

**Annual report upon the public health & sanitary condition of the united
Parishes of St. Margaret & St. John, Westminster for the year 1896.**

Contributors

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ANNUAL REPORT
 UPON THE
 PUBLIC HEALTH & SANITARY CONDITION
 OF THE
 UNITED PARISHES
 OF
 St. Margaret & St. John, Westminster,
 FOR THE YEAR 1896,
 BY
 JOHN NORTON, M.D., D.P.H.,
Medical Officer of Health,
 MEMBER OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND;
 FELLOW OF THE INCORPORATED SOCIETY OF MEDICAL OFFICERS
 OF HEALTH;
 FELLOW OF THE BRITISH INSTITUTE OF PUBLIC HEALTH.

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To the Members of the United Vestry.

MY LORDS AND GENTLEMEN,

I have the honour to place before you my Annual Report on the health, sanitary condition, and vital statistics of the United Parishes, for the year 1896.

METEOROLOGICAL SUMMARY.

FIRST QUARTER.

The mean reading of the barometer was 29·989 inches; the mean temperature of the air 42·2. The amount of rain measured during the quarter was 3·99 inches, and the amount of bright sunshine recorded was 119·5 hours.

In January the weather was generally mild and dull, with very little sunshine; in February it was changeable, but for the most part dry, dull and mild; in March it was mild, dull and wet, with a prevalence of west wind.

SECOND QUARTER.

The mean reading of the barometer was 29·929 inches; the mean temperature of the air was 55·6; the rainfall was 2·77 inches, and the amount of bright sunshine recorded during the quarter was 435·6 hours.

The weather in April was generally dull, with frequent rain until the 17th, but fine and bright during the remainder of the month. In May it was remarkable for the small quantity of rain that fell. In June it was warm and bright, with a temperature generally above the average.

THIRD QUARTER.

The mean reading of the barometer during this quarter was 29·761 inches; the mean temperature of the air was 60·4; the rainfall measured 8·67 inches; and the duration of bright sunshine recorded was 337·9 hours.

The weather in July was generally fine, bright and warm, the temperature being above the average on nearly every day of the month.

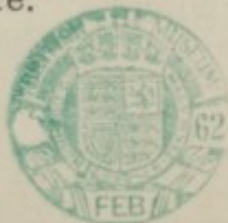
In August it was cold and unsettled, the temperature rising above the average on five days only throughout the month.

September was wet, dull and gloomy, and remarkable for excessive rainfall.

FOURTH QUARTER.

During this quarter the mean reading of the barometer was 29·709 inches; the mean temperature of the air was 42·4; the rainfall measured 6·99 inches, and the duration of bright sunshine registered was 122·7 hours.

The weather in October was generally dull, cold and wet, the temperature being below the average on nearly every day of the month. The weather continued cold until November 10th, after which the temperature was above the average until the 22nd, the remainder of the month being cold. December was generally wet, dull and gloomy, with very wide variations of temperature.



POPULATION OF LONDON—CENSUS 1896.

The population in March, 1896, of Registration London is given as 4,411,271. At the census of 1891 it was given as 4,211,743, and shows an increase therefore of 199,528, but is 14,463 less than the estimate which was in use by the Registrar-General based upon the enumerations of 1881 and 1891.

THE HEALTH OF LONDON DURING 1896.

The returns issued by the Registrar-General giving the number of deaths in each week last year show that 1896 was on the whole exceptionally healthy. During the first quarter of the year the death-rate was continuously below the average—viz., 17·9 per 1,000 persons living. The death-rate in the Metropolis continued below the average throughout the second quarter of the year, with the exception of the week ending April 11, when the excess over the average was only 17, the death-rate during the quarter being 16·3.

The death-rate during the second quarter of the year 1896 was lower than that in the second quarter of any previous year on record, with the single exception of 1894, when the death-rate did not exceed 15·8 per 1,000.

The deaths registered during the third quarter numbered 126,541, and were in the proportion of 16·3 deaths annually per 1,000 persons living, the average rate in the ten preceding third quarters having been 16·8.

During the fourth quarter of the year the death-rate amounted to 17·9 per 1,000, the average rate in the ten preceding quarters having been 18·5.

HEALTH OF ENGLAND AND WALES DURING 1896.

During the first quarter of the year the death-rate in England and Wales among males was 18·8, and that among females 17·0, both showing a decrease compared with the averages in the ten preceding first quarters.

During the second quarter the death-rate among males was 17·5, and that among females 15·2 per 1,000. Both death-rates showed a marked decrease compared with the averages in the ten preceding second quarters.

During the third quarter the death-rate among males was 17·5, and among females 15·3. Both showed a decrease compared with the averages in the ten preceding third quarters.

During the fourth quarter the death-rate among males was 18·8, and among females 17·0 per 1,000. Compared with the averages in the ten preceding fourth quarters the death-rate of each sex showed a decrease of 0·6 per 1,000 living.

POPULATION IN 1896.

I append a report on the results of the census taken for the purposes of the "Equalisation of Rates Act," on March 29th, 1896, showing a comparative table of the population in the various Wards in 1891 and 1896:—

WARDS.	CENSUS.		In-crease.	De-crease.
	1891.	1896.		
1 St. Margaret (Hamlet of Knightsbridge)	6,664	7,076	432	...
2 " (Petty France) ...	10,321	10,683	362	...
3 " (Thorney Island) ...	4,486	3,983	...	503
1 St. John (Tothill Fields) ...	9,789	8,266	...	1,523
2 " (Horseferry) ...	14,508	13,564	...	944
3 " (Bulinga Fen) ...	9,809	9,662	...	147
Total ...	55,577	53,234	794	3,117
Increase ...	...	...	...	794
Net decrease ...	...	...	...	2,323

The above table shows a net decrease in the population of Westminster of 2,323 during the last five years, but as soon as the County Council model dwelling-houses are built on the old Millbank-prison site, no doubt we shall probably have an addition of about 4,000 inhabitants added to the population of Westminster.

From a public health point of view the census was comparatively of little use, since the age distribution of the population was not taken.

BIRTHS AND DEATHS.

The number of births registered during the year 1896, when all the corrections have been made, was 1,222, showing a birth-rate of 21·9 per 1,000 of the population. 335 births occurred in St. Margaret's parish, of which 173 were males and 162 females, giving a birth rate of 15·6 per 1,000; and 887 births in St. John's parish, of which 447 were males and 440 females, giving a birth rate of 25·8.

The number of deaths of parishioners duly corrected amounted to 987, showing a recorded death-rate of 17·7, and a corrected death-rate of 21·1 per 1,000 of the population. Of these deaths 345 occurred in St. Margaret's parish, giving a recorded death-rate of 16·0, and 642 deaths occurred in St. John's parish, giving a recorded death-rate of 18·7.

The following comparative table shows the birth and death rates per 1,000 during the past six years for the united parishes, viz. :—

YEAR.	BIRTH-RATE.	DEATH-RATE.	
		Recorded.	Corrected for age and sex distribution.
1891	26·8	19·7	22·2
1892	24·7	23·0	26·0
1893	24·4	23·1	26·1
1894	21·9	18·0	20·3
1895	22·9	20·7	23·4
1896	21·9	17·7	21·1

The following table gives the distribution of the deaths of parishioners dying in various institutions and elsewhere, all of which are included in the mortality statistics :—

<i>Institutions.</i>						<i>Deaths.</i>
Asylum—	Banstead	...	...	...	...	1
"	Cave Hill	...	...	...	...	1
"	Colney Hatch	...	...	...	...	1
"	Darenth	...	...	...	...	1
"	Hanwell	...	...	...	...	1
"	Leavesden	...	...	...	...	1
"	Peckham House	...	...	...	...	1

<i>Institutions.</i>	<i>Deaths.</i>
Crèche—St. Pelagia's ...	1
College—Whittington, Holloway ...	1
Convent ...	4
Elsewhere ...	4
Friedenheim ...	1
Home—St. Joseph's ...	1
Hospital (Fever)—Northern ...	1
" " North-Western ...	8
" " Western ...	10
" " South-Western ...	4
Hospital—Brompton ...	3
" Charing Cross ...	5
" Belgrave ...	8
" General Lying-in ...	2
" Middlesex ...	3
" Evelina ...	1
" Children's, Great Ormond-street ...	1
" Bolingbroke ...	1
" Victoria ...	2
" West London ...	1
" Station ...	4
" Private ...	1
" St. Bartholomew's ...	1
" St. George's ...	21
" St. Mary's ...	2
" St. Peter's, Kensington ...	1
" St. Luke's ...	1
" St. Thomas's ...	4
" Westminster ...	247
Infirmity—St. George's ...	213
" Lambeth ...	1
Workhouse—St. George's, Wallis Yard ...	3
Prison, H. M.—Holloway ...	1

TABLE I., giving the death-rates from certain classes of disease in the district :—

	Years.	Whole District.	St. Margaret's.	St. John's.
1. Chief Zymotic Diseases ...	1894	2·1	1·5	2·4
	1895	1·7	1·0	2·1
	1896	2·0	1·3	2·5
2. Phthisis ...	1894	2·3	2·3	2·4
	1895	2·0	1·6	2·2
	1896	2·1	1·8	2·3
3. Pulmonary Diseases, including	1894	4·7	4·6	4·5
Bronchitis, Pneumonia and	1895	5·6	5·3	5·7
Pleurisy ...	1896	3·7	3·2	3·9

TABLE II.—Comparative Table of deaths from the principal zymotic diseases and deaths of infants under one year of age :—

YEARS.	1892.	1893.	1894.	1895.	1896.
Deaths (Total)	1297	1290	1006	1154	987
Small Pox	—	—	—	—	—
Measles	77	5	37	23	17
Scarlet Fever	18	25	8	9	10
Diphtheria & Membranous Croup	44	14	22	15	22
Whooping Cough	20	15	19	13	28
Typhus	—	—	—	—	—
Enteric Fever	3	7	4	3	10
Simple and Ill-defined Fever ...	—	1	—	—	—
Diarrhœa	22	43	11	27	28
Deaths of Infants under one year of age	233	255	180	246	209
Deaths under one year to every 1,000 Births registered ...	169	188	147	192	171

(A₁) TABLE III.—DEATHS during the year 1896 in the Metropolitan Sanitary District of ST. MARGARET, Westminster, classified according to Diseases, Ages,

LOCALITIES.	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.						AGES.	MORTALITY				
	At all Ages.	Under 1.	1—5.	5—15.	15—25.	25—65.		1	2	3	4	5
ST. MARGARET.								Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.
Westminster Hos- pital	247	31	49	12	19	120	16	Under 5	...	...	11	...
								5 upwds.	...	...	...	...
Convent... ..	4	2	2	—	—	—	—	Under 5	...	...	...	...
								5 upwds.	...	...	...	...
Rest of Parish ...	198	45	10	9	4	73	57	Under 5	...	...	...	...
								5 upwds.	...	...	...	...
NET TOTAL	345	54	20	10	9	130	122	Under 5	...	3	3	...
								5 upwds.	...	...	1	...

The subjoined numbers have also to be taken into account

Parishioners dying out- side parish	134	7	6	1	3	52	65	Under 5	...	3	2	...
								5 upwds.	...	...	...	...
Strangers dying in parish... ..	238	31	47	12	17	115	16	Under 5	...	...	10	...
								5 upwds.	...	...	...	...

Sanitary District of ST. MARGARET, Westminster, classified according to Diseases, Ages, and Localities.

FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE.																					
6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22					
FEVERS.																					
Enteric (or Typhoid).	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Rheumatic Fever.	Ague.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Injuries.	All other Diseases.	TOTAL.					
...	1	5	6	...	...	...	21	3	1	32	80					
4	2	...	14	23	22	12	90	167					
...	2	1	...	1	4					
...					
...	2	2	3	...	...	...	17	1	1	29	55					
3	1	...	...	1	...	1	2	...	8	24	22	7	73	143					
...	2	4	5	...	...	1	21	2	1	32	74					
4	1	...	...	1	1	4	2	...	38	49	33	8	129	271					

in judging of the above records of Mortality.

...	...	...	...	...	...	...	1	2	...	...	1	2	...	...	2	13
1	...	...	...	...	...	...	1	3	...	...	30	24	9	1	52	121
...	...	...	...	...	...	...	1	4	6	...	...	21	3	1	32	78
4	...	...	...	...	...	...	...	...	2	...	14	22	20	12	86	160

(B) TABLE OF POPULATION, BIRTHS, AND OF NEW the Medical Officer of Health, during the year 1896, in classified according to Diseases,

LOCALITIES.	POPULATION AT ALL AGES.		Registered Births.	AGES.	NEW CASES OF SICKNESS IN							
	Census 1891.	Estimated to Middle of 1896.			1	2	3	4	5	6	7	
					Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	FEVERS.			
(a)	(b)	(c)	(d)	(e)						Typhus.	Enteric (or Typhoid).	Continued.
ST. MARGARET.												
Westminster Hospital	..	...	...	Under 5 ... 5 upwards...	...	...	3	...	...	...	...	...
Convent ... ..	...	...	...	Under 5 ... 5 upwards...	...	...	3	...	...	...	...	...
Rest of Parish...	...	...	...	Under 5 ... 5 upwards...	...	14 1	9 42	24	...	...	12	...
TOTAL	21,471	21,742	335	Under 5 ... 5 upwards...	...	14 1	9 48	24	...	...	12	...
ST. JOHN.												
Grosvenor Hospital ...	...	...	...	Under 5 ... 5 upwards...	...	...	1	...	...	...	...	...
Station Hospital ...	...	...	...	Under 5 ... 5 upwards...	...	...	2	...	...	...	...	...
Rest of Parish ...	...	...	...	Under 5 ... 5 upwards...	1 ..	39 117	35 38	2 1	...	2 19	...	1
TOTAL	34,106	31,492	887	Under 5 ... 5 upwards...	1 ...	39 120	35 38	2 1	...	2 19	...	1

"Notification of Infectious Disease" has been compulsory in the District since Metropolitan Asylums Board, and occasionally the London

CASES OF INFECTIOUS SICKNESS, coming to the knowledge of the Sanitary Districts of St. Margaret and St. John, Westminster, Ages, and Localities.

