Annual report on the health, sanitary condition, &c.;, &c.;, of the Parish of St. Mary Abbotts, Kensington for the year, 1898.

#### **Contributors**

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THE

# ANNUAL REPORT

ON THE

HEALTH,

### SANITARY CONDITION

&c., &c.,

OF THE

## Parish of St. Mary Abbotts, KENSINGTON,

FOR THE YEAR

1898,

BY

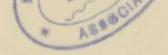
### T. ORME DUDFIELD, M.D.,

Medical Officer of Bealth.

Mensington

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### TABLE OF CONTENTS.

		PAGE
Kensington: Registration District and Sub-Districts	***	1
,, Parliamentary Divisions of the Borough of	***	2
,, Sanitary Districts, Delimitations of the	***	2
,, Chief Sanitary Inspector for, Appointed		3
POPULATION in 1891 and in 1896; Census Returns		4
,, Number of Houses and of Tenements of less than fi	ve	
rooms, in 1891	,000	4
,, Number of Persons of each Sex in the Parish, and in	the	
Sub-Districts, at eleven Age-periods, as enumera	ited	
in 1891		5
,, Distribution of in the Wards		6
,, Estimated to the Middle of 1891 (see also Table at Page	e 8)	6
RATEABLE VALUE (1823-98) and POPULATION (1801-98)		7
PARISH, THE GROWTH OF, since 1855 and since 1871, in respec	t of	
Inhabited Houses, Population, and Rateable Value		7
MARRIAGES AND MARRIAGE-RATE, in Kensington, in London, and	in	
England and Wales		9
BIRTHS AND BIRTH-RATE in the Parish and in the Sub-Districts		9
In the Sanitary Districts		10
Excess of over Deaths in the Sanitary Districts, &c		10
Illegitimate		10
Quarterly Number of in the Parish, and in the Sub-Districts		11
Annual Number of Male and Female, and Birth-Rate in the	ten	
years, 1888-97		11
DEATHS AND DEATH-RATE, in the Parish, and in the Sub-Districts		12
In the Sanitary Districts		12
INFANTILE MORTALITY in the Parish, the Sub-Districts, and		
Parliamentary Divisions		13
Number of Deaths, at Ages from one Week to		
Year		. 13
In the Sanitary Districts		14
In the London Sanitary Areas		14
Deaths of Children under Five Years of age		14
		15
M ORTALITY, DISTRICT RATES OF (see also Table at Page 18)		15
M OKIALITY, DISTRICT PAIDS OF (See also Table at Lage 10)	**	20

	PAGE
NOTTING-DALE SPECIAL AREA, Vital and Mortal Statistics of the	17
DEATH-RATE (THE TRUE) in 1898	19
,, ,, of the Population, and of both Sexes, at Nine	
Age-periods (Table)	21
,, ,, Of London, 1861-90; Increasing Longevity of the	
People	22
DEATHS: Quarterly Number of, in the Parish, and in the Sub-districts	22
DEATH-RATE in England and Wales, in London, and in Kensington	23
,, ,, In Greater London	23
", In the Great Towns, and in Colonial and Foreign	
Cities	24
VITAL AND MORTAL STATISTICS OF KENSINGTON, in 1898	25
" Summary Table of	26
DEATH, ASSIGNED CAUSES OF	07
ZYMOTIC DISEASES: Deaths and Death-Rate from the "Seven	27
	07
Principal," in Kensington, and in London	27
,, Deaths and Death-Rate from, in the Sanitary	00
Districts, etc	28
,, Death-Rate from, in England and Wales,	20
and in certain Great Towns SMALL Pox, Notifications of, in London, in 1898	28
	29
Marriage 1- V - 1 - 1 - 1 - 1	29
Should it be made a Notifiable Disease 3	30
Corner Town 1 W 1	31
	34
,, Tables, Showing Notifications, Admissions to Hos-	
pitals, and Deaths, in Kensington, and in London,	
and Cases in Hospital in thirteen four-weekly periods, in 1898 and in 1897	0.5
	35
,, Statistical Returns of Cases of, recorded in Kensington, 1888-98 (Tables)	00 07
DIPUTURDIA In Vancington and in Tanada	36-37
Paduation in Mantality 5	38
	38
Table, Showing Notifications, Admissions to Hospital, and Deaths, in Kensington, and in London, and Cases in	
Hamital in thinten Co. 11 13	20
Command in the Data at the Data	39
Divisions in 1808 (Table)	40
Illustrative Const of Charles In The Const	40
Antitoxic Treatment of	42
WHOOPING-Cough in Kensington and in London	
WHOOFING-COUGH, in Kensington and in London	43

4880

DEAT	rh, Assign	ED CA	USES OF-	-continued.					PAGE.
Link	FEVER, in								43
				of in Kensii	ngton			***	44
	,,,			in Diagnosis					50
				and in Lone					52
				and in Lone					53
	VENEREAL						***		53
	SEPTIC DI								53
	11		Puerperal						54
	DIETETIC	DISEA	15						54
	CONSTITUT					***	***		55
			,,	Rheumatis	m				55
	"		,,	Cancer; N	Maligna	ant Diseas	e		55
	"		"	Tuberculo				***	56
	DEVELOPM	MENTAL		s					56
	LOCAL DI						***		57
	,,	**		System, Di	seases	of the			57
	,,	"		y System	12	-,,	***		58
	,,	"		ry System	,,,	,,			58
	"	"	Digestive		,,	,,,			58
		"	Urinary S		"	,,			59
	"	"		tive System		,,	***		59
	VIOLENCE	1000						***	59
				ECIFIED Car	ises of	Death			60
				Summary o			endix Pa	ige 170)	61
	,,	,,		i : Local Go					62
	"	"							
					_				
Pu	BLIC INSTIT	UTION	s, Deaths	at					63
	,,	,,	,,	Parish Infi	irmary		***		63
	**	11	,,,	Brompton	Hospi	tal			65
	"	,,	,,	St. Maryle	ebone l	Infirmary		***	65
	13	,,	"	St. Joseph	's Hou	ise	***	***	65
	,,	"	,.	Outlying 1	Hospita	als, etc. (	Table, I	'age 66)	65
					_				
TTa	CERTIFIED	Dear	10						67
ON				of Select					
	3,	"		nons, and					
				nittee of th					
				abject of					67
IN	ourgers. De	aths fr		e ; Acciden					68
4.175	JURISLA LIC	DATE CHAPPE	THE TAULUSIA	TW S ARWESTERS	never 5 to be	and the same of the same of			-

		PAG
VACCINATION in Kensington in 1897 (see also Table X. Appendix, Page	189)	69
,, Decrease in the practice of, in London, and in England		
Wales		70
VACCINATION ACT of 1898, Observations with respect to the	***	70
METPOPOLITAN ACVITING POADD . The West of the		-
METROPOLITAN ASYLUMS BOARD; The Work of the AMBULANCE ARRANGEMENTS	***	72
HOSPITAL ACCOMMODATION, Provision of	***	73
Form Homitals	***	74
Small nov Homitals		74
Friedland and Davids of	***	76
		77
,, Largely in Excess of Theoretical Req	uire-	70
ments		78
NOTIFICATION OF INFECTIOUS DISEASE, in Kensington and in London		70
Local Concernment Parelle T. 11 D		79
in London Sanitage Assas (Table)	***	80
in Four weekly Periods in Vanisation at 11 To 1 (7)	able)	81
,, in Four weekly Periods; in Kensington, and in London (1	able)	82
FACTORY AND WORKSHOP ACTS: Duties of the Sanitary Authority v	with	
respect to Inspection of Workshops	***	83
,, Lady Inspector, The Work of the	***	85
,, Lady Inspector's Annual Report		86
SANITARY INSPECTORS, The Work of the		00
	***	92
STATUTORY NOTICES AND WRITTEN INTIMATIONS	***	92
	***	93
LEGAL PROCEEDINGS: Summonses		94
OFFENSIVE BUSINESSES		94
,, Fat Extractor: Legal Proceedings with respec		
Nuisance in the Conduct of the Business		94
,, Marine Stores		96
,, Brickburning		97
SLAUGHTER-Houses, The Licensed		97
ABATTOIRS v. PRIVATE SLAUGHTER-HOUSES: Proceedings of the Pu		
	***	98
Cow-Houses, The Licensed		102
MILK AND TUBERCULOSIS: Proceedings of the Public Health Commit		
of the London County Council		102
Bakehouses		105

				PAGE
OFFENSIV	E SMELLS	IN STREETS: Local Remedial Measures		106
SEWER V	ENTILATI	ON AND SEWER SMELLS		106
"	",	Report on, and Recommendations by, the	Medical	
		Officer of Health	***	106
"	"	Recommendations of the Sanitary Committee		108
"	"	Conference of Surveyors with the Engineer	r to the	
		London County Council on		109
"	,,	Recommendations of the Conference on		109
19	"	Efforts to find a remedy for Nuisance from		111
"	,,	Sanitary Committee Recommend Experience		
		measures with respect to the Counte		110
		Medical Officer's Recommendations with re	***	113
,,,	,,,	Dating from 1871		115
COMPINE	DRAINA	on Designation Comment		115
		ws: Action of the London County Council		118
				120
		MAIN SEWER: Insufficiency of; Flooding of B		120
HOUSE-1	J-11OUSE	INSPECTION	. 4-1	122
Housing	OF THE	Working Classes		123
		Iouses let in Lodgings, Proposed New		123
		ouses in the Several Sanitary Districts	***	127
		Houses in which should be Registered		128
		, Gross Cases of: Legal Proceedings		129
	The state of the s	WORKING CLASSES ACT, 1890		131
		County Council requested to acquire the H		101
		-Dale"		131
Bern		Conference; The County Council requested t		
	fresh pow	ers for the Local Authorities		131
Vie	ws of the l	Medical Officer on the Subject	***	132
Ves	try apply	to the County Council to obtain for them I	ower to	
	enable th	e Local Authorities to put in force Part III. of	the Act	133
COMMON	LODGING	-Houses, List of	***	134
"	,	, What Constitutes	***	135
11	,	, Control of	***	135
THE PAV	ING OF Y	ARDS		136
REFUSE	MATTER,	Prevention of Nuisance from		137
"	***	Offensive; Removal of through Streets		138
11	,,	House Refuse		140
,,	1)	,, ,, Should be burned	***	140

REFUSE MATTER—continued.		PAGE
STABLE REFUSE		141
,, ,, Nuisance from		141
" ,, Removal of		142
,, Peat Moss Manure, Nuisance from		143
,, Action of London County Council with respect	to	143
PEAT Moss LITTER London Horse Owners form a Committee	in	
Defence of the use of		145
NUISANCE FROM GAS WORKS AT KENSAL GREEN		147
		22,
PUBLIC MORTUARY: Bodies admitted into the		140
COPONER'S COURT : Inquests held at	**	149
CORONER'S COURT; Inquests neid at	***	149
DISINFECTION, COST OF	***	150
DISINFECTING STATION, Question of Providing, Considered	***	151
SHELTER FOR PERSONS UNHOUSED during the Process of Disinfection, s	till	*******
a Desideratum	***	153
CLEANSING OF PERSONS ACT		154
PUBLIC BATHS AND WASH-HOUSES: Separate Wash-Houses a Desiderate	ım	154
SANITARY CONVENIENCES (PUBLIC), Insufficient Number of		155
WATER SUPPLY, Observations on the		156
,, ,, Dead Ends of Mains		158
,, Cutting-off Powers of the Companies		161
,, ,, Nuisance from Cutting-off		163
,, ,, "Water Famine" in East London	- 64	164
Conclusion: Acknowledgments		166

#### APPENDIX.

#### STATISTICAL AND OTHER TABLES.

TABL	E I.	Estimated Population of Kensington, in 1898, and Ten previous years, 1888-97: Number of Inhabited Houses, and Number of Marriages, Births, Deaths, &c	PAGI
"	II.	Birth-rate and Death-rate; Death-rate of Children; Deaths in Public Institutions, in 1898; and in 1888-97	169
"	III.	Deaths Registered from all Causes in 1898 (For Summary of Table III., see Page 61.)	170
"	IV.	Deaths from the "Seven Principal Zymotic Diseases;" and from Pulmonary Diseases; Tubercular Diseases; Wasting Diseases of Infants, and Convulsive Diseases of Infants; Gross and Proportional numbers	175
,,	V.	Deaths in 1898, and 1888-97, from the Seven Principal Diseases of the Zymotic class; in Kensington, and in London, and in England and Wales	176
"	VI.	Summary of the Work executed by the Sanitary Inspectors	177
,,	VII.	Death-rates, General and Zymotic; in Kensington, and in London; and proportion of Deaths from Zymotic Diseases to Total Deaths, in 1898 and in 1888-97	178
,,	VIII.	Comparative Analysis of the Mortality, in London, and in Kensington, in 1898; Percentage of Deaths under one year to Births registered; and Percentages of Deaths under one year, and at 60 and upwards, from the Principal Zymotic Diseases; and from Violence; and of Inquest Cases; and of Deaths at Public Institutions, to Total Deaths	179
,,	IX.	Localities where Fatal Cases of the more important of the Zymotic Diseases occurred in 1898	180
",	IXa.	Streets, &c., in which cases of Infectious Disease were notified, in 1898, under the provisions of Section 55 of the Public Health (London) Act, 1891	182
**	X.	Vaccination Officer's Annual Return for 1897	189
22	XI.	Slaughter-houses, Licensed; and names of Licensees	190
"	XII.	Cow-houses, Licensed, and names of Licensees	191



#### FORTY-THIRD ANNUAL REPORT

OF THE

### MEDICAL OFFICER OF HEALTH,

Being for the Year, 1898.

To the Vestry of the Parish of St. Mary Abbotts, Kensington.

GENTLEMEN,

The vital and mortal statistics in this report relate to a period of fifty-two weeks, commencing January 2nd, and ending December 31st, comprised in the registration year 1898.

REGISTRATION DISTRICT AND SUB-DISTRICTS.—
The Registration District of KENSINGTON (No I B in the Registrar General's list) comprises an area of 2,190 acres, unequally divided into two sub-districts, respectively named KENSINGTON TOWN (hereinafter for brevity designated TOWN) and BROMPTON. The Town sub-district comprises an area of 1,497 acres, the area of Brompton being 693 acres. The Town sub-district comprises all that portion of the parish north of Kensington High-street and Kensington-road, to-

gether with a portion of the parish south of these roads and north of a line extending, from west to east, along Pembrokeroad, Stratford-road, and south of the workhouse, then through Cornwall-gardens to Queen's-gate-place, and thencenorthwards so as to include Queen's-gate, Jay's-mews and Kensingtongore. The Brompton sub-district comprises the remainder of the parish south of the above described line.

PARLIAMENTARY DIVISIONS. NORTH KENSINGTON and SOUTH KENSINGTON are the two divisions of the Parliamentary Borough, separated by High-street, Notting-hill, and Holland-park-avenue: North Kensington comprises the north, the north-east and the north-west sanitary districts, together with a portion of the central district; South Kensington comprises the remainder of the central district, and the south-east and the south-west sanitary districts.

The SANITARY DISTRICTS are six in number, delimited as follows:—

THE NORTH SANITARY DISTRICT comprises the portion of the parish to the north of the Hammersmith and City railway, with the exception of a few streets at the south-west corner of that area.

THE NORTH-WEST SANITARY DISTRICT includes the streets above referred to, its northern and eastern boundaries extending in a somewhat curved line from Latimer-road, along Walmer-road to St. Katharine's-road: it is bounded on the west by St. Ann's-road (even numbers) to Latimer-road.

[The "Notting-dale" special area, hereinafter referred to, comprises Bangor-street, Crescent-street, St. Katharine's-road, Kenley (late William) street, and part of Sirdar (late St. Clement's) road in the northwest district.]

THE NORTH-EAST SANITARY DISTRICT comprises the remainder of the area between the railway (north), and a line running through Clarendon-place, St. John's-road Kensington-park-gardens, and Chepstow-villas (south): it is bounded on the west by Walmer-road, and on the east by the parish boundary.

THE CENTRAL SANITARY DISTRICT takes in the area between High-street, Notting-hill, and Holland-park-avenue (north), and Kensington High-street and Kensington-road (south); it also comprises the streets in North Kensington to the south of the north-west and north-east districts respectively.

THE SOUTH-EAST and the SOUTH-WEST SANITARY DISTRICTS, south of Kensington High-street and Kensington-road, lie east and west of a line running along Wright's-lane, Marloes-road, Lexham-gardens, Collingham-road, The Boltons, and Gilston-road, to Fulham-road.

CHIEF SANITARY INSPECTOR. A distinct step in advance was taken during the year by the appointment of a chief sanitary inspector in the person of Mr. G. M. Pettit, the inspector for the south-east district. But as this officer was still left in charge of the said district, his service in general oversight of the work of the inspectors in the remaining five districts, was necessarily of a limited character. Despite this limitation, however, the arrangement was a judicious one: it has worked well in all respects, and to the entire satisfaction of the Sanitary Committee and myself. It is to be hoped that, ere long, your Vestry may be pleased to give fullest effect to the objects intended in the creation of the new office, by setting the chief inspector free from district work, and occupying his whole time in the duty of supervision of the sanitary work of the parish.

#### POPULATION.

The table at page 5 shows the relative number of persons of each sex, as ascertained at the census of 1891, grouped according to age; (a) in the entire parish, (b) in the Kensington Town sub-district, and (c) in the Brompton sub-district. There is no later information as to age-distribution of the population, nor will there be until the next census is taken in 1901.

The 166,308 persons comprised in the population in 1891, were in occupation of about 22,000 houses or an average of 7.56 to each house. An error, somewhat widely disseminated, that Kensington is almost wholly a parish of rich or well-todo persons, may be corrected by a reference to the official report of the census of 1891, from which we learn that 70,718 persons, or 42.5 per cent. of the population, were living in 20,052 tenements of less than five rooms. The 166,308 persons comprising the entire population of the parish at that date, were in occupation of 35,953 tenements and certain public institutions. No fewer than 6,398 of these "tenements" consisted of a single room each; these rooms being inhabited by 13,655 persons. The two-roomed tenements were 6,965, and their inhabitants numbered 26,020. The three-roomed tenements were 4,115, and their inhabitants 18,119. The fourroomed tenements were 2,574, and their inhabitants 12,924. Stated in another way, it appears that 8.2 per cent. of the parishioners lived in one-room tenements; 15.6 per cent. lived in two-room tenements; 10.9 per cent. lived in three-room tenements, and 7.8 per cent. in four-room tenements. In North Kensington there were approximately 8.7 persons to a house; in South Kensington about 6.7. But many houses of eight rooms, in North Kensington more particularly, contained, and contain now, upwards of twenty persons to a house, and some even more than thirty persons,

10)	EN	TI	DI	PA	DI	0	ш	
(66)	CIN			$\vdash$	ımı	0	п	

			100	/ 500		N Acres	1 /1	11011	4			
All Ages.	Under Five Years.	5 to 15,	15 to 25,	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	85 to 95.	95 and upwards,	All Ages.
Females 100,591	7466	14194	24216	21147	18520	9420	5774	3367	1278	202	7	100,591 Females
Males 65,717	7394	12963	12947	10759	8695	6337	3822	2046	666	86	2	65,717 Males
Excess of Females 34,874	72	1231	11269	10388	4825	3083	1952	1321	612	116	5	34,874 {Excess of Females
Total of both sexes } 166,308	14860	27157	37163	31906	22215	15757	9596	5413	1944	288	9	166,308 { Total of both sexes
	(b) I	KEN	SIN	GTO	N T	row	'N	SUB	-DIS	TRI	CT.	
All Ages.	Under Five Vears,	5 to 15.	15 to 25.	25 to 35,	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	85 to 95.	95 and upwards.	All Ages.
Females 69,384										154	6	69,384 Females
Males 49,367	5905	10287	9540	7815	6377	4696	2741	1472	470	63	1	49,367 Males
Excess of { 20,017	71	905	5943	5515	2795	1896	1319	978	499	91	5	20,017 { Excess of Females
Total of both sexes {118,751	11881	21479	25023	21145	15549	11288	6801	3922	1439	217	7	118,751 Total of both sexes
		(c)	BR	OMP	TOT	V S	UB-	DIST	RIC	T.		
All Ages.	Under Five Years.	5 to 15.	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	85 to 95.	95 and upwards.	All Ages.
Females 31,207	1490	3002	8733	7817	4348	2828	1714	917	309	48	1	31,207 Females
Males 16,350	1489	2676	3407	2944	2318	1641	1081	574	196	23	1	16,350 Males
Excess of { 14,857	1	326	5326	4873	2030	1187	633	343	113	25	-	14,857 Excess of Females
Total of both sexes { 47,557	2979	5678	12140	10761	6666	4469	2795	1491	505	71	2	47,557 {Total of both sexes
	and the same of							Charles and the last	al Transaction			

<sup>\*\*</sup> The death-rate at the different age-periods will be found at page 21

#### DISTRIBUTION OF THE POPULATION.

POPULATION OF THE WARDS.— I subjoin a statement of the population of the Wards, as ascertained in March, 1896:—

Name of W	ard.	Enumerated Population.—1896			
		Males.	Females.	Total.	
Golborne Ward		 17,690	19,795	37,485	
Norland Ward		 11,726	14,298	26,024	
Pembridge Ward		 8,548	13,316	21,864	
Holland Ward		 7,155	12,728	19,883	
Earl's Court Ward		 5,270	10,690	15,960	
Queen's Gate Ward		 4,997	9,577	14,574	
Redcliffe Ward		 6,956	13,606	20,562	
Brompton Ward		 4,660	9,453	14,113	
Total		 67,002	103,463	170,465	

The population of the parish estimated to the middle of the year was 172,000: it comprised, approximately, 67,970 males, and females 104,030: excess of females, 36,060. In the Town sub-district (estimated population 123,600) the males numbered about 51,400, the females 72,200; excess of females 20,800. In the Brompton sub-district (estimated population 48,400) there were about 16,640 males, and 31,760 females: excess of females, 15,120. This population of 172,000 was in occupation of about 22,700 houses, equal to 7.57 persons to a house on an average. In the poorer parts of the parish, where population is most dense, the number of persons to a house is greatly in excess of the average.

POPULATION AND RATEABLE VALUE.—The subjoined figures exhibit the development of the parish in population and rateable value during the present century.

The Year.	Population.	Rateable value of Property.	The Year.
1801	8,556	£75,916	1823
1821	14,428	93,397	1833
1841	26,834	142,772	1843
1851	44,053	257,103	1853
1861	70,108	444,030	1863
1871	120,299	975,046	1873
1881	163,151	1,711,495	1883
1891	166,308	2,037,221	1893
1896	170,465	2,135,981 (October)	1898
1898	172,000		

The rateable value of property in Kensington is about one-sixteenth of that of the Metropolis as a whole.

GROWTH OF THE PARISH.—The following table, brought up to date, exhibits the growth of the parish since the Metropolis Local Management Act came into operation, in 1856:—

	1856	1898	Increase in 42 years
Number of Inhabited Houses	7,600	22,700	15,100
Population	57,000	172,000	115,000
Rateable Value of Property	£308,000	£2,135,981	£1,827,981

The increase in all respects within the last twenty-seven years, the period over which my official experience extends, is not inconsiderable, as the subjoined figures show:—

	1871	1898	Increase in 27 years.
Number of Inhabited Houses	15,735	22,700	6,965
Population	121,000	172,000	51,000
Rateable Value	£935,720	£2,135,981	£1,200,261

From the foregoing figures we learn that in 1898, the population was twenty times as large as in the first year of the century, and that the rateable value of property was more than twenty-eight times as great as in 1823, the first year in respect to which I possess information. Since 1856, the rateable value has increased nearly seven-fold; the mere increase in the last 27 years being nearly four-fold the total in 1856; since which date the population and the number of inhabited houses have increased three-fold.

#### POPULATION IN 1898.

For the purposes of the present report the population of the parish, as a whole, at the middle of the year, and that of the sub-districts, the parliamentary divisions, and the sanitary districts, will be taken to be as follows:—

The Parish		 	172,000
Sub-Districts ;—			
Kensington Town		 	123,600
Brompton		 ***	48,400
Parliamentary Divisions	-		
North Kensington		 	87,500
South Kensington		 	84,500
Sanitary Districts ;—			
North		 	33,350
North-East	***	 	30,340
North-West		 	16,850
Central		 	27,240
South-East		 	32,200
South-West		 	32,020

#### MARRIAGES AND MARRIAGE-RATE.

The marriages in the parish in the year were 1,648, as compared with 1,455, 1,706, and 1,681, in the preceding three years respectively. Of these marriages there were celebrated—

By the Church (71.7°/o of total marriages)	 1,182
At Roman Catholic places of worship	 132
At other Noncomformist places of worship	 55
At the Superintendent-Registrar's office	 279

The marriage rate (*i.e.*, the number of persons married to 1,000 living) was 19·2, as compared with 17·4, 20·1, and 19·7, in the preceding three years respectively. The marriage rate in England and Wales was 16·2 per 1,000, as compared with 15·0, 15·8, and 16·0, in the preceding three years. The rate in London was 18·7 per 1,000, as compared with 17·1, 18·0, and 18·5, in the preceding three years respectively. The rate in 1898 was the highest recorded in London in any year since 1877.

#### BIRTHS AND BIRTH-RATE.

The births registered were 3,633, viz:-males 1,830, and females 1,803; the numbers being, in the Town sub-district (which includes the parish infirmary) 3,078, and in Brompton 555. The births were 185 below the corrected decennial average, 3,818; 182 of them were of illegitimate children. The births were 50 fewer than the number registered in 1897; but 53 weeks were included in the return for that year: they were, moreover, 408 fewer than the number in 1872 (4,041) when the population (127,400) was 44,600 less than in 1898. The birth-rate, which is considerably below that of London, as a whole (29.5 in 1898, the lowest on record) has been declining since 1868, in which year it was 33.1 per 1,000 persons living. In 1898 it was 21.1 per 1,000, and 1.1 below the decennial average (22.2). The rate in the sub-districts was-Town 24.9, Brompton 11.5 per 1,000. In the Town sub-district, the registered births were 776 more in number than

the deaths, whilst in the Brompton sub-district the excess, of births over deaths was to the number of 59 only: excess, whole parish, 835. The excess of births over deaths in the whole of London was 48,496.

BIRTHS AND BIRTH-RATE IN THE SANITARY DISTRICTS. The births in North Kensington, *i.e.*, the part of the parish north of Holland-park-avenue and High-street, Notting-hill, were 2,561, and the birth-rate 29·3 per 1,000 persons living. The births in South Kensington, *i.e.*, the part of the parish south of these streets, were 1,072 and the birth-rate 12·7 per 1,000. The birth-rate in the several sanitary districts was as follows:—

North-East
North-East
North-West
Central
South-East
South-West
South-West
South-West
North-West
North-West
North-West
South-East
South-East
South-West
North-West
South-East
South-West
South-West
North-West
South-East
South-West
North-West
South-East
South-West
South-West
South-West
South-West
North-South-West
South-West
South-We

The high birth-rate in the north-west district is suggestive of an under estimate of the population which, however, is based upon the census taken in March, 1896. The excess of births over deaths in the several sanitary districts was as follows: In the North, 381; the North-East, 138; the North-West, 130; the Central, 128; the South-East, 67. In the South-West district the deaths exceeded the births to the number of nine. In North Kensington the births exceeded the deaths by 725; the excess of births in South Kensington being to the number of 110 only.

The registered births of illegitimate children in the parish, as a whole, were, as already stated, 182 (12 fewer than in 1897) viz., males 99, and females 83. Of these births 167 were registered in the Town sub-district, which includes the workhouse, at which institution out of 128 births (males 67,

females 61) 90, including six of still-born children (males 3, females 3) were illegitimate. In the parish generally the illegitimate births formed 5.0 per cent. of total births, as compared with rates of 5.0, 5.9 and 5.3, in the preceding three years respectively,

The subjoined table shows the quarterly number of births of males and females in the parish, and in each of the subdistricts:—

iotrices .	Kens	sington To	wn.		Brompton		
1st Quarter	Males 384	Females 424	Total 808	Males 76	Females 61	Total 137	Parish 945
2nd ,,	403	365	768	66	69	135	903
3rd ,,	371	393	764	98	72	170	934
4th ,,	368	370	738	64	49	113	851
	1526	1552	3078	304	251	555	3633
Illegitimate	20	26	46	3	1	4	50
Birth	s 29	15	44	2	3	5	49
	15	18	33	2	2	4	37
	26	18	44	. 2	-	2	46
	_	_		-	-	_	
	90	77	167	9	6	15	182

The subjoined table shows the population, the number of births, and the birth-rate for each of the ten years 1888-97:—

The Year.	Population.	Total Births.	Males.	Females.	Birth-rate per 1,000
1888	165,450	3,776	1,914	1,862	22.8
1889	165,760	3,698	1,846	1,852	22.3
1890	166,080	3,864	1,919	1,945	23.3
1891	166,500	3,847	1,935	1,912	23.1
1892	167,200	3,718	1,867	1,851	22.3
1893	167,900	3,661	1,893	1,768	21.9
1894	168,600	3,665	1,883	1,782	21.9
1895	169,300	3,621	1,861	1,760	21.4
1896	170,000	3,717	1,943	1,774	21.4
1897	172,000	3,683	1,839	1,844	21.6
	Totals	. 37,250	18,900	18,350 Ave	rage 22·2
Exce	ess of male birth	s in the ten year	irs		550
Exc	ess of births ove	r deaths in the	ten years		9,269
Estin	mated increase o	of population in	the ten year	rs	5,250
Esti	mated loss of p	opulation, by	migration	or removals,	
	in the ten years				4,019

#### DEATHS AND DEATH-RATE.

The deaths registered, inclusive of 286 deaths of parishioners at outlying public institutions, etc., but exclusive of deaths of non-parishioners at public institutions, etc., within the parish, were 2,798 (males, 1,335, and females, 1,463), and 71 fewer than the corrected decennial average, 2,869. Of these deaths 2,302 were registered in the Town sub-district, and 496 in Brompton. The death-rate, which in the preceding three years had been 16.2, 16.7, and 15.6, per 1,000, respectively, was 16.3 in 1898, and 0.4 below the decennial average (16.7), and 2.4 below the rate in the metropolis, as a whole (18.7); this, moreover, being 1.0 below the decennial average (19.7). The rate in the sub-districts was: Town, 18.6; Brompton, 10.2 per 1,000, as compared with 17.7, and 10.3, respectively, in 1897. The sex death-rate was, approximately, of males 19.6 per 1,000, of females 14.1 per 1,000, as compared with 19.9, and 12.9, respectively, in 1897.

The deaths in North Kensington were 1,836; the deathrate 21.0 per 1,000. The deaths in South Kensington were 962; the death-rate 11.4 per 1,000.

DEATHS AND DEATH-RATE IN THE SANITARY DISTRICTS. The death-rate in the sanitary districts was as follows:—

North-East 437 deaths, or 20.5 per 1,000 persons living. Anoth-East 437 deaths, or 14.4 per 1,000 persons living. South-East 449 deaths, or 16.4 per 1,000 persons living. South-East 278 deaths, or 8.6 per 1,000 persons living. 428 deaths, or 13.4 per 1,000 persons living.

#### INFANTILE MORTALITY.

Infantile mortality, by which term is meant the proportion of deaths under one year to births registered, is an important factor in vital statistics. The deaths under one year in Kensington, which in 1898 were 655, had been in the preceding three years 624, 656, and 609, successively. Of the 655 deaths, 66 (or 10.07 per cent.) were of illegitimate children; the ratio of deaths of illegitimate children to births registered as illegitimate (182) being 363 per 1,000. Of the 655 deaths, 149 occurred within one month after birth, including 87 in the first week, 18 in the second week, 20 in the third week, and 24 in the fourth week. In the second month of life there were 69 deaths; in the third month 58 deaths; in the fourth month 64 deaths; in the fifth month 47 deaths; in the sixth month 42 deaths; in the seventh month 39 deaths; in the eighth month 33 deaths; in the ninth month 45 deaths; in the tenth month 42 deaths; in the eleventh month 36 deaths; and in the twelfth month 31 deaths.

It is somewhat of an opprobrium to Kensington that the rate of infantile mortality, calculated upon the basis of the number of deaths under one year to 1,000 births registered, is invariably above that of London as a whole. The year to which this report relates was no exception to the rule, for whilst the deaths under one year in London were at the rate of 167 per 1,000 births \* (the rate in England and Wales being 161), the corresponding ratio in Kensington, as a whole, was 180; the comparative numbers in 1897 having been 159 and 166. The rate differed greatly in different parts of the parish, the bad pre-eminence of which, in this respect, is due to the excessive infantile mortality in certain districts in North

The London average rate in the preceding ten years, 1888-97, was 151 per 1,000 the rate in 1898 exceeded that recorded in any year since 1871. In the 33 great towns in England and Wales the rate was 178, and in the 67 towns next in order of importance, 173 per 1,000 births.

Kensington. The deaths of infants in North Kensington under one year to births registered, 517 in number, after distribution of the deaths at the parish infirmary, were equal to 202 per 1,000 births, the corresponding ratio in South Kensington being 129 per 1,000, the deaths numbering 138 only. Of the 655 deaths, 62 occurred in the Brompton subdistrict, being equal to 112 per 1,000 births, and 543 in the Town sub-district, being equal to 212 per 1,000 births. In the several sanitary districts the deaths and death-rate of infants under one year, were as follows:—

North 214 deaths equal to 201 per 1,000 births.

North-East 101 deaths equal to 176 per 1,000 births.

North-West 165 deaths equal to 253 per 1,000 births.

Central 87 deaths equal to 151 per 1,000 births.

South-East 35 deaths equal to 101 per 1,000 births.

South-West 53 deaths equal to 103 per 1,000 births.

The deaths of children over one year and under five years of age, were 384 in number; the deaths under five years therefore were 1,039 (as compared with 951, 1,111, and 912, in the preceding three years successively), being equal to 286 per 1,000 births; the relative proportion in London, as a whole, being 258. The deaths of illegitimate children under five years of age—129, 104, and 126, in the preceding three years respectively—were 87 in 1898, of which 81 were registered in the Town sub-district, and 6 in Brompton. These deaths were equal to about 47.8 per cent on the 182 births registered as illegitimate. Of the 87 children, 21 only outlived the first year.

INFANTILE MORTALITY IN LONDON.—It has already been stated that the deaths of children under one year of age, in Kensington, to 1,000 births were 180, and that the proportion in London, as a whole, was 167. The Kensington rate was exceeded in 11 of the sanitary districts, viz.: West-

minster, 182; Hammersmith, 183; Bethnal Green, 184; St. George, Southwark, 188; Poplar, 191; St. George in the East, 195; Clerkenwell and Shoreditch, 196; Limehouse, 208: St. Saviour, Southwark, 211; and Holborn, 221. In the remaining 31 districts the rate of infantile mortality was below that of Kensington (in 22 of them it was also below that of London as a whole), the lowest rates being, in Stoke Newington, 108; St. George, Hanover Square, 120; Hampstead, 125; City of London, 128; Marylebone and St. Olave, Southwark, 132; St. Giles, 137; Whitechapel, 144; St. Luke, 150; Hackney, 152; Lambeth, 154; Mile End Old Town, 155; St. Martin-in-the-Fields, 156; Bermondsey, 157, and Islington, 159.

#### SENILE MORTALITY.

At sixty years of age and upwards there were 862 deaths, as compared with 784, 778, and 735, in the preceding three years successively. These deaths were equal to 308 per 1,000 on total deaths, the equivalent proportion in London, as a whole, being 240 per 1,000.

#### DISTRICT RATES OF MORTALITY.

The table at page 18 shows the death-rate in the metropolis, the parish, the sub-districts, the parliamentary divisions, and the sanitary districts, not only for the year, as a whole, but also for each of the thirteen four-weekly periods covered by my monthly reports. It will be observed that, as usual, the death-rate in the Town sub-district was far higher than that in the Brompton sub-district, and the same observation applies to the parliamentary division of North Kensington as compared with the southern division of the borough. In three of the sanitary districts the death-rate exceeded that of the parish as a whole (16:3 per 1,000) viz. the central (16:4), the north (20:5), and the north-west (31:0). The last named district, as now delimited, and

containing a population of 16,450, includes the so-called "Notting-dale" special area. The mortal statistics of the district, as a whole, are unsatisfactory: the death-rate in 1898 (31.0 per 1,000) was rather more than double the rate in the remainder of the parish (14.7 per 1,000); the zymotic death-rate (4.2 per 1,000) was excessive, being nearly two-anda-half times as high as that of the remainder of the parish (1.78 per 1,000); the waste of infant life was also excessive, the deaths under one year (165) being equivalent to 253 per 1,000 births registered, the infantile deaths in the remainder of the parish being in the proportion of 154 per 1,000 births. These figures show to what a large extent the statistics of this district, which contains considerably less than a tenth of the population, spoil those of the parish generally. But if matters were bad in the district, as a whole, they were still worse in the "Notting-dale" special area, which contains a population of 4,000 souls; for its deathrate was 45.5 per 1,000, as compared with 16.3 in the parish, as a whole, and 26.5 in the north-west district less the special area: the zymotic death-rate was 5.5 per 1,000 persons living, or more than two-and-a-half times as great as that of the parish, as a whole. The deaths at all ages were 65 more than the births; the deaths of children under one year of age being in the proportion of 419 per 1,000 (41.9 per cent.) on the births registered. Unsatisfactory, however, as these statistics may be, they show a decided improvement on those of the preceding two years, as shown in the subjoined statement submitted to your Vestry with the last monthly report 1898, but not otherwise published.

#### "NOTTING-DALE" SPECIAL AREA.

Vital and Mortal Statistics, 1898; those for 1897 and 1896 being added by way of comparison.

Population estimated to the middle of the year-

			1898	1897 4,000	1896 3,740
71. 1			4,000		- FE 2012
Births		***	117	130	118
Birth-rate	***		29.3	32.5	31.6 per 1000 persons living.
Deaths			182	223	187
Death-rate		***	45.5	55.7	50.0 per 1,000 persons living.
INFANTIL! Deaths und			of		
Age			49	56	51
Dea	th-rate		419	431	432 per 1,000 registered births.
ZYMOTIC	DISE	ASES.			
Deaths fro	om the		en		
Number of	Death	S .	22	25	30
Death-rate			. 5.5	6.3	8.0 per 1,000 persons living.

(Causes of Death:—In 10 cases, diarrhœa; in 6 cases, whooping-cough; in 5 cases, measles; in 1 case, scarlet fever).

The death-rate, per 1,000 persons living from all causes, in the thirteen four-weekly periods, successively, was: (1) 39.0; (2) 48.7; (3) 42.2; (4) 52.0; (5) 35.7; (6) 52.0; (7) 68.2; (8) 61.7; (9) 45.5; (10) 35.7; (11) 39.0; (12) 42.2; (13) 29.2.

Of the total deaths, 91 took place at the homes of the deceased persons, 79 at the parish infirmary, and 12 at other public institutions: 34 of the deaths were of persons who had previously resided at common lodging-houses, at which houses 5 deaths took place.

The sex of the deceased persons was: males 97, females 85.

The ages at death were: under 5 years of age 81 (including 49 under one year); between 5 and 20 years, 8 deaths; between 20 and 60 years, 62 deaths; at 60 years and upwards 31 deaths.

The deaths were connected with streets as follows: Bangor-street, 50 deaths; Crescent-street, 29 deaths; Kenley-street, 11 deaths; St Katharine's-road, 66 deaths; Sirdar-road, 26 deaths.

Death-rate in the Metropolis and in Kensington, and in certain Districts of the Parish, during the thirteen four-weekly periods ended December 31st, 1898, and in the Registration Year, 1898.

