, an increase upon the density for the whole of London, the latter being 60·3 per acre. The density is greatest in South-west Hackney, being 105·2 persons per acre, and the least in North Hackney where the density is only 44·0 persons per acre.

TABLE I.

Showing estimated Population, Area and Density of the Registration Sub-Districts in Hackney, at middle of 1898.

	North.	Central.	South West.	South East.	Total for Hackney	Total for London.
Estimated Population ..	49,528	47,672	63,261	59,079	219,540	4,504,766
Area in square acres	1,132	815	601	770	3,292	74,372
Density = persons per acre	44·0	58·5	105·2	76·7	66·6	60·3

*MARRIAGES.—The number of marriages which were solemnized in Hackney during the year 1898 was 1,755, a decrease of 33 upon the number recorded in 1897. The marriage-rate for the past year is, therefore, 15·9 per 1,000 living persons. The London rate for the same period is 18·7 per 1,000 living.

BIRTHS.—During the year 6,445 births were registered in the district. This is an increase of 133 upon the number for 1897, and is equivalent to a birth-rate of 29·3 per 1,000 persons living in the district. The birth-rate for all London during the same period is 29·5 per 1,000 living.

*I have here to acknowledge my indebtedness to Mr. Tom Hosgood, Superintendent Registrar, who has kindly abstracted for me the number of marriages, and illegitimate births for the year 1898.

***ILLEGITIMACY.**—The illegitimate births recorded in Hackney during 1898 numbered 291. This is a decrease of 169 upon the number for 1897, and is equal to an illegitimate birth-rate of 45·2 per 1,000 births. From the above total, 135 must be deducted to get the true rate, as this was the number of births which occurred in the Salvation Army Rescue Home amongst persons brought into Hackney from other parts of the country. After making this correction, I calculate the true illegitimate birth-rate for Hackney to be 24·3 per 1,000 births.

TABLE II.—*Births.*

	Registration District of Hackney.	Registration Sub-Districts.				All London.
		North.	Central.	South West.	South East.	
Total No. of Births	6,445	1,110	1,464	1,938	1,933	132,432
Rate per 1000 living	29·4	22·4	30·7	30·6	32·7	29·5
No. of Illegitimate Births	122					
Rate per 1000 Births	24·3					

DEATHS.—The deaths recorded in Hackney during 1898 numbered 3,855, but amongst these were 502 deaths amongst persons not residents of Hackney; and on the other hand there were 278 deaths of Hackney residents in places outside of the district. After correcting for these the total becomes 3,631, which give a corrected death-rate of 16·4 per 1,000 living persons. This, after a further correction for age and sex distribution by means of the factor 1·04645 becomes the true death-rate of 17·1 per 1,000 living persons. South East Hackney has the highest rate 22·5, and North Hackney the lowest 12·0 per 1,000 living persons. The death-rate for the whole district is slightly lower than that for 1897, the latter having been 17·8 per 1,000.

TABLE II.

Showing the corrected number of deaths in Hackney during the year 1898 distributed in the Registration Sub-Districts, with the annual rate per 1,000 living persons.

	North Hackney.	South E. Hackney.	South W. Hackney.	Central Hackney.	All Hackney.
Total Deaths registered in the four sub-districts.	559	1,332	1,059	905	3,855
Deaths occurring in the sub-districts amongst persons not belonging thereto.	2	88	203	209	502
Deaths occurring outside the sub-districts amongst persons belonging thereto	37	99	84	58	278
Corrected No. of Deaths	594	1,334	940	754	3,631
Rates per 1,000 living	12.0	22.5	14.2	15.8	16.4

INFANT MORTALITY.—The deaths under one year recorded during 1898 numbered 1,042, an increase of 63 upon the deaths during the previous year. This is equal to an infant death-rate of 161 per 1,000 births, and is an increase of 24 per 1,000 on the rate for 1897. The greatest increase is seen in the third quarter of the year, and must be largely attributed to the intense heat of that period and the diminished supply of water to the district. The large number of 147 deaths at this age was due to diarrhœa, and 86 to enteritis.

Amongst the deaths under one year 34 were due to accident and violence; of these 27 were caused by overlaying on the part of parents. This shows at least extraordinary carelessness of the parents. These deaths were distributed in the four quarters of the year, in the following manner.

1st quarter.

11

2nd quarter.

3

3rd quarter.

1

4th quarter.

12

Most of the deaths occurring in the first and last quarters of the year appear to suggest that accident has more to do with the deaths than wilfulness—the cold weather causing more crowding together for warmth, especially amongst the poor.

Diarrhœa appears to call for special comment, the largest number of deaths under one year being due to this cause. The following table shows the chief causes of death under one year set out separately for each quarter of the year.

TABLE IV.—*Eleven principal causes of Infant Mortality.*

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	TOTALS.
Measles	14	7	4	0	25
Scarlatina.....	2	2	0	0	4
Whooping Cough ..	24	13	6	1	44
Teething	6	3	6	2	17
Diarrhœa	2	1	147	10	160
Convulsions	15	14	20	23	72
Lung Diseases.....	43	22	25	41	131
Tubercular Diseases	7	5	29	20	61
Atrophy and Debility	28	29	46	33	136
Premature Birth....	34	42	31	38	145
Accidents & Violence	7	7	5	15	34
Total	182	145	319	183	829
Other Causes	33	32	110	38	213
Total	215	177	429	221	1042

SENILE MORTALITY.—The deaths at 65 years and upwards during 1898 reached 815, the number between 65 and 75 years being 423, between 75 and 85 years 312, and above 85 years 81. The death-rate for the age period of 65 and upwards is therefore 3·7 per 1,000 living.

SPECIFIC CAUSES OF DEATH.

Class I.

SPECIFIC FEBRILE OR ZYMOTIC DISEASES.—The deaths under this head during the past year numbered 892, a decrease of 20 upon the number recorded during the year 1897. The zymotic death-rate is, therefore, 4·0 per 1,000 living persons. The rate for all London is 3·3 per 1,000.

TABLE OF DEATHS

Of Inhabitants of the Hackney District between 1st Jan. and 31st Dec., 1898.

AGES	Under 1 year.	1 to 5.	5 to 15.	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	85 and upwards	Totals
Chicken Pox.....	0	1	..	..	..	..	..	..	..	..	..	1
Membranous Croup..	..	4	..	..	..	..	..	..	..	..	..	4
Small- { Vaccinated..	..	..	..	..	..	..	..	..	..	..	..	..
pox. { Unvaccinat'd	..	..	..	..	..	..	..	..	..	..	..	..
{ Vacc doubtful	..	..	..	..	..	..	..	..	..	..	..	..
Measles	25	86	5	..	..	..	..	..	..	..	..	116
Scarlet Fever	4	31	13	1	..	..	..	..	..	..	..	49
Typhus Fever .....	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough....	44	47	3	..	..	..	..	..	..	..	..	94
Diphtheria	9	180	71	..	1	..	..	..	..	..	..	261
Simple Fever .....	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever .....	..	2	10	35	8	5	3	2	..	..	..	65
Other Miasmatic Diseases .....	..	..	..	..	..	..	..	..	..	..	..	..
English Cholera	3	1	..	..	..	1	..	..	..	..	..	5
Diarrhœa, Dysentery	160	19	2	2	1	..	4	2	7	5	6	208
Ague, Remittent Fever	..	..	..	..	..	..	..	..	..	..	..	..
Hydrophobia.....	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis, &c.....	10	..	..	..	1	..	..	..	..	..	..	11
Erysipelas	4	..	..	..	..	..	3	3	..	..	..	10
Pyæmia	1	..	1	1	2	1	..	..	..	..	..	6
Puerperal Fever ....	..	..	..	..	3	4	..	..	..	..	..	7
Thrush Vege Parasites	..	..	..	..	..	..	..	..	..	..	..	..
Worms, Hydatids ..	..	..	..	..	..	..	..	..	..	..	..	..
Want of Breast Milk	..	..	..	..	..	..	..	..	..	..	..	..
Alcoholism .....	..	..	..	..	5	4	5	1	1	..	..	16
Influenza .....	..	2	2	2	4	..	4	10	12	11	2	55
	260	373	107	41	25	21	19	18	20	16	8	908
CONSTITUTIONAL DISEASES.												
Rheumatic Fever ..	..	1	3	3	..	1	..	..	..	..	..	8
Rheumatism.....	..	..	2	2	2	..	2	3	..	1	..	12
Gout .....	..	..	..	..	..	..	..	3	3	1	..	7
Rickets	4	6	..	..	..	..	..	..	..	..	..	10
Cancer .....	..	..	2	..	7	17	44	59	48	21	1	199
Tabes Mesenterica ..	23	13	..	1	..	..	..	..	..	..	..	37
Tubercular Meningitis	17	23	10	..	1	1	1	..	..	..	..	53
Phthisis	1	3	3	50	86	77	51	29	8	..	..	308
Scrofula, Tuberculosis	20	20	10	7	12	7	6	3	..	..	..	85
Purpura	..	..	..	..	..	..	..	..	..	..	..	..
Hæmorrhagica ....	..	..	..	..	..	1	..	..	1	..	..	3
Anæmia, Leucocytha	..	..	..	1	..	3	2	7	6	2	..	22
Diabetes.....	..	..	..	..	2	3	2	7	6	2	..	..
Other Constitutional Diseases.....	..	..	..	1	1	..	1	..	..	..	..	3
	65	66	30	65	111	107	107	104	66	25	1	747
DEVELOPMENTAL												
Premature Birth	145	..	..	..	..	..	..	..	..	..	..	145
Malformations	23	1	..	..	..	..	..	..	..	..	..	24
Old Age .....	..	..	..	..	..	..	..	1	38	105	40	184
	168	1	..	..	..	..	..	1	38	105	40	353

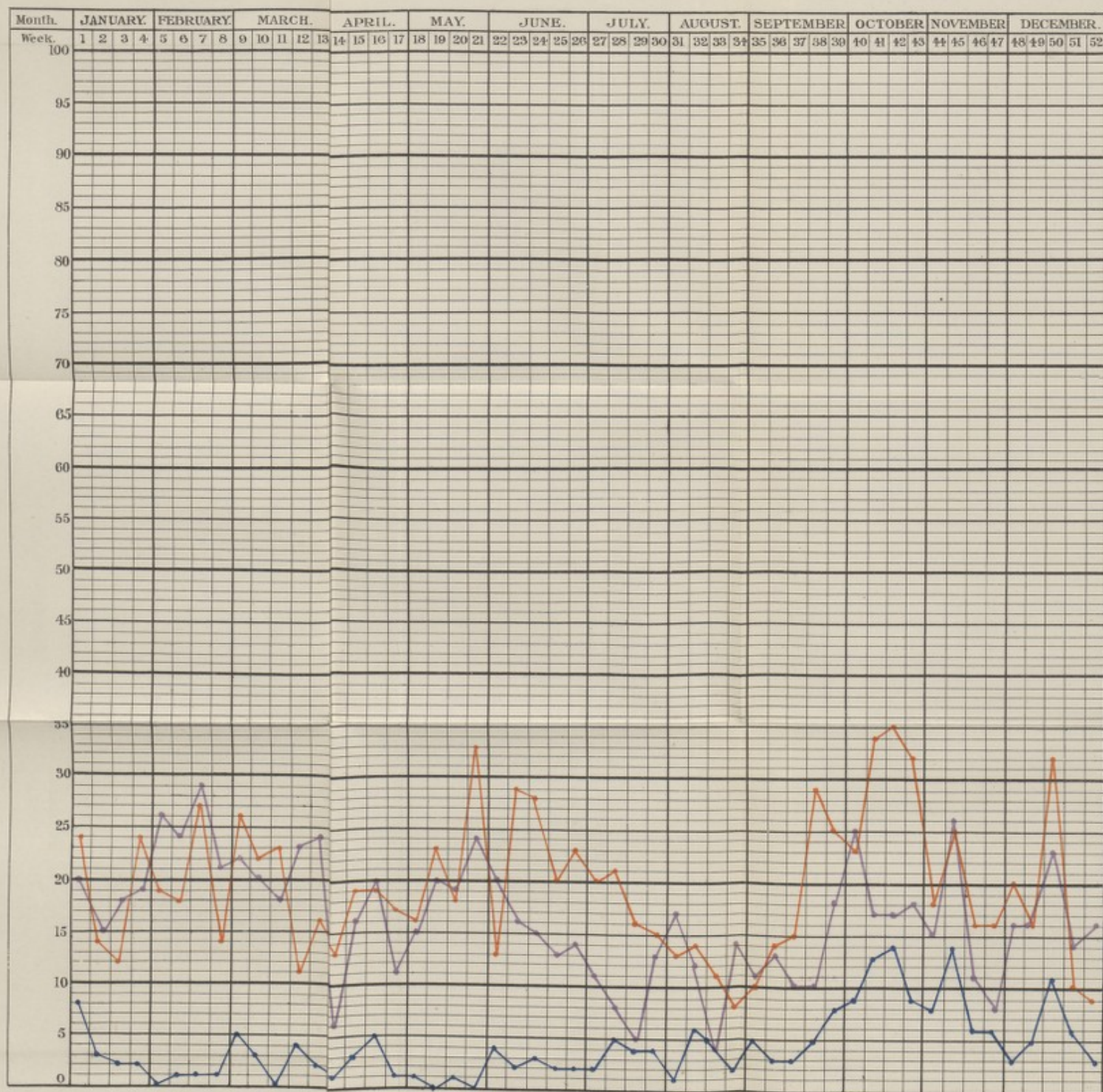
TABLE OF DEATHS—Continued.

AGES	Under 1 year.	1 to 5.	5 to 15.	15 to 25	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	85 and upwards	Totals
NERVOUS DISEASES.												
Inflammation of												
Brain or Membranes	25	14	6	3	4	2	5	4	1	..	..	64
Apoplexy, Hemiplegia	..	..	..	2	6	7	17	27	43	38	5	145
Insanity, General												
Paralysis .....	..	..	..	..	1	10	5	5	10	7	1	39
Epilepsy .....	..	..	2	2	1	2	2	1	1	1	..	12
Convulsions	72	12	1	..	..	..	..	..	1	2	..	88
Laryngismus Stridulus	2	1	..	..	..	..	..	..	..	..	..	3
Diseases of Spinal cord	..	..	1	1	..	2	2	3	1	1	..	11
Paraplegia .....	..	..	..	..	..	..	..	1	2	..	..	3
Other Nervous diseases	1	3	3	3	3	3	4	6	9	1	1	37
	100	30	13	11	15	26	35	47	68	50	7	402
DISEASES OF CIRCULATING ORGANS.												
Peri & Endo-Carditis	..	2	2	2	..	1	2	2	..	1	..	12
Valvular Disease of												
Heart .....	..	1	7	14	27	28	27	37	43	13	1	198
Other diseases of heart	..	..	..	2	2	..	3	4	4	4	..	19
Aneurism .....	..	..	..	..	..	..	6	4	1	1	..	12
	..	3	9	18	29	29	38	47	48	19	1	241
RESPIRATORY ORGANS.												
Laryngitis .....	..	5	1	..	2	..	1	1	..	..	..	10
Croup .....	..	..	..	..	..	..	..	..	..	..	..	..
Asthma .....	..	..	..	..	..	..	3	3	1	1	1	9
Bronchitis	61	32	2	..	4	19	21	63	79	39	12	332
Pneumonia	67	80	10	7	16	18	24	21	18	18	2	281
Pleurisy	1	1	..	..	..	2	..	..	1	1	..	6
Other Respiratory Dis.	2	..	..	..	1	..	..	4	2	..	..	9
	131	118	13	7	23	39	49	92	101	59	15	647
DISEASES DIGESTIVE SYSTEM.												
Dentition	17	4	..	..	..	..	..	..	..	..	..	21
Quinsy, Sore Throat	..	..	..	..	..	..	..	..	..	..	..	..
Disease of Stomach..	6	..	..	1	..	2	1	1	4	..	..	15
„ Bowels ..	1	..	..	..	..	..	2	3	2	..	..	8
Enteritis	105	25	1	1	1	..	1	1	..	2	..	137
Obstruction of Intes-												
tines	6	2	2	1	2	3	2	8	4	3	..	33
Peritonitis	2	3	5	4	6	6	4	2	3	..	..	35
Spleen .....	..	..	..	..	..	..	..	..	..	..	..	..
Jaundice, Liver Dis.	2	..	2	1	6	19	22	18	11	4	1	86
	139	34	10	8	15	30	32	33	24	9	1	335

TABLE OF DEATHS—Continued.

AGES	Under 1 year.	1 to 5.	5 to 15.	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85	85 and upwards	Totals
DISEASES OF URINARY SYSTEM.												
Kidney Diseases .....	..	1	..	2	..	7	7	8	6	1	..	32
Nephritis	1	1	1	3	4	5	9	10	5	4	..	43
Bright's Disease .....	..	2	1	..	2	3	8	3	5	3	..	27
Other Kidney Diseases .....	..	..	..	..	..	..	..	1	2	..	..	3
Bladder and Prostate .....	..	..	1	..	..	1	1	5	6	2	3	19
	1	4	3	5	6	16	25	27	24	10	3	124
DISEASES OF UTERUS & C.												
Disease of Uterus .....	..	..	..	..	1	1	..	2	..	..	..	4
Abortion, Flooding .....	..	..	..	..	1	2	..	..	..	..	..	3
Puerperal Convulsion .....	..	..	..	..	2	1	..	..	..	..	..	3
Ovarian Dropsy .....	..	..	..	..	1	1	..	..	1	1	..	4
	..	..	..	..	5	5	..	2	1	1	..	14
BONES AND JOINTS, & C.												
Caries, Necrosis .....	..	..	..	2	..	1	..	..	..	..	..	3
Arthritis, Ostitis .....	..	..	..	..	1	..	..	..	..	..	..	1
Carbuncle, Phlegmon .....	..	..	..	..	..	..	1	..	2	2	..	5
Other Skin Diseases	2	1	..	..	..	..	..	..	..	1	..	4
	2	1	..	2	1	1	1	..	2	3	..	13
VIOLENCE.												
Accidents & Violence	32	14	13	4	8	9	13	10	10	6	2	121
Homicide	2	1	..	..	1	..	..	..	..	..	..	4
Suicide .....	..	..	..	3	3	2	4	3	3	..	..	18
	34	15	13	7	12	11	17	13	13	6	2	143
ILL-DEFINED CAUSES.												
Dropsy .....	..	1	..	..	..	..	..	1	..	1	..	3
Debility and Atrophy	136	1	..	..	..	..	1	..	2	..	..	140
Mortification .....	..	..	1	1	..	..	..	..	2	3	1	9
Tumour .....	..	1	..	1	..	..	..	..	1	..	..	3
Abscess	2	1	1	2	..	..	..	..	2	..	1	9
Hæmorrhage .....	..	..	..	..	..	..	1	2	..	..	..	3
Sudden Deaths (doubt- ful)	1	..	..	..	3	4	2	6	5	4	1	26
Causes not Specified	3	..	..	..	..	1	1	1	6	1	..	13
	142	5	2	4	3	5	5	10	18	9	3	206
Totals	1042	650	200	168	245	290	328	394	423	312	81	4183

CHART SHEWING THE RISE AND FALL WEEKLY IN CASES
OF SCARLET FEVER, DIPHTHERIA, & TYPHOID FEVER, REPORTED DURING 1898.



Notes. Scarlet Fever ———
Diphtheria ———
Typhoid Fever ———

A.—NOTIFIABLE DISEASES.

SMALL POX.—No case of this disease was notified in Hackney during the year.

SCARLATINA.—This disease was less prevalent during 1898 than the year before, the number notified being 1,002, which shows a decrease of 384 on the year 1897. The attack-rate for the year is, therefore, 4·5 per 1,000 living. The deaths numbered 49, giving a death-rate of ·22 per 1,000 living.

