[Report of the Medical Officer of Health for Hackney].

wellcome collection

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

The Parish of Hackney.

REPORT

ON THE

SANITARY CONDITION

OF THE HACKNEY DISTRICT,

FOR THE YEAR 1896,

BY

J. KING WARRY, M.D., LOND., M.R.C.P.,

Diplomate in Public Health;
Licentiate of the Society of Apothecaries;
Fellow of the Society of Medical Officers of Health;
Fellow of the British Institute of Public Health;
Member of the Sanitary Institute;
Associate of the College of State Medicine;
Foreign Associate Member of the Society of Hygiene of France;
Medical Officer of Health for the District.

London:

A. T. Roberts, Son & Co., Printers, 5, Hackney Road, N.E.

1897.

INDEX.

The Parish of Hackney.

MEDICAL OFFICER'S REPORT

FOR THE YEAR 1896.

SANITARY DEPARTMENT,

TOWN HALL, HACKNEY, N.E.

To the Members of the Hackney Vestry.

GENTLEMEN,

I beg to present my report on the Public Health of Hackney for the year 1896. The poll-census, which was taken in the first quarter of the year, has enabled me to present more accurately the vital statistics of the district. It has also revealed the fact, that the population of Hackney had been over estimated during the last two or three years; and enforces the necessity for a quinquennial census, if we are to avoid any serious errors in estimations of population.

The birth and marriage rates for the year do not show any falling off on previous years, and the death-rate of 17·1, in spite of the high mortality of the summer from gastro-intestinal disease, places Hackney in the front of healthy districts in London. The mortality rate, of course, varies in different parts of the district; but

special attention must be drawn to the phenomenally low rate of the sub-district of Stamford Hill, which was only 10·1 per 1,000; and the sub-district of Hackney, which furnished the highest rate in the district, was not more than 18·6 per 1,000—less than the rate for all London.

Infectious diseases were very prevalent in the district during 1896. Small-pox was introduced several times, but owing to the prompt measures taken it did not spread. Scarlatina and Diphtheria were excessive, the mortality of the latter being double that of the previous year. Of the agencies concerned in the spread of these diseases, not the least powerful is school influence, an instance of which I record later in this report.

The long needed and expected report of the Royal Commissioners on vaccination was issued during the year. There is, therefore, now no reason why the parochial paralysis regarding vaccination, which has existed so long, should still continue. The summary of the main conclusions of the Commissioners, which I have included in this report, will not be considered out of place.

The summer of 1896 was marked by another period of short supply of water on the part of the East London Water Company, resulting, in my opinion, in considerable inconvenience and injury to health.

The removal of house refuse by a weekly house visitation has proved very successful during the year in diminishing the number of requests for its removal; but much remains to be done, especially by the householders, if the full benefit of this system is to be attained.

The work of the Sanitary Department in the abatement of nuisances and the prevention of diseases has been very satisfactory. The accompanying tables give the character and amount of work done, and the legal proceeding instituted by the department

Population and Density.—On the night of the 29th of March, 1896, a census of the number of persons in each parish of the administrative County of London was taken, in accordance with section 3 (1) of the London (Equalisation of Rates) Act, 1894.

The following tables give a summary of the results of the census as to population and houses in the Registration sub-districts and Wards of Hackney.

CENSUS, 1896.

Table I.

No. of Registration Sub-district.	Name of Registration Sub-district.	No. of Schedules.	Houses.				Population.		
			Inhabited.	Uninhabited.		Building.	Males.	Females	Total.
				Empty.	Occupied in daytime but not at night.				
2	Stamford Hill ..	4,132	3,425	139	37	82	8,539	11,926	20,465
3	West Hackney	10,108	6,006	142	184	3	20,108	23,356	43,464
4	Hackney	22,729	13,926	306	183	86	4,9826	55,405	104,691
5	South Hackney	9,642	6,072	154	141	19	21,125	23,299	44,424
	Totals..	46,611	29,429	741	545	190	99,058	113986	213,044

Table II.

WARDS.	No. of Schedules.	Houses.				Population.		
		Inhabited	Uninhabited.		Building.	Males.	Females.	Total.
			Empty.	Occupied in daytime but not at night.				
Stamford Hill	3,860	3,196	137	41	39	7,943	10,845	18,788
West.....	5,558	3,627	101	89	2	11,266	13,499	24,765
Kingsland ..	5,798	2,987	49	108	1	11,289	12,433	23,722
Hackney	3,449	2,488	99	39	2	6,791	8,944	15,735
Mare Street	6,432	3,701	63	64	17	12,845	14,731	27,576
Clapton	6,661	4,237	78	28	83	14,561	16,779	31,340
South	5,306	3,300	88	114	12	11,720	13,207	24,927
Homerton ..	9,547	5,893	121	62	34	22,643	23,548	46,191
Totals..	46,611	29,429	741	545	190	99,058	113,986	213,044

From Table I. we see that the total population of Hackney on the night of March 29th, 1896, was 213,044 persons, consisting of 99,058 males and 113,986 females. Compared with the census of 1891, it shows a total increase for the five years of 14,438, of which 7,321 are males and 7,117 females. The annual increment for the quinquennium amounts to 2,887 persons. This is a large annual increase; and on comparison with the annual increase for the preceding decade, it shows a further growth of the population, the latter increase having been 2,592 persons.

A new feature of the 1896 census is the grouping of the population into Wards; and as this information is extremely valuable, I have inserted it in the form of Table II.

I regret I cannot compare the population of the various wards in 1896 with that at the census of 1891. Such a comparison would localize very accurately the parts of greatest and least increase of population during the quinquennium.

Less precisely, this may be done by comparing the populations of the various sub-districts at the censuses of 1891 and 1896. Such a comparison shows that the population of Stamford Hill sub-district increased 15 per cent. during the five years, West Hackney 2 per cent., Hackney 8 per cent., and South Hackney 6 per cent.

In my Report for the year 1895, I estimated the population of Hackney to be 215,620 by the Registrar General's method, which was based on the average annual rate of increase during the preceding intercensal period. The last census shows that this rate of increase was not maintained during the last quinquennium—the actual enumerated population falling more than 2,500 below last year's estimate. The lesson taught by these figures is, that in order to have fairly accurate and reliable estimates of population, it is necessary that at least a quinquennial census should be established. Even then, the calculations would only approximate to the actual figures, especially in estimates of population toward the end of the quinquennium.

Accepting then the enumerated population of Hackney to have been 213,044 on the 29th of March, 1896, and the annual rate of increase during the preceding five years to have been 2,887 persons, I estimate the population of Hackney to be 213,766 at the middle of 1896. The density calculated from the above total is equal to 64.7 persons per acre. Table III. gives these data worked out for each of the Registration sub-districts.

TABLE III.—*Showing estimated Population, Area, and Density of Registration Sub-Districts in Hackney at middle of 1896.*

	Stamford Hill.	West Hackney	Hackney	South Hackney	Totals for Hackney.
Estimated Population	20,601	43,507	105,102	44,557	213,766
Area in square acres.....	613	467	1,749	470	3,299
Density=persons per acre ..	33·6	93·1	60·0	94·80	64·7

*MARRIAGES.—The number of marriages solemnized in the Hackney district during the year 1896 was 1694. This is an increase of 150 upon the number for 1895. The marriage rate for the year is therefore 16·3 per 1,000 living persons.

BIRTHS.—The births registered in the district during the year 1896 numbered 6,422, of which 3,256 were males, and 3,166 females, being a total increase of 28 births on the number for 1895. The rate for the former year is therefore 30·0 per 1,000 living persons. This birth-rate is slightly lower than that for all London—the latter being 30·2 per 1,000. There has been an increase in all the sub-districts, but most marked in Stamford Hill—the rate here having been only 15·3 per 1,000 in 1895.

*ILLEGITIMACY.—By permission of the Registrar General, I have been supplied with the number of illegitimate births registered in Hackney during 1896. The total number was 275. These, as may be seen in the following table, were distributed very unequally in the four registration sub-districts, the lowest rate being 11 per 1,000 births in South Hackney; and the highest 68 per 1,000 births in

* 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 1896.

Hackney. To appreciate the latter rate, it is only necessary to point out that one out of every 15 infants born in this sub-district during 1896 was born out of wedlock.

The following table gives these facts worked out in detail for the four registration sub-districts of Hackney.

TABLE IV.—*Births.*

	Registration District of Hackney.	Registration Sub-Districts.				All London.
		Stamford Hill.	West Hackney.	Hackney.	South Hackney.	
Total No. of Births	6,422	427	1,235	3,297	1,463	135,796
Rate per 1000 living	30	20·7	28·3	31·3	32·8	30·2
No. of Illegitimate Births	275	6	26	227	16	
Rate per 1000 Births	41	14	21	68	11	

In explanation of the large number of illegitimate births registered in the sub-district of Hackney, it is only fair to state that 123 of these ought to be credited to districts outside of Hackney, as the births took place in the Rescue Homes of the Salvation Army, amongst persons brought from all parts of England; making this correction, the true rate for the sub-district becomes 31·5 per 1,000, and for the whole district 23·6 per 1,000 births.

DEATHS.—The deaths registered in Hackney during the year numbered 3,649, of which 1,839 were males, and 1810 females, but of these 423 were persons not belonging to the district, and accordingiy will not be included; but there were 271 deaths of Hackney people in institutions in other districts. Making these necessary corrections, the number of deaths correctly due to Hackney was 3,497. This gives an annual death-rate of 16·4 per 1,000 living persons for the whole district. As may be imagined, the death-rate varied in the different sub-districts. I have calculated the mortality rate for each of these, and I find they differ considerably. While Stamford Hill had a rate of only 10·1 per 1,000, Hackney reached the comparatively high rate of 18·6 per 1,000. These facts are set out in detail in the following table.

TABLE V.—*Showing number of Deaths in Hackney distributed in the various Registration Sub-Districts, with rates per 1,000 living persons for the year 1896.*

	Hackney.	South Hackney.	West Hackney.	Stamford Hill.	All Hackney.
Total Deaths registered in the four sub-districts	2,141	656	659	193	3,649
Deaths occurring in the sub-districts amongst persons not belonging thereto	326	15	82	—	423
Deaths occurring outside the sub-districts amongst persons belonging thereto	144	64	48	15	271
Corrected No. of Deaths	1,959	705	625	208	3497
Rates per 1,000 living.....	18·6	15·8	14·3	10·1	16·4

A further correction for age and sex distribution is still necessary to be made to the above general rate, if it is to be compared with the rates of other districts in London. Making this correction by means of the factor 1·04645, the corrected rate for the whole of Hackney for the year 1896 becomes 17·1 per 1,000. This rate is less than that for the previous year by 1·5 per 1,000. The difference is explained by the mildness of the early months of 1896, compared with the intense cold of the early months of the year 1895. Had there not been another water failure of the East London Water Company during last summer, I have no doubt the mortality rate for the year would have been much lower.

The annual death-rate for London for the year 1896 was 19·8 per 1,000 living persons.

INFANT MORTALITY.—The deaths of infants under one year during 1896 numbered 1,010, being an increase of 34 over those for the previous year. The death-rate is therefore equivalent to 157 per

1,000 births. This rate is only 2 per 1,000 less than in 1895, when in addition to an abnormally hot summer and water failure, there was an extremely cold winter, all of these circumstances helping to raise the infantile rate. It is noticeable that the largest number of deaths occurred during the third quarter, no less than 390 being then registered. Of this number, 143 were due to diarrhœa, and, as stated elsewhere, I am convinced the scarcity of water during that period increased the deaths from the cause quoted.

The following table gives the eleven chief causes of deaths under one year in the four quarters of 1896.

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

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Totals.
Measles.....	1	11	3	0	15
Scarlatina	4	0	2	0	6
Whooping Cough ..	27	25	6	3	61
Teething	4	7	6	2	19
Diarrhœa.....	3	18	143	7	171
Convulsions.....	25	26	21	21	93
Lung Diseases	31	35	16	55	137
Tubercular Diseases	16	13	20	2	57
Atrophy and Debility	26	22	54	28	101
Premature Birth ..	21	29	31	29	110
Accidents & Violence	6	7	8	6	27
Total.....	164	193	310	159	826
Other Causes	37	27	80	40	184
Total.....	201	220	390	199	1010

SPECIFIC CAUSES OF DEATH.

Class I.

Specific Febrile or Zymotic Diseases.—The deaths from these diseases numbered 847 during the year, being an increase of 141 over the number for the previous year. The chief increase was in scarlet fever, whooping cough, diphtheria, and in diarrhœa. The rate for the year for Hackney is 3·9 per 1,000, and for all London 3·14 per 1,000 living.

TABLE OF DEATHS

Of Inhabitants of the Hackney District between 1st Jan. and 31st Dec., 1896.

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.....	1	..	..	..	..	..	..	..	..	..	..	1	
Membranous Croup..	..	4	3	..	..	..	..	..	..	..	..	7	
Small-pox. Vaccinated..	..	..	..	..	..	..	..	..	..	..	..	..	
Small-pox. Unvaccinat'd	..	..	..	..	..	..	..	..	..	..	..	..	
Small-pox. Vaccn doubtfl	..	..	..	..	..	..	..	..	..	..	..	..	
Measles	15	59	8	..	..	..	..	1	..	..	..	83	
Scarlet Fever	6	65	23	4	..	..	..	..	..	..	..	98	
Typhus Fever	..	..	..	..	..	..	1	..	..	..	..	1	
Whooping Cough....	61	79	6	..	..	..	..	..	..	..	..	146	
Diphtheria	11	102	62	2	..	..	1	1	..	..	..	179	
Simple Fever	..	..	..	..	..	..	..	..	1	..	..	1	
Enteric Fever	..	..	6	19	10	4	3	..	2	..	..	44	
Other Miasmatic Diseases.....	..	..	..	..	..	..	..	..	..	..	..	..	
English Cholera	..	..	..	..	..	..	..	..	..	..	..	..	
Diarrhœa. Dysentery	171	25	..	..	..	..	4	5	4	2	1	212	
Ague, Remittent Fever	..	..	..	..	..	..	..	..	..	..	..	..	
Hydrophobia.....	..	..	..	..	..	..	..	..	..	..	..	..	
Syphilis, &c.....	24	..	..	1	..	..	..	1	..	..	..	26	
Erysipelas.....	6	..	1	..	1	1	1	2	1	1	..	14	
Pyæmia	1	..	..	1	..	1	6	1	2	..	..	12	
Puerperal Fever	..	..	..	..	1	..	..	..	..	..	..	1	
Thrush Vege Parasites	1	..	..	..	..	..	..	..	..	..	..	1	
Worms, Hydatids ..	..	..	..	..	..	..	..	..	..	..	..	..	
Want of Breast Milk	..	..	..	..	..	..	..	..	..	..	..	..	
Alcoholism	..	..	..	..	3	7	..	1	..	..	..	11	
Influenza	1	2	..	2	2	5	1	4	3	2	..	22	
	298	336	109	29	17	18	17	16	13	5	1	——	859
CONSTITUTIONAL DISEASES.													
Rheumatic Fever ..	..	..	2	1	1	..	..	..	..	..	..	4	
Rheumatism.....	..	2	3	2	..	2	1	3	1	1	..	15	
Gout	..	..	..	..	..	..	3	1	1	4	1	10	
Rickets	1	5	..	..	..	..	..	..	..	..	..	6	
Cancer	..	1	1	1	4	25	36	25	37	7	1	138	
Tabes Mesenterica ..	27	7	1	..	..	..	..	..	..	..	..	35	
Tubercular Meningitis	17	14	2	1	1	..	..	..	..	..	..	35	
Phthisis	3	6	6	39	72	82	54	26	5	1	..	294	
Scrofula, Tuberculosis	10	7	6	8	6	1	3	2	1	..	..	44	
Purpura Hæmorrhagica	..	..	..	..	..	..	..	..	..	..	..	..	
Anæmia, Leucocytha	..	1	1	1	..	..	..	1	1	..	..	5	
Diabetes.....	..	1	..	..	2	..	4	3	4	..	..	14	
Other Constitutional Diseases.....	..	..	..	..	..	..	..	..	..	..	..	..	
	58	44	22	53	86	110	101	61	50	13	2	——	600
DEVELOPMENTAL													
Premature Birth	110	..	..	..	..	..	..	..	..	..	..	110	
Malformations	18	1	..	..	..	..	..	..	..	..	..	19	
Old Age	..	..	..	..	..	..	..	1	28	100	51	180	
	128	1	..	..	..	..	..	1	28	100	51	——	309