					STRICTS.	PARLIAN	IENTARY		SA	NITARY	DISTRICT	rs.	
FOUR WEEKS ENDED.		POLIS.	PARISH.	Ken- sington Town.	Bromp-ton.	North.	South.	North.	North- East.	North- West.	Central.	South- East.	South- West.
January 29	***	22.4	21.9	25.6	12.6	28.7	14.9	26.5	22.7	37.7	24.8	12.9	14.6
February 26		21.8	19.3	21.1	14.5	22.9	15.5	22.6	16.7	30.9	17.2	12.5	20.7
March 26		21.0	20.5	22.7	14.5	25.3	15.4	30.0	21.0	27.0	16.7	11:3	18.7
April 23		19.6	17:3	20.3	97	22.9	11.5	22.2	15.9	33.2	19.6	6.1	14.6
May 21		16.4	15.6	17.9	9.9	20.1	11.1	16.8	16.3	28.5	17.2	6.9	14.6
June 18		15.6	15.0	17.6	8.6	19.6	10.3	21.0	12.0	31.6	14.3	8.5	10.1
July 16		14.4	14.7	16.8	9.4	18.7	10.6	16.8	11.1	32.4	15.7	8.1	12.6
August 13		17.8	16.8	19.7	9.4	23.5	9.8	23:0	14.1	37.8	16.2	8.9	10.1
September 10		22.5	15.3	18.4	7.2	22.7	7.5	22.6	16.7	33.2	12.9	4.0	10.1
October 8		20.3	14.8	17.0	9.1	19.6	9.8	18.7	10.3	35.5	14.8	8.1	10.9
November 5		17.1	14.3	15.8	10.5	17.1	11.4	18.3	9.8	24.7	15.3	10.1	12.2
December 3		17.0	12.7	14.6	7.8	16.6	8.6	14.4	11.1	23.9	14.3	6.5	11.4
December 31		17.2	13.3	14.6	9.9	15.2	11.4	13.6	8.1	26.2	15.3	8.5	12.9
Death-rate for the Year 1898	he }	1.87	16.3	18.6	10.2	21.0	11.4	20.5	14:4	31.0	16.4	8.6	13.4

THE TRUE DEATH-RATE IN 1898.-From time to time observations are made which indicate misapprehension of the signification of the expression "death-rate" as used, in the table at page 18, which shows the rate of mortality for each of the four-weekly periods covered by the monthly reports. It may be well, therefore, to explain by an illustration what is really meant. The deaths in the last four-weekly period of the year were 176, and the death-rate was stated to be 13.3 per 1,000. This statement implies, simply, that if the deaths for the whole year had been in the same proportion to the population, as in the 49-52 weeks, the annual death-rate would have been 13.3 per 1,000 of the estimated population at the middle of the year. The estimated population in 1898 was 172,000: the deaths registered were 2,798: the death-rate, therefore, was 16.3 per 1,000 (2,798  $\div$  172,000 = 16.3). This method of calculating the death-rate is customary, and is that used by the Registrar-General. The death-rate so calculated is, of course, an uncorrected one, as it does not take cognizance of the relative numbers of the sexes, nor of the age-distribution of the population. Correction for these data involves addition to, or subtraction from, the "recorded death-rate," as compared with the "standard death-rate."\* necessity for such correction in this parish is obvious, having regard to the great excess of females in the population, and to the lower death-rate in the female sex as compared with the rate in the male sex. As has already been stated, females are, approximately, 36,060 in excess of males, the relative numbers of the two sexes being, males 67,970, and females 104,030. The deaths among the 67,970 males (1,335)

<sup>\* &</sup>quot;The standard death-rate" signifies the death-rate at all ages, calculated on the hypothesis that the rates at each of twelve age-periods in each town were the same as in England and Wales during the 10 years 1881-'90, the death-rate in England and Wales during that period having been 19.15 per 1,000. (Registrar-General's Annual Summary). See also an observation on the subject, at page 24, on the death-rate in "other large towns."

were 128 fewer than the deaths among the 104,030 females (1,463). The death-rate in the male sex was, in round numbers 19.6 per 1,000, as compared with a rate of 14.1 per 1,000 in the female sex. It must be obvious, therefore, that if the numbers of the sexes had been equal, the death-rate would have been somewhat higher than the recorded rate of 16.3 per 1,000. The Registrar-General in his annual summary for 1892 dealt with this question, and gave the "factor for correction for sex and age distribution" in the thirty-three great towns of England and Wales; and in his annual report for 1897, the medical officer of health to the County Council gave the factor for each of the sanitary districts of London. Corrected after the method indicated, the death-rate of Kensington in 1898, becomes (instead of 16.3 per 1,000) one of about 18.0 per 1000; and the rate for London, as a whole, about 19.8 instead of 18.7. The true death-rate is that which shows the mortality per 1,000 living of each sex at different age-periods, and this is shown in the table at page 21.

#### THE TRUE DEATH-RATE OF KENSINGTON IN 1898.

		Population.				Deaths.		Death-rate.			
AGE PERIOD.		Both Sexes	Males.	Females.	Both Sexes	Males.	Females.	Both Sexes	Male Sex.	Female Sex.	
Under five years of age			15,368	7,647	7,721	1,039	548	491	67.6	71.7	63.6
Five and under 15			28,087	13,408	14,679	• 74	30	44	2.6	2.2	3.0
Fifteen and under 25			38,436	13,391	25,045	90	40	50	2.3	2.9	2.0
Twenty-five and under 35			33,004	11,133	21,871	137	70	67	4.2	6.3	3.1
Thirty-five and under 45			22,975	8,993	13,982	199	89	110	8.7	9.9	7.9
Forty-five and under 55			16,296	6,554	9,742	273	136	137	16.7	20.8	14.1
Fifty-five and under 65			9,924	3,953	5,971	302	151	151	30.4	38.2	25.3
Sixty-five and under 75			5,598	2,116	3,482	317	139	178	56.6	65.7	51.1
Seventy-five and upwards			2,312	775	1,537	367	132	235	158.7	170.3	152.9
		Totals	172,000	67,970	104,030	2,798	1,335	1,463			

As showing the increasing longevity of people of both sexes, in London, and the greater expectation of life in the female sex, as compared with the male sex, the subjoined statement of the death-rate in London, in three decennial periods, as reported by the medical officer of health to the County Council, will repay perusal.

AGE PERIOD.		MALES.		FEMALES.			
	1861-70	1871-80	1881-90	1861.70	1871.80	1881-90	
All ages.	26.55	24.38	22.10	22.34	20.60	18.83	

The subjoined table shows the quarterly number of deaths of males and females, in the parish, and in each of the sub-districts.

	Ke Males.	nsington T Females.			Brompton. Females.	and the second	Parish.
1st Quarter	329	382	711	63	98	161	872
2nd ,,	279	277	556	68	51	119	675
3rd ,,	272	293	565	45	60	105	670
4th ,,	228	242	470	51	60	111	581
	1108	1194	2302	227	269	496	2798
The Births	were, of 1	Males, 1,88	30	The Dea	ths were,	of Males,	1,335
,,	Fen	nales, 1,80	3		"	Females	1.463
			_				
	Total B	irths, 3,63	3		Tota	l Deaths,	2,798

Deduct 2,798 Deaths

Shows 835 excess of Births over Deaths.

## DEATH-RATE IN ENGLAND AND WALES, AND IN LONDON, AND IN OTHER LARGE TOWNS.

Before entering upon details with respect to the causes of death in Kensington, I may mention, by way of comparison with our local mortality-rates, that the death-rate in England and Wales, in 1898, was 17.6 per 1,000, and was lower than the rate in any previous year, excepting 1894, 1896, and 1897. As compared with the rate in the ten years 1888-97, the death-rate in 1898 shows a decrease of 0.8 per 1,000.\* The rate in London. as already stated, was 18.7 per 1,000, being 1.0 below the decennial average.

The subjoined table shows the annual death-rate per 1000 persons living in each of the last eleven years, in Kensington, in London and in England and Wales:—

```
1898. 1897. 1896. 1895. 1894. 1893. 1892. 1891. 1890. 1889. 1888.
Kensington 16:3 15:6 16:7 16:4 15:7 17:5 17:2
                                                18.4
                                                      17.8
                                           20.6
                                                            18.4
                                                                 19.3
                                                 21.4
                                                       21.4
          18.7 18.2 18.6 19.8 17.8 21.3
London
                                                 20.8
                                                       20.5
                                                            18.1
                                                                  19.3
W.Districts 17:0 16:1 17:6 18:5 17:1
                                           20.0
                                      19.7
North ,, 16.9 16.6 17.1 18.2 16.3 20.2
                                                                  17.7
                                           19.4
                                                 20.0
                                                       19.6
                                                            16.9
Central,, 22:1 21:8 21:2 23:8 20:0 25:7
                                           23.9
                                                 26.5
                                                       24.8
                                                            20.9
                                                                 22.7
                                                            21.2
                                                                  22.7
                                                 24.0
                                                       25.1
East ,, 21.7 21.2 21.3 23.4
                                      24.9
                                            23.5
                                20.8
South ,, 17.7 17.2 17.5 18.3 16.2 England and
                                                            17.7
                                                                 18.1
                                            19.0
                                                 19.8
                                                       19.6
                                      19.5
  Wales 17.6 17.4 17.1 18.7 16.6 19.2 19.0 20.2
                                                      19.5 18.2
                                                                 18.1
```

GREATER LONDON.—The death-rate in "Greater London," which is co-extensive with the Metropolitan and City Police Districts, the population in the middle of the year, 1898, numbering 6,408,321 (viz., 4,504,766 in inner or Registration London, and 1,903,555 in the Outer Ring), was 17.2 per 1,000, as compared with 18.3, 17.0, and 16.7 in the three preceding years respectively. The deaths properly belonging to the Outer Ring, as distinguished from Inner or Registration

<sup>\*&</sup>quot; By excluding the deaths of persons ascertained to have been strangers the death-rate of London is reduced to 18.3 per 1,000," Registrar-General's Annual Summary.

London, were equivalent to a rate of only 13.7, the rate in the inner Ring having been 18.7. The death-rate from the principal diseases of the zymotic class in Inner London, was 8 per 1,000; in the Outer Ring 2.33; the rate in Greater London, as a whole, being 2.66 per 1,000. The infantile mortality in Greater London was 164 per 1,000 births, of Inner London 167, of Outer London 154.

OTHER LARGE TOWNS .- The death-rate in the thirtythree large towns, including London, and having a population of 11,218,378, was 19.0 per 1,000; ranging from 13.9 in Croydon, 14.8 in Cardiff, and 15.4 in West Ham, to 22.6 in Sunderland, 22.7 in Salford, and 24.0 in Liverpool. The death-rates in Edinburgh, Glasgow, and Dublin, were 19.7, 21.2, and 26.8 per 1,000 respectively. These death-rates are calculated without correction for differences between one town and another in regard to the age and sex-distribution of their respective populations. This explanation is necessary because, as the Registrar-General points out in his annual summary, "In consequence of the great difference between one town and another, with respect to age and sex-constitution of their several populations, recorded death-rates require correction before they can be justly used for purposes of comparison." The Registrar-General, as already stated, gives in his annual summary factors by the use of which the necessary corrections can be made with approximate accuracy for each town.

Colonial and Foreign Cities.— The death-rate in some of the principal foreign and colonial cities was as follows—Indian Cities: Calcutta, 27·1 per 1,000; Madras, 44·9; and Bombay, 63·1. European Cities: Paris, 19·7 per 1,000; St. Petersburg, 25·8; Moscow, 30·0; Berlin, 17·3; Vienna, 20·1; Rome, 17·9. American Cities: New York, 19·1 per 1,000; Boston, 20·1; Philadelphia, 19·2; San Francisco, 19·4; and New Orleans, 24·8.

## SUMMARY OF VITAL AND MORTAL STATISTICS, KENSINGTON.

In the table at page 26 there will be found a summary of the principal vital and mortal statistics of the year arranged in four-weekly periods corresponding to the dates of the monthly reports, the *maxima* and *minima* being indicated by distinctive type.

We have already seen that the birth-rate in 1898 was 21.1 per 1,000, as compared with the decennial average 22.2, and that the death-rate, 16:3 per 1,000, was 0.7 per 1,000 above the rate in 1897 (15.6) and 0.4 below the decennial average (16.7). There were, as usual, considerable fluctuations in the rate at different periods of the year; the rate ranging between the minimum (12.7) in the twelfth four-weekly period, ended December 3rd, and the maximum (21.9) in the first fourweekly period ended January 29th. During the first four fourweekly periods, the rate was above the decennial average rate. In the remaining periods the rate was in three instances above, and in six instances below, the average. The deaths in the first half-period of the year (1,647) were more by 396 than those in the second half-period (1,251); the death-rate in the two half-periods being 19.2 and 14.5 per 1,000 respectively. There was no very remarkable difference in the number of deaths from the principal diseases of the zymotic class in the two half-periods, (such as there had been, to the number of 158, in 1897) the number in the first six months having been 193, as compared with I54 in the last half of the year. The 347 deaths from these causes were 37 more than the number in 1897, and 8 below the corrected decennial average (355). The deaths from the diseases of the respiratory organs (571) were 80 in excess of the number in 1897 (491). The deaths from phthisis were 217.

The mean temperature of the air at Greenwich during the year was, approximately, 51.3 degrees Fahr.; the means of the four quarters successively being, 41.0, 50.3, 59.7, and 47.5.

#### 26

#### SUMMARY OF VITAL AND MORTAL STATISTICS, KENSINGTON, 1898.

					DEATH	RATE.			THS			DEAT	THS F	ROM	ZYMO	OTIC	DISE	ASES.		DISI	EASES			eart	from ses.	re.
During	5			KENSI	NGTON.	LONI	DON.		AGES	•										10000	PIRAT VSTE		Phthisis	II.	Five f	eratu
the four we		Births.	Deaths.	1898.	Decennial Average.	1898.	Decennial Average.	1-0	1-5	60 and upwards.	Totals.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- Cough.	Enteric Fever.	Typhus Fever.	Simple con- tinued Fever.	Diarrhœa.	TOTALS.	Bronchitis.	Pneumonia.	Deaths from	Deaths from Disease	Deaths under I	Mean Temperature.
JANUARY	29	338*	290	21.9	21.7	22.4	25.3	51	36	104	22	8	4	6	2	1			I	87	59	23	20	19	5	43'2
FEBRUARY	26	291	255	19.3	18.4	21.8	21.2	46	32	83	17	10	2	3	- I				I	68	52	14	23	15	10	41.8
MARCH	26	251	270	20.2	18.9	21.0	22'I	45	55	89	48	36	***	4	6	***	1	***	1	63	47	11	20	21	6	39.9
APRIL	23	270	229	17.3	17.0	19.6	19.8	49	48	61	44	31	3	I	5	1	1		2	51	28	16	13	11	5	46.4
MAY	21	273	207	15.6	16.6	16.4	18.7	26	38	63	32	17	5	1	7	1			1	41	22	14	23	17	4.	49.9
JUNE	18	282	199	15.0	15.4	15.6	17.5	45	36	62	24	12	1	5	5		***		1	44	23	17	14	12	6-	55.2
JULY	16	271	195	14.7	14.8	14.4	17.5	60	29	50	22	I	I	1	11		***		8	31	20	6	18	11	10	60.4
AUGUST	13	319	222	16.8	15'9	17.8	20.1	92	27	48	38	3	3		6	1		***	25	26	17	6	12	7	9	62.4
SEPTEMBER	10	274	202	15.3	13.6	22.5	17.6	78	25	45	44		1	1	2				40	21	13	7	19	10	13	66.6
OCTOBER	8	273	196	14.8	13.4	20.3	16.3	59	21	59	29		***	2	2	1	**		24	26	15	8	13	15	7	58.2
NOVEMBER	5	274	189	14.3	15.0	17.1	18.2	46	11	66	9	2			1	1			5	32	19	12	17	18	5	52.2
DECEMBER	3	272	168	12.7	16.2	17.0	19.4	29	14	72	8		2	1	2	2			1	37	27	7	14	15	5	45.8
DECEMBER	31	245+	176	13.3	18.7	17.2	21.2	29	12	60	10		1	1	2	4	***		2	44	34	6	17	11	2	48.2
TOTA	LS	3,633	2,798	16.3	16.7	18.7	20.7	655	384	862	347	120	23	26	52	12	2		112	571	376	147	217	182	87	51.3

<sup>\*</sup> Maximum number during the year, and so throughout the table.

<sup>†</sup> Minimum number during the year, and so throughout the table.

#### ASSIGNED CAUSES OF DEATH.

CLASS I.—SPECIFIC FEBRILE OR ZYMOTIC DISEASES.

The class of diseases called *Zymotic*, comprises, in the Registrar-General's arrangement of the causes of death, six Orders. The first and second Orders, Miasmatic and Diarrhœal, include the diseases which the Registrar-General describes as the "seven principal diseases of the zymotic class," the three fevers respectively named Typhus, Enteric, and Simple Continued, being grouped under the generic term "Fever."

#### ZYMOTIC DISEASES.

The deaths from the seven principal diseases of the zymotic class, which had been 322, 460, and 310, in the preceding three years successively, were 347 in 1898, and 8 below the corrected decennial average (355). These deaths, of which 313 belong to the Town sub-district, and 34 only to Brompton, were equivalent to 2.0 per 1000 persons living (2.5 in the Town sub-district and 0.7 in Brompton), as compared with 1.81 in 1897. The rate in the Metropolis, as a whole, was 2.78 per 1,000 (2.58 in 1897); the decennial rate being, for London 2.7, and for Kensington 2.06 per 1,000.

The subjoined table shows the number of deaths from the several diseases, in the sub-districts, and at outlying public institutions:—

	Sub-D	istricts.	In H	ospital.		Decennial Average.			
Disease.	Town	Town Brompton		Bromp- ton	Total.	Uncor- rected.	Corrected for increase of Population.		
Smallpox						0.9	0.9		
Measles	110	8	2	***	120	78*1	80.1		
Scarlet Fever	1	***	17	5	23	30.0	30.8		
Diphtheria		1	19	2	26	69.5	71.3		
Whooping-cough	48	2	1	1	52	64.9	66.5		
Typhus Fever	1	111	1	***	2	***			
Enteric Fever Simple-Continued	6	1	3	- 2	12	18:3	18.8		
Fever				***		1.1	1.1		
Diarrhœa	92	11	8	1	112	83.3	85.4		
	262	23	51	11	347	346.1	354.9		

From the above table it appears that the mortality from measles and diarrhœa was in excess, that from all the other diseases (save typhus, 2 deaths), being below the corrected decennial average. As usual the deaths in the Brompton sub-district (34) were fewer, in proportion to population, than those in the Town sub-district (313).

DISTRICT ZYMOTIC DEATH-RATE.—The district zymotic death-rate was, in North Kensington (279 deaths) 3·18 per 1,000 persons living, and in South Kensington (68 deaths) 0·8 per 1,000. The rate in the several sanitary districts was as follows:—

North	113 deaths or 3.9 per 1,000 persons living.
North-East	59 deaths or 1.9 per 1,000 persons living.
North-West	70 deaths or 4.2 per 1,000 persons living.
Central	40 deaths or 1.5 per 1,000 persons living.
South-East	21 deaths or 0.7 per 1,000 persons living.
South-West	26 deaths or 0.8 per 1,000 persons living,

The table at page 26 shows the distribution of the deaths in Kensington, as a whole, from the several diseases, as recorded in the thirteen four-weekly reports.

In England and Wales the deaths from these diseases were at the rate of 2.22 per 1,000 persons living, the decennial average being about 2.5 per 1,000. In the thirty-three great towns, including London, the average rate was 2.85, ranging from 1.61 in Huddersfield, 1.99 in Croydon, and 2.04 in Burnley, to 3.69 in Sunderland, 3.82 in Sheffield, and 4.03 in Salford.

#### SMALL-POX.

There was no death from small-pox, the corrected decennial average number being 0.9; nor was any case of the disease notified. In London 35 cases were notified: five cases were admitted to hospitals: one death only was registered (in St. George, Hanover-square), the decennial average number, corrected for increase of population, being 46. During the preceding ten years the deaths aggregated 436 only, the numbers being 9, 0, 4, 8, 41, 206, 88, 55, 9, and 16 in the successive years.

REDUCTION IN SMALL-POX MORTALITY IN LONDON .-The reduction in small-pox mortality has been very great since the Asylums Board adopted the practice of removing the sick to the country. The Board were first called upon to deal with the isolation of small-pox patients at the latter part of 1870. During the ten years 1871-80, some 33,000 cases were admitted to their hospitals in London. The deaths in these ten years were 15,539, including 7,912 in 1871. In May, 1881, the first Camp Hospital was established at Darenth, and the practice of removing the sick out of London, then initiated, was gradually perfected, so that since 1885 practically all cases coming under the care of the Managers have been treated at the Hospital Ships and the Convalescent Hospital at Gore Farm. During the ten years 1887-96, the cases admitted to these hospitals were 5,232, and the deaths of London people were, 429 only: 206 of the deaths were registered in 1893, in which year 2,376 cases were admitted to the Managers' hospitals. Had the mortality during these ten years been at the same rate as in the ten years 1871-80, the deaths, after correction for increase of population, would have been, not 429 but 18,752. There has thus been a saving of 18,323 lives in the ten years. This satisfactory result-admittedly due in large measure to the removal of the sick from London-was the outcome of the deputation of the

Sanitary Authorities, and other public bodies, to the President of the Local Government Board, on April 23rd, 1881, the primary object of the deputation being to present the resolutions adopted at the Conference of Sanitary Authorities convened by your Vestry, and held at the Town Hall, 23rd March, to consider the question of the Compulsory Notification of Infectious Disease, a measure for which London had to wait a further period of eight years. The proceedings at the deputation were fully reported in the British Medical Journal (May 7th, 1881, page 744); and in my Annual Report for 1880-81, page 57, may be seen, not only the history of the movement originated by your Vestry to secure Compulsory Notification, but also the story of the circumstances which led up to my recommendation of the removal of small-pox cases out of London; a recommendation which was acted upon by the Local Government Board and the Asylums Board with such promptitude, that within two or three weeks some hundreds of patients were comfortably housed at the Darenth "Camp," and the difficulty of hospital accommodation for sufferers from small-pox was solved, once and for ever, with the happy result above indicated.

# MEASLES.

Measles was the cause of 120 deaths, as compared with 33, 173, and 33, in the preceding three years successively: 112 in the Town sub-district and 8 in Brompton; the corrected decennial average being 80·1. All of the deaths, save six, occurred in the first twenty-four weeks of the year, as shown in the table at page 26. The epidemic of 1897-98, which commenced in this parish at the end of October, 1897, and continued till the middle of June, 1898, a period of 40 weeks, was accountable for 146 deaths, viz: 32 in the last sixteen weeks of 1897, (there had been but one death from this cause in the preceding thirty-six weeks of 1897), and 114 in the first twenty-four weeks of 1898. Though of longer duration

than that of 1896, the epidemic was not of so intense a character for in 1896 no fewer than 160 deaths were registered in the twenty weeks, January 26th to June 14th.

The deaths from this cause in the metropolis, as a whole, were 3,075, and 306 above the corrected decennial average (2,769): 2,571 of the deaths were registered in the first half of the year (1,494 and 1,077 in the successive quarters) and 504 in the second half, 236 and 268 in the third and fourth quarters respectively.

SHOULD MEASLES BE MADE A NOTIFIABLE DISEASE?— In the early part of the year the County Council received from the School Board, a communication urging them "to include 'measles' in the term 'dangerous infectious disease,' in order that the local sanitary authorities might have power to proceed against parents who send their children to school suffering from measles." The said communication was based upon a report from the School Board's medical officer, stating that "several cases had come under his notice of children being present at school whilst suffering from measles, and calling attention to the fact that the local authorities have no power at present to take any action in such cases." The Public Health Committee of the Council, "before coming to any decision in the matter," desired to "learn the views of the London sanitary authorities," and therefore asked if your Vestry "would be in favour of the extension to measles of the provisions contained in the Public Health (London) Act, 1891, relating to notification, etc., of infectious disease." It is surprising to learn that children suffering from measles should have been sent to school; such "exposure" one would think must have been inadvertent; and to constitute an offence under Section 68(1)(a), the exposure must be wilful. Be this as it may, I do not doubt that it would be useful to bring measles

within the meaning of the expression, infectious disease, so far as relates to exposure, and to the prohibition of the use of public vehicles for the conveyance of infected persons (Section 70); but I see no reason to modify the views adverse to the notification of measles expressed in these reports,\* and approved, on more than one occasion, by your Vestry. Probably not a moiety of the cases of measles in any epidemic come to the knowledge of medical practitioners. Every old woman thinks herself competent to treat measles, believing in "saffron tea" as a sovereign remedy. Unless, therefore, the child is obviously very ill; i.e., unless some of the complications occur to which the fatal issue in measles is usually due, the illness is allowed, very generally, to run its course without medical treatment, properly so-called, and therefore the great bulk of the cases would probably escape notification. It is true that the Act requires a "dangerous infectious disease" to be reported by the head of the family, but notification otherwise than by the medical man is of the rarest, and it would be difficult to enforce. Measles becomes epidemic about every second or third year: it rages for a few weeks; its victims are counted by thousands in a place like London; and then, for a lengthened time, only sporadic cases occur, the fatality being trifling. But during epidemic prevalence, measles is truly a "dangerous infectious disease;" and taking one year with another, is the cause of a greater mortality than scarlet fever, or even than diphtheria. + In this Parish, in 1897, there were only 33 deaths from this cause, whilst in 1896 there had been 173 deaths, of which 160 were registered

<sup>\*</sup> The question of the notification of measles was fully dealt with in my Annual Report for 1891 (pp. 97-106 inclusive), in which it was shown that no benefit had accrued therefrom at Edinburgh; 30,000 cases of measles having been notified (at a cost of £3,000) in the ten years, 1880-1889.

<sup>†</sup> The corrected annual average number of deaths in London from measles, in the ten years 1888-97, was 2,769; from scarlet fever 1,021; from diphtheria 2,175.

in 24 weeks, including 45 in one period of four weeks. Having regard to the low percentage-mortality of measles, this number of deaths (160) indicates an immense number of cases, probably 5,000 to 6,000, as compared with 1,780 cases of all the notifiable diseases recorded in that year. To deal with such a mass of cases-if they did get notified-in so short a period as half a year, and without action mere notification is useless, would be a task of great difficulty. And what could we do? I have always held to the view that without hospital accommodation for the bad cases which occur in the crowded and unhealthy homes of the poor, where, owing to complications induced by insanitary conditions, the disease so often proves fatal, no substantial benefit would accrue from notification. There is no such accommodation, nor is there likely to be, and, therefore, I think notification would be of little if any avail, as a means for reducing the fatality of measles. The disease is exceedingly infectious, and once in a tenemented house, or a house let in lodgings, and swarming with children, it is almost impossible to prevent it from spreading to all who are susceptible to the infection. The School Board do not allow of the attendance at school of children from infected houses, and it is possible that if measles was made notifiable, the head teachers would have some increased facilities for excluding children from infected houses. But this end might be equally well attained by the adoption of a course I suggested to the local Superintendent of the School Board Visitors, some years ago; viz., that when measles threatens to become epidemic, the parents should be informed that school attendance is not allowed in the case of children living in an infected house. No action was taken in the matter. I venture to think that this course should be adopted and proved to be ineffective, before resorting to notification, which would certainly be costly, and involve much labour and trouble, probably to little purpose.

#### SCARLET FEVER.

The cases notified as scarlet fever were 474, as compared with 525, 1,011, and 749, in the preceding three years successively; viz., 312 in North Kensington and 162 in South Kensington. The deaths were 23, and eight below the corrected decennial average (31); 18 and 5 in the Town and Brompton sub-districts respectively. Seventeen of the deaths were of children under five years of age: one infant died in the first year of life. Twenty-two of the deaths took place at outlying public institutions, to which 361 cases were removed, and one at home. The case-mortality was 4·8 per cent. (3·9 in 1897); viz., 6·1 per cent. in hospital cases and 0·8 per cent. in home cases. The deaths in the preceding three years from this cause were 27, 39, and 29, respectively.

The deaths in London, as a whole, were 583 (as compared with 829, 942, and 780, in the preceding three years successively) and were 438 below the corrected decennial average (1,021). Of the 583 deaths, 494 or nearly 85 per cent., took place in public institutions. The cases notified numbered 16,917, as compared with 22,876 in 1897, 25,638 in 1896, 19,757 in 1895, 18,440 in 1894, and 36,901 in 1893. The mortality was 3·4 per cent on cases notified, the same rate as in 1897, and as compared with 3·7 in 1896; 4·1 in 1895; 5·2 in 1894, and 4·3 in 1893. The case-mortality in hospitals (admissions, 12,456, deaths, 494), was 4·06 per cent.

The tables on page 35 show the degree of prevalence of the disease in the parish, and in London, as a whole, in 1898 and 1897, as indicated by the number of notifications, and of deaths registered, in thirteen successive four-weekly periods, as set out in my reports.

# SCARLET FEVER IN 1898.

Report for four weeks		No. Notifica	tions	No. of cases to hosp	itals	No. of	No. of cases in Hospital at the end of the period.		
ended.	Ke	ensington	London.	Kensington.	London.	Kensington	a. London.		
Jan. 29		34	1302	25	946	4	68	3061	
Feb. 26		40	1207	30	873	2	51	2674	
March 26		31	1118	28	818	-	41	2371	
April 23		40	1243	29	931	3	63	2334	
May 21		31	1212	24	866	5	50	2241	
June 18		32	1229	23	912	. 1	43	2194	
July 16		40	1214	30	937	1	36	2314	
August 13		55	1238	35	933	3	33	2293	
Sept. 10		39	1085	29	880	1	37	2300	
Oct. 8		30	1467	27	1188	-	29	2606	
Nov. 5		32	1774	25	1391	_	44	3092	
Dec. 3		36	1536	32	1157	2	45	3142	
Dec. 31	***	34	1292	24	982	1	43	2939	
		474	16917	361	12814	23	583		

The notifications are taken from the weekly returns of the Asylums Board; the admissions to and the numbers in the hospitals, and the deaths in London, from the weekly returns of the Registrar-General.

For the sake of comparison, I subjoin the corresponding table for 1897, taken from the report for that year,

## SCARLET FEVER IN 1897.

Report for four weeks ended		No. Notifica Kensington	tions	No. of cases to hos	spitals	No: of I		No of cases. in Hospital at the end of the period.
Jan. 30		44	1439		1000	1	63	3311
Feb. 27	***	29	1289	27	935	2	52	2817
March 27		41	1174	32	859	***	41	2585
April 24		28	1206	20	928	3	39	2442
May 22		33	1316	24	1004	***	49	2508
June 19		55	1454	50	1081	1	48	2670
July 17			1701	46	1307	3	56	2903
Aug. 14		52	2019	35	1479		66	3341
Sept. 11			1915	46	1443	1	54	3579
Oct. 9			2801	90	1483	2	84	3692
Nov. 6			2955		1537	6	76	3680
Dec. 4		85	2058	57	1560	6	95	3811
Jan. 1, 1898	***	35	1549	27	1074	4	57	3572
		749	22,87	76 565	15,690		780	

The tables on pages 36-37 exhibit certain particulars of interest with respect to scarlet fever prevalence, &c., during 1898, and the preceding ten years, 1888-97.

20

# SCARLET FEVER CASES RECORDED IN KENSINGTON IN 1898, AND IN TEN PREVIOUS YEARS, IN THIRTEEN FOUR-WEEKLY PERIODS.

The Year.		Weeks.	Weeks. 5-8	Weeks. 9-12	Weeks. 13-16	Weeks. 17-20	Weeks. 21-24	Weeks. 25-28	Weeks. 29-32	Weeks. 33-36	Weeks. 37-40	Weeks. 41-44	Weeks. 45-48	Weeks. 49-52	TOTAL
1898		34	40	34	39	31	31	40	55	38	31	33	38	34	478
1897		43	32	40	28	33	58	68	51	55	133	88	84	34	747
1896		79	90	57	45	37	68	93	94	92	84	104	91	77*	1011
1895		20	22	20	23	22	33	39	40	24	63	91	62	66	525
1894		59	37	27	40	28	21	26	23	30	28	31	15	25	390
1893		45	60	38	34	56	84 -	84	110	67	113	117	88	61	957
1892		28	23	20	34	51	39	73	74	59	97	85	82	50	715
1891		38	47	18	24	23	23	13	27	17	31	23	22	17	323
1890		10	32	17	23	24	15	12	19	24	42	71	49	38*	375
1889		16	4	6	8	14	17	14	26	19	25	29	41	33	252
1888		46	40	29	19	16	10	15	13	12	7	7	20	18	252
Averag 1888-97	е	38.4	38.7	27.2	27.8	30.4	36.8	43.7	47.7	39.9	62.3	64.6	55.4	41.9	55 5+

<sup>\*</sup> Return comprises five weeks. †Without correction for increase in population. Note.—Compulsory Notification has been in operation since October, 1889.

STATISTICS OF SCARLET FEVER IN KENSINGTON IN 1898, AND TEN PREVIOUS YEARS.

	The Year.		No. of Recorded Cases.		Total Number	Percent- age of Removals		aths.		Percen De	ntage of aths.	Percent-	in
The	Year.		Treated at Home.	Removed to Hospital.	of Recorded Cases.		At Home.	In Hospitals.	Total Deaths,	At Home.	In Hospitals	Deaths to Recorded Cases.	London from Scarlet Fever.
1898			117	361	478	76	1	22	23	3.4	95.6	4.8	583
1897			188	561	747	75	3	26	29	10.3	89.7	3.9	780
1896			248	763	1011	75	7	32	39	18	82	3.9	942
1895			167	358	525	68	12	15	27	44	- 56	5.1	829
1894			131	259	390	66	5	17	22	23	77	5.6	962
1893			389	568	957	59	10	41	51	24	76	5.3	1596
1892			259	456	715	64	9	27	36	25	75	5.0	1174
1891			117	206	323	61	3	13	16	19	81	4.9	589
1890			161	214	375	57	6	20	26	23	77	6.9	875
1889			86	166	252	66	8	20	28	29	71	11.1	778
1888			68	184	252	73	10	16	26	39	61	10:3	1209

#### DIPHTHERIA.

Cases of diphtheria (215) and membranous croup (7) to the aggregate number of 222, were notified, as compared with 365, 371, and 332, in the preceding three years successively: viz., 131 in North Kensington and 91 in South Kensington. The deaths registered were 26 (as compared with 89, 72, and 82, in the preceding three years respectively), being 45 below the corrected decennial average (71): 23 of them belong to the Town sub-district, and 3 to Brompton; 18 to North Kensington and 8 to South Kensington. Twenty-one of the deaths took place at hospitals, to which 164 cases were removed. The case-mortality was 11.7 per cent., and about the lowest on record. So few deaths from this disease as in 1898 had not been registered in any year since 1885, the nearest approach to it being 35 deaths in 1890, and 28 deaths in 1891.

In London, as a whole, the deaths were 1,772, and 403 below the corrected decennial average (2,175), as compared with 2,316, 2,683, and 2,261, in the preceding three years respectively. Combining croup with diphtheria, the deaths were 1,829, and 649 below the corrected decennial average. In 1888 494 deaths were registered from croup: in 1898 only 57. The notifications of diphtheria were 11,561, as compared with 10,772, 13,361, and 12,811, in the preceding three years successively. The cases of diphtheria admitted to hospitals are stated by the Registrar-General to have been 6,615, and the deaths in hospitals 996, or 15·1 per cent. The death-rate from diphtheria per 1,000 persons living, during the ten years 1889-98 (after distribution of deaths in public institutions) in London and Kensington was as follows:—

London ... 0·38 0·33 0·32 0·44 0·75 0·61 0·52 0·59 0·50 0·39 Kensington ... 0·67 0·20 0·17 0·20 0·49 0·46 0·53 0·40 0·47 0·15 The following table based on the thirteen four-weekly reports, sets out some particulars with regard to diphtheria, in Kensington and in London, in 1898.

#### DIPHTHERIA IN 1898.

Report for four weeks		No.	tions	No. of cases to hosp	oital	No. of	Deaths	No. of cases in Hospital at the end of
ended.	K	ensington	London	.Kensington.	London.	Kensington	. London.	the period.
Jan. 29		14	901	9	535	6	163	1062
Feb. 26		20	939	18	562	3	166	1061
March 26	***	20	813	17	526	4	160	1022
April 23		24	729	19	456	1	139	953
May 21		21	763	17	504	1	117	953
June 18		17	828	14	575	5	106	1018
July 16		17	849	13	557	1	115	1033
August 13		12	785	8	484	_	107	953
Sept. 10	***	12	699	8	474	1	96	893
Oct. 8		20	1039	16	690	2	125	1052
Nov. 5		16	1087	11	695	-	145	1241
Dec. 3		13	1084	6	691	1	156	1274
Dec. 31		9	1045	8	698	1	177	1248
			-			-		
		215	11,561	164	7447	26	1772	

Note.—Correction has not been made in the above table for errors in diagnosis either with respect to notifications or admissions to hospital.

The table at page 40 gives particulars with respect to diphtheria in North and South Kensington respectively,

#### PARTICULARS WITH REFERENCE TO DIPHTHERIA IN KENSINGTON, IN 1898.

	lat out in Donost for Four works and			Cases Recorded in	Cases Recorded in		ed to Hospital	Dear	ths in
Set out in Report for	Four week	s ended.	Cases Recorded.	North Kensington.*	South Kensington.*	North South		North Kensington.	South Kensington
January 29			14	9	5	7	2	6	
February 26			20	16	4	15	3	2	1
March 26			20	12	8	10	7	2	2
April 23			24	19	5	16	3	1	
May 21			21	12	9	8	9		1
June 18	***		17	11	6	9	5	4	1
July 16			17	12	5	8	5	1	***
August 13			12	7	5	6	2		***
September 10	***		12	5	7	3	5		1
October 8			20	4	16	4	12	1	1
November 5			16	7	9	4	7		
December 3	***		13	5	8	3	3	1	***
December 31	***		9	6	3	5	3	***	1
	-								
			215	125	90	98	66	18	8

<sup>\*</sup> North Kensington and South Kensington are the districts to the north and the south of the centre of Notting-hill High-street and Holland-park-avenue, respectively.

How Disease is Spread.—The year did not pass without furnishing illustrations of common modes of spread of infectious disease. Two may be cited here. A notification of a case of diphtheria in a child, aged 3 years, was received from a general hospital. The patient's home being visited, it was ascertained that a doctor had been consulted as to the nature of the illness. He is alleged to have said it was diphtheria, and to have advised removal to hospital in a cab forthwith. Upon enquiry at the hospital it was found that the number of the cab was unknown, it being, as the resident medical officer put it, one of those cases in which the cab had been discharged before the nature of the case had been discovered. The ambulance could have been had for the asking and the child would have been removed forthwith. The case proved fatal five days after admittance to hospital.

In the other case, a notification of diphtheria in a child, aged 4 years, having been received, the house was visited the same day, when it was ascertained that the child had been taken by railway into the country that same morning. The father and the brother of the child stated that the removal had been effected upon the advice of the doctor. The medical officer of health of the district to which the child had been taken was informed of the occurrence, and the house was visited. To him the mother stated that her doctor was of opinion that "the child had not got diphtheria, but a form of sore throat, which might lead to diphtheria," and he had "advised the child to be taken into the country where there were no children." My correspondent added that he found two other young children at the house when he called. It is improbable that the doctor in London made the statement attributed to him respecting the nature of the throat trouble, seeing that he (and another doctor also) gave a definite certificate of diphtheria. The doctor, on being asked for an explanation, stated that he had recommended the removal to the

country, not of the sick child but, of the children "who had not then complained of any symptoms of the disease." It was said that the mother was anxious to nurse the child at home, and the probability is that she took it away from town fearing that otherwise the child might be removed to hospital.

In both of these cases a serious offence was committed, as the use of a public vehicle for the conveyance of any person suffering from a dangerous infectious disease is absolutely prohibited by Section 70 of the Public Health (London) Act, 1891. Liability to a fine not exceeding ten pounds was in each case incurred by some person. It is impossible to gauge the amount of mischief which may have been done through the exposure of the infected children in the cab and in the railway carriage, neither of which, of course, could be disinfected.