EACH LOCALITY.					NUMBER OF SUCH CASES REMOVED FROM HOME TO HOSPITALS.										
8	9	10	11	TOTALS	1	2	3	4	5	6	7	8	9	10	11
FEVERS.				TOTALS	FEVERS.										
Relapsing.	Puerperal.	Cholera.	Erysipelas.		Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric (or Typhoid).	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.
...
...	...	...	...	3	...	3	...	...	...	...	...	...	...	...	3
...	...	...	...	3	...	3	...	...	...	...	...	...	...	...	3
...	...	...	...	23	...	13	9	...	...	...	...	...	...	...	22
...	1	...	22	102	...	36	17	...	...	8	...	...	...	...	69
...	...	...	...	23	...	13	9	...	...	...	...	...	...	...	22
...	1	...	22	108	...	42	17	...	...	8	...	...	...	...	75
...
...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	1
...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	2
...	...	...	...	2	81	1	34	34	1	...	2	...	...	...	72
...	52	...	...	228	...	107	34	34	1	...	15	1	...	...	165
...
...	...	...	...	2	81	1	34	34	1	...	2	...	...	...	72
...	52	...	...	231	...	110	34	34	1	...	15	1	...	...	168

October 31st, 1889. The Isolation Hospitals are the Hospitals of the Fever Hospital and the London Small Pox Hospital.

METROPOLITAN ASYLUMS BOARD.

In the report dated May 20th, 1896, the Statistical Committee of the above Board report that when all additions to and works of re-construction in connection with the existing fever hospitals have been completed, the accommodation at the various hospitals will be as follows:—

	<i>Beds.</i>
Eastern Hospital	356
North-Eastern Hospital	584
North-Western Hospital	440
Western Hospital	498
Fountain Hospital	402
South-Western Hospital	368
South-Eastern Hospital	438
Northern Hospital	680
	<hr/> 3,766
To these will be added the following new hospitals:—	
Brook Hospital	488
Park Hospital	548
Grove Hospital	520
	<hr/> 1,556
	<hr/> 5,322

It is anticipated that most, if not all, the works in connection with the existing hospitals, with the exception of the North-Eastern and Western Hospitals, will be completed in 1896; that the Brook Hospital will be ready for occupation about the middle of the same year, the Park Hospital towards the end of 1897, and the Grove Hospital somewhat later. To complete the scheme there will still remain the provision of a southern convalescent fever hospital for, say, 700 patients, but for this the Managers have not, up to the present, been able to secure a site.

For Smallpox.—The Managers have approved of plans for the erection on the recently-acquired Joyce Green Farm estate at Dartford of a two-storey brick hospital for the accommodation of 880 cases in ordinary wards, and of 72 cases in special isolation buildings.

CASES OF MISTAKEN DIAGNOSIS.

During the year 1895, twelve hundred and seventy-seven patients, or a percentage on the total admissions of 7·6, were, after admission, found not to be suffering from the diseases mentioned in the notifications upon which they were removed to hospital. The percentage of these cases of mistaken diagnosis was, as regards scarlet fever cases, 3·5; diphtheria cases, 2·8; and enteric cases, 23·2.

Amongst the 413 cases certified as scarlet fever, there were 114 of measles, 69 of tonsillitis, and 95 had no obvious disease. Amongst the 651 cases certified as diphtheria, were 24 of measles, and 533 of tonsillitis.



CHART SHEWING WEEK BY WEEK THE NUMBER OF CASES OF SCARLET FEVER ——— DIPHTHERIA ———
AND TYPHOID FEVER ———

Notified by Medical Practitioners as having occurred in the Sanitary District of St. Margaret,
Westminster, during the year 1896.

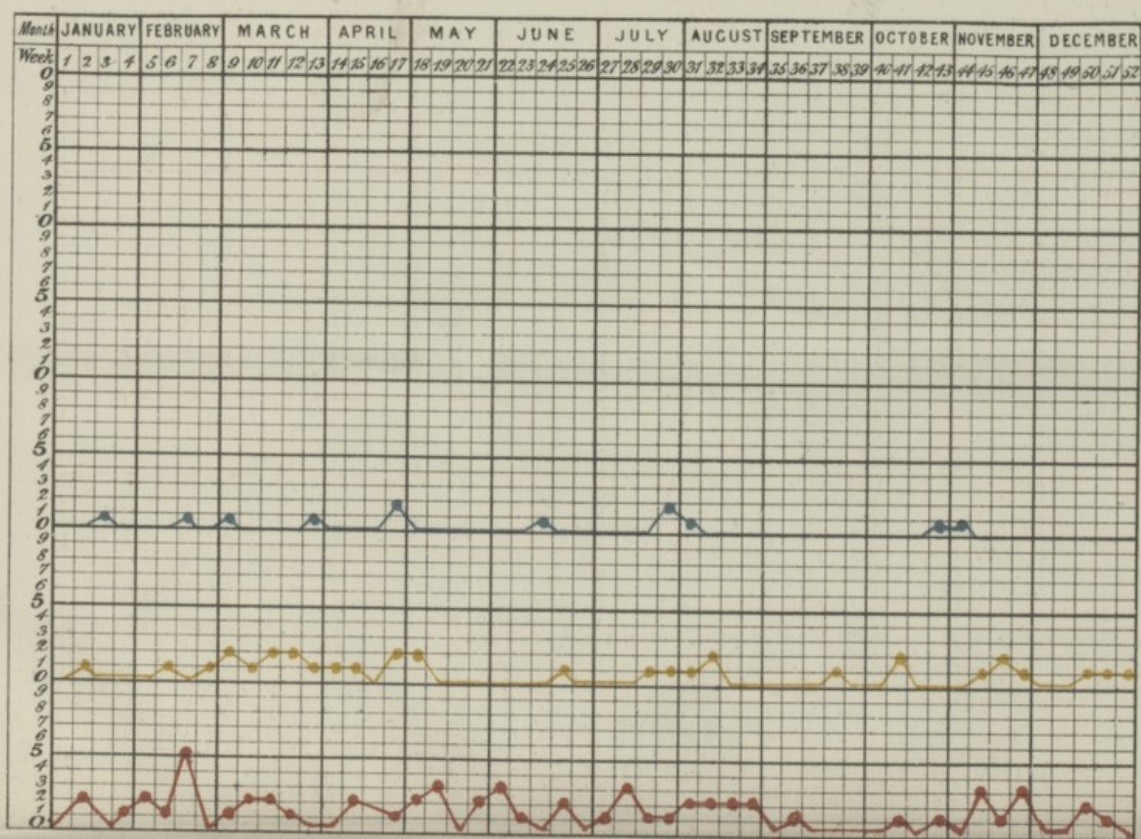
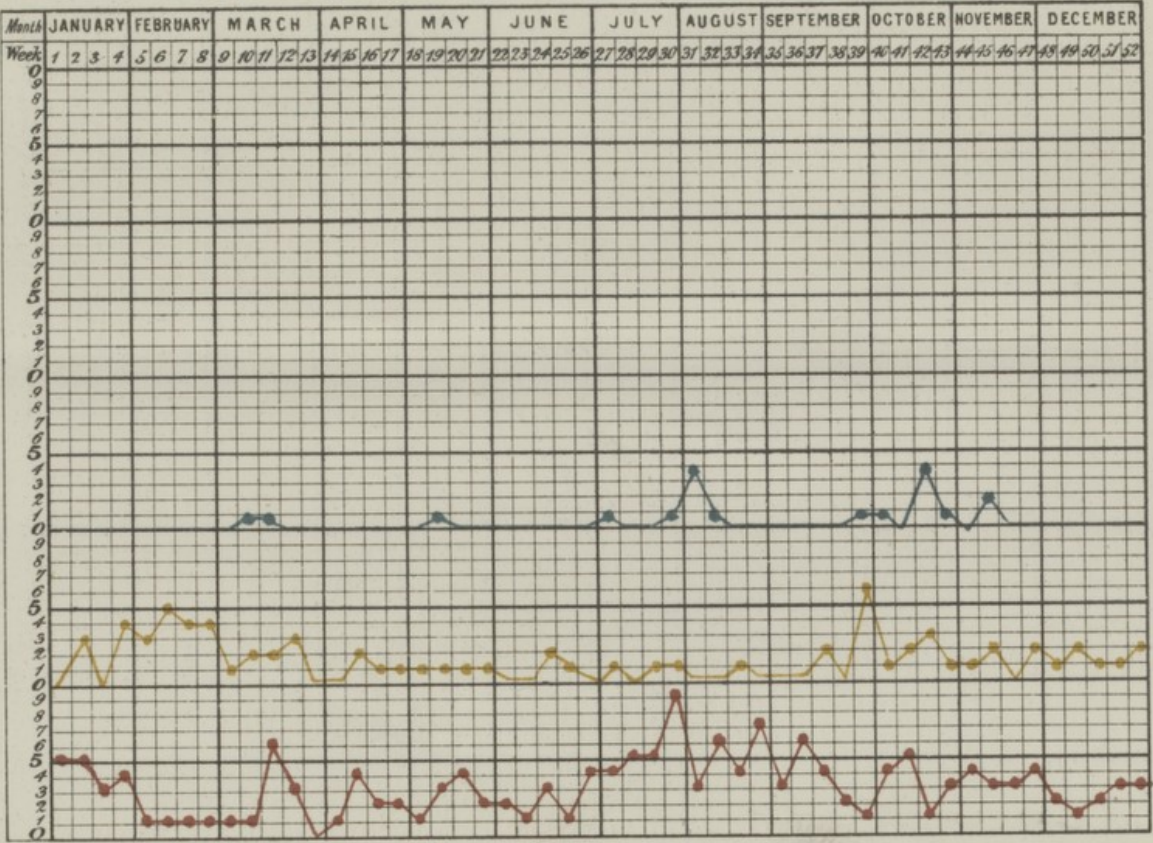


CHART SHEWING WEEK BY WEEK THE NUMBER OF CASES OF SCARLET FEVER ——— DIPHTHERIA ———
AND TYPHOID FEVER ———

Notified by Medical Practitioners as having occurred in the Sanitary District of St. John the Evangelist,
Westminster, during the year 1896.





Amongst the 200 cases certified as enteric fever were 20 of febricula, and 37 of pneumonia.

REMARKS ON INFECTIOUS DISEASES.

Smallpox.

No death was registered from this disease during 1896.

Two cases only were notified, one in each parish. The common lodging-houses, where cases mostly occur, were particularly free from the disease this year.

Scarlet Fever.

From this disease 10 deaths were registered, three of them occurring in St. Margaret's parish, and seven in St. John's. Last year nine deaths occurred from this disease.

With regard to notifications 221 were received, 62 of these being in St. Margaret's parish and 159 in St. John's parish. Last year 183 cases were notified, and in 1894, 151 notifications were received, so that there was a considerable increase in the number of cases notified this year.

The cases in St. Margaret's parish were fairly scattered, the greatest number of cases, namely seven, occurring at Buckingham cottages and chambers. In St. John's parish the greatest number of cases, viz., eleven, occurred at Peabody-buildings, Old Pye-street; otherwise the cases were well scattered.

Diphtheria.

Twenty deaths were registered from this disease and two from membranous croup (St. John's parish). Of the 20 deaths 16 occurred in St. John's parish and four in St. Margaret's.

106 cases were notified, plus three from membranous croup in St. John's parish. Of the 106 cases, 33 were from St. Margaret's, and 73 from St. John's parish.

Last year there were 15 deaths registered from this disease, and 104 cases were notified, and in 1894 there were only 72 notifications received.

RETURN CASES OF SCARLET FEVER AND DIPHTHERIA FROM THE METROPOLITAN ASYLUMS BOARD FEVER HOSPITALS.

A Sub-committee was appointed by the Managers of the above-named hospitals to enquire into any evidence bearing on this subject. In the 1895 report the Sub-committee arrived at the following conclusions:—

- (a) That there was no evidence to show that any appreciable number of patients admitted to the Board's hospitals during the past two years had contracted infection from patients previously discharged therefrom. That there was reason to believe that of

the so-called "return" cases some had been due to the re-introduction of infection into households owing to the disturbance of insufficiently disinfected clothes, &c., left at home and stored away during the patient's stay in hospital.

(b) That it was desirable that those sanitary authorities in the Metropolitan district who had not then provided themselves with steam disinfectors should be urged to do so with the least possible delay, and further, that the authorities who still entrusted the work of disinfection to contractors should be advised to discontinue the practice and to have the work carried out by responsible officials.

Return cases of Scarlet Fever must to some extent necessarily occur in every district, and we have had examples of these cases in Bloomburg-street, Ponsonby-place, and Carpenter-street; but provided another certificate is supplied the Metropolitan Asylums Board authorities are quite willing to re-admit such patients.

ANTITOXIC SERUM TREATMENT OF DIPHTHERIA.

With regard to this treatment during 1895, the Medical Superintendents of the Metropolitan Asylums Board hospitals give the following summary of their conclusions:—

- (i.) A great reduction in the mortality of cases brought under treatment on the first and second day of illness;
- (ii.) The lowering of the combined general mortality to a point below that of any former year;
- (iii.) The still more remarkable reduction in the mortality of the laryngeal cases;
- (iv.) The uniform improvement in the results of tracheotomy at each separate hospital;
- (v.) The beneficial effect produced on the clinical course of the disease.

The medical superintendents conclude by expressing the opinion "that in antitoxic serum we possess a remedy of distinctly greater value in the treatment of diphtheria than any other with which we are acquainted."

DIPHTHERIA AND ELEMENTARY SCHOOLS.

Dr. Smith, in his report upon this subject, issued in April, 1896, by direction of the School Board for London, arrives at the following conclusions:—

1. That diphtheria has always been more prevalent in the south-eastern counties of England than elsewhere, and from them it spread to London, whilst it still maintained its prevalence in them, such counties as Staffordshire, Durham, and Lancashire (the congenial home of most zymotics) being comparatively free.
2. The recrudescence of the disease in 1881-90 was greatest in England and Wales at the age 2 to 3 years, and in London at the age 1 to 2 years, in both cases *before school age*.

3. The diagrams I. and II. show that the notifications of diphtheria in London increase *rapidly* after age 1 year is reached, and go on increasing until the beginning of school age, when a decrease sets in. This shows that *age* as an absolute factor in the incidence of the disease is enormously more active than any school influence.

The notification rates are *nearly constant* through the age period 3 to 6 years, but practically school attendance does not begin until *near the middle* of this period, *i.e.*, some time after age 4 is reached.

