

[Report of the Medical Officer of Health for Wandsworth District, The Board of Works (Clapham, Putney, Streatham, Tooting & Wandsworth)].

Contributors

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SANITARY DEPARTMENT.

REPORT

ON THE

SANITARY CONDITION

OF THE SEVERAL PARISHES COMPRISED IN THE

WANDSWORTH DISTRICT,

DURING THE YEAR 1877.

BY THE

MEDICAL OFFICERS OF HEALTH.

London :

JOHN SMITH & CO., 52, LONG ACRE, W.C.

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REPORT, 1877.

To the Board of Works for the Wandsworth District.

GENTLEMEN,

We have the honour to present the twenty-second Annual Report upon the health and sanitary condition of the Wandsworth District.

We have much to record in its pages of vital interest to the community in the sad and stern facts which the death register supplies; we have many improvements to note in the sanitary state of the district, and we have not a few suggestions to make of a prospective character, through which we hope to see still greater advances made towards the practical fulfilment of the theories and science of Public Health.

We offer our unpretentious volume to the study of all who are interested in our endeavours to ameliorate the sanitary condition of the District, especially of its poorer parts; and trust that you will accord to us your approval of that which our efforts have achieved.

We have the honour to remain,

GENTLEMEN,

Your obedient Servants,

*The Medical Officers of Health for
the Wandsworth District.*

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Your obedient Servants,

The Medical Officer of Health for
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HEALTH AND SANITARY CONDITION OF THE ENTIRE DISTRICT.

Although an epidemic of some magnitude (Small Pox) prevailed over the Wandsworth District, in common with the rest of the Metropolis, at the beginning of the year 1877, still, we have the happiness to present a Report full of genuine encouragement as to the health and sanitary condition of the District.

Population.—To estimate accurately the population of a District such as ours, it is necessary to take into consideration not only the natural increase of the population, but also the amount of immigration into the District. The official mode of making this calculation, is to obtain the average rate of increase, which was found to prevail between the last two censûs (1861-71), and add to the population at the latter census a *corresponding* increase for the succeeding six years, adding a quarter of a year's increase to bring up the estimate to the middle of the

year (the census being taken in April). It will be shown subsequently that this is a highly unsatisfactory way of estimating the population, as it comes very much short of the real population, more especially during the latter portion of the decade. Indeed, so widely does the estimated and the real population differ, that it is a question, for the next four years, if it serves any good purpose to attempt founding any rates of death or birth upon such uncertain calculation. In the last two Annual Reports, however, a method of arriving at the real population was fully explained. (See Report for 1875, pages 7 and 8, and for 1876, pages 7 and 8.) It is found that the number of *births* bear an almost constant ratio to the population. We find that in this District about 34 children are born for every 1000 of the population, so that, given the number of births, we may in this manner estimate the population. The population, according to the official estimate in the middle of 1877, was 159,234; but, as we find that 6159 births were registered in the District, and that the birth-rate would therefore be 38.6 per 1000, we can see how incorrect that estimate is. To obtain a per milleage of 34 from the number of births above stated, we would require a population of 181,146, which we submit is not far from the true and correct estimate of the population.

Births and Birth-rate.—As above stated, 6159 births were registered during the year, of which 3142 were of males, and 3017 of females. The birth-rate, according to the official estimate of the population, is 38.6.

Deaths and Death-rate.—It is very encouraging to have to report a *decrease* in the deaths and death-rate

during the past year. During 1875 there were 3096 deaths registered; in 1876, 3154; in 1877, 2991. This is a decrease in spite of increase of population, so that the diminution is really greater than it appears in figures. Of these deaths 1505 were of males, and 1496 of females. The death-rate according to the official population is 18·7 per 1000, or 1 in 53 persons living. This is the lowest death-rate for the past ten years, with the exception of two (1872 and 1873), during which the same rate of mortality occurred. But if we take the more satisfactory estimate of the population, obtained as above explained, into account, we find that the death-rate is reduced to 16·5. It must also be remembered that many public institutions, which yield an abnormally high death-rate, exist in the District. The following Table gives the proportion which each Sub-district bears in the total death-rate, and also the alteration which the exclusion of the deaths of non-parishioners in public institutions makes upon these death-rates.

SUB-DISTRICTS.	Officially estimated Population in the middle of		Deaths.		Ratio of Deaths to Population.		Excluding Non-Parishioners who have Died in Public Institutions.
	1876	1877	1876	1877	1876	1877	1877
Battersea	70,144	75,606	1,745	1,726	1 in 40	1 in 43	1 in 52
Wandsworth	23,169	23,806	461	384	1 in 50	1 in 62	1 in 78
Clapham	30,734	31,381	545	467	1 in 56	1 in 67	1 in 68
Streatham, Tooting, & Balham	16,781	17,227	260	244	1 in 64	1 in 70	In- appreci- able dif- ference
Putney & Roehampton	10,990	11,287	143	170	1 in 77	1 in 66	

It will be seen that Wandsworth, excluding deaths in public institutions, has the lowest death-rate. Streatham, Clapham, Putney and Battersea stand in the order as named. Thus Wandsworth and Putney have exactly changed places in this Table since last year.

A comparison of the birth and death-rates (founded upon the *official* estimates of the population) is presented in the Table given below :—

Year	1871	1872	1873	1874	1875	1876	1877
Births	4380	4540	5053	5221	5529	5999	6159
Birth-rate per 1000...	34.5	34.4	36.4	36.5	37.3	39.5	38.6
Deaths	2867	2421	2580	2796	3096	3154	2991
Death-rate per 1000	22.6	18.3	18.7	19.5	20.87	20.0	18.7

The death-rate of the metropolis during 1877, was 21.7 per 1000 which contrasts with that of our District to the extent of 3 per 1000 per annum.

The excess of births over deaths during the year was 3168, giving a rate of natural increase of 20.0 per 1000.

Causes of Death.—The mortality statistics, as of old, are given in the first Table of the Appendix; but such a Table, as regards the causes of death at least, is comparatively valueless without the means of comparing its figures with those of past years. With this object the following comparative Table was introduced for the first time last year, and is again presented.

DISEASES. And other causes of Death		1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877
Classes :—												
1. Zymotic	Small Pox.....	24	2	21	15	377	26	9	5	3	26	57
	Measles.....	18	35	52	46	52	86	55	66	27	88	64
	Scarlatina.....	32	66	133	352	126	26	2	94	134	86	58
	Diphtheria ...	8	27	14	12	6	26	11	12	28	15	7
	Quinsy	1	1	...	4	1	2	1	2	...	...	...
	Croup	26	20	22	25	13	18	21	40	26	27	20
	Whooping } Cough	41	77	96	51	52	108	74	89	107	126	73
	Typhus and } other Fevers }	44	66	61	68	54	52	65	48	39	47	64
	Erysipelas ...	4	12	8	13	22	13	12	20	24	13	13
	Metria, } Childbirth }	10	21	23	16	13	15	28	34	15	26	20
	Carbuncle.....	...	...	2	...	2	1	...	1	...	...	...
	Influenza .....	...	1	...	1	...	...	...	...	...	...	1
	Diarrhœa & } Choleraic } Disease ... }	74	133	139	148	140	140	126	117	134	159	114
Totals of Zymotic Class...		282	461	571	751	858	513	411	528	537	613	419
2. Tubercular		338	382	326	374	423	419	426	469	565	555	514
3. Of Brain, Nerves, &c.		306	339	353	365	371	341	370	426	455	416	450
4. Of the Heart, &c. ...		101	124	119	132	152	127	139	146	176	170	204
5. Of Respiratory Organs		316	285	396	411	431	400	543	541	630	561	519
6. Digestive Organs.....		76	89	93	104	118	87	96	111	136	126	155
7. Urinary Organs		29	25	40	39	20	27	34	26	55	62	63
8. Of Organs of Gene- } ration		24	17	13	8	16	9	17	21	13	23	29
9. Of Joints, Bones, &c.		8	10	6	4	5	7	10	14	11	14	13
10. Of Skin		11	7	6	3	2	3	4	9	4	5	6
11. Premature Birth, } Low Vitality, Mal- } formation, &c. ... }		149	154	176	191	145	143	143	168	177	226	212
12. Uncertain Seat		64	64	62	154	69	118	126	77	105	97	101
13. Age		125	107	114	133	125	105	144	106	130	150	126
14. Violence		56	52	64	50	56	87	70	75	68	90	82
15. Not Specified		52	52	54	40	76	35	47	79	34	46	26
TOTALS		1937	2168	2393	2659	2867	2421	2580	2796	3096	3154	2991

With both Tables before us, therefore, we will look first at Class 1.

Zymotic Diseases.—The retrospect which the above

Table enables us to take is in almost every instance reassuring. Measles shows a great decrease upon last year, and is about the average. Scarlatina is greatly under the average intensity; Croup and Whooping Cough somewhat less than the average. The fevers constitute the only instance of increased fatality. Diarrhœa has not been so mild since 1867. Still we have, as already mentioned, suffered, and that severely, from a more serious epidemic than any yet named. We refer of course to Small Pox, which carried off 57 persons—a number exceeded by only one year, 1871—in *the District*. It is necessary to emphasize the last three words, because, large as this number ought to be considered, when we remember that the disease has been combated by every possible agency—even by Act of Parliament itself—it by no means represents the total mortality. We have no means of finding out the number of fatal cases in hospital which were taken from the District, but that is of less importance to us than the fact, that 57 persons died in their own homes, amidst friends and neighbours, too many of whom were probably susceptible to the deadly infection. So large a number of cases should not have been left without proper isolation, and we have the very inadequate hospital accommodation which then existed to blame for it. This want has now happily been supplied, so that we are prepared for another epidemic, as far as isolation goes. A great want is still felt, however, of Middle-class Hospitals, or the sub-division of existing hospitals, according to the class to which the patient belongs. Until such a requirement is fulfilled, we cannot expect the better classes to submit to removal. But, after all, a Hospital for Small Pox should be unnecessary to the community. There is no more indisputable fact than that Vaccination is an almost certain preventative of Small Pox. We do not mean merely primary Vaccination as enforced, though still too laxly, by law, but *re-vaccination*. Surely the time has come, when enlightened public opinion will submit to legal re-vaccination of all adults. Instead of lightening the penalties laid upon the erratic people, who

refuse to have their children vaccinated, we would pray the legislature to double their punishment. Nearly two-thirds of the fatal cases of Small Pox are found to be of unvaccinated children, or only once vaccinated adults. We call attention, as we did last year, to the very inadequate powers possessed by the sanitary authorities to remove compulsorily a case of infectious disease which is dangerous to the neighbourhood. A decision was obtained from a Court during the year of great importance, as it defines the law now existing; (see Local Summary for East Battersea, page 34), for while we could obtain an order from a Justice for removal of a dangerous case, the magistrate himself was thought to have no power to enforce his own decision. It was decided that the offender could be convicted of contempt if not complying with the order of the Court. The necessity for having suitable conveyances for infectious cases, light, easy, accessible, warm, well ventilated, and not too conspicuous in appearance, should meet with more consideration than it has as yet done.