THE ANTITOXIC TREATMENT OF DIPHTHERIA.-Reference has already been made to the low rate of diphtheria mortality during the year, which, doubtless, was the outcome of the free use of antitoxin at the several hospitals of the Asylums Board. In the report for 1896 (p. 46) I dealt somewhat fully with this subject, in connection with the first annual report (for 1895) of the medical superintendents of these institutions, setting out their combined experience on antitoxin in the treatment of this dire disease. conclusion arrived at was that in antitoxic serum they possessed a "remedy of distinctly greater value than any other with which they were acquainted." Subsequent experience has served to confirm this view, and the serum has now secured a permanent footing not only as a remedy but also as a prophylactic. The Managers, it may be mentioned, have entered into a seven years' agreement with the Laboratories Committee of the Royal Colleges of Physicians and Surgeons

for the supply of antitoxic serum to the Board's hospitals. The production of the serum is now left entirely in the hands of the Committee, the Managers defraying the cost of production, but not being in any way responsible for the grooming and keeping of the horses, &c. It was stated in the annual report of the Chairman of the Board for 1897, that since the introduction of antitoxin in the treatment of the patients suffering from diphtheria, the case-mortality in all the Board's hospitals has fallen—from 29.3 per cent. during the year 1894, to 17.7 per cent. during the year 1897, "whilst the decrease in the mortality amongst cases of post-scarlatinal diphtheria in the convalescent hospitals has been most striking." The report for 1898, shows a still further improvement upon these relatively satisfactory statistics, the death-rate having further fallen to 15.1 per cent.

#### WHOOPING-COUGH.

Whooping-cough was the cause of 52 deaths, as compared with 39, 99, and 19, in the preceding three years successively; 49 in the Town sub-district and 3 in Brompton, the corrected decennial average being 67. All of the deaths were of children under five years of age, including 23 under one year. The deaths in London, as a whole, from this cause were 2,160, and 361 below the corrected decennial average (2,521).

## FEVER.

One hundred and eight cases of Enteric Fever and Simple Continued Fever were notified, 65 in North Kensington, and 43 in South Kensington, as compared with 99, 94, and 122, in the preceding three years successively. The deaths registered from enteric fever were 12 (7 below the corrected decennial average, 19, and the lowest number since 1887, when 11 deaths were recorded) viz., 9 in the Town subdistrict, and 3 in Brompton. Five of the deaths took place at hospitals, to which 74 cases were removed, and 7 at home.

The deaths from this cause in the preceding three years, successively, were 15, 15, and 21. Many cases of enteric fever get imported into London from seaside and other places, especially in the autumn and during the oyster season. In the eleventh monthly report (November 9th, page 113), I reported no fewer than seven such cases recorded in the four weeks ended 5th November.

The deaths in London, as a whole, from enteric fever, were 585, and 37 below the corrected average (622). Three thousand and thirty two cases were notified. Cases to the number of 869 were admitted to hospitals, the mortality (143 deaths) being at the rate of 16.5 per cent. Eight cases were notified, and 2 deaths were registered, of Kensington parishioners, from Typhus Fever. No death was registered from Simple Continued Fever. In London, as a whole, there were 4 deaths from typhus, and 9 from simple continued fever, the corrected decennial averages being 8 and 25 respectively. The notifications of typhus fever were 17, and of simple continued fever 55.

Typhus Fever.—In the annual report for 1897 it was stated that there was no death from *Typhus Fever* during the year, nor had there been any during the preceding fifteen years. In 1898 the disease re-appeared, a dangerous outbreak having occurred at Western Dwellings at the northern end of Ladbroke-grove, under circumstances fully detailed in the 3rd and 4th four-weekly reports. The first intimation of this outbreak came to hand on 21st March, when Dr. Bruce, medical superintendent at the Western Hospital, informed me that a Dr. Davis, admitted from Golborne-road, on the 15th, and an undertaker, admitted from Pembridge-place, on the 19th, certified as enteric fever, were both suffering from typhus. A medical man and an undertaker thus suffering, simultaneously though in parts of the parish somewhat remote from one another

from the same rare and highly infectious fever, the question naturally arose, whether the one had attended and the other buried any person who had died from typhus? This actually turned out to be case, and we had not long to wait for the desired clue; for the same afternoon brought from Dr. Potter, medical superintendent of the parish infirmary, three notifications of typhus, in a man and his wife and their only child, who had been removed from Western Dwellings, Flat 19, comprising two rooms and a scullery, the cases being certified for admission as influenza. Dr. Potter, it should be stated, had been put upon the alert by a telephone-message from Dr. Ensor, medical officer for No. 2 district, who had received a communication from Dr. Bruce, intimating the nature of Dr. Davis's illness, and who had begun to suspect that certain cases which he had attended at Western Dwellings, as influenza, might have been typhus. Dr. Potter recognised typhus in all three cases, and they were forthwith removed to the South-Eastern Hospital. These facts did not become known to me till later in the day. Meanwhile, turning to the weekly returns of causes of death, I ascertained that at Flat 20, Western Dwellings, a woman had died on February 27th, and that the cause of death, as certified by Dr. Davis, was "influenza (12 days). pneumonia (8 days)." Suspicion was instantly aroused that the supposed "influenza" might really have been typhus. I lost no time in visiting Western Dwellings, accompanied by Dr. Ensor, to whom Dr. Davis had been assistant. It was seen that Flats 19 and 20 face one another (at a distance of ten feet) on the second floor; and the information communicated by Dr. Ensor led irresistibly to the conclusion (in which he concurred) that typhus fever had been in unrecognised existence at Flat 20 since Christmas, 1897. Piecing together the information received from a variety of sources, the story was made out which is fully detailed in the third four-weekly report (March 30th, page 32). The particulars of the first case may be repeated here :-

Thomas B---, aged 43, who had a wife and seven children (viz., John, aged 20, Ellen 18, Julia 17 (in service), Edward 11, Kate 8, Myrtle 6, and James 4), was in public employment in another parish. He became unwell shortly before Christmas Day suffering much from pain in the head, which he attributed to hard and prolonged labour. He kept at his work, however, not collapsing till Christmas Day. He was attended, for the first time, by Dr. Thomson (Dr. Ensor's assistant) on December 28th. Dr. Thomson certified the disease to be "influenza," for the information of the patient's employers. Dr. Thomson appears to have seen the patient twice, and then becoming disabled, the case was taken over by Dr. Knaggs, also on behalf of Dr. Ensor, and this gentleman gave two weekly certificates of "influenza," having apparently paid three visits to the patient, who became convalescent in about four weeks. At this time, January 20th, he was seen by the medical practitioner who represents the patient's employers, who found him in a weakly condition, and certified to his inability to resume duty. On the 22nd January the patient was sent to a seaside convalescent home. He returned to town on 12th February, was allowed another week off, and returned to duty on the 19th.

From this man's illness all the other cases, 14 in number were easily traced. The first of the group, case 2, was that of his daughter Kate, aged 8 years. She fell ill on or about 22nd January, the illness being diagnosed as pneumonia consecutive to influenza. The patient recovered. Case 3 was the wife, aged 42. She fell ill on or about 16th February. Dr. Davis was associated in the treatment of the illness, which proved fatal on the 27th; the cause of death as certified (by Dr. Davis) being "influenza (12 days) pneumonia (8 days)." Three children, Edward and Myrtle and James, aged 11, 6, and 4, respectively (cases 4, 5, and 6) fell ill shortly after their mother; the illness was regarded as influenza: all three recovered. The unfortunate Dr. Davis (aged 33) was the next victim (case 7). He fell ill 9th March and was seen by four doctors: no diagnosis was made. On the 15th March he was removed to the Western Hospital, one of the medical attendants having "provisionally certified 'typhoid probable.'" Dr. Bruce furnished me with his notes of the case, whichlooking back - pretty clearly indicated typhus: but the

diagnosis was not made until the 21st. Death supervened on the 25th. The undertaker, aged 30 (case 8), had assisted in coffining the wife on March 1st; he fell ill on the 10th, took to his bed on the 12th, and was removed to the Western Hospital on the 19th with a certificate of enteric fever; the diagnosis of typhus was made on the 21st. The patient ultimately recovered. The next cases (9 and 10) were John (aged 20), son, and Ellen, (aged 18), daughter of the original sufferer, who fell ill on or about 12th and 14th March respectively. Both were removed to the infirmary with certificates of influenza. The man died, the woman recovered. On the 18th March another daughter Julia (aged 17, case 11), fell ill at her place. She had attended her mother's funeral and had also visited her brother and sister at the infirmary. I saw this patient with Dr. Ensor on the 21st March, and advised her removal on a certificate of typhus, to the South-Eastern Hospital, where the diagnosis was confirmed by Dr. Turner, the medical superintendent. The next three cases (12, 13, and 14) were a man, aged 24, his wife, aged 23, and their only child, aged 2 years. They occupied Flat 19 at Western Dwellings, the door of which, as already mentioned, faces the door of Flat 20, at a distance of ten feet. The illness of these persons was regarded as influenza, and with certificates to that effect they were removed to the infirmary. But Dr. Potter, having received from Dr. Ensor a cautionary message, diagnosed typhus, and removed all three patients the same day (21st) to the South-Eastern Hospital: all of them recovered. That they contracted the malady from the inmates of Flat 20 there is no question: the two families were on friendly and visiting terms, and the young wife had helped her neighbours during their illness. The only remaining case, making 15 in all, was that of a woman from St. George's parish, Southwark, who had gone to Flat 20 to look after the children of the widower (case 1). She went home on April 7th, and was seen next day by a doctor to whom she made no communication of the events which had taken place at Western Dwellings. The doctor saw her again on April 11th, and having then been informed of the facts of the outbreak at Western Dwellings, he recognised the illness to be typhus, and notified the case, which was removed on the following day to the South-Eastern Hospital, where the diagnosis was confirmed: she recovered.

Causation.-Needless to say, every effort was made to trace the illness in the first case to its origin. It was thought that Thomas B- might have come into contact with a source of infection in the course of his employment, a supposition to which probability was lent by the fact that a man living in another parish, but employed with him at the same office (the two sitting next to each other at meals) fell ill suddenly on Christmas Day, when he "became weak all at once and had to leave work." This man was seen by his doctor the same day, and was treated at home for three weeks for bronchitis. No spots were observed. During his illness he slept with a brother, who continued well, and the doctor assured me that there was nothing in the nature of the case to suggest typhus or any other complaint than the bronchitis, to which he was subject. Typhus (or "jail") fever, when commonly prevalent, in byegone days, was largely due to insanitary conditions, to overcrowding and dirt. These conditions prevailed at Flat 20, and their existence, I think, accounts for the outbreak. The two rooms, apart from the scullery, contain—the living room 1,353 cubic feet of air-space, the bed-room 948 cubic feet. In the living room the deceased voung man John B-- slept. The remaining members of the family (excepting Julia, who was in service) slept in the bed-room. They comprised the parents and five children, aged 18, 11, 8, 6, and 4 years respectively. The air-space, without deduction for the bodies of the sleepers, two bedsteads, &c., and other furniture, was at the rate of 135 cubic feet for each person, the minimum required under registered and

common lodging-houses bye-laws being 300 feet. But this is not all. The bedding, clothing, &c., was in bad condition, and a considerable accumulation of underclothing was found, which, like some of the bedding, was soiled with excreta: vermin abounded. The atmosphere of the rooms was offensive, and it was stated that the rent collector would never go beyond the door. Such a state of things-overcrowding and stench, one would think, could hardly have been unknown to the owner's representative, and it is to be regretted that it was not made known to the sanitary inspector. Foul air, constantly re-breathed, as was inevitable in the circumstances, appears to me adequately to account for the illness of Thomas B-, which commenced at a time when he was more or less pulled down by the excessive strain, mental and bodily, of overwork, just before Christmas. The same conditions, plus infection, sufficiently account for the subsequent cases in this man's family. It is an obvious reflection, however, that there would have been no "subsequent cases" had the nature of the first case been recognised at an early date, and the patient removed to hospital; seeing that a period of more than four weeks intervened between the first and second cases, reckoning from the date of the initiatory symptoms, a period considerably longer than the incubative stage, which, in case 11, (Julia B---) did not exceed nine or ten days.

Precautionary Measures.—No time was lost in visiting Thomas B——'s place of work. The inspector relieved him of his duties, forthwith, on hearing that he had come from the bed-side of his dying son at the Infirmary. The official doctor was apprised of the facts, and notice was sent to the medical officers of health of neighbouring districts, in order that persons who had been in contact with the sick might be put under observation. The rooms in both Flats and their contents were disinfected and cleansed. The owner of the buildings was apprised of the outbreak, and readily consented to do whatever was considered necessary to prevent spread of the disease. Happily there was none.

Difficulty in Diagnosis of Typhus .- It may perchance be thought surprising that so many medical men should have seen one or other of these cases and yet have failed to recognise the true nature of the disease. But a little consideration may, possibly, modify any such feeling. The gentleman who notified the case of the undertaker informed me that in twelve years of practice he had never met with a case of typhus. Then as regards the nine cases in Flat 20, it may be pointed out that Dr. Ensor did not see Thomas B-- the first case; Dr. Thomson had been disabled; Dr. Knaggs lived at a distance, and had given temporary help only in an emergency. These gentlemen had certified the case as influenza. Mrs. B (Case 2) had been ill some days before she was seen by Dr. Ensor and Dr. Davis, who were told that her husband had had influenza: pneumonia was developing, and what more likely than that it was consecutive to influenza? the early symptoms of which are not very dissimilar from those of typhus. The young children's not severe illness seemed to admit of the same explanation. John B--, who died, and his sister Ellen, were speedily removed to the Infirmary, and in the absence of any clue, it is not remarkable that the symptoms generally, and the ill-defined rash, were at first attributed to suppressed measles-a disease very prevalent in the parish at the time. Even in the case of Dr. Davis, who had been ill six days before admission to the Western Hospital, it was apparently not until some days later-probably on the twelfth day of illness-that it became clear to the medical superintendent that he was suffering from typhus. The diagnosis, moreover, was probably facilitated by comparison with the case of the undertaker, who was admitted four days after Dr. Davis. The recognition of the true nature of these cases, communicated to Dr. Ensor on the 21st March, led to speedy diagnosis of the nature of the illness in the second family (cases 12, 13 & 14) when admitted to the infirmary at that date-after they had been ill at home six days; from influenza, as was supposed;

not without suspicion, however, towards the end, that the disease might be enteric fever. Reference has been made to the rarity of typhus in these days. Few doctors probably have seen the disease: in 1897 only four cases were notified in London, scarcely more than one in a million of the population; and there was one death only attributed to this cause out of a total of 81,000 deaths. It deserves mention that once the true nature of the disease was recognized, all of the doctors, with praiseworthy candour, realized the mistaken, and accepted the corrected diagnosis. There was then a consensus of opinion that all of the fifteen cases were typhus and nothing else: but unfortunately the thought of this rare disease did not occur to any one of the medical gentlemen concerned with the home cases.

Immunity.—Having regard to the infectiousness of typhus, to the long-continued prevalence of the disease at Flat 20, and to the duration of the stay at home of the other cases, it is remarkable that there should have been no greater spread of the malady. The non-spread may fairly be taken to be a testimony to the improved conditions of the life of the people, who are now better housed, on the whole, and live better, and are better clothed and provided generally, than at any previous period of English history. They have, therefore, greater power of resistance to typhus. The non-spread, moreover, is a testimony to the value of sanitation, which does not always receive the credit to which it is fairly entitled.

In October another slight outbreak of typhus occurred comprising three cases. The first was that of a married woman, who had been removed to the Infirmary from a house in Kenley-street (Potteries), where, with other persons, she had been in illegal occupation of an underground room which

Committee, in 1895. The symptoms of the illness were suspicious, but obscure, and a positive diagnosis of typhus was not made until one of the nurses who had been in attendance upon the sufferer fell ill. This nurse was removed to hospit al and subsequently a second nurse, both of whom had unmistakable typhus. Happily all three cases did well. The drain of the house in Kenley-street was found to be defective. Proceedings were taken against the keeper of the registered house for permitting the illegal occupation of the underground room where the disease is believed to have originated.

#### DIARRHŒA.

Diarrhœa was the cause of 112 deaths as compared with 118, 61, and 125, in the preceding three years successively: 100 in the Town sub-district and 12 in Brompton. These deaths were irrespective of the considerable number of deaths of infants registered as due to gastro-enteritis, and which are classified to enteritis. Seventy-six of the deaths were of infants under one year of age. In the report for 1897 (pp. 42-45) I dealt at some length with the question of infantile diarrhœa, and have now nothing to add to the remarks on causation, &c., therein set out.

The deaths from diarrhoea in London, as a whole, were 4,376, and 1,363 above the corrected decennial average (3,013). The Registrar-General states that the diarrhoeal death-rate (0.97 per 1,000 living) was the highest recorded in any year since 1886, and considerably in excess of the average rate in the preceding ten years, viz., 0.67 per 1.000.

#### INFLUENZA.

Seventy deaths were registered from influenza as compared with 115, 20, and 44, in the preceding three years successively. Forty-seven of the deaths occurred in the Town sub-district and 23 in Brompton. The deaths in London, as a whole, from this cause were 1,283, as compared with 2,117, 491, and 679, in the preceding three years, successively, and 145 below the corrected decennial average.

OTHER DISEASES OF THE ZYMOTIC CLASS.—Still dealing with the diseases in this important Class, it appears that two deaths, one each from Ague and Remittent Fever, were registered in Order 3 (Malarial Diseases), and no death from Zoogenous Diseases comprised in Order 4.

Order 5, Venereal Diseases, includes Syphilis, Gonorrhæa, and Stricture of the Urethra. Syphilis was the registered cause of 16 deaths, against 19. 18, and 21, in the preceding three years respectively. Fourteen of the deaths occurred in the Town sub-district, and 12 of them were of children under one year of age. If the truth were known, it would probably appear that this Protean malady was accountable, directly or indirectly, for many deaths in excess of the record. There was no death from Stricture of the Urethra.

Order 6, Septic Diseases. This Order comprises Erysipelas, Pyæmia, Septicæmia, and Puerperal Fever: the total deaths registered were 12, as compared with 18, 12, and 21, in the preceding three years respectively. Erysipelas was the cause of 7 deaths,\* all of them in the Town sub-district, as compared with 9, 4, and 9, in the preceding three years respectively. There was no death from Pyæmia or Septicæmia.

<sup>\*</sup> The notified cases of erysipelas were 180, many of them being of traumatic origin, unimportant in character, and such as the framers of the Act could scarcely have intended to be notified.

Puerperal Fever was the registered cause of 5 deaths, of women between 15 and 45 years of age (as compared with 3, 7, and 5, in the preceding three years respectively), four of them in the Town sub-district. In addition to these 5 deaths, other 6 deaths (five of them in the Town sub-district) were registered as having occurred in childbed, as compared with 8, 13, and 9, in the preceding three years respectively. The deaths registered as having been caused by diseases and accidents associated with parturition (11 in all) were equal to 3.0 per 1,000 live births, against 2.5, 5.4, and 3.8, per 1,000 in the preceding three years respectively. The notifications of puerperal fever were 11 in number. Bearing in mind the disatrous series of cases of this disease on which I reported in 1883, when a verdict of manslaughter was returned by a coroner's jury against a midwife, under circumstances set out in the fourth and sixth reports for that year, I have ever since felt it to be my duty to warn nurses, and all other women concerned with these painful cases, of the responsibility they incur by attending other parturient women until after a period of three or four weeks, and disinfection of their persons, clothing, &c. This course was adopted in respect of the cases notified in 1898 with satisfactory results, there having been no spread of the disease.

# CLASS II.—PARASITIC DISEASES.

There was no death from the diseases in this Order.

# CLASS III.—DIETETIC DISEASES.

The deaths from the diseases in this Order were 25; 20 of them in the Town sub-district. *Delirium Tremens* was the cause of six deaths, as compared with 3, 4, and 4, in the preceding three years respectively; *Chronic Alcoholism* of eighteen deaths, against 8, 10, and 11. It is scarcely necessary, perhaps, to remark that if all the deaths due, directly or indirectly, to the immoderate use of intoxicating liquors, could

be ascertained, alcoholism would occupy a more prominent position in the bills of mortality; but many deaths due to the misuse of alcohol get certified, and therefore are classified, to visceral and degenerative diseases caused or aggravated by drink.

# CLASS IV.—CONSTITUTIONAL DISEASES.

This important Class comprises the causes of 578 deaths (equal to 20.6 per cent. of total deaths), including 99 of children under the age of five years: 475 of the deaths were registered in the Town sub-district, and 103 in Brompton.

Rheumatic Fever and Rheumatism of the Heart caused 15 deaths, 12 of them in the Town sub-district; Rheumatism 3 deaths. Gout was the cause of 5 deaths, 4 of them in the Town sub-district, and Rickets of 7, all of them in the Town sub-district.

Cancer, Malignant Disease, was accountable for 193 deaths; 142 in the Town sub-district and 51 in Brompton. Cancer would appear to be on the increase in the country generally: possibly, however, some portion of the apparent increase in number of deaths classified to this cause may be due to greater accuracy in diagnosis. The deaths in Kensington in the preceding ten years were 121, 138, 125, 127, 129, 140, 143, 136, 173, and 168 respectively. Deaths from malignant disease are usually more numerous, proportionally to population, in the Brompton sub-district than in the relatively poorer Town sub-district, cancer being quite as prevalent, probably even more prevalent, amongst well-to-do people, than in the poorer classes. The parts of the body most commonly affected are the viscera or internal organs; in women, the uterus and the breast; the disease, moreover, being for the most part one of later life. Thus, 170 of the deaths took place at ages above forty-five, and 15 between thirty-five and forty-five years.

Purpura (Hemorrhagic Diathesis) was the cause of one death; Anæmia and Leucocythæmia, of 4; Glycosuria, Diabetes Mellitus, of 15.

TUBERCULAR DISEASES were the registered causes of 333 deaths (as compared with 350, 318, and 340, in the preceding three years respectively); viz., 292 in the Town subdistrict, and 41 in Brompton: 89 of the deaths were of children under five years of age. In a few instances Phthisis was returned as the cause of death in infancy, a period of life at which the tubercular diathesis commonly manifests itself in other parts of the body than the lungs, e.g., the brain, bowels, &c. Such deaths have been classified in Table III. (appendix), with those ascribed to "Other forms of Tuberculosis, Scrofula," the total being 49 (of which 33 occurred under five years of age), including 43 registered in the Town subdistrict. Tabes Mesenterica, popularly known as consumption of the bowels, was the cause of 10 deaths (all of them in the Town sub-district); all of them under five years of age, and 6 under one year. Tubercular Meningitis and Hydrocephalus (water on the brain) were the causes of 57 deaths; 3 only of them in Brompton, and 44 under five years of age. Phthisis, popularly known as decline or consumption, was the cause of 217 deaths; 2 under five years of age, 6 between five and fifteen years of age, and 204 between fifteen and sixty-five: viz., 26, 43, 68, 45, and 22, in the five decennial periods consecutively: 5 deaths were registered at ages over 65. Of the total deaths, 185 belong to the Town sub-district, and 32 to Brompton. The deaths from tubercular diseases were, proportionally to population, not nearly so numerous in Brompton as in the Town sub-district.

# CLASS V.—DEVELOPMENTAL DISEASES.

In this Class the total deaths were 228, viz., 181 in the Town sub-district, and 47 in Brompton. *Premature Birth* was the assigned cause of 69 deaths, 15 of them in the Brompton sub-district; *Atelectasis* of 7, six of them in the

Town sub-district; and Congenital Malformation of 15, thirteen of them in the Town sub-district. Old Age was the registered cause of 137 deaths, all but three of them at ages over sixty-five: between sixty-five and seventy-five there were 19 deaths so classified; between seventy-five and eighty-five 78; and at eighty-five and upwards 37.

#### CLASS VI.—LOCAL DISEASES.

The Diseases in this Class, which comprises eleven Orders, named after the systems or organs to which the diseases relate, were accountable for 1,324 deaths (as compared with 1,299 in 1897) or 47.3 per cent. of the deaths from all causes: 1,070 were registered in the Town sub-district, and 254 in Brompton: 389 were of children under five years of age. The deaths from the diseases comprised in the several Orders were as follows:—

- were the registered causes of 241 deaths (as compared with 248, 273, and 265, in the preceding three years respectively), viz., 197 in the Town sub-district, and 44 in Brompton: 71 of the deaths were of children under five years of age, and 139 occurred at ages over forty-five. The fatal diseases were, Inflammation of the Brain or Membranes, 31 deaths; Apoplexy, Softening of the Brain, Hemiplegia, Brain Paralysis, 122 deaths (98 in the Town sub-district, 24 in Brompton); Insanity, General Paralysis of the Insane, 7 (six of them in the Town sub-district:) Epilepsy, 9; Convulsions, 44 (all under five, and 39 under one year); Laryngismus Stridulus, 1; Disease of the Spinal Cord, Paraplegia, Paralysis Agitans, 2; Other Diseases of Nervous System, 25.
- 2. DISEASES OF THE ORGANS OF SPECIAL SENSE (e.g. of Ear, Eye, Nose) are comprised in this Order. Five deaths were registered from these causes.

- 3. CIRCULATORY SYSTEM.—The deaths due to diseases of the organs of circulation, heart and blood vessels, were 200, as compared with 196, 247, and 210, in the preceding three years respectively: 158 were registered in the Town subdistrict, and 42 in Brompton. Heart diseases proper caused 182 deaths. To specified forms of disease 74 deaths were ascribed, viz., Pericarditis, 7; Acute Endocarditis, 7; Valvular Diseases of the Heart, 60. Other Diseases of the Heart caused 108 deaths. Aneurism was the cause of 6 deaths, and Embolism, Thrombosis, of 10. Other Diseases of Blood Vessels caused 2 deaths.
- 4. RESPIRATORY SYSTEM.—The deaths from the diseases of the respiratory organs, Phthisis being excluded, were 572 (as compared with 574, 516, and 491, in the preceding three years respectively), and 20.4 per cent of total deaths. Of these deaths 482 were registered in the Town sub-district, and 90 in Brompton. The deaths under five years of age were 219, or 38.3 per cent., as compared with 34.0, 43.8, and 38.7, per cent. in the preceding three years respectively; and at fifty-five and upwards 233, or 40.7 per cent., against 46.3, 38.6, and 36.9, per cent. in the preceding three years respectively. The fatal diseases were Laryngitis, 5 deaths; Emphysema, Asthma, 9; Bronchitis, 376; Pneumonia, 147; Pleurisy, 8; and Other Diseases of the Respiratory System, 27. Bronchitis and Pneumonia, therefore, were accountable for 523 deaths (including 208 under five years of age), of which 80 were registered in Brompton. No death was registered from Croup.\*
- 5. DIGESTIVE SYSTEM.—The diseases of the various organs concerned in digestion were the causes of 213 deaths: 93 of them under five years of age; 170 in the Town subdistrict and 43 in Brompton. *Dentition* was the cause of 18

<sup>\*</sup> Seven cases of membranous croup were notified. The Registrar-General classifies fatal cases of this disease to diphtheria.

deaths under five, 12 of them under one year. Diseases of the Stomach caused 27 deaths; Enteritis (including Gastroenteritis), 63; Obstructive Diseases of Intestine, 15; Peritonitis, 19. Cirrhosis of Liver caused 28 deaths; Jaundice and Other Diseases of Liver, 21 (including three under one year); and Other Diseases of Digestive System, 21 deaths.

- 6. DISEASES OF LYMPHATIC SYSTEM (e.g., of Lymphatics, and of Spleen). No death was registered.
- 7. DISEASES OF GLAND-LIKE ORGANS OF UNCERTAIN USE (e.g. Bronchocele, Addison's Disease). One death was registered.
- 8. DISEASES OF URINARY ORGANS.—Of the 64 deaths ascribed to these causes, 41 were registered in the Town subdistrict and 23 in Brompton. The fatal diseases were Nephritis, 15 deaths; Bright's Disease (Albuminuria), 22; Diseases of Bladder or of Prostate, 13; and Other Diseases of Urinary System, 14 deaths.
- 9. DISEASES OF REPRODUCTIVE SYSTEM.—(a) Of Organs of Generation—Female Organs, 9 deaths; (b) Of Parturition, 6 deaths, viz., Miscarriage, 1; Flooding, 3; Other Accidents of Childbirth, 2.
- 10. DISEASES OF BONES AND JOINTS. Eight deaths were registered: Caries, 3; Arthitis, 2; Other Diseases, 3.
- 11. DISEASES OF INTEGUMENTARY SYSTEM.—Five deaths were registered.

# CLASS VII.—DEATHS FROM VIOLENCE.

Seventy-seven deaths, including 32 under five years of age, and 23 under one year, are distributed over the four Orders comprised in this Class: 15 of them belong to the Brompton sub-district.

- 1. Accident or Negligence.—Total deaths, 68 including 13 in Brompton, and 32 under five years of age; viz., from Fractures and Contusions, 39; Burn, Scald, 4; Poison, 1; Drowning, 2; Suffocation, mostly of infants overlaid, 22. Twenty of these "accidents" occurred to children of less than one year old. Twenty of the deaths from suffocation were registered in the Town sub-district.
- 3. SUICIDE.—Total deaths, 9; including 2 in Brompton, viz., Gun-shot Wounds, 3; Poison, 4; Drowning, 1; Hanging, 1

# CLASS VIII.—DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES.

This Class includes the causes of 117 deaths, 103 under five years of age, and 94 under one year; 107 and 10 in the Town and Brompton sub-districts respectively. The causes named are: Debility, Atrophy, Inanition, 95 deaths (all under five years of age, and 86 under one year); Mortification, 11; Tumour,1; Abscess, 5; and Hæmorrhage, 4. To Causes not Specified or Ill-defined, 1 death was ascribed.

The following table which is a SUMMARY of Table III, (appendix) shows the number of deaths from the various diseases in the several Classes and Orders,

CLASS I.	-SF	ECIFIC FE	BRILE	OR ZYM	OTIC DIS	EASES.		
	DER.					N	306 I	eaths.
		liasmatic Dise	eases			***		
		Diarrhœal	"			***	113	
		Malarial	"				2	
4		loogenous	"		***		-	
	5. T	Tenereal	,,				16	
(	6. S	Septic	,,	***			12	449
II.	PAI	RASITIC DI	SEAS	ES				-
III.	DIE	TETIC DIS	EASE	S				25
IV.	COI	NSTITUTIO	NAL	DISEASES	S			578
v.	DE	VELOPMEN	TALI	DISEASES	·	***		228
VI.	LOC	AL DISEAS	ES-					
	1. I	Diseases of Ne	rvous S	System		***	241	
	2. I	Diseases of Or	gans of	Special Se	ense	***	5	
	3. I	Diseases of Cir	culato	ry System	***		200	
	4. I	Diseases of Re	spirato	ry System			572	
	5. ]	Diseases of Di	gestive	System			213	
	6. 1	Diseases of Ly	mphat	ic System			-7	
	7. 1	Diseases of Gl	and-lik	e Organs o	f uncertain	use	1	
	8.	Diseases of Un	rinary !	System			64	
	9.	Diseases of Re	eprodu	ctive System	n—			
		a. Disea	ases of	Organs of	Generation		9	
		b. Disea	ases of	Parturition		***	6	
	10.	Diseases of L	ocomot	ive System	***		8	
	11.	Diseases of In	tegume	entary Syste	em		5	*****
3777	NATA	OLENCE-						1324
VII.	1.	Accident or N	leglige	nce			68	
	2.	Battle					-	
	3.	Homicide					-	
	4.	Suicide					9	
	5.	Execution		***	***		-	
VIII	III	-DEFINED	AND	NOT SPEC	CIFIED CA	AUSES		77 117
VIII.	LLILI	DEI III DE						0500
						Total		2798

Note,—The form for table "A," on page 62 has been prepared by the Local Government Board in order that a "tabular statement of mortality should be made in all districts on a uniform plan," and the table is required to be appended to the Annual Report of the Medical Officer of Health.

(A) TABLE OF DEATHS DURING THE YEAR 1898, IN THE PARISH OF KENSINGTON, IN THE METROPOLITAN DISTRICT. CLASSIFIED ACCORDING TO DISEASES, AGES, AND LOCALITIES (See Note, page 61).

Names of Localities				FROM A		SES,				Mi	ORTAL	ITY F	ROM S	UBJOIN	ED C	AUSES,	DIST	NGUIS	HING I	DEATH	S OF	CHILD	REN U	NDER	FIVE V	EARS O	P AG	2		
adopted for the purpose of these Statistics; Public In-									1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
stitutions being shown as separate localities.	At all	Under		and	and	and and	65 and		ж.	na.	rip.	snot	81 -		FEV	ER.		-6	las.	16	- Su	and .y.	atic	.5	tis, nia, risy.		18.	t ti		
(Columns for Population and Births are in Table B., post).	ages.	year.	under 5	under	under 25.	under 65.	up- wards		Smallpo	Scarlatina	Diphtheria	Membrane Croup.	Typhus Fever.	Enteric or Typhoid.	Con-	Relaps-	ral.	Cholera	Erysipelas	Measles.	Whooping- cough.	Distribora i	Fever	Phthisis	Bronchit neumon d Pleuri	Heart	Injurie	All other Diseases	Total	
(a)	(8)	(c)	(d)	(e)	1)	(g)·	(/i)	(i)	Sm	Sc	Dit	Mer		Ente	0.8	Rel	P p	2	Er	Z	IW.	Disr	R	P.	Pro	-9	I	Ad		
Kensington Town Sub- district}	1634	531	265	44	37	421	336 {	Under 5 5 upwds.		1	2 1	1		5			3	3 1	2 5	106	38	84 9	3	2 98	169 168	1 106		363 417	796 838	
Brompton Sub-district	394	61	28	7	8	131	159 {	Under 5 5 upwds.			"ï			1			···	1		6 2	1	7 2		15	21 45	27	8 11	45 199	89 305	
Kensington Infirmary	480	51	37	7	19	208	158 {	Under 5 5 upwds.					 1	1		***			*::	1	12	2 2		71	12 94	23	2 2	59 198	88 392	62
rompton Hospital	137			8	37	91	1 {	Under 5 5 upwds.																107	3	19			137	-
St. Marylebone Infirmary	480	27	20	3	11	253	166 {	Under 5 5 upwds.						2					ï	7		5 6		104	6 93	-18	11	29 198	47 433	
St. Joseph's House	26	***				1	25 {	Under 5 5 upwds.										1				ï			7	4		13	26	
TOTALS	3151	670	350	69	112	1105	845 {	Under 5 5 upwds.		1	2 2	1	 1	9			4	4 2	2 6	120 5	51	98 20	4	2 395	208 410	1 197		496 1033		
	The	subjo	ined	num	bers	have	also	to be t	aken	int	o a	ccou	nt i	n ju	dgin	g o	f the	ab	ove	reco	rds	of 1	mort	ality.		-				
Deaths occurring outside the district among persons belonging thereto	286	26	54	15	23	140	28	Under 5 5 upwds		16 6	19 2		1	5			ï			2	1	1		23	8 12	1 20	3 22	30 113	80 206	
Deaths occurring with- in the district among persons not belong- ing thereto	639	41	20	10	45	334	189	Under 5 5 upwds						0				ï	·i	7	:::	5 6		203	7 100	37	5 20	37 208	61 578	

#### DEATHS IN PUBLIC INSTITUTIONS

The only large public institution within the parish in which we are directly interested, is the parish infirmary and workhouse, situate in the Town sub-district. There are several minor public or quasi-public institutions, but, with one exception, they do not furnish occasion for special remark. The excepted institution is St. Joseph's House, Portobelloroad, Notting-hill-a Roman Catholic Home for aged poor persons, of both sexes, brought from various parts, largely from Ireland: but the Registrar-General does not class it as a public institution. The deaths of non-parishioners at the Marylebone Infirmary, Notting-hill (478), at the Brompton Consumption Hospital (124), and St. Joseph's House (20), are excluded from our statistics, but will furnish occasion for a few remarks later on. The deaths of parishioners registered at the Parish Infirmary and Workhouse (477), at the Consumption Hospital (13), at St. Joseph's House (6), and at outlying institutions, &c. (286), were 782, or 27.9 per cent. on total deaths; the percentage proportion of deaths in public institutions in the Metropolis, generally, being 29.0. The Registrar-General in his Annual Summary states that about "one in every seven deaths occurred in a workhouse or workhouse infirmary, one in 48 in a Metropolitan Asylums Board Hospital, one in ten in some other hospital, and one in 48 in a public lunatic or imbecile asylum." The increase in the number of deaths in public institutions has been great and continuous for many years past.

THE PARISH INFIRMARY AND WORKHOUSE.—I am indebted to Dr. H. Percy Potter, the Medical Superintendent, for the statistics of mortality at these important institutions. The deaths actually occurring during the year were 497, as compared with 442, 458, and 493, in the preceding three years respectively, and were equal to 17.8 per cent on total deaths. The quarterly numbers were 158, 103, 121, and 115: 273 deaths, therefore, occurred in the first and fourth or colder

quarters, and 224 in the second and third or warmer quarters of the year. The deaths included 250 of males, and 247 of females. The ages at death were:—Under one year, 64 (as compared with 66, 66, and 81, in the preceding three years respectively); between one and sixty, 221 (as compared with 210, 226, and 255, in the preceding three years), and at sixty and upwards, 212 (as compared with 166, 166, and 157, in the preceding three years).

SUMMARY OF CAUSES OF DEATH, 1898.

DISEASES.			Under 1 year.	Between 1 year and 60 years.	At 60 years & up- wards.	Total.
Nervous System, Diseases of			1	18	17	36
Circulatory System, Diseases				15	17	32
Respiratory System, Diseases			9	42	67	118
Digestive System, Diseases of			1	15	17	33
Urinary System, Diseases of				7	7	14
Tubercular Diseases (including		s)	38	80	6	124
Cancer		***		13	13	26
Syphilis			2	2		4
Measles		***	1	2		3
Pertussis			5	7		12
Enteric Fever				1		1
Typhus	***			1		1
Diarrhœa			1	2		3
Influenza		***		1		1
Erysipelas	***	***		3		3
Hæmorrhage			***	1		1
Cellulitis			***	1	2	3
Lymphadenoma			***		1	1
Delirium Tremens and Alcol	nolism			7		7
Gangrene	***		***	***	7	7
Joints and Bones, Diseases of	f		1	3	***	4
Asphyxia		***	1			1
Premature Birth			4			4
Senile decay				***	58	58
	Т	otals	64	221	212	497

Eight inquests were held during the year; the cause of death was natural in three cases, and in other four cases injuries of various descriptions.

THE HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—In the Kensington portion of the Brompton Hospital there were 137 deaths, including 13 of Kensington parishioners which are included in Table III. (appendix), the remaining deaths, of non-parishioners, being excluded from our statistics.

St. Marylebone Infirmary, Notting-Hill.—At this institution, which is under the control of the Guardians of the Poor of the parish of St. Marylebone, 480 deaths were registered, all of which, except two of Kensington parishioners, are excluded from our statistics.

St. Joseph's House, Notting-Hill.—The deaths at this quasi-public institution, with the exception of 6 of parishioners, are excluded from our statistics. They were 26 in number. Some of the deceased persons had previously resided in Ireland, some in London, and the remainder in the provinces and abroad.