4. If separate districts of London be examined, the same state of things is noticed, viz., the period of greatest liability to the disease *begins* before school age is reached, and, therefore, a principle of *ante hoc ergo propter hoc* is required if the age incidence of the disease is to be explained by school attendance. In some of the poorest metropolitan districts the special liability to diphtheria commences at a still earlier age than in other parts of London, suggesting overcrowding as a probable potent cause.

5. The variations of diphtheria during and after school holidays undoubtedly suggest that some amount of infection takes place at school (which no one disputes), but taking the year 1895 in which a remarkable fall occurred in the holidays, the fall was found to affect children of non-school ages almost to the same extent as children of school age, and the fall was not shared in (or only very slightly) by the poorest districts. It is probable then that such variations are in great measure explained by the smaller number of children in London during the holidays.

6. The remarkable similarity of the age incidence of mortality in Berlin to that in London—although school age begins at quite a different time—strengthens the conclusion already expressed, that age, not school attendance, is the chief factor in the incidence of the disease.

7. The progressively greater liability of girls as compared with boys—in relation to age—points to personal contact as another important source of infection.

8. The comparative immunity of infants under one year of age, suggests that older children often infect one another at night, young infants being removed from this risk by sleeping with their parents.

9. That as the result of a special inquiry into 2,168 consecutive cases, a very small number of cases could be traced to even a possibility of school infection.

10. That school influence, as such, plays but an unimportant part in the enormous increase of the disease during recent years in London.

FEVERS.

Ten deaths occurred in the district from Enteric Fever—four in St. Margaret's Parish and six in St. John's. Last year three deaths only occurred from this fever.

Thirty-three cases were notified, 12 being in St. Margaret's and 21 in St. John's Parish. Last year 28 cases were notified and in 1894 there were 42.

One death occurred from Puerperal Fever, and one case only of this disease was notified during the year.

OYSTER CULTURE IN RELATION TO DISEASE.

In the supplement of the report of the Medical Officer of the Local Government Board for 1894-95, Dr. Thorne Thorne gives an interesting report on the above important subject.

He has shown in conjunction with Drs. Bulstrode and Klein, that while it is true that some of the places around our coast where oysters are cultivated, stored, fattened and rendered fit for market, are free from the risk of sewage pollution, other places where they are cultivated are decidedly dangerous.

In the report is also included the copy of a report by Professor Cohn, on an outbreak of Typhoid Fever at a Wesleyan University, Middletown, Connecticut.

Professor Cohn states, "if one had planned beforehand a series of experiments designed to prove the possibility of oysters as distributing Typhoid it would hardly have been possible to have devised a more satisfactory series of conditions than those which have attained in this outbreak at Middletown."

After considering the possibility of infection from water, milk, ice, ice-cream, and other sources, such as defective plumbing, no cause could be found; but it was found that all the cases of Typhoid occurred between October 20th and November 9th (the period of incubation for Typhoid being from about eight to twenty-eight days), between which periods a series of fraternity suppers, commencing October 12th, were given, in which raw oysters were freely partaken of. It was also found that the ladies in the College, about 50 in number, did not hold any special supper on the evening of October 12th, nor did they eat raw oysters either then or subsequently, and they were all exempt from the disease.

All the oysters eaten came from a place called Fair Haven, and it was shown that water in which the oysters had been fattened before they were sent to the consumer was polluted with sewage, and from one sewer which was emptying itself into the water were typhoid stools coming from a neighbouring house where a lady and her daughter were suffering from Typhoid Fever; the lady dying and the daughter recovering.

Subsequent examination showed that the two persons in question were taken sick at just about the time that the oysters sent to Middletown were collected.

The oysters were sent to Middletown on October 10th and the doctor was first called to these Typhoid cases on October 11th.

Professor Cohn, in conclusion, says :—"The question arose at once whether the typhoid germs would live under the conditions presented in these oysters or be killed by the salt water or the oyster juices. That the germ is not killed by salt water has been shown by both Freytag and Foster, both of whom have found that the typhoid organism will live for weeks in a concentrated salt solution. Specimens of the oysters were, however, submitted to Dr. Chas. J. Foote, of the Yale Medical School, for testing the question directly. The general result was to show that the typhoid organism will live in the oysters long enough to have the oysters taken to Middletown and be eaten. In these experiments the bacilli typhi abdominali were forced in between the shells of the oysters from the creek and were found alive and capable of growth at the end of 48 hours. This is all that is required to account for the outbreak at Middletown."

Dr. Thorne mentions as special dangerous layings the following places:—

1. Southend
2. Cleethorpes
3. Medina River (Isle of Wight)
4. Penryn River, Cornwall
5. Brightlingsea Creek, Essex
6. Off Southwick, near Shoreham
7. In the Menai Straits

He states that the instances of Southend, Cleethorpes and Medina are the worst, but he is able to speak well of the Whitstable oyster fisheries and the fisheries generally on the Kent and Essex Coasts.

With regard to Dr. Klein's bacteriological investigations Dr. Thorne states, after quoting a number of experiments performed by the former gentleman :—That "it follows, therefore, from these experiments that oysters, from various localities and of diverse origin, which are kept for a while in sea-water previously infected with culture of the typhoid bacillus, and which remain living and fresh, may and do harbour in their interior the living typhoid bacillus at intervals of 4, 9, 16, and even 18 days from commencement of experiment; and that these oysters on being opened show no abnormal condition, but appear fresh and quite unaltered. Further, it appears that *the typhoid bacillus which was recovered from these oysters, as also from the tank water, retains unimpaired all the characters of the typical typhoid bacillus that was used for the experiment.*"

With regard to "experiments made with Oysters kept in Cholera-infected Sea-water," it was shown that the Cholera vibrio may exist in sea-water tanks for two or more weeks, but

tends to lose its characteristics, whereas the typhoid bacillus retains its characteristics unimpaired.

In conclusion, Dr. Thorne points out the conditions necessary as to the storage and fattening of oysters in suitable places, and in water where there is no risk of sewage contamination, and that many such places can be found around the coast of England where there is not the least fear of oysters being contaminated in any way whatever.

INFECTIOUS DISEASES AND SCHOOL ATTENDANCE.

No special cases, taking school attendance as a special factor, have been noticed during the year in St. Margaret's Parish.

On reference to the streets where the principal cases of infectious disease have occurred, it will be noticed, generally, that the cases have been scattered; *e.g.*, in St. Margaret's Parish, seven cases of Scarlet Fever are the most that have occurred in one large block of buildings, and four cases of Diphtheria are the highest that have occurred in any one street in this parish. In St. John's Parish, the highest record is eleven cases of Scarlet Fever in Peabody-buildings, Old Pye-street, and the highest number of cases of Diphtheria occurring in any square or street has been eight.

During the Christmas holidays the Westminster Training College Day Schools were thoroughly disinfected, owing to more than one case of Diphtheria having taken place in the same class, following rapidly upon each other. No further cases, up to the present time, have been notified.

MEASLES.

During the past year 17 deaths from Measles were registered. Three of the deaths occurred in St. Margaret's Parish and 14 in St. John's. During 1895, 23 deaths were registered, and in 1894, 37 deaths occurred, so there has been a marked decrease in the number of deaths from this disease during the year 1896.

During the past year the attention of the Public Health Committee has been directed to the question of compulsory notification of this disease, by more than one Metropolitan Sanitary Authority; but having had practical experience in the matter of notification of measles, the Committee have decided to take no action in the matter.

In Dr. Thomson's Report on Measles to the Local Government Board, in the Annual Report for 1894-95, where a large mass of reliable information is collected, it is stated that there has been no decline in the mortality from measles during recent years, and from a mass of statistics, he shows that

measles is most fatal during the second year of life, its death-rate subsequently declining rapidly. From the epidemic experience of an urban district, with a population of 35,606, in which, during the epidemic, measles was compulsorily notifiable, this fact was again made correct. In the next place, Dr. Thomson treats of the means for obtaining the control of measles and the measures adopted by various Sanitary Authorities, and states that the dual notification of infectious diseases, now compulsory in the greater part of England, would, if extended to measles and rigidly enforced, furnish an unfailing source of information regarding every case recognised as measles. But Dr. Thomson points out how this fails in practice, on account of the non-calling in of a medical man in a large proportion of cases of measles. He, however, remarks that the value of the notification of measles would doubtless be increased, if each notification were taken as affording a clue to the detection of unrecognised or unreported cases.

WHOOPING COUGH.

Twenty-eight deaths were registered from this disease during the year, five occurring in St. Margaret's Parish and twenty three in St. John's. During 1895 thirteen deaths occurred from this disease.

INFLUENZA.

During the year six deaths were registered from this disease, four occurring in St. Margaret's Parish and two in St. John's. This is a decided decrease compared with the year 1895, when 25 deaths occurred from this disease.

DIARRHŒA.

Twent-eight deaths occurred from this disease, nine in St. Margaret's Parish and nineteen in St. John's. During 1895 twenty-seven deaths occurred; twenty-four of the deaths occurred in children under five years of age and most of them during the Summer quarter of the year.

CHOLERA.

The district has been free from this disease during the year.

ERYSIPELAS.

No deaths occurred from this disease during the year.

A list of the streets, with the number of cases of the principal infectious diseases occurring in such street, is given below :—

ST. MARGARET'S PARISH.

Street or Place.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Small-pox.
Albert-gate	1	...	...	..
Arthur-street ... ..	...	4	...	...
Artillery-row	3	...	...	...
Ashley-gardens	4	3	...	...
Ashley-place ... ..	...	3	...	...
Broad Sanctuary	4	..	...	...
Buckingham cottages and chambers	7	...	...	...
Carlisle-place	3	...	...	...
Carteret-street ... ..	..	1	...	...
Castle-lane ... ..	..	2	...	...
Catherine-street... ..	...	1	...	...
Caxton-street	1	1	1	...
Cobourg-row ... ..	...	1	...	...
Cottage-place ... ..	..	1	...	...
Ennismore-gardens	2	...	...	...
Exhibition-road... ..	1	..	...	...
Francis-street	2	1	...	...
Great Chapel-street	3	...	...	...
Great George-street ... ..	...	...	1	...
High-road	2	...	...	...
Hill-street	1	...	1	...
Horseshoe-alley	1	..	...	...
Howick-place ... ..	...	1	...	...
James-street	4	1	...	...
Lewisham-street	1	3	...	...
Middle-row ... ..	...	1	...	...
Montpelier-mews ... ..	...	1	...	...
Montpelier-row	2	...	...	...
New Tothill-street	1	...	...	...
Palace-street	1	...	...	...
Parker-street	2	...	...	...
Peabody-buildings, James-street	2	3	...	...
Princes-gardens	1	...	...	...
Princes-street ... ..	...	1	1	...
Queen Anne's-gate	2	...	1	...
Rutland-gate	1	...	1	1
St. Ermin's-hill... ..	1	...	1	...
Trevor-square	1	...	...	...
Vauxhall Bridge-road ... ..	...	1	...	...
Victoria-street	2	3	2	...
Willow-place	1	...	..	...
Willow-street	3	...	2	...
York-street	2	...	1	...

ST. JOHN'S PARISH.

Street or Place.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Small-pox.
Arneway-street ...	...	1	...	...
Bennett's-yard ...	3	...	...	...
Bessborough-place ...	5	...	1	..
Bessborough-street ...	2	...	...	...
Bloomburg-street ...	4	...	...	...
Carpenter-street ...	4	1	...	...
Causton-street ...	2	...	...	...
Chadwick-street ...	...	2	1	...
Chapter-street ...	1	...	...	...
Charlwood-street ...	...	...	1	...
Church-street ...	1	...	...	...
Churton-street ...	...	...	1	...
Cowley-street ...	...	1	...	...
Dorset-mews ...	3	...	...	...
Dorset-street ...	...	1	..	1
Douglas-place ...	1	3	...	...
Douglas-street ..	3	1	...	..
Earl-street ...	1	...	...	...
Garden-street ...	3	4	...	...
Great Peter-street ...	1	4	2	...
Great Smith-street ...	1	...	...	...
Greycoat-place ...	1	...	...	...
Greycoat-street ...	1	...	1	...
Grosvenor-road ...	3	...	...	...
Grosvenor-street ...	..	1	...	...
Hide-place ..	2	2	..	...
Horseferry-road ...	3	3	3	...
Johnson-street ...	...	...	1	...
Lillington-street ...	9	...	2	...
Marsham-street ...	1	2	...	...
Medway-street ..	3	2	...	...
Millbank-street ...	5	1	...	...
North-street ...	2	...	...	...
Page-street ...	6	4	2	...
Peabody-buildings, Old Pye-st.	11	5	...	...
Peabody-buildings, Orchard-st.	8	7	2	..
Ponsonby-place ...	9	...	...	...
Ponsonby-terrace ...	2	...	...	...
Regent-place ...	1	...	...	...
Regency-street ...	9	...	...	...
Ridley-place ...	1	..	1	...
Rochester-row ...	4	...	...	...
Romney-street ...	7	6	...	...
St. Ann's-street...	1	2	...	...
St. John's-street ...	3	1	...	...
St. Matthew-street ...	...	2	...	...
Smith-square ...	6	8	1	...
Strutton-ground ...	5	5	...	...
Tachbrook-street ...	1	...	...	...
Tuften-street ...	5	4	...	...
Vauxhall Bridge-road ...	10	...	1	...
Victoria-street ...	1	...	...	...
Vincent-row ...	...	...	1	...
Vincent-square ...	1	...	...	...
Vincent-street ...	...	2	...	...
Wood-street ...	3	1	...	...

FACTORIES AND WORKSHOPS IN THE UNITED PARISHES.

During the year only one notice has been received from the Factory Inspector as to the opening of any new premises in the district as a workshop.

All the factories and workshops in the various wards have been duly visited and inspected during the year. In Wards 1 and 2, St. Margaret, there are several large workshops, *e.g.*, Messrs. Harvey & Nicholls and Messrs. Wooland & Co. employ a large number of dressmakers, milliners and tailors, in addition to a large number of shop assistants; the number of employes being rarely under a thousand. The Incandescent Gas Light Company employ, on an average, 500 female and 100 male workers.