The Table given below shows the amount of epidemic disease which occurred in each parish, and the percentage of the total mortality which it yields :—

SUB-DISTRICTS	No. of Deaths from Epidemics per 1000 of the Estimated population.	Ratio of Deaths from Epidemics to every 100 of the total deaths.
Battersea	3·7	16·2
Clapham	1·7	11·7
Wandsworth	2·3	14·8
Putney	1·8	13·0
Streatham	1·4	12·4

Forty-one of the Small Pox cases occurred in Bat-

tersea, twelve in Clapham, four in Streatham, and none in Wandsworth or Putney. It is not a matter of surprise that the largest share of epidemic disease should occur in Battersea. The small amount of epidemic disease in Clapham is remarkable. (See Table.)

We refer the reader to Table IV. in the Appendix for the intensity of the epidemic disease during the last eleven years.

Non-Zymotic Diseases.—There is nothing of much importance to note with regard to any of the other classes of disease, except perhaps the somewhat large mortality from nervous diseases. (See the Wandsworth Local Summary, page 59.) The diseases of the Digestive System, and of the Heart, also show an increase.

Mortality according to Age.—The proportion of infants who died during the year was 43·6 per cent. of the total mortality. A similar ratio for the Metropolis was 41·2 per cent.—2·4 per cent. less than ours. This is significant, and it behoves us to see that our infantile population is not unduly suffering from causes of mortality, which are practically equivalent to infanticide. We refer to neglect, exposure, insufficient clothing, improper or insufficient food, &c., from which so many young children die, especially when left by mothers, who work out of their own houses, to the care of careless or ignorant persons. The amount of illegitimacy, which is, according to the Registrar-General's Abstracts for 1876, large in the District, may account for part of this avoidable mortality. The inculcation, among the pupils in senior girls' classes, of some wholesome advice as to the proper food, clothing, and ordinary management of children, might be a means of doing much good. The mortality amongst the very aged (above 80) amounts to 3·48 per cent.; that for the entire metropolis amounted to 3·45.

Social Position of the Deceased.—Nothing of importance is to be noted with regard to the class division of the mortality statistics. The proportions were as follow :—

Nobility and Gentry	-	-	-	-	2.5	per cent.
Professional Class	-	-	-	-	6.2	"
Middle Class	-	-	-	-	18.2	"
Industrial Class	-	-	-	-	73.1	"
					<hr/> 100.0	

Sickness, &c., among the Union Poor.—All that is to be said on this subject may be seen by a glance at Table V. in the Appendix. Of the 2673 cases, 107, or 4 per cent., were fatal. This shows a reduction upon the mortality of the last six years among the poor.

Inquests, &c.—During the past year 140 inquests were held. The verdicts were as follow :—

I. Accidental	-	-	-	-	-	65
II. Natural	-	-	-	-	-	60
III. Suicidal	-	-	-	-	-	9
IV. Manslaughter	-	-	-	-	-	1
V. Doubtful	-	-	-	-	-	5
					<hr/> 140	

The proportion of inquests to the total mortality is nearly 5 per cent. No less than 47 deaths—*twice* the number recorded last year—were registered as *uncertified*. Now if the Register of Deaths were a mere chronicle of the causes of death we would look upon this as highly unsatisfactory ; but when we remember that that register forms one of the very strongest barriers to crime, we cannot but regard this as tending to diminish to an alarming extent its protective value. Over none of these 47 deaths was an inquest held, the Coroner, it is presumed, for reasons of his own, judging a public inquiry unnecessary. We believe that were the Coroner obliged to hold an inquiry over every case of unattested death, such cases

would rapidly diminish, and many lives be saved. Of the above cases, 39 occurred in Battersea, 5 in Wandsworth, and one in each of the other Sub-districts.

Sanitation.—An epitome of the sanitary labours of the year will be found in the sixth Table of the Appendix. An increase in the house visitations is to be noted ; more piggeries got rid of, chiefly in Streatham, and more houses received cleansing or repair, principally in Battersea. In the Combined Summary for Battersea (pages 21 to 23), will be found the result of two important cases of nuisance arising from public manufactories. The decisions obtained in these cases from the Courts were such as to encourage the efforts of sanitary authorities. To the Combined Summary for the Battersea Parish we refer the reader for the particulars, which it would be difficult to condense further, or more lucidly express.

Cow and Slaughter-Houses.—In the various local summaries an almost entire unanimity of opinion will be found, that the regulations in force regarding the slaughter houses are found satisfactory in actual operation. There is an equal agreement of opinion as to the necessity for similar regulations for the management of cow-houses. At present our powers end with the somewhat vague requirements of the Sanitary Acts, and we find ourselves totally unable to deal efficiently with the numerous cases of defective hygiene, which we find exemplified in the ordinary type of cow-house. There is no business the conduct of which concerns the health and interests of the community so intimately as the milk traffic, from the well known capability of that fluid of conveying infection. Not only does milk indisputably convey definite germs of disease, but we believe it may readily be contaminated with morbid germs, which do not produce definite diseases, but give rise to that irritation of the alimentary tract, which is shown by the indigestion, sickness, diarrhoea, &c., from which children are constantly suffering, and frequently die. In the local summary for Putney, some precise suggestions

are made for dealing with this subject. The question of piggeries is a closely allied one, and the importance of either license and regulation, or total suppression, yearly increases as our population increases, and unpolluted air becomes more valuable. In the local summaries for Clapham and Putney this subject is brought forward forcibly, and reasons urged for removal, or strict regulation. We could further suggest the control of stables, and all places where animals in number are kept being put under some form of supervision.

The Water Supply.—This most important question received great attention during the past year. In August, in consequence of a complaint from the Board of Works to the Local Government Board, Col. Bolton, the Water Examiner to the Government, was appointed by the latter Board to hold an inquiry into the water supply of the district. A minute examination of the Water Company's works was resolved upon by his suggestion, and a deputation of the Board, accompanied by their sanitary officers, proceeded with Col. Bolton in September to the works at Battersea and Hampton, and later made an examination of the plans of the mains conveying the water through the District. The result of that inquiry was unfavourable to the Company, inasmuch as (1) the position of the works (in Battersea especially) is objectionable on account of the deleterious atmosphere to which they are exposed; (2), no reservoirs were provided for subsidence of suspended impurities, and for avoiding the necessity for taking in flood waters from the river; (3), the water in certain parts, where the supply pipes terminate, (dead ends) was in a bad condition, and ought to be frequently withdrawn; and (4), a constant supply was not provided. It was also agreed that something ought to be done to prevent the contamination of the river at and above the point of intake, a matter over which of course the Company has no control. In the report of Professor Frankland, as printed in the Registrar General's Annual Summary for 1877, he

says—"On the whole, the year 1877, like 1876, was favourable for the river waters, yet in the months of January, April, and December, the Thames water was delivered to the consumers in such a polluted condition as to be utterly unfit for dietetic purposes." Elsewhere he says—"Surely it cannot be beyond the powers of Parliament and engineers, to collect and preserve from irretrievable sewage contamination, a small portion of the prodigal supply which the Thames can yield, and to distribute it to those portions of London which at present drink it, after it has been mixed with the sewage of half a million of people." We cannot find stronger language than this, to condemn the *source* of our supply as it at present exists. But to return to the Company, we find that the Southwark and Vauxhall Company delivers to us the most impure water in the metropolis. In the same report Professor Frankland says—"Of the waters supplied from the Thames, that delivered by the West Middlesex was the best, and that distributed by the Southwark Company the *worst*." The dimensions of Companies works and their construction at Battersea and Hampton are given in the local summary for Battersea (page 24). It seems that there is sufficient filtering surface, and that the material of which the beds are made is tolerably good, but the beds want *subdivision* for more easy and effectual cleansing. It is found that, especially at certain times, a fungus is deposited by the water, and grows with such rapidity on the surface, as to render it totally impervious to the water. In these extremities the Company, it is alleged, have been tempted to pass unfiltered water into the mains, and one result of the inquiry mentioned above, was to elicit the fact that a connection between the filtered and unfiltered mains actually existed, which would render such a process very easy. In conclusion, we offer the following practical suggestions for the improvement of the water supply:—

- I. That immediate steps be taken to prevent or diminish the contamination of the water with sewage at and above the intake.

- II. That the filter-beds of the Company be properly constructed, subdivided and cleansed.
- III. That reservoirs should be provided for the subsidence of the heavier particles of suspended matters, and for avoiding the foul water in time of flood.
- IV. The provision of a constant service from the mains of the Company.
- V. The protection of the reservoirs from the deleterious atmosphere to which they are at present exposed, or their removal from such deleterious atmosphere.
- VI. The procuring of a supply of water from the chalk strata for dietetic purposes.

In now directing the reader's attention to the local summaries, we venture to hope that we may depend upon his sympathy and look for his assistance in carrying out the sanitary measures suggested in these pages.

BATTERSEA

in the local sanitary authorities of Batters-
 ward. Under the heading of Batters-
 ward, will be found a record of the sanitary
 condition of the year 1877, but there is no detail which can only
 be obtained by consulting with reference to their being
 on the Parish as a whole, and we therefore beg to present
 the summary for the entire parish.

The official return population of the Parish of Batters-
 ward for the middle day of the year 1877, according to
 the mode of estimation used by the Registrar-General,
 was 25,600. The birth registered during the same year
 were 2,157, which would give a birth rate of 84 per 1,000
 per annum; and the deaths recorded during the same year

per 1,000 per annum. The death rate of 27.5 per 1,000 per annum.

LOCAL SUMMARIES.

The following summary of the sanitary condition of the
 parish is based on the assumption that the birth rate is really a
 constant factor, would be 2,157. The total population
 would consequently be 25,600 per 1,000, that for London
 at large for 1877 being 28.1, and the death rate during the
 year in the whole parish of the non-sanitary who
 died in the infirmary, 100, recorded as being properly
 should be at the rate of 18.5 per 1,000 per
 annum. The death rate of London for 1877 was 21.9;
 and on the above estimate the mortality of 1877 was
 21.9 per 1,000, which is the same as the mortality of the
 sanitary authorities of the Metropolitan generally, an
 important evidence of the general sanitary condition of the
 sanitary and population parish, and a legitimate source of
 satisfaction to the sanitary authorities responsible for the
 health and physical well-being of the inhabitants.

General Summary of the Sanitary Condition of the Parish during 1877.
 It will be observed that the sanitary officers have per-
 formed work in excess of that of any previous year.
 The number of 3,000 inspections have been

BATTERSEA.

Under the headings of East and West Battersea respectively, will be found a *resumé* of the sanitation of the year 1877; but there are many details which can only be profitably considered with reference to their bearing on the Parish as a whole, and we therefore beg to present the usual summary for the entire parish.