OUTLYING PUBLIC INSTITUTIONS.—The deaths of parishioners at public institutions, &c., without the parish, which in the preceding three years, successively, had numbered 308, 353, and 333, were 286 in 1898. All of these deaths are included in our statistics. The deaths occurred at the several institutions as follows:—

St. Mary's Hospital	47	Great Northern Central Hospital 1
St. George's Hospital	33	
West London Hospital	10	Home Hospital Fitzroy-square 2
Middlesex Hospital		Hostel of God
Charine Crass Hamital	4	Hostel of God 2
University College Hamital	4	Friedenheim 2
St Thomas's Hospital	2	St. Luke's House 2
King's Colloga Hamital		Aged Blind Home, Holloway, 2
Guy's Hoental	2	Home of SS. John & Elizabeth 1
Guy's Hospital	1	St. John's Home, Lewisham 1
Westminster Hospital	1	St. Camillo's Home 1
Brompton Hospital (south wing)	5	The Convent, Carlisle Place 1
Western Hospital	36	St. Pelagio's Crèche 1
North-Western Hospital	15	Holborn Workhouse 1
Northern Hospital	2	Marylebone Workhouse 1
South-Western Hospital	1	Paddington Workhouse 1
Fountain Hospital	1	Islington Infirmary 1
Children's Hospital, Paddington	10	Imperial Institute 1
Victoria Hospital for Children	4	H.M. Prison, Wormwood Scrubbs 1
Children's Hospital,		Bethlem Hospital 1
Great Ormonde-street	2	Hanwall Aculum
Cancer Hospital, Fulham-road	6	Panetand Andless
Queen Charlotte's Hospital	5	Leavesden Aculum
Hospital for Women, Soho	1	Ilford Aculum
German Hospital	2	Colney Hatals Assiling
French Hospital	1	
London Temperance Hospital	î	Caterham Asylum 2 Darenth Asylum 2
Metropolitan Hospital	2	Darenth Asylum 2
Belgrave Hospital	ĩ	Camberwell House Apply 1
( -rocyonos Llossital	1	Camberwell House Asylum 1
Western Ophthalmic Hospital	1	Peckham House Asylum 1
North London Consumption	1	
Hospital Consumption	7	274
Hospital	1	

Other 12 deaths occurred without the parish, viz., three by drowning (one male in the River Thames, and one male and one female in the Grand Junction Canal); one each of a male and a female in the street; one of a male on the railway; one of a male at a public house; one of a male at an hotel; and two of males and two of females at private houses.

Deaths from disease of the zymotic class occurred at public institutions without the parish as follows:—Western Hospital, 31 (Scarlet Fever, 16; Diphtheria, 12; Enteric Fever, 1; Typhus Fever, 1; Measles, 1); North-Western Hospital, 13 (Diphtheria, 6; Scarlet Fever, 4; Enteric Fever, 3). St. George's Hospital, 2 (Diphtheria, 1; Whooping-Cough, 1). Northern Hospital, 1 (Scarlet Fever). Fountain Hospital, 1 (Scarlet Fever). South-Western Hospital, 1 (Diphtheria). Charing Cross Hospital, 1 (Diphtheria). Victoria Hospital for Children, 1 (Measles). German Hospital, 1 (Enteric Fever), and Home Hospital, Fitzroy Square, 1 (Diarrhæa).

# UNCERTIFIED DEATHS: PAYMENT OF JURORS.

Two deaths only were not certified either by a registered medical practitioner or by a coroner. They were of a prematurely born child and of a newly-born twin-child. The cases were reported to the coroner who did not deem it necessary to hold inquisition. In England and Wales the deaths not certified were 1.9 per cent. of total deaths; the proportion in London was 0.6.

The subject of uncertified deaths was considered, in the session of 1893, by a Select Committee of the House of Commons, appointed "to inquire into the sufficiency of the existing law as to the disposal of the dead, for securing an accurate record of the causes of death in all cases, and especially for detecting them when death may have been due to poison, violence, or criminal neglect." The recommendations of the Committee were summed up in ten paragraphs, of which it is only necessary to cite the first two, as follows:—

- "(1) That in no case should a death be registered without production of a certificate of the cause of death, signed by a registered medical practitioner, or by a coroner after inquest.
- "(2) That in each sanitary district a registered medical practitioner should be appointed as public medical certifier of the cause of death, in cases in which a certificate from a [medical | practitioner in attendance is not forthcoming."

No action has been taken, hitherto, by the House, to give effect to the recommendations of the Committee. The Public Control Committee of the London County Council have also dealt with the question, and arrived at conclusions on which they based a variety of recommendations, which were fully set out in my annual report for 1894 (page 70). These recommendations having been approved by the Council, the Public Control Committee were "authorised to attend as a deputation before the Lord Chancellor in support of the amendment of the law relating to coroners' inquests in the County of London, in accordance with the recommendations"

referred to, and were directed to "urge the advisableness of paying a juryman a sum sufficient to compensate a workman for actual loss of time incurred in performing that public duty, and of making it compulsory that coroners' juries should be summoned by rota." Subsequently the Council adopted a report of the Committee, recommending that "where the jury have been chosen strictly in rotation from persons in the parish eligible for service, there may be paid to each person summoned, but not exceeding 15 persons in all, two shillings. This fee is for each attendance, irrespective of the number of inquests the juror serves upon, and is to be paid only when the juror applies for payment." The recommendation took effect on the 1st of April, 1898.

# INQUESTS.

Two hundred and four inquests were held on parishioners, including 32 at places without the parish, mostly at public institutions to which the deceased persons had been removed for treatment. The cause of death is stated to have been ascertained by post-mortem examination in 117 cases. Thirty-five inquests were held on the bodies of non-parishioners who had died in Kensington. Of the 207 inquests in the parish, 206 were held at the coroner's court at the Town Hall, and 1 at the St. Marylebone Infirmary. It is now some years since an inquest in Kensington was held at a public house.

The causes of death in inquest cases may be classified as follows:—

Deaths caused b	y disease				127
Deaths caused b	y violence	(77), viz.	:		
Accidental.				68	
Suicidal .				9	
				_	77
		,	Total .		204

Of the 9 suicidal deaths, 2 belong to the Brompton subdistrict, and 7 to the Town sub-district. The inquests on Kensington parishioners were in the proportion of 7:3 per cent. on total deaths, the rate in the Metropolis being 9:0 per cent. In England and Wales the rate was 6:3 per cent. The relative per-centages in 1897 were 8:4, 9:3, and 6:3, respectively.

The registered deaths from violence were equal to 2.8 per cent. on total deaths in Kensington, the proportion in the Metropolis being 4.2 per cent.; and in England and Wales 3.6 per cent. These deaths were equal to 0.43 per 1,000 persons living in Kensington, 0.78 per 1,000 in London, as a whole, and 0.61 per 1,000 in England and Wales.

#### VACCINATION.

Table X. (appendix) is a return respecting vaccination in Kensington in 1897 (the return for 1898 is not yet due), compiled by Mr. Shattock, the Vaccination Officer, whose able discharge of duties, not easy of performance in these days, deserves recognition. It appears that of 3,694 infants whose births were returned in "Birth List Sheets" (col. 2) during the year, 2,859 were successfully vaccinated, and 13 were returned as "insusceptible of vaccination." In 87 cases vaccination was postponed by medical certificate: 335 infants died before attaining the age for vaccination; whilst some 390 cases, from "removal to places out of the parish unknown, or which cannot be reached, and cases not having been found," are unaccounted for. These cases are, with those of "conscientious objectors," equivalent to a "loss" of 10.7 per cent., as compared with the number of births registered, the losses in the preceding eleven years having been 5.4, 5.9, 6.0, 6.5, 6.7, 8.0, 8.7, 7.7, 8.4, 9.0, and 10.1 per cent. respectively. These figures clearly indicate that the proportion of unvaccinated persons in this parish is on the increase. Of the 2,859 successful vaccinations in Kensington, in 1897, 1,731 (60.5 per cent.) were performed at the public

stations and the parish infirmary. Calf lymph was employed when parents expressed the wish to have it. The revaccinations at the stations and the infirmary were 526 in number. Kensington still stands in a position superior to that of the Metropolis, as a whole, for, as stated in the annual report of the Local Government Board for 1896-97, the average of lost cases in the metropolitan district so far back as 1894, was 20.6 per cent. The actual figures, showing loss, both for town and country, as set out in the annual report of the Board for 1896-97, are as follows:—

					opolis. s lost.			Rest o	of England.
1885	***	***	***	7.0	per cent.				per cent.
1886	++3.			7.8	,,			6.1	per cent.
1887	***			9.0	"			6.7	
1888				10.3	,,	***		8.2	"
1889				11.6	"			9.6	
1890				13.9	"			10.9	"
1891	***			16.4	"			12.9	
1892		***		18.4	"	***		14.3	"
1893	***			18.2	**			15.7	"
1894				20.6	**	***			33
			***	20 0	"	**	***	19.0	33

A bad look out truly; for it would appear that in 1894 one-fifth of the children born (and the proportion now is probably as high as one-fourth) are without the protection against small-pox afforded by vaccination.\*

THE NEW VACCINATION ACT.—In the last report some account was given of the Vaccination Bill brought in by the President of the Local Government Board.† The Bill became law in a strangely altered form, and the Act, in

<sup>\*</sup>Mr. Shattock informs me that false registration, i.e., wrong addresses entered on the birth list sheets, is his greatest difficulty: the children cannot be traced.

<sup>†</sup>Upon consideration of my monthly report (No. 3, March 30th) dealing with the Bill, it was resolved to refer it to the Sanitary Commitiee with a view to their considering the expediency or otherwise of taking action to raise the question as to the transfer of the administration of the Vaccination Acts to the sanitary authority. The Committee did not consider this point; but they expressed an opinion that it was probable material alterations would be made in the Bill during its passage through the House of Commons, and that it was, therefore, not desirable for the Vestry to take any present action in regard thereto. They appointed a sub-committee to watch the progress of the Bill and to report thereon if necessary, but the sub-committee held no meeting.

regard to some of its provisions, could scarcely have been more unsatisfactory had it been designed to abolish compulsory vaccination. Indeed, it is not infrequently described as "An Act to Abolish Compulsory Vaccination," for the "conscientious objector" can avoid the vaccination of his children without any sensible difficulty and without expense. The one good feature in the Act is that it provides for the use of glycerinated calf-lymph, and so cuts the ground from under the feet of those who objected to vaccination because of the bare possibility of enthetic disease being conveyed in humanised lymph. Previously, as had been shown in these reports, the Local Government Board almost penalised the employment of calf lymph, which, it may be mentioned, had been used for several years at the vaccination stations in this parish when desired by parents. Public vaccination stations are abolished by the Act, which will entail considerably increased expenditure upon the ratepayers. It remains to be seen what will be the ultimate effect of the measure upon the number of vaccinations, under the provision which takes the offer of free vaccination, and, if necessary, of free medical treatment of any infantile troubles arising out of vaccination, or during the vaccination period.

The facts stated in the report of the Royal Commission on vaccination, go to show that the community is becoming every year less protected against small-pox (as the figures above citied plainly show); for each year, so far, the number of unvaccinated children increases; and, I fear there is no great probability of a large increase in the number of vaccinations (which is the primary consideration) under the Act, which, moreover, does not deal with the question of revaccination. In a word, so far as one can at present form an opinion on the subject, the Act would seem to be a poor outcome of the seven years' labours of the Royal Commission; this body, moreover, having, in the judgment of unprejudiced persons, demonstrated both the safety of vaccination and its efficiency, under prescribed conditions, as a protection against small pox.

# THE METROPOLITAN ASYLUMS BOARD.

The work of the Asylums Board has of late years assumed increased importance in relation to the work of the sanitary authorities, by reason of legislation which has conferred power on the Managers to discharge for the metropolis, as a whole, the functions which, under the provisions of the repealed Sanitary Act, 1866, formerly devolved upon the Vestries and District Boards in their several districts. The Board are now the central authority for providing hospital accommodation, and an ambulance service, by land and water, for the infectious sick, by warrant of law, as they previously had been in fact; for it is well-known that legislation has these many years, followed in the steps of the Managers' practice in regard to all that concerns the removal of the sick and their admittance to hospital. The ambulance arrangements leave nothing to desire; the accommodation for the sick, moreover, was always sufficient until within the last few years; but the increased and increasing disposition of the public to make use of the hospitals, which dates from the scarlet fever epidemic of 1887, together with the enlarged demands on the resources of the Managers consequent on compulsory notification of infectious disease, have given rise to difficulties to which reference has frequently been made in these reports. Happily, the steps taken by the Managers, with the approval of the Local Government Board, encourage the belief that at no distant time the provision of accommodation will be equal to the demand. The work of the Board is summarised in three reports, issued annually, by the Chairman (Sir E. H. Galsworthy), by the Statistical Committee, and by the Ambulance Committee. These reports, which have great interest for all who are concerned in the sanitary government of London, and the several sanitary districts thereof, had not been published when this report went to press. I am, therefore, unable to follow my former practice of summarising their contents for the information of your Vestry.

REMOVAL OF THE SICK TO HOSPITAL. — The duty of removal of the sick to hospital, whether by land or water, is now effected in a satisfactory manner. The use of public vehicles for the removal of persons suffering with infectious disease is unlawful. Occasionally we hear of the use of a cab, wittingly or unwittingly, and in such cases the vehicle is usually lost sight of before discovery of the nature of the illness, and so does not get disinfected. This is no doubt a danger to the public, but it is of rare occurrence, as compared with the time before the passing of the Public Health (London) Act, 1891, the 70th section of which forbids the employment of public vehicles for the purpose in question. No case of proved wilful breach of the law came to my knowledge during the year.

AMBULANCE ARRANGEMENTS.—Kensington patients are removed by the staff at the Western Station, which adjoins the Western Hospital at Seagrave Road, Fulham. Between 8 a.m. and 8 p.m., on week-days, cases for removal are reported at the Managers' central offices, Norfolk-house, Norfolk-street, Strand, W.C, these being in telephonic communication with the station. During the night, and on Sunday, and on Christmas Day and Good Friday, application for a patient's removal is forwarded direct to the ambulance station. The Managers' telegraphic address is "Asylums Board, London"; their telephone numbers are 2858 and 2859 "Gerrard."

#### HOSPITAL ACCOMMODATION.

In the annual report for 1893 (pages 117 to 130 inclusive), I dealt with "The needs of the metropolis in respect of Hospital Accommodation for the Infectious Sick"; detailed the steps taken by the Asylums Board to supply the then existing deficiencies, and referred to the difficulties by which their efforts had been confronted and, to a certain extent, foiled. Those difficulties have now been largely overcome; and the needs of the metropolis, which are now fully recognised, have been met to an extent beyond the estimate of them made in my tenth monthly report for 1892, which, at the time, was thought to be excessive, viz.: "at least 5,000 beds for scarlet fever, 'fever,' diphtheria, and isolation."

FEVER HOSPITAL ACCOMMODATION.—It is an accepted axiom that provision for the isolation of infectious disease should be made at the rate of not less than one bed for each thousand of the population. The subject, as regards the metropolis, was considered by the Royal Commission in 1881-82, and the Commissioners stated in their report (1882) that the then provision of hospitals should be extended so as to provide 5,700 beds at the least; viz., 3,000 nominally for "Fever," and 2,700 for Small-pox. Diphtheria cases were not at that time admissible to the hospitals. The population of London in 1882 was a little under 4,000,000; consequently the recommendation of the Commissioners went, to the extent of 1,700 beds, beyond the theoretical requirements of the day. The commissioners, doubtless, desired that provision should be made for a lengthened period in advance, and the amount of accommodation they advised as necessary, is even now in advance of the standard requirement. But circumstances have since arisen that they could scarcely have anticipated, and which have led to largely increased demands on the Managers' resources; not only by the sanitary authorities,

but also by private medical practitioners and others. Among these circumstances may be mentioned, the depauperisation of medical relief in the hospitals, and the opening of the several institutions to all classes of the people (measures advocated in these reports many years before they formed the subjects of legislation); the admission of patients, on whatever form of application, subject only to the production of a medical certificate; gratuitous treatment; the popularity of the hospitals themselves; and the increasing recognition by the public of the advantages accruing from the isolation of the infectious sick. The operation of compulsory notification, moreover, has had great effect, for now that the sanitary authorities become acquainted with, practically, all cases of infectious disease, they are able to secure the admittance to hospital of numbers of cases, such as in pre-notification days they would probably never have so much as heard. In connection with this important question, it may be mentioned that so far back as the end of 1893, the Managers had provided normal accommodation to the extent of about 3,000 beds, for fever and diphtheria patients, by the erection of additional temporary hospitals at Tottenham and Lower Tooting. Since that date the Brook Hospital, for upwards of 500 patients, has been erected and opened at Shooter's-hill, and the Park Hospital at Hither-green, Lewisham, also for upwards of 500 patients. An equally large hospital to be designated "Grove" will at no great distance of time be opened at Tooting, adjoining the "Fountain" hospital, described as a temporary hospital, although from the character of its construction it is calculated to be serviceable for many years. These three hospitals for acute cases of fever, scarlet fever, and diphtheria, in addition to isolation wards, will thus add some 1,650 beds to those previously provided by the Managers; who, moreover, have acquired a site of 135 acres at Carshalton, Surrey, for a convalescent fever hospital for 700 beds; having already, at Winchmore-hill, north of the Thames, the Northern Convalescent Hospital, with accommodation for nearly 1,000 patients. In addition to the new hospitals on new sites, previously existing accommodation has been extended and improved by the more or less complete reconstruction, with additions, of most of the older hospitals.

SMALL-POX HOSPITAL ACCOMMODATION. — As regards accommodation for small-pox, the Managers have not, as yet, provided anything like the amount recommended by the Royal Commission in 1882, viz., 2,700 beds. The Hospital Ships at Long Reach, on the Thames, furnish 300 beds for acute cases; whilst for mixed cases there is accommodation for about 1,200 patients at the Gore Farm Hospital, which, at the present time, is being utilized for scarlet fever convalescents. The accommodation on this site could be materially increased, in case of emergency, by the erection of temporary buildings, as also at the Joyce-green estate, a new site, of some three hundred acres, which (with considerable additions of intervening land connecting the estate with the hospital ships) the Managers have acquired, and on which they propose to build a permanent hospital for acute cases of small-pox, which, doubtless, will, in course of time, supersede the hospital ships.

SUMMARY.—Iam indebted to Mr. T. Duncombe Mann, Clerk to the Metropolitan Asylums Board, for the subjoined statement of the existing and projected accommodation for various classes of the infectious sick: it cannot fail to be read with interest.

"RETURN showing the permanent Fever Hospital Accommodation existing and projected—

(i.)	Accommodation existing	ng—	]	Beds.	
	Eastern Hospital			362	
	North-Eastern Hospi	ital *		406	
	North-Western Hosp	oital		460	
	Western Hospital			454	
	South-Western Hosp	ital		366	
	Fountain Hospital			402	
	South-Eastern Hospi	tal +		435	
	Park Hospital			548	
	Brook Hospital			568	
	Northern Hospital			652	
		Total			4653
(::)	Accommodation proje				1000
(ii.)	Accommodation proje	cicu—		Beds.	
	North-Eastern Hospi	ital ‡		128	
	Grove Hospital			520	
	Northern Hospital **			12	
	Southern Hospital		(say)	700	
		Total			1,360
		Grand to	tal		6,013
For ollows	Small-Pox Patients th	e existing	g accom	nmoda	tion is as
				30	0
	Gore Farm, Upper Ho			1,00	0
	present occupied by atients)		Fever		
	e Farm, Lower Hosp	ital (Wo	oden		
	uildings)			19	2
		Tota	al	1,49	92"

<sup>\*</sup> One ward of 20 beds is in use as a temporary discharge room.

<sup>†</sup> A temporary hut which contained 28 beds has been demolished.

<sup>#</sup> Additional beds when reconstructed.

<sup>\*\*</sup> Isolation block approaching completion,

JOYCE GREEN ESTATE.—On this estate the Managers proposed to provide beds for 940 patients, but the Local Government Board declined to sanction provision being made for more than 400 patients. Plans of the proposed hospital for this number have been prepared and sanctioned.

It thus appears that the Metropolis is endowed, in possession or in early prospect, with accommodation for upwards of 6,000 patients suffering from fever and diphtheria, a number more than double that recommended by the Royal Commission, irrespective of many hundred beds at Gore Farm, generally available for convalescent cases in the abevance of small-pox. Time only can determine whether this provision will suffice for the requirements of the metropolis. For smallpox patients the accommodation is or will be, to the extent of some 1,900 beds: a number, I repeat, considerably below the recommendation of the Royal Commission (2,700), but which I am sanguine will suffice, seeing how much more effectually this disease has been controlled since the practice was adopted of removing the sick out of London for isolation and treatment, initiated upon my advice, in May, 1881, and subsequently perfected by the Managers, who, since 1884, have ceased to use the town hospitals for the isolation of small-pox, removing direct from their homes to the ships all patients suffering from this disease—with what beneficent results let the statistics of mortality set out at page 29 testify.

"Deficiency of Hospital Accommodation."—Under this heading I have had occasion in several previous reports to deplore the unavoidable necessity of keeping at home, for considerable periods in many cases, numerous patients who could not be admitted to the hospitals owing to want of accommodation. I am pleased to be able to report that no difficulty of this kind was experienced during the past year.

### NOTIFICATION OF INFECTIOUS DISEASE.

The table at page 81 shows the number of notifications of infectious disease in London in 1898. The table at page 82 is designed to show the relative prevalence of the several diseases at different periods of the year, being a summary of the figures set out in my four-weekly reports.

The Kensington notifications were 1,004, viz., in the Town sub-district 825, and in the Brompton sub-district 179. The notifications in 1893, 1894, 1895, 1896, and 1897, were 1,811, 972, 1,289, 1,781, and 1,457, respectively. Table IX. A (appendix) shows the streets, &c., where cases of the scheduled diseases occurred in 1898. The cases notified in London, as a whole, were 37,380, and 8,085 fewer than in 1897, and by far the smallest number in any year since 1891. The notifications of each of the scheduled diseases during the nine years 1890-98, are set out in the subjoined table.

	_		_						_			
Year.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Typhus Fever.	Other Continued Fevers.	Puerperal Fever.	Erysipelas.	Croup.	Cholera,	Relapsing Fever.	Total.
1890	60	15,330	5,870	2877	35	237	206	4598	550	25	7	29,795
1891	114	11,398	5,907	3372	27	152	221	4764	505	23	39	26,522
1892	423	27,096	7,791	2465	20	147	347	6934	565	54	7	45,849
1893	2813	36,901	13,026	3663	22	205	397	9700	668	86	4	67,485
1894	1192	18,440	10,655	3360	21	162	253	6080	535	21	2	40,925
1895	978	19,757	10,772	3506	14	105	236	5660	451	29	3	41,511
1896	225	25,638	13,361	3189	6	102	278	6438	446	13	3	49,699
1897	105	22,876	12,811	3113	4	65	264	5801	388	38	1	45,465
1898	35	16,917	11,561	3032	17	55	250	5180	310	23		37,380

NOTE.—The form for table "B," on page 80 was prepared by the Local Government Board in order that a "tabular statement of infectious sickness should be made in all districts on a uniform plan:" the table, which is based on the infectious disease register, is required to be appended to the annual report of the Medical Officer of Health.

(B) TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH, DURING THE YEAR 1898, IN THE PARISH OF KENSINGTON, IN THE METROPOLITAN DISTRICT; CLASSIFIED ACCORDING TO DISEASES, AGES, AND LOCALITIES.

		ATION AGES.			NE	w Casi	ESOF	SICKNI R OF TI	ESS IN	EACH	LOCA OFF	LITY,	COMING HE	G TO	THE	N			ERAL	Loca	REMOVALITIES ON HO	S FOR	TREAT			es
Names of Localities			po.	Aged	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
adopted for the purpose of these Statistics; Public In-		Esti- mated	Registered Births.	under 5 or	,			-00		1	Fever								10		F	EVER.				
stitutions being shown as separate localities.	Last Census.	to	(P) Res	over 5.	Small-pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Small-pox.	Scarlatina.	Diphtheria.	Membranou Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.
Kensington Town Sub- District}	119713	121849	2954 {	Under 5 5 upwds.		111 271	63 98	6	1	4 69	3			1	9 101		89 210	55 69	4	ï	3 47	1		ï		4
Brompton Sub-District	48109	48348	555 {	Under 5 5 upwds.		15 71	16 35	1		2 22	ï		2		14		10 46	13 20			1 16					
Kensington Infirmary and Workhouse	1648	1648		Under 5 5 upwds.			1		1 6	6	***		ï		1 55			1		1 5						
St. Marylebone Infirmary	803	803		Under 5 5 upwds.			2											2					***			
Brompton Hospital	192	192		Under 5 5 upwds.																						
	_				_	_	-	-	_	_	_	_	_	_	_	-	_	_	_	_	_	-	_	_	_	-
TOTAL	170465	172840	3633 {	Under 5 5 upwds.		126 348	80 135	7	1 7	6 98	4		 11	1	10 170		99 262	69 91	4	1 6	4 63	 1		ï		4

Cases of Infectious Disease notified to the several Metropolitan Medical Officers of Health, under the provisions of the Public Health (London) Act, 1891 in the Fifty-two Weeks ended Saturday, 31st Deccember, 1898.

21	let, 1891 in the Fifty.	1200	· vv ee	ks enc	iea S	satu	ruu	V, 0)	156 1	Decc	emo	er, 10	10.
	Name of District.	Small-pox	Scarlet Fever.	Diphtheria.	Enteric Fever.	Typhus Fever.	Continued Fever.	Puerperal Fever.	Erysipelas,	Croup.	Cholera.	. Totals,	Population 1896
	Kensington	***	474	215	104	8	4	11	180	7	1	1004	170,465
cts.	Paddington	***	304	256	74	***	2	5	131	4		776	124,506
Districts.	Hammersmith	***	463	160	61	***	5	3	93	4		789	104,199
	Fulham	1	811	465	71	***	1	9	121	11		1490	113,781
West	Chelsea	***	336	268	55	***	1	5	94	5	***	764	96,646
3	St. George, Hanover Sq.	1	221	110	39	***	1	2	43	1	***	418	79,967
	Westminster	1	99	125	48	***	1	2	50	2		328	53,234
	St. James's, Westminster	***	31	41	6	***	**	***	20	2	***	100	23,050
15	St. Marylebone	1	312	232	101	***	2	10	181	3	***	842	141,188
trict	Hampstead	***	244	133	47	***		1	41	2	***	468	75,449
North Districts.	St. Pancras	2	980	485	220	***	2	18	321	14	4	2046	240,761
£	Islington	***	1336	553	237	2	1	19	283	13		2424	336,764
No	Stoke Newington		149	53	18	***	***	3	28	1	***	252	33,485
	/ Hackney	2	1026	855	219	***	3	14	302	20	100	2441	213,044
	St. Giles, Bloomsbury	***	65	40	23	***		1	72	1		202	38,237
it is	St. Martin-in-the-Fields	**	11	8	12		**		7	**		38	13,077
Districts.	Strand	***	47	45	9	***	***		12	4	111	117	23,782
	Holborn	1	97	144	9	***		2	40	3	1	297	31,208
tral	Clerkenwell	***	331	264	42	**	1	2	70	2	***	712	66,202
Central	St. Luke, Middlesex	***	197	186	15	***		2	58	6	***	464	41,527
1	City of London	1	79	44	20	***	***	***	19	2		165	30,970
	Shoreditch		422	246	92		1	7	173	11	1	953	122,348
99	Bethnal Green		433	321	102	***	2	3	324	19	***	1204	129,162
tricts.	Whitechapel	2	252	174	41	***		5	148	13		635	77,717
Dist	St. George in-the-East		143	105	55	***		3	74	8	*110	388	47,506
East	Limehouse		190	134	43		1	2	89	3	***	462	58,305
E	Mile End	1	425	279	59	***	1	9	178	16		968	111,060
	Poplar	4	645	458	161		3	5	226	11	2	1515	169,267
	St. Saviour, Southwark		79	114	14		411	***	33	1	***	241	25,365
	St. George, Southwark	1	310	237	40	3	1	5	68	9	3	677	60,278
	Newington		621	451	90		1	11	165	14		1353	120,939
	St. Olave, Southwark	***	67	16	5				12		***	100	11,731
	Bermondsey	1	458	259	51			4	94	9		876	85,475
	Rotherhithe		145	41	21			3	82	1		293	40,379
TS.	Lambeth	1	1002	812	170	2	13	14	297	18	7	2336	295,033
Districts.	Battersea	4	809	786	95	1	***	10	184	15	***	1904	165,115
Dist	Wandsworth	1	706	593	123	***	1	21	238	9	***	1692	187,264
South	Camberwell	5	955	670	117		3	11	236	25	***	2022	253,076
Soi	Greenwich	***	652	538	188	1	3	10	216	17	***	1623	175,774
	Lewisham	***	203	280	45	***		4	44	3	1	580	83,213
	Woolwich		204	109	22	200		3	37			375	41,314
	Plumstead		423	111	28		1	7	54	***	3	627	59,252
	Lee	3	158	161	23	**	***	4	41	1	***	391	38,588
	Port of London	2	. 2	4	19			***	1	***		28	
1 8	GrandTotals	35	16917	11561	3032	17	55	250	5180	310	23	37380	

# Table showing the number of Cases of Infectious Disease Notified in Kensington, and in London, in 1898, Arranged in four-weekly periods.

			2				KE	NSI	NGT	ON.					-					LO	NDO	N.					2			
Date of I	Wee		Weeks of the Year.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Typhus Fever.	Other Continued Fevers.	Puerperal Fever.	Erysipelas.	Croup.	Cholera.	Total.	11 0	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Typhus Fever.	Other Continued Fevers.	Puerperal Fever.	Erysipelas.	Croup.	Cholera.	Total.	Weeks of the Year.	Date of 1	Weeks	
January	29		1-4		34	12	3			1	15	1		66		4	1302	901	181	1	1	20	395	23		2828	1- 4	January	29	
February	26		5-8		40	21	4			1	12			78		3	1207	939	129		4	22	361	30		2695	5- 8	February	26	
March	26		9-12		31	20	5	. 5		2	18	1		82		3	1118	813	141	6	6	22	391	44	22	2544	9-12	March	26	00
April	23	**	13-16		40	23	5	1			16	1		86		2	1243	729	120	2	1	23	361	27		2508	13-16	April	23	82
May	21		17-20		31	22	10		1		12	1		77		3	1212	763	105	1	5	12	339	26	1	2467	17-20	Mary	21	
June	18		21-24		32	18	5	***			11		***	66		5	1229	828	116		4	19	326	18	***	2545	21-24	June	18	
July	16	***	25-28		40	16	2			1	9	1		69		4	1214	849	119		2	16	315	16		2535	25-28	July	16	
August	13	***	29 32		55	11	4	***		1	16	1		88		3	1238	785	186	***	8	10	336	16	6	2588	29-32	August	13	
September	10		33-36		39	12	7		***	***	8		1	67		4	1085	699	221		8	15	344	16	7	2399	33-36	September	10	
October	8		37-40		30	21	12			3	12			78		1	1467	1039	311		3	14	431	15	9	3290	37-40	October	8	
November	5		41-44		32	17	14	2	1	2	11	1	***	80		1	1774	1087	505	5	5	21	605	25		4028	41-44	November	5	
December	3	***	45-48		36	13	20		1		17			87			1536	1084	509	1	4	34	499	33		3691	45-48	December	3	
December	31		49-52		34	9	13		1		23	***		80		2	1292	1045	398	1	4	22	477	21		3262	49-52	December	31	
Totals				l	474	215	104	8	4	11	180	7	1	1004	1	35	16917	11561	3032	17	55	250	5180	310	23	37380		Tota	ıls.	

## FACTORY AND WORKSHOP ACTS, 1878 to 1895.

DUTIES OF THE SANITARY AUTHORITIV WITH RESPECT TO WORKSHOPS.—The duties devolving upon the Sanitary Authority under the Factory Acts were set out in considerable detail in the annual report for 1896 (pp. 97-103 inclusive). Reference thereto will suffice to show how serious are the responsibilities which the legislature has imposed on sanitary authorities throughout the kingdom. An effort to cope with these responsibilities was made by your Vestry, in October, 1893, by the appointment of two ladies as inspectors of workshops, workplaces, and laundries, where women are employed. Both of these ladies, Miss Deane and Miss Squire, have since been appointed, by successive Secretaries of State, to the even more responsible position of factory inspector under the Home Office. Miss Deane's successor, Miss Duncan, who ceased to hold office in July, 1895, has since been appointed to the office of factory inspector by the Government of New South Wales. The appointment held by her in this parish has not been filled. Miss Squire's successor, Miss de Chaumont, does her best to carry out the work of inspection and supervision for the entire parish. Her report for the year is subjoined (page 86).

With respect to the workshops, &c., where men only are employed, nothing has been done to give effect to legislation in any way comparable with the work so well carried out by the female inspectors of workshops, etc., where women are employed. These establishments should be taken in hand, but it is impossible with the present limited and reduced staff of sanitary inspectors. We do not so much as know, at present, the localities of any large proportion of men's workshops, but no doubt their whereabouts could be ascertained from Her Majesty's Superintending Inspector of Workshops, &c., should it ever be put in my power to take up this branch of sanitary administration.

The question has been asked, whether your Vestry, by appointing special officers to inspect workshops, laundries, &c., were not interfering with duties legally attaching to the office of factory inspector? The answer to this question is distinctly negative. There is nothing conflicting in the duties of factory inspectors and of inspectors appointed by the sanitary authority: the duties of the respective offices are reciprocal. One of the. duties devolving upon the medical officer of health under the Public Health (London) Act, 1891 (sec. 27), is to "give written notice to the factory inspector" of "any child, young person, or woman employed in a workshop," and this I have done, since October, 1893, in a large number of instances, upon information acquired for me by the lady inspectors. I report, moreover, to Her Majesty's Superintending Inspector of Workshops, &c., every workshop and workplace newly opened, or discovered by the inspector; and, reciprocally, that gentleman forwards to me all notices he receives from persons intimating intention to occupy premises as workshops or workplaces. In like manner the Superintending Inspector reports to me all cases of overcrowding discovered by his assistants, and all cases of dirty and insanitary premises observed by those officers, and requiring to be dealt with under the Acts; it being the duty of the sanitary authority to take steps to secure the abatement of all such nuisances. The necessary steps have been taken in many instances (since October, 1893,) by the Sanitary Committee, to which your Vestry have entrusted the carrying out of the provisions of the Factory and Workshop Acts, 1878 to 1895, and the Public Health (London) Act, 1891. And to facilitate the discharge of these duties the legislature has conferred on the sanitary authority and their officers "all such powers of entry, inspection, taking legal proceedings, or otherwise," as a factory inspector has under the "principal Act," i.e., the Act of 1878. The powers of the sanitary authority in regard to the inspection and supervision of workshops, in order to the enforcement of the

law, would thus appear to be ample. But lest these powers should be allowed to fall into desuetude, or be wilfully neglected, power is given, by sections 1 and 2 of the Factory and Workshop Act, 1891, which enables the factory inspector to supersede a defaulting Authority in the execution of their duties in respect of workshops or laundries; and to recover from the Authority, in whose district the workshops or laundries are situated, "all such expenses in and about any proceedings . . . as he may incur."

In the final report by Miss Squire, it was stated, and it is a matter for satisfaction, that there had become manifest, on the part of the employers, an increasing willingness to conform to the requirements of the law, with which many of them had been more or less unacquainted, until they were made known by the visits of the lady inspectors, and by the notices issued by the Sanitary Committee. There has been no abatement since of the friendliness with which the inspector's visits are received. In no respect has greater good been done than by the prevention of overcrowding, and the improvements effected with regard to the warming of workrooms, and the ventilation of gas iron-heaters, &c. The good work begun by Miss Deane, Miss Squire, and Miss Duncan, has been well carried on by Miss de Chaumont, who has performed her duties with tact and discretion, to my entire satisfaction, and, what is of more importance, to the satisfaction of the Sanitary Committee, the body to which, as has already been stated, the carrying out of the duties which devolve upon your Vestry as the local authority under the Acts has been delegated.

WORK OF THE LADY INSPECTOR.—Subjoined will be found the annual statement by Miss de Chaumont with respect to the duties carried out by her, in 1898, as the inspector of workshops, workplaces and laundries where women are employed. The initiative of your Vestry, in 1893, in employing

women to assist in sanitary administration, by inspection etc. of places where persons of the female sex are employed, has not hitherto been followed by other sanitary authorities to the extent which might have been anticipated. Some progress, however, has been made, and there is ground for hoping that the practice will in time become general, whether by legislative compulsion or otherwise. As to the value and success of the movement in this parish, there can de no question : it has long since passed out of the experimental stage. The duties of the sanitary authority in this department of administrative work, were set out in a report adopted by the Sanitary Committee, printed in the annual report of the Medical Officer of Health for 1896 (pages 96-103 inclusive), and accepted by your Vestry as a correct statement of the powers and duties of the Sanitary Authority as defined by law. Miss de Chaumont's report is as follows :--

"I have the honour to present a report of the work done in the Northern and Southern Districts of the parish during the year 1898.

"At the beginning of the year, 663 workshops, &c., where women are employed were on the register. During the year, 92 new premises were placed on the register, and 83 were removed therefrom. The particulars are as follows:—

	No	RTH KI	ENSING	TON.	So	итн К	ENSING	TON.	TOTAL
WORKSHOPS, ETC.	Dress- makers.	Laun-dries.	Miscel- laneous.	Total,	Dress- makers,	Laun- dries.	Miscel- laneous.	Total.	FOR WHOLE PARISH
Added to Register	22	12	2	36	41	3	12	56	92
Removed from Register	9	9	3	21	54	3	5	62	83

"The net result is an increase of 15 registered workshops in North Kensington, and a decrease of 6 in South Kensington, making a total increase of 9 registered workshops for the whole parish, Holland-park-avenue and Notting-hill High-street separating the two districts. At the end of the year 672 places (comprising an aggregate of 1208 rooms) were on the register, viz.:—

	Noi	ктн Кі	ENSING	TON.	So	итн К	ENSING	TON.	TOTAL
WORKSHOPS, ETC.	Dress- makers.	Laun- dries.	Miscel- laneous.	Total.	Dress- makers.	Laun. dries.	Miscel- laneous.	Total.	FOR WHOLE PARISH.
Number on Register	113	211	27	351	267	23	31	321	672
Number of Rooms therein	132	475	36	643	488	43	34	565	1,208

"In these 672 workshops, etc., there are employed, on an an average, 8,000 women and girls.

"CUBIC SPACE.—In the 92 workshops, etc. newly registered, 114 rooms were measured in order to ascertain the number of persons who may lawfully occupy each room, upon the scale of 250 cubic feet per person, in accordance with the requirements of the Factory and Workshop Act, 1895, section 1. Numerous other rooms in workshops already registered were also measured, such rooms having been enlarged, or newly opened as additional workrooms.

"Overcrowding.—Fifteen rooms were found to be overcrowded, being eleven less than in 1897. All the cases occurred during the period known as the 'London Season,' and were chiefly in dressmakers' establishments in the south district. In one case, with cubic space for 5, 8 persons were found working; in another case, with cubic space for 12, 15 persons were found, while in a third case, with cubic space for 5, 7 persons were at work. In two dressmakers' establishments, one in North Kensington and one in South Kensington, girls were found hiding in cupboards, so as to make the numbers in the workrooms appear correct. In both cases the employers acknowledged themselves to be in fault, and on my next visit additional rooms were in use.

"DEFECTIVE WORKSHOPS, YARDS, ETC.—At many of the registered premises, particularly laundries, roofs and floors were found to be in a defective state. In several cases the necessary work of reparation was carried out on the service of written intimations only; in other cases after service of statutory notices. Several yards were well paved during the year, and others were more or less properly repaired, much to the benefit of the employers and employed alike. In numerous instances the staircases leading to the various workrooms were found very worn, and in some cases unsafe. These have been repaired, and in three cases the staircases have been almost entirely renewed.

"CLEANSING, WHITEWASHING, ETC.— Numerous work-rooms and staircases, and passages connected therewith, were cleansed and whitewashed, or repapered, on service of intimations or notices.

"SANITARY CONVENIENCES.—One new water-closet was ordered at a laundry in the north district, the number of women employed therein having considerably increased since the place was first registered. The employer, however, having decided to remove the business to larger premises the order was not enforced. Three water-closets with no direct light or ventilation to the outer air, have been much improved by means of windows picrced through the outer walls. Twenty-three water-closets, found to be either dirty and dilapidated, or defective in water supply, were renovated more or less satisfactorily.

"WARMING OF WORKROOMS. — The provisions of the Factory and Workshop Act, 1895, with respect to warming, are now very fairly carried out, with great addition to the comfort of the workers, and, I believe, with advantage to the employers. At one dressmaker's establishment in South Kensington, a new workroom has been opened in another house, so as to provide more efficient means of warming, the room in use last winter being without a fireplace and warmed only by a small oil stove.