The Army and Navy Stores have a block of buildings in Francis-place, which is used as workshops, stores, clerks' offices, in which there are about six or seven hundred men and from 100 to 150 women employed. There are also certain tailors' workshops on the roof of the building at 105, Victoria-street, where there are about 60 tailors at work. The Army and Navy Auxiliary Stores in Francis-street and Cobourg-row have a few small workshops for costume making, millinery, flowers and hairdressing, employing about 30 women and 10 men.

The great majority of the other workshops in the district are tailors, dressmakers, laundresses and shoemakers, and most of them employ only a very few hands.

In Wards 1 and 3, St. John, there are 53 factories and workshops, some of the owners employing a large number of hands. During the year several intimations were served requiring the owners to limewhite and cleanse their premises. Many of these workplaces are visited by the Home Office Inspector, but no complaint has been received as to their condition during the past year.

The following are some of the chief factories and workshops in Wards Nos. 1 and 3, St. John:—

Messrs. de Sélincourt, employing on an average 200 hands.

„ Mowlem „ „ 120 „

„ Trollope „ „ 160 „

Army & Navy Factory, Johnson-street, employing on an average 200 to 250 hands.

Messrs. Sugg, employing on an average 250 to 300 hands.

„ Farmiloe „ „ 80 hands.

In Wards No. 3, St. Margaret, and No. 2, St. John, the chief factories and workshops are: Messrs. Cowan's, Gas Meter Manufacturers, employing 150 men; Messrs. Broadwood, employing from 400 to 500 men; Messrs. Vacher, Printers, employing about 61 men; Westminster Brewery, 68

men ; Messrs. Fenton's Flour Mills employ an average number of 10 men ; Shrewsbury & Talbot Tyre Co., 10 men ; Army and Navy Auxiliary Co. (Horseferry-road), 100 persons, including about 14 females ; Messrs. Cook, Hammond & Co., 40 men ; Messrs. Nicholls, 40 men ; Messrs. Metchim, 48 men. There are various other workshops, mainly consisting of dressmakers, mantle makers, shoemakers, blind manufacturers, map mounters, &c.

NOTES ON THE FACTORY AND WORKSHOPS ACTS OF 1878, 1883, 1891 AND 1895.

The provisions of the above Acts are full of difficulty in their application, since many of the provisions of the three latter Acts are legislation by reference. The difference of the powers to deal with textile and non-textile factories and workshops would be confusing enough if all the provisions were enforceable by a factory inspector alone, but when one attempts to find out the duty of a sanitary authority, who (through their medical officer of health and sanitary inspectors) are in certain cases vested with the powers of a factory inspector, one's bewilderment is almost complete ; for where the factory inspector's jurisdiction ends and the sanitary authority's begins, seem to be most mysterious. Nevertheless, certain duties are clearly defined as the function of the sanitary authority, as is also the enforcement of the provisions of the special powers applied to London workshops by sections 2, 25 and 38, of the Public Health (London) Act, 1891 ; and perhaps one would almost be justified in saying that by the enforcement of the powers of this Act, all that a metropolitan sanitary authority is required to do (which would benefit the health of the work-people) can be done by that Act. It seems to me that the only advantages of the Factory and Workshops Acts to Metropolitan sanitary authorities are, that certain provisions of the 1895 Act make it easier to determine the existence of improper conditions by making it compulsory under penalty—

- (a) To affix notices stating the number of persons who may be employed in any room.
- (b) To fix a standard of cubic space for each worker.
- (c) To draw attention to the fact that the temperature and humidity of the atmosphere are conditions which should be dealt with, and giving power to prevent these reaching improper points.

It is, however, very doubtful as to whether the Act of 1895 confers upon a Metropolitan sanitary authority—

- (a) The power to proceed against persons who do not fix the notice in a workshop as required by section 1, sub-section 3, or
- (b) The power to deal with unreasonable temperature.

In fact, in the latter case [sec. 32] (since by sub-section 2 an unreasonable temperature is brought as an offence within the general term “not kept in conformity with the Principal Act,” and as Metropolitan sanitary authorities are excluded by section 3, sub-section 2, of the Factory and Workshops Act, 1891, from the power to take proceedings under the “Principal Act”) it appears that in the Metropolis this health question is one in which a medical officer of health is powerless.

I now purpose pointing out what I consider to be the powers which Metropolitan sanitary authorities have with regard to factories and workshops, and the sections of the Acts upon which that opinion is based.

I.—*Factories (in London).*

London sanitary authorities have, under the Public Health (London) Act, 1891, the following powers with regard to factories, subject to the Factory and Workshops Act of 1878, and the Acts amending the same.

The definition of a “house” by section 141 includes factories, hence—

1. The powers of secs. 37, 39, 40, 41 and 42 as to closets, drains, &c., apply; also
2. The powers of sec. 60 as to infectious diseases apply; also
3. The powers of sec. 48 as to insufficient water supply apply; also
4. The powers of sec. 2 (sub-sec. 1E) as to overcrowding, apply; also
5. The powers of sec. 115 as to entry, apply.

Section 38 expressly includes factories (without limitation) and provides for the provision of suitable and sufficient sanitary conveniences for each sex. One must note, however, by sec. 35, Factory and Workshop Act, 1895, duality of control in the Metropolis by Home Office and Sanitary Authority. The definition of *premises*, sec. 141, doubtless includes factories, hence it is the duty of the Sanitary Authority by sec. 1 from time to time to inspect the factories within their district for the purposes of detecting nuisances (sec. 1—*a, b, c, d, e, f*)

and to deal with infringements as directed by that Act. (Note special power of sec. 4, sub-sec. 4a as to liability to fines).

Section 21 (Effluvia) and secs. 23 and 24 (Black Smoke) are also enforceable by the Sanitary Authority against the occupiers of factories.

Other factories are dealt with as Workshops (note sec. 35, sub-sec. 2 and sec. 2 sub-sec. 1g).

By section 27 of the 1891 Act, it is made compulsory for occupiers of workshops and contractors to keep a list of out-workers if the Home Secretary so requires, and this has been done in certain specified trades—the only one specially affecting this district being “the making of articles of wearing apparel.”

By section 42, sub-section 2 of the 1895 Act, this obligation is extended to the occupier of any premises from which such work is given out whether the premises are a workshop or not. For this purpose the Officer of a Sanitary Authority has the power of examining such lists, and it is therefore highly probable that a Metropolitan Sanitary Authority could take action to recover penalties under section 27, sub-section 2 of the 1891 Act, although it does not appear to be specially provided for, and it is doubtful, therefore, if the penalties imposed could be paid to the Authority prosecuting, having regard to the provisions of section 89 of the 1878 Act.

II.—*Workshops (in London, other than Bakehouses, power of Sanitary Authorities).*

In considering the position of Workshops in London, it is well to note the history of legislation, and to observe the sequence and connection of the provisions and their variation in the several Acts, so as to obtain a light whereby one may read the intention of the legislators in the alterations made. One may note, therefore, that Workshops which were included within the provisions of the Factory and Workshops Acts of 1878 and 1883, enforceable by the Factory Inspector, were by the provisions of the Factory and Workshops Acts, 1891 (Schedule II.), partially removed from his jurisdiction, excepting in default of a Sanitary Authority, and by sec. 3, sub-sec. 2, these duties outside London were conferred upon Sanitary Authorities.

It is therefore necessary, as far as London is concerned, to note, that the powers of its Sanitary Authorities are not within the Factory and Workshops Acts, nor are the conferred provisions of sec. 4 (note sub-sec. 4 of sec. 4, Factory and Workshop Act, 1891)—hence it is probable that the fact of the passage of the Consolidating Act (*i.e.*, Public Health (London) Act, 1891) was deemed by the Government to be an

opportunity for conferring certain special sanitary powers (lately held by the Factory Inspectors over London Workshops under the Factory Acts) upon the Metropolitan Sanitary Authorities—and their powers include every power that is held under the Act (Public Health (London) Act) which I have set out under the heading *Factories* (subject to the 1878 Act), and in addition, the following special powers :—

- (1) Sec. 2 (g) (i.) (ii.) (iii.) (special workshop nuisances).
- (2) Sec. 25, Cleansing, &c. (as to factory—note sub-sec. 2).
- (3) Sec. 27, Duty of Medical Officer of Health with respect to certain provisions of the Factory and Workshops Act (notice of employment of protected persons).

So far, then, as workshops and workplaces are concerned, the whole duty of enforcing sanitary provisions is conferred upon the Metropolitan Sanitary Authority by the Public Health (London) Act, 1891.

Provisions of Workshops Act of 1895.

It is now necessary to note the effects of the provisions of the above Act, and sec. 1, sub-sec. 1 defines "*over-crowding*" in a workshop for the purpose of the law relating to public health, and this can be used by a sanitary authority in London as a standard; but unfortunately the provisions in the same section (sub-sec. 3) whilst making it compulsory to fix a notice specifying the number of persons who may be employed in each room of a factory or workshop are legislation by reference to sec. 78 of the principal Act (F. & W.), and for neglect of this very salutary provision a person can apparently only be summoned by a Factory Inspector; hence making a difficulty for the sanitary authority in workshops which the factory inspector has not to experience in factories.

With regard to this it is well to note that the factory inspector is by sec. 2 sub-sec. 2 debarred from taking action against workshops in matters which can be dealt with by the sanitary authority unless the said authority are defaulters, and sec. 5 again, whilst dealing with insanitary workshops, gives power to the factory inspector against the person who gives out work to be done in such places and not to the sanitary authority.

Under sec. 4 of the principal Act (F. & W.) it is the duty of the factory inspector to give notice of such insanitary conditions in a workshop to the sanitary authority.

Section 6 again provides a penalty for making, cleaning, or repairing any clothing in a house where small-pox or scarlet

fever exist, but for this provision again no power of enforcement is apparently given to the metropolitan sanitary authority, but only to the factory inspector, although the medical officer of health of the district would be the first person who would know of the existence of such diseases, because of the certificate (notification) sent him under the regulations of the Public Health (London) Act, 1891.

Section 32 provides for the maintenance of a reasonable temperature, but as I have already pointed out this section gives no power of enforcement to a Metropolitan Sanitary Authority.

Section 41 provides that the person who is in occupation of a workshop at the commencement of the Act shall, before the expiration of twelve months from the commencement of this Act (1895) give notice of occupation to the factory inspector who is to forthwith give notice also to the sanitary authority.

Finally, section 35 brings again directly under dual control every factory and workshop in the metropolis (whilst leaving some of the principal country districts to the sanitary authority) as to the provision of sanitary conveniences, notwithstanding the special powers conferred upon a metropolitan sanitary authority by sec. 38 of the Public Health (London) Act, 1891. The said sanitary authority by sec. 2, sub-sec. 2, Factory and Workshops Act, 1891, and sec. 3, sub-sec. 2, of 1895 Act shall deal with the matter within one month.

Laundries.

Section 22, sub-sec. 4, so far as sanitary provisions, &c., are concerned, the Factory Acts shall have effect as if every laundry in which steam, water, or other mechanical power is used in aid of the laundry process were a factory and every other laundry were a workshop, and as if every occupier of a laundry were the occupier of a factory or of a workshop.

Bakehouses.

By sec. 141, Public Health (London) Act, "a bakehouse is defined to mean any place in which bread, biscuits, or confectionery are baked, for the selling of which a profit is derived."

A bakehouse, if mechanical power is in use therein, is a factory, otherwise it is a workshop. The special powers of a Sanitary Authority within a bakehouse, which is a workshop, are conveyed by sec. 26, Public Health (London) Act, 1891, which incorporates the powers of secs. 34, 35 and 81 of the Factory and Workshops Act, 1878, and secs. 15 and 16 of the Factory and Workshops Acts, 1883, to be enforced by the Sanitary Authority, and are strengthened by sec. 27, sub-sec. 2, of the Factory and Workshops Act, 1895.

HOUSING OF THE WORKING CLASSES ACT.

Proceedings were taken, and a closing order obtained, against the owner of No. 1A, Griffith's-buildings, Ridley-place; the house has since been demolished. Nos. 1, 3 & 23, Chadwick-street, which were closed by order of the Magistrate during the year 1895 until such time as they were made fit for human habitation, have been put into such repair as will meet the requirements of the Vestry, and have consequently been re-opened.

WATER SUPPLY TO NEWLY ERECTED HOUSES, &c.

During the past year the extension of a constant water supply to a district bounded by Victoria-street, the Thames, Page-street, Rochester-row, and Strutton-ground, has practically been completed.

In St. Margaret's Parish, sixty certificates of proper water supply to newly erected houses were granted, under sec. 48 of the Public Health (London) Act, 1891, and in St. John's, twenty-five certificates were given.

Under sec. 49, Notices were received from the Water Company with respect to eleven occupied and seventeen unoccupied houses.

TABLE VI.—VACCINATIONS DURING THE YEAR 1896.

Primary Vaccinations.			Re-Vaccination by Public Vaccinator.
Public Vaccination.	Private Practitioners.	Total.	
530	506	1,036	13

Dr. Thorne in his report to the Local Government Board for the year 1894-95 has again to deplore the growing amount of default under the Vaccination Acts, the percentage of default reached in respect of children born in the year 1892 being 14·9 for the whole country, 18·4 in the Metropolis, and 14·3 in the provinces. Both these latter rates are more than double those which prevailed six years previously.

With regard to the important question of vaccination, I think it right and proper that I should include in this report a compend of the final report of the Royal Commission on Vaccination, which has been sitting for several years :—

THE FINAL REPORT OF THE ROYAL COMMISSION ON VACCINATION.

This report has just been issued and is signed by eleven of the thirteen Commissioners appointed 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 extent 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 facilitated as part of public vaccination.
5. Whether any alteration 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.

Of the eleven Commissioners who sign the report, two sign a supplementary paragraph, in which they state that:—"We think that in all cases in which a parent or guardian refuses to allow vaccination, the person so refusing should be summoned before a magistrate, as at present, and that the only change made should be to permit the magistrate to accept a sworn deposition of conscientious objection, and to abstain from the infliction of a fine.

"We also are of opinion that, in spite of the difficulties set forth in paragraph 533, a second vaccination at the age of twelve ought to be made compulsory."

Four of the Commissioners, viz., two who have signed the majority report, and two who have not, sign the following supplementary paragraph:—

We cordially concur in the recommendation that conscientious objection to vaccination should be respected. The objection that mere negligence or unwillingness on the part of parents to take trouble might keep many children from being vaccinated would be largely, if not wholly, removed by the adoption of the Scotch system of offering vaccination at the home of the child, and by providing for medical treatment of any untoward results which may arise.