The official mean population of the Parish of Battersea for the middle day of the year 1877, according to the mode of estimation used by the Registrar-General, was 75,600. The births registered during the same year were 3481, which would give a birth-rate of 46·0 per 1000 per annum; and the deaths recorded during the same year were 1725 in number, which would produce a corresponding death-rate of 22·8 per 1000 per annum. This *includes* all deaths in the Infirmary and other public institutions, and is much in excess of the real death-rate.

The *estimated mean population* of the parish for 1877, based on the assumption that the birth-rate is really a constant factor, would be 82,880. The *real* birth-rate would consequently be 42·0 per 1000, that for London at large for 1877, being 36·1; and the deaths during the year in the whole parish, if the *non-parishioners* who died in the Infirmary, 109, were deducted, as they properly should be, would be at the rate of 19·5 per 1000 per annum. The death-rate of London for 1877 was 21·9; and on the above estimate the mortality of Battersea was 2·4 per 1000 below that of the Metropolis generally, an unequivocal evidence of the general salubrity of this extensive and populous parish, and a legitimate source of satisfaction to the sanitary authorities responsible for the health and physical well-being of its inhabitants.

General Sanitary Work in the Parish during 1877. It will be observed that the sanitary officers have performed work in excess of that of any previous year. The large number of 3061 inspections have been

recorded in the Inspector of Nuisances' book : but in addition to these, a very large number of visits and sanitary investigations have been made by the Medical Officers of Health and the Surveyor, to which latter gentleman the Medical Officers beg to tender their best thanks for the ready and able assistance he has at all times accorded to them.

The details of the ordinary sanitary operations will be found in the Tables included in the Reports of the several Sub-districts of the parish.

The mode of conducting the business of manufacturers of Sulphate of Ammonia from the Ammoniacal liquor of the Gas Works, at the Chemical Works of Messrs. H. Wallace and Co., in the New Road, Battersea, has been the source of great anxiety to the Medical Officers during the last three years. The manufacture mentioned involves the liberation of large volumes of Sulphuretted Hydrogen, a poisonous and most offensive gas, which can probably be effectually dealt with on a small scale ; but in the present case, either from defective plant, excessive manufacture of Ammonia Sulphate in proportion to the capacity of the apparatus employed, or want of proper care on the part of those engaged, a nuisance of a very grave character existed ; and in spite of all the efforts which the proprietors asserted were made by them in devising fresh adaptations and methods of manufacture, became, as the production increased, more and more offensive and dangerous to the public health and comfort. During the earlier period of the existence of the manufacture, the ammoniacal liquor of the one gas company only was used ; but when the same product from a second company was added, between 40,000 and 50,000 gallons of ammoniacal liquor was used per day, with the result to the residents in the locality of great suffering and discomfort.

In addition, very numerous complaints were received from persons resident in Clapham, Lambeth, and other

contiguous parishes, to the effect that the offensive gases (Sulphuretted Hydrogen, Sulphurous Acid, &c.) given off from these works, were carried great distances by the wind to the annoyance of the complainants.

Besides affecting the air, a nuisance of a more grave and dangerous character arose from the practice of letting into the sewers the heated effluent waste from the works, holding in combination offensive gases, which, with the sewer gases liberated by the heated fluid, forced their way into the houses by the drains and issued in volumes from the ventilators, gullies, and side entrances of the sewer in the New Road.

These premises were frequently inspected by the Board's Officers, who pointed out to the proprietors the evils complained of, and promises of improvement in the methods adopted, and of the employment of more efficient apparatus were constantly made by the latter, without, however, resulting in the slightest amendment; indeed the nuisances complained of were never at any time in the slightest degree abated, except when the apparatus was not at work.

The consequent action adopted by the Board, both by indictment and in the Court of Chancery, is so well known to every one concerned, that it is unnecessary to recapitulate here; it is, however, sufficient to say that these proceedings were successful in either court, and great commendation has been bestowed by the *Times* and other leading Journals on the Board for their perseverance in legal proceedings against Messrs. Wallace, by which a great and dangerous nuisance has at length been stopped, and which, it is to be hoped, will finally lead to the exclusion from the metropolis of like manufactures of an offensive character.

The Alum and Ammonia Company's Works were, for some time, the cause of many complaints from the residents in the neighbourhood of the Lombard Road. The manufacture there carried on was that of sulphate of ammonia, but

by a different process to that adopted by Messrs. Wallace. The nuisances complained of in reference to the Alum and Ammonia Company's process were twofold, one when sawdust in large quantities had been acidulated with sulphuric acid and water, and offensive and irritating acid vapours were given off; and secondly, after this acidulated sawdust had been to the purifiers of the Gas Works, and there become charged with ammonia and other volatile gas products, when an abominable and pungent odour pervaded the neighbourhood. After the commencement of legal proceedings by the Board against the Company, they modified their mode of working, erected proper apparatus, and generally speaking did their best to prevent the continuance of the causes of annoyance, and although the jury, by whom the case was to have been heard, gave a formal verdict of "Not guilty" in consideration of the nuisance having ceased for a considerable period, the Board are to be congratulated on the result, as but for the action taken by their order, there can be little doubt that the nuisance would be as great at the present time as when the original complaints were made.

In both the above-mentioned cases the Medical Officers have had duties of the greatest gravity and importance devolve upon them, and they feel that they have endeavoured conscientiously to perform those duties in an equitable and just spirit, both to the proprietors of these works and the public.

The Medical Officers, with the members of the General Purposes Committee and other Officers of the Board, attended an official inquiry held by Lieut.-Col. Bolton, having special reference to the water supply afforded to the District by the Southwark and Vauxhall Water Company, when it was agreed that the works of the Company should be inspected.

The works at Battersea were first visited. Here are situated 12 acres of subsiding and storing reservoirs, with

a capacity of 46,000,000 of gallons, and $10\frac{3}{4}$ acres of filters, composed of Harwich sand, 3 ft. ; Hoggin, 1 ft. ; fine gravel, 9 in. ; and coarse gravel, 9 in. ; altogether a thickness of 5 ft. 6 in. of medium. The filters were undergoing modification by being subdivided into smaller beds to admit of more frequent cleansing without any interruption to the supply.

The works at Hampton were then inspected. There is here storage of $5\frac{1}{2}$ acres, having a capacity of 20,000,000 gallons, and $3\frac{1}{2}$ acres of filters, the filtering medium being arranged as at Battersea. It was very evident that the storage capacity should be much increased, so that it would become unnecessary to take in water from the river Thames, the source of supply, during floods ; when the water contains an unusual amount of organic matter.

On a subsequent day the offices of the Water Company at Sumner Street, Southwark Bridge Road, were visited, when the plans of the mains were inspected ; and Mr. Rumble, the Engineer of the Company, very courteously caused to be drawn for the information of Committee and its Officers, several of the stump ends of the mains in some of the courts in the neighbourhood, when they were found to contain water of an offensive and filthy character, which would be a source of danger to those deriving a contiguous supply ; and in consequence of the strong opinions manifested on the subject by those present, a promise was made that they should be periodically cleansed.

The result of these investigations led to the conclusion that some mode of supplying a large portion of the Parish of Battersea with unfiltered water existed, which fully accounted for the numerous complaints of fish, both alive and in various stages of decomposition, having been found in their cisterns by various inhabitants.

Bearing these facts in mind, we felt it our duty to insist that some communication between the mains containing filtered and unfiltered water must exist other than

those shown upon the plans, and subsequent investigation by the officials of the Water Company showed this to be the fact. This connexion between the two services has since been abolished, and we have reason to believe that the whole of this Parish is now, probably for the first time, supplied with filtered water; the result of the investigation instituted at the instance of the Board.

We must observe, in conclusion, that although the Water Company may more effectually filter the water supplied by it, and make such provision as only to take in water when the river is in its best condition, still no permanent improvement, as far as organic impurities will be obtained, until a source of supply, less liable to contamination, be provided by the Legislature; either by authorising a supply from unpolluted sources or prohibiting the drainage of towns, above the intake, into the river.

Vaccination in reference to Births during the year.

Total Births registered from Jan. 1st to Dec. 31st, 1877.	Successfully Vaccinated.	Insusceptible of Vaccination	Died Unvaccinated.	Postponed by Medical Certificate.	Removed to other Districts unknown.	Unaccounted for
3499	3006	5	307	38	141	2

The above Table is most complete, and speaks well for the manner in which the Vaccination Officer, Mr. Payne, has carried out his not at all times pleasant duties during the year. In two instances only has he had to apply for magisterial aid to compel compliance with the Act. It will be noticed that, with the exception of those removed to other districts, but two remain unaccounted for. Of the total number 2,621 were successfully vaccinated at the public stations.

JOSEPH OAKMAN,

W. H. KEMPSTER,

Medical Officers of Health for East and West Battersea.

BATTERSEA EAST.

The *official mean population* of Eastern Battersea for the year 1877 was 38,308. This is, however, admittedly under the real number of inhabitants, which is arrived at approximately by estimating the birth-rate to be 42 per thousand, which has been found, during the census years, to be the usual birth-rate for this Sub-district. As 1972 births were registered during the year on the above-mentioned basis, an *estimated mean population* for the middle day of the year 1877 of 46,952 will be deduced.

The *natural increase* of population consists in the excess of births over deaths, and as the former were 1972, and the latter but 905, an increment of 1067 to the numbers resident in the Sub-district thus occurred during the year 1877.

Mortality.—The Registrar has recorded the deaths of 470 males and 435 females, the total number being 905, who resided in the Sub-district of Eastern Battersea during the year under report. The number registered in the previous year was 893, and the difference in numbers between the two years but 12, which is fully accounted for by the increased population.

The estimated mean population being assumed to be nearly, if not absolutely, correct, it will be found that the death-rate for the Sub-district during 1877 was 19·25 per thousand. The *official mean population* would give a

death-rate of 23·6 per thousand per annum. If the latter be accepted as the true death-rate, we must admit that the birth-rate is 51·4 per thousand, which is obviously excessive.

The death-rate for the whole of London for 1877 was 21·9, so that a difference of 2·65 per 1000 in favour of this Sub-district is shown. *Per contra*, however, some persons died in hospitals, &c., who were resident here; but it is impossible to obtain anything approaching the exact number. It, however, may be fairly inferred that this mortality of the Sub-district is below the average of London generally.

The usual mortality Table, which is here appended, will be found to afford detailed information relative to the total deaths from any given disease, or class of diseases; the sex, age, and social position of those whose deaths were recorded in the death-register during the year.

Ages at Death.—Under one year of age, 329 deaths, or 36 per cent. of the total number, were registered. This is about the normal proportion. From “Premature Birth, Low Vitality,” &c., 67 cases were recorded.