The accompanying chart represents the course of the disease week by week during the year. It will be seen from this that the highest point was reached during the month of October, and the lowest in the month of August.

Scarlatina was less prevalent during 1898 than many years previously. The cause of this, it is difficult to say; but I think it may justly be assumed that the greater facilities now available for the removal of patients from their homes, with more prompt and thorough application of the means of isolation and disinfection, may have something to do with the decrease. In the following table, the number of cases of scarlatina, diphtheria and enteric fever notified during the years 1893 to 1898 inclusive are shown, with the number and percentage removed to hospital, and the attack-rate per 1,000 living inhabitants of Hackney. It will be seen from this that the attack-rate for scarlatina has declined from 10·2 per 1,000 in 1893 to 4·5 in the year 1898.

The disease did not appear in 1898 to be associated in a marked degree with any special agency such as milk; neither has any particular board school appeared to be active in spreading the disease; but there was one parochial school, St. James', where the disease lingered amongst the scholars for some weeks, until closing the school stopped its spread.

The outbreak began in the second week of May by the notification of two cases in the boys' school. Subsequent cases were notified during the following eight weeks, varying from one to four

TABLE showing the percentage of cases of Scarlatina, Diphtheria and Enteric Fever removed to Hospital during the years 1893—1898, compared with the attack-rate for the District.

Infectious Diseases.			Scarlet Fever.						Diphtheria, including Mem. Group.						Enteric or Typhoid Fever.					
Years	..	..	1893	1894	1895	1896	1897	1898	1893	1894	1895	1896	1897	1898	1893	1894	1895	1896	1897	1898
Number notified	..		2121	1006	1044	1492	1386	1002	859	550	481 13	554 18	738 25	865	327	186	256	198	203	207
Number removed to hospital	..	..	669	472	441	669	738	613	167	164	140 3	176 5	312 1	476	104	66	86	73	83	122
Percentage removed			31·5	46·9	42·2	44·8	52·5	61·1	19·4	29·8	28·8	31·6	41·0	55·0	31·8	35·4	33·5	36·8	40·8	59·4
Attack rate per 1,000 persons living	..		10·2	4·7	4·8	6·9	6·4	4·5	4·1	2·5	2·2	2·6	3·5	3·9	1·5	0·8	1·1	0·9	0·9	0·9
Estimated population	..	..	206469	212547	215620	213766	216651	219540												

per week. Of course, during this period, all children from infected households were excluded from school, and all means adopted to prevent the spread of the disease amongst the scholars.

There were 23 cases altogether notified in the St. James' School during the period stated, distributed in the three departments in the following manner :—

St. James School.	No. of Cases Notified.	Average Attendance.	Percentage of Scholars Affected.
Boys' Dep.	15	100	15%
Girls' Dep.	4	100	3.5%
Infants' Dep.	4	50	8.0%

The cases in the boys' department were distributed in the different standards in the following manner.

Standard.	No. of Scholars in Standard.	No. of Cases.	Percentage Affected.
1st	20	4	20%
2nd	30	6	20%
3rd	23	2	8.6%
4th	13	1	7.7%
5th, 6th & 7th	25	2	8.0%

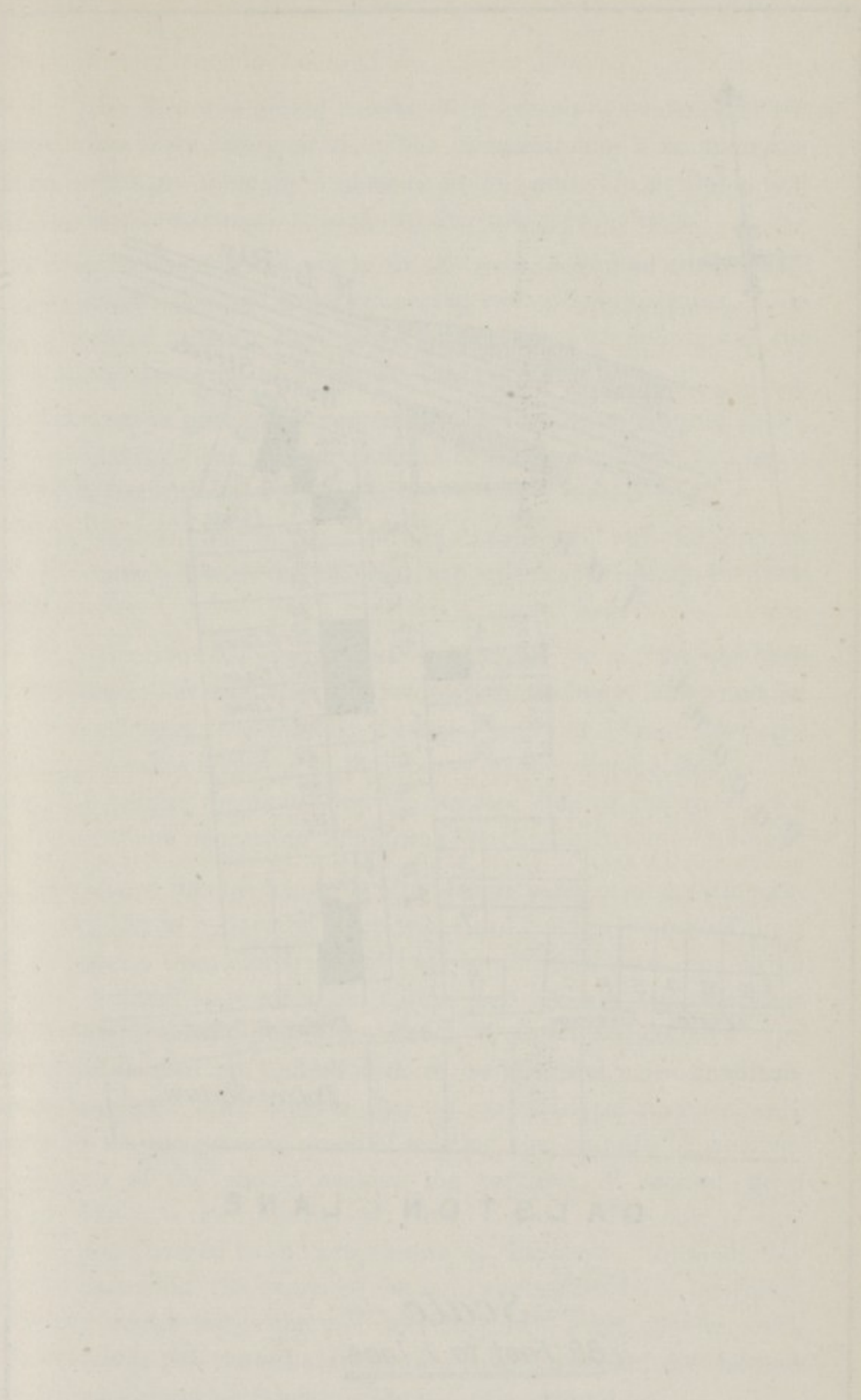
The highest number and percentage of cases are in the first two standards. I could find no cause for 20% of the first two standards being affected, unless there are some circumstance connected with the class-room or special to the standard to cause this heavy incidence. The outbreak appears to me to be a typical instance of "school influence" in the spread of disease. On visiting and inspecting the school, I failed to find anything in the sanitary arrangements which could in my opinion lead to such an outbreak. But I found for educational purposes that all the standards were in one room and seated in the following manner: The 1st and 2nd Standards were seated at four long desks, made to accommodate 10 each. The 3rd Standard were seated at desks made for four each, and the remaining standards at desks to accommodate five each.

It was impossible to get more detailed information as to whether contiguous scholars were affected, but this is not of so much moment, as I am informed the relative positions of scholars are frequently changed owing to various circumstances. The point I wish to bring out clearly is that any arrangement such as above described which brings children into close relation with each other during school hours is an agent which favours the spread of infectious disease amongst scholars should an unrecognised case be introduced amongst them.

I am of opinion that in school each class should have a separate class-room, and each child a separate seat and desk, with a space between each seat of about 2 feet, and the floor space for each scholar should not be much less than 15 sq. feet. A special kind of seat and desk would be required for infants. I shall have to refer again in this report to this subject in connection with diphtheria.

With regard to the St. James' School, closing was resorted to at the end of July with the satisfactory result of causing the disease to disappear from the school. Of course, everything was done by the Public Health Department in the way of disinfection and isolation to prevent any further spread of the disease.

TYPHOID OR ENTERIC FEVER.—The number of cases notified during the year was 207, of which 65 died. This is equal to an attack rate of '9 per 1,000, and a death rate of '3 per 1,000. The disease was most prevalent during the last four months of the year. This is the usual period for this disease; but this year it appeared to be exceptional as regards its duration—the rise commencing in the third week of September and keeping above the average until the last week of the year. Out of the total I found upon enquiry that 15 cases were introduced into Hackney after the summer holidays.

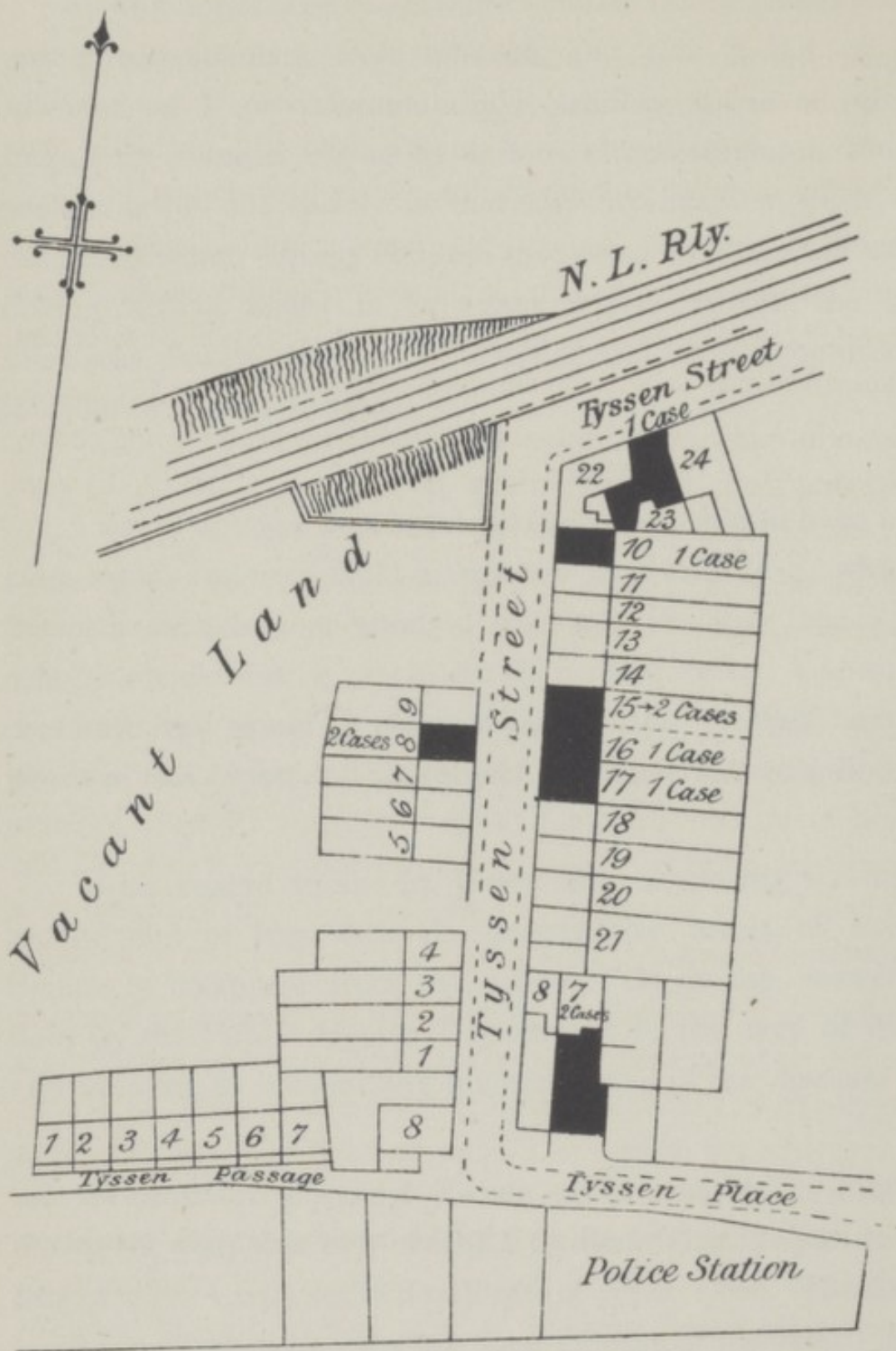


STATION LANE

1900

1901

1902



DALSTON LANE

— *Scale* —
88 Feet to 1 Inch.

March 1899.

To determine the actual causes of the yearly prevalence in the district is probably impossible. The circumstances accompanying this incidence are so many and so complex ; and it is probable that many factors are at work to keep up the yearly prevalence.

Nevertheless, we had, early in the year, a limited outbreak of typhoid which appeared to be connected with a definite cause. The cases appeared to me to have some connection with pollution of the soil near the dwellings in which the cases occurred.

The area in question is represented in the accompanying chart, the cases having been almost confined to one street, namely, Tyssen Street, the exceptional case bordering on this street.

The total number of cases did not exceed ten, but the circumstances connected with the outbreak are so exceptional as to merit record.

The direction of Tyssen Street is from N. to S., its northern end terminating at the North Metropolitan Railway Line, and its southern end being bounded by Tyssen Place and Tyssen Passage. Most of the cases occurred in the houses on the eastern side of the street, but behind the houses on the western side of the street is a large open space measuring something like three quarters of an acre.

This space has been used at intervals for some years by itinerant shows, the last to be located there was Lord George Sanger's Circus and Menagerie from Christmas of 1897 to the first week in March of 1898. Immediately after the Circus had left my attention was called to the foul condition of the place. I gave instructions for the place to be cleaned up, and all filth to be removed. Its condition may be imagined when I state that 15 cart-loads of manure were removed from the ground, much of it being the manure of carnivorous beasts of the show, besides the carcasses of several dead animals and a large quantity of putrid meat. The cost of this removal was charged to the proprietors of the show. Immediately after the cleansing, the owner of the land enclosed it by a hoarding, which was completed in the 2nd week in July. From the first week in March up to this date the land was open to the public, and children from the neighbouring houses made it a play-ground.

The following table gives particulars as to the cases notified.

*Particulars of cases of Enteric Fever in Tyssen Street & Tyssen Place,
Dalston Lane.*

Date of notification.	Name.	Age.	Address.	Source of Milk Supply.	Date of Rem'val to Hospital.	School or Workplace attended.
1898. 4th March	A.T.	10	10, Tyssen Street.	Condensed.	4th March	Wilton Road
22nd „	A.L.	6	7, Tyssen Place.	Frost.	23rd „	„
19th April	J.R.	8½	8, Tyssen Street.	Condensed.	19th April	Mayfield Rd. School.
28th May	L.R.	7	8, Tyssen Street.	„	28th May	Mayfield Rd. School.
1st June	L.L.	8	7, Tyssen Place.	Ch'ndl'rs shop in Tys'en Pl'ce	1st June	Wilton Road.
9th „	W.J.K.	4	16, Tyssen Street.	Condensed.		Mayfield Rd.
15th „	K.H.	3	17, Tyssen Street.	Frost and Condensed.	21st June	St. Joseph's R.C.
24th „	M.V.	3½	15, Tyssen Street.	Frost.	24th June	Mayfield Rd.
12th July	E.P.	7	23, Tyssen Street.	Various.	11th July	Wilton Road.
22nd „	A.V.	9	15, Tyssen Street.	Frost.	21st July	Mayfield Rd.

AGE AND SEX INCIDENCE.—From this table it appears that the patients were all children, their age varying from 3 to 10 years. This in itself is uncommon. The total number of admissions to the Metropolitan Fever Hospitals during the years 1871 to 1897 was 5,872, and of this number only 947 were under ten years of age, which equals 16 per cent of the total. From these figures the incidence of the outbreak varies from the normal, and an outbreak which affects a different class of the community to its usual course may be expected to vary somewhat in its mode of spread. Of the total cases 7 were females.

There is no suspicion of infected milk supplies, as the affected families were supplied from three different sources. The schools attended by the children were different. I cannot altogether exclude personal infection of one patient by another, as the class of people living in the affected locality are much in the habit of associating

together in their rooms accompanied by their children, and are not deterred from this by a sick person being present; but all the cases except one were removed to hospital as soon after notification as possible, and the vacated rooms, with clothes and bedding, etc., disinfected.

The course of the outbreak seems to connect the cases with some other circumstance than those previously examined. The first of these cases was notified on the 4th of April, the last on the 23rd of July. Every one of the children affected had played on the above-mentioned vacant land during this period. Children at this age are very fond of playing by digging, &c., with dirt and thus soiling their hands and clothes. If the dirt happens to be specifically polluted, it is not difficult to imagine how the children might be affected. The final proof of the cause of this outbreak, namely, the bacteriological examination of the polluted soil, is wanting; but there are strong grounds for believing that polluted soil occupies a very prominent place in the occurrences of so-called sporadic cases of enteric fever.

How the soil of the vacant land could have become specifically polluted is not difficult to suggest. During the stay of the itinerant shows frequenting the place w.c. accommodation is not provided on the ground; and the excreta of some of the rougher employés may have been disposed of with the manure from the animals. Probably, at some time, one or other of the employés was suffering from a mild attack of enteric fever. Indeed, the ground had been used for many years by travelling circuses and menageries, and polluted by organic matter, animal and vegetable.

Briefly, the reasons for believing polluted soil to be the exciting cause of these cases are :

1. The age of the patients (3 to 10 years).
2. The habit of playing on the ground.
3. Gradual progress of the outbreak.
4. The polluted condition of the soil with organic matter.
5. No other common cause to be suggested.

DIPHTHERIA AND MEMBRANEOUS CROUP.—During the past year 847 cases of Diphtheria and 19 of Membraneous Croup were notified. These numbers show a total increase of 102 cases over those notified in 1897. The attack rate was 3·8 per 1,000. The deaths numbered 265, making a death rate of 1·2 per 1,000 living persons.

By a glance at the chart accompanying this report it will be seen that the disease was most prevalent during the first six months of the year. The next three months the disease was at its lowest point. The last three months of the year witnessed a return to the condition of the earlier part of the year. Diphtheria had not been so prevalent in Hackney since the year 1893, in which year the attack-rate was 4·1 per 1,000. The cause of the wide-spread existence of Diphtheria in London is not at present determined. It is probable the cause of spread is multiple. I alluded in my last year's report to the relation of Diphtheria to defective drainage; and in another part of this report I again deal with this subject. The relation of school attendance to the spread of the disease is also important. It is singular that almost every year we get in some part of Hackney the scholars of a certain Board School affected with Diphtheria in such proportions as to suggest that school life has been active in spreading the disease.

The Rushmore Road School was affected in this way during the first five months of 1898. From the first week in January to the last week in May, with the exception of one week in March, cases occurred every week amongst the scholars, varying from one to four each week, the total number during the whole period being 44. Of these no less than 37 were amongst the infants; and in addition I found on enquiry that several infants were away at the same time suffering from sore throats or mumps.

The following table shows the classes of the Infant School attacked, with the average attendance, No. of cases, and percentage attack rate for each class.