We therefore think that the modified form of compulsion recommended by our colleagues is unnecessary and that in practice it could not be carried out.

The hostility which compulsion has evoked in the past toward the practice of vaccination is fully acknowledged in the Report.

In our opinion the retention of compulsion in any form will in the future cause irritation and hostility of the same kind.

The right of the parent on grounds of conscience to refuse vaccination for his child being conceded, and the offer of vaccination under improved conditions being made at the home of the child, it would in our opinion be best to leave the parent free to accept or reject this offer.

The Commission held 136 meetings for the examination of witnesses, and examined 187 witnesses.

They caused also several important investigations to be made especially in regard to local outbreaks of small-pox, *e.g.*, in London, Warrington and Gloucester, and cases of alleged injury arising from vaccination, and came to the following conclusions :—

(A.) *As to the effect of vaccination in reducing the prevalence of, and mortality from, small-pox.*

1. That it 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 protect 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 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 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.

(B.) *As to the objections made to vaccination on the ground of injurious effects alleged to result therefrom; and the nature and extent of any injurious effects which do, in fact, so result.*

Syphilis.

In cases of alleged inoculation of Syphilis after vaccination, the Commission came to the conclusion that "even if it can be shown that in some instances syphilis has been inoculated by vaccination, the conclusion would still remain that this cannot have been so to any substantial extent."

Cancer.

With regard to this disease, the Commission states that "there can be no doubt that the mortality from cancer shown by the registered causes of deaths has considerably increased in recent years. This disease is, it must be remembered, one to which persons of advanced years are specially subject. The young are seldom its victims. And the increase of mortality from it has, for the most part, affected adults and principally old people. There has been an actual decrease in the mortality from the disease of those under five years of age. In the second and third quinquennials of life there has also been a decrease—it is only in later age periods that the mortality begins to rise, and the rise becomes more and more pronounced as the age increases. The increase is, therefore, greatest in the age period furthest removed from the time of vaccination, whilst in the age period nearest to it there is an actual decrease. This of itself would seem enough to acquit vaccination of the charge of having caused an increased mortality from cancer, even if the origin of that increase remained in complete obscurity. This, however, is not the case. The Registrar-General points out that there can be very little doubt that the increase is to a considerable extent apparent only, and is simply due to improved diagnosis, and more careful statement of the cause of death on the part of medical men. He calls attention in connection with this to the fact, that year by year the number of deaths ascribed to tumours, abdominal disease, or other similar imperfectly stated causes, has been undergoing diminution. This explanation of the increase of mortality shown by the registered causes of deaths receives support from the fact that the increase of mortality from cancer has been much greater among males than females, the rate for males having risen 62 per cent. in 20 years, while the rate for females rose only 43 per cent. As the Registrar-General observes:—"The cancerous affections of males are 'in much larger proportion internal, or inaccessible, than are those of females, and consequently are more difficult of recognition, so that any improvement in medical diagnosis would 'add more to the male than the female reckoning.' It may be that, in addition to the apparent increase, there has been some real increase in the mortality from cancer, but there is not a shadow of evidence to connect this with the practice of vaccination, whilst there is, as we have shown, evidence pointing the other way."

Erysipelas.

With regard to this disease, the Commission came to the conclusion that "the evidence is, in our opinion, conclusive to show that there has not been during the last 40 years any material increase of deaths from erysipelas owing to vaccination."

Tabes Mesenterica and Scrofula.

Passing on to tabes mesenterica and scrofula, we find that the mortality from these diseases, as returned to the Registrar-General, shows an increase during the last 40 years. On the other hand, the mortality from allied diseases, such as hydrocephalus and phthisis shows a decrease. Some part, and it is impossible to say how much, of this increased mortality in the case of the two first-named diseases, and of the decrease in the two last named, is apparent only and not real, and results no doubt from better diagnosis leading to a transfer of cases from one class to another. On this point again it is useful to resort to the experience of Leicester. The increase of deaths under one year from tabes mesenterica and scrofula per million births in Leicester during the years 1883-87, as compared with the years 1863-67, was 25·8 per cent. A similar comparison for England and Wales shows a percentage of 26·8 per cent.

We do not find any facts to warrant the assertion that the increased mortality from tabes mesenterica and scrofula, or any part of it, was due to vaccination.

Pyæmia, Bronchitis, Diarrhœa, and Skin Diseases.

Without encumbering our report with the details relating to pyæmia, bronchitis, diarrhœa, and skin diseases, which are all said to have increased owing to the mischievous influence of vaccination, we may confidently say that there is no evidence to justify the statement.

Upon the whole, then, we think that the evidence is overwhelming to show that, in the case of some of the diseases referred to, vaccination cannot have produced any effect upon the mortality from them, and that it has not in the case of any one of them increased the mortality to a substantial, we might even say an appreciable, extent.

Personal injury or death resulting from Vaccination.

When we pass to a consideration of the evidence that personal injury or death has resulted from vaccination, the questions which present themselves do not admit of the same simple solution as those with which we have just been dealing. The cause of death, or the nature of an illness, is sometimes obscure, and even if its nature be known, it may be difficult to ascertain with certainty what has been its origin. We shall have to make further reference presently to the difficulties which must needs be encountered in the investigation upon which we are engaged. As we have already stated, it is not open to doubt that there have been cases in which injury and death have resulted from vaccination.

We have not any means of ascertaining in what number of cases some other disease has supervened on vaccination as a consequence of it, without producing a fatal result. We are able, however, to form some judgment upon this point by observing the number of non-fatal cases to which our attention has been called. We do not mean to suggest that we have been informed

of all cases of this nature which have occurred during the last six years. There have very likely been many cases which have not come to our knowledge, where the inflammation set up has been more than usual, and some where a slight attack of erysipelas has resulted. But when we consider that the fact that we were engaged upon this inquiry has been thoroughly well known, and that active organisations and zealous individuals were at work, searching out cases in which the results of vaccination had been abnormal, with a view to bring them under our notice, and that some of those which we were asked to investigate turned out to be of a trifling or unsubstantial nature, we think we are able to form a fairly accurate estimate of the amount of injury which can be plausibly attributed to vaccination. A consideration of all the circumstances has led us to the conclusion that, as regards the non-fatal cases with which we are now dealing, serious injury cannot have resulted in any considerable number of cases.

An examination of the analysis of the fatal maladies connected with vaccination during the period 1886 to 1891, made by Dr. Ogle, shows that erysipelas is credited with almost one-half of the total number of deaths. To these a considerable number is to be added, where inflamed arms occurred, but in which the disease did not receive the name of erysipelas, though it was probably allied to it. Next in number comes the class, which includes pyæmia, septicæmia, and blood poisoning. If this class be added to cases of erysipelas and maladies allied to it, they account altogether for two-thirds of the cases in which the cause of death has been connected with vaccination. An examination of the particulars of the cases of alleged deaths and injury from vaccination, to which our attention has been called during the last six years, shows that the death or injury has been attributed in the great majority of cases to one or other of these diseases, and chiefly to erysipelas.

It must not be forgotten that the introduction into the system of even a mild virus, however carefully performed, is necessarily attended by the production of local inflammation and of febrile illness. If these results did not in some measure follow, the practice would probably fail in its protective influence. As a rule, the inflammation and illness are of a trifling character; in exceptional cases, however, they may exhibit more severity, and, as certain facts submitted to us in evidence have shown, there are cases, though these are rare, where a general eruption may follow vaccination.

In many of the cases which we have had to investigate, where vaccination has been followed by erysipelas, the disease has been present in the immediate vicinity, it cannot therefore be asserted with certainty that in such cases the child would have escaped erysipelas if it had not been vaccinated. Erysipelas may be acquired without any lesion. We do not intend to represent that the wound made in vaccination may not cause an attack of erysipelas, where, if there were no lesion there would be no such attack, but only to suggest that caution is necessary, and that it would be an error to refer all cases of erysipelas, or allied diseases, occurring after vaccination to that operation as their cause.

There can be no doubt that even very slight wounds may lead to erysipelas. It has been induced by scratches from pins, abrasions from the dress and other injuries, in themselves most trivial.

We propose to call attention to some of the features which have been observed in the cases we have investigated where erysipelas has ensued upon, and in all probability been connected with, the act of vaccination. We have already said that in some of these cases, erysipelas was prevailing in the neighbourhood, and sometimes even in the immediate vicinity of the vaccinated child. In a considerable number it was reported that the condition of the premises in which the child was living was extremely insanitary. In some it was manifest that there had been a lack of care and attention on the part of the mother or other person in charge of the child. Not unfrequently the wound was in contact with and rubbed by articles of dress very likely to cause inflammation, and cream and other substances were applied to the wounds under circumstances which made the process a source of danger. There were instances in which persons in the habit of nursing a vaccinated child were suffering themselves at the time from running sores, which were very likely the source of contagion. In some cases, too, where the vaccinated vesicles had been opened on the eighth day, erysipelas manifested itself at a time which suggested that it had been acquired at a date subsequent to this opening of the vesicles. *A priori*, this would appear to be a source of danger by rendering an attack of erysipelas more probable if the child came within the reach of contagion. The evidence, however, is not conclusive that erysipelas has, owing to this cause, appeared more often than it would have done if the vesicles had remained unopened. There is an opinion abroad that the taking away of lymph on the eighth day of itself causes some risk of inflammation of the arm. This, however, has not been confirmed by any evidence before us, and it is probable that it is almost wholly an imaginary danger.

We have dwelt upon features presented by the cases of erysipelas and various forms of septic disease which have followed vaccination, because they suggest precautions which may be adopted to lessen, if not to prevent, such evils in the future. If, for example, vaccination were performed at the patient's home instead of at a public vaccination place the chance of disease being contracted at the time of vaccination would be to some extent diminished, and the same may be said of the inspection of the vaccinated person which takes place eight days after the operation.

A study of the cases which have been made the subject of careful examination and report points to the conclusion that an exercise of greater care would largely diminish the risk, already small, of erysipelas-contagion and blood-poisoning.

Although it may be confidently hoped that by additional care on the part both of vaccinators and parents, the number of inflamed arms and of cases of erysipelas may be reduced to very few, yet it is not to be expected that such occurrences will be wholly prevented. A vaccination wound is like one from any other cause, so long as it exists, a source of some risk.

The use of calf-lymph, though it may be supposed to be more free from the risk of conveying erysipelas, does not appear to prevent inflamed arms. Some witnesses have indeed supposed that it is attended with more risk of inflammation than the employment of that taken from the human subject. This opinion has not, however, been corroborated by some of those of widest experience.

Leprosy.

As regards the possible effect of vaccination in increasing the prevalence of leprosy, no affirmative evidence has been brought before the Commission which in their opinion establishes that this effect has resulted from the practice. On the other hand, much of a strongly negative character has been produced.

It is obvious that the employment of calf-lymph only would wholly exclude the risks as regards both syphilis and leprosy. Respecting the latter disease, however, there appears to be reason to doubt whether any risk exists, and at any rate it does not concern the British population. Even in leprosy districts the employment of English human lymph would be, so far as leprosy is concerned, as safe as that from the calf. The risk of syphilis, although real, is an exceedingly small one, even when humanised lymph is employed, and may probably be wholly avoided by care in the selection of the vaccinifer. As regards all the other dangers, whether of severe illness or temporary inconvenience, the two forms of lymph appear to stand on the same level. The instances of inflamed arms, of erysipelas, of vaccinia maligna, and eczematous eruptions are not more common after the use of human lymph than after that from the calf. Some of the best qualified witnesses who have afforded us their assistance have expressed a deliberate preference for arm-to-arm vaccination, believing the advantages of calf lymph are more imaginary than real.

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.

With regard to the question:—

(C.) *As to 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 facilitated as a part of public vaccination.*

The Commission state:—

We have already shown how satisfactory a position Germany has occupied in relation to small-pox since the year 1874. The age of compulsion in that country is the end of the next calendar

year after birth. It is true that re-vaccination has been there made compulsory as well as primary vaccination, but we think the experience of Germany is not without its bearing on the question we are now considering. Wherever the line is drawn, whether at three months or six months, it will always leave a class of unvaccinated persons. The age to be fixed is a question of policy into which many considerations must enter. If the extension of the age within which vaccination was required rendered its untoward incidents fewer in number, and diminished hostility to the operation, it may be that on the whole it would promote the cause of vaccination, and secure, as its result, that the number of vaccinated persons would be greater than at present.

The truth is that it is only when an epidemic breaks out in any place that the vaccination of very young children becomes a question of grave importance. An epidemic is not likely to originate, nor in its early days to grow, owing to the non-vaccination of that class.

Great care should be taken with regard to vaccination, and abrasion of the vaccination vesicles by clothing of a nature likely to irritate them should be avoided, and that foreign substances should not be rubbed into the wounds under circumstances calculated to set up inflammation.

The Commission also point out the advantage of the children being vaccinated at home, so that they be not brought to a Vaccination Station and so exposed to inclement weather. Moreover, any dangerous insanitary surroundings would be brought to the notice of the medical man and could thus be rectified, for it is well known that insanitary surroundings often set up septic changes in any wound.

Again, they say, vaccination ought to be postponed when erysipelas, scarlet fever, measles, or chicken-pox are prevalent in the neighbourhood of the child's residence:—

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.

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.

We think that safety would be increased by preserving the lymph in tubes instead of on "dry points." There is some difference of opinion on this matter amongst those with whose opinions we have been furnished. On the whole, however, we think the weight of experience as well as reason is in the direction we have indicated.

In connexion with this subject, our attention has been drawn to the experiments recently made by Dr. Copeman as to the effect of the storage of vaccine lymph in glycerine. The conclusions at which he arrives are that the addition of glycerine, whilst it leaves the efficacy of the lymph undiminished or even

increases it, tends to destroy other organisms. If it be the fact that the efficacy of the lymph remains unimpaired, its storage in glycerine would largely diminish the difficulties connected with the use of calf-lymph, which are inseparable from calf to arm vaccination. The investigation has not yet reached a point at which it is possible to pronounce with certainty whether the anticipated results would be obtained. And it was at one time suggested that the introduction of glycerine was likely to be mischievous. The question is one a further investigation of which is obviously desirable.

If lymph is to be preserved in glycerine, due care would be requisite to ensure its purity and the absence of contamination in its introduction. We think that, whether mixed with glycerine or not, each tube should contain only sufficient lymph for the vaccination of one person.