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	22	7	3	3	6	9	12	14	4	1	106	
Apoplexy, Hemiplegia	..	..	..	1	5	11	19	24	36	32	3	131	
Insanity, General Paralysis	..	..	..	..	2	1	..	1	5	2	..	11	
Epilepsy.....	..	..	..	..	1	3	1	..	1	3	..	9	
Convulsions	93	14	1	..	..	1	1	..	1	1	..	112	
LaryngismusStridulus	4	..	..	..	..	..	..	..	..	..	..	4	
Diseases of Spinal cord	..	1	..	..	..	..	1	..	..	1	..	3	
Paraplegia.....	..	..	..	..	..	..	1	2	..	2	..	5	
Other Nervous diseases	3	1	1	..	2	2	5	5	7	2	..	28	
	125	38	9	4	13	24	37	44	64	47	4	——	409
DISEASES OF CIRCULATING ORGANS.													
Peri & Endo-Carditis	1	..	4	3	2	..	4	..	..	..	..	14	
Valvular Disease of Heart	2	4	15	17	7	20	21	38	31	17	4	176	
Other diseases of heart	..	..	2	..	1	2	6	11	13	4	..	39	
Aneurism	..	..	..	..	..	2	2	2	1	..	..	7	
	3	4	21	20	10	24	33	51	45	21	4	——	236
RESPIRATORY ORGANS.													
Laryngitis.....	1	5	1	..	..	1	1	..	..	..	..	9	
Croup.....	..	8	..	..	..	..	..	..	..	..	..	8	
Asthma	..	..	..	..	..	1	1	2	2	..	..	6	
Bronchitis.....	65	50	1	..	5	12	16	44	59	38	8	298	
Pneumonia	72	77	11	4	7	22	27	21	16	8	1	266	
Pleurisy	..	..	..	1	2	2	2	1	1	..	..	9	
Other Respiratory Dis	6	1	..	..	..	1	1	..	1	..	..	10	
	144	141	13	5	14	39	48	68	79	46	9	——	606
DISEASES DIGESTIVE SYSTEM.													
Dentition	19	15	..	..	..	..	..	..	..	..	..	34	
Quinsy, Sore Throat	1	2	..	..	..	..	..	..	..	..	..	3	
Disease of Stomach..	4	..	..	..	1	..	..	4	1	2	1	13	
,, Bowels ..	..	..	..	..	..	..	..	1	..	..	..	1	
Enteritis	52	2	..	3	..	1	3	1	6	2	..	70	
Obstruction of Intestines	2	..	..	2	..	..	..	2	1	1	1	9	
Peritonitis.....	..	3	6	10	4	5	1	3	2	1	..	35	
Spleen	..	..	..	..	1	..	..	..	..	..	..	1	
Jaundice, Liver Dis.	8	..	2	..	3	5	9	14	11	5	1	58	
	86	22	8	15	9	11	13	25	21	11	3	——	224

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	..	..	..	..	1	5	2	7	1	..	17	
Nephritis	1	..	3	1	2	2	5	6	5	1	..	26	
Bright's Disease	..	..	..	..	2	4	8	12	8	4	..	38	
Other Kidney Diseases	..	..	..	..	..	..	..	..	..	..	..	..	
Bladder and Prostate	..	..	..	..	..	..	1	..	4	2	..	7	
	2	..	3	1	4	7	19	20	24	8	..	——	88
DISEASES OF UTERUS&c													
Disease of Uterus....	..	..	..	..	1	1	..	..	..	..	..	2	
Abortion, Flooding	..	..	..	1	2	..	..	..	..	..	..	3	
Puerperal Convulsion	..	..	..	..	1	..	..	..	..	..	..	1	
Ovarian Dropsy	..	..	..	..	..	1	..	..	..	..	..	1	
	..	..	..	1	4	2	..	..	..	..	..	——	7
BONES AND JOINTS, &c.													
Caries, Necrosis	..	..	..	..	3	..	..	1	1	..	..	5	
Arthritis, Ostitis	..	..	..	1	..	..	..	..	1	..	..	2	
Carbuncle, Phlegmon	..	..	..	..	..	..	..	1	..	..	..	1	
Other Skin Diseases	1	..	..	..	..	1	..	..	1	..	..	3	
	1	..	..	1	3	1	..	2	3	..	..	——	11
VIOLENCE.													
Accidents & Violence	27	15	14	3	5	8	7	2	3	10	1	95	
Homicide	..	..	..	..	..	..	..	..	..	..	..	..	
Suicide	..	..	..	1	6	3	5	3	3	..	..	21	
	27	15	14	4	11	11	12	5	6	10	1	——	116
ILL-DEFINED CAUSES.													
Dropsy	1	..	..	..	..	..	..	3	..	..	1	5	
Debility and Atrophy	130	5	1	..	..	..	..	2	3	..	..	141	
Mortification.....	..	..	..	..	..	..	..	..	2	..	..	2	
Tumour	..	..	..	..	..	..	..	2	1	1	..	4	
Abscess	..	3	1	..	..	..	..	..	..	..	..	4	
Hæmorrhage.....	2	..	..	..	..	2	1	..	2	2	..	9	
Sudden Deaths (doubtful)	4	..	2	..	1	..	2	1	6	1	..	17	
Causes not Specified	1	..	..	..	..	1	..	..	..	..	..	2	
	138	8	4	..	1	3	3	8	14	4	1	——	184
Totals.....	1010	609	203	133	172	250	283	301	347	265	76	3649	

NOTIFIABLE DISEASES.

Small Pox.—Only eight cases of this disease were notified during the year, two of which on removal to hospital were stated not to be small-pox; and after being vaccinated were sent home. None of the six real cases were fatal. The following are the particulars of these cases as to vaccination, etc., as far as could be ascertained :—

Date Notified.

March 2nd.—N.Y., female, aged 20. Vaccinated in infancy, three marks. Source of disease, a visit to a friend who was suffering from small-pox.

April 8th.—E.W., female, aged 4. Not vaccinated. Source of disease, unknown.

April 14th.—E.B., female, aged 3½. State of vaccination, unknown. Source of disease, unknown.

May 18th.—P.F.B., male, aged 15 years. Vaccinated, four marks. Stated to have had small-pox four years previously. Source of disease, unknown.

August 6th.—W.W., male, aged 28, Vaccinated, but number of marks not known. Business, a rag sorter. Source of disease, supposed to have been infected rags.

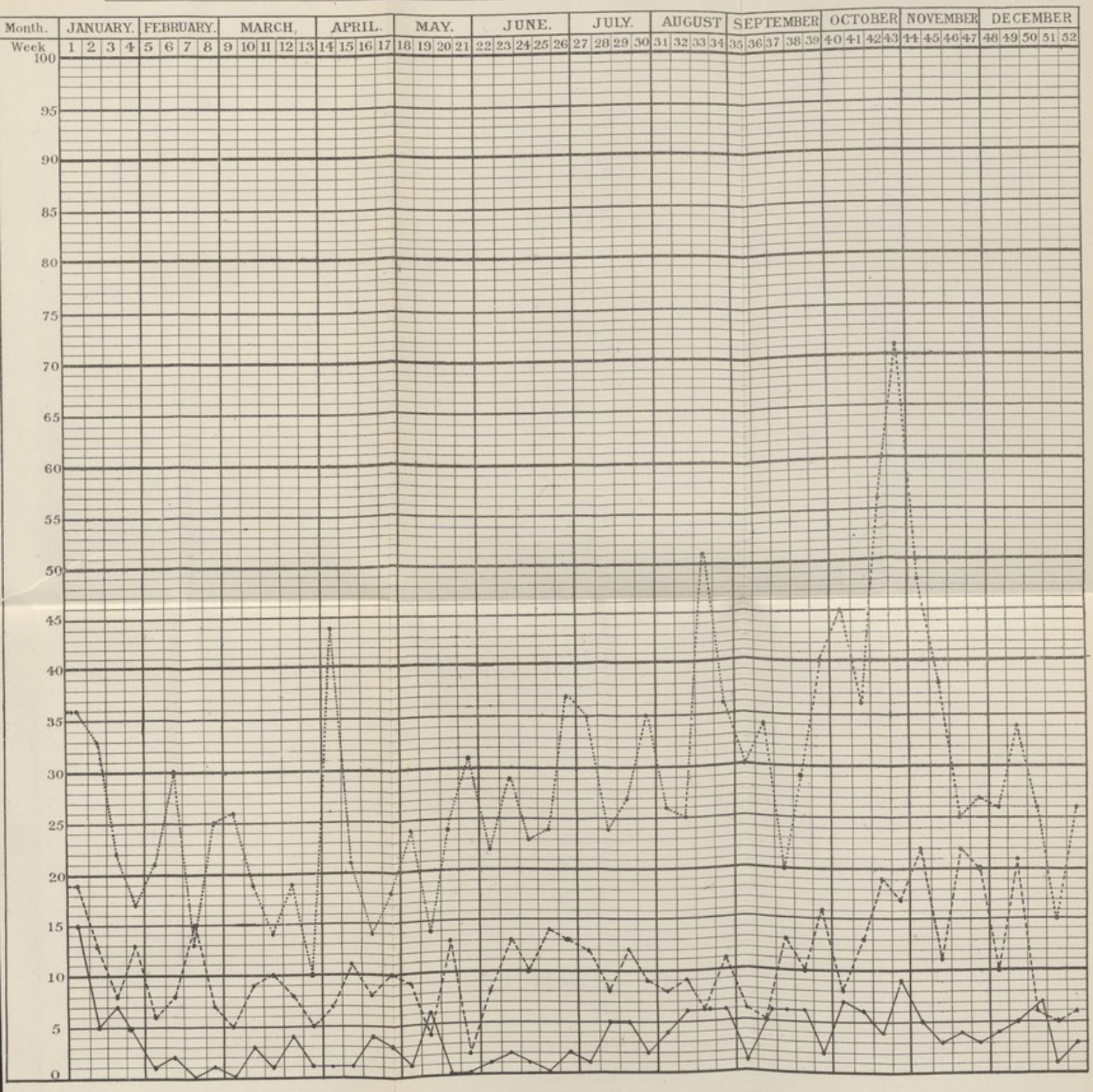
August 18th.—I.W., female, aged 23, wife of the last case. State of vaccination, not known. Source of disease, nursing her husband, who was suffering from small-pox, prior to his removal to hospital.

All of these cases except one was removed to hospital, and all the clothing and bedding exposed to infection were disinfected with high-pressure steam. The rooms occupied by the patients were fumigated with sulphur fumes, the walls and ceilings stripped of their paper and washed with carbolic lotion, the ceilings being afterwards whitened, and the floors well cleaned. In the exceptional case isolation was rigidly maintained, and on recovery, the room occupied by the patient was subject to the same mode of disinfection as the other cases.

Under these measures, although the disease was introduced two or three times during 1896, it did not obtain any hold upon the district.

Scarlatina.—The year 1896 was noted in Hackney for an excessive number of cases of this disease, no less than 1492 being notified. The deaths amongst these cases amounted to 61. The

CHART, Showing the rise and fall weekly in cases of Scarlet Fever, Diphtheria, and Typhoid Fever, reported during 1896.



Notes:- Scarlet Fever. .....
Diphtheria. - - - - - - - - - - -
Typhoid Fever. ———

attack-rate therefore for the whole district is nearly 7 per 1,000, and the death-rate ·28 per 1,000 living persons.

The course of this disease may be seen by reference to the accompanying chart. The notifications fluctuated greatly week by week, and it will be seen that scarlatina was present in considerable numbers the whole year; but this only illustrates what occurred nearly throughout the whole of the Metropolis. But the chart shows also that the disease was greatly in excess during the latter half of the year, the excess beginning, so far as Hackney is concerned, in the month of June. Early in July the resources of the Metropolitan Asylums Board were so strained, that the Clerk to the Board intimated to me that they were only able to admit cases into the hospital as the beds became vacant, as the whole of the beds for scarlet fever patients were occupied; at the same time furnishing me with forms which were to be used when applying for the removal of cases to the Hospitals. The form was to be used in order that the Board might select those cases whose circumstances indicated the most need of removal.

I here give the heading of this form.

Special Form of Application to be used in times of pressure.

To the Clerk, _____ *189*

Metropolitan Asylums Board.

Please remove to Hospital the undermentioned Patients:—

Name & Address of Patient.	Age.	Sex.	Disease.	Circumstances of Urgency.				
				Number of Persons in Family.	Number of rooms occupied by Family.	Number of Persons in House	Number of previous applications.	Other circumstances

Signature and description of applicant _____

Without imputing any blame to the Board for this want of accommodation, I am of opinion that the inability to remove all cases led to an increase in their number in this district. It may be said that I am reversing the actual facts, and that the failure of the Board was really due to the excess of cases. But the prevalence of scarlatina does so much depend upon the ability to isolate quickly the earlier cases, that a difficulty in accomplishing this must necessarily lead to an extension of the disease. That the increase did take place when the Board felt the pressure may be seen by a glance at the chart. In addition, I would put forward the following table of the number of applications made to the Board for the removal of each case, showing that there was considerable delay in the removal of a large number of patients.

No of Applications....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Cases removed after above number of applications	97	93	28	14	9	9	9	1	3	3	2	—	1	3	1

Further evidence in this direction is furnished by the fact that several secondary cases occurred in homes where there had been great delay in the removal of the primary cases.

Diphtheria and Membranous Croup. During the year there were 554 cases of Diphtheria, and 18 of Membranous Croup notified in the district. These give an attack rate of nearly 2·7 per 1000 for the year. The deaths numbered 143, making the death-rate ·67 per 1000 living persons. For the year 1895 the attack-rate was 2·2 and the mortality rate ·36 per 1000. So that in 1896 not only was the number of cases larger, but the mortality nearly double that of the previous year. This increase of the mortality depends no doubt on the type of the disease, which varies in different epidemics as that of other infectious fevers.

There is no doubt that for some years diphtheria has been increasing in London, and we in Hackney have shared in the general increase. As to the cause of the increase very little can be said with any degree of certainty. At one time the disease was almost confined to rural district, but of late years it has increased in towns

to an alarming extent. We are never long without a case of diphtheria, and almost every year sees an extension of the disease. Various suggestions have been made to account for this increase. Some see in it the result of exposure to drain or sewer emanations, and believe the disease can be generated *de novo* from foul effluvia.

While many cases of Diphtheria arise in houses where such sanitary defects exist, the connection of the two is not so close or frequent as to justify at present the statement that sewer or drain effluvia are the cause of the disease; but whatever future investigations may reveal in this direction, there is no doubt in my mind that one cause of the spread of Diphtheria is what is known as "school influence." I do not mean by this term, that the school as a building exercises any influence in this direction, but that it operates by affording facilities for the aggregation of persons at susceptible ages, who are by these means brought into close proximity to, and actual contact with one another; and as Diphtheria is a disease which spreads chiefly by personal infection, no surer mode of spreading the disease can be conceived, than the introduction of one or two cases of diphtheria amongst a group of children engaged in the routine of school attendance and work. Anyone who has had experience in personal investigation of cases of diphtheria, must have been struck with the number of instances in which the source has been traced to a fellow scholar in the same school, with whom there has been close contact, such as occurs in dancing, or the contiguity of adjacent scholars. I can easily conceive other means of spreading the disease in the use of slates and pencils, if they are interchanged.

From these considerations, I am convinced that school influence is real and powerful in the spread of Diphtheria. The experience of the past year in no way weakens this conviction; on the contrary, evidence has been furnished to strengthen it.

A study of the chart furnished with this report shows that Diphtheria was prevalent the whole year, although fluctuating irregularly; but in the third week of September a definite and well-sustained rise in the notifications took place. This rise was

maintained with occasional remissions until the second week in December, when a sudden decline set in, which continued to the end of the year—the total period of the special incidence being eight weeks. For the first few weeks of this period there was nothing pointing to any particular source for the rise; but as cases were enquired into, it became evident that a disproportionate number resided within a tolerably limited area; and that many attended a particular Board School in that district. At the period alluded to there was a special incidence of Diphtheria in that part of Hackney known as Clapton Park, and amongst the scholars of the Daubeney Road Board School. The average attendance at this school was 1,176, and most of the scholars lived in the neighbourhood, so that at first the occurrence of cases amongst its scholars did not excite suspicion; but as the cases multiplied, it became necessary to ascertain whether school influence was at work in the spread of the disease. I may say at this point that the Head Master and Mistress of the school most cordially assisted me in this enquiry. Having obtained a list of the absent scholars and the classes to which they belonged, it was immediately apparent that the majority of the cases had occurred amongst the infants attending the school.

For the purposes of calculation it was necessary to obtain the population of the particular area in question. Having obtained by means of a spot map the locality of the greatest incidence, I found it corresponded closely with the enumeration districts numbered 32, 33, 34, 35, 36, and 40, the boundaries of which are, on the North, Millfields Road; on the West, Chatsworth Road and Brooksby's Walk; on the South, High Street Homerton and Marsh Hill; and on the East, the Hackney Marsh.

In this special area are situated two large Board Schools, Daubeney Road and Glyn Road Schools, and on the boundaries two others, Rushmore Road and Sidney Road Schools. There were a few smaller schools in the area, but none of their scholars were affected during the period under discussion.

The population of this area at the census of March, 1896, was found to be 16,754; that for the remainder of Hackney, 196,299.

For the purpose of reference I shall name the former specially infected area the "Daubeney Road area," and the latter the "remainder of Hackney."

The total number of cases of Diphtheria, which occured in the district of Hackney during the 8 weeks I am considering, was 141, of which 65 were in the Daubeney Road area, and 76 in the remainder of Hackney. The attack rate for the former is therefore 3·8 per 1,000, and for the latter ·38 per 1,000 living persons. These rates show that there was a special incidence of Diphtheria in the former area. On further analysis of the figures I found that of the 65 cases in the Daubeney Road area, 48 attended schools, 17 did not; of the 78 in the remainder of Hackney, 43 attended schools, 33 did not. Calculated out as percentages for the respective areas, the former figures give 74 per cent. attending schools, the latter 57 per cent. These figures point to an excess of school-attending cases in the Daubeney Road area over those in the remainder of Hackney: but a more accurate estimate of this proportion may be obtained, by calculating the number of school-attending cases in each area, as a rate per 1,000 of children at school ages. The ages I take are from 3 to 15. The number of such, calculated from the census of 1891, in the Daubeney Road area is 4,342, the number in the remainder of Hackney 50,878, and the respective attack rates per 1,000 children at school ages are 11·05 and ·84. These rates show that school-attending cases were 13 times more numerous in the former area than in the latter;. and more than raise a suspicion that some scholastic institution was concerned in the increase of Diphtheria.