Classes.	St. Ia.	St. Ib.	Class I.	Class II.	Class III.	Class IV.	Class V.	Class VI.	Whole School	Remarks.
Average Attendance for June.	65	57	64	65	74	61	64	58	508	In addition, 3 absentees with sore throats and 7 with 'mumps.'
Notified Cases of Diphtheria.	5	4	6	3	5	1	4	9	37	
Percentage attack-rate.	7.6	7.0	9.3	4.6	6.7	1.6	6.2	15.5	7.2	

During the period named, with an average attendance for the whole department of 508, there were absent 7.2 per cent. of the Infants' School, suffering from Diphtheria. The percentage attacked in the different classes varied from 1.6 to 15.5, the latter rate obtaining in the babies' class. During the same period there were also absent several children whose absence was attributed to sore throat or mumps. The only importance of this is the possibility of some of these being unrecognised cases of Diphtheria. An inspection of the school was made early in the outbreak, and various conditions were found which would have a lowering effect upon the health of the children; but I could not say they would cause diphtheria.

A second outbreak of diphtheria which appeared to me to be connected with school influence, occurred during the months of March, April, May and June, in the Infants' Department of the Tottenham Road Board School. This school is situated in the Hackney district, close to the border of Islington parish, and, therefore, probably receives as many scholars from that parish as from Hackney. The outbreak began in the second week in March by the notification of two cases in the girls' schools, and one in the infants' school. During the month of April 16 cases, during May 14 cases, and June 6 cases were notified, making a total of 39 cases. These were distributed in the three departments of the school in the following manner:—

Boys' Department	...	...	2 cases.
Girls' ,,	...	...	5 ,,
Infants' ,,	...	...	3 ² ,,

The incidence of the disease upon the different classes of the Infants' department with the average attendance and the percentage attacked, are given in the following table :—

Classes.	1	2	3	4	5	6	7	Totals.
Average attendance ..	44	47	56	75	43	28	41	334
Number of cases of Diphtheria	2	3	4	5	4	4	10	32
Percentage of class attacked	4·5	6·3	7·1	6·6	9·3	14·2	24·3	9·5

Of the 39 cases occurring in the whole school, 19 were resident in Islington, the remainder in Hackney, and I have here to express my thanks to Dr. Harris, the Medical Officer of Health for Islington, for particulars relating to the Islington cases.

The above are the main facts as to the outbreak, are they sufficient to prove that school influence has been at work in Hackney during the year in spreading Diphtheria?

It will be seen from the above figures that the Infants' Department suffered during the period in question to the extent of 9·5 per cent., the percentage in the different classes varying from 4·5 to 24·3. It should be noted that the latter figure represents the extent to which Class VII. suffered—equal nearly to one child out of every four. This heavy incidence cannot be the result of mere chance; indeed, both in this class-room and the corresponding class-room of the Rushmore Road Board Schools, the conditions are such as, in my opinion, must favour the spread of infectious disease, if, by any chance a case is introduced. I refer to the kind

of desks and their arrangement in these classes. The desks are long, with seats made to sit six children side by side. At the time of my visit to the schools the seats were packed, the children apparently keeping each other up. This arrangement is one which I have expressed before as being likely to lead to the spread of disease from child to child; and I repeat, that I consider all infants should be separated from each other during school life, by seating them at single desks and seats in the manner practised for adults in some schools.

The floor space of the two class-rooms in question is, in my opinion, insufficient. It varies, of course, according to the attendance, but it works out for Rushmore Road class-rooms at about 6 square feet per child, and at the Tottenham Road class-rooms at about the same floor space per child. The floor space should not be at any time much less than 15 square feet per scholar.

The above, I think, will be sufficient to prove that school influence has been at work in the outbreaks briefly described; but those who do not believe that school life is an important agent in the spread of infectious disease, in their investigation of any particular outbreak endeavour to trace each successive case to a previous one, and the only data taken are the notifications. If this cannot be done, school influence is said not to have been appreciatively operative. The fact is entirely ignored that in every outbreak there is a large number of unrecognised cases of Diphtheria occurring amongst the diagnosed cases so mild as to escape the observation of both parents and teachers, or if noticed are dismissed with the appellation of "slight sore throat." Such cases have been proved to possess the power of infecting healthy persons with a recognisable form of Diphtheria. The presence of such cases may be demonstrated in almost every outbreak of Diphtheria if enquiry be only made at the homes or the throats of the children examined. Wherever Diphtheria exists, there will also exist, in addition, numerous cases of sore throat. This I have observed several times.

So because any particular case cannot be traced to a previous one in the school, it does not at all prove that the infection is not amongst the scholars, for it may be there though unrecognised.

I must here add that on testing the drains of this school they were found to be defective, and have since been reconstructed. This may be regarded as a predisposing cause of the outbreak, by leading to a lowering of health of the children.

DIPHTHERIA AND ANTI-TOXIN.—The continued experience of this treatment in the hospitals of the Metropolitan Asylums Board confirms the earlier reports of the Medical Superintendents as to the serum treatment being a powerful remedy in the treatment of Diphtheria. I am pleased to add that this treatment is making progress amongst the medical practitioners of the district. During the year 38 bottles of serum were sold to medical practitioners of Hackney from the Public Health Department.

TYPHUS.—No case of typhus was notified in Hackney during the year 1898.

CONTINUED FEVER.—Three cases of this disease were notified during the past year, none of which were fatal. The usual precautions against the spread of infectious disease were adopted in these cases.

PUERPERAL FEVER.—Fourteen cases of Puerperal Fever were notified in 1898, of which seven were fatal. The death-rate is, therefore, equal to $\cdot 03$ per 1,000 living for the year.

CHOLERA.—Five deaths were recorded under the head of English Cholera. These were cases of Summer Diarrhœa.

ERYSIPELAS.—The large number of 298 cases of Erysipelas was notified in the past year. The deaths numbered 10, giving an annual death-rate of $\cdot 03$ per 1,000 living.

B.—NON-NOTIFIABLE DISEASES.

INFLUENZA.—The deaths from this disease numbered 55, showing an increase of 22 upon the number during 1897. The death-rate from this cause is therefore $\cdot 25$ per 1,000 living persons, that for all London is $\cdot 28$ per 1,000. The distribution of the deaths in the months of the year is seen in the following table :—

TABLE V.

Deaths from Influenza during the years 1891 to 1897.

YEAR.	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1891	0	0	0	2	86	39	6	3	2	1	1	1
1892	77	29	6	3	1	1	1	0	0	0	0	1
1893	3	4	11	10	4	4	3	1	1	1	7	37
1894	18	5	2	4	1	3	0	0	1	1	1	3
1895	2	6	91	9	3	1	0	0	2	2	3	5
1896	1	4	2	3	2	1	0	1	0	1	3	4
1897	1	1	6	5	9	3	0	0	1	2	2	7
1898	11	16	7	5	4	3	2	2	2	1	1	1

DIARRHŒA.—The deaths from Diarrhœa during the year numbered 208, of which 160 were under one year of age; in addition there were 137 deaths from Enteritis and Gastro-enteritis, 105 of which being under one year. As may be expected, the largest number of deaths from Diarrhœa occurred in the third quarter, namely 184, and of these 147 were amongst children under one year old. The same may be said of Enteritis and Gastro-enteritis, of the total number 108 occurred in the third quarter, 86 being amongst children under one year old.

Many deaths which were formerly recorded as due to Diarrhœa are now entered under the head of either Enteritis or Gastro-enteritis. Diarrhœa being only a symptom of disease, it is obvious that its causes may be various. However, it has been taken as a rough guide to the sanitary condition of a district, especially the deaths under one year; but I think the deaths from Enteritis and Gastro-enteritis should be included in any Diarrhœal rate to be useful.

B.

25

NAMES OF LOCALITIES adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SICKNESS IN EACH KNOWLEDGE OF THE							LOCALITY, COMING TO THE MEDICAL OFFICER OF HEALTH.							NUMBER OF SUCH CASES REMOVED FROM THEIR HOMES IN THE SEVERAL LOCALITIES FOR TREATMENT IN ISOLATION HOSPITAL.													
	Last Census	Estimated to number of 1898.			1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	FEVERS.					10	11	12	13		
																						Typhus	Enteric or Typhoid.	Continued	Relapsing	Puerperal					Cholera.	Erysipelas
(a)	(b)	(c)	(d)	(e)	Smallpox.	Scarlatina	Diphtheria	Membranous Croup.	Typhus	Enteric or Typhoid.	Continued	Relapsing	Puerperal	Cholera.	Erysipelas		Smallpox.	Scarlatina	Diphtheria	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued	Relapsing	Puerperal	Cholera.	Erysipelas					
North				{ Under 5 5 upwds.	.. 42 .. 112	26 57	1 2 .. 25 3	3 43			.. 31 .. 60	14 22 1 .. 12 3					
Central (H)				{ Under 5 5 upwds.	.. 79 .. 156	107 201	3 2	.. 1 .. 44	.. 1	.. ..	.. 2	.. ..	6 64			.. 48 .. 98	81 115	2 ..	.. 1 .. 24	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. 11				
South West				{ Under 5 5 upwds.	.. 69 .. 153	83 137	7 ..	.. 5 .. 68	.. 2	.. ..	.. ..	.. 1	.. 61			.. 48 .. 108	57 80	3 ..	.. 3 .. 42	.. ..	.. ..	.. ..	1 ..	.. ..	.. 6					
South East				{ Under 5 5 upwds.	.. 124 .. 219	65 145	4 1	.. 3 .. 58	.. ..	.. ..	.. 8	.. ..	9 99			.. 85 .. 130	37 55	2 ..	.. 2 .. 37	.. ..	.. ..	.. ..	2 ..	.. ..	.. 12					
Eastern Hospital				{ Under 5 5 upwds.	.. 20 .. 23	1 17	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. 1			.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Hackney Workhouse				{ Under 5 5 upwds.	.. 1 .. 2	5 2	.. 1	.. ..	.. ..	.. ..	.. ..	.. ..	.. 4			.. 1 .. 2	5 2	.. 1	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. 4				
Hackney Infirmary				{ Under 5 5 upwds.	.. 2 .. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	3 3			.. 2 .. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
Metropolitan Hospital				{ Under 5 5 upwds.	.. .. .. ..	.. ..	.. ..	.. ..	1 ..	.. ..	.. ..	.. ..	.. ..			.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
City of London Workhouse				{ Under 5 5 upwds.	.. .. .. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	1 1			.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. 1				
TOTALS				{ Under 5 5 upwds.	.. 337 .. 665	287 559	15 4	.. 11 .. 196	.. 3 14	.. 274			.. 215 .. 398	194 274	7 1	.. 7 .. 115 3 37								

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Metropolitan District, classified according to Diseases, Ages, and Localities.

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The annual mortality rate from Diarrhœa for Hackney during 1898 is '9 per 1,000, and if the deaths from Enteritis and Gastro-enteritis be included 1'5 per 1,000.

As stated above, the majority of deaths from Diarrhœal diseases occurred in the third quarter, and amongst children under one year.

	Deaths at all ages during the year from	Deaths under one year.	In the third quarter, all ages.	In the third quarter, under one year.
Diarrhœa	208	160	184	147
Enteritis and Gastro-enteritis	137	105	108	86

From the above figures it will be seen how large a number of deaths amongst children under one year occurred in the third quarter from Diarrhœal and Gastro-enteric disease. The death-rate from these being 5'3 per 1,000 during that period; and the rate for children under one year from the same causes 144 per 1,000 births.

The scarcity of water during last summer I have no doubt assisted in causing this high mortality, but to what extent, it is impossible to estimate.

WHOOPING-COUGH.—There were 94 deaths from this cause in the district during the twelve months of 1898, of which 91 were under 5 years of age. The death-rate for Hackney is '42 per 1,000 persons, for all London '47 per 1,000 living.

MEASLES.—This disease was less prevalent during 1898 than during 1897, judging from the deaths recorded—the number for the former year being 116 against 135 for the latter year. The Hackney death-rate for 1898 is therefore '52 per 1,000 living persons, that for all London '68 per 1,000.

Class II.

CONSTITUTIONAL DISEASES.—These deaths numbered 747 during the year, amongst which were 199 deaths from cancer, and no less than 483 from tubercular diseases. The death-rate for the whole class is 3·4 per 1,000; from cancer ·90 per 1,000, and tubercular diseases 2·2 per 1,000.

During the past year the subject of tubercular disease has received a great deal of public and professional attention; and it will not be out of place to show to what extent the disease has been prevalent amongst the Hackney public. The following table shows the number of deaths which have occurred in Hackney during the years 1894 to 1898 inclusive, from tubercular diseases.

Number of deaths in Hackney during the years 1894-1898, inclusive from tubercular diseases.

	1894	1895	1896	1897	1898
Tabes Mesenterica ..	35	62	35	34	37
Tubercular Meningitis	40	43	35	41	53
Phthisis	278	292	294	299	308
Scrofula and Tuberculosis	52	62	44	63	85
Totals	405	459	408	434	483

It will be seen from this table that over 400 persons die in Hackney every year from this cause—last year the number being near 500. The total deaths per year in Great Britain exceed 70,000. Such a vast mortality, it may readily be supposed, would exercise the minds both of the public and the medical profession, to discover a means of reducing it. The issue of the report of the Royal Com-

mission on the production of tuberculosis by means of food has given an impetus to this desire. The conclusions of the Commissioners I give in the appendix. It may be said that tuberculous disease is mostly kept up by infection from person to person and by the ingestion of tuberculous food; and its prevalence will only be reduced by the education of the public in the mode in which this disease spreads, and the precautions necessary to prevent its spreading. Fortunately, precautions may be adopted which are both simple and effectual. A leaflet has been prepared recently for distribution on this subject describing the manner in which the disease is communicated and indicating the precautions which should be adopted to prevent its spread.

The danger from tuberculous food would be much reduced if the recommendations of the Royal Commission above referred to were adopted. (See appendix.)

Class III.

DEVELOPMENTAL.—The deaths in this class numbered 3·53 which are equal to a mortality rate of 1·6 per 1,000 living.

Class IV.

LOCAL DISEASES.—This class of diseases was responsible for 1776 deaths during 1898. These are equivalent to a death-rate of 8·0 per 1,000 living.

Class V.

VIOLENCE.—The deaths in this class were 143, an increase of 26 upon the previous year. Of the total deaths 4 were homicides and 18 suicides. The death-rate is ·65 per 1,000 living.

Class VI.

ILL-DEFINED CAUSES.—The deaths in this class numbered 206, which are equal to a mortality-rate of ·93 per 1,000 living.

PUBLIC HEALTH (LONDON) ACT, 1891.

During the year 4075, nuisances were abated under the powers of the above Act. Intimation and statutory notices secured the abatement of 3962; and legal proceedings were necessary for the abatement of the remainder. The question of responsibility for the

repair of drains constructed upon the combined system frequently arises where notices have been served upon owners of property for their repair or reconstruction. Most of the drains in Hackney are constructed upon the combined system. Where evidence is produceable that any particular combined drain has received the consent of the Vestry for its construction there is no difficulty in fixing the responsibility for its repair upon the owner; but in some cases this evidence is incomplete or wanting altogether. Under these circumstances the responsibility for the maintenance of the drain falls upon the Vestry. Such a state of the law is very unsatisfactory; for it was never intended that private house drains should be maintained out of the public purse.

The following judgement given by a magistrate at the North London Police Court during the past year, in a case of combined drainage, where the owner who had been summoned by the Vestry had refused to repair a defective drain upon his premises, on the ground that it was repairable by the Vestry illustrates both the law and the attitude of the legal mind towards this subject.

HACKNEY VESTRY

v.

MESSRS. CHESTON & CHESTON.

NORTH LONDON POLICE COURT,

December 2nd, 1898.

JUDGMENT.

Mr. Edward Snow Fordham (the presiding Magistrate) said:—

“ This was a summons taken out for an order against the Defendants to abate a nuisance arising from a defective conduit at No. 71, Amherst Park. The Defendants, whilst admitting the ownership of No. 71, Amherst Park, and the existence of the nuisance, contended that they were not liable to abate it, as the conduit in which it arose was a sewer repairable by the Vestry, and not a drain repairable by the owner. It was proved that the order was made by the Vestry for draining a block of four houses, of which No. 71, Amherst Park, was one, by a combined operation under Section 47 of the Metropolis Management Act of 1855, upon application, supported by a plan showing the system of drainage. It was also proved that the system

of drainage shown on that plan had not been carried out ; and that the actual scheme of drainage carried out for that block of houses was different from that shown upon the plan. It was suggested that the scheme of drainage actually carried out had been sanctioned by the Surveyor to the Vestry, but that was not proved. It was contended on behalf of the Defendants that the deposited plans showing the proposed drainage upon which the order under Section 47 was made formed a part of that order, that the order made was the order for the carrying out of that scheme, and that scheme not having been carried out, the order would not cover the operation of drainage as done, and therefore, there was no order for the operation as done. And consequently the conduit from which this nuisance arose was not a drain within the definition under Section 250 of the Act of 1855. And that, therefore, the Defendants were not liable to repair it.

" On behalf of the Vestry it was urged that the order was good and covered the work done under the block of houses, of which No. 71, Amherst Park, was one, even though the scheme of drainage shown on the deposited plan had been, with the knowledge and consent of the Surveyor, departed from.

" Now, looking at the original order upon which the Vestry relies for the laying of the drainage for the block of houses, of which No. 71, Amherst Park is one, by a combined operation, of which this conduit is a part, and which is said to be a drain within the definition of Section 250. I find it to be ' an order directing the work with reference to which application is ' made to be done according to this plan (plan attached) and the terms ' of this application.' The terms of the application which is headed ' Application for permission to lay a drain . . . and the applicant ' agrees to carry out the said order in accordance with the said applica- ' tion and in accordance with the plan delineated hereon.' The order is then made for the work, that is to say, the drainage to be carried out according to the plan. But something quite different is done. The order made, therefore, is no order at all for what was done, and this drainage, as existing, was not done under the order for the combined operation under Section 74.

" Therefore the conduit is not a drain within the definition of Section 250, and it is a sewer for the state of which the Vestry is responsible. Summons dismissed, with seven guineas cost."

INFECTIOUS DISEASE.—Notifications were received during the year of infectious disease in 1996 houses. Inspections were made of these and the drains tested to discover any defect. The result of this testing is given in another part of this report ; but where found defective the drains were repaired or reconstructed ; any other nuisances found were also abated.

The rooms disinfected numbered 1996; in addition, 8778 articles were steamed at the disinfecting station by the Vestry's steam apparatus; the walls of 692 rooms stripped and cleansed and 191 infected articles were destroyed on request of the owners. Disinfectants were supplied to the amount of 1190 four-ounce bottles of carbolic acid and 15144 one-pound bags of carbolic acid powder and sanitas powder.

Other details of the work of the department are given in the table at the end of this report.

Accommodation for persons during the disinfection of their houses was paid for in three instances only.

ARTICLES SEIZED UNFIT FOR FOOD.—The following were seized during the year, namely: $5\frac{1}{4}$ cwts. of fish; $16\frac{1}{2}$ cwts. of fruit and vegetables and $11\frac{1}{4}$ cwts. of meat.

COWSHEDS AND SLAUGHTERHOUSES.—These were visited by the Public Health Committee during the year and with a few exceptions were found to be in a satisfactory condition.

The number of cow-sheds in the districts is diminishing every year in spite of the increase of population. In the year 1890 there were 70 sheds; last year there were only 44 sheds.

BAKEHOUSES.—There are 124 bakehouses in the district, all of which were visited by the Public Health Committee during the year. Exception was taken to the condition of 34. The following is a list of what was required to put these in a satisfactory condition.

Lime whiting	..	..	..	25	Store for flour	..	..	..	1
Paving yard	..	..	..	1	Removal of W.C. from flour store-				
Cleansing yard	..	..	..	1	room	..	..	..	1
„ floor	..	..	..	1	Removal of dung accumulation	..	..	..	1
„ flour store	..	..	..	1	Other nuisance	..	..	..	1
Cover to water cistern	..	..	..	1					

The remainder were found to be in a very satisfactory state.