"TIDINESS.—Although I have been pleased to observe improvement in some cases with regard to the sweeping and tidying of workroom floors, there have been numerous instances in which I have had frequently to call attention to unswept and untidy conditions. I could wish that the accumulation of clippings in dressmakers', and particularly in tailors' workshops, could be made an offence under the Acts, for they harbour dust and dirt, so as, in effect, to constitute a very real nuisance.

"PROSECUTION.—One occupier was summoned for non-compliance with the Vestry's order to cleanse and repair a laundry in the north district. The work was completed before the hearing of the summons.

"COMPLAINTS are occasionally received, and all those relating to sanitary matters in connection with workshops, whether anonymous or otherwise, are attended to as soon as practicable. Those regarding long hours of work, of which I received several during the year, are referred to the Lady Factory Inspectors' Department at the Home Office. Complaint was received, not for the first time, of overcrowding in the bedrooms at a large drapery establishment. I made a thorough investigation into the matter but found no cause for the complaint. The accommodation generally was, indeed, of an unusually satisfactory character.

"GENERAL.—I am pleased to report that my visits, as a rule, are welcomed by employers, who now generally recognise the obligation and propriety of carrying out the duties devolving upon them under the Acts of Parliament, and the Orders issued by the Factory Department of the Home Office. I regret to say, however, that on visitation of four premises, two in North Kensington and two in South Kensington, I was received with much incivility, a determination being expressed by the occupiers not to admit me again. But I am glad to be able to add, that, in each case, when next I called, I was pleasantly and courteously received. To the best of my ability I have endeavoured to carry out the duties devolving on the sanitary authority, so as to prevent overcrowding of workrooms, and to enforce cleanliness and ventilation, and so as to secure freedom from effluvia, in conformity with the provisions of the several Acts. Her Majesty's Superintending Inspector of Workshops has forwarded to me complaints of nuisances observed by the factory inspectors, and notifications of new workshops as required by the Acts. And, in accordance with the requirements of the Acts, I have reported to that official numerous cases of the employment of 'protected persons,' i.e., 'children' between 11 and 14, 'young persons,' i.e., females between 14 and 18, and 'women,' i.e., persons over 18 years of age. Nuisances observed in the discharge of my duties have been duly reported to the Public Health Department."

Particulars of some of the work carried out during the year by Miss de Chaumont will be found in the table on page 91. Much of the work done does not admit of tabulation.

# FACTORY AND WORKSHOP ACTS, 1878-1895

Summary Report of Work done during the year, 1898.

	North Kensington.				South Kensington,				Total
	Dress- makers	Laun- dries	Miscel- laneous	Total	Dress- makers	Laun- dries	Miscel- laneous	Total	for whole Parish
Workshops, Number visited and inspected	190	289	33	512	459	38	68	565	1089
Workshops, Number re-inspected	14	148	5	167	50	4	7	61	228
Workrooms, Number inspected	220	1247	64	Ī531	718	77	66	861	2392
Workrooms found to be over- crowded	2	1	***	3	11		1	12	15
Workrooms found to be insuffi- ciently ventilated	4	20	2	26	19	1	1	21	47
Workrooms found to be in a dirty condition	5	129	6	140	26	3	3	32	172
Workshops, etc., newly discovered and registered	22	12	2	36	41	3	12	56	92
Workshops: Workrooms therein measured	24	22	8	54	45	3	12	60	114
Workshops reported to H.M. Inspector on discovery	14	12	2	28	26	1	8	35	63
Workshops removed from Register	9	9	3	. 21	54	3	5	62	83
Houses visited where no female hands are employed	36	21	8	65	61	16	18	95	160
Statutory Notices and Written Intimations issued	12	147	5	164	23	3	3	29	193
Works carried out under supervision:—  (a) Additional means of ventilation provided		2		2		***			2
(b) Rooms cleansed and white- washed	3	111	4	118	7	2	1	10	128
(c) Yards, floors, roofs, etc., repaired	***	39	1	40		I		1	41
(d) Sanitary conveniences.dirty, ill-lighted,unventilated,or defective in water supply	1	19		20	2	1			
(e) Dust-bins wanting or defective	4	6		10	1			3	23
(f) Miscellaneous defects remedied	1	20		21					21
Nuisances referred to Medical Officer of Health	2	18		20	2		1	3	23
Cases of sover-crowding of work-room abated	2	1	***	3	11		ı	12	15

# THE WORK OF THE SANITARY INSPECTORS.

Table VI. (appendix) contains a summary of the work of the sanitary inspectors. The duties of the inspectors are carried out under the Sanitary Committee, your Vestry having conferred on that body, by resolution, power to enforce the provisions of the Public Health (London) Act, 1891, the Housing of the Working Classes Act, 1890, and the Factory and Workshop Acts, 1878 to 1895. At page 2 will be found a description of the inspectors' districts. The staff now comprises seven inspectors, six male and one female, a reduction of two, one of each sex, as compared with the number in 1895. The inspector for the south-east district also acts as chief sanitary inspector (vide page 3). The staff, as I have repeatedly informed the Sanitary Committee, is quite inadequate for the discharge of the duties devolving upon your Vestry as Sanitary Authority. After the staff of male inspectors had been (in 1896) reduced from seven to six, the Local Government Board, in assenting to the arrangement for a period of twelve months on trial, requested to be informed, at the end of that period, as to how the arrangement worked, and whether the duties of the sanitary inspectors had been thoroughly carried out in all the districts? In February 1898, the Board wrote requesting that the "special report" required by their letter of 28th January, 1897, might be forwarded. The Sanitary Committee advised that the Board be (and they were) informed-

"That the arrangement made by the Vestry as regards the sanitary inspection of this parish, communicated to the Board on the 17th November, 1896, has proved satisfactory, and that the duties of the several sanitary inspectors have . . . been thoroughly fulfilled."

I was not consulted in the matter; but I have no hesitation in stating that, so far as practicable, the several inspectors have fulfilled the duties of their office satisfactorily. It may be added that the Local Government Board, when requested to sanction the appointment of Mr. Pettit as chief sanitary inspector, in May, intimated that they had "decided to hold an enquiry into the details of sanitary administration in the parish, but, as owing to the engagements of their staff, they could not hope that the enquiry would be held for some little time, they would not withhold their assent to the assignment of the addititional duties to Mr. Pettit as an experiment." The intended enquiry had not been held at the close of the year. The only change in the sanitary staff during the year was the appointment of Mr. Sexton to be inspector for the northeast district vice Mr. Poole, resigned.

STATUTORY NOTICES for the abatement of nuisances to the number of 1,418 were issued during the year, by direction of the Sanitary Committee.

WRITTEN INTIMATIONS of nuisances were served by the Inspectors, under section 3 of the Public Health (London) Act, 1891, to the number of 2,018. As a result of these intimations, many works of sanitary amendment were carried out without delay, thus realizing the intention of the Legislature, and obviating the necessity of serving statutory notices. On the written intimation form, and on the statutory notice, a note is printed, which gives the person liable for the abatement of the nuisance an opportunity of making what, for convenience, may be called an "appeal" to the Sanitary Committee, against the requirements of the sanitary inspector and the Committee respectively. "Appeal," which is of rare occurrence, usually takes the form of an application for extension of time for carrying out required works. Supervision of reconstruction and trapping of drains, and underground sanitary work generally, is now carried out by the Surveyor, and information on the subject must be sought in that officer's report. Many drains were, as usual, reconstructed by the owners or occupiers of houses, without the issue of sanitary notices, on the deposit of plans for approval. Particulars on this head also will be found in the Surveyor's report.

LEGAL PROCEEDINGS.—In 64 cases proceedings were taken before the magistrates: in 12 instances for offences under the byelaws for registered houses, fines to the aggregate amount of £7 17s. 6d. being imposed. In other 27 cases the offence alleged was failure to comply with the requirements of notices issued by the sanitary authority, fines of £5, £3, £3, £2, £2, £1, 10s, 10s, and 10s., (total £17 10s.) being imposed in nine cases.

Neglect of notices issued by the sanitary authority is but too common, the result being that much of the time of the inspectors is wasted in fruitless "re-inspections." In every such case—as when the work has not been put in hand at a date when it should have been completed—the prescribed fine should be applied for, seeing that disobedience to notices not only leads to waste of the officers' time, but is also disrespectful to the sanitary authority.

### OFFENSIVE BUSINESSES.

The only business coming under the statutory description "offensive," other than that of a slaughterer of cattle, carried on in this parish, is that of a FAT EXTRACTOR, at Tobin-street, in the Potteries, Notting-dale. The conduct of this business gives rise to more or less effluvium nuisance, despite improved arrangements, and care on the part of the proprietor, and supervision by your Vestry's inspector as well as by the inspector of the London County Council. Not for the first time, more than ten inhabitants of the locality certified this business to your Vestry, in May, to be (in the words of section 21 of the Public Health (London) Act, 1891), "a nuisance or injurious or dangerous to the health" of themselves and other "inhabitants of the district." The section requires that upon receipt of such a certificate, the sanitary authority shall—

"Make a complaint, and if it appears to the petty sessional court hearing the complaint, that the trade, business, etc., carried on by the person complained of is a nuisance, or causes any effluvia which is a nuisance or injurious or dangerous to the health of the inhabitants of the district, then, unless it is shown that such person has used the best practicable means for abating the nuisance, or preventing or counteracting the effluvia, the person so offending (being the owner or the occupier of the premises, or being a foreman or other person employed by such owner or occupier) shall be liable to a fine not exceeding fifty pounds."

Communications were opened up with the London County Council, the "local authority" under the Act, in regard to this "offensive business," and after long delay proceedings were instituted by that body, the solicitor to the Council having requested that the proceedings your Vestry had intimated intention to take, might be deferred until after the determination of the Council's summons. The presentation of the case at the West London police court was not all that could be desired, and no surprise was felt when, on the third day of hearing, the presiding magistrate adjourned the proceedings sine die, making no order as to costs, thus leaving the matter entirely open. In doing this, I am informed, the magistrate gave it as a reason that your Vestry had not taken steps to abolish the nuisance during the many years of its alleged continuance, and passed some reflections upon your Vestry's officers in the public health department for not having reported the nuisance—if any existed; the fact being, as the Council's representative knew, that during many years, in the annual reports of the Medical Officer of Health, attention had been drawn to the nuisance. These reports were in court, but were not produced by the Council's representative. The Sanitary Committee had reported to your Vestry that "it could not be questioned that at times smells of the most obnoxious character emanate from the premises to the serious inconvenience, if not danger, of the inhabitants of the houses in the immediate vicinity"; and they stated their opinion that the matter should be dealt with either by complaint to the petty sessional Court, or by proceedings in the High Court, so as to secure the abatement of the nuisance. Prior to the proceedings of the Council they had recommended that complaint be made to the petty sessional court; but as already stated proceedings were postponed in deference to the request of the Council's solicitor. After the failure of the Council's action the Committee thought the wisest course, in the circumstances, would be to defer taking proceedings, on behalf of your Vestry, as sanitary authority: meantime endeavouring to get the proprietor of the premises to effect certain improvements, which, it was thought, might lessen the nuisance, to the gravity of which several of the inhabitants of the district had testified in court. These suggested improvements include the provision of a scour or condensing apparatus, and elevation of the chimney shaft. The proprietor signified his willingness to do anything in his power to effect the desired object-although he denies the existence of nuisance. No complaints have been received since the close of the proceedings, a fact which would seem to indicate that the nuisance is more or less within control. It remains to be seen what will happen on the return of warmer weather, in summer, at which season the effluvium has always been at its worst.

## MARINE STORES.

The business of a marine store dealer is not scheduled in the Public Health (London) Act, 1891, as an "offensive business," but it gives rise to offensive smells, and has been held by the Appeal Court to be ejusdem generis with the businesses scheduled, originally, in the now repealed Slaughter-houses (Metropolis) Act, 1874. At my instance your Vestry made application to the late Metropolitan Board of Works, in 1883, to schedule the business under that Act, but without success. And in 1896, upon receipt of complaints of nuisance arising in the conduct of the business, an application was made to the County Council to schedule the business under the provisions of section 19 of the Public Health (London) Act, 1891. This application likewise was unsuccessful. The subject was dealt with fully in the annual report for 1896-pages 119-123. I have only to add that the premises where the business is carried on are regularly visited by the several sanitary inspectors.

#### BRICKBURNING.

During the last four years, since the successful proceedings taken by your Vestry to abate the nuisance from effluvia caused by brickburning, no complaint has been made by parishioners of nuisance arising in the conduct of the business of a brickmaker, nor have I had any reason for thinking that cause for complaint has existed. It is a matter for satisfaction that it has been found practicable to burn bricks without causing nuisance, as no one connected with your Vestry ever desired to interfere needlessly or vexatiously with the carrying on of a lawful business.

## LICENSED SLAUGHTER-HOUSES.

Thirteen premises were licensed, by the County Council in October, to be used as slaughter-houses; seven in North Kensington and six in South Kensington. The several premises are regularly visited by the sanitary inspectors. The names of the licensees, and the localities of the premises, are set out in Table XI. (appendix). The premises were visited, in July, by the Sanitary Committee, who reported favourably with respect to them, excepting in one instance, in regard to which they reported as follows:—

"At the slaughter-house in Lonsdale-mews were two receptacles overfull of offal, dung and filth, the product, it was stated, of slaughtering on the previous day. This refuse, which should have been removed before 10 a.m. was in a most offensive condition. The covers of the receptacles were resting on the refuse, the liquid portion of which was overflowing, and leaking through the defects in the receptacles, and thus defiling the flooring of the slaughterhouse. The place was in an insanitary condition, and the atmosphere very foul."

Proceedings were taken, the offence was admitted, and a fine of forty shillings with costs was imposed.

The business of a slaughterer of cattle has not been established anew in this parish since 1874.

ABATTOIRS versus Public Slaughter-Houses. - In connection with the subject of slaughter-houses, reference may be made to an instruction by the County Council to the Public Health Committee, to report as to the desirability of establishing public slaughter-houses throughout London, and as to the facilities which such a system would afford for the better inspection of the meat supply. The medical officer of the Council submitted a report on the subject, in which he showed the inadequacy of the inspection of meat consumed in London, and pointed out that diseased meat was largely received into London, and that for protection, especially of the poorer inhabitants, who are the purchasers of the cheaper meat, it was necessary that a system of inspection of all dead meat introduced into London, and which had not been examined in a public slaughter-house, should be instituted. In order, moreover, to ensure the inspection of meat killed in London, he considered it necessary that all animals should be killed in public slaughter-houses, in which alone due inspection of the meat is practicable. By far the greater number of such animals are killed in the slaughterhouses of the Corporation of the City of London, at Deptford and Islington; but information obtained from occupiers of private slaughter-houses, of which there are some 438 in London (as compared with 1,500 in 1874, when the now repealed Slaughter-houses Act was passed) showed that, in winter, some 900 beasts, 7,000 sheep and 900 pigs, and in summer some 800 beasts, 11,000 sheep, and 500 pigs, are killed per week in these premises. The Committee in their report (July 21st), stated that the systematic inspection of the animals is impossible in view of the numerous premises in which they are killed. The medical officer was of opinion that some half-dozen public slaughter-houses, owned by the Council, would suffice for the requirements of the butchers, if placed in convenient (indicated) spots, and in railway communication with the principal cattle markets outside London, as well as with the cattle market at Islington. He anticipated that when butchers

had learnt by experience the convenience they would enjoy from the use of the slaughter-houses and cooling rooms in connection therewith, these places would provide an acceptable alternative for the private slaughter-houses which should, he considered, then cease to exist. He thought that the first step should be to require that all animals slaughtered in London shall be killed in public slaughter-houses, and that stations should subsequently be provided for the examination of all meat killed in other parts of the country, and not already subjected to inspection in public slaughter-houses. The Committee referred to the report of the Royal Commission on Tuberculosis which, with respect to meat, expresses views corresponding with those arrived at by the Committee, as to the necessity for public slaughter-houses and facilities for the inspection of meat-of course with the object of preventing the sale and consumption of tuberculous meat. The Committee also cited the recommendations of the Commissioners which, under the heading of "meat," include certain with respect to slaughter-houses, practically in harmony with their own, as above set out, and they submitted resolutions for adoption by the Council, viz.:-

- (a) "That in the opinion of the Council it is desirable that, as a first step towards ensuring the proper inspection of meat, private slaughter-houses should cease to exist in London, and that butchers should, in substitution, be afforded such facilities as are necessary for the killing of animals in public slaughter-houses to be erected by the Council."
- (b) Intimates the Council's readiness "to accept such responsibilities as may be necessary to give effect in London to the recommendations of the Royal Commission on Tuberculosis," and proposes to ask the Local Government Board "whether they will include in any legislation introduced by them in connection with the Royal Commission's report, the provisions which would be necessary for this purpose."

It is almost needless to say that the Butchers' Trade Protection Society were strongly opposed to the proposal contained in the Committee's report, and to the views of the medical officer of health. They found support to their views in several quarters, many of the Vestries and District Boards having passed resolutions adverse to the abolition of private slaughter-houses. The Society, moreover, found a powerful auxiliary in the Smithfield Club, whose Secretary reported, at the Centenary Annual Meeting, that the Council had adopted a resolution as follows:—" That this Club, being aware of the proposals of the London County Council to take steps with a view to the abolition of private slaughter-houses in London, and the substitution of public slaughter-houses, or abattoirs, is of opinion that the proposals are unnecessary and inexpedient, and the adoption of them would be most injurious to the interests of the Club, and all those engaged in British agriculture."

The report of the Public Health Committee, after more than one adjournment, came before the County Council at their meeting on 31st January of the present year, when the first part of the above cited resolution (a) having been put, a motion to proceed to the next business was moved and carried. The second part of the resolution (b) was not moved. And so for the present the subject of public v. private slaughter-houses is shelved, and with it the further question of meat inspection.

I have thought it well to refer at some length to this matter, as one of public interest and proper to engage the attention of Sanitary Authorities. Should legislation ultimately arise out of the recommendations of the Royal Commission, it may be expected to follow the lines laid down in their report, and in the report of the Public Health Committee of the Council; and the Council, presumably, will be required to occupy the position the Public Health Committee indicated in their report, and desire, of "local authority" for all London. Whether six public slaughter-houses would suffice for the whole of the metropolis, may be reasonably doubted;

but this is a detail, and no doubt any Act would be drawn in sufficiently elastic terms. The effect of legislation in the direction indicated, would probably be to still further reduce the amount of slaughtering in London, excepting at the markets of the City Corporation. And this would be no evil, provided proper arrangements should be made for killing at public slaughter-houses in the country, and for inspection of meat intended for the London market. The dead meat trade should be encouraged. Twenty-seven years ago, when the population of Kensington was 127,000, we had 56 private slaughter-houses, and wretched places, for the most part, they were. Advantage was taken by your Vestry of the passing of the Slaughter-Houses (Metropolis) Act, 1874, to close the worst of the premises—the number was reduced to 32 in 1875— -a suitable standard of requirements having been adopted by your Vestry and approved by the magistrates who were then the licensing authority. The result has been a continuous diminution in the number of slaughter-houses: to thirteen at the present time, for a population of 172,000. Not much slaughtering is done at these establishments, a very modest percentage indeed of the meat consumed being killed in the parish; in which, as in the metropolis generally, only one butcher in nine, has a licensed slaughter-house. And whilst in 1874 there was one slaughter-house to 2,300 of the population, there is now one to about 13,000. For the rest, I may observe that I have always been an advocate of public slaughterhouses; and so far back as March, 1874, I submitted my views on the subject in a paper, read before the Society of Medical Officers of Health, on "Private Slaughter-houses, considered with reference to the Report of the Select Committee on Noxious Businesses." In this paper, and after describing the unsatisfactory state of the then existing slaughter-houses, and expressing preference for the abattoir system, I specified the requirements of a sanitary slaughter-house, indicated the conditions necessary to be enforced by bye-laws-a code of which

was appended to the paper—and foretold that suitable regulations would lead to a large reduction in the number of slaughter-houses; and this has come to pass. It is almost unnecessary, therefore, to say that, in principle, I am in sympathy with the views of the Public Health Committee and the medical officer of the Council.

#### LICENSED COW-HOUSES.

Four premises were licensed in October to be used as cowhouses: three of them are situated in North Kensington, and one in South Kensington. The several premises were regularly inspected by the sanitary inspectors. The names of the licensees, and the localities of the premises, are set out in Table XII. (appendix). The premises were inspected in July by the Sanitary Committee, and found to be in a generally satisfactory condition. There were only 14 cows in the sheds: not many years ago there were 28 sheds, containing about 500 cows. There has been a considerable reduction in the number of cow-houses in the metropolis, viz., from 1,044 in 1880, to 353 in 1898, or 22 fewer than in 1897.

MILK AND TUBERCULOSIS.—The Public Health Committee of the London County Council, in their report of 21st July, referred to in the preceding section on slaughter-houses, dealt also with the question of milk as a factor in the causation of human tuberculosis, and made recommendations, under the heading "Diseases in the Udders of Cows," as follows:—

- "That notification of every disease in the udder shall be made compulsory, under penalty, on the owners of all cows, whether in private dairies or those of which the milk is offered for sale."
- "That for the purpose of excluding from their districts the milk of cows affected with tuberculosis of the udder, or exhibiting clinical symptoms of the disease, local authorities should be given powers somewhat similar to those of Sections 24-27 of the Glasgow Police (Amendment)

  Act, with powers to slaughter such cows, subject to compensation under the conditions named in the report."

### The Committee made this further recommendation :-

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

#### The Committee stated that-

"The most important powers conferred by the Section of the Glasgow Police Act referred to . . . are the right to examine cows, the milk of which is sold within the City, wherever those cows may be, and the right to prohibit the sale of milk from any cow which is suffering from tuberculosis or any disease which might render the use of such milk dangerous or injurious to health."

There can be no doubt that in the causation of human tuberculosis (or "consumption" in its various forms) milk is a much more important factor than meat, and it is to be hoped that the Council will decide to take such steps as may be necessary to guard the milk supply, having regard to the practically unanimous opinion of experts that ingestion of the milk of tuberculous cows is a cause of tuberculosis in the human species, a subject that was dealt with by Sir Richard Thorne, K.C.B., F.R.S., the Medical Officer of the Local Government Board, in his "Harben" lectures (1898). The need for legislation, moreover, has been emphasized by the Royal Commission on Tuberculosis, and there is good ground for hope that, ere long, the subject will receive from the Legislature consideration adequate to its importance. Meanwhile it may be said that the public have in their own power the means of guarding themselves against the ever-present danger involved in the use of milk of tuberculous cows; for danger from this cause may be obviated by the boiling of milk. This practice, which is general beyond the limits of the United Kingdom, or, perhaps, it should be said, in other than English speaking countries, finds little favour amongst us; and time and constant repetition of scientific teaching will be needed to overcome the prejudice against cooked milk, which is as little agreeable to the English palate as raw milk appears to be to the palate of other Europeans, and certain aboriginal races. One would think that something might be done to explain and counteract the danger involved in the use of raw milk, through the agency of elementary and other schools. In a few years, should the practice of boiling milk be adopted, it is quite likely that taste for boiled milk would become as general as the prejudice is now against it: prejudice due, no doubt, to what is considered to be the more agreeable flavour of the raw article.

The question here dealt with received attention from the Sanitary Committee, whose report thereon was adopted by your Vestry. The Committee, it was stated, were:—

"Impressed with the futility of any efforts having for their object the suppression of tuberculosis by the inspection of meat, whilst no arrangements are in operation for the supervision of milk, and of the cows from which it is taken; for it may fairly be assumed that milch cows, which are the older animals, are more likely to be infected with tuberculosis than are the younger cattle sent to London to be slaughtered, and that children, who are the chief consumers of milk, are more susceptible to disease germs than are adults, the consumers of meat."

It is, perhaps, unnecessary to observe that the great bulk of milk consumed in London is now obtained from the country, a fact which emphasizes the necessity for fresh powers of supervision of rural dairies. Time was, within my official experience, when, with a population tens of thousands less than at present, some 500 cows were kept in 28 sheds in this parish, whilst now the sheds are only four in number and the cows therein do not exceed a score. Altogether, the subject is one which yields to none other in practical importance in its bearings upon the health and welfare of the community.

#### BAKEHOUSES.

The bakehouses, to the number of 134, viz., 74 in North Kensington, and 60 in South Kensington, were, as usual, regularly inspected, and such action was taken, in individual cases, as was found to be necessary for ensuring compliance with the sanitary provisions of the Factory and Workshop Acts, 1878 to 1895, and the Public Health (London) Act, 1891. In the annual report for 1894 (pp. 152 to 166 inclusive), when dealing with the "regulation of bakehouses," I summarised the steps which had then been recently taken by the County Council with the object of securing such an amendment of the law as would enable the sanitary authority to exercise an efficient control over bakehouses. The Council thought that the Factory and Workshops Bill, which was to be brought in by the Government in 1895, would afford an opportunity for amending the law relating to bakehouses, and the Public Health Committee of that body waited upon the President of the Local Government Board to press their views with reference to the matter. The President stated that it was improbable that any clause would be inserted in the proposed Bill dealing with London bakehouses, as the Bill would have reference to the whole country, and not particularly to London and he suggested that the Council itself should introduce a Bill. In accordance with the Committee's recommendation, the Parliamentary Committee was (in January, 1895), instructed to prepare a Bill amending the law relating to bakehouses in London, in accordance with the Council's views; but no action was taken. One provision with reference to bakehouses is contained in the Factory and Workshop Act, 1895, in section 27 (3), to the effect that "a place underground shall not be used as a bakehouse unless it is so used at the commencement of this Act," i.e., at the beginning of the year, 1896; but magisterial rulings have practically made this provision inoperative, as explained in previous reports.

# VENTILATION OF SEWERS: OFFENSIVE SMELLS IN STREETS.

Numerous complaints were received during the summer months of offensive smells from sewer ventilating openings at the level of the roadway. For the most part the nuisance was dealt with in the (at present) only possible way, viz., by closing the openings and erecting ventilating shafts, so as to carry the effluvia well above dwelling houses. One of the complaints proceeded from residents in Hurstway-street, where there had been several cases of infectious disease. The Sanitary Committee, after view of the locality, and ascertaining that there were certain sewers with dead ends thereabouts, recommended that the dead-ends of these sewers be connected with 12-in. stoneware pipes. The sewers dealt with were, that running through, Hurstway-street and terminating in Blechynden-street, which was connected with the sewer running eastward in Blechynden-street and terminating opposite Testerton-street; and that in Testerton-street which was connected with the sewer in Blechynden-street. Ventilating openings at the street level were closed, shafts being erected in Hurstway-street and Blechynden-street; and four gullies in Hurstway-street were trapped, with the result that no further complaints have been received. In a number of other instances of complaint from offensive street gullies, the nuisance was removed by the substitution for the brick gully pits of pan gullies with syphon-trapped outlets.

This subject of offensive smells in streets, due to the

escape of foul gases from sewers, has received considerable attention in these reports, and was dealt with fully in the ninth report for 1897 (September 16th, page 108), wherein I recommended—

- "1. That offensive street gullies in connection with sewers under the control of the Vestry should be efficiently trapped, and that offensive ventilating openings in connection with sewers under the control of the Vestry should be closed, and, that where practicable, shafts should be substituted for such openings, in conformity with the provisions of section 71 of the Metropolis Local Management Act, 1855.
- "2. That application should be made to the County Council, from time to time, for permission to trap offensive gullies, and close offensive ventilating openings connected with sewers under the control of the Council, in conformity with the provisions of the 27th section of the Metropolis Local Management Act, 1862."

The report in question was referred to the Sanitary Committee, which requested the Law and Parliamentary Committee to advise them as to the position of the Vestry in regard to the matter generally.

The subject was subsequently considered by the Sanitary Committee; the Surveyor, in a report (dated October 18th, 1897,) "On Sewer Ventilation and Sewer Smells," having set out, for their information, the past action of your Vestry in regard to it. By desire of the Committee I made certain further observations, embodying the recommendations contained in previous reports, which were duly set out in the annual report for 1897 (pp. 107-112 inclusive).

The Sanitary Committee in their report (dated November 15th 1897) on the reference (made on September 22nd) recommended, with reference to the trapping of gullies—

- "(a) That offensive street gullies be efficiently trapped;
  - (b) That all new gullies to be constructed in the parish be pan-gullies with syphon trapped outlets; and
  - (c) That the County Council be requested to trap with syphon-traps all offensive gullies on the main line sewers."

The Committee further reported with reference to the proposed abolition of sewer ventilators on the surface of the road, that—

"In cases where complaints are made of nuisance or annoyance caused by offensive smells from sewer ventilators, efforts are being made to obtain consent for the fixing of shafts up adjacent houses, and where such consent is obtained, the objectionable ventilators are abolished; whilst in those cases where consent is refused, the Vestry have no alternative but to retain the surface gratings."

The Committee were of opinion that it was--

"Most desirable that some further and combined action should be taken to secure a more efficient and less offensive mode of ventilating the sewers of the Metropolis;"

And they accordingly recommended—

"That a communication be addressed to the County Council calling their attention to the matter, forwarding copies of the reports by the Surveyor and the Medical Officer of Health, and requesting them to instruct their Engineer to convene a conference of the Surveyors and Medical Officers of Health in the Metropolis to discuss the question with him, with a view to his reporting upon the general question of metropolitan sewer ventilation; and

"That the several Vestries and District Boards be requested to support the action taken by the Vestry in regard to this matter."

The report of the Sanitary Committee was adopted, and a communication was addressed to the County Council, as recommended, with the result that t. Main Drainage Committee of the Council intimated that t. y readily acquiesced in the proposal as regarded the convening of a conference of representatives of the various local authorities, and had instructed the Chief Engineer to arrange for such a conference. On the 12th January, 1898, the Surveyor and the Medical Officer of Health were instructed to attend the conference, when called, on behalf of your Vestry.

The conference was held on 25th February, at the County Hall, the engineers and surveyors of 39 Vestries and District Boards being present: Medical Officers of Health were not invited. The Engineer to the Council subsequently presented a report of the proceedings of the conference, the subject considered being:—"The ventilation of sewers, with a view of some uniform system being adopted for dealing with complaints of offensive emanations from gratings connected with both local and main sewers."

The following resolutions were adopted by the conference:-

"1. That the closing of sewer ventilators in response to complaints increases the general evil, the diminution of which is to be attained by the multiplication of the ventilators at regular frequent intervals.

- "2. That in connection with any interceptor hereafter fixed on a main house drain, it is advisable to carry up a ventilating pipe from the sewer side of the interceptor, up the front, side, or back of the house, to the satisfaction of the local sanitary authority, and that the outlet drain from the interceptor shall not be flap-trapped in sewer, unless required by the local Sanitary Authority.
- "3. That pipe ventilators up buildings, or otherwise, when possible, should always be adopted, in addition to surface ventilators."

## The Engineer reported that-

"The general result of the conference confirmed the action of the Main Drainage Committee and the Council in recent years, and that the remedy for sewer emanations is to be looked for from the maintenance of more ventilating openings, both at the street level and by means of pipes carried up houses and other buildings."

Upon the recommendation of the Engineer, the Main Drainage Committee directed the report to be printed and copies thereof to be sent "to each member of the Council, and to the engineers and surveyors of the district boards and vestries in the metropolis."

With the above expressed views of the engineers and surveyors, their colleagues, the Medical Officers of Health (though they were not consulted) are doubtless in general agreement. The only recommendation, perhaps, containing much of novelty is the second, which endorses a principle in the ventilation of sewers set out by your Vestry's Surveyor in his abovementioned report "On Sewer Ventilation and Sewer Smells" to the effect "That in conjunction with any interceptor hereafter

fixed on a main house drain, it shall be compulsory on the owner of the premises to carry up a ventilating pipe, not less than 24 square inches in sectional area, from the sewer side of the interceptor, up the front, side, or back of the house, to the satisfaction of the local Sanitary Authority."

The Surveyor further recommended "That the local Sanitary Authority shall be empowered by statute to carry up any building sewer ventilating pipes."

Here it may be mentioned that attempts to provide a chemical remedy for the nuisance of offensive smells in streets, due to the escape of foul emanations from surface sewer ventilating gratings-viz., by oxidising and deodorising the gases, were made long ago, and are still being made. Some thirty years back, in this parish, an apparatus was devised in the Surveyor's department with this object. It consisted of hanks of tow, suspended on a frame, and dipping into a tray containing a disinfectant solution, the tow thus being kept moist by capillary attraction. The sewer air, passing through the towscreen placed in the shaft, became deodorised. This attempt, in practice, however, hardly exceeded the limits of a laboratory experiment. At the present time a patented chemical process -an effort to imitate nature's operations-is being carried out in underground ventilating shafts, in certain towns, the object being to obtain auxiliary oxidation of the fetid gases, so as to render them inert and inoffensive; with what result remains to be seen. But the solution of the difficulty will, no doubt, in course of time, be found in free oxidation by the admission to the sewers of copious streams of atmospheric air, Twenty years ago the late Mr. Parker, then Surveyor to the Poplar Board of Works, patented a process having this object. In more than one of my reports, approving reference was made to the principle involved in his system. The annual report for 1887 (page 239) may be cited. Reference was being made

to Sir Henry Roscoe's reports to the late Metropolitan Board of Works on "The Deodorisation of Sewer Emanations. And it was stated that that distinguished chemist's opinions on the subject were "entirely in harmony with the views long previously expressed by the officers of your Vestry, and others, viz., that 'the free admission of air into the sewers is the only efficacious means of preventing foul emanations; 1st, by the oxidation of putrescent sewage, and 2nd, by the dilution of any offensive gases evolved." Sir Henry Roscoe, in his reference to this portion of the subject, stated that "the policy of closing the air openings to the sewers, instead of allowing as much fresh air to enter as is possible, is based upon a wrong scientific principle, and that the only feasible plan of rendering the sewers sweet is to carry out thoroughly, and on a proper scale, the system of pipe ventilation so strongly recommended in the excellent report of the Board's Special Purposes and Sanitary Committee." My report went on to state that Sir Henry Roscoe's assistant in the investigations undertaken for the Board, had "spoken favourably of a method of ventilating sewers recommended by Mr. Parker, and in use for many years past, viz., by carrying a shaft from the sewer to the side of the road, and connecting to it a vertical pipe, to the head of which is fixed a cowl." It was stated that "the flushing inspector of the Metropolitan Board's sewers in the district (i.e., of the Poplar Board of Works), spoke well in favour of the system"; and I added that "upon hearing Mr. Parker describe his system (in 1878), and looking at his drawings, the medical officer of health for the district, moreover, testifying to the good results obtained, I formed the opinion that the method was likely to afford a solution to the difficulty-based, as it is, upon the principle of flooding the sewers with fresh air so as to oxidize and dilute the foul emanations from the sewage."

We may now turn to the consideration of the recommendations of the conference of the surveyors and engineers, which, together with the report on the conference, was referred to the Sanitary Committee, who approved the first and third recommendations\* which, in effect, aim at securing, by multiplication of surface ventilators and upcast shafts, the desideratum already specified, viz., the flooding of the free space in sewers with fresh air. It is a question whether this object might not be more effectually accomplished by the method of Mr. Parker's expired patent, which is alleged to secure the admission of air to the sewers by the elevated shafts (inlets), the surface openings acting mainly as outlets. The subject is, perhaps, still one for experiment; and for experiment on the lines indicated by Mr. Parker, no better field could be desired than the Council's Counter's Creek sewer in this parish. But the Sanitary Committee recommended, and it was resolved-

"(a) That the Council be requested to adopt the remedy for sewer emanations advocated by their Main Drainage Committee, and supported by the Engineers and Surveyors in the Metropolis, in respect of the Counter's Creek Sewer in this parish, numerous complaints having been received, from parishioners and the sanitary inspectors, of offensive smells from sewer ventilators in streets in the line of the said sewer.

<sup>\*</sup> The Committee disagreed with recommendation 2 and expressed the opinion, "That the proper system to secure the efficient circulation of fresh air in the sewers would be by the abolition of all intercepting traps, and the ventilation of the drain of each house by means of a pipe to be erected at the front, side, or rear of the same, and that where the intercepting trap is insisted upon, then a ventilating pipe should be carried up from the sewer side of the interceptor." Whatever the value of the above opinion, it is obvious that the system of ventilation suggested does not admit of general application in a London district,

"(b) That the surveyor be requested to report to the Committee as to any practicable action which might be taken by the Vestry to give effect in this parish to the third recommendation of the Conference."

At the present time no action has been taken by the Council in regard to recommendations. (a)

The efforts of your Vestry to deal with the nuisance which it is the object of the recommendations of the conference to abate, originated in action taken by your Vestry consequent upon my ninth monthly report, 1897, and it would seem, therefore, to devolve naturally upon your Vestry to take the lead, amongst local sanitary authorities, in giving effectual trial to the remedies proposed by the engineers, or, in the alternative, to Mr. Parker's system-whether to the proposed elevated shafts cowls be affixed or not. Vestry's surveyor has taken a prominent part in the discussion of the subject-in the committee room, and amongst his professional colleagues, and at the conference. He is evidently in sympathy with the spirit of the recommendations of the conference, and it would be well, therefore, to request him to report fully as to the steps proper to be taken to test the value of the proposed remedies, viz., by multiplying surface ventilators, where necessary, and by the erection of shafts up houses, or in other suitable positions.

In concluding my observations on this subject, in the sixth monthly report (June 22nd, page 75) I observed that it "would be wrong to treat the recommendations as academic, and to let the subject once more lapse into silence and oblivion." But this is precisely what is most likely to happen

It is lamentable to reflect on the prolonged labour bestowed upon this vexed question by earnest minded men with, on the whole, such poor results; and that such a nuisance should, after so many years of study, and invention of proposed means for its abolition, still exist and endanger the public health. Your Vestry's interest in the question is not of yesterday. It was brought to attention in 1871, the year of my appointment as medical officer of health; and, in consequence of many complaints, a special committee was directed "to consider the matter and, if possible, devise a remedy." A deputation from this committee waited upon Mr. (afterwards Sir Joseph) Bazalgette, Engineer to the Metropolitan Board of Works, with whom the subject was fully considered, and by whom was "explained what had been done to abate the annoyance in the sewers under the control of the Board." As stated in my annual report for 1871 (page 24), your Vestry's committee "came reluctantly to the conclusion that no effectual method of dealing with this difficulty had as yet been discovered," and thereupon they suspended their labours. The report went on to state that "charcoal filters had been applied in localities whence complaints came, and in these instances no further complaint had arisen." But the conclusion arrived at, neutralising this apparent success-"notwithstanding the admitted power of charcoal to deodorize offensive gases"was that the "success" of the apparatus in question was due rather to its obstructing the ventilators, and preventing the escape of foul air, than to any real and effectual ventilation with deodorization. The public (it was added) "occasionally, had taken the matter into their own hands and stopped up the offending apertures," a course which was described as one to be regretted, for the reason that "it is better to have a stench here and there in the roadway, than the escape of sewer gas into houses"; for, as pointed out, "sewers must be ventilated, and if ventilation is not provided for artificially, the resistance of almost any drain-trap will be overcome by the pressure of the contained gases; and foul effluvia, with all their injurious consequences, will find their way into houses." Among other remedies suggested by myself, twenty-seven years ago, one was that "whenever a new sewer is constructed, it should be ventilated at the higher end by a shaft carried up above the level of the adjoining buildings." This has, in some instances, been done with good effect. The serious character of the nuisance in mews, to which I have adverted more than once in recent years, had attracted my attention in 1871, and I pointed out that "no great expense would be incurred in providing the remedy (just mentioned), even in completed sewers." The mischief is, practically, as great in 1899 as it was in 1871, and the remedy has for the most part still to be provided. The impropriety of dispensing with apertures in the roadways, in the absence of shaft-ventilation, was also referred to in the 1871 report, wherein I advised that "so far from closing existing apertures, such apertures might be multiplied with advantage, so as to permit the gases to escape, in small quantities, from many points, rather than in large volumes from a few." The subject was again dealt with in the annual report for 1872 (page 23), and a suggestion having been thrown out that "all the gullies should be effectually trapped"-a course which, " as they are situated so much nearer houses than the ventilating shafts, would be satisfactory" to many persons annoyed by the stenches-it was stated that this would not be prudent in respect of the older thoroughfares, wherein the ventilators are few in number and widely separated." The gullies in such localities, it was pointed out, "act as ventilators also, and if all of them were trapped, and no additional ventilating shafts provided, the results would be disastrous." The subject was once and again referred to, in the reports for 1873 (page 30), and 1874 (page 43): in the former year in connection with "the usual crop of complaints of bad smells proceeding from the sewer ventilators," especially, I may add, those of certain main line sewers belonging to the (late) Metropolitan Board of Works; with reference to which I

placed myself in communication with the engineer to the Board, who took steps in one instance to secure the removal of the cause for complaint. In 1874 specific instances of dangerous nuisances were dealt with, in connection with complaints from Elsham-road (specially reported upon) and Notting (now Campden)-hill square. The remedies proposed, viz., abolition of "blind ends," by connecting adjacent sewers, and improved ventilation of the system near the new junction, were in the latter case adopted, the object aimed at being to secure free circulation of air in the sewers in a locality where numerous cases of fever had occurred. The desired result was attained, with manifest advantage to the neighbourhood. In this report, I drew attention to a plan that had been proposed for "the extraction of foul air from the sewers by the action of fans placed in suitable localities, the present ventilators being retained in the capacity of inlets for pure air, instead of as outlets for foul air; acting, in fact, as the down-draught in a mine." In the annual report for 1875 (page 31), the subject was referred to for the last time for many years. "The whole question of sewer ventilation," it was said, "a most difficult one, has recently been dealt with in an interesting historical report by the Clerk to the Metropolitan Board of Works," which was at the time placed in possession of every member of the Vestry; and the melancholy conclusion drawn from the state ments in the said report was, that "the labours of many years have only enabled the Engineer to the Board to demonstrate the uselessness of most of the remedies recommended for the purpose: certainly no plan generally applicable has been discovered." My own observation in connection with this report was, that "copious flushing of offensive sewers, to get rid of putrescent matter before gases are evolved, promises better results than any of the ventilation schemes hitherto propounded"; and it was suggested "as an additional reason for avoiding dribbling waste from countless cisterns, that a vast amount of water might thus be saved and utilised in cleansing sewers."