Another precaution which ought to be 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 insertions too near together, so as to injure the vitality of the tissues between them.

We think the time at present fixed for inspection of the vaccinated 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.

The amount of the fee to be received by the vaccinator would, of course, require to be determined with reference to the duties which it is proposed to impose upon him. We think the fee should be adequate to cover all these duties.

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.

With regard to :—

(D.) *As to 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.*

The means other than the inoculation of small-pox or cow-pox, which have been referred to by witnesses as being capable of diminishing the prevalence of small-pox, are such means as have been employed against infectious diseases generally; they may be summarised as—1. Measures directed against infection, *e.g.*,

prompt notification, isolation of the infected, disinfection, &c.
 2. Measures calculated to promote the public health, the prevention of overcrowding in dwellings or on areas, cleanliness, the removal of definite insanitary conditions, &c.

Isolation.

The principle underlying the practice of isolation with its accompanying machinery is obviously the very opposite of that which recommended the practice of inoculation; it aims at exclusion of the disease, whereas inoculation aimed at universal acceptance by artificially "sowing" or "buying" the disease. Except in regard to the plague our knowledge and practice of measures of isolation and quarantine against epidemics is of relatively recent growth. As the result of increased knowledge of the mode of propagation of infectious diseases, of greater sanitary activity, and under the stimulus of legislation, organised effort, more or less thorough, is now, in this as in other countries, directed against the spread of dangerous infectious diseases. Side by side with a vaccination system, means of isolation, &c., have been successfully employed to check the spread of small-pox. They have also been sometimes so employed in recent years in places where vaccination has fallen into disuse.

Evidence bearing on the same point was given by Dr. Thorne before the Royal Commission which in 1881-2 inquired into the subject of small-pox and fever hospitals in London.

Speaking of hospitals for infectious diseases generally, he said, "The evidence is so abundant that I could occupy you for hours in telling you of instances in which epidemics have evidently been prevented by the isolation of first cases of infectious disease."

Dr. Thorne says: "It is really more striking as regards small-pox than any other disease, because small-pox can be more easily isolated; the friends of the patient, and they themselves being so much more willing to submit to isolation, than when suffering from any of the other specific fevers." He adds, however, that "efficient vaccination must be considered as a probable influence in contributing to the results."

It is to be observed, too, that Dr. Thorne expressed the opinion that after an outbreak of small-pox had proceeded a certain way, the influence of a hospital for good upon the population would be very small indeed, that it would be good so far as concerned the individual house from which the patient was removed, but that it often had but little influence upon the general body of the epidemic.

Notification.

Passing now to a consideration of the effect produced by a notification of cases of small-pox and the steps taken to isolate them, we naturally begin with Leicester. The method there employed in dealing with small-pox has attracted much attention, and is often spoken of as the "Leicester system."

As some discussion has arisen as to the exact procedure under the Leicester system, it will be well to briefly state in what it consists. On the receipt of a notification at the Health Office, a

telephonic message is sent to the hospital to prepare for the reception of a patient, and to despatch the ambulance; the sanitary inspector at once proceeds to the house notified, and urges the removal of the patient to hospital, and also the removal of those who have been in contact with him to the quarantine wards near the hospital. There is rarely any difficulty in securing the removal of the patient; in the case of the other inmates of the infected house, there is no power of compulsory removal, but persuasion has generally been successful. If a person liable to infection is not quarantined, he is visited daily by the inspector; he is warned against going to work, or undue exposure, but is not confined to the house. Compensation has been given in some cases. The history of the small-pox patient is then inquired into, especially his whereabouts, and the persons he has been in contact with during the preceding fortnight, and any clue of infection is vigilantly followed up. Meanwhile, the house is thoroughly disinfected, and clothing is either burnt or sent to the steam disinfecter on the hospital grounds. There are 28 beds ordinarily set aside for small-pox in a separate pavilion at the hospital; in another building, fenced off from this, but very near it, cases of scarlet fever are received, and the quarantine wards are separated from the fever wards by a corridor only.

If no small-pox appears among those quarantined, they are allowed to return after 14 days; vaccination or re-vaccination is offered them, but it has not been largely accepted. From 1877 to 1891, inclusive, it appears that 183 persons were thus quarantined, and 103 patients were treated in the small-pox hospital. Of 14 persons quarantined in 1887 two developed small-pox, and of 39 quarantined in 1888 three developed small-pox.

Proceeding the Commission state:—

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 situate in a populous neighbourhood, and secondly, that the ambulance arrangement 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.

After various points of evidence they say:—

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 to contemplate the consequences without dismay.

To avoid misunderstanding, it may be well to repeat that we are very far from underrating 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.

With regard to Common Lodging Houses and outbreaks of Small-pox, the Commission say :—

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 :—

- (i.) That common shelters which are not now subject to the law relating to common lodging houses should be made subject to such law.
 - (ii.) 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.
 - (iii.) 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.
 - (iv.) That the local authority should be empowered to require the temporary closing of any common lodging-house in which small-pox has occurred.
 - (v.) 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.
 - (vi.) 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.
 - (vii.) 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.
- (E.) *As to whether any alterations should be made in the arrangements and proceedings for securing the performance of vaccinations, and, in particular, in those provisions of the Vaccination Acts with respect to prosecutions for non-compliance with the Law.*

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.

Proceeding the Commission states :—

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 propaganda 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 in 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.

Why, it is asked, should not vaccination cease to be compulsory altogether, and be left to the free choice of parents? If no penalty were attached to the failure to vaccinate, it is, we think, certain that a large number of children would remain unvaccinated from mere neglect on the part of their parents, or indisposition to incur the trouble involved, and not because they thought it better in the interests of their children. This appears to us to be a complete answer to the question. If we be right in the conclusions which we have expressed on the subject of vaccination, it is better for the child, and better for the community, that it should be vaccinated than that it should remain unvaccinated. A parent can have no inherent right under the circumstances to which we have alluded to prevent or neglect its vaccination. The difficulty arises where the parent abstains from procuring the vaccination of the child because he believes it will be detrimental to its interests. We do not intend to discuss the abstract question whether the State is entitled in such circumstances to compel the parent, in spite of this conviction, to see that his child is vaccinated ; we will assume for the purpose of our argument that it is so entitled. This leaves untouched the question whether, on the whole, such a course conduces to a better vaccinated condition of the people. We think that ardent advocates of vaccination have not always borne in mind the practical consequences of an attempt to enforce the law in such cases. They have maintained that no one has a right to set up

his judgment against that of the community embodied in the statute law, and to refuse in consequence to render that law his obedience; they have, therefore, opposed any relaxation of the laws relating to vaccination, assuming that because in particular instances it might lead to children remaining unvaccinated who would otherwise be vaccinated, it must necessarily result in a diminished number of vaccinations. We believe that this assumption is not well founded. It has been apparently forgotten that under the existing law a penalty, or even repeated penalties, can be paid without difficulty, by a man only moderately well-to-do, and that a poorer man will constantly pay, or suffer a distress of his goods, or go to prison, rather than allow his child to be vaccinated. We think these ardent advocates have not always been the wisest friends of vaccination, and that there would have been more vaccinated persons if the law had been enforced with more discretion.

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.

It must of course be a necessary condition of a scheme of this description that it should be such as would prevent an objection to the practice being alleged merely as an excuse to save the trouble connected with the vaccination of the child. We may give the following as examples of the methods which might be adopted. It might be provided that if a parent attended before the local authority and satisfied them that he entertained such an objection, no proceedings should be taken against him. Or, again, a statutory declaration to that effect before any one now authorised to take such declaration, or some other specified official or officials, might be made a bar to proceedings. We do not think it would be any real gain to parents who had no conviction that the vaccination of their children was calculated to do mischief, to take either of these steps rather than submit them to the operation.

And if every duly qualified practitioner who vaccinated a child successfully could claim the appointed fee, it could properly and ought, we think, to be made a condition that all children so vaccinated should be liable to inspection, and that the fee should not be allowed when the examination did not appear to have been performed in accordance with the prescribed rules. It would not, of course, be necessary to make such an inspection in every case; a limited number of test cases would suffice. The liability to inspection would prevent abuse, and under proper regulations we think the system might be an improvement on any at present existing.

We have already said that in our opinion the State is bound to see that a supply of calf lymph is within the reach of every vaccinator. Though this recommendation has been dictated by other reasons, its importance in connexion with the alteration in our vaccination system which we are now considering is apparent. It would at all events go far to secure that any defect in vaccination should not result from imperfection in the lymph employed.

The change which we propose in our vaccination system would no doubt render it somewhat more costly, but the difference would not be very great, and, in our judgment, no consideration of cost ought to be allowed to stand in the way of any improvement which would render the operation less burdensome or diminish its risk.

It is only fair to demand this if vaccination is to remain compulsory. In this connection we observe that the public vaccinator ought, in our opinion, to be under an obligation to afford medical attendance without cost to the parent in all cases in which the vaccination does not run an ordinary course, and owing to supervening illness such attendance becomes necessary. Whether the fee paid in respect of vaccination should be fixed at such an amount as to cover this extra attendance in the exceptional cases in which it would be requisite, or whether it should be the subject of special compensation, is a matter of detail on which the Local Government Board is in a better position to form an opinion than we can be. Inasmuch as compulsory vaccination is justified on the ground that it is not a matter which concerns alone either the parent or the vaccinated child, we think provisions such as we have indicated would be both just and reasonable. We have already adverted to the importance which we attach to re-vaccination. It has been suggested that the operation should be made compulsory by law. We are quite alive to the protective value of general re-vaccination. At the same time we are not insensible of the difficulties necessarily involved in rendering it compulsory. It is, comparatively speaking, easy in the case of infants to ascertain whether the law requiring vaccination has been complied with. The constant movement of the population would render it much more difficult to ascertain whether at the more advanced age at which it would become applicable, a law providing for compulsory re-vaccination had been observed. Again, it is impossible to leave out of sight the effect that such an extension of the present compulsory law might have in intensifying hostility, where it at present exists, and even in extending its area; though if our recommendations, especially that which exempts from penalty those who honestly object to the practice, were adopted this objection would be much diminished. 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.

We think that notification of small-pox should everywhere be compulsory, and, whenever the disease showed 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 proximity 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.

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. If, however, the changes in the compulsory provisions of the vaccination laws which we have suggested were adopted, the matter would lose much of its importance.

SALE OF FOOD AND DRUGS AND MARGARINE ACTS.

During the year 87 samples of food have been purchased for the purpose of analysis; and in addition two samples have been submitted by ratepayers under the standing order. A tabulated list is given below, together with fines inflicted and costs:—

ARTICLE.	No. of Sample.	Genuine.	Adulterated.	Fines.	Costs.
				£ s. d.	£ s. d.
Butter	24	23	1	No	action.
Cocoa	5	4	1	1 0 0	0 12 6
Coffee	16	12	4	5 0 0	1 17 6
Ice-cream	9	9	—	—	—
Milk	30	25	5	2 0 0	1 5 0
Pepper	3	3	—	—	—
Total ...	87	76	11	8 0 0	3 15 0

Samples submitted by Ratepayers.

Two samples of lard were submitted and certified as being genuine.

ICE-CREAMS.

The sale of ice-creams has again claimed the attention of the Public Health Committee during the past year, and after hearing a report from me on the subject the Committee came to the conclusion that it was urgent and necessary that the vendors of ice-cream should be registered.

In a paper recently read before the Society of Medical Officers of Health the author visited the shop of a well-known confectioner and bought a strawberry ice-cream. The ice-cream contained from 8,000,000 to 14,280,000 bacteria per cubic centimetre (ordinary drinking water generally contains about 100 bacteria per cubic centimetre) and among the same the "*Bacillus Coli*," a normal inhabitant of the bowels of men and animals.

Attention has also lately been called to the coloured hot drinks which are retailed at small shops and street stalls in winter, and which are sold chiefly to children. A sample recently analysed showed that the colouring matter was due to an aniline dye, and the drink contained a quantity of fusel oil and other injurious substances in solution.

SALE OF PRESERVED GREEN PEAS.

The attention of the Public Health Committee of the Vestry was also called to this subject—but they were of opinion that no action was called for on the part of the Vestry.

With regard to this subject a Parliamentary Committee on "Food Products Adulteration," state that tinned peas are generally coloured with Sulphate of Copper, and while there is reason to think that peas so coloured have in some cases proved injurious to health it has been urged as desirable that a limit to the use of this colouring agent should be fixed.

SELECT COMMITTEE ON "FOOD PRODUCTS ADULTERATION."

The Select Committee appointed to inquire into the working of the Margarine Act, 1887, and the Sale of Food and Drugs Act, 1875, and any Acts amending the same, and report whether any, and if so, what Amendments of the Law relating to Adulteration are in their opinion desirable; report that:—

While the evidence shows that the law in relation to food adulteration needs amendment in some important points, it is satisfactory to your Committee to have ground for stating that where the Acts have been well administered they have been most beneficial in diminishing adulteration offences. Forms of adulteration which were common prior to the passing of the Sale of Food and Drugs Act, 1875, such as the introduction of alum into bread, and the colouring of confectionery with poisonous material, have now almost entirely disappeared.

The following is a summary of the principal recommendations of the Committee :—

1. That in districts other than county boroughs, where the local authorities fail to put the Acts in force, the county council should, by their own officers, take samples for the purposes of the Acts.
2. That in connection with the sale of mixed articles it should be obligatory upon the vendor to supply the purchaser with a label setting forth that the article is mixed.
3. That the statement of admixture on labels should be legibly and distinctly printed and so as not to be obscured by other printed matter, and that existing labels should be subject to the proviso mentioned in the concluding paragraph of the section of this Report headed "labelling and sale of mixed articles."
4. That, subject to the limitations indicated in the Report, invoices and equivalent documents should have the force of warranties in the cases of all articles to which the Sale of Food and Drugs Acts apply.
5. That the Commissioners of Customs be authorised to examine and take samples of all food imports at the port of entry with a view to subsequent action, as indicated in the body of the Report.
6. The dealers who obtain supplies of foods from abroad should be required to submit to the Customs guarantees of purity given by the foreign vendor, together with evidence that they have taken measures to see that the goods are such as they are guaranteed to be.
7. That retailers should be empowered to refuse to sell an article otherwise than in a manufacturer's unopened labelled tin or packet.
8. That the powers of Section 3 of the Sale of Food and Drugs Act Amendment Act, 1879, as to the taking of samples of milk in transit, should be extended to other articles.
9. That the maximum penalty for refusal to sell a sample to the authorised officer be increased.
10. That the division of the sample after purchase and delivery of a portion to the vendor should be compulsory.
11. That samples should be divided into four instead of three parts, and that one of these parts should be at the disposal of the wholesale dealer.
12. That the provisions of Section 5 of the Margarine Act, 1887, as to the exemption of an employer from penalty in certain cases, and punishment of an assistant, should be extended to offences under the Sale of Food and Drugs Act.
13. That it should be obligatory upon the magistrates or court to refer articles to the Government Laboratory for analysis when such course is desired by either of the parties to the case.
14. That a defendant who proposes to rely upon the warranty defence should be required to intimate this to the prosecutor within a reasonable time of the service of the summons.