SMOKE NUISANCES.—Complaints of this nuisance were more numerous during 1898 than during the previous year, 52 being dealt with against 27 for 1897. All of these were abated on the service of notices only, with the exception of two. For the abatement of these legal proceedings were instituted with the following results :—

Acme Wood Flooring Co., Gainsborough Road	Order to abate nuisance in 14 days and pay 1s. costs. Penalty for disobedience of above order £10, 1s. costs.
St. John's Sanitary Laundry Co., High Street, Homerton. ..	Penalty £5, 1s. costs.

FACTORY AND WORKSHOPS ACTS, 1878-1895.

Great progress has been made during 1898 in the inspection of workshops, especially in those where women are employed. This has been due to the appointment of a female inspector, who gives her whole time to the inspection of this class of premises.

The male inspectors registered and inspected 120 workshops. These were shops in which only males were employed. The following table shows the number registered and inspected, and the results of the inspections.

No. of workshops registered during the year 1898	120
„ „ inspected on notice by Factory Inspector	57
„ „ „ by instruction of Medical Officer of Health	15
Result of inspections (a) Workshops overcrowded	5
(b) Improper W.C. accommodation	2
(c) No W.C. accommodation	1
(d) No separate W.C. accommodation for the sexes	
(e) Other nuisances	155

No difficulty was experienced in getting the above nuisances abated.

Miss Teebay was appointed sanitary inspector on the 27th April, 1898, to inspect workshops where females were employed. In the appendix will be found her report made up to the end of Dec., 1898. From this it will be seen that the action of the Vestry

in appointing a female inspector has been amply justified by the results. Miss Teebay has made no less than 1,042 inspections and 371 re-inspections, and abated 85 nuisances. Other details of her work will be found in her report.

CANAL BOATS ACTS, 1877-1894.

During the year ending December 31st, 1898, the number of inspections and re-inspections of canal boats increased upon the number for 1897. While in the latter only 43 were inspected, in the former the number reached 69. These inspections involved 70 visits to the River Lea. The inspections revealed 8 infringements of the Acts, viz.:—

1. One certificate did not identify owner.
2. One boat was charged with bilge water.
3. One boat was dilapidated.
4. One boat was dirty.
5. Three boats had no certificates on board.

Legal proceedings were instituted against one owner of a boat during the year. The following are the details:—

Boat.	Owner.	Contravention.	Result.
"John & William."	Susannah Key.	Name and number of boat illegible. Certificate did not identify the owner.	Fined 1/- and 2/- costs.

In appendix is given the full report of the Inspectors.

TEMPORARY SHELTER—PUBLIC HEALTH (LONDON)

ACT, 1891, SEC. 60 (4).

The need for this shelter becomes greater every year, owing to the increasing population and density of the district. It is most pressing where families are lodged in one or two rooms. The census of 1891 showed that there were 4,715 one-roomed tenements, and 6,722 two-roomed tenements in Hackney. Since that date these have considerably increased, and it would not be under the mark to say that this total had increased to 12,000.

Families lodged in one room are obliged, when disinfection is done, either to lodge with their friends or pay for accommodation elsewhere, and this is true to some extent for two-roomed tenements.

Section 60 (4) of the Public Health (London) Act, 1891, not only gives the local authority power to provide accommodation in these circumstances, but makes it a duty to make provision. I have already alluded to the risk to the community at large, in persons from infected homes indiscriminately associating with healthy persons.

The following table shows the number of cases of infectious disease which occurred in one-roomed tenancies during the year ; but in only three of these was application made to the Public Health Department for accommodation. Payment was made to the applicants at the rate of 2/6 per diem, in lieu of accommodation.

List of one-roomed tenancies in which notifiable infectious disease occurred during the year 1898.

DISEASE.	Jan.	Feb.	March	April	May	June	July	August	Sep.	October	Nov.	Dec.	TOTAL
Scarlet Fever	5	6	4	4	3	5	4	1	7	3	1	1	44
Diphtheria ..	1	1	1	1	3	0	1	4	2	0	3	2	19
Enteric Fever	0	0	0	0	0	0	1	2	1	0	0	1	5
Erysipelas ..	1	0	2	1	2	1	0	4	0	3	0	0	14
TOTALS..	7	7	7	6	8	6	6	11	10	6	4	4	82

I should like here to remind the members of the Vestry that they have already agreed to provide a shelter for persons during the disinfection of their homes ; and I am not aware of any powerful reason why it should not be immediately erected.

CLEANSING OF PERSONS ACT, 1897.

Nothing has been done as yet to apply the provisions of this Act to the district. There is no doubt that the power the Act gives to the local authority was needed ; but I think more is required than a permissive Act. It should be compulsory both on the part of the local authority and on the part of those persons whom the Act is intended to benefit. These latter when discovered and medically certified to be verminous should be compelled on a magistrate's order to be cleaned.

The experience of some of the London authorities who have adopted this Act is most encouraging from a public health point of view.

In providing the necessary accommodation under this Act, I make the suggestion that this might be done in connection with the shelter for persons whose homes are being disinfected.

CUSTOMS AND INLAND REVENUE ACT, 1890.

Five applications by property owners were made to me during the year to inspect premises under this Act, with a view to claiming exemption from inhabited house duty. The total number of tenancies was 79 ; of these 46 were in a condition to enable me to give the certificate immediately ; 33 however required alterations and repairs. These being executed to my satisfaction, were then certified according to the Act.

I must again call attention to the action of the Inland Revenue authorities in accepting these certificates for the whole assessment period of five years and to renew my protest against this action. The reasons for this protest I have given in my last Annual Report.

BYE-LAWS AS TO HOUSES LET IN LODGINGS.

In my last year's report I stated that the Vestry had appointed two additional inspectors for the purpose of house to house inspection and the registration of houses let in lodgings. These officers began their duties in the month of February ; one commencing his work

in Hackney Wick, the other in the London Fields district. The method adopted by each was to inspect house by house in certain streets, and those houses which appeared to come within the definition of houses let in lodgings were selected for registration.

The following list shows the number registered under the bye-laws with the work executed during the year.

TABLE of work executed under the Bye-laws as to Houses let in Lodgings under the supervision of Sanitary Inspectors T. White (District 11), and R. J. Sheppard (District 7), during the year 1898.

Work done.	District 2.	District 7.	Total.
Total number of houses registered ..	175	159	334
No. of houses cleansed.. ..	134	153	287
Damp walls properly damp coursed..	6	11	17
Foul pans removed or cleansed ..	13	35	48
Roofs repaired	44	54	98
Yard paving repaired and re-laid ..	21	63	84
Space below ground floor excavated and ventilated	2	76	78
Sanitary dust-bins provided	18	29	47
Defective sink wastes repaired ..	18	23	41
Choked drains released.. ..	6	11	17
Defective drains repaired or re-laid ..	11	44	55
Defective washhouse paving repaired	42	24	66
Proper water supply to W.C.'s. ..	16	16	32
Defective cisterns renewed	16	7	23
„ rain water pipes repaired ..	4	22	26
„ area paving	—	15	15
Overcrowding abated by notice ..	12	3	15
„ „ „ arrangement	36	7	43

The experience gained in the working of the bye-laws during the year has revealed certain difficulties in applying them, and weak points in their construction. Our difficulties have arisen in connection with the definition of the term “landlord”. This is defined in the bye-laws as follows—

“ ‘Landlord,’ in relation to a house or part of a house which is let in lodgings or occupied by members of more than one family, means the person (whatever may be the nature or extent of his interest in the premises) by whom or on whose

behalf such house or part of a house is let in lodgings or for occupation by members of more than one family, or who for the time being, receives, or is entitled to receive the profits arising from such letting."

It will be seen from this definition that any owner of a house let in lodgings may easily escape liability by letting the house to one person and permitting the tenant to sub-let in tenements. The tenant here becomes the landlord for the purpose of the bye-laws ; and from this point the enforcement of these most important bye-laws becomes in most cases impossible : for the very obvious reasons that this class of landlord has no resources.

The rental of houses in and about London is so high, that the working man, unless he is content to crowd himself and family into one or two rooms, finds it impossible to live there. A great many, in order to reduce their own payments take houses larger than they think sufficient for their needs, subletting a part at a rent which will partly if not wholly allow them to live rent free. An individual reduced to these straits is scarcely likely to repair drains and do other structural works, at his own expense, and experience shows that with the exception of overcrowding, the cleansing of the yard, staircase, and common passages, the removal of filth periodically, and the proper keeping of animals, it is absolutely useless to look to such people or landlords to abate nuisances in houses let in lodgings. Works even of the smallest kind entailing cost, must be done by the owner of the property. The difficulties met with may be considered under the following heads :—

I. INFORMATION FROM LANDLORD.—The notices are served by post, but the difficulty has arisen from landlords not returning the form with the required information. A penalty is provided in the bye-laws against this breach ; but the difficulty has been overcome by the inspector calling upon the landlord and explaining to him what information is required. This hitherto has been sufficient to induce the landlord immediately to return the form with the necessary information.

2. INSPECTION AND MEASURING.—This has not given rise to any difficulty.

3. REGISTRATION.—No difficulty has arisen here.

4. SERVICE OF NOTICE.—The most serious difficulties are met with here, where the drain or drainage of the house is found defective as in bye-law 10, or where other structural works are required. The landlord in these instances, unless he is actual owner, is incapable of executing such works.

In these cases we avoid the difficulty by serving the notice to abate the nuisance upon the actual owner under the Public Health (London) Act, 1891. But in view of the definition of "landlord" quoted it does not appear as if this action could be legally maintained.

5. OVERCROWDING.—No difficulty has been encountered in getting this nuisance abated. On reference to the table it will be seen that 58 cases of overcrowding have been satisfactorily abated by the inspectors without resort to legal proceedings.

The above comments upon the year's work under the bye-laws for "Houses let in Lodgings" are preliminary to making the suggestion that they should be amended. In the first place it must be assumed that structural works should be executed by the owner of the house. It is not unreasonable to ask from the owner that, in return for a fair rent, the house should be maintained in such a state that the tenant may live in it in comfort and without danger or injury to health. For this to be realised, the house should be clean, structurally in good order, with drains and sanitary conveniences in good condition

The tenant rightly expects all these for the rent he pays. Assuming this, the bye-laws should be drafted to cause the maintenance of these conditions to fall upon the owner of the house. The cleanliness of the staircase and passages, the floors, yard, etc., should fall upon the tenants. In order to

bring this about, I am of opinion it is only necessary to amend the bye-laws by altering the definition of the term "landlord" by making it synonymous with the term "owner" as defined in the Public Health (London) Act, 1891.

It would then run so:—

"'Landlord' in relation to a house or part of a house which is let in lodgings or occupied by members of more than one family, means the person for the time being receiving the rack-rent of the premises in connection with which the word is used, whether on his own account or as agent or trustee for any other person, or who would receive the same if such premises were let at a rack-rent".

I believe if the bye-laws were amended in the way suggested, they would be more useful and become more generally adopted.

BERGER'S COLOUR FACTORY AND ARSENICAL POISONING.

In the month of March, 1898, I received a communication from the Clerk to the Guardians quoting for my information a report by one of the Poor Law Medical Officers, The quotation ran thus:

"Arsenical Poisoning in Berger's is getting very common."

I immediately communicated with the Chief Inspector of Factories at the Home Office, and the local Factory surgeon. From the former I ascertained that no case of Arsenical Poisoning had been notified to him; and from the latter that he had no knowledge of any cases having occurred in the Factory. But Dr. Dudgeon who had made the above report informed me that he had recently treated three or four cases of Arsenical Poisoning amongst the workers at this factory; and he furnished me with the names of four others who had been treated by the parish.

None of these had been notified to the Chief Inspector of Factories in accordance with the following sections of the Factory Act, the medical practitioners stating that they were unaware of any obligation to make such notifications.

FACTORY AND WORKSHOP ACT, 1895, SEC. 29.

“(1).—Every medical practitioner attending on or called in to visit a patient whom he believes to be suffering from lead, phosphorus, or arsenical poisoning, or anthrax, contracted in any factory or workshop, shall (unless the notice required by this section has been previously sent) send to the Chief Inspector of Factories, at the Home Office, London, a notice stating the name and full postal address of the patient and the disease from which, in the opinion of the medical practitioner, the patient is suffering, and shall be entitled, in respect of every notice sent in pursuance of this section to a fee of two shillings and sixpence, to be paid as part of the expenses incurred by the Secretary of State in the execution of the principal Act.

“(2).—If any medical practitioner, when required by this section to send a notice, fails forthwith to send the same, he shall be liable to a fine not exceeding forty shillings.”

The Factory Inspector was sent on my information to investigate the circumstances, and as a result of his inquiries found that certain changes were necessary in the works. The respirators worn by the workers were too small, and the arrangements for washing were insufficient, etc.

The necessary works were subsequently executed to the satisfaction of the Factory Inspector.

The chief point about this incident is that the Legislature had provided in the above quoted sections a means by which early cases of poisoning by certain substances might be known, but owing to ignorance of the law on the part of the medical practitioners of the district, the end sought by legislation was defeated.

In order to prevent a recurrence of such an accident, I visited the Chief Factory Inspector and acquainted him with the circumstances, and at the same time suggested the medical practitioners should individually have their attention drawn to the statute.

Certain difficulties prevented the Home Office communicating with each medical practitioner, but he arranged that notices should be put in the leading medical journals calling the attention of members of the profession to their obligation in this respect.

Subsequently I obtained the consent of the Public Health Committee to call the attention of each medical practitioner in Hackney to the duty of notifying such cases of poisoning, Dr. Whitelegge kindly supplying me with copies of a notice prepared at the Home Office for this purpose.

These were immediately dispatched to every medical practitioner in Hackney.

I believe Hackney is the only district in London where the attention of each medical practitioner has been called to the statute.

EAST LONDON WATER COMPANY AND SHORT SUPPLY.

The most important event during the year for Hackney and the whole of the East End of London was undoubtedly the failure of the East London Water Company to maintain their constant service to their customers during the summer and autumn of last year. This is the third failure of the Company during recent years, and is remarkable for its long duration. The previous failures were in the years 1895 and 1896, the periods of short service being in the former year 10 weeks, and in the latter about 8 weeks; but that of 1898 lasted altogether 16 weeks.

The short supply of last year began on the 22nd of August after a notice of only three or four days, being then reduced to two intervals of three hours each during the 24 hours. On the 3rd of September the period was further curtailed to two intervals of two hours each per day. This continued until the 28th of November, when the hours of supply were extended to nine per day—the hours of supply being different in different parts of Hackney, in some the water being on from 6 a.m. to 3 p.m., in others from 9 a.m. to 6 p.m. On the 12th December the constant supply was restored.

It must be here stated that during the whole period of the last scarcity of water the Hackney Vestry through a joint Committee of their General Purposes and Public Health Committees did much to mitigate the inconvenience of the short service and to prevent those serious consequences to the public health which necessarily arise where there is a deficiency of water for domestic and sanitary purposes, by the distribution of water and disinfectants by water carts during all hours of the day, and also by supplying many thousands of jars to those premises where no means of storage had been provided.

It will be remembered that the failure of the year 1895 was the subject of a Local Government Board enquiry and report.

In their report the Commissioners appointed to conduct the enquiry state amongst other things :

“ That steps have already been taken by the East London Water Company which should in our opinion afford sufficient storage of water to meet any deficiency in the supply of water within their district for many years to come.”

The fallacy of such a conclusion was manifest the following year, when the constant service was again intermitted and again last year when the interruption continued 16 weeks

It is not my intention to discuss the causes of these recurring failures but certain questions have arisen during the last failure which have a direct bearing upon the public health of the district of Hackney ; and it will be expected that I should make such comments as the questions merit in my Annual Report.

One question which has assumed great importance, especially from the company's point of view, has been that of the provision of storage cisterns in houses to contain a sufficient supply of water for domestic purposes while the water is cut off.

In the first place it may be assumed that the question of domestic storage of water would never have been raised by the company and their friends had the company been able to maintain a constant service.

It is said that the provision of house cisterns are necessary for "unavoidable temporary intermissions of the supply occurring during the repair of mains, etc." This appears not to have been discovered by the company until the year 1895, although the district has had the constant supply since the year 1888. But as a matter of fact the inconvenience arising from the repair of mains, etc., does not usually last more than a few hours; and if it did continue longer would not be met by the provision of a cistern, neither would the much greater inconvenience and danger to health, caused by the total withdrawal of the water supply by the water company for small leakages discovered in the communication pipes, be removed by the same means; for it is not suggested that the contemplated cistern shall hold more than one day's supply; and again, we have no evidence in the Health Department that any complaints have been made of inconvenience suffered during the necessary repair of mains.

It would appear as though the Water Company contemplated the annual summer recurrence of their failure to maintain the constant supply, and this by the association of ideas has convinced them of the necessity for cisterns for the minor interruptions produced by repairs, etc., of the mains. If it is intended annually to revert to the intermittent service, some means of storage with its obvious disadvantages will have to be provided; but if the constant service is maintained, cisterns except for flushing the water closets and the supply of the hot water service, are unnecessary. The obligation of the Company to keep certain mains constantly charged at a certain pressure to meet possible fires should be extended to the domestic supply.

It is very difficult to believe that any London Water Company, after the experience of the last 20 years, would contemplate the idea of a return to the intermittent supply, except under the belief that the latter is more economical and less wasteful than the former service. Waste may take place under any service, and is quite independent in my opinion of the service. It will depend upon the integrity of the water-fittings and mains and upon the character of

the consumers. The danger of waste from fittings is greater where storage cisterns are provided than when the whole of the water is drawn from the rising main, for the simple reason that the fittings are more complex in the former than the latter, and are consequently more liable to get out of order. If the waste is due to carelessness or wilfulness of individuals, neither system nor fittings will affect it.

But that more waste takes place with constant service than with intermittent, I very much doubt. Indeed, I believe that the former service is the more economical of the two. Indeed, the evidence supplied by the Water Examiners' reports on the London Water Supply, to the Local Government Board, tend to show the superiority of the constant service from an economical standpoint. Thus at page 232 of the L.G.B. Report for the year 1888-1889 it reads:—

“Apprehension of the sometimes considerable cost of the alterations required to adapt existing houses to the requirements of constant service, due to the generally inferior condition of the fittings, has in some degree checked the extension of the system, but it is generally admitted that when this difficulty has been overcome, the result has been found to be satisfactory alike to the consumers and the Water Companies.”

Report for the year 1887-1888:—

“In general, the constant system so far as it extends, seems to have been introduced voluntarily by the companies, and not at the instance of local authorities or inhabitants. It may therefore be assumed that it conduces on the whole to economy in the use of water.”

Report for the year 1888-1889:—

“The statement made last year that the results, as far as at present ascertained, tend to show that the average consumption of water under the constant supply system is not so great as under the intermittent system, is substantiated by the experience gained in 1888, when although 4,000 additional houses were

transferred with a consequent temporary increase of waste due to imperfect fittings, which continued until detection by the waste meters had been followed by repair, the quantity used in the constant supply districts was $4\frac{1}{2}$ gallons per head per day less than in the previous year."

My own experience agrees with that of the Water Examiners on this subject.

Appended is a table contrasting the advantages and disadvantages of the two systems of water supply, from which it will be seen that the advantages are wholly on the side of the constant service.

Whatever may have been the effect upon the public health of Hackney of the water scarcity, there must be a unanimous agreement that the action of the Vestry in causing water to be distributed during the period the mains were shut down, providing jars for the storage of water where no such means had been provided, and the distribution of disinfectants to house-holders for offensive sanitary conveniences, went a long way to prevent injury by the want of water.