On analysing the 48 school-attending cases in the Daubeney Road area, I find they were distributed in the four Board Schools mentioned above in the following proportions:—

		Cases.		Average Attendance.
Daubeney Road Board School	...	36	...	1,176
Glyn Road ,,	...	6	...	1,226
Rushmore Road ,,	...	5	...	1,324
Sidney Road ,,	...	1	...	1,376
Total	...	48		

In the remainder of Hackney 43 school-attending cases were thus distributed :—

20	schools with	1	case attending each school	20	cases
5	,,	2	,, ,,	...10	,,
1	,,	3	,, ,,	... 3	,,
2	,,	5	,, ,,	...10	,,
			Total ...	43	

It is evident in the former group, that Daubeney Road School stands out conspicuously, in having an excessive number of Diphtheria scholars, and the subject requires further examination to determine the cause of such an incidence amongst the scholars of one school, over the remaining schools. Confining oneself to these cases, they were notified in the following order during the prevalence.

During the week ending			Oct. 22nd	1 case.
,,	,,	,,	Oct. 29th	3 cases.
,,	,,	,,	Nov. 5th	8 cases.
,,	,,	,,	Nov. 12th	4 cases.
,,	,,	,,	Nov. 19th	11 cases.
,,	,,	,,	Nov. 26th	4 cases.
,,	,,	,,	Dec. 3rd	1 case.
,,	,,	,,	Dec. 10th	4 cases.
				36

From this we see that during the period considered there were a total of 36 cases—23 primary and 12 secondary—amongst the scholars of the Daubeney Road Board School. The greatest interest centres around the 23 primary cases, but with respect to the secondary cases the probability is that most of these were infected by primary cases in the same house ; but this does not exclude the possibility of some of them being School infected. Confining oneself to the primary cases, each of these represents one household. In any enquiry as to the influence of schools, the date of the last day of attendance at school is of the greatest importance, as the period of incubation is fairly well known. This period is generally acknowledged to be from two to seven days, so that any case which has been absent from school longer than seven days before the initial symptoms begin, can scarcely be said to be due to infection at school. Regarding the 23 primary cases, I have ascertained that most of them showed the first symptoms either on the day of the last atten-

dance at school, or the day after; and in only one case did a longer period than seven days elapse between the last attendance at School and the beginning of the disease. On making enquiry at the School, I found the cases were not evenly distributed in the three departments of Boys, Girls, and Infants, but were distributed as follows: In the Boys' School there were only two cases, both secondary; in the Girls' School, six cases, four of which were primary; in the Infants' Schools, 27 cases, of which 19 were primary. The following table will make this explanation clearer.

Cases of Diphtheria occurring amongst the Scholars of Daubeney Road Board School during the Eight Weeks ending 10th December, 1896, distributed in the different departments and classes, and divided into primary and secondary cases:— I. INFANTS' DEPARTMENT.

19 Primary and 8 Secondary cases.

Average attendance, 360. Percentage attacked, 7·5.

CLASS.	1	2	3	4	5	6	7	8
Primary Cases ...	2	7	3	...	3	2	...	2
Secondary Cases	2	1	1	1	1	...		2

II. GIRLS' DEPARTMENT.

4 Primary and 2 Secondary cases.

Average attendance, 396.

Percentage attacked, 1·5.

CLASS.	1	2	3	4	5	6	7	8
Primary Cases ...	1	3		...	...	...	...	...
Secondary Cases	...	...	1	...	1	...	...	...

III. BOYS' DEPARTMENT.

2 Secondary cases.

Average attendance, 420.

Percentage attacked, ·47.

Class.	1	2	3	4	5	6	7	8
Primary Cases...	...	...	...	...	...	...	...	...
Secondary Cases	...	1	1	...	...	...	...	...

We see from this that the disease fell with great severity upon the Infant School—the average attendance of which was 360 scholars —27 out of a total of 35 occurring in this department, and no less than eight in one class, seven of these being primary cases. Earlier in the report, I mentioned that the 23 primary cases represented the same number of households; so before finally deciding, whether these cases could be attributed to school infection, it is necessary to consider other influences to which they might be attributed. An inspection of the premises and a testing of the house drains were made in each case, and in only three cases were any defects of the drains found. In one house there was a defect in the yard gulley, in two others there was a defect in the w.c. of each house. This evidence excludes sanitary defects as a cause of the epidemic. The milk supplied to these households was derived from several dealers, and in some cases condensed milk only was used in the household. Clearly, milk could not have been instrumental in spreading the disease. So far as I could ascertain, there had not been any disease of a Diphtheritic nature amongst cats or other animals in this district. I had a similar inspection made of the Daubeney Road Board School and its drains tested. No defect was found in the drainage arrangements of the school; but the closets, which are stone latrines, were found very foul. Of course this was not sufficent to account for the exceptional school incidence of Diphtheria. I am consequently bound to fall back upon personal infection at school, as the cause of the majority of the cases amongst the scholars at the Daubeney Road Board School. On looking through the list, there appears to be an almost unbroken series of cases at this school, from the beginning to the end of the period treated of. Of course, it is not possible to connect each case with a preceding one, neither is

it at all necessary. It is agreed upon by all competent authorities that during Diphtheria prevalence, there often exists a large number of mild and unrecognised cases of Throat Disease, which are highly infectious and competent to spread the disease amongst the healthy. It is not unknown for those, who dispute the importance of school influence in the spread of Diphtheria, to deny the existence of such mild cases as those alluded to, but the matter has been established beyond all power of denial.

To illustrate what I mean by unrecognised cases, I would refer to an attack of Diphtheria which occurred in a workshop in Hackney amongst a number of girls. Two or three of the girls were away suffering from Diphtheria; and in order to ascertain the full extent of the disease, I suggested to the Manager of the establishment, that the throats of the remaining girls in the workshop should be medically examined. This was done, and it was then ascertained that 19 others were suffering either from inflamed or ulcerated throats, Such unrecognised cases may, I have no doubt, be found in every outbreak of Diphtheria, and I am convinced were active in the Daubeney Road prevalence.

Again, whilst making enquires at the school as to the cause of this outbreak, I learned that several scholars where absent. On enquiry at the homes of these children, it was ascertained that several were suffering from sore throat, and ulcerated throat; one or two of these were afterwards notified as Diphtheria.

Having carefully considered the whole of the circumstances connected with the outbreak amongst the scholars at Daubeney Road Board Schools, I am of opinion that the disease was spread chiefly by personal infection at School, especially in the infants' department, the infection being conveyed largely by means of unrecognised cases; for no doubt the Head Master and Mistress excluded any cases immediately they were recognized as Diphtheria. How the disease was introduced it is impossible to say; probably by an ill-defined case, or by some secondary case from an infected household.

Whilst considering what measures might be adopted to prevent a recurrence of such an outbreak, the fact must not be lost sight of,

that children suffering from mild Diphtheria, or Diphtheria in the initial stage, may be attending school, and the Head Master or teachers be unaware that they are suffering from any disease; also that a considerable time may elapse before the local authority's suspicion may be raised that school infection is at work, owing to the lack of information as to the class attended by each case.

In order to meet these points, I suggest:—

1. That during periods of Diphtheria prevalence, the children attending the public elementary schools should be periodically examined by a medical man, in order to ascertain whether any of the scholars are suffering from throat disease of any kind.

2. That children suffering from throat disease of any kind should be immediately excluded from school.

3. That on the exclusion of any child from school on account of throat disease, notice of such exclusion, with the class and department attended by the child, should be immediately sent to the Medical Officer of Health for the district.

If these recommendations were adopted by the London School Board, there would, I believe, be a considerable reduction in the amount of Diphtheria amongst the scholars under their control.

Enteric Fever.—This disease was less prevalent than during the preceding year; for while 256 cases were notified during 1895, only 189 were brought to my knowledge during 1896, with 36 deaths from this cause. The attack rate for the whole is ·92 per 1,000, and the mortality ·18 per 1,000 persons. The question of the agencies which are concerned in the spread of enteric fever is of the greatest importance. For years this disease has been gradually diminishing in urban districts, and it has been claimed that this diminution is due to the improvement in the sanitary condition of towns compared with rural districts. And knowing that this disease spreads only by means of the excreta of typhoid patients, one can readily understand how improvement in sanitation will affect its prevalence. But it is notorious that the desire for improved sanitation is not shared equally by rural authorities, nor by those responsible for the health of certain towns on the coast. For some years I have had cases brought to my notice in Hackney where the disease had undoubtedly been

contracted out of London during the summer holidays, mostly during visits to places on the coast. During 1896 no less than eight such cases were brought to light. While such is possible, Hackney will have its autumnal crop of enteric fever cases. During the year, interest has been revived in the possible spread of this disease by means of oysters and other edible shell-fish, and a very important report on this subject has been issued by the Medical Officer of the Local Government Board. This report, which is the result of an enquiry as to the conditions under which oysters and other molluscs are cultivated on the coasts, and their temporary storage in pits and ponds and other places prior to their dispatch to market, shows that in many places the oysters, and storage pits have been placed in such close proximity to sewer outfalls, that their pollution with excrementatious matter is almost certain; but other beds and pits were found to be quite free from danger of pollution, and many others in positions where the degree of danger of pollution from sewage varied considerably between the above extremes. Places mentioned in the report where layings of oysters were exposed to the risk of pollution are—Southend; Cleethorpes, at the mouth of the Humber; bed situated in the Medina, in the Isle of Wight; layings in the Penryn River, Cornwall, and those in Brightlingsea Creek, in Essex; layings off Southwick, near Shoreham. Beds in the Menai Straits come also under suspicion. The storage places mentioned in the report as being exposed to pollution by sewage were found at Southend; at the mouth of the Blackwater; at Wivenhoe; the fish dock at Grimsby; storage pits at Poole; Warsash, near Southampton; Emsworth, near Havant; also at Bosham and Southwick. Dr. Bulstrode, in the appendix to the report, states:—"At certain places along our coasts no care whatever has been exercised in the selection of localities for fattening beds and for storage ponds in order to ensure that oysters should be reasonably free from risk of sewage pollution."

Where such a common article of diet as oysters is subject to specific pollution, it is not surprising that cases of typhoid fever should still be numerous. Several epidemics of this disease have been traced with reasonable amount of certainty to specifically

polluted oysters in different parts of this and other countries; so that oysters may be regarded as a means for the conveyance of this disease. The interest of all this, so far as Hackney is concerned, lies in the fact that oyster-eaters are as numerous in this district as in many others; and there is reasonable ground for suspicion that some of the cases of the past year have been due to this cause. I have notes that several of those who had suffered from typhoid fever had eaten freely of this molluse at a period on or about the time when the disease must have been contracted. Two of the cases which I mentioned above as having been introduced into Hackney were certainly infected during a holiday at Southend, one of the places mentioned by Dr. Bulstrode, where the oysters were exposed to pollution. I must add, however, that I am unable to prove these persons had eaten specifically polluted oysters.

The remedy for the above danger to the public health is to prohibit the culture of edible molluses where there is any danger of pollution by sewage. This is, obviously, a matter for the Government. But apart from this, it is generally admitted, that oysters which have been polluted by sewage, may be cleansed and rendered fit for consumption by being stored a sufficient time in water free from pollution. This period is eight days according to Dr. Chantemesse, of the French Académie de Médicine of Paris; but Dr. Klein's investigations indicate that a period of two or three weeks is necessary.

Typhus.—One death is reported to have taken place from this disease, but it is doubtful if it was true typhus.

Continued Fever.—Cases of ill-defined and doubtful fevers are generally notified under this name. Seven such cases were reported in Hackney during the year, amongst which were two deaths. The ordinary precautions against the spread of infectious disease are always adopted in these cases.

Puerperal Fever.—Six cases occurred in the district during the year, three of which were fatal.

Cholera.—No case of this disease was notified during 1896.

Erysipelas.—The number of notifications from this disease was 280, and the deaths 14, giving an attack-rate of 1.3, and a death-rate of .06 per 1,000 living persons.

Table showing the number of cases in Hackney of Notifiable Diseases distributed in each month of the year 1896.

Month.	Smallpox.	Scarlet Fever.	Diphtheria	Typhus.	Enteric Fever.	Continued Fever.	Erysipelas.	Puerperal Fever.	Cholera.	Membranous Croup.	Totals.
January	..	105	48	.	31	3	18	..	..	2	207
February	..	90	40	..	5	..	23	1	..	1	161
March	3	87	36	..	8	1	20	..	..	..	155
April	2	95	36	..	10	..	15	..	..	1	159
May	1	96	29	..	7	..	25	..	..	2	160
June	..	111	51	..	5	..	24	..	..	2	193
July	..	140	47	..	14	..	25	..	..	..	226
August	2	150	3[illegible]	..	27	..	19	..	..	..	235
September	..	123	43	..	24	..	33	1	..	3	227
October	..	231	64	..	26	1	24	1	..	2	349
November	..	112	80	..	16	1	29	2	..	4	274
December	..	122	44	..	25	1	25	1	..	1	219
	8	1492	554	..	198	7	280	6	..	18	2563

Table A.

TABLE OF DEATHS *during the year 1896 in the Hackney Sanitary District, classified according to Diseases, Ages, and Localities.*

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities. (*Columns for Population and Births are in Table B.*)	Mortality from all causes, at subjoined ages.							Age under 5 or over 5.	1	2	3
	At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.		Smallpox.	Scarlatina.	Diphtheria.
(*a*)	(*b*)	(*c*)	(*d*)	(*e*)	(*f*)	(*g*)	(*h*)	(*i*)			
Hackney	1364	501	213	58	29	326	237	Under 5	..	..	17
								5 upwds.	..	2	18
Infirmary	393	33	35	8	10	155	152	Under 5	..	..	..
								5 upwds.	..	..	..
Fever Hospital	237	10	129	65	16	17	0	Under 5	..	66	71
								5 upwds.	..	23	41
German Hospital	116	2	12	6	15	69	12	Under 5	..	..	1
								5 upwds.	..	..	..
City of London Workhouse	19	1	..	..	..	1	17	Under 5	..	..	..
								5 upwds.	..	..	..
Workhouse	12	..	..	..	..	4	8	Under 5	..	..	..
								5 upwds.	..	..	..
Stamford Hill	193	47	31	10	8	63	34	Under 5	..	1	2
								5 upwds.	..	1	1
South Hackney	652	244	99	28	21	164	96	Under 5	..	2	8
								5 upwds.	..	..	2
French Hospital	4	1	..	..	..	..	3	Under 5	..	..	..
								5 upwds.	..	..	..
West Hackney	556	158	67	20	23	165	123	Under 5	..	1	11
								5 upwds.	..	2	5
Metropolitan Hospital	103	13	23	8	11	42	6	Under 5	..	..	2
								5 upwds.	..	..	..
Totals..	3649	1010	609	203	133	1006	688	Under 5..	..	70	112
								5 upwards	..	28	67
The subjoined numbers have also to be taken into account in judging of the above records of mortality.											
Deaths occurring outside the district among persons belonging thereto	283	19	54	34	25	119	32	Under 5	..	14	23
								5 upwds.	..	7	18
Deaths occurring within the district among persons not belonging thereto	396	29	111	65	30	119	42	Under 5	..	39	49
								5 upwds.	..	19	30

Mortality from subjoined causes, distinguishing Deaths of Children under Five Years of Age.

4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Membranous Croup.	Fevers. Typhus.	Enteric or Typhoid.	Continued	Relapsing	Puerperal	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhœa and Dysentery.	Rheumatic Fever.	Ague.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Injuries.	All Other Diseases.	Total.
1	..	..	..	..	..	..	3	34	66	99	..	..	6	121	3	10	354	714
1	1	12	..	..	..	..	3	6	2	3	1	..	91	92	81	20	311	650
..	..	..	..	..	..	..	..	4	3	7	..	..	..	21	..	4	29	68
..	..	..	..	..	..	..	3	..	..	..	..	..	48	53	23	16	182	325
..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	139
..	..	22	..	..	..	..	..	1	1	..	..	..	..	5	1	..	4	98
..	..	..	..	..	..	..	..	..	..	2	..	..	1	5	..	2	3	14
..	..	..	..	..	..	..	..	..	..	..	..	..	28	4	13	11	46	102
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	..	..	10	18
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	1	..	..	..	3	..	..	8	12
..	..	..	..	..	..	..	..	8	8	3	..	..	1	14	1	3	37	78
1	..	3	..	..	..	..	1	..	1	..	1	..	14	16	11	3	62	115
3	..	..	..	..	..	..	1	15	42	47	..	..	1	50	2	12	160	343
..	..	4	1	..	..	..	1	1	1	3	2	..	50	55	38	9	142	309
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3
..	..	..	..	..	..	..	1	13	19	31	..	..	1	40	..	8	100	225
1	..	3	..	..	1	..	1	1	2	4	..	..	50	69	51	9	132	331
..	..	..	..	..	..	..	..	..	..	6	..	..	..	13	1	3	11	36
..	..	..	..	..	..	..	..	..	..	..	..	..	3	4	11	6	43	67
4	..		..	..	..	..	5	74	139	195	..	..	10	264	7	42	697	1619
3	1	44	1	..	1	..	9	9	7	17	4	..	284	309	229	74	943	2030
..	..	1	..	..	..	..	..		..	4	..	..	1	6	1	3	20	73
..	..	8	..	..	1	..	..	..	..	1	..	..	23	15	24	13	105	210
..	..	..	..	..	..	..	..	..	2	10	..	..	2	14	..	7	17	140
..	..	14	..	..	..	..	..	1	1	..	..	..	26	17	20	18	110	256

Table B.