Between 1 and 5 years 204 deaths occurred, being but two more than in 1876; indeed, between the two years a curious similarity exists. Under 5 years of age 533 died, against 537 in 1876; and the per centage relatively to the whole number of deaths was 58, which is about the average proportion.

Above 80 years of age 15 persons died during the year.

STATISTICS OF MORTALITY.

BATTERSEA EAST.		Total Deaths from each Class of Disease, &c., in the Sub-District.	SEX.		AGE.									SOCIAL POSITION.			
			Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	From 10 to 20 years.	All under 20 years.	At 20 and under 40 years of age.	At 40 and under 60 years of age.	At 60 and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle & Trading Class, Shopmen, Clerks, &c.	Industrial and Laboring Classes.
Population, June, 1876— 36,567.																	
Estimated mean population, 1877—38,308.																	
Area in Acres 1235.																	
Classes:—																	
1. Zymotic	Small Pox.	28	14	14	8	5	6	1	20	5	3	...	...	...	...	1	27
	Measles ...	47	24	23	11	33	2	...	46	1	...	...	...	...	...	6	41
	Scarlatina...	18	8	10	...	13	4	1	18	...	...	...	...	...	...	4	14
	Diphtheria.	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1
	Quinsy .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Croup	10	7	3	3	7	...	...	10	...	...	...	...	...	1	1	8
	Whooping Cough ...	26	14	12	11	14	1	...	26	...	...	...	...	...	2	4	20
	Typhus, &c.	17	8	9	...	3	3	4	10	3	2	1	1	...	...	1	16
	Erysipelas.	4	3	1	1	1	...	...	2	...	1	1	...	...	...	...	...
	Metria, Childbirth	8	...	8	...	...	...	...	...	8	...	...	...	...	...	1	7
	Carbuncle.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea & Cholera ...	47	25	22	38	3	1	...	42	1	1	2	1	...	3	9	35	
Totals of Zymotic Class		206	103	103	72	79	17	6	174	19	7	4	2	...	6	27	173
2. Tubercular		193	108	85	77	28	8	16	129	30	33	1	...	...	9	16	168
3. Of Brain, Nerves, &c.		82	43	39	22	23	3	1	49	8	10	12	3	...	4	9	69
4. Of the Heart, &c. ...		38	16	22	...	...	2	3	5	11	11	11	...	2	...	2	34
5. Of Respiratory Or- gans		203	104	99	74	66	10	2	152	7	14	26	4	3	8	19	173
6. Of Digestive Organs		32	17	15	4	2	...	2	8	6	6	11	1	1	2	2	27
7. Of Urinary Organs.		9	7	2	...	...	...	...	...	3	5	1	...	...	...	1	8
8. Of Organs of Gene- ration		1	...	1	...	...	...	...	...	...	1	...	...	...	1	...	...
9. Of Joints, Bones, &c.		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10. Of Skin .....		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11. Premature Birth, Low Vitality, Mal- formation, &c.		67	36	31	67	...	...	...	67	...	...	...	...	...	1	9	57
12. Of Uncertain Seat...		23	7	16	5	2	1	1	9	4	4	6	...	...	...	4	19
13. Age		16	7	9	...	...	...	...	...	...	...	12	4	1	2	5	8
14. Violence		26	18	8	6	2	3	3	14	6	2	3	1	...	1	4	21
15. Not Specified		9	5	4	2	2	1	...	5	1	3	..	...	...	2	1	6
TOTALS		905	471	434	329	204	45	34	612	95	96	87	15	7	36	99	763

Zymotic or Epidemic Diseases.—The mortality in the Sub-district from these diseases has been identical in numbers for the last two years, viz. :—206 ; but this total is made up differently in each year, as is evidenced by the following Table, which illustrates at a glance the prevalent diseases of this class in either year.

					1877	1876
Measles	-	-	-	-	47	20
Diarrhœa, &c.	-	-	-	-	47	60
Small Pox	-	-	-	-	28	7
Whooping Cough	-	-	-	-	26	53
Scarlatina	-	-	-	-	18	34
Fevers (the various)	-	-	-	-	17	6
Croup	-	-	-	-	10	11
Metria (dis. of childbirth)	-	-	-	-	8	10
Erysipelas	-	-	-	-	4	2
Diphtheria	-	-	-	-	1	3
					206	206

By this table it will be observed that Measles was very prevalent during the year 1877, the number of fatal cases having increased from 20 to 47. In an immense majority of these instances some form of lung disease has been returned as the secondary cause of death ; in fact, uncomplicated Measles is not a fatal form of disease. Diarrhœa, on the other hand, was reduced from 60 cases in 1876, to 47 cases in 1877, which may be ascribed to the generally moderate temperature which prevailed during the year, more especially during the later summer months, when this disease is usually the most fatal.

The mortality from Small Pox rose from 7 cases in 1876, to 28 cases in 1877, which may justly be denominated a wanton waste of human life ; there being no fact more indubitably established in the science of medicine, than that effective vaccination, which implies good and sufficient primary vaccination, tested, and perhaps supplemented, by re-vaccination at the age of puberty ; is an absolute

protection, not only against the loss of life from this most loathsome affection, but from any liability whatever to the disease. The real danger arises from the inefficient manner in which vaccination is often performed. Four vesicles on one arm, or three upon each, is the smallest number which can be depended upon for absolute security, and this amount of vesiculation is always afforded by the public vaccinators, besides permanent markings or scars, together equal to the area of a sixpence at the least, but preferably to that of a shilling (which latter is the standard of first class vaccination), is insisted upon by the Government Inspectors. If this standard were universally adopted, it is not too much to say that this form of disease would become as extinct as the plague is in this country at the present period.

The mortality from Whooping Cough was reduced from 53 cases to 26. There has been an equally satisfactory diminution in the mortality from Scarlatina, 18 deaths only having been returned against 34 in the preceding year. There were 17 cases in which the cause of death was given as from Fever; but 6 such cases having been returned in the previous year. This, however, appears to have arisen from the fact that a practitioner in this parish frequent added "Typhoid" as a secondary cause of death, when the real cause was from some non-zymotic disease, by which he meant to imply that death eventually took place from a low febrile condition, the result of exhaustion, and not from enteric or typhoid fever. His attention having been called to this fact, deaths from this cause have wholly ceased to appear in the mortality returns.

The other diseases of the zymotic class do not call for any special notice. The zymotic death-rate for the year was 4·3 per 1000.

Other Diseases.—The tubercular class of diseases, the chief of which is ordinary Consumption, caused 193 deaths during the year. These numbers do not vary considerably

from those for 1875 and 1876, which were respectively 197 and 205. From diseases of the Respiratory Organs 203 deaths were registered as against 196 and 189 respectively. Diseases of the Brain and Nerves are in the present day extremely prevalent, 82 fatal cases being recorded. Singularly, between 5 and 10 years of age, but 3 deaths took place from this cause, and from 10 to 20 years but one death, affording valuable evidence to the effect that the modern methods of universally imparting education do not tend to produce disease of the cerebral organs. From Premature Birth 67 cases were recorded, the majority living but a few hours, and being cases that would formerly have been buried as stillborn. Heart disease was the cause of death in 38 instances, about the usual proportion. The deaths from violence numbered 26; 18 were males, and 8 females. The particulars are given under the heading of Inquests.

Births.—In the Sub-district of Eastern Battersea the births of 994 males and 978 females, together 1972, were recorded by the Registrar during 1877. As has been shown at the commencement of this Report, the probable birth-rate was 42 per thousand per annum. If, however, the official mean population of the Registrar-General be taken as the basis of calculation, the birth-rate would be 51·4 per thousand per annum. The birth-rate for London at large during the year 1877 was 36·1 per thousand.

Social Position.—This Table is interesting as illustrating the social changes which take place in the locality, the deaths of the gentry being less frequent each year, but those of the professional class and traders showing a decided increase.

			= per cent.
Nobility and Gentry	-	-	7
Professional Class	-	-	36
Middle and Trading Class	-	-	99
Industrial and Labouring Class	-	-	763
			<hr/>
	Total	905	100·0
			<hr/>

Vaccination.—During the year under report the Register of Public Vaccination for the Eastern division of the Parish of Battersea gives the following as the numbers of persons successfully vaccinated or re-vaccinated :—

Successfully vaccinated	-	-	-	1462
„ revaccinated	-	-	-	464
Total	-	-	-	<hr/> 1926 <hr/>

The ignorant prejudice formerly existing against vaccination seems to be disappearing in proportion as the people are better taught, and consequently more capable of comprehending the real protection afforded by vaccination, and the chimerical nature of the imputations cast upon the operation. Evidence of very decided character is afforded by the Medical Superintendent of the Homerton Small Pox Hospital, who, in his report upon the cases of Small Pox admitted during the years 1876-77, shows the following mortality :—

Unvaccinated	-	-	-	mortality	53 per cent.
Badly vaccinated	-	-	-	„	26 „
Fairly vaccinated	-	-	-	„	2·3 „

in addition to which the odds are in favour of an unvaccinated person taking the disease whenever exposed to the infection, and are very much against a properly vaccinated person becoming affected under similar circumstances. It may be added that the reports of the other Small Pox Hospitals afford similar results.

It should not be forgotten that a child or other person may have been vaccinated, but the operation may not have been successful, in which case it is obvious that no protection can accrue. There are, unfortunately, a very large number of persons inefficiently vaccinated, one or two small vesicles only having resulted from the operation, and it is from this class that cases of Small Pox in so-called vaccinated persons are derived in an enormous majority of cases. The other persons who are liable to

the disease, after vaccination, are adults, in whom the protective influence of the operation has become exhausted by the changes in the system which are incidental to puberty, by the effect of other acute diseases, and, above all, by the influence of time, which, in many cases, seems to renew the liability to infection. The remedy in these cases is, of course, re-vaccination, which, if once performed in a satisfactory manner, confers absolute protection for life.

Inquests.—During the year the Coroner held enquiry as to the cause of death in 39 cases in the Sub-district, the following being the respective verdicts:—

Natural causes	-	-	-	-	-	-	-	13
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Accidental causes—

Concussion, Fracture, &c.	-	-	-	-	-	-	7
Asphyxia	-	-	-	-	-	-	4
Drowned	-	-	-	-	-	-	5
Killed on Railway	-	-	-	-	-	-	4
Scald	-	-	-	-	-	-	1
Poison—Opium, 1; Gin, 1	-	-	-	-	-	-	2— 23

Homicidal—

Suicides—Cut Throat, 1; Hanging, 1;

Drowning, 1	-	-	-	-	-	-	3
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Total	-	-	-	-	-	-	39
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giving a proportion of 4·3 inquests to 100 deaths.

Uncertified Deaths.—Fifteen of these very unsatisfactory entries were made by the Registrar during the like period; with the exception of cases aged respectively 78, 31, 80, and 23 years, they all referred to infants or very young children.

Of the total number of deaths in the Sub-district during 1877, 1·65 per cent. were uncertified by any Registered Medical Practitioner.