In inquiring as to the effect of a scarcity of water on the public health, one naturally turns to the records of those diseases which are associated with the presence of filth, foul smells and sewage emanations, etc., that is, gastro-enteric affections, especially infantile diarrhoea; but this term appears to be used very loosely, and a large number of deaths which formerly would have been recorded under the head of diarrhoea, are now registered under gastro-enteric catarrh or gastro-enteritis, these latter terms being more precise and more in keeping with pathology.

However, on reference to that part of my report dealing with diarrhoea and enteric disease, it will be seen that there were 184 deaths from diarrhoea and 108 from gastro-enteric disease during the third quarter of 1898, the corresponding deaths for the third quarter of 1897 having been 177 from diarrhoea and 68 from gastro-enteric disease, so it will be seen on comparing the two years that there was a large excess of deaths during last year from disease which a scanty water supply might well be considered to aggravate.

TABLE comparing the constant and intermittent systems of water supply.

INTERMITTENT SYSTEM OF WATER SUPPLY.	CONSTANT SYSTEM OF WATER SUPPLY.
<i>Disadvantages.</i>	<i>Advantages.</i>
<ol style="list-style-type: none"> 1. It favours corrosion of the pipes. 2. Which causes turbidity of the water and complaints from customers. 3. The service mains, when shut off, become depleted of water, which tends to create a vacuum into which foul air or water may be drawn. 4. In the event of fire water cannot be drawn without the help of a turncock. 5. Causes inconvenience to customers while the water is shut off if an exceptional demand for water arises. 6. Is more wasteful. 7. Requires means of storage of water on the premises for the period during which the water is shut off with the following risks :— <ol style="list-style-type: none"> (a) Cisterns being frequently fixed where the water is liable to pollution, or where it is impossible for tenants to periodically clean them. (b) Cisterns being allowed to get into a bad state of repair, admitting of pollution. (c) Neglect of tenants in cleaning cisterns regularly. (d) Danger of special pollutions from ignorance or idleness of tenants. 	<ol style="list-style-type: none"> 1. Does not favour corrosion of the pipes so much as the intermittent service. 2. And consequently does not cause turbidity and complaints. 3. Does not tend to create a vacuum and to draw foul matters into the mains. 4. Water to an unlimited amount always available in the event of fire and exceptional requirements. 5. Does not require means of storage of water on the premises with its attendant risks. 6. Is less wasteful.

How much must be credited to the deficient water supply and how much to other circumstances, such as high atmospheric temperature, and deficient rainfall, I am unable to say ; but I am of opinion, without stating to what extent, that the scarcity of water last year had a prejudicial effect upon the public health in the way indicated.

VACCINATION.

The following is a copy of the return made by the vaccination officers for the half year ending June 30th, 1898. I have not been able to get a copy of the return for the remainder of the year. Out of 3046 during the half year only 473 have been vaccinated, and 20 have been excused from the operation on certificates of conscientious objection. After deducting deaths, removals and postponements of vaccination there remains the large number of 1933 infants not vaccinated—equalling 63·4% of the total.

The following are the percentages of unvaccinated infants in the four registration sub-districts :—Stamford Hill 55·4% Central Hackney 68%; South East-Hackney 66·6%; South-West Hackney 59·4%.

These percentages are all higher than they were for the year 1897. This decrease in the amount of Vaccination in the district has now been increasing for some years; and the time is not very distant when it may be said that the population of Hackney is practically an unvaccinated one. With an increasing density of population and an absence of protection by Vaccination, what chance of escape from a disaster have the Hackney population, should small-pox once obtain a hold of the inhabitants of the district? The prospect cannot be considered without great uneasiness.

In August of last year an important Act of Parliament, amending the law with respect to Vaccination was passed by the Legislature. The following is a summary of its chief provisions relating to London Districts.

Sec. 1 (1) Extends the period within which a child shall be vaccinated to six months from its birth instead of three months mentioned in Sec. 16 of the Vaccination Act of 1867, and repeals so much of that section as requires a child to be taken to a public vaccinator for Vaccination.

Return made on the 8th February, 1899, by the Vaccination Officers of the Hackney Union, respecting the Vaccination of Children whose Births were registered in their Districts from 1st January to 30th June, 1898, inclusive.

REGISTRATION SUB-DISTRICTS COMPRISED IN THE VACCINATION OFFICER'S DISTRICT.	Number of Births returned in the "Birth List Sheets" as registered from 1st Jan. to 30th June, 1898.	Number of these births duly entered by 31st January, 1899, in cols. 10, 11 and 13 of the "Vaccination Register" (Birth List Sheets) viz :—					No. of these births which on 31st January, 1899, remained unentered in the "Vaccination Register" on account (as shown by Report Book) of			No. of these births remaining on 31st January, 1899, neither duly entered in the Vaccination Register (cols. 3, 4, 5 and 6 of this Return), nor temporarily accounted for in the "Report Book" (cols. 9 and 10 of this Return).
		Col. 10. "Successfully Vac'in'ted."	Column 11.		Col. 13. "Dead. Un-vaccinated."	Number in respect of whom Certificates of conscientious objection have been received.	Postpone-ment by Medical Certificate.	Removal to Districts, the Vaccination Officer of which has been duly apprized.	Removal to places unknown or which cannot be reached and cases not having been found.	
			"Insuscep-tible of Vac'in'ion."	"Had Small-pox."						
1	2	3	4	5	6	7	8	9	10	11
Stamford Hill	404	115	1	—	38	4	1	—	15	230
Central Hackney	727	65	2	—	98	5	3	4	55	495
South-East H'ckney	955	110	1	—	142	5	—	4	60	643
South West H'ckney	950	178	3	—	127	6	1	6	64	565
Total	3046	468	7	—	405	20	5	14	194	1933

(2) Requires the public vaccinator to visit the home of a child for the purpose of Vaccination, if the person having the custody of the child so requires it.

(3) Requires the public vaccinator after 24 hours' notice to visit the home of any child which has not been vaccinated within four months of its birth and offer to vaccinate the child with glycerinated lymph, or such other lymph as may be issued by the L. G. Board.

(4) Provides that the public vaccinator shall not vaccinate a child if there is or has been a recent prevalence of infectious disease in the district, or the condition of the house is such that the child cannot be safely vaccinated and in this case the public vaccinator shall give a certificate of postponement of Vaccination, and give notice of such certificate to the M.O.H. of the district.

(5) Provides that no regulation of any lying-in hospital or infirmary or other similar institution shall compel any child to be vaccinated at any time earlier than the expiration of six months from its birth.

Sec. 2 (1) Provides that "no parent or other persons shall be liable to any penalty under Sec. 29 or Sec 31 of the Vaccination Act of 1867 if within four months from the birth of the child he satisfies two justices or a Stipendiary or Metropolitan Police Magistrate in petty sessions, that he conscientiously believes that Vaccination would be prejudicial to the health of the child and within seven days thereafter delivers to the vaccination officer for the district a certificate by such justices or magistrates of such conscientious objection."

(2) Provides that Sec. 2 shall come into operation on the passing of the Act, but in applying it to a child born before the passing of the Act, there shall be substituted for the period of four months from the birth of the child, the period of four months from the passing of the Act.

Sec. 3. Provides that an order directing a child to be vaccinated shall not be made on any person who has previously been convicted of non-compliance with a similar order relating to the same child.

Sec. 4. Provides that no proceeding under Sec. 31 of the Vaccination Act, 1867, shall be taken against any person who has been convicted under Sec. 27 of the Vaccination Act of 1867 on account of the same child, until it has reached the age of four years.

Sec. 5. Persons committed to prison under the Vaccination Acts to be treated as first-class misdemeanants.

Sec. 6. Provides that the Local Government Board may make rules and regulations with respect to the duties and remuneration of public vaccinators.

Sec. 7. Gives the Local Government Board power to order Guardians under exceptional circumstances to provide vaccination stations for the Vaccination of children, and modify the provisions of this Act requiring the public vaccinator to visit the home of the child otherwise than on request of the parent. This Act came into operation on January 1st, 1899.

INFECTIOUS FEVERS AND DRAIN EFFLUVIA.

TABLE

showing condition of Drains of Houses in which primary cases of Infectious Disease occurred during the year 1897 and 1898.

DISEASE.			Houses in which drains were defective.	Houses in which drains were not defective.	Total No. of Houses in which primary cases occurred.	Per centage of Houses with defective drains.
1.	Enteric Fever	.. ..	71	227	298	23·8
2.	Diphtheria..	.. ..	315	929	1244	25·3
3.	Scarlatina ..	.. ..	299	1363	1662	17·9
4.	Erysipelas ..	.. ..	61	412	473	12·9

In my report for the year 1897, I presented a table I had prepared, showing the number of primary cases of infectious disease which occurred during the year in houses where defective drains had been discovered, and compared them with cases occurring in houses where the drains were not found defective. This year I give a similar table for the two years 1897-98. From a consideration of this table it appears that as in 1897, enteric fever and diphtheria occur more frequently in houses with defective drainage than scarlatina or erysipelas, but the largest percentage of defective drains was found in houses where cases of diphtheria had occurred. In 1897 the highest percentage was in houses where enteric fever occurred.

It has been suggested that more deaths occur amongst persons suffering from infectious disease in houses where the drains are defective than compared with cases occurring in houses where the drains are not defective. From the data available I do not find that they lend any support to this suggestion.

EAST LONDON WATER COMPANY AND NEW SUPPLIES.

During the month of September, whilst the scarcity of water was greatest in the district, the following report, which explains itself, was presented to the Water Committee of the Hackney Vestry by the Public Analyst and myself.

It appears that by Section 5 of the Metropolis Water Act, 1852, a new source of supply cannot be used by a Water Company without approval by the Local Government Board.

The following is the Section. It may be explained that by the Public Health Act, 1872, the powers and duties of the Board of Trade under the Metropolis Water Act, 1852, have been transferred to the Local Government Board.

“ 5. Three months before any company shall resort to any new source of supply, such company shall give notice in writing thereof to the Lords of the Committee of Privy Council for Trade and Plantations (hereinafter called the Board of Trade), and thereupon, within one month after receipt of such notice, the said Board of Trade shall, if they think fit, appoint a competent person as an inspector, who shall report with respect to any sources then specially authorised by Parliament: whether the directions of the special Act have been complied with in reference thereto, and with respect to any new sources not specially authorised by Parliament, whether the same are capable of supplying good and wholesome water for domestic purposes.”

Section 15 of the same Act provided a penalty for any breach of the Act. This runs as follows:—

“ 16. Any company which shall violate, refuse or neglect to comply with any of the provisions hereinbefore contained shall forfeit to Her Majesty the sum of two hundred pounds, and the further sum of one hundred pounds for every month during which they shall continue to violate or to refuse or neglect to comply with the same after they shall have received notice in writing from the Board of Trade to discontinue such violation, refusal or neglect as aforesaid.”

A copy of our report was forwarded to the Local Government Board, with the immediate result of the supply in question being discontinued for public use. We are not aware whether the Local Government Board considered it desirable to proceed against the East London Water Company for the penalty provided by the above section.

This incident impresses one with the feeling of great insecurity with regard to the supervision and control of our water supplies. The Water Company evidently did not regard the statutory duty of giving notice to the Local Government Board before resorting to any new source of supply with that seriousness which the Board attach to it or which the subject deserves.

It would be in the interest of the public health if the Local Government Board were to take such measures as to prevent a repetition of the above-mentioned occurrence.

HACKNEY VESTRY.

To the Members of the Joint General Purposes and Public Health Committee of the Hackney Vestry.

Report of the Medical Officer of Health and Public Analyst.

GENTLEMEN,—We, the undersigned, beg to report that on information received, we specially visited Messrs. Berger's, of Homerton, Color Manufacturers, and ascertained that this firm was supplying the East London Water Company with water from a deep well upon their premises to the extent of between 50,000 and 60,000 gallons of water per diem.

On examination of the arrangements by which this water was conveyed into the mains of the water company, we found that it was pumped from the well into a short conduit from which the water flowed into a lead lined cistern about 3 feet square by 4 feet deep. From this cistern the water was pumped into the mains of the East London Water Company.

Machinery was erected above the cistern for pumping the water into the mains, and from this drops of fluid were seen during our visits to fall upon the water in the cistern, leaving an oily film upon the surface. The cistern was sunk in the ground, its surface being almost level with the floor of the building in which it is placed. A movable cover for a part of the cistern had been provided, but this does not appear to be used, as the surface of the water required to be watched to prevent overflowing. The conduit, cistern and machinery attached were situated in a corner of a workroom in which a number of persons were employed in the making of pigments and colours, one of these pigments being chrome yellow. We were however informed that there was no lead or arsenic preparation in the room.

From a consideration of the above facts, we are unhesitatingly of opinion that the arrangements adopted for the transfer of water from the deep well to the main of the East London Water Company are most objectionable, and are such as to expose the water to the risk of grave pollution.

Samples of this water have been taken and analysed by one of us, and from the result of these analysis, we are of opinion that the water is unfit for domestic purposes, and should be immediately withdrawn from general supply.

Appended are the analytical reports.

We remain, Gentlemen, your obedient Servants,

J. KING WARRY, M.D., D.P.H., etc.

Medical Officer of Health.

LEO. TAYLOR, F.I.C., etc.,

Public Analyst.

23rd September, 1898.

Chemical and Assay Laboratory, 31, Moorgate Street, London, E.C.,
September 20th, 1898.

Report on a sample of drinking water received from Hackney Vestry, on September 13th, 1898, sample mark, "from well in Berger's Factory 4.30 p.m., 13/9/98."

PHYSICAL CHARACTERS.

Suspended matter—very considerable.

Appearance of a column two feet in length—brownish tint, turbid.

Taste—soft.

Smell—none.

On ANALYSIS, the sample gave the following results—

Total solid matter, 34.4 grains per gallon.

Non-volatile — 28.1 grains per gallon.

Loss on ignition—6.3 grains per gallon.

Chlorine—3.6 grains per gallon.
(Equivalent to Chloride of Sodium, 5.9 grs.)

Nitrogen, existing as nitrates and nitrites—traces.

Lead, and other poisonous metals—absent.

BEHAVIOUR OF SOLIDS on ignition—slight browning, odour burnt vegetable matter.

The sample had a HARDNESS of 16.6 degrees. (Each degree represents a soap-destroying power equivalent to that produced by one grain of chalk per gallon).

THE OXYGEN required by the changeable organic and other oxidisable matter amounted to .169 parts per million of the water.

On DISTILLATION the sample yielded—

Free ammonia,
.42 parts per million.

Albuminoid ammonia,
.08 parts per million.

The sample was slightly alkaline.

On cultivation the sample yielded an enormous crop of colonies equal to over 15,400 per cubic centimetre, a plate prepared after 4 days' yielding over 67,000 per cubic centimetre. These colonies were almost entirely of one kind, a non-liquifying fluorescent bacteria; there were a few colonies of bacterium terms also present. Careful examination and sub-culture of doubtful colonies failed to detect either bacillus typhosus or bacilli coli communis.

There was a considerable deposit from this water which was examined under microscope and found to contain many forms of life.

The water is unfit for domestic use.

LEO TAYLOR, F.I.C., Public Analyst.

Chemical and Assay Laboratory, 31, Moorgate Street, London, E.C.,

September 23rd, 1898.

Report on a sample of drinking water taken from well in Berger's Factory by myself, on September 21st, 1898, at 11.30 a.m.

PHYSICAL CHARACTERS.

Suspended matter—considerable.
 Appearance of a column two feet in length—clear at first, turbid after standing 2 to 3 hours.
 Taste—normal.
 Smell—none.
 On ANALYSIS, the sample gave the following results—
 Total solid matter—35.0 grains per gallon.
 Non-volatile—27.3 grains per gallon.

Loss on ignition—7.7 grains per gallon.

Chlorine—3.6 grains per gallon.
(Equivalent to Chloride of Sodium, 5.9 grs.)

Nitrogen, existing as nitrates and nitrites—very slight traces.
(Equivalent to Anhydrous Nitric Acid, .060 grs.)

Lead and other poisonous metals, none.

BEHAVIOUR OF SOLIDS on ignition—slight browning.

The sample had a HARDNESS of 22.5 degrees. (Each degree represents a soap-destroying power equivalent to that produced by one grain of chalk per gallon.)

The OXYGEN required by the changeable organic and other oxidisable matter amounted to .2368 parts per million of water.

On DISTILLATION the sample yielded—

Free ammonia,
 .48 parts per million.

Albuminoid ammonia,
 .12 parts per million.

On cultivation the sample yielded 2,864 colonies per cubic centimetre after 48 hours incubation, these consisted mostly of one kind and are being further examined to be further reported on should there prove any pathogenic germs to be present.

Microscopical examination of the deposit from the water indicated numbers of moving organisms.

The above analysis and bacteriological examination made within an hour of the sampling confirms the opinion already expressed by me that the water is quite unsuitable for drinking purposes.

LEO TAYLOR, F.I.C., Public Analyst,

CONDENSED SEPARATED AND SKIMMED MILKS.

In the month of August of last year the Vestry's attention was drawn by the Camberwell Vestry to the danger attending the use of condensed separated milk in the feeding of infants, and they were asked to support the following recommendations on the report of the Public Health Committee; the Vestry adopted these recommendations, and resolved to take similar action to the Camberwell Vestry.

- (a) That the Government be asked to at once introduce a short Bill into Parliament to deal with this serious danger, requiring that persons manufacturing or importing condensed milk should state in plain language on the outside of each tin what quantity of the milk contained in the tin it would be necessary to use to obtain the full benefits derivable from a pint of new English milk;
- (b) That posters and bills be printed and circulated throughout the Parish, and that the Registrars of Births be asked to hand to each person on registering a birth a handbill containing the above information;
- (c) That the Public Health Authorities throughout the United Kingdom should be asked to support the action of this Vestry in the matter, and take similar action.

The Government was communicated with in the terms of the first recommendation. Handbills were also printed and circulated throughout the district.

The following is a copy of the handbill circulated:—

HACKNEY VESTRY.

CONDENSED SEPARATED AND SKIMMED MILKS.

Caution to Parents and Guardians.

The Public Health Committee of the Hackney Vestry desire to bring to the notice of parents and guardians the dangers attending the use of "Condensed Separated" and "Condensed Skimmed" Milks for the feeding of infants and young children.

It has been estimated that it would require ten half-pound tins of separated condensed milk to give the amount of fat contained in one pint of good new cow's milk, and these tins of milk would require dilution to sixteen pints to make it fluid enough to be taken by a child. So that in order that a child should obtain as much fat as that contained in a pint of good new milk, he would have to consume sixteen times the proper amount of fluid and an excessive proportion of the other constituents of milk, which would inevitably result in grave disorders of the stomach and intestines, with consequent wasting, and probable death.

The Public Health Committee desire to bring these facts to the notice of all who are interested in the rearing of infants, in order that they may avoid the dangers which attend the use of the above kinds of milk for infants' feeding.

J. KING WARRY, M.D., &c.,

Medical Officer of Health.

PUBLIC HEALTH DEPARTMENT,

TOWN HALL, HACKNEY,

17th October, 1898.

It is gratifying to learn that since the above described action was taken a bill has been introduced into Parliament by the President of the Board of Agriculture which embodies the above suggestions in relation to "Condensed Skimmed" and "Condensed Separated" Milks.

THE RIVER LEA.