TABLE of POPULATION, BIRTHS, and of NEW CASES of INFECTIOUS SICKNESS, *coming to the knowledge of the Medical Officer of Health, during the year 1896, in the Hackney Sanitary District; classified according to* DISEASES, AGES *and* LOCALITIES.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SICKNESS IN EACH KNOWLEDGE OF THE						
					1	2	3	4	5	6	7
										FEVERS.	
	Census 1896.	Estimated to middle of 1896.			Smallpox.	Scarlatina	Diphtheria	Membranous Croup.	Typhus	Enteric or Typhoid	Continued
(a)	(b)	(c)	(d)	(e)							
Stamford Hill	20,465	20,601	427	Under 5	..	18	19	..	..	1	..
				5 upwds.	1	74	32	1	..	11	1
West Hackney	43,464	43,507	1,235	Under 5	1	78	44	..	..	1	..
				5 upwds.	3	225	69	1	..	39	..
Metropolitan Hospital				Under 5	..	..	..	..	..	..	..
				5 upwds.	..	2	..	..	..	1	..
Hackney (H)	104691	105101	3,297	Under 5	1	206	81	7	..	5	..
				5 upwds.	1	588	214	5	..	90	3
Workhouse				Under 5	..	3	..	..	..	..	..
				5 upwds.	..	4	..	..	..	..	..
Infirmary				Under 5	..	1	..	..	..	..	..
				5 upwds.	..	1	..	..	..	..	..
M.A.B. Eastern Hospital				Under 5	..	4	2	..	..	..	..
				5 upwds.	..	17	6	..	..	3	..
Upton House Industrial School				Under 5	..	..	..	..	..	..	..
				5 upwds.	..	4	..	..	..	..	..
South Hackney	44,424	44,557	1,463	Under 5	..	88	32	3	..	3	..
				5 upwds.	1	179	55	1	..	44	3
Well Street Workhouse				Under 5	..	..	..	..	..	..	..
				5 upwds.	..	..	..	..	..	..	..
TOTALS	213044	213766	6,422	Under 5	2	398	178	10	..	10	..
				5 upwds.	6	1094	376	8	..	188	7

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.												
8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11	12	13
										FEVERS.								
Relapsing	Puerperal	Cholera	Erysipelas			Smallpox	Scarlatina	Diphtheria	Membranous Croup.	Typhus	Enteric or Typhoid	Continued	Relapsing	Puerperal	Cholera	Erysipelas		
..	..	..	1			..	7	7	..	..	..	..	..	..	..	..		
..	1	..	14			1	33	8	..	..	3	..	..	..	..	1		
..	..	..	2			1	25	19	..	..	..	..	..	..	..	..		
..	1	..	36			3	117	25	..	..	11	..	..	..	..	3		
..	..	..	..			..	..	..	..	..	..	..	..	..	..	..		
..	..	..	..			..	2	..	..	..	..	..	..	..	..	..		
..	..	..	13			..	87	36	4	..	2	..	..	..	..	1		
..	3	..	128			..	276	56	1	..	37	1	..	..	..	12		
..	..	..	..			..	3	..	..	..	..	..	..	..	..	..		
..	..	..	9			..	4	..	..	..	..	..	..	..	..	9		
..	..	..	..			..	1	..	..	..	..	..	..	..	..	..		
..	..	..	3			..	1	..	..	..	..	..	..	..	..	..		
..	..	..	..			..	..	..	..	..	..	..	..	..	..	..		
..	..	..	..			..	..	..	..	..	..	..	..	..	..	..		
..	..	..	..			..	..	..	..	..	..	..	..	..	..	..		
..	..	..	..			..	4	..	..	..	..	..	..	..	..	..		
..	..	..	3			..	34	9	..	..	1	..	..	..	..	2		
..	1	..	66			..	75	16	..	..	20	1	..	..	..	8		
..	..	..	..			..	..	..	..	..	..	..	..	..	..	..		
..	..	..	5			..	..	..	..	..	..	..	..	..	..	..		
..	..	..	19			1	157	71	4	..	3	..	..	..	..	3		
..	6	..	261			4	512	105	1	..	71	2	..	..	..	33		

NON-NOTIFIABLE DISEASE.

Influenza.—A great decline in the number of deaths from this disease took place during 1896 compared with the previous year, the number in 1895 being 124, but only 22 last year. The death-rate is therefore ·09 per 1,000 living persons.

Table VII.

Deaths from Influenza in each month during the years 1891—1896.

Year.	Jan.	Feb.	Mar.	April.	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

Diarrhœa.—The deaths from this disease during 1896 exceeded those recorded in 1895, excessive as that number was, no less than 212 occurring last year. This is an excess of 21 over the preceding year, and gives a rate of ·9 per thousand living. The table below shows the deaths distributed in the four quarters of the year. No less than 171 of these deaths were amongst children under one year. I again attribute the abnormal proportion of death from diarrhœa to the high temperature and the want of water during the third quarter of the year.

Table VIII.

Deaths from Diarrhœa—	1892.	1893.	1894.	1895.	1896.
First Quarter ...	8	5	5	8	5
Second Quarter ...	12	29	6	11	20
Third Quarter ...	88	102	57	153	173
Fourth Quarter ...	5	9	7	19	14

Whooping Cough.—The district suffered greatly during the year from this disease, the deaths numbering 146. This is equivalent to a death-rate of ·68 per 1,000. The rate for London for the same period is ·65 per 1,000.

Measles.—The deaths in 1896 from this disease numbered 83, against 108 in 1895. The death-rate from this cause is therefore ·38 per 1000 living. From these figures it may be seen that Measles is more destructive to life than either of the other zymotic diseases, except diarrhœa and whooping cough. From recent reports, where notification of this disease has been tried, it has been ascertained that while relatively the incidence of attack is greatest during the third years, the motality is highest in the second year of life, so that if any means could be devised for delaying the attack to the third or fourth year of life, a corresponding decline in the mortality would be brought about. In recent years, from time to time, it has been suggested, in order that local authorities may obtain some control over this disease, that it should be made notifiable. This proposal has not been generally accepted. Many objections have been urged against it, of which the following are the chief:

1. Even if notification were adopted, many cases would not come to the knowledge of the Sanitary Authority, owing to the fact that this disease is by most people considered a trivial and necessary disease of childhood, and consequently no medical attendant is called in.

2. Measles being highly infective two or three days before the characteristic rash appears, which usually settles the diagnosis; consequently much mischief may be done in conveying the disease to other children before its real character is known.

3. The impossibility in many cases of providing isolation at the homes of the patient; and the enormous cost of providing hospital accommodation for such cases during epidemic periods.

4. The large expenditure in notification fees, and the cost of a largely increased sanitary staff, if full advantage of notification is to be taken to control the disease.

The first objection is no doubt valid; but the same applies to some extent to scarlatina. I am frequently having my attention drawn to convalescing cases of this disease which have never been under medical treatment, the acute symptoms having been brief and mild. The same may be said of cases of diphtheria. I have no doubt that many of the mild cases are not placed under medical treatment and accordingly are not notified. But the notification of these two diseases is, I believe, operating favourably in the diminution of their prevalence.

The second is a strong objection, but it is not insuperable. The disease is still infectious for several days after the rash appears; therefore, because mischief may be done before the real nature of the disease is known, this surely is not an irresistible argument against adopting measures which might prevent further mischief after the disease is known.

The difficulty of providing isolation in the homes of patients is one that we often experience during unusual epidemics of scarlatina and diphtheria, nevertheless, where isolation is possible, the enforcement of it diminishes to an equivalent degree the spread of the disease. Hospital accommodation would have to be enormous, certainly, if every case required it, but I do not think such a large amount of accommodation would be needed. The question of expense is obviously dependent upon the value set upon human life. If a low estimate is held, the cost will be a bar to any effort being made to save some of the lives which annually are lost owing to this disease; if the estimate is a high one, the cost of increased sanitary staff and hospital accommodation will occupy a subordinate position.

It appears from a report by the late Dr. Theodore Thomson to the Local Government Board on the measures which might be adopted by local authorities to control measles, that in order to obtain the fullest control over the disease, he considered: 1. That Measles should be compulsorily notifiable upon both medical attendant and householder; and in order to make up for the incom-

pleteness of such knowledge, that the following auxiliary measures may be adopted by Sanitary Authorities :—

(*a*) Careful enquiry as to the source of attack of each case reported, combined with search for other cases that may possibly exist in the invaded neighbourhood, and

(*b*) Effort to procure systematic notification by the householder.

(*c*) Arrangements should be made by the Sanitary Authority, with School Authorities, public and private, to be supplied with information of known or suspected cases of Measles coming to their knowledge. Arrangements should also be made by the Local Sanitary Authority, with Poor Law Medical Officers, Relieving Officers, Guardians, District Visitors, and Clergy to supply the same information ; and with the Registrar of Deaths for immediate information as to deaths from this disease.

2. A sufficiency of the Sanitary Staff to visit inspected and suspected households, and to trace the sources of infection and to apply measures to prevent the spread of the disease, such as isolation, disinfection, &c.

3. The removal to hospital of such cases as cannot be isolated at home.

4. Exclusion from school of members of households invaded by Measles.

5. In certain circumstances school closure.

Other measures, as :

(*a*) Precaution against dissemination of Measles by means of books sent from public libraries.

(*b*) Prohibition of persons residing in households invaded by Measles from attendance at work in some instances.

(*c*) Instruction of the public as to the nature of Measles and its effect on infantile mortality.

These are generally speaking the measures adopted in most districts to prevent the spread of the notifiable diseases, and the more thoroughly they are followed the more success will attend their operation.

During the year one of the schools under the control of the London School Board was closed owing to an outbreak of Measles amongst the scholars attending it. My attention was called to the circumstance immediately prior to the closure of the school. I made some inquiries which resulted in the following particulars:— As far as I could ascertain the first cases appeared in the Infants' School about the 18th of May. After a few days—about a week—the disease appears to have spread rapidly, so that on the 14th of June, when the department was closed, no less than 65 infants were absent owing to this cause. The disease seems to have been introduced into the Boys' and Girls' School later, about the first week in June. Here it also spread rapidly, so that by the 17th of June, when this department was closed, 46 scholars were absent owing to the disease. Not all of the absentees were suffering from Measles—some being excluded owing to other members of their family being ill with the disease.

The Boys' and Girls' School was re-opened on the 22nd of June. In this school the effect of closure was not very marked, for I find 55 scholars still absent on the 30th of June. The Infants' School was closed for a longer period—re-opening not taking place until July 5th. Here closure seems to have been more effectual, for I learned on enquiry that only two scholars were absent on the 15th of July.

This subject of School Closure requires much more thorough study than appears hitherto to have been given to it, if the greatest amount of benefit in the prevention of disease, with the least amount of interference with school studies, is to be obtained.

Class II.

Constitutional Diseases.—The deaths in this class amounted to 600, giving a mortality rate of 2·8 per 1,000. The most fatal diseases in this class were phthisis with 294 deaths, and cancer with 138 deaths.

Class III.

Developmental.—The deaths in this class numbered 309, being equivalent to a death rate of 1·4 per 1,000.

Class IV.

Local Diseases.—The diseases in this class furnished 1,581 deaths during the year. The death rate therefore becomes 7·3 per 1,000.

Class V.

Violence.—Violence was responsible for 116 deaths during the year, giving a death rate of ·5 per 1,000.

Class VI.

Ill-Defined Causes.—The deaths in this class were 184, corresponding to a mortality rate of ·8 per 1,000 living.

PUBLIC HEALTH (LONDON) ACT, 1891.

The nuisances abated under the provisions of this Act amounted to 4,247. A large majority of them were removed on an intimation only, over 4,000 of these notices being served; others required statutory notices to be served before the necessary work was done, the number of these for the year being 399; and legal proceedings had to be resorted to in 111 cases to enforce the order of the Sanitary Committee. Convictions were obtained in 75 cases. In 27 others the summonses were withdrawn, as the works required were either completed or the nuisance abated at the time of the hearing of the summons, and nine summonses were dismissed for various reasons.

It will be remembered that in 1895 a summons against the owner of a house in Southgate Road for not providing proper and sufficient w.c. accommodation on the premises was dismissed by a magistrate of the North London Police Court. The Sanitary Committee appealed against this decision, and I give below the reported proceedings and result in the High Court.

VESTRY OF ST. JOHN'S, HACKNEY *v.* HUTTON.

High Court of Justice (Queen's Bench Division).—November 3rd.

PUBLIC HEALTH (London) ACT, 1891 (54 & 55 Vict., c. 76) Sec. 37.—Water Closet Accommodation—Notice by Sanitary Authority as to insufficiency —Non-compliance—Jurisdiction of Magistrate.

BEVEN FOR THE APPELLANTS.—The Magistrate had no jurisdiction to decide whether the accommodation was necessary or not. That was for the Sanitary Authority to decide subject to the right of appeal to the County Council. All that the Magistrate had to decide was whether the requisite notice had been duly served, and whether it had been complied with or not, and if not, then what should be the amount of the fine. (He was stopped.)

CARRINGTON FOR THE RESPONDENT.—This Act differs from the Public Health Act, 1875, in relation to these matters. Under section 36 of the Act of 1875, if the notice is not complied with, the Sanitary Authority can only proceed to do the work themselves, and recover the expenses from the owner. Therefore, under that Act, the duties of Justices are ministerial only, and they are bound by the decision of the Sanitary Authority as to the necessity for the work. But, under the London Act there is an alternative course open to the Sanitary Authority if the notice is disobeyed. They may proceed for a fine. In that case the disobeying the notice is to be regarded as an offence, and the Magistrate may decide upon the whole matter whether the works are necessary or not. Here he thought that the proceedings were of a vexatious character from the first, and therefore dismissed the summons.

GRANTHAM, J.—I am of opinion that the learned Magistrate was bound to convict the Respondent in the present case. It may be open to question whether the Legislature were wise in making the Sanitary Authority sole judges of the sufficiency of the accommodation provided; but they have made them so, and therefore the Magistrate in this case ought to have convicted the Respondent. If an owner is dissatisfied with the decision of the Sanitary Authority, his only remedy is by appeal to the County Council, whose decision will be final.

WRIGHT, J.—I agree, but I wish to add that, in my opinion, the magistrate is not bound to proceed at once to a conviction in all cases immediately the necessary proof has been given. He may adjourn the case in order to give time for an appeal to the County Council. He has to decide, of course, whether the notice has been properly served; whether the person upon whom it has been served is the owner or occupier of the house; whether the time allowed for

compliance with the requirements of the notice was reasonable; and whether those requirements have been complied with or not. Then, as to the extent of the punishment, he has all the ordinary powers of a Court of Summary Jurisdiction. Beyond that he has no further jurisdiction, consequently this case must be remitted with an expression of our opinion to that effect.

This expression of the Judges' opinion was conveyed to the Magistrate, who convicted the defendant, inflicting at the same time a nominal fine and costs.

The number of notifications of infectious of disease during the year was 2563. Inspection of the dwellings where the disease existed was made in each instance. Nuisances were found in a large number of the houses. The rooms occupied by the infectious patients were disinfected, the walls, &c. being cleansed in 727 cases by the Vestry's workmen. In 5 instances accommodation was provided under Sec. 60, (4) for persons who were compelled to leave their rooms during disinfection.

Articles seized as unfit for Human Food.—During 1896, one ton, fourteen hundred-weight and three quarters of fish, fruit, vegetables, and meat were seized by the Inspectors and brought before a Magistrate, who condemned them as unfit for human food, and ordered their destruction. The department is rather embarassed by the fact that there is no machinery for the destruction of these articles in the parish. Hitherto, the Surveyor to the Whitechapel Board of Works has allowed them to be destroyed in their dust destructor. Destruction by fire is the only sanitary mode of disposal of bad food, and I would strongly advise the erection of a crematory furnace for this purpose in the parish.

Cowsheds and Slaughter-houses.—The whole of the Cowsheds in the district were visited and inspected by the new Committee during the year, and were found in a satisfactory condition. One licence which had been opposed by the Sanitary Committee, the previous year, was refused by the London County Council, the licensing authority. The Slaughter-houses, 37 in number, were also inspected and were found in a good sanitary state

BAKEHOUSES.—The number of these visited by the Inspectors during the year was 78.

SMOKE NUISANCES.—The number of complaints received during the year was 14. Observations, lasting from 15 to 20 minutes, were made in 43 instances. Notices alone were sufficient to secure the abatement of the above nuisances.

FACTORY AND WORKSHOPS' ACTS, 1878-1895.