15. That the time allowed for appeal to quarter sessions from decisions of local justices should be extended from three to fourteen days.

16. That any person guilty of a second offence under the Sale of Food and Drugs Acts should be liable to a minimum penalty of £5, and that in respect of the third or subsequent offences under those Acts and the Margarine Act, 1887, the punishment of imprisonment without the option of a fine may be inflicted at the discretion of the magistrates or court.

17. That magistrates should be authorised to make orders, at their discretion, requiring a person convicted of offences under the Acts to publish a notification of his conviction in the public press of the locality where the offence occurred.

18. That the definition of the word "food" as used in the Acts should be amended so as to include expressly all articles intended to enter into or be used in the preparation or flavouring of food.

19. That an authority should be constituted who should act as a Court of Reference upon scientific and other questions arising under the Acts, and who should be empowered, at their discretion, to prescribe standards and limits of the quality and purity of food.

20. That candidates for appointment as public analysts should be required to produce evidence that they possess the requisite knowledge of analytical chemistry, in the shape of a diploma or certificate given in respect of such knowledge by a recognised school of chemistry or scientific examining body, and that in the case of candidates other than duly registered medical practitioners, specific tests of the requisite knowledge of microscopy and the bearing of adulterations upon health should be prescribed.

21. That the remuneration proposed to be given to a public analyst should be subject to the approval of the central authority.

22. That the artificial colouring of margarine to resemble or to imitate butter be prohibited.

23. That the mixing for sale of margarine for butter be prohibited.

NOXIOUS FUMES AND BLACK SMOKE.

During the year the Public Health Committee have considered letters from Mr. H. A. Reatchlous, M.A., on behalf of the Wesleyan Training College, dated respectively 1st and 2nd June, complaining of the emission of noxious fumes from the furnace shaft at the dépôt, and, in connection therewith, a report from the medical officer of health, by whom tests were made at his inspection in consequence of the receipt of the complaint. The conviction was expressed in his report that there was nothing in the nature of the smell of the smoke from the shaft any more injurious than the smell of the smoke from an ordinary chimney, and the suggestion was made that, with the object of preventing complaint, the height of the chimney might be increased.

The Committee directed that the substance of the report be communicated to Mr. Reatchlous, and that the surveyor bring up a report concerning the raising of the shaft.

Subsequently, upon report of the surveyor it was found that any increase in the height of the shaft (having regard to the thickness of the base) would not be permissible under the Building Act, and the Works Committee advised the Vestry not to incur the cost involved in re-building the shaft, since that under the conditions then present they could not admit that any nuisance existed.

A fine of £20 and £5 costs was imposed upon the owners of Queen Anne's Mansions for allowing dense black smoke to issue from a chimney shaft in the buildings during the month of January.

Notices were served during the year upon the owners of various shafts for emitting dense black smoke, but no further action was found necessary.

CUSTOMS AND INLAND REVENUE ACTS.

53 & 54 Vic., Cap. 8, Sec 26 (2) & 54 & 55 Vic., Cap. 25, Sec. 4.

With a desire that some uniform certificate under the above acts should be adopted generally by Metropolitan Medical Officers of Health, the Incorporated Society of Medical Officers of Health recommend :—

1. That in no case should the Medical Officer of Health examine a house with a view to giving a Certificate under these Acts, until he is absolutely satisfied—as advised in the letter from the Local Government Board, dated 15th August, 1892—that the house in question comes within the sections of the Acts.

2. That, in framing a Certificate under the Customs and Inland Revenue Acts, it is desirable that Medical Officers of Health (for their own protection) should state in the Certificate what meaning it is intended to convey.

3. That a Certificate under these Acts should in no case be given unless the following requirements are complied with :—

- (a) A definite minimum amount of cubic space per head, which should be agreed upon.
- (b) A definite minimum height and superficial area for living and sleeping rooms, as defined by the London Building Act, 1894, sec. 70.
- (c) That there is at least one draw tap and sink, with a sufficient supply of water thereon, for every twelve occupants (or less) on each floor.

- (d) That each house is supplied with a storage cistern for water, of a minimum capacity per head, which capacity should be agreed upon.
- (e) That there is at least one water-closet, properly supplied with water, for every twelve occupants (or less) on each floor.
- (f) That the drainage of the premises is in accordance with the regulations recognized by the authority in whose jurisdiction the house is situated.
- (g) That accommodation for clothes washing is provided, sufficient for the number of persons inhabiting the house.
- (h) That the house has a proper and sufficient water supply, such supply being in conformity with the water regulations of 1892, the London County Council's Bye-laws, and the Sanitary Authority's Bye-laws, as to tanks and cisterns.

4. The Committee further recommend that in the case of future new buildings, the drainage notice shall be accompanied by an intimation that the owner builds the house at his own risk of receiving a certificate under these Acts, unless the plans are first submitted to the Medical Officer of Health.

Under the above Acts certificates were granted to the owners of Peabody-buildings (Old Pye-street and Orchard-street), Lion-buildings, Westminster-chambers, St. John's-chambers, and No. 1, Dorset-street.

In the cases of Lion-buildings and St. John's-chambers the certificates were not granted until extensive alterations and repairs had been carried out.

HOUSES LET IN LODGINGS.

During the year 1896, under the bye-laws for Houses let in Lodgings 1,811 inspections have been made and 1,085 registration notices, &c., have been served ; and in addition to this, twelve houses have been registered in Wards 1 and 3, St. John.

Under the bye-laws a midnight inspection was made on 5th October, 1896, of 40 tenements in Lewisham-street, to ascertain the amount of overcrowding that actually existed therein ; most of the rooms were found to be slightly overcrowded and the nuisances arising therefrom were abated without much trouble. In four cases, however, it was found necessary to take legal proceedings against the landlord for allowing excessive overcrowding, the result of which was that a fine of one guinea was inflicted upon him and he had to pay 8s. costs.

The amount of cubic space allowed in each room under the bye-laws of the Vestry for each adult person (*i.e.*, persons over 10 years of age) for living and sleeping, is 400 cubic feet, and for sleeping only, 300 cubic feet; for persons under 10 years of age half of the above amounts is allowed.

The following table will give a good idea of the amount of overcrowding which existed at Nos. 7, 11, 27 and 29, Lewisham-street, and for which the landlord was summoned:—

Room.	Cubical contents.	No. of persons who may lawfully occupy for living and sleeping.	No. of persons who may lawfully occupy for sleeping only.	No. found actually occupying.	No. of persons in excess.
No. 7, LEWISHAM STREET.					
G. F. F. ...	1,096	1 Child } 2 Adults }	—	1 Child } 3 Adults }	1 Adult
2nd F. B. ...	794	1 Child } 1 Adult }	—	1 Child } 3 Adults }	2 Adults
No. 11, LEWISHAM STREET.					
G. F. F. ...	1,096	1 Child } 2 Adults }	—	1 Child } 4 Adults }	2 Adults
G. F. B. ...	849	2 Adults	—	3 Children } 2 Adults }	1½ Adults
2nd F. F. ...	1,433	3 Children } 3 Adults }	—	2 Children } 4 Adults }	1½ Adults
2nd F. B. ...	779	1 Child } 1 Adult }	—	2 Adults	½ Adult
No. 27, LEWISHAM STREET.					
G. F. F. ...	1,088	2 Adults } 1 Child }	—	2 Children } 3 Adults }	1½ Adults
G. F. B. ...	773	—	2 Adults } 1 Child }	4 Adults	1½ Adults
No. 29, LEWISHAM STREET.					
G. F. B. ...	773	1 Adult } 1 Child }	—	3 Adults	1½ Adults
2nd F. B. ...	746	1 Adult } 1 Child }	—	3 Adults	1½ Adults

In many of the houses in Wards Nos. 1 and 3, St. John, additional W.C. accommodation has been provided and in a large number of cases the cleansing of the walls and ceilings has been carried out.

A great deal of attention has been directed towards the sanitary state of Lewisham-street during the year, and the following table will therefore give a good idea of the amount of infectious diseases which has occurred during the last five years.

The population of the street is about 277.

Years.	No. of Cases of Infectious Diseases occurring during the year.
1892 ...	24 (this includes 18 cases of measles)
1893 ...	5 (including one case of measles)
1894 ...	1
1895 ...	5
1896 ...	8

DAIRIES, COWSHEDS AND MILKSHOPS ORDERS OF 1885 AND 1886.

No. 29 of the Regulations made under the above Orders dealing with outbreaks of infectious or contagious disease within the building or in connection with premises upon which milk is sold provides that:—

“ Every purveyor of milk, or person selling milk by retail, shall, immediately on such outbreak coming to his knowledge, remove all milk for sale, and all utensils for containing milk for sale, from such building; and shall cease to keep milk for sale or to sell milk in such building until the same has been disinfected and declared by the Medical Officer of Health for the district to be free from infection.”

In connection with the above Order the Medical Officer of the London County Council writes:—

“ The practice in dealing with this matter hitherto has been that the certificate of the Medical Officer of Health of the district has been sent to this department and the milk vendor has then been informed that he may resume the sale of milk. This procedure, however, gives rise to delay, and inasmuch as it is desirable that milk vendors should have every assistance that can be given them under these circumstances, I think it would be better if in future the certificate of freedom from infection were transmitted directly by you to the milk vendor, in order that he may then resume the sale of milk and be able to exhibit his right to do so to the Council's inspector when he makes his visit to the premises.”

As the above suggestion will materially assist purveyors of milk, it will henceforth be adopted in the United Parishes.

MEWS, COW-HOUSES AND SLAUGHTER-HOUSES, &c.

During the year these have all been duly inspected, and in only one case had the Public Health Committee any objection to offer to the renewal of the license of any cow-house and that was in the case of No. 28, Winchester-terrace, where various defects were found. Upon the defects being remedied, however, the Committee offered no objection to the renewal of the license.

REMOVAL OF DUNG.

During the autumn large posters were put up in several stables and mews, giving notice as to the periodical removal of manure, and much good has resulted therefrom.

CONVEYING FISH OFFAL THROUGH THE STREETS DURING PROHIBITED HOURS.

Only one case was observed during the year, and due notice was given to the offender who has so far not repeated the offence.

DESTRUCTION OF UNSOUND FOOD.

During the year the following articles were destroyed as being unfit for food:—

Four thousand eggs,
Five boxes of mackerel,
One-and-a-half hundredweight of hake,
One box of skate,
One do. plaice,
Two do. herrings,
One do. cod's roe.

BAKEHOUSES.

The bakehouses in the various Wards have been periodically inspected during the year, and various defects remedied.

The bakehouses in the two Wards (Nos. 3, St. Margaret, and 2, St. John) have been thoroughly cleansed and lime-whited. In nearly every case large accumulations of dirt were found under the troughs. The attention of the several owners was drawn to this fact, and they were speedily removed.

In one case a dilapidated dust receptacle stood immediately opposite the bakehouse door, and the sink waste pipe was untrapped at the outgo; but on intimating the existence of these defects to the owner the matter was put right. In two cases the paving of the bakehouses, which was defective, has been repaired.

UNDERGROUND ROOMS.

In Ward No. 3, St. John, legal proceedings were required in one instance for the illegal occupation of some underground rooms.

PEABODY BUILDINGS (JAMES-STREET).

The south-east and east blocks of these buildings chiefly abut on Palmer's-passage, and the rooms are dark in consequence of the close proximity of the Hotel Windsor and

Iddesleigh-mansions. To improve the light in the rooms reflectors have now been provided to every window of either living or bed rooms abutting on the passage.

CORONER'S COURT AND MORTUARY.

Summary of work performed from December 29th, 1895, to December 26th, 1896 :—

Number of articles disinfected from the Guards' Hospital	2,935
Number of articles disinfected from Guards' quarters	41
Number of articles disinfected from the United Parishes	10,265
Number of rooms disinfected	418
Cabs disinfected ;	1
Number of families removed to the Vestry's Reception rooms	45
Number of bodies removed to the Mortuary ...	124
Number of inquests held at the Coroner's Court ...	104
Number of bodies to await burial	20

The attention of the Vestry was directed by Mr. Sheil, a Westminster Police Magistrate, to the number of cases of scarlet fever in the Guards' Hospital, adjoining the Westminster Police Station. He pointed out the possible danger arising therefrom to any young children attending the Police Court. On making enquiries, I was informed by Brigade Surgeon Lt.-Col. Harrison that there were about 14 cases in the hospital at that time, but that every possible precaution was taken. He pointed out that whereas the Metropolitan Asylums Board Authorities were quite willing to take the women and children suffering from scarlet fever or diphtheria from army barracks, they were unable to take soldiers, since they have not even accommodation sufficient for the civil population of London.

In consequence of the above cases of scarlet fever occurring the number of articles disinfected from the Guards' Hospitals and Quarters has been exceptionally heavy this year.

As before pointed out, Sanitary Authorities have no jurisdiction whatever over Government buildings.

LEGAL PROCEEDINGS.

INSPECTOR DEE.

The nine summonses reported last year as adjourned *sine die* against the owner of James-street-mansions were revived, and a nominal penalty of ten shillings imposed in one case, with ten guineas costs ; the others were withdrawn, the whole of the works required by the Vestry being completed. Five other summonses were taken out, and the sum of £34 0s. 6d. in costs and fines was recovered.

Five summonses were taken out under the Sale of Food and Drugs Acts:—

In one case for selling adulterated milk a fine of 20s. and two shillings costs was imposed; and in two other milk cases the summonses were dismissed, as the certificates of the analyst were held to be invalid.