Disease and Mortality among the Union Poor.—Table V. in the Appendix gives in the usual form a detailed statement of disease amongst the Union poor during the year, and the number and severity of the cases treated will be found to bear favourable comparison with previous returns. The mortality will be found to be very small compared with the number of cases treated, many of them suffering from diseases of the worst type, aggravated by poverty and absence of cleanliness, or proper food and nursing, previous to coming under care.

Sanitary Operations in the Sub-District during the Year 1877.—Appended is an Abstract of the sanitary measures carried out under my supervision and that of Mr. Pilditch, the Surveyor, by the Inspector of Nuisances. It goes minutely into details, and speaks for itself. It will be observed that recourse to magisterial assistance was only necessary in one case, and in every case the notices served were ultimately complied with. While upon this subject I have to report that a decision has been obtained by the Board where a man whose child, which was suffering from Small Pox, and living in a van, and from the circumstances of the case a danger to the neighbourhood, has been convicted and fined for opposing a magistrate's order for the child's removal to a special hospital for the treatment of that disease. This is the more satisfactory, as it had been previously held that although an order based upon a medical certificate for the removal of a person suffering from an infectious disease, and without proper lodging, might be made by a magistrate, there was no power to punish any one who refused obedience thereto.

Abstract of Sanitary Works carried out in East Battersea during the year ending December 31st, 1877.

Number of houses inspected	...	...	...	...	1351
Number of 1st notices served	...	...	...	...	181
Number of 2nd notices served	...	...	...	...	8
Number of houses disinfected after Small-pox	...	...	...	...	179
Number of houses disinfected after Fevers	...	...	...	...	23

Defective drains cleansed and repaired	...	...	...	99
Cesspools abolished	...	...	...	5
Defective apparatus to closets repaired	...	...	...	28
Dust bins provided	...	...	...	48
Accumulations of manure removed	..	...	...	2
No. of houses where separate drainage has been enforced instead of combined drainage	...	...	...	36
Overcrowding abated	..	...	...	4
Obstructions on the footpaths removed	...	...	...	11
Covers to cisterns provided	...	...	...	12
Dirty rooms cleansed	...	...	...	4
Water supply added to houses	...	...	...	6
Water supply added to closets	...	...	...	3
Dangerous coal plates (repaired)	...	...	...	3
Notices served on shopkeepers to desist from sweeping trade refuse into the streets	...	...	...	2
Orders of the Board obtained	...	...	...	5
Summons (to abate nuisances)	...	...	...	1
Fish destroyed as unfit for food	...	...	(lbs.)	207
Fishmongers fined for throwing fish offal about the streets				2

D. RICHARDS,

Inspector of Nuisances.

In conclusion, the Board may be congratulated on the success which has attended the efforts persistently made during the last 21 years to improve the sanitary condition of the locality, as evidenced by the low death-rate, high birth-rate, and very small amount of sickness prevalent in the Sub-district.

W. H. KEMPSTER,

*Medical Officer of Health
for East Battersea.*

BATTERSEA WEST.

In presenting the report for this Sub-district for the past year, I have to observe that it has been characterised by a considerable less number of deaths than the previous one; and, what is still more gratifying, is the fact that the decrease in the number of deaths is entirely amongst those diseases over which sanitation is supposed to have some control. I refer to those of a Zymotic origin. In the first few months of 1877 the District continued to be infected with the epidemic of Scarlet Fever of the previous year, and gave us 8 deaths. On the mitigation of this disease, following closely upon it, Small Pox made its appearance, after an absence of five years; it was not confined to one particular part, but very general. In many cases its type was of a severe kind. It is impossible to tell the extent of the disease, as no means exist for the registration or return of cases; but I feel sure it was plentifully and widely distributed. But 13 deaths were registered; but these must not be taken as all the persons belonging to this District who succumbed, for 39 were removed to the Special Hospitals, and no doubt some of them died.

When this disease became so widely spread over the whole of the Metropolitan District, great difficulty and delay was experienced in removing the patients, owing to the Hospitals being full, and frequently we had to wait for days before a vacancy occurred. I am quite aware the Asylums Board did all they could to meet the pressure put upon them; but, at the same time, so long as the

patient remained in his house, he was a centre of infection, and for his own ultimate recovery it is absolutely necessary for him to be moved as soon as possible after the disease had made its appearance.

If we look at the streets in which this disease occurred, viz., Henry Street, Rayner Street, Grant Road, Speke Road, Lavender Road, Currie Road, Yelverton Road, &c., we shall at once see that there is scarcely a house in which the patients could be properly isolated, especially when we remember that in most houses more than one family resides. This is a very strong reason why cases should be removed as soon as possible; for, whilst they remain at home, they are not only centres of infection, but communications with their attendants and persons outside must of necessity go on, and so the disease is spread far and wide.

The authorities of the Small Pox and Fever Hospitals have not failed to notice this fact in connection with persons who attend there to visit the patients, and have issued a series of Rules to be observed on all such occasions. These rules are so very sensible, and so necessary, that I print them here, so that every person may have the benefit of them.

METROPOLITAN ASYLUM DISTRICT.

FEVER AND SMALL POX HOSPITALS.

Rules Regulating the Visiting of Patients.

I. The Visiting of Patients in these Hospitals is limited to the nearest relatives and intimate friends of Patients dangerously ill. One visitor will be allowed daily to each of such Patients. Such visits can only be made with the permission of the Medical Superintendent, and will be limited in duration to a quarter of an hour—except in very urgent cases, when two Visitors will be allowed and the duration of the visits may be extended.

II. Notice will be sent to the nearest known relatives or intimate friends of Patients dangerously ill, with an intimation that

they may be visited. Such notice will be accompanied by a copy of the regulations under which visits can be made.

III. A list of Patients dangerously ill will be sent daily at one o'clock by the Medical Superintendent to the Gate Porter, to enable him to answer inquiries.

IV. Visitors are warned that they run great risk in entering the Hospitals. No one should attempt to enter the Wards of the Small Pox Hospital without having been previously properly re-vaccinated, and if he lives in the house where Small Pox has occurred, he is urged to apply at once to the Public Vaccinator (whose address can be obtained from any of the Parish Officers) in order that the remainder of the occupiers of such house may be vaccinated.

V. Visitors are advised—

- (a) Not to enter any of the Wards when in a weak state of health, or in an exhausted condition.
- (b) To partake of food before entering the Hospitals.
- (c) To avoid touching the Patient, or exposing themselves to his breath, or to the emanations from his skin.
- (d) To sit on a chair at the bedside, at some little distance from the Patient, and not to handle the bedclothes.

VI. Visitors will be required to wear a wrapper (which will be provided at the Hospital) to cover their dress when in the Wards, and to wash their hands and face with carbolic soap and water before leaving the Hospital, or to use some other mode of disinfection, at the discretion of the Medical Superintendent.

VII. Visitors are *strongly urged* not to enter any omnibus, tramcar, or other public conveyance, immediately after leaving the Hospitals.

BY ORDER OF THE MANAGERS.

15th December, 1877.

It appears to be the prevailing opinion that the provision of Infectious Hospital accommodation for all

classes should be left in the hands of the Metropolitan Asylums Board. Whether it has yet accepted the responsibility I am unable to say.

A most striking fact in connection with the Small Pox cases is the ages of those affected, all, with 10 exceptions, being over 12 years of age; and of those exceptions some were unvaccinated. Not one of those above 12 years had ever been re-vaccinated, and I do not know of a single instance where a case of Small Pox has occurred, and all the other inmates have been re-vaccinated, that the disease has again made its appearance. On the other hand, I could quote several cases where the only unvaccinated infant in large families has been singled out by the disease.

The more experience one has only confirms the belief in the protective power of vaccination and re-vaccination.

Mortality.—The total number of deaths registered as having occurred in this District during the year was 820—409 being males, and 411 females (the latter exceeding the former by 2), being a decrease on the previous year of 32. Of the total number, 820, 186 took place in the Infirmary, 79 of which belonged to the parish of Battersea, leaving 107 to be divided amongst the other parishes forming the Union. These 186 deaths are 9 in excess of the previous year, when 177 were returned.

Deducting, then, the 186 Infirmary deaths, which, as the inmates are derived from the whole of the Union, it is but fair to do, it will leave 634 as the correct number of deaths for this outdoor* District, being 55 less than the previous year. The 79 above referred to as belonging

* Outdoor with reference to Infirmary.

to Battersea, as a whole, will be taken into account in the death-rate for the entire parish.

Death-rate. — Calculating the death-rate on the assumption that the population has increased as in previous calculations, we have a population of 37,298 persons; and, after deducting the Infirmary deaths and its population, the very satisfactory death-rate of 17·1 per 1000, being a decrease on the previous year of 2·4.

Birth-rate. — The births returned were 1509—763 being males, and 746 females, and the rate, calculated in the same manner as the deaths, was 40 per 1000.

After including all deaths in the Infirmary, the above number of births gives a natural increase to the population of 688.

The above birth-rate is high, being 3·9 higher than London, and, taking it as a standard on which to calculate the population, it will be seen that we must have a greater number of people than the method pursued by the Registrar-General gives us; for the birth-rate from known populations rarely exceeds 35 per 1000. This fact should not be lost sight of when perusing the death-rate.

Of the total births, 46 took place in the Infirmary.

The following Table shows the causes of all deaths, classified at different ages, sex, and social position, which have taken place in this Sub-district during the year 1877 :—

STATISTICS OF MORTALITY.