The number of workshops registered and inspected during 1896 shows a great increase upon the number for 1895. The number registered was 103. Notices of workshops requiring inspection were received from the Factory Inspector in 114 instances, and those inspected on local complaint or on account of infectious disease were 120; making the total inspections 234. These figures are given in the following table, with particulars as to result of inspections:—

No. of workshops registered during the year 1896	.. .. ..	103
" " inspected on notice by Factory Inspector	.. ..	114
" " " by instruction of Medical Officer of Health		120
Result of inspections (*a*) Workshops overcrowded	.. .. ..	19
(*b*) Improper W.C. accommodation	.. ..	10
(*c*) No separate W.C. accommodation for the sexes	.. ..	7
(*d*) Other nuisances	.. ..	192

The figures, especially the last, show the need for increasing attention to be given to the inspection of this class of premises.

HOUSING OF THE WORKING CLASSES ACT, 1890.

During the year I made the following representation as to certain houses in Hackney Wick. Ultimately the houses were put into habitable condition, and the summonses which had been issued against the owner by order of the Sanitary Committee were withdrawn.

To the Hackney Vestry being the Sanitary Authority for the District of Hackney.

GENTLEMEN,

I beg to report to you, in pursuance of section 32 of the Housing of the Working Classes Act, 1890, that on the 25th day of February instant I inspected the dwelling houses situate at and known as 5 and 6, Luther Street, 8 and 9, Bower Road, 16, Wallis Road, Hackney Wick, within your district, and of which W. G. is the owner.

I found such dwelling houses to be in the state hereinafter set forth, which, in my opinion, is so dangerous or injurious to health, that the said houses are unfit for human habitation.

Address.	State of Dwelling Houses.
5 & 6, Suther Street	Walls of ground floor damp, and without proper damp course, no through ventilation beneath the ground floor, soil beneath ground floor damp and composed of made soil, w.c. defective, no proper water supply to same, no dust bin, the roof defective. the walls, floors and ceilings dilapidated, no paving to yard, and the house generally filthy.
8, Bower Road.	Walls of ground floor damp, and without proper damp course, no through ventilation beneath the ground floor, soil beneath ground floor damp and composed of made soil, w.c. defective, no proper water supply to same, no dust bin, the roof defective, the walls, floors and ceilings dilapidated, no paving to yard, and the house generally filthy, also choked drains.
9, Bower Road.	Walls of ground floor damp, and without proper damp course, no through ventilation beneath the ground floor, soil beneath ground floor damp, and composed of made soil, no water closet, no dust bin, the roof defective, the walls, floors and ceilings dilapidated, no paving to yard, and the house generally filthy.
16, Wallis Road.	Walls of ground floor damp, and without proper damp course, no through ventilation beneath the ground floor, soil beneath ground floor damp, and composed of made soil, w.c. defective, the roof defective, the walls, floors, and ceilings dilapidated, no paving to yard, and the house generally filthy.

I have the honour to be, Gentlemen,

Your obedient servant,

(*Signed*) J. KING WARRY, M.D., &c.

Medical Officer of Health for Hackney.

CANAL BOATS ACTS, 1877—1884.

The inspector appointed for the inspection of Canal Boats, reports that 160 boats were inspected and re-inspected during the year. This is an improvement upon the work for 1895, the number inspected for that year being 82. The inspections revealed 19 infringements of the Acts : in 5 cases the Certificate

of Registration did not identify the owner of the vessel; in 4 others dilapidations were discovered; in 3 the barges required cleansing; 9 others required to be marked by the number and place of registration; 2 were not registered; and in 7 there were no Certificates of registration on board. Legal proceedings were instituted in two instances, one barge was not registered; the owner was fined 20/- and 3/- costs: the other barge was not provided with the proper certificate on board; the owner was fined 10/- and 10/- costs.

CUSTOMS AND INLAND REVENUE ACT (1890)

One application only was made to me to inspect tenements under this Act; on inspection I found them in a good sanitary condition and provided with sufficient accommodation for the inmates. The usual certificate was furnished to the owner.

BYELAWS AS TO HOUSES LET IN LODGINGS.

In my annual report for 1895, I gave the text of the byelaws adopted by the local authority as to houses let in lodgings. During 1896 the initiatory steps have been taken to put these into operation. I considered it most expedient to bring these byelaws into operation gradually, as they are more or less of an experiment in this district, I accordingly with the consent of the Sanitary Committee caused notices to be served on a certain number of landlords, to furnish the information required by the byelaws, prior to their registration.

During the year, 477 such notices were thus issued, of which 380 were returned with more or less of the required information, leaving 97 unreturned. Of the 380 it was necessary to make further enquiries in 153 instances.

I anticipate that at least 500 of such houses shall be fully registered and under periodical inspection during the present year.

HACKNEY WICK.

In a report to the Vestry presented in November, 1895, on the health conditions of Hackney Wick, I recommended amongst other things that the sites of houses built over "made" and damp soils in that locality should be covered by a good layer of concrete, to keep the damp and vitiated ground air from the dwelling.

During 1896 this has been kept in mind, and no less than 250 sites of dwellings have been thus concreted, and 300 houses have had fresh damp courses inserted in their walls. No doubt when these houses were built, some kind of damp course was provided, but how ineffectual it was is proved by the damp walls in this locality. From what I have observed more recently, I am afraid houses are still being built with damp courses of ineffectual materials. Many builders choose the cheapest material for the damp course; this is either a thin layer of pitch or felt. In my opinion these materials are unfit for damp courses, as their effect is short-lived. Materials less substantial or less lasting than the masonry itself should not be used for the purpose stated above. Too great care cannot be given to this matter, for upon it depends in a great degree the health of its future inmates. Dampness of the walls of a house, it is well known, has a prejudicial effect upon health.

The view that ground air should be kept out of dwellings is a sound one; and is proved by an incident which occurred during the year in Hackney Wick. On the morning of the 17th of December, 1896, two females were found unconscious in their beds at a house in Bartripp Street, the house smelling strongly of coal gas. They were removed to Hospital and ultimately recovered. These persons slept in the front room of the ground floor; others sleeping upstairs, I am informed, suffered also from nausea and vomiting. On the previous evening a slight smell of coal gas was perceived in the house, but could not be accounted for, as gas was not laid on to the premises. On investigation it was ascertained that a fracture had occurred in the gas main in the road about 15 feet from the front of the house. The surface of the road being well macadamized, the gas was prevented from escaping through the surface, but was able to pass through the deeper and softer soil into the house. The soil on which the house was built being loose and "made up," offered less resistance than the road outside to the passage of the gas. In addition, the heat of the house had an aspirating effect, assisting the escape of the gas from the soil. This incident is an example of the danger of not covering the sites of dwellings with some imper-

meable material. In the report above alluded to, I commented upon the unsatisfactory state of the sewers and drains in this locality as to their fall. This matter has been taken up since by the General Purposes Committee and the London County Council, the result being, that on the 7th of May, 1896, the Clerk to the latter body informed the Hackney Vestry that "for the purpose of relieving the sewers in the neighbourhood of Hackney Wick, the Council has decided to construct a new sewer there, and the necessary preliminary investigations are at present being carried out with that object."

When this work is accomplished, an improvement ought to be apparent in the health of this district.

On the 8th of February a sub-committee of the Sanitary Committee visited Hackney Wick to view some of the property there. Subsequently, I made a representation in regard to certain houses under the Housing of the Working Classes Act, 1890, in order, if possible, to obtain closing orders; but upon hearing the summonses, the magistrate adjourned them to enable the owners to put the houses into habitable condition. This was done, and the summonses were ultimately withdrawn.

THE RIVER LEA.

Frequent analysis of samples of this river water made during the year by the Public Analyst indicate its continued, if not increasing, pollution. Indeed, it is difficult to imagine how the quality of the water could improve with an increasing population along its course, and a continuance of its main pollutions. Frequent and loud complaints were made of the foul condition of its shallow branches in Hackney during last year. The summer being extremely hot and dry, the water became extremely offensive, due chiefly to the sewer effluents of Walthamstow and Leyton, which are poured into this part of the river. While this continues, the condition of the water will remain highly polluted, and complaints will be repeated during the summer months.

Analyses of River Lee Water, made during the year 1896, 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	Nitrate and Nitrites	REMARKS.
18th Dec., 1895	White House, Temple Mills,	39·2	1·4	0·147	0·232	1·7	Strong traces	The sample had a slight earthly smell was free from Sulphurated Hydrogen and when viewed in a white basin was yellow in tint. The above figures indicate considerable pollution.
Feb. 10th, 1896.	River Moselle	55·7	1·12	0·308	0·473	5·0	Strong traces	The sample was free from smell, and when viewed in a white basin, was faintly yellow in tint.
April 9th, 1896.	Bathing Lake, nr. White House, Temple Mills,	35·4	0·084	0·168	0·342	1·9	Strong traces	This is a badly polluted water and quite unfit to be used for Bathing purposes.
April 30th, 1896.	Apron Overflow, Tottenham Sewage Works.	29·5	·266	·168	·187	1·9	Traces	The sample was yellow in tint, and possessed an unpleasant odour; it is highly charged with organic matter, and should not be allowed to discharge into the River Lee.
May 1st, 1896.	Back Water at rear of White Hart, P.H. Temple Mills.	61·0	·56	·238	·389	13·9	Slight traces	This water was distinctly yellow in tint and possessed a decided sewage odour. It bears strong evidence of recent sewage contamination.
June 5th, 1896.	Bathing Pool, Hackney Marsh.	44·2	0·550	0·112	0·478	1.8	Strong traces	The sample was turbid and contained a large quantity of suspended matter; it possessed a slight musty smell. A badly polluted water and unfit to be used for bathing purposes.
Dec. 8th, 1896.	next White House, Temple Mills.	37·7	·046	·031	·206	1·6	Strong traces	The sample was turbid, faintly yellow in tint, and possessed a distinct odour of decomposing vegetable matter.
Dec. 8th, 1896.	near White Hart, Temple Mills.	42·8	·123	·043	·315	1.9	Abundant	The sample was turbid, faintly yellow in colour, and possessed a very unpleasant odour.

The London County Council has gone to great expense to make the Hackney Marsh a worthy open space for the East End resident. The period when such places are resorted to mostly is during the summer months. This is the time when the river is the greatest nuisance. Both appearance and smell of the water remind one of an open sewer. This can scarcely fail to repel visitors to the Marsh. I have no hesitation in saying that it is distinctly dangerous to the health of those who may be exposed to its effluvia.

For many years it has been the custom for young people to bathe in different parts of the shallow loops of the river during the summer months.

On the 4th of March, 1896, a letter was received from Mr Sexby, the chief officer to the Parks Department of the London County Council, stating amongst other things that the Council had enlarged a part of the river Lea and constructed two dams at this point, forming a pool, the river water being excluded and the pool being filled by percolating subsoil water only. The letter then goes on: "As bathing will shortly commence, I write to inform you what the Council propose to do at this place. It is suggested to make a convenient bridge across the island to the bathing pool, and to erect a rough and inexpensive shelter where bathers can undress &c."

"I understand, however, you raised some point as to the water supply and as to the propriety of bathing at all in Lea water. I think it right therefore to acquaint you with the fact that the Council do not propose to lay on a pure water supply, but that the pool has been enlarged on the assumption that the bathing which has been allowed for so many years would still be permitted. Of course the conditions would be considerably improved, not merely as regards provision against danger from drowning, but also as regards the purity of the water. The only times when Lea water will be admitted are in flood time, and, if necessary, occasionally at high tides should it become desirable to introduce fresh water into the pool, but as a rule the percolation of subsoil water will be sufficient to keep the pool well supplied, and in comparatively pure condition."

"I submit these facts to you before advising the Council to proceed with the construction of the proposed shelter, as I wish it to be made quite clear that your Vestry would not offer on sanitary grounds any objection to the continuance of the bathing. Should it think proper to do so, I probably should advise the Council to remove the dams and to take no steps whatever with regard to bathing in the river, leaving matters as they are now."

This letter was duly considered by the Sanitary Committee, who made a visit to the proposed site of the bathing pool, and finally instructed me to communicate with the Parks Committee in the terms of the following letter.

Town Hall, Hackney, N.E.

13th May, 1896.

HACKNEY MARSH.

DEAR SIR,—I beg to acknowledge the receipt of your letter of 22nd ultimo upon the subject of the bathing place in the River Lee adjoining the Council's land, which was laid before the Sanitary Committee at their meeting held on Thursday last, and in reply, I am requested to inform you that the Committee have inspected the bathing pool and had a sample of the water analysed, and from the analysis, copy of which is enclosed, it appears that the water is highly polluted; and having fully considered these facts together with the statement in your first communication that "the only times when Lee water will be admitted are in flood times, and if necessary occasionally at high tides," they are of opinion it would be dangerous for bathing to take place in such water and are not prepared to give their approval to the scheme.

Provided however that if your Committee were to devise some method of keeping the Lee water out of the pool, except such as has been purified by sub-soil percolation or lay on a pure supply, the Sanitary Committee would withdraw all opposition to the use of the pool for bathing purposes.

I am, Dear Sir,

Yours faithfully,

J. KING WARRY, M.D.

Medical Officer of Health.

The Chief Officer,

Parks Department,

London County Council,

Spring Gardens, S.W.

Since communicating the above, the proposal to give an officia sanction and encouragement to bathing in the river Lea in its present state has been abandoned by the Council. The wisdom of this course is obvious. There is no doubt that parts of the river have been used during the summer by young persons for bathing, but no sanction or approval of such a practice has ever been given by the local authority.

With the river in its highly polluted state such an act is attended with danger. Organisms of disease are no doubt plentiful in the water, and bathing cannot take place without some of the water being swallowed by the bathers.

As to the statement that the "conditions would be materially improved as regards the purity of the water," I have no hesitation in saying it is open to very great doubt, unless some means are devised of renewing the water of the pool other than by subsoil filtration, the water would soon become filthy and stagnant. The device of renewing it at flood times and occasionally at high tides is more objectionable still. The water brought down at flood times is turbid, contains a large proportion of organic and inorganic suspended matter—it contains the service pollutions of the adjacent lands. The water at high tides is more highly polluted still, being forced back by the rising tide from the lower parts of the river.

It seems extraordinary that anyone should entertain the idea that water of less purity than that used for domestic purposes is good enough for bathing in. The chief object, I imagine, of bathing is that of cleanliness, the secondary object is the acquiring and use of a healthy exercise; with dirty water, the former would not be realised, and the exercise would become a dangerous and unhealthy one.

There is no doubt the idea of the bathing pool is a good one; and if it could be supplied with pure water, would be a great boon to many young people in the East End.

On this question of the pollution of the River Lee, the following Memorial was presented in June, 1896, to the Chairman and Members of the Main Drainage Committee of the London County Council.

MEMORIAL OF THE SANITARY COMMITTEE OF THE HACKNEY VESTRY.

Adopted by the Vestry 13th May, 1896.

SHEWETH—That the serious attention of the Sanitary Committee of the Hackney Vestry has been directed to the pollution of the River Lee between the town of Hertford and the Lee Cut; and the said river forms the Eastern and Northern boundary of the Hackney Marsh Recreation Ground.

That towns further up the river, above the intake of the water supply to the Water Companies, discharge the sewage of their respective districts into the River Lee, and that a large quantity of sewage effluent is conveyed to the river through the ditches and watercourses.

That the attention of Parliament was in 1886 called to the grave condition of the said river, and a Select Committee was appointed to enquire into and report thereon, and on 25th February of that year it reported as follows:—

"Your Committee have examined the numerous witnesses upon the "matters referred to them, but have not, owing to the dissolution "of Parliament, sufficient time to fully consider their Report. "They have, therefore, agreed to report the evidence they have taken "to the House, and recommend that a Committee be appointed on "the assembling of the next Parliament, to consider their report on "the evidence already taken, and, if desirable, to take further "evidence."

"Your Committee desire to add that a Bill is now passing through "Parliament by which the diversion from the River Lee of the "effluent from the Tottenham Sewage Works will be effected; but "this measure is merely temporary, and will not fully deal with the "difficulties of the case. Without desiring to prejudge the fuller "consideration of the question of the purification of the River Lee "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 Lee, and which, if "followed, might be expected to remedy the more flagrant evils "complained of, at the earliest practicable date.

"Further, it appears from a Return handed in by the Engineer of the "Lee Conservancy Board, at the request of your Committee, that "that Board have passed through their locks a much smaller "quantity of water than they are entitled to take in priority to "to either of the two Water Companies, viz.:—the New River "Company and the East London Company, whose supplies are "largely derived from the Lee. There is therefore, should the state "of the River require it, a large quantity of water available for use "by the Lee Conservancy Board, and your Committee hope that the "Board will duly exercise their rights during the dry season of the "coming Summer."

That under the provisions of the Lee Purification Act, 1886, the effluent water, etc., from Tottenham Sewage was admitted into the Sewers for a limited period, and that upon Memorial this period was extended by the late Metropolitan Board of Works.

That subsequently in contemplation of a comprehensive scheme for dealing with the Sewage of the districts situate in the valley of the Lee, the discharge of the Tottenham Sewage effluent into the Metropolitan Sewers was made, and allowed as a temporary measure.

That no such steps have yet been taken to carry out such scheme, and it is absolutely necessary for the health and sanitary condition of this district that action should be at once taken for dealing with this most serious matter.