Such, more than a quarter of a century ago, were the views expressed on this subject. In substance, and as far as they go, these are the views of the Engineers and Surveyors of to-day. Let us hope that the influence of these gentlemen will prevail; and that the sanitary authorities in the metropolis, following the advice of their responsible advisers, will, by trapping of offensive gullies, and by proper ventilation of sewers, speedily bring to an end a disgusting nuisance inimical alike to health and comfort.

#### COMBINED DRAINAGE.

Several of the metropolitan sanitary authorities made representations to the County Council, in 1894, on the need of legislation "with a view to an alteration in the definition of the word drain and the word sewer" in the Metropolis Management Act, 1855 (sec. 250); and ultimately a deputation, representing a large majority of the Vestries and District Boards, waited upon the Main Drainage Committee with reference to the subject. This committee subsequently (7th July, 1894), reported that "a grievance exists, and that a heavy responsibility is thrown upon the local authorities to repair combined drains which were laid down for the benefit of the owners of houses, and with the intention that the owners should be held responsible for their maintenance." Having carefully considered the matter, the committee came to the conclusion that "the Council should, as the central authority, promote legislation in accordance with the views of the local authorities, and upon their recommendation it was resolved: "That the Council do apply to Parliament for an amendment of the definition of the word sewer and drain in the Metropolis Local Management Act, in the way desired by the local authorities, and that it be referred to the Parliamentary Committee to prepare a public bill, and take such other steps as may be necessary for that purpose." Such a

Bill (Metropolitan Sewers and Drains) was brought in on behalf of the Council in 1896, but it did not become law. A similar Bill, it is hoped, will be introduced during the current session of Parliament, the special object being to obtain an amendment of the definition of the word "drain" in the Metropolis Management Acts. Legislation is certainly necessary, seeing that sanitary authorities are unwilling to carry out the provisions of the law, by repairing, as "sewers," conduits which they consider to be "combined drains" properly repairable at the expense of the owners of the houses drained in common thereby. Cases are not unknown in which a sanitary authority have failed to abate nuisances, after the refusal of the owners of houses to comply with notices requiring them to execute work which, in the present unsatisfactory and even inequitable state of the law, has been held by the highest legal authorities to be the duty of the sanitary authority. Other authorities, however, have expended great sums of money in the repair, as sewers, of combined drains. With the view to facilitate inquiries as to whether any system of combined drainage had been sanctioned by the late Commissioners of Sewers, the predecessors of the Vestries, &c., and so to settle, as far as practicable, whether any such system constitutes a "sewer" repairable by the sanitary anthority, or a "drain" repairable by the owners of the houses drained thereby, the Sanitary Committee, upon my advice, resolved, in July, to obtain an abstract of those portions of the records of the Commissioners relating to this parish, and this abstract has already proved of great service by saving the labour of a search at Spring Gardens upon every occasion of dispute; it will, moreover, well repay the cost of its preparation by rightly throwing upon owners the responsibility for repairs, &c., of combined drains which, without the information it affords, would have devolved upon the sanitary authority the duty of repairing such combined drains as a sewer.

#### DRAINAGE BYE-LAWS.

Towards the close of the year 1896, forty years after the passing of the Metropolis Management Act, 1855, the County Council transmitted for the information of the sanitary authorities draft bye-laws prepared under section 202 of the said Act, requesting that observations thereon (if any), might be made by 16th January, 1897. The Local Government Board were requested to withhold their confirmation of the bye-laws until the local authorities, who will be charged with their enforcement, should have had an opportunity of considering them and submitting representations to the Board and Council thereon. The time was extended accordingly. The matter received much attention from the Sanitary Committee, and in the result numerous recommendations and suggestions for amendment of the proposed bye-laws were made, and embodied in a report, which, having been approved by your Vestry, was duly forwarded to the Board and the Council. At the end of the year 1898 the bye-laws had not been confirmed by the Board.

## INSUFFICIENCY OF SEWERS: FLOODING OF BASEMENTS.

In times of heavy rain the Counter's-creek main sewer has on many occasions proved unequal to the task of carrying off the storm water, thus leading to flooding of the basements of many houses with more or less diluted sewage. A terrible experience of this sort befell the occupants of numerous houses in this parish, 29th October, when 300 basements are known to have been flooded, including 56, 40, 30, and 167, in the Central, the North-West, the North, and the North-East sanitary districts respectively. To what exact depth, was not ascertained,\* as it was impossible to take up flooring boards to

<sup>\*</sup> The Surveyor in a report on the subject stated that the depth of the flood water in the basements was, in St. George's-road 9 to 17 inches, in Talbot-grove 18 inches, in Elsham-road (east side) 1 to 14 inches, &c.

determine the depth between the floor and the subjacent earth, which, unlike the flooring, does not admit of cleansing, and remains defiled by the deposit from the sewage, &c. It is unnecessary to dwell on the inconvenience and suffering inflicted by the visitation upon the occupiers of the flooded houses, which, of course, was greatest in the numerous instances of families actually living in the submerged basements. The consequences to health may yet be serious, but will probably remain unknown in the majority of cases, if not in all. Among the incidents of this calamity, it may be mentioned that at several bakehouses the kneading troughs were set floating, and sacks of flour were submerged. This matter has received attention from the Sanitary Committee at various times over a long period of years. It formed, in 1897, the subject of a conference with the sanitary authorities of the adjoining parishes of Chelsea, Fulham, and Hammersmith. The Main Drainage Committee of the County Council was approached by a deputation from your Vestry, the outcome being that the Council decided, in December, 1895, to proceed with the erection of a new pumping station at Lot's-road, Chelsea, at a cost of £60,000, and to apply to the Secretary of State for consent to the compulsory acquisition of the land required for the purpose. It is devoutly to be desired that this measure, when completed-it had not been begun at the end of 1898-may suffice to rid us of the nuisance, which, in the nature of things-owing to the increase in the number of inhabited houses draining into the local sewers -would have become worse but for palliative measures adopted by the local authorities in the reconstruction, deepening, and enlargement of the said sewers.

#### HOUSE-TO-HOUSE INSPECTION.

So far as time permitted, house-to-house inspection was carried on during the year, as required by section 1 of the Public Health (London) Act 1891; streets being dealt with as a whole in conformity with the instructions of your Vestry. This work had long been in practical abeyance owing to more pressing engagements of the Sanitary Inspectors in regard to matters requiring attention day-by-day. But when, in 1896, these officers were relieved of the duty of supervising works of repair of underground drainage, it was felt that some of their time should be devoted to this important duty. I was of opinion, moreover, that their attention should be given to some of the better class streets, the houses in which are not always so well sanitated, structurally, as the houses in many of the poorer streets, which have properly received attention to the largest extent. I was led to suspect that this might prove to be so by observing in the Inspectors' diaries, that when they had had occasion to inspect houses of a superior class, on complaint, or by reason of the occurrence of infectious disease thereat, sanitary apparatus was but too commonly found to be defective in construction or condition. It would be well to have made a complete and systematic sanitary survey of all the houses in the parish, but it is not practicable with the present limited staff of inspectors.

## THE HOUSING OF THE WORKING CLASSES.

BYE-LAWS FOR HOUSES LET IN LODGINGS OR OCCUPIED BY MEMBERS OF MORE THAN ONE FAMILY.

Under the provisions of the Sanitary Acts of 1866 and 1874, regulations were made by your Vestry, in 1885, and some 1,500 houses have been registered thereunder. The said Acts being repealed, and modified provisions in respect to byelaws having been enacted in the Public Health (London) Act, 1891, the Local Government Board addressed a circular letter on the subject to the Sanitary Authorities in 1892, and again in 1894. The Board pointed out that the powers conferred by the new Act (section 94) "differ in some respects from those exerciseable under section 35 of the Sanitary Act, 1866, and section 47 of the Sanitary Law Amendment Act, 1874, in pursuance of which the regulations now in force in (this) district were made"; inasmuch as section 94 of the new Act "no longer provides that such matters as the enforcement of privy accommodation, the paving of premises, the notices to be given in case of infectious or contagious disease, the cleansing of cisterns, or the keeping of water-closets in good order, &c., shall be dealt with by regulations applicable to houses let in lodgings. These matters," it was added, "can be otherwise dealt with, in some cases by bye-laws made by the Sanitary Authority, and applicable generally to all houses in the district, whether let in lodgings or not, and in others by byelaws made by the London County Council." The Board's letter was accompanied by copies of "a model series of byelaws, which they had caused to be prepared for the use of Sanitary Authorities under section 94 of the Act;" and it was stated that "these model forms were drawn up after very careful consideration by the Board of the regulations which might be properly enforced in the case of the class of houses to which the enactment applies." The Board's model clauses deal with none of the subjects above named, and it was suggested that the existing regulations should be modified on the basis of the model clauses. The matter was referred to the Sanitary Committee, to consider and report what modifications were necessary to bring the regulations into conformity with the provisions of the Act of 1891.

The subject being new to many members of your Vestry, I thought it desirable to give an outline of former proceedings with regard to it in the annual report for 1894. To what was then said (pp. 191-199) there is little to add now, inasmuch as the matter stands practically where it did four years ago, when the Sanitary Committee approved the modified bye-laws I had drafted for their consideration, and recommended them for adoption by your Vestry. The Committee thought it desirable to send the proposed new bye-laws to the Local Government Board, tentatively, with the view of ascertaining whether they were such as the Board would be prepared to sanction. After a long wait, and no reply being forthcoming, the proposed bye-laws were submitted to your Vestry, and referred to the Law Committee and the Sanitary Committee, jointly, for further consideration. With a view to lighten the labours of the joint committees, I prepared a statement showing "generally, in what respects the proposed new bye-laws differ from the existing bye-laws, and from the model series framed for the guidance of the Sanitary Authorities by the Local Government Board." (Vide No. 4 monthly report, April 25, 1895, pp. 50-60 inclusive). To this report I subjoined a list of streets, showing the number of houses in each which had been registered since 1885, and a further list of some of the principal streets, the houses in which, so far as they are let in lodgings or occupied by members of more than one family, appeared to be proper to be registered under the provisions of the Act. The joint committees submitted their report, July 31st, 1895, and the bye-laws in the form recommended by them were on that day adopted by your Vestry, and ordered to

be sent, and they were sent forthwith, to the Local Government Board for their sanction. On the very same day a communication had been received from the Board intimating their willingness to approve, with a few, mostly verbal, amendments, the bye-laws which the Sanitary Committee had tentatively forwarded for their consideration five months previously—these bye-laws, differing in some material respects from the amended form of bye-laws adopted by your Vestry at the date in question. After a further long interval the Board returned the second draft bye-laws, with suggested amendments. To some of the Board's suggestions your Vestry demurred, and a further communication was made to the Board, urging, inter alia, the desirability of a proposed bye-law requiring the landlord of a registered house to give notice to the Sanitary Authority when intending to carry out the annual cleansing, so as to enable the sanitary inspector to supervise the execution of the work. The Board had expressed doubt as to the competency of the Sanitary Authority to make such a bye-law.\* As to the desirability of such a bye-law, there can, I think, be no question.

It is a common practice with people having large families, to conceal the number of their children until after entering into possession of their lodging—usually a single room; and then, should it be desired to get rid of them, all the tedious processes, by notices, police-court proceedings, &c., have to be gone through, these occupying many (at least six) weeks, during which time the unfortunate landlord may not receive any rent on peril of failure to obtain an ejectment order. In

The Board's suggestion was that a definite period should be fixed for the execution of the works of cleansing, &c., meaning one month, so that the Sanitary Authority, knowing about when the work would be in progress, should have a chance of being able to exercise supervision. The period limited by the proposed bye-law, "March 1st to August 1st inclusive," is so prolonged that it is practically impossible to supervise, as the Inspectors rarely know when the work is likely to be in progress.

regard to registered houses, the "keeper" is equally liable with the "lodger" for the offence of overcrowding, and as I pointed out in the ninth report for 1896 (August 13th, page 111), it would be well if a bye-law were made requiring him, under penalty, to report any case of overcrowding to the sanitary authority. On consideration of the report, your Vestry decided to apply to the Local Government Board for sanction to a bye-law requiring the keeper of a registered house to report overcrowding, as follows:—

"If any lodger in a registered house cause or suffer any room under his control to be occupied by a greater number of persons than is allowed by this bye-law, it shall be the duty of the keeper of the registered house, upon his becoming aware of the fact, to notify such fact to the Medical Officer."

In the sixth report for 1897, (25th June), a further suggestion for a new bye-law was made with a view to enforce the provision and maintenance at the "furnished" rooms in registered houses, of bedding which should be clean and wholesome, and free from noxious insects. The matter was referred to the Sanitary Committee, who recommended (6th October)—

- "That the Vestry do approve of a draft bye-law in the following terms, and that the same be submitted to the Local Government Board for their approval, viz.:—
- "The landlord or keeper of a registered house in which rooms are let in furnished lodgings, shall cause the bedding and other articles in such rooms to be at all times maintained in a clean and wholesome condition and free from noxious insects."

The Local Government Board's views on the subject of these proposed new bye-laws have not yet been received, and the bye-laws framed and adopted in 1885 are still in force,

I think it right here to state that registration, whilst facilitating the work of the department, has given rise to none of the evils feared by the owners and occupiers of houses proposed to be registered; and that the existing byelaws, made in 1885, have worked smoothly and practically without objection by any of the parties affected by them; and that the extension of the operation of bye-laws to all tenemented and other houses occupied in lodgings by the poorer classes, would, with an adequate inspecting staff, be an unmixed benefit, from the public health point of view, by enabling the sanitary authority to maintain the conditions necessary to secure healthy homes for the people who, in regard to such matters, have little power to help themselves.

REGISTERED HOUSES.—At the request of the Sanitary Committee a return was prepared, in 1896, showing the streets in which houses have been registered, the number of the houses registered in each street, and the number of houses not registered in the several streets. This return, which was made for each of the sanitary districts, was printed in the annual report for 1896, pp. 136-38. The detailed particulars there given may be summarised as follows:—

DISTRICT		Number of Streets dealt with.	Number of Houses in Streets.	Number of Houses Registered	Number of Houses not Registered.
North Sanitary District		7	303	271	32
North-East Sanitary District	***	3	183	119	64
North-West Sanitary District		8	412	267	145
Central Sanitary District		16	537	393	144
South-East Sanitary District		7	141	100	41
South-West Sanitary District	***	19	569	393	176
Totals		60	2,145	1,543	602

Many of the houses included in the last column of the return were not let in lodgings or occupied by members of more than one family when the other houses in the same streets were registered, between the years 1886-89. Inspection

made in 1895 showed that many of the non-registered houses were then let in lodgings, and a report to that effect was made to the Sanitary Committee. The Committee, however, decided, at that time, not to register any more houses pending the confirmation by the Local Government Board of the proposed new bye-laws. A few houses, nevertheless, have since been registered, such as are wholly let in tenements, including 25 in the "Notting-dale" special area.

In the fourth monthly report for 1895, (April 25th) this subject was fully dealt with (pp. 50-63), and I submitted "a list of some of the principal streets, the houses in which, so far as they are let in lodgings or occupied by members of more than one family, would appear to be proper to be registered," as follows:—

- (1) NORTH DISTRICT.—Branstone Street, Rackham-street, Raymede-street, Swinbrook-road, Tottenham-street, Treverton-street, and Wheatstone-road.
- (2) NORTH-EAST DISTRICT.—All Saint's-road, Bucking-ham-terrace, Dulford-street, Lonsdale-road, St. George's road, Talbot-grove, and Westernterrace.
- (3) NORTH-WEST DISTRICT.—Blechynden-street (north of Bramley-road), Hurstway-street, Mersey-street, Royal Crescent-mews, St. James's-place, Testerton-street, Tobin-street, and Walmer-road (south of Lancaster-road).
- (4) CENTRAL DISTRICT.—None.
- (5) SOUTH-EAST DISTRICT.—Chapel-place, Lloyd's-place, Middle-street, New-street, and Rutland-street.

(6) SOUTH-WEST DISTRICT.—Barker-street, Emma-place, Holmes-place, Kensington-buildings, Park-terrace, and Providence-terrace.

No action was taken upon the report.

It may be mentioned that in October, 1885, the Sanitary Committee settled and recommended a list of 152 streets in the order in which it appeared to them desirable that the said streets should be considered for registration purposes. The list was reported to, and adopted by your Vestry; but it still remains to give effect to the recommendation in a very large proportion of the streets.

#### OVERCROWDING.

Several instances of the dangerous nuisance of overcrowding came to light and were dealt with during the year. This nuisance is but too common, arising from the dearness of accommodation and the consequent inflation of rents. Some bad cases found in the "Notting-dale" special area are deserving of note, all of them having been discovered on inspection made by Inspector Steward, under police protection, in the early morning, and before the people had left their beds. In one (so called "furnished") room, having a cubic capacity of 1,000 feet, five adult females (the required air space being 2,000 cubic feet) were found, of whom two young women were hidden under the bed. At another house in Sirdar-road, five adults (one a man) and two children were found in one ("furnished") room. In this case also two young women were found hidden under the bed. The air space of the room is 1,650 cubic feet, the required amount being 2,400 feet. The Sanitary Committee directed proceedings to be taken against the "Keepers," of the houses, and the occupiers of the rooms, both of the houses being registered. It was hoped that the publicity obtained by prosecutions for breach of your Vestry's bye-laws,

would put a check upon overcrowding in the district. But although substantial fines were imposed upon Keepers and lodgers alike, for the double offence of overcrowding and indecent occupation, subsequent "surprise" visits revealed a similar state of affairs in two houses, one of them being the property of one of the keepers fined in respect of a previous offence. Proceedings were taken, and two penalties of forty shillings each were imposed upon the keeper, and two of ten shillings each upon the lodger: one of the keepers had not long previously been fined six pounds for allowing underground rooms to be occupied after notice to discontinue the illegal occupation of the said rooms. By direction of the Committee a hand-bill was prepared, and circulated in the district, setting out the above-described offences, and the fines inflicted for breaches of your Vestry's bye-laws with respect to registered houses. As I pointed out, a still more severe penalty (which, moreover, applies to houses in general,) was in reserve, should overcrowding be again found, within three months, at either of the houses in respect of which the proceedings were instituted, viz.: closure of the house, under the provisions of section 7 of the Public Health (London) Act, 1891, which enacts that :-

"Where two convictions for offences relating to the overcrowding of a house, or part of a house, in any district have taken place within a period of three months (whether the person convicted were or were not the same), a petty sessional court may, on the application of the sanitary authority, order the house to be closed for such period as the court may deem necessary."

The business of letting so-called "furnished" rooms in the "Notting dale" district is a profitable one, the "keeper" probably netting thirty shillings a week for a house which costs him twelve or fourteen, the value of the "furniture" being a negligeable quantity. I therefore advised, and the Sanitary Committee directed, that on occasion arising, the magistrates should be asked to close the house, such a course being likely

to be more effective, as a deterrent, both to offenders and others, than the infliction of a direct money fine. A case did subsequently arise, and the application to close the house was duly made, but the magistrates, who imposed substantial fines on the offenders, declined to make an order to close the house, influenced, apparently, by their conception of the inconvenience it might cause to the occupants of other rooms.

THE HOUSING OF THE WORKING CLASSES ACT, 1890.—In 1897, your Vestry requested the County Council to acquire the houses in the "Notting-dale" special area under Part III. of the Housing of the Working Classes Act, 1890, for utilisation as lodging-houses. The request was endorsed by the Ruridecanal Chapter, by the members for the borough, and by other influential inhabitants, under circumstances fully set out in my fourth, tenth, and thirteenth reports for that year. The Council replied that, in the opinion of the Housing of the Working Classes Committee, Part III. "would not be applicable to such an area." The letter of the Clerk of the Council was printed in the tenth report (Oct. 13th, 1897, page 122), together with my recommendation that request should be made to the Council "to include in their next General Powers Bill a clause giving power to the sanitary authority, to put in force in their district, Part III. of the Housing of the Working Classes Act, 1890." No action was taken by your Vestry on this recommendation. In July last, at a Conference of Sanitary Anthorities on the subject of Overcrowding and the Housing of the Working Classes, convened by the Bermondsey Vestry, your Vestry being represented thereat, the following resolution, among others, was passed :-

"That the London County Council be approached with a view to the insertion of a clause in their General Powers Bill of 1899, to enable Metropolitan Vestries and District Boards, to erect municipal dwellings, under Part III. of the Housing of the Working Classes Act, 1890."

It was argued that the London local authorities should have the same powers as those given to provincial bodies. In dealing with this question, in the Annual Summary appended to the thirteenth report for 1897 (page 165), I observed that:—

"Your Vestry have, at present, no power to put Part III. into operation: it only remains, therefore . . . that steps should be taken to promote legislation to make the Sanitary Authority the Local Authority, sole or concurrent, under this Part. It was (I added) a legislative mistake to endue the Council with exclusive power, and the sooner the mistake is rectified the better." I pointed out, moreover, the "strange anomaly that the Sanitary Authority of the Metropolis should be denied powers enjoyed by the most insignificant Urban Sanitary Authority without London," and illustrated the benefits that might be conferred on the poor by the experience of the governing authority of the City of Glasgow, " where Municipal lodging-houses for the dregs of the population, the outcasts of society, have been provided; the means of a comfortable, homely, and a social life of a sort, being thus secured to these poor creatures, at a reasonable outlay for lodging and other accommodation, and this without entailing any burden on the ratepayers."

In connection with the resolutions of the Bermondsey Conference, above adverted to, the Sanitary Committee had before them a letter from the Vestry of Battersea stating that they had requested the London County Council to insert a clause in their next General Powers Bill, empowering Local Authorities to erect dwellings for the working classes, and

asking your Vestry to take similar action; also a letter from the North Kensington Ratepayers' Association, supporting the view expressed in the letter from the Battersea Vestry, together with my report dated 20th July, in which the question as to the desirability of local authorities being vested with powers concurrent with those of the London County Council, enabling them to adopt and put in force, Part III. of the Housing of the Working Classes Act, 1890, was discussed The Committee were of opinion that it is desirable that the Vestry should have power to put the particular provisions of the Act referred to into operation, and they accordingly recommended, and it was resolved, "that the London County Council be requested to include in their next General Powers Bill, a clause giving the Sanitary Authority concurrent power with the Council to put in force Part III. of the Housing of the Working Classes Act, 1890." The Council have since signified their willingness to an alteration of the law, which would enable the Local Sanitary Authorities to put Part III. into operation in their respective districts, and this power will doubtless be given before long.

### COMMON LODGING-HOUSES.

The County Council have taken over from the police the supervision of common lodging-houses, under the circumstances set out in my annual report for 1893 (p. 207). I am indebted to the Council's medical officer of health for the subjoined Return of the common lodging-houses in this parish, which are 32 in number, and contain accommodation for 945 persons.

Sanitary District.	Name of Keeper.	Address of Common Lodging House.	No. of for wi	Double Beds	
			Male,	Female. 7	Cotal. Authorized.
N. N.W.	Marsh, Hy. Chas, Moore, John Do. do Do. do Do. do Newman Boasley Phipps, William Do. do. Reynolds, Charles Phillips, E. S Do. do. Do. do. Hankins, George Do. do. Do. do. Phipps, William Do. do. Phipps, William Do. do. Do. do. Simpson, James Do. do. Hartwell, Wm Phipps, William Do. do. Bayley, Henry Do. do.	21, Bangor Street 23, do. 25, do. 29, do. 10, do. 18, do. 20, do.		9 18 21 — — — — — — — — — — — — — — — — — —	35
ć.'	Redman, John Do. do	24, Peel Street 22, do.	20 23	=	25 20 23 —

Twenty-three of the Common Lodging-Houses, with accommodation for 705 persons, are located in the "Notting-dale" special area.

In connection with the inquiry by the Special Committee of 1896, as to the causes of the high death-rate in the "Notting-dale" special area, an application was made to the County Council to define the meaning of the term "common lodging-house," to which a reply was received to the following effect:—

- "The Council is advised that in order to bring a house within the operation of the Common Lodging-Houses Acts, 1851 and 1853, it is essential that the following facts should exist;
  - 1. The house must be kept by somebody for the purpose of gain,
  - 2. It must be open for the reception of all comers as lodgers.
  - The persons resorting to the house must be of such a class as, if left to themselves, would either be unwilling or unable to secure cleanliness and prevent overcrowding.
  - 4. Some one room or rooms in the house must be used in common by all the lodgers.
- "A large variety of circumstances might arise in any particular case which might come before the Council, but it is safe to say that if in any case one of the four facts above-mentioned were absent, it would be a doubtful question whether the house could be regarded as a common lodging-house within the meaning and intention of the statutes, and such a case would need special and particular consideration.
- "This opinion has been come to after a careful study of the decisions in the following cases:—
- BOOTH v. FERRETT.—Decision by Lord Chief Justice Coleridge and Mr. Justice Mathew.
- LANGDON v. BROADBENT.—Decision by Mr. Justice Grove and Mr. Justice Lindley."

It is manifest, therefore, that the houses in the "Notting-dale" special area cannot be dealt with as common lodging-houses under the provisions of the existing law, excepting in so far as they may be registered as such by the Council upon the application of the owners—a fact which your Vestry's "Special Committee" of 1896 recognized in their report.

CONTROL OF COMMON LODGING-HOUSES.—A communication was received, in April, 1897, from the Vestry of St. Margaret and St. John, Westminster, expressing the opinion

that the want of effective control over common lodging-houses was a serious defect in the existing law, and urging the desirability of representations being made to the Home Secretary with a view to the introduction of a Bill consolidating, and transferring to the local authorities, the administration of the law relating to common lodging-houses, giving such authorities power to licence annually, with the consequent right to withhold any license in the event of mismanagement or other sufficient reason. These views were endorsed by your Vestry, and a communication to this effect was made to the Home Secretary, and to the Vestry of St. Margaret and St. John, and to the other sanitary authorities of the metropolis. The Home Secretary, in due course, stated that he had referred the communication to the Local Government Board, as he was of opinion that the question was one which should be dealt with by the Board. Nothing further appears to have been done in the matter.

### THE PAVING OF YARDS.

During the year a good many yards were paved more or less satisfactorily. It would be well if work of this sort could be carried out systematically throughout the parish; but in present circumstances it is impracticable. Individual cases only can be dealt with as they arise, out of casual or special inspections, or in the case of house-to-house inspections, of which by far too few are made. The Special Committee on "Notting-dale," in their report (June 18th, 1896), referring to the state of the yards in the Special Area, stated that they were "saturated with human ordure and filth of every description." The Committee were of opinion "that these yards should be asphalted or paved," and the first of their recomdations, all of which were approved by your Vestry, was to the foilowing effect:—

"That it be referred to the Works and Sanitary Committee to have notices served upon the owners or occupiers of the houses in the several streets . . . requiring them to asphalte, or pave with impervious material, the yards, in the rear of such houses, which are not in proper condition."

Effect has been given to this recommendation to a certain extent, many of the yards having been paved, wholly or in part, in a more or less satisfactory manner. The paving of yards is one of the matters dealt with in your Vestry's byelaws, the tenth of the series requiring, in respect of "any yard or open space, where it is necessary for the prevention or remedy of insanitary conditions that all or part of such yard, or open space shall be paved," that it shall be paved forthwith by the owner of the dwelling-house with which such yard or open space is connected. It will be observed that the paving of yards is prescribed "for the prevention or remedy of insanitary conditions," a fact which is often lost sight of. That paving is "necessary" for this purpose is indubitable, and on this account I have been insistent in pressing the matter, from time to time, upon the attention of the Sanitary Committee. I venture to think that more would be done in this direction, by sanitary authorities generally, if due weight were attached to the hygienic importance of cleanliness in the surroundings of dwelling-houses, a matter to which attention was specially directed in the last annual report (page 146), the authority of the Medical Officer of the Local Government Board being cited in support of the views therein expressed.

### REFUSE MATTER.

The prevention of nuisance in connection with the storage, the collection, and the conveyance through streets of offensive substances coming under the general description, "REFUSE," which was formerly a matter of no little difficulty has been facilitated by the County Council's bye-laws made in 1893, under the provisions of section 16 of the Public Health (London) Act, 1891. But in order to prevent nuisance in the conveyance of offensive matter through the streets, constant supervision is necessary, and as the police are always on duty, and have therefore opportunities of observing offences against the bye-laws, it appeared to the Public Health Committee of the Council that it would be useful if the police were instructed to take note of any such offences, and to give notice thereof to the sanitary authority of the district concerned. The committee communicated their views to the Commissioner, who thereupon issued an instruction to the police to note, and report to the sanitary authorities, any breaches of the byelaws made under the Act, and this is sometimes done.

REMOVAL OF OFFENSIVE MATTERS THROUGH STREETS.

—This subject was dealt with in the report for 1895, the action taken by your Vestry, and other sanitary authorities at the instance of your Vestry, with a view to an alteration in the bye-laws of the County Council, being set out. The specific recommendation of the sanitary committee was—

"That a communication be addressed to the County Council, pointing out the desirability of their Bye-law being revised so as to allow of the removal of fish offal, &c., at other times than those specified in Bye-law No. 1,\* provided such offal is removed from the premises in suitable and closely-covered receptacles which will effectually prevent any obnoxious effluvia escaping therefrom."

Many of the sanitary authorities addressed the Council in support of the resolution, but the Council took no action

<sup>\*</sup>The hours for removal prescribed by the Bye-law are, between 4 and 10 a.m. from March to October, and between 6 a.m. and noon from November to February, inclusive.

in the matter. From time to time, people concerned with the removal of refuse have appealed to the Council for permission to remove such refuse at other than the prescribed hours, upon the ground that it was not "offensive," and have received answer that the bye-law applies to "offensive" matter only. I am not prepared to admit that any offal of the trade of fishmonger, poulterer, game dealer, &c., is inoffensive, but I do contend that all such offal can be removed inoffensively. My views on this subject were fully set out in a communication addressed by your Vestry to the late Metropolitan Board of Works in 1887, and are contained in the annual report for 1887 (page 177).

The main proposal submitted to the County Council by your Vestry, in 1895, was that the offal of the trade of fishmonger, poulterer, &c., should be stored in galvanized iron receptacles with tight-fitting covers, and that the offal should be removed in the vessels, a subsidiary advantage of the plan being that the storage vessels could be effectually cleansed before being returned to the shopkeeper. That this course will have to be adopted, sooner or later, I entertain no doubt. Removal could then be effected at any hour without nuisance. But removal should, in my opinion, be effected in the evening, after business hours. The existing arrangements, apart from the sanitary question, entail disagreeable consequences to contractors, who, to escape prosecution for breach of bye-law in London, become liable to prosecution for breach of bye-law, say, at West Ham. Offensive matter may not be removed through streets in London excepting in the forenoon. Such matter may not be removed through streets at West Ham excepting in the evening. Could anything be more unfair than the position in which the contractors are thus placed? between the upper millstone of the County Council's bye-law, and the nether millstone of the bye-law made by the Corporation of West Ham-a locality to which much of London's "offensive matter," i.e., offal, is conveyed for transmutation to useful products.

House Refuse.—The work of collection of ashes and miscellaneous rubbish from our 23,000 inhabited houses, has been systematised by division of the parish into districts, and provision has been made for inspection of dust-bins, and oversight of the dusting-gangs, the arrangements being under the supervision of the Surveyor. A call is, or should be, made at every house once a week—twice a week in the "Notting-dale" district—and, subject to removal on that basis, further improvement is scarcely possible, until the objectionable practice of refuse-harbourage shall have given place to the more rational system of daily collection from moveable receptacles.

Nuisance from house refuse does not arise from the proper contents of the receptacle-ashes-but from the addition thereto of matters of organic origin. With the object of preventing, as far as practicable, nuisance from this cause, a printed notice is periodically issued by your Vestry to every householder, calling attention to the danger, on sanitary grounds, of vegetable and other objectionable refuse being placed in the dust-bin, and requesting that directions may be given for all such refuse to be burned. Such a notice was issued last year. At present, a portion of the refuse, from the northern part of the parish, is conveyed out of London by Grand Junction Canal, the refuse from the southern part of the parish being taken, by the contractor, down the Thames; but not to your Vestry's depôt at Purfleet, where the land, which lies below high-water mark, is let to the contractor for the deposit of other matters of a presumably less objectionable sort. The time must ultimately come when the refuse will have to be cremated in or near the parish: the otherwise waste-heat thus produced could be employed for the production of "current" for the illumination of the streets by electricity—a practice which has already been adopted with success in other districts. Your Vestry now possess a site at Wood Lane, where a "destructor" and an electric light installation might be advantageously located.

### STABLE REFUSE.

In former reports I had to note the frequency of complaints of effluvium nuisance arising in the storage, and, much more, in the removal of stable refuse from pits underground. Thanks to the operation of the County Council's bye-law, which has been carried out effectually in this parish, complaints in respect of private premises are now few in number; and as the cause for complaint, the sunken dung-pit, is now almost a thing of the past, we may reasonably hope to have less cause for annoyance on this score in the future. This subject was fully dealt with in my annual report for 1894 (pp. 184-189), to which I would refer anyone desirous of knowing what a serious difficulty the question involved, until we were able to abolish, to a large extent, the brick receptacle, whether above or below ground, and to substitute therefor the iron cage now so familiar an object in the mews in this parish, not far short of two hundred in number.

The following statement shows the work done in giving effect to the bye-law:—

K	North Censington.	South Kensington.	Total.
Iron cages erected	. 564	999	1,563
Brick receptacles abol-			
ished	. 171	554	725
Brick receptacles con-			
structed or re-con-			
structed	. 281	45	326
Sunken pits, improved	,		
allowed to remain.	. 36	38	74
Sunken pits abolished	1 132	434	566

Sunken pits were allowed to remain in certain instances simply because, owing to the construction of the stable premises—the entire frontage being occupied by doors—it was impracticable to provide any other form of receptacle. In each such case the pit was reconstructed to a reduced depth (the sides and floor being cemented) and drained to the sewer.

REMOVAL OF MANURE.—In the first report for 1898, reference was made to a communication from the medical officer of health to the County Council, with respect to the complaints the Public Health Committee of that body receive, from time to time, of nuisance arising from accumulations of stable manure, and to the power the sanitary authority have (under section 36 of the Public Health (London) Act, 1891) to collect and remove refuse of this sort within their district, but without power to charge for such collection and removal. The committee were considering the question whether, with a view to facilitate the removal of manure, it was desirable to seek an amendment of the section, so as to enable the sanitary authority, as is reasonable, to charge for the said service.\* I had no hesitation in expressing an opinion that such an amendment of the law is desirable. As a result of the enquiries by the committee, and on their recommendation, the Council, on 29th March, instructed the Parliamentary Committee to take the necessary steps "to obtain such an amendment of the law as would give the London sanitary authorities power to charge for the removal of manure, when required by the owner or occupier of any premises to remove it." The Parliamentary Committee reported, on 3rd November, stating that the instructions of the Council to take the necessary steps to obtain such an amendment of the law, involve an amendment of the Public Health (London) Act, 1891, which would necessitate the introduction of a separate Public Bill: it therefore occurred to them that there were probably other respects in which amendments in the Act were desired, and which could most conveniently be dealt with at the same time. The Parliamentary Committee, accordingly, consulted the Public Health Committee, and this committee, being of opinion that the question was not of so urgent a character as to necessitate the introduc-

<sup>\*</sup>The question whether the Vestry would be in favour of such a proposed amendment of the Law having been considered by the sanitary committee, they advised that no action be taken in the matter, and no action was taken,

tion of a Public Bill to deal with it alone, instructed the officers to report as to other amendments of the Public Health Act which could be dealt with in the same Bill. Under these circumstances, the Council adopted the recommendation of the Parliamentary Committee to discharge the reference to them, "to obtain an amendment of the law to enable the London Sanitary Authorities to charge for the removal of manure."

NUISANCE FROM PEAT MOSS LITTER: ACTION OF THE COUNTY COUNCIL.—The Council having had their attention drawn to this subject, a circular communication was addressed, in July, to the sanitary authorities as follows:—

"In investigating complaints of nuisance alleged to arise from stable manure at various premises in London, the attention of the Council has been directed to the use of peat litter, which appears to be increasingly creating nuisance. The Council would be glad to hear whether your Vestry find that nuisance from peat litter is so great as to render it desirable that the Council should include such litter within the provisions of its byelaws under Section 16 of the Public Health (London) Act, 1891, prescribing the hours of removal of offensive matters throughout London, and the construction of the carriage conveying such matter."

The Bye-law referred to is to the following effect :-

"Every person who shall remove or carry by road or water in or through London any fæcal, or offensive, or obnoxious matter or liquid . . . shall not . . . (do so) except between the hours of 4 o'clock and 10 o'clock in the forenoon during the months (March to October inclusive), and except between the hours of 6 o'clock in the forenoon and 12 o'clock at noon during the months (November to February inclusive). Such person shall use a suitable carriage or vessel properly constructed and furnished with a sufficient covering so as to prevent the escape of any such matter or liquid therefrom, and so as to prevent any nuisance arising therefrom.