The condition of the river during the past year was exceedingly bad. The accompanying table of analysis of samples of the water made during the hot months of the year by the public analyst show the increasingly bad quality of the water. The small rainfall also helped to increase the nuisance. There were times during the summer when the foul smells from the river were perceptible even in Hackney Wick and the eastern part of Clapton Park. Every year the river becomes more polluted. It will be remembered that in October of the year 1897 a conference of representatives from Lime-

TABLE VII.—*Analysis of River Lea Water, made during the year 1898, by Mr. Leo Taylor, F.I.C., Public Analyst.*

DATE.	Where Taken.	Total solid residue.	Saline Ammonia.	Organic Ammonia.	Oxygen requir'd to oxidise the organic matter.	Chr'line	Nitrates and Nitrites.	Sulphuretted Hy'dg'n	REMARKS.
June 7th,	Junction of the Leyton and Walthamstow Sewage outlet.	79.8	2.38	.42	.185	5.4	Strong traces.		The sample was free from Sulphuretted Hydrogen, which, however, speedily developed; but it was black and turbid, possessing a very foul sewage odour. A very bad sample indeed in every sense.
June 22nd,	"	64.5	4.06	.36	1.890	7.9	Nitrates—very strong traces. Nitrites—slight traces.	Present.	The sample was a very bad one; it possessed a strong sewage odour, and was greyish brown in colour. It is practically sewage from which some of the suspended matter has been removed.
July 6th,	"	74.2	5.83	1.25	2.082	3.1	Nitrates—traces. Nitrites—slight traces.	Trac's	The sample was greyish brown in colour and possessed a strong sewage odour. For organic contamination it is the worst I have examined this summer.
July 27th,	Bathing Pool, Hackney Marshes.	35.9	.93	.224	.590	2.7	Slight traces.		The sample was free from Sulphuretted Hydrogen and possessed a slight earthy odour, and was greyish yellow in colour. This sample is much worse than the previous sample analysed by me in June, 1896, and the condemnation of the water for bathing purposes then pronounced must be repeated with greater emphasis now.
August 15th	River Lea, near "White Hart."	87.5	4.2	.421	1.072	7.7	Strong traces.	Present.	The sample had a very strong sewage odour, evolved Sulphuretted Hydrogen, and was brownish yellow in colour. An exceedingly foul sewage effluent.
Sept. 5th	Tumbling Bay, White Hart, H'ckney M'shes	81.9	5.83	.28	2.217	11.3	Slight traces.	Present.	The sample possessed a foul sewage odour and was brownish yellow in colour. It is indistinguishable from sewage.

house, Leyton, Walthamstow, Poplar, the Essex County Council and Hackney, met at the Hackney Town Hall, and it was resolved to approach the President of the Local Government Board by deputation, and to press upon him the necessity for a main drainage scheme for the Lea Valley as a final remedy for sewage pollutions of the river, as indicated in the Report of the Select Committee of the House of Commons appointed in 1886 to report upon the pollution of the river Lea.

The following statement was also prepared and submitted to the President of the Local Government Board as a summary of the views of the conference upon the question of the pollution of the river.

POLLUTION OF THE RIVER LEA.

Statement of deputation of local authorities to the Right Hon. Henry Chaplin, the President of the Local Government Board.

1. The foul condition of certain parts of the River Lea as it passes through Hackney, has for many years past given rise to complaints of nuisance.

2. Analysis of samples of the water have been made from time to time by the Public Analyst who has reported the water to be highly polluted.

3. The main sources of the pollution are the effluents from the sewage farm of Walthamstow and the sewage works of Leyton. These two districts have an estimated population of about 120,000 inhabitants, and the whole of their sewage after treatment passes into the River Lea.

4. From Hackney to its junction with the Thames the River Lea is in a very foul state and receives amongst other sources of pollution the effluent from the West Ham sewage works.

5. The above conditions, owing to the evolution of foul smells, are injurious to the health of persons exposed to the same, also the polluted state of the water prevents the use of the river for recreation purposes, especially that of bathing (a bathing pool was designed and partly constructed by the London County Council on a branch of the Lea in Hackney, but owing to the polluted character of the water the pool was not allowed to be used).

6. The above facts influenced the Hackney local authority to call a Conference of representatives from Limehouse, Leyton, Walthamstow, Poplar, Essex County Council, and Hackney—districts interested to consider the subjects of the pollution of the river. As a result of the deliberations of the Conference it was Resolved—“That this Conference is of opinion that a full enquiry into the condition of the whole of the River Lea as to its source of impurities should be undertaken by the Government in continuation of the report of the Select Committee of 1886.”

7. The Select Committee of the House of Commons above referred to, which were appointed in 1886, to report on the pollution of the River Lea were prematurely forced to conclude their enquiries owing to the early dissolution of Parliament; but in presenting the evidence taken to Parliament, they reported *inter alia* “without desiring to prejudge the fuller consideration of the question of the purification of the River Lea as a whole, your Committee desire to point to the mode in which the sewage which formerly polluted the River Thames in its passage through London was dealt with by the Metropolitan Board of Works, as affording a precedent which ought to be considered in connection with the River Lea, and which, if followed, might be expected to remedy the more flagrant evils complained of, at the earliest practicable date.”

8. That on comparing the evidence of 1886, which led the Committee to make this report with recent evidence of the condition of the River, it appears that the evils complained of in 1886 still exist, being intensified to some extent by the growth of population in the Lea Valley.

OBJECTS THE DEPUTATION HAVE IN VIEW.

1. The local authorities represented, desire the Government to enquire fully into the pollution of the River Lea, and if the present state of the law is inadequate to deal with the existing evils to initiate legislation to that end.

2. That the enquiry should include the consideration of the evidence and report presented by the select committee of 1886.

8. Owing to the practical failure to purify effluents from sewage farms and works, to ask that these shall be diverted from the River, and all sewage intercepted in the manner carried out by the Metropolitan Board of Works in connection with the River Thames.

The President after consideration of the above assented to receive a deputation and appointed the 30th July as a suitable time for them to attend. This date was immediately before the Parliamentary recess.

But just prior to the appointed date, it was found that the President of the Local Government Board was required in the House of Commons, in connection with the Vaccination Bill then before the House at the time he was to receive the deputation; the meeting was consequently adjourned to a later period not fixed.

The necessity for this deputation to the President of the Local Government Board has since that time become less pressing ; for during the agitation on the part of the Hackney Vestry and probably in consequence of it, a similar movement was on foot amongst the local authorities of the northern part of the Lea Valley on the subject of the pollution of the River Lea. A conference of these authorities met at the Offices of the Lea Conservancy Board on the 4th, of August last year when the idea of a Lea Valley scheme was approved of by those present. On the 6th October another meeting was held, when instructions were given to Mr. Chatterton and Major Lamarock Flower to prepare a scheme with plans, etc., for the drainage of the Lea Valley. This has since been done and it only remains for sufficient influence to induce the Local Government Board to approve of the scheme and issue a provisional order for its execution.

REMOVAL OF HOUSE REFUSE.

During the year 1898 there were removed 53,283 loads of house refuse from the Hackney District, for which the sum of £13,642 13s. 8d. was paid to the contractors, and the sum of £2,309 12s. 8d. as wages to the dustmen employed by the Vestry, making a total cost of £15,952 6s. 4d. for the removal and disposal of house refuse for the year. The price per load works out at 5s. 11 $\frac{3}{4}$ d. The above totals show an increased removal of 2,545 loads, and an increased expenditure of £756 18s. 5d. to the Parish over the numbers for the previous year.

I remarked in my last year's report that the system of paying by measurement, *i.e.*, by loads is not a satisfactory one for the Vestry. Since that date, I have had the loads weighed at various times and I find that their weights vary immensely, at different times some have weighed less than 10 cwt ; others more than a ton, the average being from 15 to 16 cwts.

It would, I believe, be a distinct improvement if in future the removal and disposal of house refuse were paid for by weight—at a price per ton. I believe it would be a more economical as well as a more satisfactory system of payment.

MONTH.	Northern Division			Southern Division			TOTALS.					
	Loads.	Cost.			Loads.	Cost.			Loads.	Cost.		
1898		£	s.	d.		£	s.	d.		£	s.	d.
January	2061	532	8	6	2496	634	8	0	4557	1166	16	6
February	2106	544	1	0	2566	652	3	10	4672	1196	4	10
March.....	1873	483	17	2	2242	569	16	10	4115	1053	14	0
April	2010	519	5	0	2372	602	17	8	4382	1122	2	8
May.....	2089	539	13	2	2540	645	11	8	4629	1185	4	10
June	2101	542	15	2	2470	627	15	10	4571	1170	11	0
July.....	1946	502	14	4	2300	584	11	8	4246	1087	6	0
August	1959	506	1	6	2444	621	3	8	4403	1127	5	2
September	1784	460	17	4	2366	601	7	2	4150	1062	4	6
October	1874	484	2	4	2440	620	3	4	4314	1104	5	8
November	2134	548	14	0	2606	662	7	2	4730	1211	1	2
December	2054	530	12	4	2460	625	5	0	4514	1155	17	4
Totals	23981	£6195	1	10	29302	£7447	11	10	53283	13642	13	8
	Fines		1	10	0		To	Fines.		1	10	0
		£6193	11	10						£13641	3	8

Dustmen's Wages £2,369 12 8

Sanitary Labour £1,082 6 9

Prices per load N. 5s. 2d. S. 5s. 1d.

The following table shows the number of requests received for the removal of dust from householders during the year. It will be seen that there was a further decline during 1898 upon the number received in 1897. I do not expect any further decline, as holidays and very rainy weather always bring in a few complaints. This is borne out by the table which shows that most complaints are made in the winter months.

A consideration of the list of "refusals" and "no answers" met by the dustmen does not give so much satisfaction. The number of these continue much the same as during 1897, but against this must be put the fact that there has been an increase in the number of occupied houses in the district, so that on the whole this shows perhaps a slight improvement. I think that if the Vestry were to undertake the removal and disposal of the house refuse of the district without the help of contractors a further improvement in this might be effected.

TABLE XI.

A List of the requests for the removal of Dust, received during the five years, ending December 31st, 1898, viz., 1894, 1895, 1896, 1897, and 1898.

	1894	1895	1896	1897	1898
January	136	89	37	21	22
February	48	41	17	20	6
March	85	53	30	15	6
April	97	66	46	8	19
May	55	73	22	11	3
June	72	46	39	12	11
July	63	31	18	17	11
August	56	23	12	9	6
September	58	38	24	6	8
October	73	27	21	8	3
November	94	39	14	9	4
December	46	26	17	7	15
Totals.....	893	552	297	143	114

TABLE XII.

A list of refusals in the collection of Dust during the year 1898.

Week ending	Refusals.	No Answers.	Week ending	Refusals.	No Answers
January 1st ..			July 2nd ..	8,429	1,245
" 8th ..	6,891	889	" 9th ..	7,967	1,153
" 15th ..	7,279	1,134	" 16th ..	8,325	1,076
" 22nd ..	8,094	1,196	" 23rd ..	8,715	1,143
" 29th ..	7,799	1,065	" 30th ..	9,118	1,052
February 5th ..	8,358	1,027	August 6th ..	9,005	2,106
" 12th ..	7,867	1,135	" 13th ..	10,047	1,854
" 19th ..	8,911	1,087	" 20th ..	9,846	1,713
" 26th ..	8,805	1,125	" 27th ..	10,663	1,692
March 5th ..	8,850	1,170	Sept. 3rd ..	7,213	1,442
" 12th ..	8,362	1,219	" 10th ..	6,777	1,247
" 19th ..	8,060	1,090	" 17th ..	7,413	1,183
" 26th ..	7,987	1,143	" 24th ..	7,329	1,242
April 2nd ..	8,143	1,009	October 1st ..	6,987	1,395
" 9th ..	9,354	1,415	" 8th ..	7,114	1,293
" 16th ..	8,311	1,321	" 15th ..	7,291	1,124
" 23rd ..	9,153	1,235	" 22nd ..	8,289	1,149
" 30th ..	8,791	1,168	" 29th ..	8,423	1,214
May 7th ..	8,401	1,047	Nov. 5th ..	7,891	1,187
" 14th ..	7,947	1,122	" 12th ..	7,786	1,246
" 21th ..	8,413	1,203	" 19th ..	7,593	1,165
" 28th ..	7,325	1,471	" 26th ..	8,214	1,276
June 4th ..	7,747	1,533	Dec. 3rd ..	8,143	1,291
" 11th ..	8,471	1,358	" 10th ..	7,980	1,398
" 18th ..	7,893	1,432	" 17th ..	8,656	1,219
" 25th ..	8,175	1,327	" 24th ..	7,843	1,167
			" 31st ..	8,631	1,243

THE MORTUARY.

The following tables give the number of bodies deposited in the mortuary during the year; also the number of inquests held there with the causes of deaths, etc.

Number of bodies deposited in Mortuary ... 370

(a). To await inquests ... 355

(b). Upon request of relatives, to await burial 15

Number of Post-mortems performed ... 140

INQUESTS.

Verdicts.	Sex.	
	Male.	Female.
Natural causes	127	113
Accidental Death.....	41	40
Suicide	9	3
Open Verdict	16	1
Murder	2	3
TOTALS	195	160

Table showing nature of above Suicidal and Accidental Deaths in the Hackney District during the Year ended 31st December, 1898.

SUICIDES.		ACCIDENTAL DEATHS.	
NATURE OF SUICIDE.	No.	NATURE OF ACCIDENTAL DEATH.	No.
Cut Throat	3	Suffocation	34
Drowning	3	Run over by Train	1
Hanging.....	1	Burns	13
Shooting	1	Fracture of Skull.....	12
Run over by Train	1	Fracture of Spine.....	1
Fall from Window	1	Concussion of Brain	1
Not stated	2	Scalds of Body	1
		Accidental Fall.....	3
		Carbolic Poisoning	1
		Drowning	5
		Broken Ribs	2
		Choked with Meat	1
		Poisoned by Tinned Rabbit ..	1
		Not stated.....	3
		Cut Throat.....	1
		Run over	1
TOTAL	12	TOTAL	81

REGISTER OF SANITARY WORK, 1898.

PUBLIC HEALTH DEPARTMENT.—*continued.*

Letters, etc., sent out	2592
Circulars, Notices, etc.	12760
Committee Notices sent out	2688
Copies of Summonses and Orders made out	755
Houses from which Bedding, etc., was removed to be disinfected by the Vestry's apparatus	1352
Articles disinfected by the Vestry's apparatus—	
Beds	1043
Mattresses	576
Palliasses	23
Bolsters	739
Pillows	2125
Blankets	1536
Sheets	149
Carpets, Rugs, etc.	691
Quilts	409
Other Articles	1487
Rooms fumigated	1996
Houses cleansed after Infectious Diseases	692
Disinfectants supplied to the poor (bottles)	1190
Do. do. (bags)	15144
Infectious Patients removed to Hospital	1254
Cautionary Notices to Schools <i>re</i> Infectious Sickness	1959
Certificates of Disinfection issued to Schools, etc.	1773
Accumulations of Dust specially removed	14
Articles destroyed by request—	
Beds	40
Mattresses	42
Bolsters	7
Pillows	17
Palliasses	23
Cushions	16
Articles of Clothing	32
Miscellaneous	12
Blankets	2

REGISTER OF SANITARY WORK, 1898.

	SANITARY DISTRICTS.												
	Mr. Wood Stamford Hill	Mr. Harvey, West Hackney	Mr. Legg, Hackney	Mr. Morley, Clapton	Mr. Body, Kingsland.	Mare Street and South Hackney.			Mr. Bobbitt, Homerton, E.	Mr. Mansell, Homerton, N.	Mr. Ellis, Homerton, S.	Mr. Sheppard, Special.	Mr. White, Special.
	No. 1	No. 2	No. 3	No. 4	No. 5	Mr. High,	Mr. Kemp,	Mr. Punter,	No. 9	No. 10	No. 11		
	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7.	No. 8	No. 9	No. 10	No. 11		Totals.
INSPECTIONS—													
Made on Complaint.....	300	305	307	317	280	252	290	179	143	318	98	48	2887
Workshops	1	13	8	16	7	11	42	9	9	50	1		167
House to House	25	37	34	6	106		35	7	88	60	260	346	1396
Houses after Infectious } Diseases	144	142	118	359	254	198	240	168	272	249	91	54	2326
Premises re-inspected ...	2782	2726	3444	3080	2737	2946	2753	1708	3446	3440	3413	3033	1766
Fishmongers' and Poul- } terers' Yards	2	3				4	2		3	10		1	25
Slaughterhouses	9				6	2		16		12	1		46
Cow houses (Premises) } " (Sheds).....	8				12			10	1	12	2		45
Miscellaneous Inspections	501	272	126	346	500	469	13	727	958	1327	490	298	6027
Greengrocers' Yards	3	1				1	1		4	3	1		14
Schools		2	1	2	2	4			4	3	2		20
Bakehouses	36	7	4	13	11	15	17	7	10	13	14		147
Urinals	2	7	2		14	9	35	8	10	20	2		109
Canal Boats	22												47
Animals improperly kept..		14					5		4	6	5	1	69
Statutory Notices served...	28	64	27	38	38	18	7	7	52	21	22	12	35
Intimation Notices served	247	367	294	448	397	326	353	234	321	328	428	310	392
Peremptory or Final } Notices served.....	30	25	23		50	40	29	83	58	30	34	20	4374
												16	438

Proceedings taken before Magistrate or justices under the Sanitary Acts	16	14	9	16	16	3	2		21	7	1	4	4	113
Nuisances abated.....	211	371	221	469	409	292	338	283	414	315	373	265	114	4075
SEIZED AND CONDEMNED AS UNFIT FOR HUMAN FOOD—														
Fish.....	$\frac{1}{2}$ cwt.		$\frac{1}{2}$ cwt.				$\frac{1}{4}$ cwt.			4 cwt.				$5\frac{1}{4}$ cwt.
Fruit and Vegetables ..	15 lbs.	19 lbs.	10 lbs.		$\frac{1}{4}$ cwt.	5 cwt. 1 stone	$\frac{1}{2}$ cwt.	$\frac{1}{2}$ cwt.	$\frac{3}{4}$ cwt.	4 cwt.	$1\frac{1}{2}$ cwt.	6 lbs.	3 cwt.	$16\frac{1}{2}$ cwt.
Meat	$1\frac{1}{2}$ cwt.		$\frac{1}{2}$ cwt.			$\frac{1}{2}$ cwt.	22 lbs.		$\frac{1}{2}$ cwt.	2 cwt.	1 cwt.	5 cwt.		$11\frac{1}{4}$ cwt.
Other Articles														
Open Spaces cleared	3	1	2	10		3			6	6	3			34
Special Reports to Medical Officer of Health	3	6	10			6	30		4	12	2	6	3	82
FOOD ADULTERATION—														
Samples collected for Analysis.....								250						250
Proceedings taken before Magistrates								33						33

TABLE XIII.