BATTERSEA WEST.		Total Deaths from each Class of Disease, &c., in the Sub-District	SEX		AGE								SOCIAL POSITION				
			Males	Females	Under 1 year	From 1 to 5 years	From 5 to 10 years	From 10 to 20 years	All under 20 years	At 20, and under 40 years	At 40, and under 60 years	At 60, and under 80 years	80 years and upwards	Nobility and Gentry	Professional Class, Mer- chants, Bankers, &c.	Middle and Trading Class, Shopmen, Clerks, &c.	Industrial and Labouring Classes.
Population June, 1876 —		35,577.															
Estimated mean population June, 1877— (52 weeks)		37,298.															
Area 1108 acres.																	
Classes :—																	
1 Zymotic	Small Pox	13	8	5	1	3	2	1	7	2	2	2	...	...	...	2	11
	Measles.....	8	7	1	1	6	1	...	8	...	...	...	...	...	...	2	6
	Scarlatina...	8	1	7	1	4	3	...	8	...	...	...	...	...	...	2	6
	Diphtheria	2	1	1	...	1	..	...	1	1	...	...	...	...	...	1	1
	Quinsy.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Croup.....	5	3	2	...	5	...	...	5	...	...	...	...	...	...	...	5
	Whooping Cough ...	18	6	12	7	10	1	...	18	...	...	...	...	...	1	1	16
	Typhus & other Fevers	25	13	12	2	...	5	2	13	6	5	1	...	...	1	5	19
	Erysipelas...	3	2	1	...	...	...	...	...	1	1	1	...	...	..	...	3
	Metria, Childbirth	3	...	3	...	...	...	...	...	3	...	...	...	...	...	...	3
	Carbuncle...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Influenza ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diarrhoea & Choleraic Disease	22	11	11	18	2	...	...	20	...	2	...	...	...	...	2	20
Totals of Zymotic Class		107	52	55	30	35	12	3	80	13	10	4	...	...	2	15	90
2. Tubercular		172	96	76	47	22	6	14	89	44	31	8	...	1	2	20	149
3. Of Brain, Nerves, &c.		148	85	63	42	19	4	5	70	10	21	41	6	2	1	22	123
4. Of the Heart, &c.....		55	22	33	2	...	1	1	4	7	12	31	1	...	1	7	47
5. Of Respiratory Or- gans.....		124	59	65	36	27	...	2	65	5	26	25	3	...	3	11	110
6. Digestive Organs.....		37	16	21	5	2	2	1	10	4	8	15	...	...	3	4	30
7. Urinary Organs		14	8	6	...	...	...	...	...	4	3	7	...	...	...	4	10
8. Of Organs of Gene- ration		8	...	8	1	...	...	...	1	3	4	...	...	...	...	...	8
9. Of Cancer, &c.....		22	9	13	...	1	...	...	1	2	13	6	...	...	1	4	17
10. Syphilis		7	6	1	6	...	...	...	6	...	1	...	...	...	...	1	6
11. Premature Birth, Low Vitality, Mal- formation, &c.....		30	12	18	30	...	...	...	30	...	...	...	...	3	...	2	25
12. Of Uncertain Seat ...		25	8	17	2	2	...	...	4	2	4	14	1	2	...	1	22
13. Age		47	18	29	...	...	...	...	...	...	...	20	27	1	1	5	40
14. Violence		23	18	5	6	1	2	1	10	5	6	2	...	...	...	2	21
15. Joints and Bones ...		1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1
TOTAL		820	409	411	207	109	27	27	370	99	140	173	38	9	14	98	699

* This table includes all deaths in the Infirmary of the Union.

Zymotic Mortality.—The deaths from this class of diseases are less by 61 than those of the previous year. This is a very gratifying fact, and speaks well in favour of the rigid sanitary watch that is kept on all diseases of this nature. As compared with the previous year, there is an increase in Small Pox and Fevers, and a decrease in every other special Zymotic cause. It is in this class that the entire reduction in the total number of deaths has taken place. This is the more gratifying, as we have had to deal with two epidemics during the year, namely, Scarlet Fever and Small Pox.

Of the 107 persons who died, 52 were males, and 55 females; 65 were under 5 years of age, 80 inclusive were under 20, and 27 from 20 to 60. Neither of the deaths from Small Pox were stated whether vaccination had been performed or not.

The deaths from Fevers were classified as follows:—Typhoid, 14; Simple, Continued, and Remittent, 8; Typhus, 3.

The death-rate from this class of disease is 2·8 per 1000.

The following Table contrasts all deaths from Zymotic causes during the past six years:—

	1872	1873	1874	1875	1876	1877
Small Pox	4	1	0	0	3	13
Measles	24	11	8	17	35	8
Scarlatina	3	3	5	48	20	8
Diphtheria	15	3	5	7	5	2
Quinsy	0	0	0	0	0	0
Croup	7	6	16	5	6	5
Whooping Cough	31	24	30	20	39	18
Typhus, &c.	13	22	15	14	19	25
Erysipelas	5	4	4	9	0	3
Metria, Childbirth..	2	4	11	6	5	3
Carbuncle	1	0	0	0	0	0
Influenza.....	0	0	0	0	0	0
Diarrhoea and Cholera ...	32	37	43	35	43	22
Totals.....	137	115	137	155	168	107

Other Causes of Death.—Diseases of the Respiratory Organs, excluding Phthisis, gave 124 deaths, being 45 less than the previous year; 66 were returned as Bronchitis, 38 as Pneumonia, and 20 from other Lung diseases.

The Tubercular resulted in 172, of which 113 were from Phthisis; Atrophy, 46; Scrofula, 10; and Hydrocephalus, 3. The deaths from Consumption are within one of the previous year; 73 occurred between the ages of 20 and 50, the same period in which I have noticed for years the greater number of deaths from this disease take place. The deaths from Wasting, or Atrophy, all took place under 5 years of age, principally under one, and are 14 in excess of the previous annual return.

Diseases of the Brain and Nerves have increased from 119 in 1876 to 148 in the year under consideration; 61 were under 5 years of age, and 41 were between 60 and 80 years. The numbers from other causes were as follows: Disease of Heart, 55; Digestive Organs, 37; Urinary, 14; Organs of Generation, 8; Cancer, 22; Syphilis, 7; Premature Birth, Low Vitality, Malformation, 30; Violence, 23; Joints, 1; Uncertain Seat, 25; and Old Age, 47.

Of the 714 deaths from the Non-Epidemic classes of disease, 357 were males, and 357 females, an exactly similar number; in fact, throughout the whole year, there is but a difference of 3 between the sexes. 177 were under 1 year; 73 between 1 and 5; 289 under 20, inclusive; from 20 to 40, 88; 40 to 60, 130; 60 to 80, 169; 80 and upwards, 38—2 being females, aged respectively 92 and 95.

The following Table contrasts all deaths from non-Zymotic causes during the past six years:—

	1872	1873	1874	1875	1876	1877
Tubercular including Phthisis..	106	106	113	148	149	172
Of Brain, Nerves, &c.	76	100	115	130	119	148
Of the Heart, &c.	24	34	31	37	49	55
Of the Respiratory Organs, excluding Phthisis.	105	156	151	197	160	124
Of Digestive Organs.	18	11	23	27	19	37
Of Urinary Organs	4	4	6	10	13	14
Of Organs of Generation . . .	2	6	3	7	8	8
Of Joints, Bones, &c.	0	0	4	8	4	1
Of Cancer	15	14	10	2	23	22
Premature Birth, Low Vitality, Malformation, &c.	22	23	26	37	30	30
Of Uncertain Seat.	61	50	27	39	37	25
Age.	46	51	22	39	53	47
Violence	28	4	15	15	18	23
Syphilis	0	0	6	9	4	7
Totals.	507	559	552	702	684	714

Total Deaths from all causes, including all deaths in the Infirmary, in the respective years were—

1872	1873	1874	1875	1876	1877
644	674	686	857	852	820

The Death-rates per 1000, excluding Infirmary deaths and its population, were—

1872	1873	1874	1875	1876	1877
17·0	17·6	17·2	20·2	19·5	17·1

Social Position.—The proportion of Deaths in relation to social position was as follows :—

Nobility and Gentry	·98
Professional	1·83
Middle and Trading.	12·06
Industrial	85·13
	100·00

Inquests.—During the year 43 Inquests were held on the bodies of 43 persons, viz. :—26 males and 17 females, being an increase on the previous year of 15. The verdicts returned were as follows :—

From Accidental Causes	-	-	-	16
„ Natural	„	-	-	21
Suicides	-	-	-	4
Manslaughter	-	-	-	1
Found Dead	-	-	-	1

Of the accidental causes, 6 were caused by Asphyxia—infants suffocated under the bed clothes ; 3 by burning ; 3 were killed by locomotives on the railways ; 2 from falls ; 1 by the swamping of a boat, and 1 from Tetanus, following an injury to the thumb. Those dying from Natural causes were principally from Apoplexy, Heart Disease and Fits.

The suicides were those of 2 males, 1 female by hanging, and 1 female by drowning, all mentally deranged.

It is lamentable to have to record the deaths of 6 Infants suffocated in bed. Mothers cannot be too careful in suckling their babes when retiring for the night, they fall asleep with the infant at the breast, by a slight movement, overlying takes place, and on waking they find suffocation has occurred ; they should not sleep in the same bed.

Disease and Mortality amongst the Union Poor.—The number of cases which came under treatment were 287 ; 138 being males, and 149 females ; were sent into the Infirmary, 12 to Lunatic Asylums, and 39 to Hospitals provided for Epidemic Diseases, these latter being chiefly from Small Pox. On reference to Table V. Appendix, will be found the nature of the various diseases. It will be seen that there is a considerable increase in the number of Small Pox Cases compared with the previous year. A decrease in Diarrhœa, Measles, Scarlet Fever, &c. From Lung Diseases there were 52 cases ; Violence 15, and other diseases 158, being principally from Rheumatism, Dropsy, Debility, &c.

The cases are not nearly so numerous as in former years, and I think this may be attributed in a great measure to the establishment of a Provident Dispensary in High Street, where medical attendance can be obtained for the small sum of a penny per week for adults, and a halfpenny per week for persons under 14 years of age. Many, I know, avail themselves of the privileges of this Institution, and thereby secure their independence in preference to becoming Parish Patients.

Of the 287 cases there were 9 deaths, which gives a death-rate of 3.13 per cent., at the same time it must not be forgotten that several of those removed to Hospitals *died*.

Uncertified Deaths.—Of the 820 deaths, 24 were registered without any legal medical certificate. The deaths are nearly all those of Infants, who being unable to protect themselves, require the protection of the Law.

Mortuary, St. Mary's Church Yard.—The Mortuary so long wanted was opened for the reception of bodies in January. During the year, the Police have had under their charge 16 males and 8 females, most of them being remains found in the river. This does not include the total number, for several persons have availed themselves of the use of the Mortuary for corpses waiting burial; and others on which post-mortem examinations have been made.

I think it is generally known that this mortuary does not receive the bodies of persons who have died from infectious diseases, the Burial Board kindly permitting them to be placed in the Mortuary in the Cemetery.

Sanitary Work.—A large amount of sanitary work has been carried out during the year in this District; a glance at the detailed statement will show that the Inspector has been by no means idle. It is a gratifying

fact, that with the large number of inspections, and notices served to remedy sanitary defects, to desist from committing nuisances, seizing of bad food, &c., but ten magistrates' orders have been applied for to compel compliance. This is a matter which speaks well for the way in which the Inspector carries out his work—work by no means pleasant, from its very nature—I am not aware of a single instance in which he has been refused admittance to any premises. Eighty-six houses have been disinfected, in which infectious diseases have taken place; the majority, 52, being after Small Pox, and the remainder after fevers. I still believe the method of disinfection we use to be far better than any other, as it is very rare indeed that a second case makes its appearance after its use, and we have had ample means of testing its efficiency in houses from which a patient has been removed to the Hospital.

The utmost speed is made in disinfecting infected houses. So soon as we are made acquainted with a case, the same day the Inspector visits, supplies disinfectants, if required, and carries out his instructions.

The following is a summary of the sanitary work carried out in West Battersea during the year—

Abstract of Sanitary Works carried out in West Battersea during the year ending December 31st, 1878.