<sup>&</sup>quot;Provided that this bye-law shall not apply to the carriage of horse dung manure,"

Attention had been called in the monthly reports, from time to time, to the special offensiveness of stable refuse where peat litter is used, and the suggestion made that where it is used the proviso to the bye-law should not apply. On consideration of the Council's letter, I advised that the question asked should be answered in the affirmative, and the Sanitary Committee reported a recommendation in support of the proposal to abolish the proviso. Their report was referred back for further consideration, but after such further consideration the committee saw no reason for varying their recommendation, which, nevertheless, was thrown out by your Vestry.\*

That a well-nigh intolerable nuisance arises in connection with the use of peat litter, cannot be reasonably denied by any one cognizant of the facts. It is not usual to drain stables where it is used. The peat would stop the drains. It has, moreover, the property of sucking up, like a sponge, all liquid excreta, the result being that the refuse, as it leaves the stable, is more or less wet. Nevertheless, at this point of time, the litter, if not kept in the stable too long, is not necessarily very offensive. But after a short detention in the usual brick receptacle it acquires a stink of its own, scarcely at all suggestive of the smell proper to peat, or to horse excreta. This stink is especially manifested when the refuse is disturbed in process of removal from the receptacle to the wagon -the bottom layer in the receptacle forming the top layer of the load. With a view to reduce the annoyance to the public, and particularly to persons living in the vicinity of the stables, your Vestry, on my advice, induced the London General Omnibus Company to place a vehicle in each of their yards

<sup>\*</sup>The Committee had before them a number of letters of complaint from parishioners making complaint of the nuisance arising in the removal of peat manure (vide Minutes of the Vestry pp 406-7). Their recommendation was—"That the London County Council be informed that this Vestry concur in the desirability of the bye-law referred to in their letter being extended so as to include the removal of peat litter within its provisions." An amendment was carried in the Vestry (by 33 to 22) that before the word "concur" the words "do not" be inserted.

in this parish for the reception of the refuse on removal from the stables, so that it might be taken away without further disturbance. The result, so far, has been satisfactory, few complaints having been received. It remains to be seen, however, what will happen on the return of hot weather.

But to resume. With a view to bring pressure to bear upon the County Council, and so prevent the abolition of the proviso to the bye-law, a "London Horse Owners' Committee" was formed, with the solicitors to the London General Omnibus Company as secretaries, the object being "to protect the interests of all horse owners using peat moss litter, especially with regard to the threatened action of the London County Council with reference thereto." Under the heading

"THE USE OF PEAT MOSS LITTER,"

this Committee addressed a circular letter to the members of the London County Council, and the sanitary authorities, setting out their views with reference to the proposal that "peat moss manure should, by bye-law, be placed in the category of offensive or noxious matter, under the provisions of Section 16 of the Public Health (London) Act 1991; and

category of offensive or noxious matter, under the provisions of Section 16 of the Public Health (London) Act, 1891; and that it shall only be removed between the hours of 4 and 10 a.m., and in specially constructed vans." The committee, in their manifesto, after stating that the authorities named "cannot have realised the tremendous injury that would be inflicted on them by the proposed action, proceed to set out "some of the advantages of peat moss over straw as litter." Among these "advantages," they allege that "peat moss acts as a disinfectant and a deodorizer," and is "a far more active absorbent than straw;" from which it is a natural inference that peat manure is less offensive than straw manure. allegation cannot be accepted, the main ground for the desire to control the removal of peat manure being its special offensiveness. The committee are on safer ground when dealing with the question of time of removal; but the hours

"4 to 10 a.m," in the London County Council's bye-law, apply

to eight months only in the year, the hours in the remaining four months being 6 a.m. to 12 noon. They set out the difficulties which removal "in the early morning,"-referring of course to the earliest hours-would entail, and some of these are very real, and then proceed to state that "no benefit would accrue to the public by the early removal." I am in this respect disposed to agree with the committee, who cite me as "a keen opponent of peat moss manure" (which I am not) and as being "more concerned about the method of removal than as to the time at which removal is effected "-as I am. In my tenth report, quoted by the committee, after a reference to nuisance arising out of the use of peat moss litter, meaning, as the context plainly shows, in its removal, and to the action of the London General Omnibus Company in placing vehicles in their yards to receive the manure upon removal from the stables, thus avoiding the main cause of nuisance, viz., disturbance at the time of removal-I expressed a hope "that the County Council would arrive at the decision to require . . . . that this 'offensive matter' shall be conveyed through London streets in a suitable carriage or vessel, properly constructed, and furnished with a sufficient covering, so as to prevent the escape of any such (offensive) matter or liquid therefrom, and so as to prevent any nuisance arising therefrom," these being the provisions of the bye-law relating to the carriage of offensive matter through streets; horse dung manure (but not cow dung manure) being exempted by the proviso from the operation of the bye-law. All that the committee say upon this subject is, that "the providing of special vans would be an expense amounting in many cases to a positive hardship." The same objection (quantum valeat) might be made in respect to the provision of "special vans" for the removal of offensive matter generally; but I submit that it should not be allowed to prevail as against the interests of public health, and the comfort of persons living in the vicinity of the large stables belonging to omnibus and other like companies.

No decision in the matter has, at present, been arrived at,

### NUISANCE FROM GAS WORKS.

Several complaints were received during the year of nuisance from the gas works at Kensal Green—a subject fully dealt with in the annual report for 1894 (page 166). There can be no doubt as to the genuineness of the complaints, which receive confirmation from Willesden, the inhabitants of that district suffering when Kensington people have no ground for complaint, and vice versa; the incidence of nuisance varying with change in the direction of the wind. The matter having been referred to the Law and Parliamentary Committee, they reported that—

"By section 29 of the Gas Works Clauses Act, 1847, which applies to the Gas Light and Coke Company, the Company is not to be exempted from indictment for nuisance, or any other legal proceeding to which they may be liable, in consequence of making or supplying gas; and in a case decided in 1877, it was held that a Gas Company was not entitled to create a nuisance in exercising their statutory powers or in carrying out their statutory obligations (Attorney-General v. Gas Light and Coke Company, 7 Ch. D. 217)."

The Committee therefore advised the Sanitary Committee that "if there be evidence of a substantial public nuisance caused by the Gas Light and Coke Company, the Vestry are entitled to proceed by indictment, or for an injunction to secure its abatement."

Accordingly, your Vestry addressed a communication to the Company calling their attention to the complaints and intimating that observation would be kept up, so that on any recurrence of the nuisance proceedings may be instituted in regard thereto. A reply was received from the Company stating that, while objectionable smells did proceed at times from the Company's Works at Kensal Green—such smells being caused by the elimination of sulphur impurities from the gas, according to the stringent requirements of the Metropolitan Gas Referees—every known appliance for the prevention of nuisance was adopted by them; and suggesting that the Gas Referees be communicated with, with a view to a visit being made to the works on their behalf, when the Company were of opinion the Referees would be able to satisfy the Vestry that the best possible system was being carried out, or, in the case of a suggested improvement, the directors of the Company would immediately give instructions for its adoption.

To the Company's letter a reply was sent, in November, intimating that the Vestry adhered to the position taken up with regard to the legal responsibility of the Company to see that no nuisance shall arise from smells from their works, and left it to the Company to appeal to the Gas Referees, if they thought any useful purpose would be served by their so doing. That the cause of nuisance is more or less within control would appear from the intermittency of the complaints, and as the smells are at times not perceptible to any painful extent in the vicinity of the works.

### THE PUBLIC MORTUARY.

During the year 275 bodies were deposited at the public mortuary, upon application as follows:—

1.	At the request of the relatives of the deceased	2
2.	At the request of undertakers	54
3.	At the request of the Coroner (inquest cases)	
	Cases of sudden death 135	
	Cases of violent death 63	
		198
4.	Brought in by the police {Found dead 13 Accident cases 4	
		17
5.	On account of death due to infectious disease	4
		275

In 111 of the above cases post-mortem examinations were made, mainly under the Coroner's warrant.

## INQUESTS AND CORONER'S COURT.

During the past six years no inquest in this parish has been held at a public house; and practically all inquests are now held at the Town Hall, in a room placed at the service of the Coroner by your Vestry. A suitable court in the new buildings at the rear of the Town Hall is now approaching completion. For the use of this court the County Council will pay an agreed rent under an arrangement authorised by section 92 of the Public Health (London) Act, 1891.

### DISINFECTION.

The Public Health (London) Act, 1891, imposes additional duties on the sanitary authority in the matter of disinfection, the practical effect of the legislation of late years having been to throw upon the rates the cost of disinfecting houses, and cleansing and disinfecting bedding, clothing, &c. The cost of this work has increased since the Act came into operation at the beginning of 1892: the amount expended in 1898 was £717, as compared with £381 in 1891. In the latter year the weight of the articles disinfected was under twenty tons, and their number about 9,400 only; whereas in 1898, 19,473 articles were dealt with, of an aggregate weight of 37 tons 8 cwt. Seven hundred and ninety-six rooms, in 713 houses, were disinfected after infectious disease by your Vestry's staff, as compared with 364 in 1891.

In the report for 1893 (pp. 215-217), under the heading "Duties of the Sanitary Authority with respect to Disinfection," I explained the state of the law, and described your Vestry's practice in regard to this matter. I need only observe now, that the expenditure on disinfection, including cleansing of clothing, bedding, &c., will necessarily vary from year to year, in proportion to the relative prevalence of infectious disease; but under existing arrangements it is likely to increase as the public become better acquainted with the provisions of the Act. I append a statement of the monthly cost of this work in 1898, amounting, as before stated, to £717, irrespective of the wages of the disinfector, as compared with £381 in 1891:—

			£	S.	d.
January	***	 	 58	4	11
February		 	 47	2	5
March		 	 -62	19	4
April		 	 56	12	2
May		 	 54	1	11

June	]	 	 54	14	1
July		 	 62	0	5
August		 	 57	7	1
September		 	 77	8	9
October		 	 62	17	11
November		 	 67	7	6
December		 	 56	14	5

The expenditure under this head is too great, and, as I have reported, on several occasions, might be reduced by some hundreds of pounds per annum, were the work done without the intervention of a contractor, as recommended by the London County Council and by the Metropolitan Asylums Board. The money that might thus be saved could be put to good use in making provision for carrying out, more thoroughly, the duties of the sanitary authority, viz., by the appointment of additional inspectors.

DISINFECTING STATION .- The question of the "desirability of erecting a disinfecting station, and providing a Shelter for persons displaced from their homes during the progress of disinfecting work," was referred by your Vestry to the sanitary committee, who reported thereon in July, 1896. A sub-committee had been appointed to view stations and shelters. One of the places visited was Islington, where, as the sub-committee reported, "the Vestry have provided a most complete station, comprising two Nottingham disinfectors, and ample laundry accommodation for washing and cleansing articles when necessary. A shelter-house to accommodate four families has also been provided, and a small house erected for the use of the engineer and his wife, who are in charge of the station. The total cost of this station," it was added, "without charge for land, amounted to about £4,500, made up as follows: - Disinfectors, Laundry, Chimney Shaft, Paving and Drainage, £3,500; Shelter and Caretaker's House £1,000;

and the annual expenditure amounts to £350 per annum." The report further stated that the cost of disinfecting and cleansing of infected articles in Kensington, in the three years 1893-95, had been £2,988, or on an average about £1,000 a year (irrespective of the wages of disinfecting officers); a sum which was largely exceeded in 1896, £1,361 having been paid to the contractor in that year. Information which I laid before the committee went to show that a station and a shelter could be erected for a less amount than had been expended at Islington, and that some hundreds of pounds per annum might be saved on the present cost of disinfection. But "as a result of the committee's consideration of the matter," they came to the conclusion, but upon what grounds I do not know, that "it is not desirable that the Vestry should provide their own disinfecting station in the parish, but that the disinfecting and cleansing of clothing, bedding, &c., should continue to be entrusted to the present contractors." The committee accordingly recommended "that no variation be made in the arrangements at present in force for the execution of this work," and their report was adopted.

# TEMPORARY SHELTER OR HOUSE ACCOMMODATION.

The Public Health (London) Act, 1891 (section 60, subsection 4) imposes on the sanitary authority the duty of making provision for housing poor persons turned out of their homes during the time necessary for disinfection after infectious disease. The sub-section is to the following effect:—

"The Sanitary Authority shall provide, free of charge, temporary shelter or house accommodation, with any necessary attendants, for the members of any family in which any dangerous infectious disease has appeared, and who have been compelled to leave their dwellings for the purpose of enabling such dwellings to be disinfected by the Sanitary Authority."

Several of the sanitary authorities in the metropolis have failed, so far, to perform this duty. The need for such provision is sufficiently indicated by the fact that in this parish, in 1898, 124 cases of infectious disease occurred in families in occupation of three rooms only; 210 cases in families occupying two rooms, and 80 cases in families herded in single rooms. Of the sufferers in families living in single rooms, 44 had scarlet fever, 18 had diphtheria, and 18 had typhoid fever. It need hardly be said that the need of shelter is imperative in the case of families living in single rooms. This subject was referred to the sanitary committee, who requested me to report as to any premises which the Vestry might obtain for the purpose referred to-meaning the hiring of one or more houses. No suitable premises have been found, and in my opinion the only satisfactory plan would be to erect a shelter and provide it with a proper equipment. Such provision could be most economically made in connection with a public disinfecting station. In the absence of accommodation, the sanitary inspectors have been authorised to pay for lodgings for people dispossessed of their home during the process of disinfection. It is, however, not easy to obtain accommodation for the people, many of whom, being respectable, object to go to a

common lodging-house, where, indeed, they would be neither welcome nor, in their infective condition, desirable guests. The best solution to the existing difficulty would be found in compliance with the provisions of the law—in the interests of public health and humanity alike.

## CLEANSING OF PERSONS ACT, 1897.

An Act thus intituled, passed during the session of 1897, gives power to any local authority to permit any person infested with vermin, to have the use of the apparatus (if any) which the authority possess, for cleansing the person and his clothing, and provides that local authorities may expend any reasonable sum on buildings, appliances, and attendants, that may be required for the carrying out of the Act. Nominal effect was given to the Act in this parish by an arrangement entered into with the Guardians, whereby cleansing and disinfecting apparatus at the able-bodied workhouse, Mary Place, Potteries, was made available on payment of a small fee by your Vestry. Little use has been made of the said apparatus, probably because no steps have been taken to make known the arrangement entered into with the Guardians. In the parish of St. Marylebone, the Vestry having provided a proper equipment, thousands of cleansing operations are carried out in the course of the year, much, doubtless, to the comfort of dirty and verminous persons.

## PUBLIC BATHS AND WASHHOUSES.

The baths and washhouses at the junction of Lancaster-road and Silchester-road, Notting-hill, opened in April, 1888, are well supported: the washers in the twelve months ended 25th March, 1899, were 63,743; a decrease of 604 compared with the number in the preceding official year; the bathers, 103,566; a decrease of 7,291. But it must be admitted that, for the great majority of parishioners, the site is not sufficiently central for baths, and obviously it is too remote for use for washing purposes. The same objection would apply, more or less, to

any single site in the parish. Much good might be effected by the provision of buildings, on a modest scale, in convenient localities, to which the poor could resort for the purpose of washing clothing, &c. The statistics contained in the successive annual reports of the commissioners for baths and washhouses, show a constantly increasing use to be made of the washhouses, and are of a nature to encourage the hope that it may be found practicable to provide, at no distant date, for the wants of the poor in the central and southern districts of the parish.

## PUBLIC SANITARY CONVENIENCES.

There are only 20 public urinals in the parish—a very inadequate provision, which, however, is supplemented by about 170 urinals at public-houses, to which the general public have access. This more or less public accommodation is not of a satisfactory sort, as a rule, but it is better than none at all, and was improved as the result of proceedings taken by your Vestry in 1888 and subsequently. There are three sets of public water-closets, for the male sex only, situated, respectively, at the rear of the central public library in High-street; at the west-end of Westbourne-grove, Notting-hill, and in the Old Brompton-road, opposite the Bell and Horns tavern. Sanitary authorities have now ample power to make provision of this sort, section 88 of the Metropolis Management Act, 1855, enabling them "to provide and maintain urinals, waterclosets, and like conveniences for both sexes, in situations where they deem such accommodation to be required." Suitable sites exist; none better, perhaps, or where provision of the kind is more needed, than in Kensington High-street, opposite the Parish Church. Here an underground retiring place for both sexes might be constructed without giving rise to nuisance in any sense of the word. Increased powers were conferred by the Public Health (London) Act, 1891, which, to facilitate the construction of underground conveniences, vests the subsoil of roadways in the sanitary authority, who, moreover, have power to compensate persons injured by the erection of these conveniences near to their houses, &c.

### WATER SUPPLY.

There is little to be said that is fresh upon the subject of the water supply of the metropolis. The County Council are persistent in endeavours to get possession of the Companies' Undertakings, and to obtain a supply of water from Wales. Royal Commissions sit and report, and Bills are introduced into Parliament; but matters still remain in statu quo. The Commission appointed in 1898, have not yet presented their report on the reference, which involved the following points:—

- (a) Whether it is desirable in the interests of the Ratepayers and Water Companies that the Undertakings of the Companies should be acquired and managed either by one Authority or by several Authorities. And if so, what should be such Authority or Authorities.
- (b) If the Undertakings are not acquired, whether additional powers of control should be exercised by Local or other Authorities, and if so, what those powers should be.
- (c) As to the practicability of connecting any two or more of the different systems of supply now administered by the eight Metropolitan Companies.

Your Vestry have repeatedly, during recent years, expressed disapproval of the proposed purchase of the Undertakings of the water companies by the London County Council, favouring rather, as an alternative course, the promotion of legislation, by which a central body, representing the rate-payers of the whole of the area of supply of the companies, should be vested with such powers of control and supervision as would, without necessitating the purchase of the undertakings, give to the consumers a directing influence in regard to all schemes for the extension of supply in the future, as well as statutory powers for regulating the system and manner of distribution, such as Parliament has, in times subsequent to the granting of Water Acts, imposed on similar private undertakings for public purposes.

The following resolution which was adopted on the 8th May, 1895, may be here cited as embodying the most recent declaration by your Vestry as to the policy suitable to be adopted, viz.:—

"That in the opinion of the Vestry, it is desirable that legislation should be promoted which shall have the effect of bringing the Undertakings of the Water Companies which now supply the metropolis, under the supervision and inspection, with powers of regulation, of a central body representing the Ratepayers, by which, in return for the rights conferred on the Companies, and without hampering their operations within the area of supply of each, the system of distribution may be rendered thoroughly efficient in all weathers, and universally intercommunicating."

Adhering to the opinion expressed in this resolution, your Vestry addressed a communication to the Royal Commission setting forth the terms of the above resolution as being the views of your Vestry on the subject.

The question of water supply is of importance, affecting as it does the interests of public health, and the material interests of the people of the Metropolis, and of the surrounding districts within the areas served by the several Companies. Constant supply is now nearly universal; and that the public at large are not seriously dissatisfied with the existing arrangements may be inferred from the fact that during the year only one complaint, to be subsequently referred to, was received in my department with regard to the quality of the water, and not one as to insufficiency of supply.\* Personally, I consider that, in quality and condition, the water as supplied by the three local Companies (West Middlesex, Grand Junction, and Chelsea), is fairly satisfactory. I would not say, great as

<sup>\*</sup> Complaint was made with respect to the water of a well, used for all purposes, at St. George's-mews. The water was analysed, and being found to be "polluted with matter partaking of the nature of sewage," and therefore "unfit for drinking and domestic purposes," proceedings were taken which resulted in the closure of the well and provision of a supply of water by the Company.

have been the improvements already effected, in regard to filtration and otherwise, that there is not further room for improvement. And it is to be presumed that the Companies, under the guidance of their skilled advisers, will do whatever may be proved to be necessary for removing any remaining cause for complaint. I should particularly welcome one improvement, which has been advocated in these reports for many years, viz., the adoption of Clark's softening process, which would, I believe, have a distinctly beneficial effect upon the quality of the water, whilst removing an objection to it, upon economical grounds, which is always referred to by Professor Sir Edward Frankland, F.R.S., in his annual report on the water supply of the metropolis, appended to the Annual Summary of the Registrar-General, which, for 1898, had not been published when the present report went to press. To sum up, I see no reason for varying the opinion expressed in many former reports, that the water supply of the metropolis, from existing and projected sources, is capable of being made everything that can be desired, so as to satisfy the reasonable requirements of its vast population.

DEAD ENDS OF MAINS.—The solitary complaint with respect to the water supply, above adverted to, proceeded from the public analyst, who examines the supplies of the several companies monthly. It was with reference to a sample taken at a house in St. James's-square, his report thereon being to the effect that "the sample consisted of water polluted, and totally unfit for public supply and drinking purposes." The Grand Junction Water Works Company, who supply the district, upon being communicated with, took exception, not without some reason, to the source from which the sample was taken, being of opinion that "a sample of water drawn from such a place, and under such conditions, would be very unlikely to be a fair sample of the water as delivered from the Company's main." They stated that they had received

no communication from their own analysts with reference to their water, which is analysed daily by those gentlemen-Sir William Crookes and Professor Dewar, chemists of high professional reputation. Other samples were subsequently taken from houses in the square and examined by the public analyst, who had again to make an unfavourable report. Your Vestry applied to the Local Government Board to have reserve samples examined by Sir Edward Frankland. The Board's reply was to the effect that they "could not undertake to arrange for the analysis by Sir E. Frankland of samples of water supplied by the Vestry." The Special Purposes Committee had an interview with the secretary and the engineer to the Company, and inspected the plan of the mains in the district-it being a statutory duty of the Company to provide such plans, which are required to be open to the inspection of all persons interested. Examination of the plan revealed the fact that, practically, though not actually, the main from which the samples had been taken terminates in a "dead-end," a condition of things which tends to sluggishness of flow of the contained water, and to the growth of organisms, unless the main is flushed and cleansed with sufficient frequency. The officers of the Company stated that this was done, and no doubt proper instructions are given. But in the case in point, these instructions may not have been carried out; in other words the main may not have been flushed and cleansed with necessary frequency. The engineer admitted the necessity for this treatment, and promised that the matter should receive proper attention. The samples of water submitted for examination by the Company's analysts are taken from a stand-pipe, and from a main in which the flow is active and practically incessant. The analysts' report for each day in the month was favourable, every sample being returned as "clear." But such a report, upon samples of water taken under the prescribed conditions, is not inconsistent with impurity of a supply derived from a subsidiary pipe conditioned like that in St. James's-square. There can be no doubt, moreover, that danger to the public health is involved in circumstances which tend to retard the flow of water by dead-ends of mains. The engineer stated that the Company were, and for some time past had been, engaged in abolishing the dead-ends, and it is to be hoped that the recent stir will have the desired effect of stimulating their activity in this direction. Sir Edward Frankland had occasion, not long since, to direct attention to the ill effects of dead-ends of mains, in a report on the water supply at Paisley, where an epidemic of enteric fever was probably due to a gross defect in the apparatus for flushing dead-ends.\* The conclusions of this analyst with reference to dead ends, as set out in his report on the Paisley case, are as follows:—

- "I. That chemical analysis has shown the water in the dead ends of the mains to be organically somewhat inferior to that circulating in the trunk mains, both of the high and low level services.
- "2. That the bacteriological examination has shewn the water in the dead ends of the mains to be, in almost every case, somewhat richer in bacterial life than the water circulating in the large mains of both supplies.
- "3. That colon bacilli, and other forms more or less resembling the typhoid bacilli, have been found in six of the twelve samples collected from the taps in the affected area, whilst no suspicious forms were discoverable in the two samples taken from the trunk mains.
- "4. That all the four samples taken from plugs inserted in the dead ends of mains in the affected area contained colon bacilli.
- "5. That whilst the results referred to above do not actually prove a connection between the water supply and the recent epidemic, they are obviously quite in harmony with the existence of such a connection.

<sup>\*</sup>The defect referred to consisted in the "system which prevails in Paisley of making a direct connection between the water mains and the sewers," described by Sir Edward Frankland as one of the most serious breaches of the laws of hygiene" which he had met with in the whole course of his experience, "and which it is impossible to condemn in sufficiently strong terms,"

"6. That on general grounds the water in the dead ends of mains is most calculated to cause mischief, because in the event of any dangerous contamination of a water supply having taken place, the morbific material (typhoid bacilli) will tend, not only to accumulate in such areas of sluggish circulation, but they will also remain there for a longer period of time than in any other part of the network of mains. The water consumer in such an area will, therefore, not only be more likely to receive typhoid bacilli, but will receive them in larger numbers and over a longer period of time, and there is thus a greater probability of his infection being secured. These considerations show the high importance of the regular and frequent flushing of all such dead ends being carried out, and the serious danger to the water consumer of any want of attention to this duty."

It is right to say that typhoid bacilli have never been isolated from the water supplied by any metropolitan company. None such were found in the samples reported on by the public analyst, nor were any discovered in the Paisley water; but the final observation by Sir Edward Frankland contains a warning, as to the danger of dead-ends, which should be taken to heart; for whilst "unable to pronounce any authoritative judgment as to the origin of the recent epidemic," he was of opinion "that the remarkable restriction of the epidemic to an area in which an extraordinarily large number of deadends of the water mains occur, points to particular dangers attending such dead-ends," to which he had referred in his report as being "a causa sufficiens of the mischief." The lesson to be learned from our recent experience, perhaps, is that water for examination by the public analyst should be collected from the smaller mains and near to dead-ends. If the water proves to be satisfactory in such localities, there will be no question of its fitness for potable use in trunk mains where the flow is active and constant.

CUTTING-OFF POWERS OF THE COMPANIES.—The Public Health (London) Act, 1891, sec. 49, gives effect to the recommendation made in these reports, many years ago, that a metropolitan water company should be required to give infor-

mation to the sanitary authority, when, from any cause, they had exercised their statutory right to cut-off the water supply of an occupied dwelling-house. Every company is now required to give such notice within twenty-four hours after exercising the said right, under liability to a fine not exceeding ten pounds for default. The power to cut-off the supply is, no doubt, of some value to the companies, for "an occupied house without a proper and sufficient supply of water," is "deemed unfit for human habitation" (sec. 48). In all such cases reported by the several companies, the sanitary authority are obliged to take steps to ensure restoration of the supplywhich is necessarily preceded by the payment of the company's rate. The cutting-off powers were materially limited in 1887, by the Water Companies (Regulation of Powers) Act, which is described as "an Act to limit the powers of the water companies to cut-off the tenant's water supply when the rate is paid by the landlord," as is very generally the case in regard to tenement houses, and houses otherwise occupied in lodgings, etc., by the poorer classes. The beneficent result of this legislation, which had been advocated in these reports many years previously, is that the water supply of the poor is generally secured, and that without loss to the companies. Surely the time has come that the power to cut-off the supply from an occupied house should cease; and that, as I suggested, in 1882, "the company should be left to their remedy for the recovery of the rate as a debt, like other traders," and not be allowed to create a dangerous nuisance merely as a coercive measure for securing the payment of the rate. One enlightened company, the East London, resolved some years ago to abandon the barbarous practice of cutting-off; and, I am informed by the secretary, have had no cause to regret the decision. They sue the defaulter, and the result is stated to be, on the whole, "highly satisfactory." The New River Company also, I understand, summons largely in preference to cutting-off, and other companies now, probably, are following suit. Defaulters are summoned in the police court; but the magistrates have no jurisdiction unless the company proceed within six months of the debt becoming due; and the debt, i.e., the rate, is due in advance. Inasmuch, therefore, as the companies only collect half-yearly, they must proceed before the expiration of the six months, and hence have to sue before the second quarter has expired, which appears to be a hardship. If greater facilities were given to the companies for recovering the rate, probably they would be willing to waive their right to cut-off the supply, or consent to its abolition. A question of this sort probably does not come within the limits of the enquiry now being made by the Royal Commission on Water-supply. It might, nevertheless, be brought to their attention, for, from the public health point of view, it is one of great importance.

NUISANCE FROM CUTTING-OFF.—As above stated, a technical nuisance is created by cutting-off the water supply. Actual nuisance also may result, of which a striking instance occurred last year at Hooper's-court and Garden-row Knightsbridge. This property, since demolished, comprised thirty-four little houses built, many years ago, on garden spaces at the rear of houses in Brompton-road, a few doors west of Sloanestreet. On the 21st March, the weekly tenants living at Hooper'scourt (Nos. 7 to 26) and Garden-row, to the number of 140, received a week's notice to quit the houses of which many of them had been in occupation for many years. They were respectable people who paid their rent and found employment in the locality. Needless to say, great distress was caused by the requirement to leave, owing to the difficulty of finding new homes. Some of the people succeeded in doing this; others, in occupation of eleven houses, lingered on after the 28th, trying their best to find lodgings within a convenient distance of their work. Technically, of course, they were trespassers. In order to get them out, by making their homes unfit for human habitation, the Chelsea Water Works Company were ordered by

the owner to cut-off the water supply, for which he was liable under "Forrest Fulton's Act."\* The order, given on 13th April, and executed on the 21st, gave rise to an abominable nuisance by the choking of the water-closets, the pans of which became full and overflowed. The matter was brought to the attention of the sanitary committee, who directed the issue of two notices; one requiring the owner to lay on the water, and the other requiring him to unstop the choked water-closets, within two days. The surveyor was instructed to have these closets unstopped, in the event of failure on the part of the owner, the cost of the work to be charged to the owner, who, as owner, was liable for the abatement of the nuisance. Whether the owner could have been made to restore the water supply is doubtful. Had the tenants been in legal possession, the company could not have deprived the houses of water had the owner failed to pay the rate. Forrest Fulton's Act would have prevented this. Having regard to the circumstances above set out, I hoped that the company would have turned on the water for the use of the people for the short time they were likely to remain in the house; the cost to them of such an act of benevolence, not to say humanity, would have been infinitesimal and inappreciable. But they refused, the secretary stating that "the withdrawal of the supplies by the company, on the order of the owner, was undoubtedly legal, having regard to the provisions of 'Forrest Fulton's Act.' " The owner did not discharge his liability to the Company, and the water was not turned on. As the result of proceedings threatened, the owner managed to get the people out, and the dwellings were closed, and pulled down to make way for so-called " mausions."

THE "WATER FAMINE" IN EAST LONDON.—During the summer, and for many weeks, complaints loud and persistent were made of deficiency of supply in the district of the East

<sup>\*</sup> The Water-Companies (Regulation of Powers) Act, 1887, is commonly known by this title.

London Water Works Company. Not that enough water was not pumped into the district; for, as far as one can judge, the so-called "famine" would appear to have been the result of the very general abolition of domestic storage cisterns in the area supplied by the company. In the districts of the other companies, the use of cisterns is general, if not universal. Were it otherwise, there would probably have been a "water famine" in some, if not in all, of those districts, more or less, if not to the same extent as in the area supplied by the East London Company. Cisterns should always be provided for storage of water for ordinary domestic purposes-for cleansing, and for the flushing of water-closets, drains, &c. But water for potable use should be drawn direct from the main by means of a tap on the house service-pipe. The quantity of water alleged to have been supplied, in four hours daily, by the East London Company-some 24 gallons per head of the population-was \* reasonably sufficient for all purposes and occasions, could it only have been properly utilized. Subject to the provision of storage cisterns, and in the absence of excessive waste-wilful or otherwise—such an amount would probably allow of the continuance of a constant service. Time was, well within my recollection, that the water was "turned-on" in this parish for less than an hour once daily. Every house being provided with cisternage, the supply was ample, but certainly not nearly to the amount of 24 gallons per head of the population. Take away the cisterns and "water-famine might become general in such an exceptional season as that of 1898, and after prolonged deficiency in rainfall. Restore to East London the means of domestic storage; enforce the provisions of law against waste, and we shall probably not again hear of a "water famine" in that district. Any danger of this kind, however, will be minimised in the future, it being the intention of the Local Government Board to promote legislation to secure inter-communication of the mains of the several companies, so

that in the event of a short supply in any particular district, the deficiency will be made good out of the abundance of other districts.

CONCLUSION.—In bringing this my twenty-ninth annual report to a conclusion, I desire to acknowledge the valuable assistance received from Mr. E. R. Hill, first assistant-clerk in the Public Health Department, more particularly in the collation of statistics. I desire also to bear testimony to the good work of the staff generally, and not least to that of the sanitary inspectors, which has been carried out as efficiently as was possible, having regard to the limited number of those officers, and to the vastness and variety of the duties devolved on your Vestry by the authority of Parliament.

I am Gentlemen,
Your obedient servant,
T. ORME DUDFIELD,

Medical Officer of Health.

Public Health Department, Town Hall, Kensington, W. March, 1899.



## APPENDIX.

Note—The Forms for Tables I. to VI. inclusive, were arranged by the Society of Medical Officers of Health, with the object of securing uniformity in Statistical Returns.

### TABLE I.

Showing Population, Inhabited Houses, Marriages, Births, and Deaths, in 1898 and in the preceding ten years: gross numbers.

		No. of			DEATHS.				
The Year.		Total, all Ages ‡	Under One Year.	Under Five Years.	In Pub- lic Insti- tutions.§				
1898	172.000	22,700	1,648	3,633	2,798	655	1.039	782	
1897	170,700	22,669	1,681	3,683	2,667	609	912	839	
1896	170,000	22,576	1,706	3,717	2,891	656	1,111	817	
1895	169,300	22,483	1,455	3,621	2,748	624	951	762	
1894	168,600	22,390	1,537	3,665	2,623	636	1,022	749	
1893	167,900	22,297	1,540	3 661	2,916	625	965	740	
1892	167,200	22,204	1,584	3,718	2,882	587	972	687	
1891	166,500	22,084	1,569	3,847	3,066	633	968	773	
1890	166,080	21,800	1,511	3,864	2,951	651	1,095	612	
1889	165,760	21,700	1,491	3,698	2,412	489	789	570	
1888	165,450	21,600	1,497	3,776	2,825	604	1,077	590	
Average, 10 years 1888-97.	167,749	-	1,557	3,725	2,798	611	986	714	

Notes.—Census Population in 1861, 70,108; in 1871, 120,299; in 1881, 163,151; in 1891, 166, 308; in 1896, 170,465.

Average Number of Persons to each house at Census: in 1861, 7'4; in 1871, 7'6; in 1881, 8.1; in 1891, 7.53.

Area of Parish, 2,190 acres. Number of persons to an acre (1898) 78.5.

<sup>\*</sup>For statistical purposes the population is estimated to the middle of the year, on the basis of the rate of increase in the preceding inter-censal period, checked by the number of inhabited houses, and by the average number of persons per house, as ascertained at the last census.

<sup>†</sup> The data are somewhat unreliable. The census number, which includes houses occupied only by caretakers, is given for 1891. The number in the years 1892-98, has been calculated upon the assumption of an average number of 7:53 persons to each house as ascertained at the census in 1891.

<sup>#</sup> Inclusive of the deaths of parishioners at public institutions without the Parish, but exclusive of the deaths of non-parishioners at public institutions within the Parish.

<sup>§</sup> Viz. : At the Parish Infirmary, &c., and outlying public institutions, including the Asylums Board Hospitals.

### TABLE II.

Showing the Annual Birth-rate and Death-rate; Death-rates of Children; and Proportion of Deaths in Public Institutions. to 1,000 Deaths, for the year 1898, and the preceding ten years.

The Year.	Birth-rate per 1,000 of the Population.	Death-rate per 1,000 of the Population.	Deaths of Children under one year; per 1,000 of Registered Births.	Deaths of Children under one year; per 1,000 of Total Deaths.	Deaths of Children under five years; per 1,000 of Total Deaths.	Deaths in Public Institutions; per 1,000 of Total Deaths.*
1898.	21:1	16-3	180	234	371	279
1897	21.6	15.6	165	229	342	315
1896	21.4	16.7	176	227	384	283
1895	21.4	16.2	172	227	346	277
1894	21.7	15.6	174	242	389	285
1893	21.8	17.4	170	214	331	254
1892	22.2	17.2	158	204	337	238
1891	23.1	18.4	164	206	315	252
1890	23.3	17.8	168	221	371	207
1889	22.3	14.6	132	203	327	236
1888	22.8	17.1	160	214	381	208
Average of ' 10 years, 1888-1897.	22.2	16.7	164	219	352	255

<sup>\*</sup> Includes Deaths of Parishioners at outlying Public Institutions, but excludes Deaths of Non-Parishioners at Brompton Consumption Hospital, St. Marylebone Infirmary, Notting-hill, &c.

#### Deaths registered from all causes in the year 1898.

(Exclusive of the Deaths of Non-Parishioners at Public Institutions within the Parish, but inclusive of the Deaths of Parishioners at Public Institutions, etc., without the Parish.)

For	a Si	ummar	y of	this 2	Table .	see pa	ge 61.									
						AGES.						Five Fe.	Te .	SUB-D	ISTRICT	
CAUSES OF DEATH.	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 5	85 and upwards.	Total under Fix Vears of Age.	Grand Total All Ages,	Kensington Town.	Brompton,	
CLASSES.  I. SPECIFIC FEBRILE of ZYMOTIC DISEASES II. PARASITIC DISEASES	149	175	14	7	12	12	21	19	19	17	4	324	449	387	62	011
III. DIETETIC DISEASES IV. CONSTITUTIONAL DISEASES V. DEVELOPMENTAL DISEASES VI. LOCAL DISEASES VII. DEATHS FROM VIOLENCE VIII. DEATHS FROM ILL-DEFINED AND NOT	1 47 90 251 23	52 1 138 9	30 24 6	39 38 5	56 61 4	5 88  90 3	10 96  137 8	3 79 3 188 10	1 59 19 214 1	29 78 150 6	3 37 33 2	1 99 91 389 32	25 578 228 1324 77	20 475 181 1070 62	5 103 47 254 15	
SPECIFIED CAUSES	94 655	9 384	74	90	137	1	273	302	317	8 288	79	103	117	107	10	
I. SPECIFIC FEBRILE or ZYMOTIC DISEASES.  ORDER 1.—MIASMATIC DISEASES.  Small-pox Measles Scarlet Fever Typhus Whooping-cough Diphtheria Simple Continued or Ill-defined Fever Enteric or Typhoid Fever Other Miasmatic Diseases—Influenza	25 1  23 2	90 16  29 20 	5 5  3 	1	 1 1  		  1  2 10					115 17  52 22  5	2798  120 23 2 52 26  12 71	112 18 2 49 23  9 48	**************************************	
				1111							-					
2,—DIARRHŒAL DISEASES.  Simple Cholera	3 76 	1 17 			·i		1 6	1	···	2	2	4 93 	5 108 1 1	4 97	1 11 1	

												1		- 1	1	
2.—DIARRHIEAL DISEASES-	- 1									- 10			4	5	4	I
Simple Cholera		3	1	411	444	***	211	6	441	14	2	2	93	108	97	11
Diarrhoea, Dysentery		76	17	***	**	1	***	0	***	- 4		-		100	7.0	
3.—MALARIAL DISEASES.													100	7		1
		***		414	***	100	444	111	1	200	48	***	***	1		1
Remittent Fever			***	***		0.00	44	444	011	1	244	***	***	*	***	
4.—Zoogenous Diseases.					***		444	***	***	111	222	***	10.0	- 444	400	0.00
Cow-Pox, and effects of Vaccination			22222				44	***		450	***	**	444	121	444	++
Other Diseases (c.g., Hydrophobia, Glanders, Spieme Fe	ver)			***												
5.—VENEREAL DISEASES.		12	2			1	- 100	1			177	2413	14	16	14	2
Syphilis		12		***						444			100	***	111	0.00
Gonorrhoea, Stricture of the Urethra	- 11	9.0	***	995	***	***								100	100	
6.—Septic Diseases.			1000				1		3	1		200	2	7	7	441
Erysipelas		2	***	100	***	* ***				***					-	44
Pyzemia, Septiczemia		***	101	444	***	**	41.5	***	**			***		5	4	1
Puerperal Fever		***	444	4.40	1	3	1		-00-	411	***	111	110			
Pherperal Pever		-				-	2.0	10.7	30	19	17	4	324	449	387	62
		149	175	14	7	12	12	21	19	10	1.6		U.S. W	***		-
	_	-								-			-	1		
II.—PARASITIC DISEASES.													200			
Thrush, and other Vegetable Parasitic Diseases				111		100	100	100	444	1111	***	***	***	1230		
Worms, Hydatids, and other Animal Parasitic Diseases				4++	437	111	100	100	100	111	411	***		***	***	***
Worms, Hydatids, and other Annual Parasite Discusses						-		-			100					
			***			***	444	***	411	111	11	***	1111	-400	(11)	***
					-		-									-
III.—DIETETIC DISEASES.														-	4	
III.—DIETETIC DISEASES.		1	-			111	***	111	444	111	2000	***	1	1	A.	444
Want of Diegst Sills Statement				444		***		111		111	441	111	***	444	200	***
Scurvy	** ***			111111111111111111111111111111111111111	1	3	1	10	2	1		***	2.00	18	14	4
CHIUME DECORORER III	**	***	***	***		1	4		1			111	***	6	5.	1
Delirium Tremens		111			***								-			
		-			1	4	5	10	3	1	***	117	1	25	20	5
		1	***	433	-			7				_	_		-	
THE PARTY OF THE P													1			
IV.—CONSTITUTIONAL DISEASES.			2	6	1	2	1	3	1	111		***	2	15	12	3
Rheumatic Fever, Rheumatism of the Heart	44	***				1					2	***	***	3	2	1
Rheumatism		-			455			1		5				5	4	1
			***	***	***	10.0	***		1	***			7	7	7	
		5	2	100	***	6	15	44	51	47	25	3		193	142	51
			111	1	1				-			***	10	10	10	
			4	100	485	***	911	***	-11	***	***	***	44	57	54	3
Tubercular Meningitis, Hydrocephalus			25	11	2	111	200	300	00	5	44		2	217	185	32
Dhehicis		1	1	6	26	43	68	45	22		4.00	***	33	49	43	6
Tillings 111	*** **	9.00	17	6	3	3	3	1	***	***	***	***	0000	1	1	
Other forms of Tuberculosis, Secondar III				1	1	***	41.4	***	112	411	111	***	200	4	2	2
			1	1	2	111	***	111	2	111		***	**		11	4
Angenia, Chiorosis, Lencocymonia					3	1	1	2	4	2	2	44.0	200	15		
Trivensuria, Limberes Dienning	***	****	1				711	1	***		***	***	1	2	2	
Other Constitutional Diseases			1	***	-	1000	1000	_		-		-	-		440	100
		47	52	30	39	56	88	96	79	59	29	3	99	578	475	103
		1 41	0.0	1 00										C	ontinue	t.