*Record of Prosecutions under the Public Health (London) Act, 1891,
during the year 1898.*

ADDRESS.	COMPLAINT.	MAGISTRATE'S DECISION.
10, Lockhurst Street	Soil-pipe and ventilating pipe defective	Order to do the work in 14 days and pay 1/- for costs.
296, Dalston Lane..	Defective drains, soil-pipe inside house unventilated	Withdrawn (work done).
Passage, 22 to 42, Amhurst Road ..	Passage in damp and un-wholesome condition ..	Order to do the work in 28 days and pay 1/- for costs.
13, Cassland Crescent	Water supply drawn from well	Dismissed £4 4s. costs against the Vestry.
7, Ilma Terrace	Penalty summons	£1 11s. 6d. costs.
1, Bones Cottages ..	Penalty summons	Penalty £2 and 2/- costs.
1, Cossy Villas, Mandeville Street	Pan broken in w.c., house dirty	Order to do the work in 14 days and pay 1/- for costs.
4a, Coach Yard ..	Foul yard	Withdrawn (fresh proceedings).
64, Templar Road..	Defective drains, &c. ..	Order to do the work in 21 days and pay 1/- for costs.
1, Mehetabel Road	No receptacle for manure..	Order to do the work in 14 days and pay 1/- for costs.
46a, Brooksby Walk	Stable not properly paved or drained, yard paving defective. No receptacle for manure	Order to do the work in 6 weeks & pay 1/- for costs.
Rear of 38, Amhurst Road	Passage in damp and un-wholesome condition ..	Order to do the work in 28 days and pay 1/- for costs.
Rear of 40, Amhurst Road	Passage in damp and un-wholesome condition ..	Order to do the work in 28 days and pay 1/- for costs.
4a, Coach Yard ..	Foul yard	Order to do the work in 6 weeks & pay 1/- for costs.
24, Foulden Road ..	Sink waste-pipe con. to drain, rain water pipe leaky, causing damp walls, &c.	Withdrawn (work done).
10, Lockhurst Street	Penalty summons	Withdrawn (work done).
Barge	Carrying offensive refuse during prohibited hours..	Withdrawn.
"	"	Withdrawn.
"	"	Withdrawn.
"	"	Withdrawn.
Dust Cart	Uncovered	Fined 10/- and 1/- costs.
7, Prout Road ..	Ceiling and walls of the top back room in a dirty condition, and yard and paving defective	Order to do the work in 7 days and pay 1/- costs.
41, Mayola Road ..	Defective drains	Order to do the work in 14 days and pay 6/- for costs.
43, Mayola Road ..	"	Order to do the work in 14 days and pay 6/- for costs.
45, Mayola Road ..	"	Order to do the work in 14 days and pay 6/- for costs.
47, Mayola Road ..	"	Order to do the work in 14 days and pay 6/- for costs.

ADDRESS.	COMPLAINT.	MAGISTRATE'S DECISION.
95, Shacklewell Lane	Defective rain - water pipe discharging on premises No. 97	Order to do the work in 14 days and pay 1/- for cost.
122, Sandringham Road	Penalty summons	Withdrawn (work done)
8, Brett Road	House dirty, &c.	Order to do the work in 28 days and pay 1/- for costs.
155a Rushmore Road	Soilpipe defective and un-ventilated. House dirty.	Withdrawn (work done)
31, Crozier Terrace	Choked and defective drains, etc.	Order to do the work in 14 days and pay 1/- costs
1, College Street	Ventilation pipe from drain of insufficient height. Rain-water pipe defective	Order to do the work in 21 days and pay 1/- costs
4, College Street	House dirty, roof leaky	Order to do the work in 21 days and pay 1/- costs
1, Mehetabel Road	Penalty Summons	Withdrawn, work done, 1/- costs
7, Alice Place, Berger Road	W.C. improperly placed, no external light and ventilation	Order to do the work in 14 days and pay 1/- costs
1, Cranwich Road	Defective drains	Withdrawn, work done
55, Olinda Road	Defective drains outlet	Order to do the work in 1 month and pay 1/- costs
134, Well Street	Paving defective at side and rear entrance	Order to do the work in 1 month and pay 1/- costs.
London General Omnibus Co., stables rear of 136, Well Street	Paving defective at side and rear entrance	Dismissed, not liable
132, Well Street	Paving defective at side and rear entrance	Order to do the work in 1 month and pay 1/- costs
136, Well Street	Paving defective at side and rear entrance	" " "
Taylor Buildings, Homerton	W.C.s choked, Wash-house, roof, eaves, gutters and paving defective	Withdrawn (work done)
39, Downs Road	Soilpipe improperly constructed	" " " "
13, Oswald Street	House dirty, roof defective	" " " "
239 Queens Road	Defective drains, etc.	" " " "
6, Shacklewell Lane	Defective soilpipe, etc.	" " " "
The Creek, Lea B'ge Road	Stagnant Water	Order to clear that portion of the creek in his occupation in 1 month and pay 1/- costs
" " "	" "	Dismissed, not liable
" " "	" "	Order to cease discharging water into the said creek forthwith and pay 1/- costs
" " "	" "	Dismissed £1 rs. costs against the Vestry.
19, McLaren Street	No water supply	Withdrawn, water supply reinstated

ADDRESS.	COMPLAINT.	MAGISTRATE'S DECISION.
42, Tottenham Rd..	Defective drains	Withdrawn, work done
20, De Beauvoir Rd.	Defective drains	Order to do the work in 14 and pay 1/- for costs
44, Buckingham Rd.	House dirty, walls damp ..	Order to abate the nuisance in two months and pay 1/- for costs
23, Tottenham Sq...	Defective drains	Order by consent to do the work in 3 months and pay 1/- for costs
21, Abbott Street ..	No dustbin	Order to supply dustbin in 14 days and pay 1/- for costs
27, Abbott Street ..	No receptacle for manure &c	Order to do the work in 14 days and pay 1/- for costs
326, Wick Road ..	No dustbin	Withdrawn, dustbin supplied
26, London Road ..	Defective drains	Withdrawn, work done
39, Downs Road ..	Penalty summons	Withdrawn, "
39, Downs Road ..	Sink improperly placed ..	Withdrawn, "
Acme Wood Floor- ing Co., Gains- borough Road ..	Smoke nuisance	Order to abate the nuisance in 14 days, and pay 1/- for costs
Rear of 518 and 520, Kingsland Road ..	Accumulation of manure..	Withdrawn (Manure re- moved)
Offal Van	Removing fish offal during prohibited hours.. ..	Withdrawn, by order of P. H. Committee
Offal Van	"	Withdrawn ditto
Acme Wood Floor- ing Co., Gains- borough Road ..	Penalty summons	Penalty, £10 and 1/- costs
Dunsmure Mews, Dunsmure Road ..	Defective drains	Order to do the work in 6 weeks, and pay 1/- for costs
9, Lenthall Road ..	No ventilation under base- ment floors	Order to do the work in 14 days, and pay 1/- for costs
7, "	No ventilation under base- ment floors, and walls damp	Order to do the work in 14 days, and pay 1/- for costs
43, Brook Road ..	General insanitary con- dition	Order to do the work in 7 days, and pay 1/- for costs
The Wharf, Lea Cut	Accumulation of manure ..	Withdrawn to amend summons
20, De Beauvoir Road	Penalty summons	Penalty 10/- and 1/- costs
55, Olinda Road ..	"	Withdrawn (work done)
44, Buckingham Road	"	Penalty £1 and 2/- costs
10, Shacklewell Lane	House dirty, etc.	Order to do the work in 14 days, and pay 1/- for costs
139, High Street, Homerton.. ..	Stable at rear not properly paved and drained, etc...	Order to do the work in 14 days, and pay 1/- for costs

ADDRESS.	COMPLAINT.	MAGISTRATE'S DECISION.
72, Morning Lane ..	W.C. improperly placed ; no proper external light or ventilation to w.c., etc.	Order to do the work in 14 days, and pay 1/- for costs
18, Prince Edward Road	House dirty, etc.	Order to do the work in 28 days, and pay 1/- for costs
20, Prince Edward Road	" "	Order to do the work in 28 days, and pay 1/- for costs
22, Prince Edward Road	" "	Order to do the work in 28 days, and pay 1/- for costs
37, Dunsmure Road	Foul smells from defective drains, etc.	Withdrawn (work done)
11, Hornsey Build- ings	Defective drains	" "
291, Glyn Road ..	Paving of yard defective ..	" "
10, Fountayne Road,	Defective drains, etc. ..	Order to do the work in 28 days, and pay 1/- for costs
Shed rear of 2 Bohemia Place ..	No dung pit and shed dirty	Order to provide dung pit in 7 days, and pay 1/- costs
18, Stamford Hill ..	Defective drains	Order to do the work in 1 month, and pay £3 3s. costs
71, Amhurst Park ..	" "	Dismissed. £7 7s. costs against the Vestry
57, Holmbrook Street	House dirty, etc.	Order to do the work in 14 days, and pay 1/- for costs
59, " "	" "	Order to do the work in 14 days, and pay 1/- for costs
61, " "	" "	Order to do the work in 14 days, and pay 1/- for costs
47, Mortimer Road	Defective drains, etc. ..	Order to do the work in 28 days, and pay 1/- for costs
Yard rear of 1a, Forest Road ..	Defective paving	
197, Southgate Road	Defective drains	Withdrawn, work done
14, Windsor Road..	Damp walls, no dustbin	Summons not served
291, Glyn Road ..	Paving of yard defective	Withdrawn, work done
23, Duncan Street ..	W.C. defective, yard paving defective, no ventilation under ground floor, etc.	Order to do the work in 14 days, and pay £1 1s. costs.
25, Duncan Street ..	Foul pan in W.C., sink waste defective, dustbin dilapidated, house dirty	" "
1, Duncan Street ..	Foul pan in W.C., house dirty	" "
18, Shacklewell Lane	Roof leaky, causing damp walls, ceilings and floor	Withdrawn, work done
44, Buckingham Rd.	Further penalty summons	Penalty 10/- and 1/- costs
84, High Street, Homerton	Smoke nuisance	Penalty £5 and 1/- costs
15, Warburton Road	Walls damp, no damp course, yard paving de- fective etc.	Order to do the work in 28 days and pay 1/- costs

TABLE.

*Prosecutions under the Food and Drugs Acts and
Margarine Acts during the year 1898.*

No. of Sample.	Article.	Adulteration or Offence.	Result of Legal Proceedings.	Remarks.
794	Butter ..	92% foreign fat	Fined £3 and 12/6 costs	
799	Milk ..	70% of fat abstracted	12/6 costs	
	Milk ..	Refusing to serve	Fined £1 10s. and 2/- costs	
808	Milk ..	7% added water	Fined 6/- & 12/6 costs	
817	Milk ..	23% added water	Withdrawn on account of death of vendor.	
825	Margarine	Exposed for sale unlabelled	Fined 1/- and 2/- costs	
825	Margarine	Served in plain wrapper	Fined 1/- and 2/- costs	
827	Margarine	Exposed for sale unlabelled	Fined 5/- & 12/6 costs	
827	Margarine	Served in plain wrapper	Fined 5/- & 2/6 costs	
834	Milk ..	9% added water	Fined 20/- & 12/6 costs	
835	Milk ..	8% added water	" " "	
841	Milk ..	10% added water	" " "	
843	Milk ..	17% added water	Fined 10/6 & 2/- costs	
837	Milk ..	19% added water	" " "	
861	Butter ..	25% foreign fat	Fined 20/- & 12/6 costs	
861	Margarine	Exposed for sale unlabelled	2/- costs	
883	Milk ..	10% fat abstracted	Dismissed	
894	Milk ..	30% fat abstracted	Fined 3/- & 12/6 costs	
906	Cocoa ..	49 parts starch and sugar	Fined 10/- & 12/6 costs	
913	Lard ..	20 parts foreign fat	Withdrawn by order of the Public Health Committee	

*Prosecutions under the Food and Drugs Acts and
Margarine Acts during the year 1898—continued.*

No. of Sample.	Article.	Adulteration or Offence.	Result of Legal Proceedings	Remarks.
919	Sweet Spirit of Nitre ..	15% Ethyl Nitrite	Withdrawn by order of the Public Health Committee	
920	Sweet Spirit of Nitre ..	14% Ethyl Nitrite	" " "	
925	Milk ..	7% added water	12/6 costs	
926	Milk ..	8% added water	Dismissed £1 1s. costs against the Vestry	
965	Coffee ..	43% chicory	Fined 5/- & 12/6 costs	
974	Milk ..	14% added water	Fined 30/-	
997	Vinegar	Not malt	12/6 costs	
998	Vinegar	Not malt	Fined £1 & 12/6 costs	
1018	Milk ..	11% added water	Fined £1 & 12/6 costs	
1020	Milk ..	11% added water	Fined £2 & 12/6 costs	
1031	Milk ..	30% fat abstracted	Fined £1 & 12/6 costs	
1032	Milk ..	11% fat abstracted	Fined £2 & 2/- costs	
1032	Milk ..	10% added water	Fined £2 & 12/6 costs	

Hackney Vestry Public Health Department.

REPORT OF CANAL BOATS INSPECTORS.

TO THE PUBLIC HEALTH COMMITTEE

GENTLEMEN—We beg to submit our Report upon the Canal Boats, inspected under the Canal Boats Acts and Regulations, 1877 and 1884, from January 1st to December 31st, 1898, viz.:—

Number of Boats inspected and re-inspected	..	..	..	..	69
Boats inspected .. .. .	..	..	..	..	67
„ re-inspected .. .. .	..	..	..	..	2
Certificates examined .. .. .	..	..	..	..	52
Number of Boats conforming to regulations	..	..	..	..	61
„ „ infringing acts and regulations ..	..	..	..	..	8
Boats examined, certificate not seen (captain away)	..	..	..	..	8
„ „ to ascertain if used as dwelling ..	..	..	..	..	1
Number of persons registered for	..	..	..	182 adults, 1 child	
„ „ living on board	..	..	..	129 „	
Adults .. .. .	..	..	..	..	129
Children under 12 .. .. .	..	..	..	..	0
Males .. .. .	..	..	..	..	128
Females .. .. .	..	..	..	..	1
Number of Notices issued	..	..	..	..	6
„ „ attended to	..	..	..	..	3
„ „ outstanding	..	..	..	..	3
Legal proceedings taken	..	..	..	..	1

Boat.	Owner	Contravention.	Result.
“John & William,” ..	Susannah Key. ..	Name & number nearly obliterated. Certificate did not identify owner	Fined 1/- and 2/- costs

Details showing number infringing the Acts, &c.

Certificate not identifying owner	..	..	..	..	..	1
Without requisite double bulkhead	..	..	..	..	..	0
Refusal of admittance ..	..	..	..	..	..	0
No proper water vessel	..	..	..	..	..	0
Non-removal of bilge water	..	..	..	..	..	1
Dilapidations .. .. .	..	..	..	..	..	1
Insufficient Ventilation	..	..	..	..	..	0
Cleanliness .. .. .	..	..	..	..	..	1
Marking .. .. .	..	..	..	..	..	1
Registration .. .. .	..	..	..	..	..	0
Absence of certificate	..	..	..	..	..	3
Overcrowding .. .. .	..	..	..	..	..	0
Separation of sexes	..	..	..	..	..	0
Infectious disease	..	..	..	..	..	0

We beg to remain, Gentlemen,

Your obedient Servants,

GEORGE WHITE,

EDWIN S. WOOD,

19th January, 1899.

*Sanitary Inspectors and
Inspectors under the Canal Boats Acts.*

ANNUAL REPORT OF INSPECTOR OF WORKSHOPS, LAUNDRIES, &c.

TO THE HACKNEY VESTRY.

GENTLEMEN,—My work as Inspector of Workshops to the Hackney Vestry has extended over a period of about seven months. During that time I have paid 1,042 first visits, and 371 visits of re-inspection; 477 workshops and 175 laundries, containing a total of 935 workrooms, have been registered. Of these 19 workshops and 6 laundries had not previously been visited by an inspector.

Nuisances have been found to exist on 302 premises. In connection with these, I have handed on 116 complaints to the Sanitary Inspectors of the different districts, and have dealt with the rest of the cases myself; 18 workrooms I found to be overcrowded. I have served 92 intimations, and can report the abatement of 85 nuisances, while the work necessitated by others is in hand.

Workroom cards, showing the number of persons permitted in each room, have been distributed to 120 workrooms.

There still remains a long list of workshops which I have as yet been unable to inspect. In procuring as complete a record as possible of the workshops and laundries in this district, I have to express my indebtedness to A. P. Vaughan and W. H. Seal, Esqrs., H.M. Factory Inspectors for the East Metropolitan District, who kindly allowed me access to their registers at 14, Finsbury Circus.

From occupiers of factories and workshops who employ them, I have obtained lists of outworkers. I have the names and addresses of 543 outworkers resident in this district, but owing to press of other work, I have only been able to visit the small number of 53. The names of those outworkers non-resident in this district have been forwarded to the Medical Officer of the district in which they live

No. of first visits	..	..	..	..	..	1042
" " of re-inspection	..	..	..	..	..	371
" Workshops registered..	..	..	..	..	..	477
" Laundries	"	..	..	..	..	175
" Workshops intimated to H.M. Factory Inspector						19
" Laundries	"	"	"	"	"	6
" Premises on which nuisances found to exist	..					302
" Complaints handed on to Sanitary Inspectors	..					116
" Intimations served	..	..	..	..	..	92
" Nuisances abated	..	..	..	..	..	85
" Workroom cards distributed..	..	..	..	..	..	120
" Outworkers registered..	..	..	..	..	..	543
" " visited	..	..	..	..	..	53
" Workrooms found overcrowded	..	..	..	..	..	18

I am, Gentlemen,

Your obedient Servant,

ALICE TEEBAY,

Sanitary Inspector and Inspector of Workshops, Laundries, &c.

METEOROLOGY.

The following table, for which I am indebted to the Secretary of the Royal Meteorological Society, is an abstract of the Climatological Observations made at St. Luke's, Old Street, E.C., for the year 1898:—

ABSTRACT OF CLIMATOLOGICAL OBSERVATIONS.

1898.	TEMPERATURE.							Relative Humidity.	Amount of Cloud.	RAIN.	
	Means.					Extremes.				Amount.	No. of Days.
	9 a.m.	Min.	Max.	Range	Mean.	Min.	Max.				
	°	°	°	°	°	°	°	%		in.	
JANUARY ..	44·6	41·5	48·7	7·2	45·1	34·9	55·2	87	9·3	·78	9
FEBRUARY	41·6	37·4	46·9	9·5	42·2	30·0	57·1	81	7·0	1·22	17
MARCH	41·1	36·1	47·3	11·2	41·7	30·0	59·6	78	7·1	1·34	13
APRIL	48·9	42·2	57·0	14·8	49·6	32·8	65·9	73	7·0	1·08	13
MAY	53·2	47·0	59·5	12·5	53·2	38·1	75·2	71	7·6	2·29	21
JUNE	58·7	52·1	65·5	13·4	58·8	42·4	75·7	70	8·2	1·05	14
JULY	62·7	55·6	70·4	14·8	63·0	49·3	80·5	67	6·6	·74	8
AUGUST	65·0	58·2	73·5	15·3	65·9	49·8	86·0	70	5·7	·95	9
SEPTEMB'R	62·5	55·0	72·6	17·6	63·8	44·0	88·9	70	7·1	·19	4
OCTOBER ..	54·9	50·7	59·8	9·1	55·2	43·4	69·5	86	7·6	2·73	13
NOVEMBER	47·1	43·3	51·9	8·6	47·6	32·0	60·9	89	8·7	1·81	14
DECEMBER	46·9	42·8	50·7	7·9	46·8	33·0	57·6	84	7·4	2·37	12
YEAR..	52·3	46·8	58·6	11·8	52·7	30·0	88·9	77	7·4	16·55	147

I remain, Gentlemen,
Yours obediently,

J. KING WARRY, M.D., D.P.H.,

Medical Officer of Health.

Report of the Medical Officer of Health received, and ordered to be printed and circulated in the usual manner.

TOM HOSGOOD,

10th May, 1899.

Chairman of the Vestry.

APPENDIX.

LIST OF LICENSED SLAUGHTER-HOUSES

IN THE HACKNEY DISTRICT, OCTOBER, 1898.