For the adulteration of coffee with 40 per cent. of chicory a fine of £3 and 12s. 6d. costs was imposed, and in another case the summons was dismissed.

INSPECTOR MACNAIR.

Summonses were issued against the owners of the following premises, viz. :—

20, Vincent-square, defective drains and w.c. Order made and £3 3s. costs.

24, Moreton-street, defective drains. Order made and £1 3s. costs.

157, Regency-street, illegally occupied underground rooms. Fine 5s. and £1 3s. costs.

36, Regency-street, defective w.c. Order made and £1 3s. costs.

Dorset-mews, defective stable drainage and improper receptacle for manure. Fine 40s. and £1 3s. costs.

33, Medway-street, defective drains. Order made.

26, Strutton-ground, defective drains. Order made and £2 2s. costs.

50 & 52, Tufton-street, depositing offensive refuse. Prohibition order made and 11s. costs.

Chapter-street, depositing unsound fish. The fish was, by order, destroyed. Summons withdrawn.

Bobbett's stables, Laundry-yard, premises without w.c. Order made and £2 2s. costs.

56, Rochester-row, defective drains. Order made and £1 3s. costs.

1a, Griffith's-buildings, Ridley-place, house damp, dirty and dilapidated. Closing order and £1 1s. costs.

Vacant land, corner of St. Ann's-lane and Great Peter-street. Proceedings pending.

ATTORNEY-GENERAL v. TOD-HEATLY AND OTHERS.

This was an action by the Attorney-General at the relation of the united vestry of the parishes of St. Margaret and St. John the Evangelist, Westminster, as plaintiffs, to restrain an alleged nuisance said to be existing on a piece of land at the corner of St. Ann's-lane and Great Peter-street, Westminster, which formerly belonged to the defendant, Mr. Tod-Heatly, but had since come into the possession, by purchase, of Sir Henry Moore Brownrigg. The buildings formerly on the land had

been pulled down in 1882, and the site was then surrounded by a hoarding. No new buildings had, in the meantime, been erected on the land, and it was said that the hoarding had become out of repair, and that the land had been used as a receptacle for dead dogs and cats, offal, and all kinds of refuse, and for various objectionable purposes.

The Vestry complained that the condition of the land, and the uses to which it was being put, were such as to constitute a serious nuisance to the inhabitants of the parishes, and to be injurious to the health of the people living near the land, and asked for an injunction to restrain the owners from allowing the land to be and remain in such a state as to be a nuisance and injurious to health.

It appeared that the gradual accumulation of garbage and rubbish upon the land had caused the surface to be raised some two feet above the adjoining roadway, so that in wet weather foul water flowed from the land on to the roadway.

The question at issue appeared to be whether the duty of keeping the land clean devolved upon the owner or upon the Vestry, under the provisions of the Public Health (London) Act, 1891.

The case was heard before Kekewich, J., on November 24th, 1896, when the injunction was refused.

In the course of his judgment, Mr. Justice Kekewich remarked that by section 13 of the Public Health (London) Act, 1891, the Vestry were empowered to take proceedings in the High Court to enforce the abatement or prohibition of any nuisance. Also that they had another remedy given them by section 35 of the same Act, under which they were empowered to serve a notice on the owner of any obnoxious matter, or the occupier of the premises on which it existed, requiring him to remove the same, and if the notice was not complied with, then to remove the matter themselves and to recover the expenses in a summary way from the former owner of the matter removed, or from the owner or occupier of the premises.

The learned Judge pointed out that it would not be reasonable to impose upon the owner of the land the serious duty of preventing nuisances from arising on the land, and that the Vestry could remove the obnoxious matter under the powers of the 35th section of the Public Health (London) Act, 1891, and recover the expenses incurred from the owner, and he therefore dismissed the action.

The Vestry decided to appeal against the above judgment, but since this, the land has been thoroughly cleared of all accumulation of rubbish. The hoarding has been repaired and a new gate erected.

Subsequent proceedings in Court of Appeal before Lords Justices Lindley, Smith and Rigby, 18th February, 1897:—

Mr. Warrington, Q.C., and Mr. Morton Smith appeared for the appellants; and Mr. Renshaw, Q.C., and Mr. Ingpen for the respondents.

At the conclusion of the arguments of the respondents' counsel,

Lord Justice Lindley, addressing Mr. Warrington, said that their Lordships had been considering what they ought to do, and that the order which they suggested was this: Discharge the order appealed from, and allow the appeal. Declare that the defendant, Sir H. M. Brownrigg, was legally bound to prevent the piece of land in question from continuing to be a public nuisance, and that the Attorney-General was entitled to an injunction to enforce the performance by him of such duty. Liberty for the Attorney-General to apply to the Judge for such an injunction if necessary. The defendant to pay the costs of the action so far as it was dismissed against the defendant without costs, and also to pay the costs of the appeal.

Mr. Warrington having agreed to such a declaration, he was not called upon to reply.

Lord Justice Lindley, in delivering judgment, said that, looking at the matter from the point of view of the public, the case was of the simplest possible description. The defendant, Sir H. M. Brownrigg, was the owner of a vacant piece of land. Was it or was it not a common law duty of the owner of a vacant piece of land to prevent that land from being a public nuisance? His Lordship thought that it was, and referred to Hawkin's Pleas of the Crown, p. 629, as supporting that view. It was an indictable offence. It was of no use for the defendant to say that he had not put the refuse complained of on the land. His duty was to prevent it from becoming a public nuisance. His Lordship then referred to decided cases and continued: He could not entertain the slightest doubt that the common law duty of the defendant was to prevent the land from being used in the way it was. If that was so, why was not the Attorney-General, at the relation of the vestries as plaintiffs, entitled to an injunction? It seemed to his Lordship to be almost a matter of course that the Attorney-General should, on behalf of the public, have an injunction granted. The mere fact that the injunction would put the defendant to expense in the removal of the refuse and rubbish was no excuse. So much, therefore, for the common law aspect of the case, which was what the Court had first to regard. As to the Public Health (London) Act, 1891, it gave the Court authority to grant an injunction. Section 138, which did not appear to have been called to the attention of Mr. Justice Kekewich, provided that all powers, rights, and remedies given by that Act should be in addition to and not in derogation of any other powers, rights, and remedies conferred by any Act of Parliament, law, or custom. His Lordship then dealt with the alleged reasons for not interfering with the decision of the learned Judge in the Court below, and came to the conclusion that the declaration ought to be as above set forth.

Lords Justices A. L. Smith and Rigby delivered judgment to the same effect.

INSPECTOR KIRK.

Twenty-two summonses have been taken out by order of the Public Health Committee comprising four under the Sale of Food and Drugs Acts; one under the Public Health Act, 1891; one under the Metropolis Local Management Act; and resulted as follows:—

Under the Sale of Food and Drugs Acts, £4 was recovered in fines and £3 0s. 6d. in costs.

Under section 5 of the Public Health (London) Act, 1891, four summonses were taken out which resulted in a magistrate's order to abate the nuisances on each summons and to pay 10/6 in each case. Upon non-compliance of the above orders four additional summonses were taken out, but before the hearing the magistrate's orders were complied with, the defendant paying, at the demand of the Vestry's Solicitor, one guinea and cost of summons, 8s.

Nine summonses under the Bye-laws for houses let in lodgings were heard at the Police Court and resulted in the recovery of £3 11s. fines, and 18s. costs.

One under the Metropolis Management Act was settled by the Vestry's Solicitor and the defendant, the works being completed immediately after the service of the summons. The cost of the summons, 2s., was paid by defendant in addition to that already mentioned, *re* the summons taken out for non-compliance with magistrate's orders.

Total fines, £10 14s. Total costs, £4 6s. 8d.

RE-ARRANGEMENT OF INSPECTORS' DISTRICTS.

The temporary engagement of Mr. Foster in the Public Health Department having ceased on June 30th last, and the majority of houses let in lodgings being almost complete, I suggested to the Public Health Committee the desirability of re-arranging the districts of the three sanitary inspectors, with the view of more nearly equalizing their work, of avoiding overlapping, and of making each inspector responsible for all departments of the work in the district assigned to him, and of making each officer responsible for four months out of the year for the carrying out of the Food and Drugs Acts.

After due consideration, the Committee were unanimously of opinion, the preparatory work of measurement and registration being done, that a re-distribution such as suggested would conduce to the more economic working of the department, and they therefore recommended, that until further orders, the districts of the several inspectors be those indicated in the following tabular statement, and that each inspector be responsible for the whole of the work arising in connection with the two wards allotted him.

REDISTRIBUTION OF WARDS.

District.	Inspector.	Acreage.	Population.	Houses.
Ward 1, St. Margaret	T. G. Dee.	384	6,664	829
Ward 2, St. Margaret		99	10,321	784
		483*	16,985	1,613
Ward 3, St. Margaret	J. W. Kirk.	111	4,468	584
Ward 2, St. John ...		67	14,508	1,124
		178	18,976	1,708
Ward 1, St. John ...	A. McNair.	58	9,789	1,138
Ward 3, St. John ...		86	9,809	1,160
		144	19,598	2,298

* Including, approximately, 280 acres of park land.

This resolution was subsequently passed by the Vestry, and I find that it works well and gives more satisfaction than the old method of working the Wards of the United Parishes.

REPORT OF INSPECTOR DEE FOR YEAR ENDING 1896.

Parish of St. Margaret, Westminster.

This report is for the whole of the Parish, from January to September, and from then until the end of the year for Wards Nos. 1 and 2, St. Margaret.

Inspections made	...	...	...	...	...	1104
Defects found	...	...	...	...	...	1312
Notices served	...	...	...	...	...	711
Works completed	...	...	...	...	...	708
Notices outstanding, 1895	...	...	...	...	...	49
Notices uncomplied with at end of year	...	...	...	...	...	52
Re-inspections made—						
1. Houses cleansed	...	...	...	...	...	46
2. Houses disinfected...	...	...	...	...	...	101
3. Drains cleansed, trapped, etc.	...	...	...	...	...	296
4. Drains, new, provided	...	...	...	...	...	62
5. Water-closets repaired	...	...	...	...	...	108
6. Water-closets, water-supply provided	...	...	...	...	...	37
7. Water-closets, new, provided	...	...	...	...	...	186
8. Dust-bins repaired	...	...	...	...	...	41
9. Dust-bins provided	...	...	...	...	...	15
10. New cisterns provided	...	...	...	...	...	2
11. Cisterns repaired	...	...	...	...	...	—
12. Overflow pipes for cisterns abolished	...	...	...	...	...	—
13. Dust accumulations removed	...	...	...	...	...	23
14. Accumulations of refuse removed	...	...	...	...	...	60
15. Animals removed, being improperly kept	...	...	...	...	...	—
16. Bakehouse dirty	...	...	...	...	...	1
17. Cowsheds inspected	...	...	...	...	...	2
18. Slaughter-houses inspected	...	...	...	...	...	2
18A. Underground rooms illegally occupied	...	...	...	...	...	8
19. Miscellaneous	...	...	...	...	...	322
						1312

Inspector MacNair's Report for the whole of St. John's Parish to the end of June, and from that time to end of December for Wards Nos. 1 and 3, St. John:—

Inspections made	...	...	...	...	...	1,210
Defects found	...	...	...	...	...	1,337
Intimations, notices, &c., served	...	...	...	...	...	798

Works completed	...	...	...	...	...	718
Notices outstanding, 1895	...	...	...	...	...	60
„ uncomplied with, 1896...	...	...	...	...	...	55
Summary of defects found :—						
Results of inspection—Houses, premises, &c., cleansed, repaired, limewhited...	...	...	...	...	...	64
Results of inspection—Houses disinfected after illness of an infectious character	...	...	...	...	...	208
Drains—House drains repaired, cleansed, trapped, and ventilated; new drains provided to old houses, premises, &c.	...	...	...	...	...	296
Water closets—Repaired, &c.; supplied with water; new provided	...	...	...	...	...	209
Dust bins—New provided; repaired, covered, &c...	...	...	...	...	...	155
Water supply—Cisterns, new erected; cisterns re- paired, cleansed and covered; cistern, overflow pipes connected with drains, &c., abolished	...	...	...	...	...	116
Number of lodging-houses registered (since July)...	...	...	...	...	...	12
Dust removal—Communications received and at- tended to	...	...	...	...	...	30
Removal of accumulations of refuse, dung, stagnant water, &c....	...	...	...	...	...	56
Animals removed, being improperly kept	...	...	...	...	...	44
Milk shops, bakehouses, licensed cow-houses, slaughter-houses, regularly inspected	...	...	...	...	...	50
Miscellaneous	...	...	...	...	...	97
Total...	...	...	...	...	...	<u>1,337</u>

Report of Inspector Kirk for Ward 3 St. Margaret, and Ward 2 St. John, from July to December, under section 3 and 4 Public Health (London) Act, 1891, etc. :—

Inspections made	...	...	...	...	...	572
Defects found	...	...	...	...	...	1,514
Notices served	...	...	...	...	...	331
Works completed	...	...	...	...	...	851
Notices, not complied with	...	...	...	...	...	47

This list includes works executed under notices served under Bye-laws for houses let in lodgings.

1. Houses and tenements cleansed and whitened, &c.	...	...	...	...	...	840
2. Houses disinfected	...	...	...	...	...	102
3. Drains cleansed, trapped, &c.	...	...	...	...	...	54
4. Drains, new, provided	...	...	...	...	...	57

5. Water closets repaired	19
6. W.C. water supply provided	39
7. „ new supply provided	4
8. Dust bin repaired... ..	4
9. „ provided	22
10. New cisterns provided	2
11. Cisterns repaired... ..	8
12. Overflow from cistern abolished.. ..	—
13. Dust accumulations removed	37
14. Accumulation of refuse removed	16
15. Animals removed, being improperly kept	3
16. Bakehouses dirty	5
17. Cowsheds inspected	1
18. Slaughter houses inspected	3
18A. Underground rooms illegally and occupied	2
19. Miscellaneous	296

1,514

NOTE.—For the first half of the year 1896, Inspector Kirk together with Mr. Foster was working at “Houses let in lodgings” under which heading the work performed by them will be seen.



I remain,

My Lords and Gentlemen,

Your obedient Servant,

JOHN NORTON, M.D., D.P.H.,

Medical Officer of Health.

FEBRUARY, 1897.