No. of houses inspected	...	...	...	...	...	1710
No. of 1st notices served	...	...	...	...	...	213
No. of 2nd notices served	...	...	...	...	...	17
No. of houses disinfected after Small Pox	...	...	...	...	...	68
No. of houses disinfected after Fevers	...	...	...	...	...	34
Defective drains cleansed and repaired	...	...	...	...	...	75
Cesspools abolished	...	...	...	...	...	15
Accumulation of manure, &c., removed	...	...	...	...	...	19
Dust bins provided	...	...	...	...	...	81
Defective apparatus to closets repaired	...	...	...	...	...	14
Water supply added to closets	...	...	...	...	...	25
Dirty rooms cleansed...	...	...	...	...	...	12
Pig nuisances removed	...	...	...	...	...	9
Covers to cisterns provided	...	...	...	...	...	5

Water supply added to houses	...	...	...	...	6
Cisterns provided in lieu of water butts	...	...	...	...	2
Obstructions on the footpaths removed or license granted...	...	...	...	...	17
Notice served on shopkeeper to desist from sweeping trade refuse into the streets	...	...	...	...	6
No. of houses where separate drainage has been enforced instead of combined drainage	...	...	...	...	21
Overcrowding abated	...	...	...	...	2
New closets provided...	...	...	...	...	1
Magistrates' orders obtained	...	...	...	...	4
Orders made by the Board	...	...	...	...	18
Meat destroyed as unfit for food	...	...	...	(lbs.)	60
Fishmonger fined for throwing fish offal about the street	...	...	...	...	1
Summonses (to abate nuisances)	...	...	...	...	6

Other sanitary matters relating to the entire Parish will be found in the Combined Summary.

The Cow and Slaughter-houses were all duly inspected; many improvements were recommended, which the owners willingly carried out, and the licenses were granted in the usual way.

It will be fresh in the recollection how the late Inspector "Spencer" met his death from Small Pox; he was a most faithful officer, and one who carried out his difficult duties in a conscientious manner; he was held in great esteem and had resided in the parish for a number of years.

JOSEPH OAKMAN,

Medical Officer of Health, West Battersea.

CLAPHAM.

As has been my custom for several years, I present the following introductory table, including the number of marriages as well as that of births and deaths, as a means of estimating the social as well as sanitary progress of this Sub-district. Such simple tables require no lengthy description, and so save the reader much unnecessary labour.

YEARS	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877
Marriages	244	272	234	158	249	236	257	284	243	313	319
Births	777	801	838	867	864	858	929	937	965	1029	1019*
Deaths	451	450	508	480	604	482	475	528	548	545	467
Excess of Births over Deaths ...	326	351	330	387	260	376	454	409	417	484	551

*Of this number I successfully vaccinated in 400 cases. — J. M. D.

In the past year we have all that could be wished in a statistical sense. In the first place the marriages show an increase even upon the unusually large number of 1876, as well as the preceding ten years, which is one

of the surest indications of our increasing prosperity. Secondly, although there is a slight falling off in the number of births, the deaths are so few in number that we find a remarkable augmentation in the natural increase of the population.

From the above-mentioned excess of births over deaths, and taking into account the large amount of immigration, it can be well imagined our population is rapidly increasing. The population by the official method of calculation is 31,381 persons. This is much less than the actual numbers.

Birth-rate.—Based upon the above calculation the birth-rate is 32·4 per 1000 per annum.

Death-rate.—The death rate, as might be understood from the preceding table, is unprecedentedly low, viz., 14·8 per 1000 per annum.

The following table, comprehensive and yet condensed, gives all the statistical information possible regarding the deaths registered in the Sub-district. Its simplicity forbids description.

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For this number I am indebted to the Registrar-General.

In the past year we have all that could be wished in a statistical sense. In the first place the marriages show an increase even upon the unusually large number of 1876, as well as the preceding ten years, which is one

STATISTICS OF MORTALITY.

CLAPHAM.		Total Deaths from each Class of Disease, &c., in the Sub-District.	SEX		AGE								SOCIAL POSITION			
Population in 1871—27,347. Estimated Population in middle of year 1877—31,381. Area in Acres—1,233.			Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	Under 20 years, including all under 10 years.	At 20, and under 40 years of age.	At 40 and under 60 years of age.	At 60 and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Merchants, Bankers, &c.	Middle & Trading Class, Shopmen, Clerks, &c.	Industrial and Laboring Classes.
DISEASES																
And other Causes of Death																
Classes :—																
1. Zymotic	Small Pox .	12	6	6	3	1	2	6	4	2	...	...	...	...	2	10
	Measles ...	5	3	2	3	1	1	5	...	...	...	...	...	...	1	4
	Scarlatina .	4	3	1	1	1	2	4	...	...	...	...	...	...	1	3
	Diphtheria .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Quinsy ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Croup	3	2	1	1	2	...	3	...	...	...	...	...	...	1	2
	Whooping Cough ...	12	2	10	6	6	...	12	...	...	...	...	...	...	4	8
	Typhus, &c.	4	...	4	...	1	1	2	1	1	...	...	1	...	2	1
	Erysipelas .	3	2	1	1	...	...	1	...	1	1	...	...	...	1	2
	Metria, Childbirth	2	...	2	...	...	...	...	2	...	...	...	...	...	1	1
	Carbuncle .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Influenza...	1	...	1	...	...	...	...	...	...	1	...	1	...	...	...
Diarrhœa, etc. ...	18	9	9	15	2	...	17	...	1	...	...	1	...	7	10	
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals of Zymotic Class .		64	27	37	30	14	6	50	7	5	2	...	3	...	20	41
2. Tubercular*		46	23	23	3	4	2	14	20	10	2	...	2	1	11	32
3. Of Brain, Nerves, &c.		47	26	21	5	7	1	15	5	8	17	2	2	13	16	16
4. Of the Heart, &c. ...		49	19	30	...	...	2	7	11	16	13	2	6	8	16	19
5. Of Respiratory Organs		84	45	39	25	15	4	46	2	13	19	4	3	3	24	54
6. Of Digestive Organs		31	17	14	7	2	1	10	3	7	11	...	3	2	14	12
7. Of Urinary Organs .		13	4	9	...	1	1	2	2	3	5	1	...	2	6	5
8. Of Organs of Generation		4	...	4	...	...	...	...	1	2	1	...	...	...	2	2
9. Of Joints, Bones, &c.		3	1	2	...	...	...	...	1	1	1	...	...	...	3	...
10. Of Skin		3	2	1	3	...	...	3	...	...	...	...	...	1	...	2
11. Premature Birth, Low Vitality, Malformation, &c. ...		73	42	31	66	7	...	73	...	...	...	...	...	3	27	43
12. Of Uncertain Seat .		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13. Age.....		28	12	16	...	...	...	...	...	1	19	8	2	4	14	8
14. Violence.....		8	6	2	1	1	1	3	1	2	2	...	...	...	1	7
15. Not Specified		14	11	3	1	...	1	3	6	2	3	...	...	2	4	5
TOTALS		467	235	232	141	52	19	226	59	70	95	17	21	39	158	249

* Of the 46 deaths due to Tubercular disease 36 were owing to Phthisis.

Zymotic Diseases.—For the sake of comparison, I introduce a table here which shows the number of cases of this important class, at least of its most prominent sub-classes, during the last eleven years, 1867-77, inclusive.

YEARS.	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877
Small-pox.	7	0	10	6	94	14	0	0	2	14	12
Measles ...	3	9	2	14	2	30	11	20	3	13	5
Scarlatina.	5	14	29	45	20	6	2	33	22	13	4
Diphtheria	3	7	0	2	3	3	3	4	6	0	...
Whooping-cough ...	7	25	29	9	18	25	14	15	17	17	12
Typhus ...	10	26	17	12	10	11	10	6	2	5	4
Diarrhœa & Cholera	21	23	30	31	31	39	25	27	22	24	18
TOTALS ...	56	109	117	119	178	128	65	105	74	86	55

The year 1877, we are happy to see, is lowest on the list, having fewer deaths from epidemic disease than any other year in the table. In the steady decrease of these diseases we hope to show some results of our sanitary efforts and science.

Ages of Deceased.—At the extremities of life the mortality is high—at one a matter of regret, at the other of rejoicing. It is very sad that nearly one half of the deaths were of children under ten years. This is an improvement, however, upon many previous years. There has been a diminution in the infantile mortality of late years. No less than 112 persons died upwards of 60 years, 17 of whom were 80 and upwards. This is the largest number recorded for the past twenty years.

Sickness, &c., amongst the Union Poor.—Table V. in the Appendix shows that we have had a large amount of illness amongst the Union Poor in this Sub-district. No fewer than 805 new cases were under treatment during the year, and only 34 deaths occurred. This must be regarded as a low mortality, (4·2 per cent., or 1 in 23) considering the numerous cases of epidemic disease, such as 57 Small Pox, 17 Whooping Cough, 101 Fever, and 17 Diarrhoea cases.

Inquests, &c.—The number of Inquests vary but little year by year in the character of the verdicts as well as in the number of inquests which take place. The verdicts of the eighteen inquests held during the year were as follow :—

- I.—Natural—(1) Heart and Blood-vessel diseases, 3; (2) Teething convulsions, &c., 3; (3) Wasting, &c., 2.
- II.—Accidental, due to various causes, 6.
- III.—Suicidal (poisoning), 1.
- IV.—Doubtful—(1) Drowned, 1; (2) Suffocated, 1; (3) Found dead, 1.

One death was registered as uncertified, and yet no Inquest was held. This we cannot regard as satisfactory.

Sanitary Work.—The amount of sanitary work accomplished during the year will compare most favourably with that of former years. The sixth table in the Appendix gives an epitome of this year's labours. The Surveyor and myself visited and examined 2600 houses, 129 of which were found unwholesome or dilapidated, and received the necessary cleansing or repairing. The cleansing, paving, and watering of our streets are well attended to, and contribute largely to the comfort and health of the inhabitants. The necessity for re-numbering in many of our streets is a point I cannot avoid referring to.

Slaughter-houses, &c.—The Government regulations regarding the slaughter-houses continue to work satis-

factorily, so much so, indeed, that with constant supervision they are as perfect as such places can be. It would be well if cow-houses were subjected to similar stringent regulations, and if piggeries could be brought within the scope of the Act. It is certain that the latter especially create much annoyance to the surrounding inhabitants, and I am strongly of opinion that slaughter-houses, cow-houses, and piggeries should be removed much farther from the city than they at present are.

Water Supply.—The vexed question of water supply is one of vital importance to the community. The source of our present supply is objectionable in every sense. The Government Water Examiner, Col. Bolton, described it in some instances as of the colour and consistence of pea-soup, and the nature of the foreign matters which give it this appearance is almost too disgusting to be mentioned or even considered. No filtration, no engineering, not even distillation, can make water contaminated with sewage fit for drinking purposes. The fact is, the Thames water is not suitable for dietetic purposes. It has been proved practically that along the sides of the "London Basin" water both good and plentiful enough for drinking, &c., can be had by deep-well borings. This has been discussed more fully in previous reports, and to these I refer all who feel an interest in the matter.