						AGES.						Five ge.	al	SUB-D	ISTRICT
CAUSES OF DEATH.	0 to 1.	1 to 5.	5 to 15,	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	85 and upwards.	Total under Five Years of Age.	Grand Total All Ages.	Kensington Town.	Brompton.
V.—DEVELOPMENTAL DISEASES.  Premature Birth Atelectasis Congenital Malformation Old age	- 100	 1								  78	  37	69 7 15	69 7 15 137	54 6 13 108	15 1 2 29
	90	1	***	***	***		***	3	19	78	37	91	228	181	47
VI.—LOCAL DISEASES.  1.—DISEASES OF NERVOUS SYSTEM.  Inflammation of Brain or Membranes  Apoplexy, Softening of the Brain, Hemiplegia, Brain Paralysis Insanity, General Paralysis of the Insane  Epilepsy  Convulsions  Laryngismus Stridulus (Spasm of Glottis)  Diseases of Spinal Cord, Paraplegia, Paralysis Agitans  Other Diseases of Nervous System.  2.—DISEASES OF ORGANS OF SPECIAL SENSE.  (e.g., of Eye, Ear, Nose.)  3.—DISEASES OF CIRCULATORY SYSTEM.	89	15  5 1	 1  	1 4  2  	1 2 1 2 	1 10 1 1 	18 1   5	1 27 1 1 	1 37 1 2  2 4	1 22 2   4	2	25  44 1  1	31 122 7 9 44 1 2 25	24 98 6 9 37 1 1 21	7 24 1  7  1 4
Pericarditis		2	1 1 3	 1 5 3 	2  4 5 	1 3 3 10 3 	 9 18 2 	1 11 20 1 7	1.  14 30  2	1 13 17 	 2  1	2	7 60 108 6 10 2	5 6 50 84 5 7	2 1 10 24 1 3 1
Laryngitis Croup Emphysema, Asthma Bronchitis Pneumonia Pleurisy Other Diseases of Respiratory System	91 51	2  1 67 29 	 6 5 	 3 5  2	 2 15 1 2	1 9 18 1 2	 1 22 21 1 1	1  2 47 10 3 2	1  2 63 9 1 3	 2 52 9  4	 14 5  8	2  1 158 50 1 7	5  9 376 147 8 27	2  9 324 119 8 20	3  52 28  7

5.—DISEASES OF DIGESTIVE SYSTEM.  Dentition Sore Throat, Quinsy  Diseases of Stomach  Enteritis  Obstructive Diseases of Intestine Peritonitis  Ascites  Cirrhosis of Liver  Jaundice, and other Diseases of the Liver  Other Diseases of Digestive System  6.—DISEASES OF LYMPHATIC SYSTEM.  (e.g., of Lymphatics and of Spleen.)  7.—DISEASES OF GLAND-LIKE ORGANS OF UNCERTAIN USE (e.g., Bronchocele, Addison's Disease.)  8.—DISEASES OF URINARY SYSTEM.  Nephritis  Bright's Disease, Albuminuria  Disease of Bladder or of Prostate	3 3 2	100	 1 1 1 2 1 1 2 2 2	4 1 1 3 3 2 2	1 2 4 3 4 2 3 4 5	3 1 2 4 14 1 6 1 3 6 1		2 1 1 1 6 1 2 3 3 2	 1  1  	18 8 59 3 3 2 1	18 1 27 63 15 19  28 21 21 1 1 15 12 13 14	17 22 59 9 12 24 17 10 1 9 16 7	1 1 5 4 6 7 7  4 11 
Other Diseases of the Urinary System  9.—DISEASES OF REPRODUCTIVE SYSTEM.  A. Of Organs of Generation.  Male Organs  B. Of Parturition.  Abortion, Miscarriage Puerperal Convulsions  Placenta Prævia, Flooding Other Accidents of Childbirth  10.—DISEASES OF BONES AND JOINTS.  Caries, Necrosis Arthritis, Ostitis, Periostitis Other Diseases of Bones and Joints  11.—DISEASES OF INTEGUMENTARY SYSTEM.  Carbuncle, Phlegmon			. 4	1	2 3 2 1 137		    1 2	1				5 1 3 1 2 2 1 3 1070 ntinued	4 1 1 2 1 1 1 2 1 254

#### TABLE III.—(continued.)

												AGES.						Five	Te .	SUB-DI	STRIC
	CAUSES O	F DEAT	н.				0 to 1.	1 to 5.	5 to 15.	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 to 75.	75 to 85.	85 and upwards.	Total under Five Years of Age.	Grand Total All Ages.	Kensington Town.	Brompton.
VII.—	DEATHS F	ROM V	VIOLI	ENCE.																	
actures and Con				-		100	3	4	5	2	3	2	4	7	1	6	2	7	39	29	10
in-shot Wounds				***				***								414					
t, Stab																					***
m, Scald	*** ***	***				***	**	4	***			***	48	***		***	***	4	4	3	1
son							***	1			***	***						1	1	1	
wning	***	***					***	***	1	1		***		***	***	1445	***		2	2	
focation		***					20	444					1	1				20	22	20	2
nerwise								***	42.5			***	***		***	***	***	***			
	2.—Ном					-100	1000											0.5850			
nslaughter	***		***			***	***	***	+++	***	***	***	***	***	***	***	***	***	***		
rder			***				493	***		***	***	***	***	***		***			***		***
	3.—St																				
-Shot Wounds		***				***	***		410	1	***	1	1	***	***	***	111		3	2	1
, Stab	*** ***			***		***	44		***	***	***	***	***	***			***				
son				***		***	***	***	***	1	***	***	1	5	***	***			4	3	1
owning					***	****	***	***	***	***	***	* ***	1	***		***	***		1	1	***
nging		***			***	***		***	***	***	1	***	***	***	***	***		***	1	1	
erwise						***	**	***	***		17.10		***	7000	***	***	***			***	
	4.—Exe																1000				
nging		***		***	***		***	***		**	***	***	***	***	***	***	***	***			
0 0							23	9		5	4	3	8	10	1	6	2	32	77	62	15
VIII.—DEATH	IS FROM I	LL-DE	FINE	D AN	D NO	т															
opsv							***	***	***												
opsy bility, Atrophy,	Inanition		***	***		***	86	9		***	***					***	***	95	95	88	7
rtification			***		***	***	1								3	7	***	1	11	10	1
nour	***		***	****						***		1		***			***	1000	1		1
	***		***			***	3						1		1			3	5	4	1
morrhage		****	***				3									1		3	4	4	-
lden Death (Ca													***	**			77.5	100			***
ses not specifie							1						***	***	***	***	***	1	1	1	***
ses not specifie	u of m-define		***	***	***	***								***	***	***	***	-	*	1	***
							94	9				1	1		4	8		103	117	107	10

## TABLE IV.

Showing the number of Deaths at all ages in 1898, from certain groups of Diseases, and proportions to 1000 of Population, and to 1000 Deaths from all causes: also the number of Deaths of Infants, under one year of age, from other groups of Diseases, and proportions to 1000 Births, and to 1000 Deaths from all causes under one year.

Division I. (At all Ages).	Total Deaths.	Deaths per 1000 of Population	Deaths per 1000 of Total Deaths
1. Principal Zymotic Diseases	347	2.0	124
2. Pulmonary Diseases	- 572	3.3	204
3. Principal Tubercu- lar Diseases	283	1.6	101
Division II. (Infants under one year).	Total Deaths.	Deaths, per 1000 of Births.	Deaths, per 1000 of Total Deaths under one year.
4. Wasting Diseases	156	42.9	238
5. Convulsive Diseases	70	19-3	107

#### NOTES.

- 1. Includes Small-pox, Measles, Scarlet Fever, Diphtheria, Whooping-cough, Typhus Fever, Enteric (or Typhoid) Fever, Simple Continued Fever, and Diarrheea. Sixty-two of the deaths occurred in Hospitals without the Parish.
- 3. Includes Phthisis, Scrofula, Tuberculosis, Rickets, and Tabes.
- 4. Includes Debility, Atrophy, Inanition, Want of Breast-milk, and Premature Birth.
- 5. Includes Hydrocephalus, Infantile Meningitis, Convulsions, and Teething. (In Table III., Hydrocephalus and Infantile Meningitis are classified with tubercular diseases, Convulsions with diseases of the nervous system, and Teething with diseases of the digestive system).

TABLE V.

Showing the Number of Deaths from the Principal Diseases of the Zymotic Class in the ten years 1888-97, and in the year 1898.

_																
	Diseases.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	Annual Average of ten years 1888-97.	Proportion of Deaths to 1000 Deaths from all causes in ten years 1888-97.	Deaths	Proportion of Deaths to 1000 Deaths from all causes in 1898.	
Sn	nall-pox	0	0	0	0	0	9	0	0	0	0	0.9	0.3			
M	easles	124	14	140	29	109	18	108	33	173	33	78.1	27.9	120	42.9	ı
Sc	arlet Fever	26	28	26	16	36	51	22	27	39	29	30 0	10.7	23	8.2	ı
Di	phtheria	89	111	35	28	31	83	75	89	72	82	69.5	24.8	26	9.3	176
W	hooping-cough	100	26	93	84	63	65	61	39	99	19	64.9	23.2	52	18.6	6
Ту	phus Fever	0	0	0	0	0	0	0	0	0	0	0.0	0.0	2	0.0	
En	nteric Fever	21	19	15	24	15	17	21	15	15	21	18.3	6.5	12	4.3	
Sir	mp. Continued Fever	2	0	0	1	2	0	3	1	1	1	1.1	0.3	. 0	0.0	
Di	arrhœa	58	71	- 78	91	77	98	56	118	61	125	83.3	29.8	112	40.0	
3.	KENSINGTON.	420	269	387	273	333	341	346	322	460	310	346.1	123.6	347	123:3	
TOTALS.	London.	10803	9709	12279	9675	11983	13223	11544	11544	14100	11525	11638	137-9	12565	149.7	
T	England & Wales	50684	61027	59698	53221	56032	73499	52771	64901	66936	67051	60582	111:3	69714	126.3	

TABLE VI. Summary of the Work of the Sanitary Inspectors during the year 1898.

	6		&c.		Results	of Insp	ection.		Hot Drai		Wat	er Clos	ets.	Du Recept		Wat	er Supp	ly.		М	iscell	aneou	15.		
	by Inhabitants, &c.	inspected.	Premises, &	served.	ks and	r) served.	Repaired,	of an									Covered, &c.	, &c.,	gistered Health	ned.	y kept.		egular		15es.
Sanitary Districts.*	No. of Complaints made by Inha	No. of Houses, Premises, &c.,	No. of Re-inspections of Houses,	Written Intimations of Nuisance se	Notices served by order of the Works Sanitary Committee.	Final Notices (signed by Medical Officer) served	Houses, Premises, &c., Cleansed, Re Whitewashed, &c.	Houses disinfected after illness o Infectious character.†	Repaired, Cleansed, &c.	Ventilated, Trapped, &c.	Repaired, &c.	Supplied with Water.	Soil-pipes Ventilated.	New provided.	Repaired, Covered, &c.	Cisterns erected.	Cisterns Cleansed, Repaired, Cover	Waste-pipes connected with drains, abolished.	No. of Lodging Houses newly Keg under 94th Section of the Public 1 (London) Act, 1891.‡	Yards and Areas paved and drained.	Animals removed, being improperly kept.	Bakehouses.	Licensed Cow-houses.	Licensed Slaughter-houses.	Legal proceedings, i.e., Summonses
North	202	910	2622	416	299	60	86	166	106	51	253	3	128	57	48	6	25	3		96	6	21		1	9
N.E	149	1051	2444	453	192	37	125	110	162	60	96	63	71	21	24	5	29	4		50	2	27	1	3	16
N.W	136	1055	2598	332	343	51	301	117	104	55	252	27	6	76	61	2	59		25	134	2	13	2	2	19
Central	187	1004	1570	413	219	28	191	131	175	134	127	71	30	13	79	11	91	2		222	7	26	1	6	13
S.E	151	1080	1689	114	82	7.	17	78	46	27	72	35	45	11	6	3	8	1		37		24			5
S.W	194	1107	2543	290	283	32	173	111	73	65	181	106	52	29	32	22	59			159	3	23		1	2
	1019	6207	13466	2018	1418	215	893	713	666	392	981	305	332	207	250	49	271	10	25	698	20	134	4	13	64

<sup>\*</sup> For a description of the Sanitary Districts, see page 2.
† Done under the supervision of a Special Officer.
‡ The total number of houses on the Register in December, 1898, in round figures, was 1,500. (Vide page 127).

Showing the Death-rate per 1000 persons living; the Annual Rate per 1000 from the principal Diseases of the Zymotic Class; and the proportion of Deaths from these Diseases to total Deaths, in Kensington and in all London, in 1898, and in the preceding ten years, 1888-97.

The Year.	Deaths per	1000 living.	Total Deaths from seven principal Zymotic	per 1000 livin	of mortality og, from seven notic Diseases.	Proportion of 1000 Deaths principal Zym	of Deaths to , from seven otic Diseases.	The Year.
	Kensington.	London.	Diseases, Kensington.	Kensington.	London.	Kensington.	London.	
1888	17.1	19.3	420	2.6	2.6	148	137	1888
1889	14.6	18.4	269	1.6	2.3	111	128	1889
1890	17.8	21.4	387	2.3	2.9	131	134	1890
1891	18.4	21.5	273	1.6	2.3	89	107	1891
1892	17.2	20.7	333	2.0	2.8	115	136	1892
1893	17.4	21.3	341	2.0	3.1	117	136	1893
1894	15.6	17.8	346	2.1	2.7	132	150	1894
1895	16.2	19.9	322	1.9	2.6	117	133	1895
1896	16.7	18.6	460	2.7	3.1	159	169	1896
1897	15.6	18.2	310	1.8	2.6	116	142	1897
AVERAGE OF TEN YEARS 1888-97.	16.7	19.7	346	2.1	2.7	124	137	AVERAGE OF TEN YEARS 1888-97.
1898.	16•3	18•7	347	2.0	2*8	124	150	1898

# TABLE VIII.

Comparative Analysis of the Mortality in all London, and in Kensington, in 1898.

	Annual	Annual Death-rate	Percentage		PERC	ENTAGE OF	DEATHS TO	O TOTAL D	EATHS	
	Death-rate per 1000 living, from all causes.	per 1000 living, from seven principal Zymotic diseases.	of Deaths under 1 year to Births Registered	Under 1 year of age.	At 60 years of age and upwards.	From seven principal Zymotic diseases.	From Violence.	Registered upon informa- tion of Coroners. (Inquests.)	Registered at Public Institu- tions.*	Uncertified
London	18.7	2.8	16.7	26.4	24.0	15.0	4.2	9.0	29.0	0.6
Kensington	16.3	2.0	18.0	23.4	30.8	12.4	2.8	7.3	27.9	0.0

<sup>\*</sup>Viz.—Parish Infirmary and Workhouse, Brompton Consumption Hospital, so far as relates to Deaths of Parishioners therein, and Outlying Public Institutions, i.e., General and Special Hospitals, etc.

#### TABLE IX.

Showing the Localities in which Fatal Cases of the Principal Diseases of the Zymotic Class occurred in 1898.

### KENSINGTON TOWN REGISTRATION SUB-DISTRICT.

Locality.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- Cough.	Enteric Fever.	Typhus Fever	Diarrhoea.	Total.	Locality.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- Cough.	Enteric Fever.	Typhus Fever	Diarrhea.	Total.
Acklam Road  Adair Road  Adair Road  Adair Road  Adair Road  Adair Road  Adair Road  Airlie Gardens  Appleford Road  Baggove Road  Bolton Road  Bowort Road  Bosworth Road  Bramley Mews  Bramley Mews  Bramley Road  Bransford Street  Branstone Street  Campden Houses  Campden Houses  Campden Houses  Codrington Mews  Cornwall Road  Crescent Street		1	1 1	2 1 	1		2 1 2 2 2 2 2 1 1 1 1	4 3 1 1 1 1 2 2 3 3 3 2 2 2 2 2 2 2 2 2 2	Lancaster Road Lonsdale Road Manchester Road Mersey Street	1 2 1 2 1 2 4 1 1 2 1 1 1 1		1				1 1 2  1  6 1  1 1  1	2 3 5 3 2 1 1 2 1 2 1 3 3 1 2 2 3 3 2 2 2 2 2

St. Mark's Road   1	enbigh Terrace		1	1	+/1	ï	***	***	***	2 0	St. Helen's Gardens St. Katharine's Roa		1	***		2	***	***	2
nest Street		200	1		411	*				î			1		217	411	***	***	1
well Street		***		1		***				9				***	***	1	244	***	1
District Gardens				***	***				À	7					3	411	***	***	444
Dorne Road			2	***	***			100	- 1	4			1			***	400	***	2
dewood Crescent			1	1111	***	2	***	1		0			9		1		210		7
Talbet Grove   Talbet Gro		***	***	444	4+4	1		100	- 60	0			2			***	1	***	1
Talbet Mews   1     1     1		***	1	111	***	+	111			0			2	1		1	112	444	***
land Park Mews.		***	1	411	1117	944				9			1		1	***		***	***
Iland Villas Road			***	1000	1	444	411		***	1			1			1	111	***	+++
rstway Street		***	***	449	111	444	1		3	0							1	***	1
nson Street		****	110	111	1		***		1	1					***	1	***	***	444
iffe's Yard 2 Walmer Road 4 2				811	1	++				9				***		1	1		6
nsal Road Warwick Road 1 1			2	***	411					0			4	2		***	***	***	***
		944	1	111	449		411	100	***	19	Warwick Road				1	***	***	100	***
nsington Infirmary 1 12 Wormington Road 6 1 1	nsington Infirmary		1	100		12	4	1	3	1		100		1	110	1	***	-	5
nsington Park Road 1	nsington Park Road		***	1	44.4	***	***	100		1	Trouble and a								

# TABLE IXa.

Showing Streets, etc., in the Registration Sub-Districts, and in the Sanitary Inspecting Districts, from which the 1,004 cases of Infectious Disease were notified, under the provisions of the Public Health (London) Act, 1891, during the year 1898. The Registration Sub-Districts are Kensington Town (= K T), and Brompton (= B). For list of Sanitary Districts see page 2.

		1									
Street or Place.	Registration Sub-District.	Sanitary District.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Typhus Fever.	Continued Fever.	Puerperal Fever.	Erysipelas.	Croup.	Total.
Abingdon Road Acklam Road Adair Road Adair Road Adam and Eve Mews Addison Road Admiral Mews Adrian Terrace Airlie Gardens Alfred Mews All Saints' Road Alveston Mews Appleford Road Archer Mews Archer Street Argyll Road Arundel Gardens Ashburn Mews Ashley Cottages Aston Road Astwood Mews Astwood Road Atherstone Terrace	K T " " " " " " " " " " " " " " " " " "	SWN, SWCNSCONESNE NE SENNE SEN	4 2 1 1 1 1 4  1 2 1 2  1 1  1 1  1	2 1 1 1 3 1 2 1 1 1 1 2 1	1				1 2 1 2	···	6 5 3 3 2 2 5 1 1 6 1 5 3 2 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Bangor Street Bassett Road Bedford Terrace Bevington Road Blagrove Road Blechynden Street Blenheim Crescent Bolton Road Bomore Road Bomore Road Bonchurch Road Bosworth Road Bramham Gardens Bramley Road Bramley Street Bransford Street Branstone Street Brompton Road	K T ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,	NW NC N NE NW NE NW N S'W N SE	6 1 2 3 1 3 2  2  6 5 7 1 8 1 1	1			· · · · · · · · · · · · · · · · · · ·		2	······································	9 1 2 4 1 3 4 5 4 1 9 5 9 1 9 2 2

TABLE IXa .- continued.

												-
Street or Place.		Registration Sub-District.	Sanitary District.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Typhus Fever.	Continued Fever.	Puerperal Fever.	Erysipelas.	Croup.	Total.
Calverley Street		КТ	NW	1								1
Cambridge Gardens	***			2	2	***	***	***	***	***	***	1 4
Campden Houses	***	33	N C	î	2	***	***	***	***	***	***	3
Campden Street	**	23		2		***	**	***	***	***	***	2
Chapel Place	***	B B	S'E	1		**	***	***	***	***	***	1
Charlotte Terrace	***	KT	c			1		***	***	***	***	1
Chesterton Road	***		N	3	2	î		***	***	***	***	6
Childs Passage		B	SW				***	***	***	1	***	1
Church Walk Cottages		KT	C		***		***		***	1	***	1
Clanricarde Gardens		,,		0								2
Clarendon Road		,,	NE&C	5						3		8
Clifton Place		B	SE	1	***	***			113			1
Clydesdale Mansions	***	KT	NE	1	***	***	***	***	247	***	***	1
Codrington Mews		,,	,,	2	2			***		***	***	4
Coleherne Mansions		В	s'w	2	***		***					2
Coleherne Mews	***	,,	,,		1	***	***	***	***		***	1
Colville Gardens	***	КT	N'E	1	1	***	***	***	***	***	***	2
Colville Houses	***	13	22	1	***	***	***	***	***		***	1
Colville Mansions		,,	"		1		***			***		1
Colville Mews	***	33	"	1	2	***	***	***	***	***		3
Colville Road	***	"	"	2	***	***	***	***	***	***	***	2
Convent Gardens		33	CT	3	1		***	***	***	***	***	4
Cornwall Gardens	***	"	S E N E	1	***	3.	***	***	***	***	***	4
Cornwall Road Courtfield Gardens		B	SW	-	4	2	***	***	***	4	***	11
Courtfield Road	***	ь	SE	1	***	1	**	***	***	***	***	1
Cranley Gardens	***	"		1	***	***	***	***	***	***	***	1
Cranley Mews	***	"	"	1	***	***	***	***	***	***	***	1
Crescent Place	***	33	31		1	***		***	***	***	***	1
Crescent Street	***	K'T	N'W	2		***	***	***	4.00	ï	2.4.4.	3
Cromwell Road		В	SE&	1	1	3			***	***	***	5
Crommen around		-	SW	-			***	1		***	***	
Dartmoor Street		KT	C		4	***				***		4
Dawson Place	***	,,	11		***	***			***	1		1
Denbigh Terrace	***	"	NE	3	***	***	***		***	1	***	4
Dove Mews	***	В	SE	1	***	***	**		***	***	***	1
Drayson Mews		KT	C	1	***	***			***			1
Drayton Gardens	***	В	SE	2	***		***	1	***	***	***	3
Duke's Lane		KT.	C	1	***	1	***	***	***	***	***	2
			0.111									
Earl's Court Road	***	В	SW	1	***	1	***	***	***	2	***	4
Earl's Court Square		77 m	31 3372	***	1	***		4.00	+++	***	***	1
East Mews Road		KT	N W	***	***	1	***	***	***	***	***	1
Edenham Mews	***	11	N	***	***	1	***	***	***	***	***	1
Edinburgh Road	**	"	s'w		***	***	***	***	***	1	***	1
Edwardes Square		B	SE	1	1	***	***	***	***	***	***	1
Egerton Crescent	***			***		1	***	***	***	***	***	1
Egerton Gardens Elgin Crescent	***	K'T	N'E	1	ï	100	***	***	***	***	***	2
Elsham Road	***		C	i		***	***	***	***	***	***	1
and and a state		,,		-	***	***	***	1 ***	C-	***		-

Street or Place.		Registration Sub-District.	Sanitary District.	Scarlet Fever,	Diphtheria.	Enteric Fever.	Typhus Fever.	Continued Fever.	Puerperal Fever.	Erysipelas.	Croup.	Total.
-												
Emma Place		KT	SW	1		***	***	***			***	1
Evelyn Gardens Exmoor Street		КТ	SEN	1	3	***	****	***	***	**,*		4
Exmoor Street	**	IX I	N		***		***	***	1	***		1
Faraday Road		KT	N	4	1	3			***			8
Farmer Street		23	C	3	***	***			***	***	***	3
Farnell Mews		В	SW	2	***				***		***	2
Fawcett Street		11	"	1			***	***	***	***		1
Finborough Road	***	11	23	2	1	1	***	**	***	***	***	4
Fopstone Road Fowell Street	***	K'T	N'W	i	***	1	***	1.64	**	***	***	1
Fulham Road	***	B	SW	1	3	1	***	***	***	1	***	2 5
			- "	-		-	***	***	***	***	***	0
Garden Row	***	В	SE	***		1	***	***			***	1
Gledhow Gardens		K'T	23.	***	***	1		***			***	1 1
Gloucester Walk		KT	č	***	***	1		***			***	
Gloucester Road Golborne Gardens	***	"	SE	1		***		***	***		***	1
Golborne Road	***	37	N	3 4	3	3	***	***	***	2 2	***	11
Gordon Place	***	"	č	2	4		***	***	**		***	7 6
Gorham Place	***	33	NW					***		1		1
		"			-				***		***	-
Harcourt Terrace		В	SW	1	***	***		**	***	***	***	1
Harrington Gardens		,,	SE	1	1	***	***	***	***		***	2
Harrington Road	***	K'T	22	1	***	1	***				***	2
Hazlewood Crescent Hesketh Place		KI	N N W	2	***	***	***	***	***	2	***	4
Hesper Mews		B	SW	1	1	1	***	***	***	1	***	3
Hewer Street	***	KT	N		***			***	***	1	***	1
Highlever Road	***	,,	,,		***	1	***					i
High Street, Notting Hill	****	33	C	1		2	***	***	***	***	***	3
Hogarth Place	***	В	SW	***	1	***		**		***	***	1
Hogarth Road		77.70	"		***	2	***			1	***	3
Holland Park Avenue	***	KT	C	1		***	***	***	***		***	1
Holland Park Gardens	***	"	33	1	***	***		***	***	1	***	5
Holland Park Mews		"	"	2	1			***		***		3
Holland Place	***	33	"	1								1
Holland Road	***	"	33	2		1				×		3
Holland Villas Road	***	>>	"	***	***	1	***	1.01	***	***	***	1
Horbury Crescent		"	13	1	***	***		***		***	***	1
Hornton Place Hurstway Street	***	"	N'W	2	2	4	***	***	***	1	***	1
Hyde Park Gate	***	"	SE	2		4	***	***	***	1	***	9 2
	***	33					***	***		***	***	4
Ifield Road		В	SW	5	3					1	1	10
Jameson Street		KT	C	1						2		3
Johnson Street		,,	33	***	1				***		***	1
					-		-		l.	197		

TABLE IXa.—continued.

Street or Place,		Registration Sub-District.	Sanitary District,	Scarlet Fever.	Diphtheria.	Enteric Fever.	Typhus Fever.	Continued Fever.	Puerperal Fever.	Erysipelas.	Croup.	Total.
Kempsford Gardens Kenilworth Street Kenley Street Kensal Road Kensington Crescent Kensington Gate Kensington High Street Kensington Infirmary Kensington Park Mews Kensington Park Road Kensington Place		B K T ,, ,, ,,	SW NW N SW SE C&SE SW NE	1 1 1  1 6 1 7	 1   4 1 	1  4  6 	7		   1	1 1  56 2		1 2 3 4 1 1 5 77 1 7 4
Kensington Square King Street		"	SE,,		1					1		1
Laconia Mews Ladbroke Grove Ladbroke Road Ladbroke Square Lancaster Mews Lancaster Road		K T	SE N C NE NW&	1 2 1 1 7	1 2 1  2					3 1 4		2 7 1 2 1 13
Lansdowne Road Ledbury Road Leinster Yard Linden Gardens Lockton Street		)) )) )) ))	NE NE&C NE C NW SW	1 2 1 2	1 3							2 5 1 1 2
Logan Mews Longridge Road Lonsdale Road Lorne Gardens		B K'T	N'E C	1 6 3	3	1				1 1		1 2 11 3
Manchester Road Manson Place Martin Street Mary Place Mersey Street Merton Road		KT B KT	N W S E N W ,,	6 2 1 4 2	2 1	4				1		13 1 2 1 5
Millwood Street Montpelier Row Munro Mews		B K T	N SE N	1	1			··· ··· 1				3 1 1 1 1
Napier Road Nevern Road Norland Road North Row North Street, St. Mark's	Road	KTBKTB"	S W C S W	1 2 1 	 1 1 1					 1 		1 2 3 1 1
Onslow Gardens Oxford Gardens		ВКТ	S E N	1 8								1 3

Street or Place.		Registration Sub-District	Sanitary District.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Typhus Fever.	Continued Fever.	Puerperal Fever.	Erysipelas.	Croup.	Total.
D.L. Carlani Tanan		15 m	С		1							1
Palace Gardens Terrace	***	KT	NW	***		1	***	***	***	**	***	1
Pamber Street Park Terrace	***	33	SW	3	1	177	***	***	**	***		4
Pelham Place	***	B	SE	1		***	***	***	***	**	***	1
Pelham Street	***			2								2
Pembridge Gardens	***	K'T	č		1					***		1
Pembridge Mews	***		,,	2			***	***	***			2
Pembridge Road	***	"	,,,			1				***		1
Pembridge Square		"	,,		1				***		***	1
Pembroke Mews		33	SW	- 3	1	***		***		**		4
Pembroke Place	***		33	***	3	***	***	***	***	***		3
Pembroke Road	***	B	,,,	1	***	***		***		***	***	1
Penywern Road		11	, ,,		2	***		***	***	1	***	3
Petersham Mews	**	K'T	SE	. 1	***	***	***	***	4.64	***	***	1
Petersham Terrace	***	"B	s'w	1	**	***	***	***	***	***	***	1
Philbeach Gardens	***	В		**	***	1	***	***	***	***	***	1
Phillimore Gardens	***	KT	C	2	1	***	***	***	***	***	**	1 2
Phillimore Mews	**	33	"	1	***	***	***	***	***	1	***	2
Phœnix Place Portland Road	***	33	NE'&C	4	2	2	***	***	***	5	***	13
Portobello Road	***	33	N&NE	9	5		***	***	***	3	***	17
Powis Square	***	"	NE		1			***			***	1
Prince's Gate Mews		B	SE	***	4	***						4
Prince's Place		KT	C	4	***	***				1	***	5
Prince's Road		,,	"	12	2			***	1	1		16
						13						
Queen Anne's Terrace		KT	N		***	***	***	***	***	1	***	1
Queensberry Mews West		В	SE	1	***	***	***	***	***		***	1
Queen's Gate	***	KT&B	"	1	1	***	***	***	**	***	***	2
Queen's Gate Terrace	***	KT	č	***	***	**	***	***	***	1	***	1 2
Queen's Place	***	17	C	1 2	1	***	***	***	***	1	***	3
Queen's Road	***	"	"	-	***	***	***	***	***	1	***	0
Rackham Street		КТ	N	3	2					1		6
Raddington Road	***			3								3
Radnor Terrace	***	"	s'w		1		1					1
Raymede Street		,,	N	3		***			"	***		3
Redcliffe Gardens		B	SW	3		1			***	1		5
Redcliffe Road		33	,,	1		1	***		***			2
Redcliffe Square			>>	1	***	***	***		***	***	***	1
Redfield Lane	***	"	22	2	1	***		***	***	2	***	5
Redfield Mews	***		22.	1	***	***	***	***	***	1		2
Rendle Street	***	KT	N	3				***	***	***	***	3
Riichmond Road		В	SW	1	1	1	**		***	***	***	3
Rllington Place	***	KT	NE	2	***	1	**	***	***	***	***	3
Rosary Gardens	***	B	SE		1 1	***	***	***	***		***	3
Royal Crescent Moura	***	KT	C	1	1000	***	***	***	**		***	1
Royal Crescent Mews Russell Gardens	***	,,		2	***	***	***	***	***	***		2
Russell Gardens Mews	***	"	33	4	***	***	**	***	***	1		5
Rutland Street	**	B	SE	1		***			***	î		2
Attitude Direct	***	41		-		***				-		-

	_				_							
Street or Place,		Registration Sub-District.	Sanitary District.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Typhus Fever.	Continued Fever.	Puerperal Fever.	Erysipelas.	Croup.	rotal.
St. Alban's Road		кт	SE		0							
St. Ann's Road	***		NW&C	8	2 3	***	***	18.8	111	***	***	2
St. Ann's Villas		"	C	1		***	***	***	***		***	11
St. Charles's Square		**	N	1	***	***	***	***	***	***	***	1
St. Ervan's Road		"		6		1	***	***	***	3	***	10
St. George's Road		"	N'E	5	1		***		**	2	***	8
St. Helen's Gardens		33	N		1							1
St. James's Place		33	C	2								2
St. James's Square		"	,,			1					***	1
St. James's Terrace		"	,,	3	***	***	***	***	***		***	3
St. John's Place		,,	. 33	1		***			***		***	1
St. Katharine's Road	***	"	NW	5	1	1	***	***	1	3	***	11
St. Luke's Mews		23	N	1	***	***	***	***	***	***	***	1
St. Luke's Road		33	NE	3	***	***	***	***	***	***	***	3
St. Mark's Road, Fulham Ro	oad.	B	s'w	1	***	***	**	***	***	***	***	1
St. Mark's Road, Notting I		KT	N	1	1	***	***	***	***		***	1
St. Marylebone Infirmary					2	1	***		***	***	***	2
St. Mary's Road		"	N'E				***		1	**	***	3
St. Quintin Avenue		11	N	2	1	***		***		***	***	3
Scarsdale Terrace	***	"	SW		1	1						2
Selwood Place		В	SE	1								1
Seymour Place	***	,,,	SW	1	3		***	***		***	***	4
Silchester Road	***	KT	NW	2	1	***				***		3
Silchester Street Silchester Terrace	**	11	55	1	5	***					***	6
Sirdar Road	***	33	33	1			***	***	***	1	***	2
South Street, St. Mark's Ro	bee	B	s'w	4	1 2	1	***	***	***	3	***	9
Southam Street		KT	N	2	12	1	***	1	1	5	***	3
Stanhope Gardens	***	В	SE	1	1		***				***	22 2
Stanhope Mews		,,	"		2			***	***		***	2
Stoneleigh Street		KT	NW	4	1		***			2		7
Stratford Road		В	SW	2	5							7
Strathmore Gardens		KT	C	1						1		2
Swinbrook Road		,,,	N	5	2	2		***	***	2	***	11
Sylvester Mews	***	"	NE	1		***			***	***	***	1
Talbot Grove		KT	NE		1	2			1	1	1	6
Talbot Mews	***	,,	***								1	1
Tavistock Crescent		"	11	3	3	2				1	***	9
Tavistock Road		31	33	4	1							5
Telford Road	***	11	N	6	***	***						6
Templeton Place		В	SW		1						***	1
Testerton Street	***	KT	NW	1	2	***	***	12.5		1		4
The Boltons The Mall		B	SE	1				***	***	***	***	1
Thurloe Place	***	KTB	C	1		1	***		***	***	***	2
Tobin Square	***	KT	S E NW	1	1	***						1
Tobin Street				1	***		**	***	***	***	***	1
Trebovir Road		TO	s'w	1		***	***	***	**	***		1
Treverton Street		KT	N			2		***	***	***	***	2
				1		1		***	1	***	***	

TABLE IXa .- continued.

Street or Place.	Registration Sub-District.	Sanitary District.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Typhus Fever.	Continued Fever.	Puerperal Fever.	Erysipelas.	Croup.	Total.
Upper Phillimore Gardens	 кт	С		1							1
Vicarage Gardens Victoria Dwellings Victoria Grove Virginia Place	 К Т ,,	C N S E C	1  3 2	  1	1						2 1 3 3
Wallgrave Road Wallgrave Terrace Walmer Road Warwick Gardens Warwick Road Warwick Street Westbourne Grove West Cromwell Road Western Dwellings Westgate Terrace West Pembroke Place Wetherby Mansions Wetherby Terrace Wheatstone Road William Street Wornington Road	B	SW NW SW NE SW NSW SW SW	 1 15 1 6  7 1  1  1 2  5	1 2 1 1 2 2 2	3 1 1  1 1  3	i		 1 1      	4 1 	···· i i ··· ·· ·· ·· ·· ·· ·· ·· ·· ··	4 1 23 3 9 1 8 1 1 1 1 5 1 16
Yeoman's Row Young Street	 ВКТ	SE ,,	4								4 1

One case of "Cholera" was notified, in addition, from Tavistock Road.

TABLE X.

Vaccination Officer's Return respecting the Vaccination of Children whose Births were Registered in 1897.\* (Vide page 69).

			Colum	of these Bi ns 10, 11 and er (Birth Lis	1 13 of the Va	accination	tered in t	nese Births which he Vaccination s shewn by Repo	Register, on
DATE.	Registration Sub-Districts comprised in Vaccination Officer's District.	Number of Births returned in Birth List Sheets,	Column 10 Success- fully vaccinated		Conscientious Certificate of objection.	Column 13 Dead, Un-vacci- nated.	Postpone- ment by Medical Certificate.	Removal to places unknown, or which cannot be reached, and cases not having been found.	Cases still under proceed- ings, by summons and otherwise.
1897.	1	2	3	4	5	6	8	10	11
1st January	Kensington Town	3142	2425	11	2	293	80	327	4
31st Dec.	Brompton	552	434	2	3	42	7	63	1
	TOTAL	3694	2859	13	5	335	87	390	5

<sup>\*</sup> The Return for 1898 will not be due until February, 1900

# TABLE XI.

# LICENSED SLAUGHTER-HOUSES.

# SOUTH OF HOLLAND PARK AVENUE,

(SOUTH KENSINGTON.)

LOCALITY OF PREMISI	NAME OF LICENSEE.	
30, Kensington High Street 35, Earl's Court Road 21, Peel Place, Silver Street 25, Silver Street 133, High Street, Notting Hill 113, Holland Park Avenue		Mr. Evans Mrs. Matson Mr. Osborne ,, Wright ,, Candy ,, Holloway

## NORTH OF HOLLAND PARK AVENUE.

(NORTH KENSINGTON.)

Lonsdale Mews			Mr. Grove
13, Archer Mews			" Bawcombe
10, Edenham Mews			,, Goddard
61, Silchester Road			" Shattock
195, Clarendon Road			", Simmons
235, Walmer Road			Mrs. Van
4, Royal Crescent Mews	***		Mr. Brooker

# TABLE XII.

# LICENSED COW-HOUSES.

# SOUTH OF HOLLAND PARK AVENUE,

(SOUTH KENSINGTON.)

LOCALITY OF PREMISES.	NAME OF LICENSEE.
Campden Street, (Yard in)	Mr. Lunn

## NORTH OF HOLLAND PARK AVENUE.

(NORTH KENSINGTON.)

187, Walmer Road	 	Mr. Arnsby
5, Ledbury Mews	 	" Liddiard
23, Bramley Road	 	" Tame