That the back water of the river is very much polluted by the effluents from the Walthamstow and Leyton Sewage farms, and are two of the chief causes of the bad condition of the river Lee, between Lea Bridge, Clapton, and the Lee Cut Hackney Marsh, and flows along the banks of the said Marsh, on the north and eastern side thereof.

That offensive effluvia from the back water is perceptible at times to persons in the immediate neighbourhood of the river, and that such a condition is dangerous to the health of such persons and especially to bathers in this part of the river, and the frequenters of the Marshes for recreation purposes.

That the bad condition of the river Lee has been brought to the notice of the London County Council from time to time as shewn by the reports of the Public Analyst for the Parish of Hackney, upon analysis of the water of the river.

That some remedy for this state of things might be found in the diversion of the said effluents from the river into some system of sewers, preferably the Metropolitan Main Drainage system, failing which that some methods should be adopted by the interested districts, to obtain pure effluents before passing them into the River Lee.

That the pollution of the River Lee is far more intense than it was when the Royal Commission of Inquiry was held in the year 1886, and is a growing evil.

That nothing has been done to remedy it, and the banks of the river and the land abutting thereon at the most polluted part of the said river has recently been secured at a large cost and converted by the London County Council into an extensive recreation ground.

Your Memorialists therefore pray your Honorable Committee in the exercise of their powers to recommend the London County Council to take immediate steps to secure the re-appointment of the said Parliamentary Committee of Inquiry.

Signed on behalf of the

SANITARY COMMITTEE OF THE HACKNEY VESTRY,

(Signed) HENRY HULLAND,
Chairman.

VACCINATION AND SMALL-POX.

The table annexed is a summary of the returns of the vaccination officers so far as they relate to Hackney for the years 1894-95. It will be seen from this that out of a total of 6,095 births in the year 1894, after deducting all of those vaccinated, deaths, removals, and those postponed by medical certificate, there remained 3,263 unvaccinated—more than 53 % of the births. The year 1895 yields 6209 births, and an unvaccinated balance of 3706—more than 59 % of the births.

In my report for the year 1894 I pointed out the danger of this increasing neglect of vaccination. There are evidences of a recrudescence of small-pox in London at the present time, and I have no hesitation in saying that should the disease find a firm footing in Hackney, with so many susceptible and unprotected persons in the district, the results would probably be disastrous.

During the year the report of the Royal Commission, appointed seven years before to investigate and report on the value of vaccination as a preventive against small-pox, was issued. As this subject is one which has caused a great amount of feeling and discussion, I will not comment on the report, but, for the benefit of the members of the Vestry, give as far as possible in the words of the report the conclusions of the Commissioners.

Return respecting the Vaccination of children whose births were registered in the Hackney Union during the years 1894 and 1895.

REGISTRATION SUB. DISTRICTS.		No of births Registered from 1st January to 31 December.	Number of these births daily entered by 31st January, '96 and '97, in cols. 10, 11, 13 of the Vaccination Register (Birth List Sheets) viz:—			No of these births which on 31st January, '96 and '97, remained unentered in the Vaccination Register on account (as shown by Report Book) of			No. of these births remaining on 31st January, '96 and '97 respectively, neither duly entered in the Vaccination Register (cols. 3, 4 and 6 of this return), nor temporarily accounted for in the Report Book column 8, 9 and 10 of this return.
			Col. 10. Successfully Vaccinated	Col. 11 Insusceptible of Vaccination	Col. 13. "Dead." Unvaccinated.	Postponement by Medical Certificate.	Removal to Districts, the Vaccination Officer of which has been apprized.	Remova to places unknown, or which cannot be reached, and cases not having been found.	
1		2	3	4	6		9	10	11
Hackney	1894	3129	891	6	185	—	3	168	1876
	1895	3210	632	6	231	—	1	179	2161
South Hackney	1894	1386	332	7	105	—	—	95	847
	1895	1410	264	2	147	—	—	97	900
West Hackney	1894	1184	557	8	96	33	2	70	418
	1895	1223	481	4	174	7	1	86	497
Stamford Hill	1894	396	217	—	22	9	—	21	122
	1895	364	158	2	28	9	—	19	148
Totals	1894	6095	1997	21	408	42	5	354	3263
	1895	6207	1535	14	553	16	2	381	3706

SUMMARY OF THE REPORT OF THE ROYAL COMMISSIONERS ON VACCINATION.

This Commission was appointed in the month of May, 1889 to enquire and report as to—

(1) The effect of Vaccination in reducing the prevalence of, and mortality from, Small-pox.

(2) What means, other than Vaccination, can be used for diminishing the prevalence of Small-pox; and how far such means could be relied on in place of Vaccination.

(3) The objections made to Vaccination on the ground of injurious effects alleged to result therefrom; and the nature and exten- of any injurious effects which do, in fact, so result.

(4) Whether any, and, if so, what means should be adopted for preventing or lessening the ill effects, if any, resulting from Vaccination; and whether, and, if so, by what means, Vaccination with animal vaccine should be further faciliated as a part of public Vaccination.

(5) Whether any alterations should be made in the arrangements and proceedings for securing the performance of Vaccination, and, in particular, in the provisions of the Vaccination Acts with respect to prosecutions for non-compliance with the Law.

The Commissioners, in introducing their report, state :—

(3) "Our inquiry has been a prolonged one. We would gladly have concluded our labours at an earlier date; but we thought it desirable to give full scope to the evidence of those who were opposed to Vaccination as well as those who favoured the practice, in order that, whatever the value of the opinions we expressed, they should at least be the fruit of an exhaustive inquiry. Moreover, a thorough and systematic investigation of certain local epidemics necessarily involved much expenditure of time, and it would not have been possible for us to arrive at a satisfactory conclusion as to the risk attending Vaccination unless our examination of cases of alleged injury had extended over a considerable period."

After fully considering all the evidence at their disposal, the Commissioners conclude with respect to (1)

"We think

(377) 1. That it (vaccination) diminishes the liability to be attacked by the disease.

2. That it modifies the character of the disease, and renders it *(a)* less fatal, and *(b)* of a milder or less severe type.

3. That the protection it affords against attacks of the disease is greatest during the years immediately succeeding the operation of Vaccination. It is impossible to fix with precision the length of this period of highest protection. Though not in all cases the same, if a period is to be fixed, it might, we think, fairly be said to cover in general a period of nine or ten years.

4. That after the lapse of the period of highest protective potency, the efficacy of Vaccination to protest against attack rapidly diminishes, but that it is still considerable in the next quinquennium, and possibly never altogether ceases.

5. That its power to modify the character of the disease is also the greatest in the period in which its power to protect from attack is greatest; but that its power thus to modify the disease does not diminish as rapidly as its protective influence against attacks, and its efficacy during the later periods of life to modify against the disease is still very considerable.

6. That re-Vaccination restores the protection which lapse of time has diminished, but the evidence shows that this protection again diminishes, and that, to ensure the highest degree of protection which Vaccination can give, the operation should be at intervals repeated.

7. That the beneficial effects of Vaccination are most experienced by those in whose case it has been most thorough. We think it may fairly be concluded that where the vaccine matter is inserted in three or four places, it is more effectual than when introduced into one or two places only—and that if the Vaccination marks are of an area of half a square inch, they indicate a better state of protection than if their area be at all considerably below this."

Under head (3) the Commissioners report:—

(434) "A careful examination of the facts which have been brought under our notice has enabled us to arrive at the conclusion that, although some of the dangers said to attend Vaccination are undoubtedly real and not inconsiderable in gross amount, yet when considered in relation to the extent of Vaccination work done they are insignificant. There is reason further to believe that they are diminishing under the better precautions of the present day, and with the addition of the further precautions which experience suggests will do so still more in the future."

Under head (4) the Commissioners report :—

(437) "We put the use of calf-lymph in the fore-front because, as we have said, this would afford an absolute security against the communication of syphilis. Though we believe the risk of such communication to be extremely small where humanized lymph is employed, we cannot but recognise the fact that however slight the risk, the idea of encountering even such a risk is naturally regarded by a parent with abhorence. We think, therefore, that parents should not be required to submit their children to Vaccination by means of any but calf-lymph, but this should not preclude the use of humanized lymph in case they so desire."

(438) "We have already noticed that whilst in Scotland the age within which Vaccination is obligatory is six months from the date of birth, in England and Wales, and in Ireland it is three months from that date. There is obviously no good reason for this want of uniformity. We have come to the conclusion that it would be well, at all events, to extend the age period in England and Wales, and in Ireland, to six months from the date of birth."

(440) "If security could be obtained that whenever a case of small-pox occurred in a sanitary district, children within the range of the present compulsory law should be vaccinated, we think the protection against small-pox would not be substantially less than it is at present. Without some such provision as this, we should not be prepared to recommend an extension of the age beyond the period allowed in Scotland. With such a provision, we think that the age might be advantageously extended to one year from the date of birth, and that the number of cases in which death was, whether correctly or not, attributed to vaccination, would then much diminish. A provision of this kind would, however, no doubt, involve some practical difficulties."

(442) "A study of the reports in our possession relating to cases in which erysipelas or septic disease has followed vaccination teaches no lessons more forcibly than these, that any abrasion of the vaccination vesicles by clothing of a nature likely to irritate them should be avoided, and that foreign subtances should not be rubbed into the wounds under circumstances calculated to set up inflammation. It is most important, too, that any rags or other materials applied to the place of vaccinaton should be scrupulously clean. The want of care in these respects on the part of the parent or person in charge of the child has frequently been a source of mischief. If more care were exercised, much good would result. Parents and others in charge of children are frequently unaware of the importance of these matters, and of the evil which may follow from a disregard of them. We think it

would be well that a warning on the subject should be addressed to such persons. It has been the practice of some public vaccinators to take this course. It is desirable that the practice should be universal, and that the Local Government Board should settle a suitable form containing clear and simple rules for guidance in the care of the vaccinated arm, and for the avoidance of any likely source of injury or irritation of that part. If this were done, untoward incidents might, we think, be largely diminished."

(443) . . . . "If children were vaccinated and inspected, as a rule, at their own homes, instead of being brought to a public station, we believe the risk of injury would be sensibly lessened."

(445) "There can be no doubt that vaccination ought to be postponed when erysipelas, scarlet fever, measles, or chicken-pox are prevalent in the neighbourhood of the child's residence, or, if the child is not to be vaccinated at home, either there or near the place of vaccination. Here again there would be a gain if the home were more often the place of vaccination."

(446) "It would, in our opinion be an advantage if the postponement of vaccination were expressly permitted, not only on account of the state of the child, but of its surroundings, and any other conditions rendering the operation at the time undesirable." . . . .

"If provision could be made in cases in which insanitary conditions would cause risk to a child, if it remained at home whilst the vaccination wound was unhealed, for its removal elsewhere during that period, we think it would be desirable."

(447) "We think that the vaccination vesicles should not be opened unless for some adequate reason. We have already said that in our opinion the importance of this has been exaggerated, but the precaution is nevertheless a wise one, and may be of use."

(448) "We think that safety would be increased by preserving the lymph in tubes, instead of on 'dry points.'" . . . .

(449) "Another precaution which ought to insisted on is that no instrument should be used for the operation which has not been boiled or otherwise sterilised for the purpose; and the simpler the instrument employed the better."

"Care should be exercised, too, not to place the insertiions too near together, so as to injure the vitality of the tissues between them."

(450) "We think the time at present fixed for inspection of the vaccin-

ated arm is somewhat too early, and that some time during the second week after vaccination should be substituted for the eighth day; and, moreover, that another inspection should be obligatory in the third week after vaccination. If summoned by the parent on account of any unfavourable symptoms prior to the time fixed for inspection, the vaccinator should be bound to attend, and notice should be given to parents of their right thus to summon the public vaccinator."

"In any case where a child requires medical attendance owing to illness supervening on vaccination, we think it should be the duty of the vaccinator to render such attendance if required by the parent, and that he should receive a fee in respect thereof."

"In our opinion, if the precautions we have suggested were adopted, untoward incidents of vaccination, already rare, would become much rarer."

Under the head (2) the Commissioners report:—

(499) "We have no difficulty in answering the question, What means other than Vaccination can be used for diminishing the prevalence of Small-pox? We think that a complete system of notification of the disease, accompanied by an immediate hospital isolation of the persons attacked, together with a careful supervision, or, if possible, isolation for sixteen days of those who had been in immediate contact with them, could not but be of very high value in diminishing the prevalence of Small-pox. It would be necessary, however, to bear constantly in mind, as two conditions of success, first, that no considerable number of Small-pox patients should ever be kept together in a hospital situated in a populous neighbourhood; and, secondly, that the ambulance arrangements should be organised with scrupulous care. If these conditions were not fulfilled, the effect might be to neutralise, or even do more than counteract the benefits otherwise flowing from a scheme of isolation."

(503) "We can see nothing then to warrant the conclusion that in this country vaccination might safely be abandoned, and replaced by a system of isolation. If such a change were made in our method of dealing with Small-pox, and that which had been substituted for Vaccination proved ineffectual to prevent the spread of the disease (it is not suggested that it could diminish its severity in those attacked), it is impossible te contemplate the consequences without dismay."

"To avoid misunderstanding, it may be well to repeat that we are very far from under-rating the value of a system of isolation. We have already dwelt upon its importance. But what it can accomplish as an auxiliary to Vaccination is one thing; whether it can be relied on in its stead is quite another thing."

(507) "Our attention has been drawn to the circumstance that outbreaks of Small-pox have not unfrequently had their origin in the introduction of the disease to common lodging-houses by tramps wandering from place to place. In view of this we make the following recommendations :—

1. That common shelters which are not now subject to the law relating to common lodging-houses should be made subject to such law.

2. That there should be power to the Local Authority to require medical examination of all persons entering common lodging-houses and casual wards to see if they are suffering from Small-pox, and to offer a reward for prompt information of the presence of the disease.

3. That the Local Authority should have power to order the keeper of a common lodging-house in which there has been Small-pox to refuse fresh admissions for such time as may be required by the Authority.

4. That the Local Authority should be empowered to require the temporary closing of any common lodging-house in which Small-pox has occurred.

5. That the Local Authority should have power to offer free lodgings to any inmate of a common lodging-house or casual ward who may reasonably be suspected of being liable to convey Small-pox.

6. That the Sanitary Authority should give notice to all adjoining Sanitary Authorities of the occurrence of Small-pox in common lodging-houses or casual wards.

7. That where the disease occurs the Public Vaccinator or the Medical Officer of Health should attend and vaccinate the inmates of such lodging-houses or wards, except such as should be unwilling to submit themselves to the operation."

Under head (5) the Commissioners report :—

(509) "From the views which we have expressed on the subject of vaccination, and on the absence of proof that any practical alternative exists which could be relied on to accomplish the same results if vaccination fell into disuse, it follows that we are of opinion that the State ought to continue to promote the vaccination of the people. Nor are we prepared to recommend that the State should cease to require vaccination and trust entirely to a voluntary adoption of the practice."

"Again," . . . . (511)—"In our Fifth Report we recommend that repeated penalties should no longer be enforced." . . . .

(521) "We are now in a position to state the reasons which led us to recommend that repeated penalties should no longer be enforced ; indeed, they will be apparent from what we have already said."

"We do not doubt that the fact that penalties may be repeated secures in some cases the vaccination of children, who would otherwise remain unvaccinated; but we believe that the irritation which these repeated prosecutions create, when applied in the case of those who honestly object to have their children vaccinated, and the agitation and active prapaganda of anti-vaccination views, which they foster in such cases, tend so greatly to a disuse of the practice, in the district where such occurrences take place, that in the result the number of children vaccinated is less than it would have been had the power of repeated prosecution never existed or been exercised. This seems to us to be the crucial question. A law severe in its terms, and enforced with great stringency, may be less effectual for its purpose than one of less severity and which is put in force less uncompromisingly. When this is the case it cannot be doubted that the law which appears less severe is really the more effective. The ultimate object of the law must be kept in view. The penalty was not designed to punish a parent who may be considered misguided in his views and unwise is his action, but to secure the vaccination of the people. If a law less severe, or administered with less stringency, would better secure this end, that seems to us conclusive in its favour."

(522) "If, then, we cannot look with any certainty to a change of the authority whose duty it is to enforce the law as a means of securing vaccination in those districts where it has already fallen into disuse, it obviously follows that every endeavour should be made so to frame and to administer the law that opposition to vaccination should not spread to other districts, and that it should cease or diminish in those parts of the country where it at present prevails."

"It is to be hoped that our Report will stimulate belief in the efficacy of vaccination, that it will remove some apprehensions and reassure some who take an exaggerated view of the risks connected with the operation, as well as lead to a more ready enforcement of the law by local authorities."

(524) "After careful consideration and much study of the subject, we have arrived at the conclusion that it would conduce to increased vaccination if a scheme could be devised which would preclude the attempt (so often a vain one) to compel those who are honestly opposed to the practice to submit their children to vaccination, and, at the same time, leave the law to operate, as at present, to prevent children remaining unvaccinated owing to the neglect or indifference of the parent. When we speak of an honest opposition to the practice, we intend to confine our remarks to cases in which the objection is to the operation itself, and to exclude cases in which the objection arises merely from an indisposition to incur the trouble involved. We do not think such a scheme impossible."

(527). . . . "At the same time we think it would be well to make the change a temporary one in the first instance, say, for a period of five years, and that in the meantime its effects should be carefully watched."