NAME.	ADDRESS.
Friday, E.	235, Amhurst Road
Raymond, E.	186, Cassland Road
Hussey, A. J.	37, Church Road, Homerton
Sharman, J.	90, Frampton Park Road
Longthorne, J. W.	5, High Street, Homerton
Wragg, W. J.	57, Holly Street
Roberts, F.	49, High Street, Kingsland
Gooch, H.	71, High Street, Kingsland
Johnstone, E.	323, Kingsland Road
Scott, G.	418, Kingsland Road
Woollven, W. H.	High Road, Upper Clapton
Stone, John	78, Stamford Hill
Friday, Richard	170, Dalston Lane
Joyce, J.	531, Kingsland Road
Fish, T.	Lea Bridge Corner, Clapton
Witherden, C. A.	Lower Clapton Road
Tyler, A.	80, Mare Street
Maples, R. W.	142, Mare Street
Beaver, W. R.	177, Mare Street
Palmer, A. J.	266, Mare Street
Harris, Samuel	296, Mare Street
Capon, J., jun.	32, Morning Lane
Lockie, J. J.	200, Queen's Road, Dalston
Miall, E. D.	211, Queen's Road, Dalston
Hammer, William	103, Rendlesham Road
Stallworthy, G. E.	53, Southgate Road
Ebbells, E.	94, Southgate Road
Row, R.	130, High Street, Stoke Newington
Young, J. C.	220, Stoke Newington Road

Stoneman, P.	...	...	3, Terrace Road
Clark, C....	...	...	Upper Clapton
Tyler, W.	...	...	92, Well Street
Hill, G. F.	...	...	169, Well Street
Wagstaff, H. J.	...	...	216, Well Street
Friday, R.	...	...	51, Wilton Road
Baker, W. J.	...	...	258, Wick Road
Browning, J.	...	...	West Side, London Fields

LIST OF LICENSED COW-SHEDS
IN THE HACKNEY DISTRICT, OCTOBER, 1898.

NAME.	ADDRESS.	NO. OF SHEDS
Jones, L. J.	... 3, Ardleigh Road, De Beauvoir Town	1
Jones, Mary	... 46, Brooksby's Walk, Homerton	1
Jenkins, J.	... 2, Buckingham Road, Kingsland	2
Evans, D. M.	... 72, Church Road, Homerton	1
Lloyd, E.	... 84, Clifden Road, Clapton Park	2
Jenkins, Mary	... Downham Road, Kingsland	1
Davies, D. M.	... 11, Downham Road, Kingsland	1
Motts, E.	... 6, Florefield Road, Hackney	1
Larter, George William, trading as J. T. Larter	2, Gloucester Road, South Hackney	2
Snewin, W. H.	... 3, Hill Street, Upper Clapton	1
Rumball, T. E.	... High Road, Upper Clapton	4
Bates, T. and W.	... 46a, Leswin Road, Stoke Newington	1
Cashford, W. G.	... Jerusalem Square, Mare Street, Hackney	4
Reynolds, Edwin	... Landfield Street, Clapton	1
Low, Walter	... Manor Farm, Hackney Wick	1
Warner, J. C.	... 23, Mare Street	1
Bush, J.	... Marsh Gate, Homerton	1
Low, Edwin	... Marsh Hill, Homerton	1
Lewis, J....	... 6, Palace Road, Hackney	1
Outram and Faulkner	... 257, Queen's Road, Dalston	1
Williams, T. R.	... 79, Shacklewell Lane, Hackney	1

Tasker, J.	...	...	Sigdon Road, Hackney	...	...	1
Welford, R. W.	...	...	Spring Hill, Clapton	...	...	2
Stapleton, A.	...	...	Stoke Newington Common	...	...	5
Briggs, J.	...	...	180, Victoria Park Road	...	...	1
Thomas, David	...	...	3, Warburton Road, Hackney	...	...	1
Brace, E. A.	...	...	133, Well Street, South Hackney	...	...	1
Jones, John	...	...	271, Wick Road, Homerton	...	...	2
Roper, R.	...	...	37, Wilton Road, Dalston	...	...	1
Total Cow Sheds						44

LIST OF BAKE-HOUSES, 1898.

NAME.			ADDRESS.		
No. 1 DISTRICT.					
Lidstone, J.	High Road, Clapton	
Budden, J.	126, Northwold Road	
Schutz, J.	62, Winslade Road	
Vincent, A.	Clapton Common	
Hurstleigh, W. S.	St. Andrew's Pavement	
Williamson	Chapel Road	
Reis, W. E.	8, Cazenove Road	
Gibson, R.	9, Northwold Road	
Austin, W. H.	74, Fountayne Road	
No. 2 DISTRICT.					
Guthrie, J.	176, High Street, Stoke Newington	
Stumme, K.	24, Sanford Lane	
Pile, W.	114, High Street, Stoke Newington	
Curran, H. J.	33, Rectory Road	
Allardyce, S. W.	62, Evering Road	
Burch, Mrs. L.	9, Maury Road	
Willsmer, C.	8, Stellman Street	
Guscott, J.	128, Stoke Newington Road	
Hickling, S.	40, Shacklewell Lane	
Karsch, J.	239, Amhurst Road	

No. 3 DISTRICT.

Clarke, Mrs. L. L.	...	...	134, Sandringham Road
Hall, W. E.	...	...	50, London Road
Brion, A.	...	...	26, Downs Road
Reis	...	...	215, Lower Clapton Road
Parish, W.	...	...	117, Lower Clapton Road
Prestage, T. H.	...	...	71, Lower Clapton Road
Tanner, J.	...	...	5, Lower Clapton Road
Cowley, J.	...	...	9, Clarence Road
Newell & Co.	..	..	393, Mare Street
Triniman	...	...	370, Mare Street
Thrift, A.	...	...	38, Amhurst Road
Seward, R.	...	...	240, Dalston Lane

No. 4 DISTRICT.

Carpenter, A.	...	...	13, Median Road
Rest, O.	...	...	2, Beecholme Terrace
Mason	...	...	11, Lea Bridge Corner
Newcombe, E.	...	...	3a, Glyn Road
Lunken, J.	...	...	40, Mandeville Street
Saur, H.	...	...	198, Rushmore Road
Mankertz, L.	...	...	182, Chatsworth Road
Mack, L.	...	...	138, "
Remnant, J. E.	...	...	136, "
Rühl, J. G.	...	...	94, "
Lunken, H.	...	...	71, "
Maloney, J.	...	...	36, "
Woods, E.	...	...	19, "
Heinlen, L.	...	...	219, Glyn Road

No. 5 & 6 DISTRICTS.

Waters, R. J.	...	...	121, Richmond Road
Berry, H.	...	...	47, "
Ibell, H.	...	...	81, Wilton Road
Goodwin, J.	...	...	178, Dalston Lane
Withers, R.	...	...	83, "
Taylor & Co.	...	...	72, "

Shedden, Mrs.	...	...	...	64, Richmond Road
Goodwin, J.	...	...	...	20 & 22, Forest Road
Shedden	...	...	...	11, Holly Street
Ellson, W. W.	...	...	...	207, Queen's Road
Spencer, H.	...	..	...	68, Lansdowne Road
Birkett, T.	...	...	...	22, Westside, London Fields
Granger, J.	...	...	...	550, Kingsland Road
Norman, A.	..	...	...	513, „
Bist, P.	...	...	...	376, „
Claridge, G.	...	...	...	329, „
Banbury, G.	...	...	...	51, Southgate Road
Kurty, W.	...	...	...	174, „
Allardyce, S. W.	...	...	...	96, „
Enerby, A.	...	...	...	40, Downham Road
Pope, Mrs. E.	...	...	...	54b, „
Stein, H.	...	...	...	24, Tottenham Road
Pay, E. T.	...	...	...	106, Hertford Road
Roessle, W.	...	...	...	88, High Street, Kingsland
Mann, W.	...	...	...	28, John Campbell Road
Ring, P.	...	...	...	103a, Dalston Lane

No. 7 DISTRICT.

Payne, A.	...	...	...	54, Broadway, London Fields
May, H.	...	...	...	70, „ „ „
Bushell, F.	...	...	...	10, „ „ „
Stumm, C.	...	...	...	26, West Street
Rehn, M. C.	...	...	...	139, Mare Street
Reihs, J.	...	...	...	6, Well Street
Reitz, C.	...	...	..	183, Mare Street
Harvey, A.	...	...	...	231, „
Hudson, T.	...	...	...	297, „
Lunken, N.	...	...	...	27, Morning Lane
Wittich, G.	...	...	...	77, Frampton Park Road
Eley, J.	...	...	...	101, Mare Street

No. 8 DISTRICT.

Krauss, J.	...	...	13, Loddiges Road
Skeer, P....	...	...	76, Well Street
Kurtz, W.	...	...	105, „
Ransom, J.	...	...	127, „
Heard, C.	...	...	142, „
Mustard, Mrs. E. C.	...	...	79, Lauriston Road
Holzapfel, C.	...	...	142, Victoria Park Road
Hatherill, J.	...	...	105, Lauriston Road

No. 9 DISTRICT.

Grimwood, T.	...	...	39, High Street, Homerton
Grimwood, T.	...	...	59, „ „
Gibbon, G.	...	...	131, „ „
Bradford, G.	...	...	162, „ „
Jessop, H.	...	...	167, „ „
Wells, J....	...	...	18, Brooksby's Walk
Hertz, J. ...	...	...	14, The Grove, Homerton
Dillaway, N.	...	...	3, Churchill Road

No. 10 DISTRICT.

Fink, V. J.	...	...	220, Wick Road
Harris, J.	...	...	184, Cassland Road
Maul, E.	...	...	16, Gloucester Road
Beck, G.	...	...	92, Wick Road
Gunner, G.	...	...	34, Church Road, Homerton
Bruton, J.	...	...	12, Berger Road
Weber, G.	...	...	50, Kenton Road
Pates, F. W.	...	...	154, Well Street
Klingel, G.	...	...	186, „
Fey, J. ...	...	...	233, „
Morse, G.	...	...	27, Elsdale Street
Carton, H.	...	...	144, Morning Lane

No. 11 DISTRICT.

Selzer, H.	...	...	...	89, Sidney Road
Kehrein, J.	...	...	...	276, Wick Road
Dance, Mrs. A....	...	...	...	315, „
Broke, G.	...	...	...	2, Victoria Road
James, G.	...	...	...	3, Montague Buildings
Baden, E.	...	...	...	41, Osborne Road
Johnson, E.	...	...	...	13, Gainsboro' Road
Davis, S.	...	...	...	71, Felstead Street.

RECOMMENDATIONS OF THE ROYAL COMMISSION
ON TUBERCULOSIS.

MEAT.

A.—SLAUGHTER-HOUSES.

1. We recommend that in all towns and municipal boroughs in England and Wales, and in Ireland, powers be conferred on the authorities similar to those conferred on Scottish corporations and municipalities by the Burgh Police (Scotland) Act, 1892, viz. :—

- (a.) When the local authority in any town or urban district in England and Wales and Ireland have provided a public slaughter-house, power be conferred on them to declare that no other place within the town or borough shall be used for slaughtering, except that a period of *three* years be allowed to the owners of existing registered private slaughter-houses to apply their premises to other purposes. The term of *three* years to date, in those places where adequate public slaughter-houses already exist, from the public announcement by the local authority that the use of such public slaughter-houses is obligatory, or, in those places where public slaughter-houses have not been erected, from the public announcement by the local authority that tenders for their erection have been accepted.

(b.) That local authorities be empowered to require all meat slaughtered elsewhere than in public slaughter-house, and brought into the district for sale, to be taken to a place or places where such meat may be inspected; and that local authorities be empowered to make a charge to cover the reasonable expenses attendant on such inspection.

(c.) That when a public slaughter-house has been established inspectors shall be engaged to inspect all animals immediately after slaughter, and stamp the joints of all carcasses passed as sound.

2. It appears desirable that in London the provision of public in substitution for private slaughter-houses should be considered in respect to the needs of London as a whole, and in determining their positions regard must be had for the convenient conveyance of animals by railway from the markets beyond the limits of London, as well as from the Islington market, to the public slaughter-houses which should be provided. At the present time no administrative authority has statutory power authorising it to provide public slaughter-houses other than for the slaughter of foreign cattle at the port of debarcation.

3. With regard to slaughter-houses in rural districts, the case is not so easy to deal with. But the difficulty is one that must be faced, otherwise there will be a dangerous tendency to send unwholesome animals to be slaughtered and sold in small villages where they will escape inspection. We recommend, therefore, that in Great Britain the inspection of meat in rural districts be administered by the county councils. In Ireland the duty of carrying out inspection ought to devolve upon authorities corresponding as nearly as possible to those charged with that duty in England and Scotland. In view of the announced intention of the Government to introduce a new scheme of local government into Ireland we refrain from specifying the exact machinery which should be employed.

4. We recommend further that it shall not be lawful to offer for sale the meat of any animal which has not been killed in a duly licensed slaughter-house.

B.—QUALIFICATIONS OF MEAT INSPECTORS.

5. We recommend that in future no person be permitted to act as a meat inspector until he has passed a qualifying examination, before such authority as may be prescribed by the Local Government Board (or Board of Agriculture), on the following subjects :—

- (a.) The law of meat inspection, and such byelaws, regulations, &c., as may be in force at the time he presents himself for examination.
- (b.) The names and situations of the organs of the body.
- (c.) Signs of health and disease in animals destined for food, both when alive and after slaughter.
- (d.) The appearance and character of fresh meat, organs, fat, and blood, and the conditions rendering them, or preparations from them, fit or unfit for human food.

C.—TUBERCULOSIS IN ANIMALS INTENDED FOR FOOD.

6. We recommended that the Local Government Board be empowered to issue instructions from time to time for the guidance of meat inspectors, prescribing the degree of tubercular disease which, in the opinion of the Board, should cause a carcase, or part thereof, to be seized.

Pending the issue of such instructions we are of opinion that the following principles should be observed in the inspection of tuberculous carcasses of cattle :

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> (a.) When there is a miliary tuberculosis of both lungs - - - - - (b.) When tuberculous lesions are present on the pleura and peritoneum - - - (c.) When tuberculous lesions are present in the muscular system, or in the lymphatic glands embedded in or between the muscles - - - - - (d.) When tuberculous lesions exist in any part of an emaciated carcase - - - | } | <p>The entire carcase and all the organs may be seized.</p> |
|---|---|---|

- | | |
|--|---|
| (a.) When the lesions are confined to the lungs and the thoracic lymphatic glands | } The carcase, if otherwise healthy, shall not be condemned, but every part of it containing tuberculous lesions shall be seized. |
| (b.) When the lesions are confined to the liver - - - - - | |
| (c.) When the lesions are confined to the pharyngeal lymphatic glands - - - - - | |
| (d.) When the lesions are confined to any combination of the foregoing, but are collectively small in extent - - - - - | |

In view of the greater tendency to generalisation of tuberculosis in the pig, we consider that the presence of tubercular deposit in any degree should involve seizure of the whole carcase and of the organs.

In respect of foreign dead meat, seizure shall ensue in every case where the pleura have been "stripped."

MILK.

D.—DISEASES IN THE UDDERS OF COWS.

7. We recommend that notification of every disease in the udder shall be made compulsory, under penalty, on the owners of all cows, whether in private dairies or those of which the milk is offered for sale.

8. We recommend that for the purpose of excluding from their districts the milk of cows affected with tuberculosis of the udder, or exhibiting clinical symptoms of the disease, local authorities should be given powers somewhat similar to those of sections 24-27 of the Glasgow Police (Amendment) Act, with power to slaughter such cows subject to compensation under the conditions named in the Report.

9. We also recommend that powers shall be given to local authorities to take samples and make analysis from time to time of the milk produced or sold in their districts, and that milk vendors shall be required to supply sufficient information as to the sources from which their milk is derived.

At ports where milk and milk products are received from foreign countries, any costs that may be thus incurred in their examination shall be borne by the importers.

E.—COWSHEDS, BYRES, &c.

10. We recommend that the Local Government Board be empowered to require local authorities to adopt regulations as to dairies, cowsheds, &c., where that shall be found not to have been done already.

11. That in future no cowshed, byre, or shippon, other than those already registered, shall be permitted or registered in urban districts within 100 feet of any dwelling house; and that the discontinuance of any one already existing shall be ordered on the certificate, either of the medical officer of health that it is injurious to the health of human beings residing near it, or of the veterinary inspector that it is not a place wherein cows ought to be kept for the purpose of milk supply, and that it is incapable of being made so.

12. That the conditions of the attached cowsheds that shall warrant the registering of a dairy in a populous place, whether technically urban or rural, in the future shall include the following:—

1. An impervious floor.
2. A sufficient water supply for flushing.
3. Proper drainage.
4. A depot for the manure at a sufficient distance from the byres.
5. A minimum cubic contents as regards such districts of from 600 to 800 feet for each adult beast varying according to the average weight of the animals.
6. A minimum floor space of 50 feet to each adult beast.
7. Sufficient light and ventilation.

While we have prescribed a minimum cubic contents and floor space without mentioning definite dimensions affecting ventilation and lighting, we are distinctly of opinion that these are by far the most important, and the requirements as to cubic and floor spaces are mainly of value as tending to facilitate adequate movement of air.

Existing cowsheds should be obliged to conform to the prescribed regulations within a period of twelve months from the time of the regulations coming into force.

13. The same conditions as those recommended for populous places should apply to cowsheds in sparsely populated places, except in so far as cubic contents per cow are concerned; as regards these cubic contents, such space per cow should be provided as would, in view of the surrounding circumstances, secure reasonable ventilation without draught. But the physical circumstances prevailing in different localities being so various, we do not find it practicable to prescribe uniform minimum requirements in this respect.

14. We recommend that where cows housed in one district supply milk to another district, the local authority of the district in which the cows are housed shall be bound, when required, to supply to the local authority of the district in which the milk is sold or consumed full information and veterinary reports regarding the condition of the cows, byres, etc., whence the milk is drawn. Where the local authority of one district are dissatisfied with the reports so obtained, they may apply to the Local Government Board, with a view to an independent inspection and report being made.

F.—ELIMINATION OF BOVINE TUBERCULOSIS.

15. We recommend that funds be placed at the disposal of the Board of Agriculture in England and Scotland, and of the Veterinary Department of the Privy Council in Ireland, for the preparation of commercial tuberculin, and that stockowners be encouraged to test their animals by the offer of a gratuitous supply of tuberculin and the gratuitous services of a veterinary surgeon on certain conditions

These conditions shall be—

- (a.) That the test be applied by a veterinary surgeon.
- (b.) That Tuberculin be supplied only to such owners as will undertake to isolate reacting animals from healthy ones.
- (c.) That the stock to be tested shall be kept under satisfactory sanitary conditions, and more especially that sufficient air space, ventilation, and light be provided in the buildings occupied by the animals.

16. We recommend that the Board of Agriculture in England and Scotland and the Veterinary Department of the Privy Council in Ireland undertake the circulation among agricultural societies of instructions for the proper use of the tuberculin test, with explanation of the significance of reaction, and directions for effective isolation of reacting animals.

D.—COMPENSATION FOR CONFISCATION.

We recommend that the owner of a carcase confiscated and destroyed wholly or in part by order of a magistrate on account of tuberculosis shall receive full compensation and repayment of the amount paid by him for the animal provided :—

- (a.) That the magistrate ordering confiscation shall satisfy himself that the animal had a good appearance before slaughter, was well nourished, and exhibited no visible signs of tuberculosis.
- (b.) That no compensation be paid for any animal for which there has been paid less than a minimum price, to be fixed from time to time by the Board of Agriculture, according to the market values current, nor in excess of a maximum price, to be fixed in the same manner.

- (c.) That no sum shall be paid in compensation except on the order of the magistrates ordering the confiscation of the carcase.
- (d.) That all compensation so ordered shall be charged against and paid by the Council of the administrative County, which shall be entitled to repayment of one-half the amount from Imperial funds.

That is, the amount of the compensation should be determined by the amount of the damage caused by the accident.

That all compensation should be paid by the Government and not by the private companies, which are the cause of the accident.