(528) "Whatever diversity of opinion there may be on the point just discussed, there can be no doubt that every effort should be made to remove the causes which now render vaccination burdensome and tend to its discouragement, and that such changes in our vaccination system should be made as would be calculated to promote vaccination and diminish the number of cases in which the practice is neglected."

(529). . . . "We think that where a certificate of successful vaccination is not received within the prescribed time, a notice should be served upon the parent that a public vaccinator will attend on a day named for the purpose of vaccinating the child, unless the operation has been already performed, and that the only offence rendering the parent liable to prosecution should be the refusal to permit the child to be vaccinated by the public vaccinator when he attends for that purpose."

(530). . . . "We think it would tend to promote vaccination if every duly qualified medical man who vaccinated a child successfully were entitled to the fee which is now paid to the public vaccinator."

(533) "We have already adverted to the importance which we attach to re-vaccination." . . . "After full consideration of the question we are, however, deterred by the considerations to which we have adverted from proposing that re-vaccination should be made compulsory. At the same time, in view of the great importance of re-vaccination, we think it should be in every way encouraged. If an adequate fee were allowed in every case of successful re-vaccination, by whatever medical man it was performed, we think there would probably be a large extension of the practice. We think steps should be taken to impress on parents the importance of having their children re-vaccinated not later than at the age of twelve years. We recommend further that when Small Pox shows signs of becoming epidemic special facilities should be afforded, both for vaccination and re-vaccination."

(534) "We think that notification of Small Pox should everywhere be compulsory, and, whenever the disease shows a tendency to become epidemic, a notice should be served by the sanitary authority upon all persons in the neighbourhood who would be likely to come within the reach of contagion, urging them to submit to vaccination or re-vaccination, as the case might be, if they had not been recently successfully vaccinated or re-vaccinated; and attention should be called to the facilities afforded for

their doing so. Attention should also be called to the importance of avoiding contact with persons suffering from the disease, or coming into proximily to them, and of avoiding contact with any person or thing which may have become infected. It is important to notice that, even where vaccination has been neglected, there is great readiness to submit to it in the presence of a threatened epidemic; a large number of vaccinations are then obtained willingly and without opposition. Whenever a sanitary authority has received notification of a case of Small Pox, we think the fact should be at once communicated to the Vaccination Authority of the district, in which the case of the disease has occurred."

(535) "We desire to call attention again to the recommendation, which we made in our fifth interim report, that persons committed to prison by reason of the non-payment of penalties imposed under the vaccination laws should no longer be treated as criminals. We stated in that report our reasons for this recommendation, to which we still adhere."

NEW RIVER WATER COMPANY.

Constant Supply.

In my report for last year, I quoted the opinion of a responsible officer of the London County Council that the "constant supply" of water would be furnished to the whole of the houses supplied by this Company during the year 1896.

At the beginning of this year I made enquiries of the Secretary to the Company as to the progress which had been made in the extension of the constant service, and received the following letter in reply to my enquiries.

New River Office, E.C.

7th January, 1897.

Dear Sir,—In answer to the enquiry contained in your letter of the 29th ult., I beg to inform you that all the houses in the Parish of Hackney supplied by this Company are receiving the constant supply, except a few the west side of Kingsland High Street which are now being dealt with, and will be turned on constant as soon as possible.

Yours faithfully,

ERNEST COLLINS.

THE EAST LONDON WATER COMPANY AND SHORT SUPPLY DURING THE SUMMER OF 1896.

On the 11th of November, 1895, the Inspectors appointed by the Local Government Board to enquire into the failure of the East London Water Company's Supply during the summer of that year, presented their report thereon, in which amongst other things they remark (Page 15): "The conditions presented by the year 1895 were very exceptional. An unprecedented drought, following a most unusually severe frost, created difficulties not likely to be exceeded in the future, and it may be assumed, for purposes of calculation, that a maximum strain was this year put on the resources of the company," and again (page 16) "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."

On the 21st of July, 1896, eight months from the writing of the above, the following notice, furnishing a curious commentary upon the Inspectors' opinion, was issued by the East London Water Company to its customers.

EAST LONDON WATER WORKS CO.—THE EXTREME DROUGHT.

Notice is hereby given that it is found necessary to restrict the supply of water to six hours a day. The time of turning on will vary to suit the convenience of the respective districts.

Consumers are advised to fill any available vessels while the water is on—to use it only for strictly domestic purposes—and beyond all things to avoid waste in any form. Persons are especially cautioned against using water for garden or other similar purposes.

By order,

21st July, 1896. J. A. CROOKENDEN, Secretary.

This was the beginning of another water failure, which in the opinion of the Government Inspectors, had been provided against for many years to come, and which brought about inconveniences as great as the failure in the previous year, and in my opinion serious injury to health in the Hackney district.

The short supply continued until the 10th of September, when a notice was issued by the Company, informing the public the constant supply would be reverted to the following week. The short supply lasted about two months, and from many enquiries made in the district, I found the average daily duration of supply available to the consumer was about four hours.

Dr. Ballard, in his classical report to the Local Government Board on summer diarrhœa, points out amongst other things that one of its causes is undoubtedly uncleanliness of dwellings; another, sewer emanations.

It is unnecessary to point out how the above conditions could be intensified by a short supply of water; it is obvious.

I have no doubt the scarcity of water in the summers of 1895 and 1896 had the effects of increasing drain and sewer effluvia, and leading in some parts to uncleanliness of dwellings; of what extent I am unable to say, but visits to different parts of the district confirmed the impression that the extent was considerable.

I am confident that the lack of water led to an increase of gastro-intestinal disease in the district, over and above what is generally considered normal when the mean temperature has been equal to that of the above summers.

A study of the annexed table will show that there has been an unusually excessive and unequal incidence of diarrhœa in Hackney, compared with all London, in the third quarter of the years 1895 and 1896. Whereas during the same quarters of the years 1892-3 and 4 the diarrhœa rate in Hackney was not above the London rate; in the years 1895-6 the incidence was altered; in the former year it rose 20 % higher than the London rate, in the latter year 39 %. There is no reason to my knowledge why the mortality from summer diarrhœa which has been almost uniformly equal to the London rate should be suddenly changed to one of excess, unless it be due to the introduction of some factor capable of giving rise to

some of the known causes of summer diarrhœa, and the only strange factor in operation during these summers was an insufficiency of water for domestic and other purposes.

Number of deaths from Diarrhœa during the third Quarter of the years 1892-1896 in Hackney and London, and the corresponding ...ortality rates per 1,000 living persons.

Year.	No. of deaths from Diarrhœa in 3rd Quarter in Hackney.	Mortality Rate, per 1,000 living.	No. of deaths from Diarrhœa in 3rd Quarter in London.	Mortality Rate per 1,000 living in London.	Average Atmospheric Temperature for the Quarter.	Rain Fall in inches during the Quarter.
1892	84	1·6	1747	1·6	59·2	6·6
1893	96	1·8	2177	2·0	61·9	5·9
1894	57	1·1	1212	1·1	58·6	7·5
1895	**153**	**2·9**	2647	2·4	62·3	6·5
1896	**175**	**3·2**	2624	2·3	60·4	8·7

REMOVAL OF HOUSE REFUSE.

One of the most important duties of a Sanitary Authority is the regular and prompt removal of house refuse from all occupied dwellings in the district.

In March of 1895, the Vestry renewed for another year the contractors agreement to remove and dispose of the house refuse of the district of Hackney at a reduced price on the previous year of one penny per load—the reduced prices for the North and South Divisions being 5s. 3d. per load for the former, and 5s. 2d. for the latter.

During the year 1896, the loads removed from the North Division numbered 20,211, at a total cost of £5,326 8s. 10d, those from the Southern Division 24,401 loads, at a total of £6,329 10s. 2d. From these figures, the average amount per load paid to

the contractors works out at a little over 5s. 2½d. per load of two cubic yards. To the above sums must be added £1,974 8d. 4d., paid during the year to the Vestry's own dust-men, bringing the whole cost for the removal of house refuse for the year to the sum of £13,630 7s. 7d. This appears an alarming sum for such a purpose, but when the cost for each inhabited house in the parish per year is calculated, the sum puts on a different appearance. The average cost to the parish for the removal of house refuse for the year 1896 was 9s. 3d. per inhabited house. Looked at from this point of view the cost of dust removal in Hackney is a moderate one.

MONTH.	Northern Division				Southern Division				Totals.			
	Loads.	Cost.			Loads.	Cost.			Loads.	Cost.		
		£	s.	d.		£	s.	d.		£	s.	d.
January	1845	492	0	0	2244	589	1	0	4089	1081	1	0
February	1692	451	4	0	2076	544	19	0	3768	996	3	0
March.....	1516	404	5	4	1903	499	10	9	3419	903	16	1
April	1819	477	9	9	2062	532	13	8	3881	1010	3	5
May.....	1625	426	11	3	2002	517	3	8	3627	943	14	11
June	1839	482	14	9	2132	550	15	4	3971	1033	10	1
July.....	1646	432	1	6	2034	525	9	0	3680	957	10	6
August	1488	390	12	0	1824	471	4	0	3312	861	16	0
September	1537	403	9	3	1894	489	5	8	3431	892	14	11
October	1577	413	19	3	1874	484	2	4	3451	898	1	7
November	1843	483	15	9	2202	568	17	0	4045	1052	12	9
December	1784	468	16	0	2154	556	9	0	3938	1024	15	0
Totals	20211	5326	8	10	24401	6329	10	5	44612	11655	19	3

Dustmen's Wages	£1,974	8 4
Sanitary Labour	804	10 10
Prices per load—To March, 1896	N. 5s. 4d.	S. 5s. 3d.
,, March to December, 1896	N. 5 3	S. 5 2

In my last year's report I announced the fact that a weekly house to house collection had been on trial during the greater part of the year, with encouraging results. The system has been continued since with increasing success; not only have large accumulations of house refuse become rare in the parish, but the number of requests by householders to remove dust has decreased to an almost insignicant number.

The requests, which in the year 1894 were 893, declined in the year 1895, to 552, and last year to 297. I am hopeful that this number will further lessen during 1897; but it can hardly be expected that requests will entirely vanish, for on very rainy days the dustmen are unable to conplete their allotted rounds, and on Bank Holidays they do not, of course, visit. The following table gives the number of requests distributed through the last three years.

TABLE I.—*A List of the requests for the removal of Dust, received during the three years, ending December, 31st, 1896, viz., 1894, 1895, and 1896.*

	1894	1895	1896
January	136	89	37
February	48	41	17
March	85	53	30
April	97	66	46
May	55	73	22
June	72	46	39
July	63	31	18
August	56	23	12
September	58	38	24
October	73	27	21
November	94	39	14
December	46	26	17
Totals....	893	552	297

The above two events are the cause of some of the requests, but not all; a large number is due to the refusals of house-holders or their servants to allow the dustmen to remove it at their weekly visit. During the year 1896 a record was kept of these refusals to allow the dust to be removed. I give below a summary of this.

TABLE II.—*A list of refusals in the collection of Dust for the year ending, December 31st, 1896.*

1896. Week ending	Refusals.	1896. Week ending	Refusals.
January 4th	6,419	July 4th	10,653
,, 11th	9,763	,, 11th	9,875
,, 18th	8,547	,, 18th	10,218
,, 25th	9,018	,, 25th	10,651
February 1st	10,713	August 1st	11,418
,, 8th	8,897	,, 8th	11,046
,, 15th	9,576	,, 15th	12,117
,, 22nd	7,863	,, 22nd	10,241
,, 29th	8,679	,, 29th	11,416
March 7th	11,413	Sept. 5th	10,944
,, 14th	9,518	,, 12th	10,638
,, 21st	9,013	,, 19th	11,564
,, 28th	10,433	,, 26th	10,879
April 4th	8,991	October 3rd	12,243
,, 11th	9,358	,, 10th	11,626
,, 18th	9,176	,, 17th	11,709
,, 25th	10,437	,, 24th	10,658
May 2nd	9,312	,, 31st	11,119
,, 9th	8,479	Nov. 7th	10,267
,, 16th	9,815	,, 14th	10,013
,, 23rd	11,093	,, 21st	11,651
,, 30th	9,657	,, 28th	10,983
June 6th	8,998	Dec. 5th	10,294
,, 13th	9,363	,, 12th	9,615
,, 20th	9,913	,, 19th	9,173
,, 27th	10,548	,, 26th	8,219
		,, 31st	2,437

This table gives the number of refusals each week during the year. Striking an average for the year, it will be seen that more than one third of the householders will not permit the dust to be taken every week. This is anything but satisfactory, and something must soon be done to induce an altered state of things. Householders cannot be aware that when they refuse to let the dust be taken away, they are committing a breach of the Public Health Act, (London) 1891; I allude to the following Sec. :—

> Sec. 116—(1) If any person, ...
> (a) Wilfully obstructs any member or officer of a Sanitary Authority, or any person duly employed, in the execution of this act .....he shall be liable to a fine not exceeding five pounds.

I think some effort should be made to bring this information to the knowledge of the Hackney house-holders; it might be done by a printed notice, setting forth the inconvenience and extra cost such refusals entail, and the penalty incurred by offenders. I think if a

notice of this description were left at each house in the parish, the refusals would diminish in number; if they did not, obviously the next step to take would be legal proceedings against the offenders.

REGISTER OF SANITARY WORK, 1896.

Sanitary Department.

	SANITARY DISTRICTS.											
	Mr. Gough, Stamford Hill	Mr. Harvey, West Hackney	Mr. Legg, Hackney	Mr. Morley, Clapton	Mr. Wood, Mare Street,	Mare Street and South Hackney. Mr. High,	Mare Street and South Hackney. Mr. Kemp,	Mare Street and South Hackney. Mr. Painter,	Mr. Bobbitt, Homerton, E.	Mr. Mansell, Homerton, N.	Mr. Ellis, Homerton, S.	Totals.
	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11	
INSPECTIONS—												
Made on Complaint	466	470	255	180	281	286	405	221	260	442	69	3305
Workshops	18	27	38	10	14	58	68	40	35	84	4	396
House to House	18	..	46	119	88	10	..	69	65	143	509	1067
Houses after Infectious Disease	21	219	129	279	312	283	334	163	217	203	59	2417
Premises re-inspected	2378	2604	2959	1460	1676	2666	2932	1405	2925	2996	3916	30897
Fishmongers'& Poulterers' Yards	3	5	..	..	6	2	2	..	4	36	..	58
Slaughterhouses	36	..	..	..	..	..	..	10	..	1	..	47
Cow houses (Premises)	36	..	..	..	3	..	..	27	..	..	..	66
,, (Sheds)	48	..	..	..	..	..	..	..	..	..	..	48
Miscellaneous Inspections	130	9	5	173	10	36	57	3	137	12	40	632
Greengrocers' Yards	3	1	..	1	3	..	..	7	2	11	2	30
Schools	3	1	..	..	2	1	..	..	2	1	..	10
Bakehouses	13	1	..	..	..	1	33	..	2	28	..	78
Urinals	5	2	1	..	6	20	33	7	4	48	3	129
Canal Boats	106	..	..	..	..	..	..	..	..	..	..	106
Animals improperly kept	..	6	..	6	4	2	8	..	2	3	8	39
Statutory Notices served	47	70	45	18	67	4	14	22	28	46	38	399
Intimation Notices served	269	460	286	447	498	389	534	286	360	345	646	4520
Peremptory or Final Notices served	70	25	9	26	50	30	15	90	49	20	50	524
Proceedings taken before Magistrate under the Sanitary Acts	11	15	29	1	40	2	6	4	11	13	1	133
Nuisances abated	405	431	201	350	393	375	450	384	397	310	551	4247
SEIZED AND CONDEMNED AS UNFIT FOR HUMAN FOOD—												
Fish	1 cwt.	..	..	..	..	..	..	2 cwt.	..	½ cwt.	2 cwt.	5½ cwt.
Fruit and Vegetables	4 cwt.	4 cwt.	3 cwt.	..	1 cwt.	..	¼ cwt.	1½ cwt.	¾ cwt.	1 cwt.	¼ cwt.	15¾ cwt.
Meat	9 cwt	1½ cwt	.. 9 cwt.	. ..	1 cwt.	..	..	..	¾ cwt.	..	½	13½ cwt.
Other Articles	..	5 cases of eggs	margarine ..	.	..	..	..	..	..	..	..	..
Open Spaces cleared	2	..	2	2	3	..	2	..	3	3	1	18
FOOD ADULTERATION—												
Samples collec'd for Analysis	..	..	..	..	6	..	..	212	.	..	..	218
Proceedings taken before Magistrates	.	..	..	..	..	.	..	40	..	..	..	46

REGISTER OF SANITARY WORK, 1896.

Sanitary Department.—*continued.*

Letters, etc., sent out		3660
Circulars, Notices, etc.		12787
Committee Notices sent out		1329
Copies of Summonses and Orders made out		592
Houses from which Bedding, etc., was removed to be disinfected by the Vestry's apparatus		1265
Articles disinfected by the Vestry's apparatus—		
Beds		1017
Mattresses		453
Palliasses		13
Bolsters		773
Pillows		2072
Blankets		1251
Sheets		123
Carpets, Rugs, etc.		608
Quilts		381
Other Articles		1020
Rooms fumigated		2014
Houses cleansed after Infectious Diseases		727
Disinfectants supplied to the poor	(bottles)	1205
Do. do.	(bags)	5348
Infectious Patients removed to Hospital		962
Cautionary Notices to Schools *re* Infectious Sickness		2006
Certificates of Disinfection issued to Schools, etc.		1960
Accumulations of Dust specially removed		310
Articles destroyed by request—		
Beds		38
Mattresses		16
Bolsters		3
Pillows		5
Palliasses		4
Cushions		11
Articles of Clothing		1
Miscellaneous		3

Record of Prosecutions under the Public Health (London) Act, 1891, *during the year* 1896.

Address.	Complaint.	Magistrate's Decision.
41, Crozier terrace..	Penalty summons.....	Penalty £2 2s. and 1/- costs
42, " " ..	" "	" " "
4, Sigdon road	No ventilating shaft to soil pipe	Withdrawn, work done
6, Lynthorpe road..	Defective drains.....	" "
39, Clapton common	Penalty summons.....	Penalty £4 4s. and 2/- costs
Tramway Stables, Stamford Hill	Accumulation of manure	Order to abate nuisance forthwith & pay 6/- costs
96, Mare street	Penalty summons.....	Dismissed
Stable and yard rear of 92, Southgate road	Defective drains, &c.....	Order to do the work in 3 weeks, and pay 1/- costs
37, Clapton square..	Roof leaky	Withdrawn, work done
1, Clapton pavement	General insanitary condition	Order to do the work in 6 weeks, and pay 1/- costs
20, Mellington street	Defective drains outlet ..	Order to do the work in 14 days, and pay 6/- costs
18 " "	" " "	" " "
16, " "	" " "	" " "
14, " "	" " "	" " "
156, Mare street....	Improper w.c. accommodation	Order to do the work in 14 days
101, Farleigh road..	General insanitary condition	Order to do the work in 21 days, and pay 6/- costs
20, Dyssal street ..	Choked drains	Order to do the work in 21 days, and pay £2 12s. 6d. costs
72, Clarence road ..	Defective brick drain	Order to do the work in 21 days, and pay 1/- costs
52, " " ..	General insanitary condition	" " "
93, London road....	" " "	" " "
259, Queen's road ..	No water supply to house	Order to do the work in 7 days, and pay 1/- costs
21, Spenstowe terrace	General insanitary condition	Order to do the work in 4 weeks, and pay 1/- costs
8, Bower road	" " "	Withdrawn, work done
9, " "	" " "	" "
5, Suther street....	" " "	" "
6, " "	" " "	" "
16, Wallis road	" " "	" "
71, Brooke road....	Defective drains.....	Order to do the work in 14 days, and pay 6/- costs
73, " "	" "	" " "
46, Stamford hill ..	Defective drains.....	Order to do the work in 14 days and pay 1/- costs
72, Clarence road ..	Penalty summons.....	Withdrawn (work done)
52, " "	" "	" "
76a, London road ..	General insanitary condition	Withdrawn

Address.	Complaint.	Magistrates' Decision.
27, Retreat place....	General insanitary condition	Order to do the work in 21 days, and pay 6/- costs
10, Union road	" " "	" " "
48, Church road, Kingsland	" " "	Order to do the work in 7 days, and pay 1/- costs
15, Homerton road..	" " "	Order to do the work in 14 days, and pay 1/- costs
17, " "	" " "	" " "
50, Clarence road ..	" " "	" " "
4, Churchill road ...	Accumulation of refuse ..	Order to abate nuisance forthwith and pay 30/- fine and 6/- costs
22, Colvestone Crescent.....	Defective drains.....	Order to do the work in 7 days and pay 6/- costs
55, Sandringham road	" "	" " "
6, Stables Foulden Mews	Accumulation of refuse ..	Withdrawn (nuisance abated)
75, Lower Clapton road	General insanitary condition	Order to do the work in 14 and pay 1/- costs
Stable, Winchester place	No dung receptacle	" " "
25a, College Avenue	General insanitary condition	Withdrawn (work done)
27a, " "	" " "	" "
25, Lesbia road	" " "	" "
31, " "	" " "	" "
Jolly Gardener P.H. Margaret Street ..	Dilapidated urinals	Order to do the work in 14 and pay 6/- costs
Railway Arch 449 Dalston lane.....	No dung pit	Dismissed
12, Median road	House dirty and defective drains	"
Barge "Frederick"	Carrying offensive refuse during prohibited hours	Fined 1/- and 2/- costs
" "Our boys"..	" " "	" " 3/- "
" "Daisy"	" " "	" " 2/- "
59, Christie road....	Insufficient w.c. accomodation	Withdrawn (work done)
4, Brookfield road ..	Defective drains.....	" "
B. Ballard 64, Broadway L. Fields	Obstruction summons....	Fined £1 and 3/- costs
Uncovered dust cart	Conveying refuse through the streets uncovered and during prohibited hours	Summons not served by police
8, Williams cottages	No water supply to house	Order to supply house with water in 28 days and pay 6/- costs
4, Roseneath terrace	Defective drains.....	Withdrawn, work done
123, Hertford road	General insanitary condition	Order to do the work in 14 days, and pay 6/- costs
216, Morning lane	" " "	Withdrawn, work done
218, "	" " "	" "
1, Retreat place	Damp walls.....	Order to do the work in 2 months, and pay 4/- costs

Address.	Complaint.	Magistrates' Decision.
3, Retreat Place....	Damp walls.....	Order to do the work in 2 months and pay 2/- costs
4, "	" "	" " "
5, "	" "	" " "
6, "	" "	" " "
7. "	" "	" " "
8, "	" "	" " "
10, "	" "	" " "
11, "	" "	" " "
12, "	" "	" " "
13, "	" "	" " "
14, "	" "	" " "
16, "	" "	" " "
17, "	" "	" " "
18, "	" "	" " "
19, "	" "	" " "
20, "	" "	" " "
21, "	" "	" " "
22, "	" "	" " "
23, "	" "	" " "
24, "	" "	" " "
25, "	" "	" " "
28, Retreat place ..	General insanitary condition	Order to do the work in 2 months and pay 4/- costs
30, " " " ..	" " "	" " "
15, Homerton road..	Penalty summons	Withdrawn, work done
17, " " " ..	" "	" "
68a, London road ..	Insanitary condition of Mews	Order to provide gutters in 14 days and pay 1/- costs
66a, " " " ..	" " "	" " "
70, " " " ..	" " "	" " "
76a, " " " ..	" " "	" " "
72a, " " " ..	" " "	Dismissed
74a, " " " ..	" " "	Dismissed
78a, " " " ..	" " "	"
33, Montague road..	Defective drains.....	"
82, Dunlace road ..	" "	Withdrawn, work done
Barge	Carrying offensive refuse during prohibited hours	Fined 1/- and costs
11, Palace road	House dirty.....	Order to do the work in 14 days and pay 6/-costs
14, Penshurst road..	Soil pipe inside house unventilated	Withdrawn, work done
5, Dainty street	General insanitary condition	Order to do the work in 1 month and pay 6/- costs.
Barge "Algernon"	Carrying offensive refuse during prohibited hours	Fined 20/- and 2/- costs
" "The Midge"	" " "	Dismissed
33, Montague road	Defective drains.....	Withdrawn
1, Nisbet street	General insanitary condition	Order to do the work in 14 days, and pay 6/- costs
3, " "	" " "	" " "
5, " "	" " "	" " "
7, " "	" " "	" " "
Barge "May Queen"	Carrying offensive refuse during prohibited hours	Withdrawn

Table of Prosecutions under the Food and Drugs Acts, and Margarine Acts during the year 1896.

No. of Sample.	Article.	Adulteration or Offence.	Result of Legal Proceedings.	Remarks.
343	Milk	16% added water....	Fined 20/- & 12/6 costs	
344	Milk	27% ,,	Withdrawn by order of Magistrate, defendant to pay 12/6 costs	
348	Margarine	Exposed for sale unlabelled and in plain wrapper	Fined 10/- & 12/6 costs	
362	Milk	7% added water	12/6 costs	
370	Butter ..	32% foreign fat	Fined 20/- & 12/6 costs	
351	Margarine	Served in plain wrapper	,, 20/- ,, 2/- ,,	
376	Milk	4% added water	Withdrawn	
372	Milk	12% ,,	Fined 30/- & 12/6 costs	
387	Milk	7% ,,	12/6 costs	
392	Milk	36% ,,	Fined 40/- & 12/6 costs	
399	Milk	6% ,,	,, 10/- ,, 12/6 ,,	
384	Cocoa ...	27% starch and sugar	12/6 costs	
388	Milk	15% added water ..	Dismissed (warranty proved)	
391	Milk	15% cream abstracted	,, 10/- ,, 12/6 ,,	
404	Milk	28% of fat abstracted	,, 20/- ,, 10/- ,,	
419	Milk	6% added water....	,, 10/6 ,, 2/- ,,	
420	Milk	5% ,,	,, 10/6 ,, 2/ ,,	
421	Milk	5% ,,	,, 10/6 ,, 2/- ,,	
422	Milk	6% ,,	12/6 costs	
424	Milk	10% fat abstracted ..	Fined 10/6 & 2/- costs	
438	Milk	16% added water....	2/- costs	
445	Margarine	Exposed for sale unlabelled	Fined 3/- & 12/6 costs	
447	Margarine	,, ,,	,, 3/- ,, 12/6 ,,	
449	Margarine	,, ,,	,, 5/- ,, 12/6 ,,	

Table of Prosecutions under the Food and Drugs Acts and Margarine Acts.—continued.

No. of Sample.	Article.	Adulteration or Offence.	Result of Legal Proceedings.	Remarks.
442	Butter ..	37% foreign fat	Fined 10/6 & 2/- costs	
488	Milk	8% added water ..	Dismissed	
487	Milk	9% ,, ..	,,	
451	Milk	20% ,, ..	Fined 1/- & 2/- costs.	
452	Milk	6% ,, ..	Dismissed	
455	Milk	24% ,, ..	12/6 costs	
456	Butter ..	86% foreign fat	Fined 10/6 & 12/6 costs	
470	Milk	13% added water ..	,, 20/- ,, 12/6 ,,	
471	Milk	20% ,, ..	,, 10/- ,, 12/6 ,,	
472	Milk	5% ,, ..	Dismissed	
474	Milk	14% ,, ..	Fined 5/- & 12/6 costs	
490	Milk	8% ,, ..	Dismissed	
489	Milk	10% ,, ..	,,	
487	Milk	18% ,, ..	,,	
486	Milk	5% ,, ..	,,	
485	Milk	5% ,, ..	,,	
509	Margarine	Exposed for sale unlabelled	Fined 20/- & 12/6 costs	
512	Margarine	,, ,,	,, 20/- ,, 12/6 ,,	
521	Milk	9% added water....	,, 20/- ,, 12/6 ,,	
523	Milk	13% ,, ...	,, 40/- ,, 12/6 ,,	
529	Butter ..	70% foreign fat ..	,, 40/- ,, 12/6 ,,	
529	Margarine	Served in plain wrapper..	,, 40/- ,, 2/- ,,	

METEOROLOGY.

The following table, for which I am indebted to the Secretary of the Royal Meteorological Society, is an abstract of the Meteorology made at Old Street, E.C., for the year 1896 :—

ABSTRACT OF CLIMATOLOGICAL OBSERVATIONS.

1896.	Temperature.							Relative Humidity	Amount of Cloud.	Rain.	
	Means.					Extremes				Amnt	No. of Days
	9 a.m.	Min.	Max.	Range	Mean	Min.	Max				
	°	°	°	°	°	°	°	%		in.	
January ..	41·6	38·2	45·6	7·4	41·9	32·0	52·4	87	9·1	·74	12
February..	40·4	36·7	46·3	9·6	41·5	25·0	55·6	86	9·0	·39	8
March ..	46·3	41·9	52·5	10·6	47·2	34·5	65·2	82	8·5	3·24	25
April	50·4	43·9	57·1	13·2	50·5	35·8	67·4	75	7·5	·59	13
May	55·7	46·9	65·4	18·5	56·2	37·4	76·5	68	6·9	·16·	3
June.....	63·8	57·0	72·3	15·3	64·6	45·8	83·3	69	6·9	1·72	13
July	65·3	58·5	74·3	15·8	66·4	50·0	86·8	67	6·8	1·09	5
August....	59·9	54·6	67·4	12·8	61·0	47·0	74·2	78	7·7	2·27	15
September	58·2	54·0	63·2	9·2	58·6	44·2	69·2	83	8·3	6·05	24
October ..	47·2	43·3	53·2	9·9	48·3	34·0	66·8	85	7·5	3·18	21
November	40·5	37·5	46·4	8·9	41·9	28·0	50·6	86	7·3	1·23	10
December	40·8	37·1	45·0	7·9	41·1	28·0	51·7	89	9·1	3·21	23
Year.....	50·8	45.8	57·4	11·6	51·6	25·0	86·8	80	7·9	23·87	172

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, &c.

Number of bodies deposited in Mortuary	365
(a). To await inquests	352
(b). Upon request of relatives, to await burial	13
Number of Post-mortems performed	175

INQUESTS.

Verdicts.	Sex.	
	Male.	Female.
Natural causes	149	113
Accidental Death..	38	25
Suicide	18	5
Open Verdict	3	1
TOTALS	208	144

Table showing nature of above Suicidal and Accidental Deaths in the Hackney District during the Year ended 1896.

SUICIDES.		ACCIDENTAL DEATHS.	
NATURE OF SUICIDE.	No.	NATURE OF ACCIDENTAL DEATH.	No.
Poisoning	12	Concussion of Brain	2
Cut Throat	1	Poisoning	1
Drowning	2	Fall..	14
Hanging.....	2	Suffocated during a Fit	1
Shooting	4	Shock from burns	18
Run Over	1	Injury to Head	1
Fracture Skull.....	1	Drowning	8
		Run over	3
		Shock from scalds	3
		Suffocated by Nutshell	1
		Fracture of Skull.....	5
		„ „ Leg	1
		Fracture of Spine.....	2
		Strangulated.....	1
		Suffocated in Bed	1
TOTAL	23	TOTAL	62

LIST OF LICENSED SLAUGHTER-HOUSES

IN THE HACKNEY DISTRICT, OCTOBER, 1896.

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
Tucker, Robt.	... 5, High Street, Homerton
Wragg, Emma	... 57, Holly Street
Stone, E.	... 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 ...	... Dalston Lane
Moore, C. W.	... 531, Kingsland Road
Fish, T.	... Lee Bridge Corner, Clapton
Witherden, C. A. ...	... Lower Road, Clapton
Tyler, A.	... 80, Mare Street
Maples, Richard W. ...	... 142, Mare Street
Beaver, W. P.	... 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
Stephenson, Jonathan ...	... 103, Rendlesham Road
Chalkley, F. G. ...	... 53, Southgate Road
Ebbells, E.	... 94, Southgate Road
Row, R.	... 130, High St., Stoke Newington
May, A. A.	... 220, Stoke Newington Road
Stoneman, P.	... 3, Terrace Road
Clark, Chas.	... Upper Clapton

Tyler, W.	... 92, Well Street
Hill, George F. ...	... 169, Well Street
Butcher, F.	... 216, Well Street
Friday, R.	... 51, Wilton Road
Wildsmith, S. ...	... 258, Wick Road
Browning, John ...	... West Side, London Fields

LIST OF LICENSED COW-SHEDS

IN THE HACKNEY DISTRICT, OCTOBER, 1896.

NAME.	ADDRESS.	NO. OF SHEDS
Jones, L. J. ...	... 3, Ardleigh Road, De Beauvoir Town	1
Webb, S. H. ..	... 76a, Broadway, London Fields ...	2
Jones, J. ...	... 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	Downham Road, Kingsland ...	1
James, Mrs. ...	... 11, Downham Road, Kingsland ...	1
Coxall, John ...	... 41, High Street, Homerton	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. ...	... 46a, Leswin Street, Hackney ...	1
Cashford, W. G.	... Jerusalem Square, Mare Street, Hackney	4
Reynolds, Edwin	... Landfield Street, Hackney	1
Wingrove, J. T. ...	... 11, London Lane, Hackney	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	
Harper, Sophia	... 257, Queen's Road, Dalston	1
Camp, Arthur ...	... 79, Shacklewell Lane, Hackney ...	1

Tasker, J. ...	... Sigdon Road, Hackney ...	... 1
Williams, W. ...	... 33, Southgate Road ...	... 1
Welford, R. W.	... Spring Hill, Clapton ...	... 2
Stapleton, A. ...	... Stoke Newington Common ...	... 5
Briggs, J. ...	... 180, Victoria Park Road ...	... 1
Johnson, John	... 3, Warburton Road, Hackney	... 1
Brace, E. A. ...	... 133, Well Street	... 1
Jones, John ...	... 271, Wick Road	... 2
Roper, R. ...	... 37, Wilton Road	... 1
	Total Cow Sheds ..	... 49

N.B.—Cow-sheds and Slaughter-houses are under the inspection of the London County Council, and are licensed by them subject to no objection being made by the Local Authority as regards the sanitary condition of the premises.

I remain, Gentlemen,

Yours obediently,

J. KING WARRY, M.D., M.R.C.P., 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.

GEO. CHAMBERS,

12th May, 1897. *Chairman of the Vestry.*