JOHN MAC DONOGH,

Medical Officer of Health, Clapham.

WANDSWORTH.

In reviewing the sanitary condition of this Sub-district during the past year, the same plan is here pursued as that hitherto adopted, of presenting a summary of the vital statistics and other principal facts necessary for the purpose of illustrating the subject, arranged, as far as practicable, in a tabulated form, for the sake of facility of reference, and of comparison with those of former years.

It is highly gratifying to find, from an examination of the statistical information, derived as usual from an analysis of the Registrar-General's Returns, and the local public records of sickness and mortality, that this Sub-district attained an exceptionally high standard of health during the year 1877. The most trustworthy evidence of this will be found in the occurrence of an unprecedentedly low death-rate, a high rate of natural increase, and a diminution in the amount of fatality from epidemic diseases to the extent of nearly one-sixth of the average amount.

VITAL STATISTICS.

Population.—Calculated on the assumption that the rate of increase of the population maintained the same proportion as that which prevailed during the preceding ten years, the number of persons living during the past year amounted to 23,806.

Birth-rate.—The births were 684 in number, 338 of males, 346 of females. Calculated on the foregoing estimate of the population, the birth-rate of the past year was 29·90 per 1000 persons living of all ages. The rate of *natural increase* was 17·31 per 1000.

Mortality.—The total deaths registered during the year amounted to 384, or 35 less than the average of the preceding ten years; 185 were of males, and 199 of females. Of this number no less than 122 occurred in the following public institutions, viz., in the Surrey County Lunatic Asylum, 103; in the Hospital for Incurables, 13; in St. Peter's Hospital, 1; in the House of Correction, 1; in the Boys' Reformatory, 1; and in the Patriotic Asylum for Girls, 3. In addition to the deaths recorded on the Register, 21 deaths of Wandsworth parishioners took place in the Infirmary of the Union, and were registered in the parish of Battersea.

Death-rate.—The death-rate deduced from the total deaths registered, and the estimated population, was 16·13 per thousand persons living, on an average, during the year, or nearly 1 per 1000 less than that of rural districts. But even this rate, highly favourable as it is in comparison with the annual average rate of this Sub-district, exceeds by nearly a fourth part what will be subsequently seen to be the *natural* death-rate of the past year.

As has been explained in previous Reports, there are disturbing influences affecting the calculation of the death-rate from the deaths registered, which it is necessary, in order to obtain correct data for the purpose, to take into consideration. Thus the death register is very unduly raised the mortality of the Surrey County Lunatic Asylum, by St. Peter's Hospital, and the Hospital for Incurables, the inmates of which institutions are derived, with a fractional exception, from without the parish, undergo no natural increase, and are of necessity subject to a high mortality. The latter, during the past year, formed upwards of 31 per cent. of all deaths registered—an amount which must render any deduction of the death-rate from such source alone, entirely valueless. On the other hand, a considerable number of deaths of Wandsworth parishioners take place annually in the Infirmary of the Workhouse, which are registered in Battersea, where that building is situated.

In order to arrive, therefore, at the *natural* rate of death, it becomes necessary to eliminate from the calculation the population and mortality of the above-named institutions, and to add to it the deaths of Wandsworth parishioners who died in the Infirmary during the year.

Thus determined, after correction in the manner indicated, the mortality of the past year took place at the extraordinary low rate of 12·59 per 1000, a rate which is *unprecedented* in the records of the Board.

The following Table contains a summary of all the causes of death arranged in accordance with the classification of the Registrar-General, showing the sex, social position and age at death at different periods, and particularizing the several diseases of the Zymotic class :—

STATISTICS OF MORTALITY.

WANDSWORTH.		Total Deaths from each Class of Disease, &c., in the Sub-District	SEX		AGE							SOCIAL POSITION				
Population in 1871—19,783. Estimated population in middle of 1877—23,806. Area in Acres—2,478.			Males	Females	Under 1 year	From 1 to 5 years	From 5 to 10 years	Under 20 years, including all under 10 years	At 20, and under 40 years of age	At 40, and under 60 years of age	At 60, and under 80 years of age	80 years and upwards	Nobility and Gentry	Professional Class, Merchants, Bankers, &c.	Middle and Trading Class, Shopmen, Clerks, &c.	Industrial and Labouring Classes
DISEASES, And other causes of Death.																
Diseases Classified.																
Classes :—																
1. Zymotic	Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Scarlatina ...	21	12	9	1	13	5	19	2	...	...	...	...	1	6	14
	Diphtheria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Quinsy .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Croup .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Whooping Cough }	11	6	5	6	5	...	11	...	...	...	...	...	2	4	5
	Typhus & Infantile Fever	9	3	6	1	1	...	5	3	1	...	...	...	1	1	7
	Erysipelas ...	3	1	2	2	...	...	2	...	...	1	...	...	1	1	1
	Metria, Childbirth }	3	...	3	...	...	...	...	3	...	...	...	...	...	2	1
	Carbuncle ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Influenza ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diarrhoea & Dysentery	16	6	10	10	3	...	13	1	2	...	...	1	1	4	10
	Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals of Zymotic Class		63	28	35	20	22	5	50	9	3	1	...	1	6	18	38
2. Tubercular.....		54	10	35	11	3	2	21	20	9	4	...	1	3	7	43
3. Of Brain, Nerves, &c.		111	64	47	15	7	4	26	24	36	24	1	2	10	10	89
4. Of the Heart, &c. ...		21	8	13	...	...	...	2	4	4	10	1	2	...	5	14
5. Of Respiratory Organs		42	19	23	9	6	1	16	1	6	17	2	1	2	6	33
6. Digestive Organs ...		18	8	10	2	1	...	3	3	5	7	...	2	3	4	9
7. Urinary Organs.....		9	6	3	...	...	...	2	2	4	1	...	1	2	2	4
8. Of Organs of Generation.....		3	...	3	...	1	...	1	...	2	...	...	...	...	...	3
9. Of Joints, Bones, &c.		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10. Of Skin . . . . .		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11. Premature Birth, Low Vitality, Malformation, &c. ... }		19	11	8	19	...	...	19	...	...	...	...	...	...	4	15
12. Of Uncertain Seat...		17	8	9	...	1	...	1	...	5	10	1	1	2	4	10
13. Age.....		13	2	11	...	...	...	...	...	...	9	4	...	...	6	7
14. Violence.....		11	10	1	3	1	...	5	...	4	2	...	...	1	...	10
15. Not Specified.....		3	2	1	3	...	...	3	...	...	...	...	...	...	...	3
TOTALS		384	185	199	82	42	12	149	63	78	85	9	11	29	66	278

It will be seen, on examination of the foregoing Table, that there is a very large preponderance of diseases of the Brain and Nerves (Class 3), forming nearly 29 per cent. of all causes of death; but in estimating the relative proportions borne by the several classes of disease in the causation of the mortality proper to this parish, it is necessary to withdraw from consideration Class 3, in consequence of its undue exaltation by the mortality of the Surrey County Lunatic Asylum, under the circumstances already explained with reference to the determination of the death-rate. Excluding Class 3, the first in order of fatality was, as usual, the Zymotic, Epidemic, or Contagious Class (Class 1), forming upwards of 16 per cent. of all deaths; next, the Tubercular Class (Class 2) contributed over 14 per cent. In this class is included Consumption, which was, as usual, the most fatal single disease, and nearly equalled Diseases of the Respiratory Organs collectively (Class 5), which formed nearly 11 per cent. Compared with the corresponding averages of the preceding 10 years, the classes which were in excess during the past year were Diseases of the Brain, and Diseases of the Urinary Organs, the former being upwards of one-fifth, and the latter one-third the average. Diseases of uncertain seat (Class 12), and deaths from Violence (Class 14), exactly corresponded with their respective averages. All the other classes were below the average, viz.: the Zymotic, $\frac{1}{8}$ th; the Tubercular, $\frac{1}{13}$ th; Disease of the Heart, $\frac{1}{11}$ th; Respiratory Organs, $\frac{1}{3}$ th (nearly); Digestive Organs, $\frac{1}{7}$ th; and Premature Birth, &c., $\frac{1}{4}$ th.

Age at Death.—21 per cent. and upwards of all deaths occurred to infants during the first year of life; upwards of 32 per cent. to children under 5 years of age; and upwards of 38 per cent. to persons under 20 years of age. At the other extreme of life, 13 deaths only were registered as having resulted from old age, unconnected with any disease; but 39 deaths—17 of males, and 22 of females—are recorded as having occurred above the age of 70, viz., from 70–75, eighteen; 75–80, fifteen; and one at 84, 85, 87, 88, 93, and 97 respectively.

Social Position.—There has been in the past year a very marked diminution in the relative proportion of deaths borne by the labouring to the other classes of the inhabitants. This is especially noticeable in the deaths from epidemic diseases, the proportion of which was less than the average to the extent of 25 per cent. Thus, the proportion of deaths from all causes borne by the labouring classes was 72 per cent., and of the deaths from epidemic diseases 60 per cent.; the corresponding average proportions of the ten preceding years have been 76 per cent. and 80 per cent. respectively. This diminution of the usual disproportionately large death-burden of the working classes may be accepted as an indication of sanitary improvement in those localities where such improvement is most needed.

Epidemic Diseases—their prevalence and fatality—The following Table shows the deaths which have resulted from the seven principal Epidemic Diseases during the past and ten preceding years, and the relation which they bore to the deaths from all causes.

YEARS	Small Pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	<div style="text-align: center;"> <div style="display: flex; justify-content: space-around; width: 100%;"> Cholera Diarrhoea </div> </div>		Fever—Typhus and Typhoid	Total Deaths From Epidemics	Total Deaths from all causes	Per centage of deaths from Epi- demics to deaths from all causes
1867	3	1	7	1	6	1	7	7	33	332	9.9
1868	...	8	5	2	20	...	22	7	64	394	16.2
1869	...	23	36	...	7	...	23	5	94	429	21.9
1870	...	2	48	4	16	...	33	10	113	450	25.1
1871	14	31	23	...	11	...	21	3	103	453	22.7
1872	1	5	1	3	13	...	20	4	47	365	12.8
1873	...	4	...	3	8	...	22	7	44	433	10.1
1874	...	14	2	...	19	...	12	5	52	453	11.5
1875	1	2	5	2	14	...	17	5	46	420	10.9
1876	1	17	12	1	10	2	16	12	71	461	15.4
1877	...	...	21	...	11	...	16	9	57	384	14.8

The deaths from these diseases are seen, on reference to the Table, to have been less than the average of the preceding ten years by nearly a sixth part. The prevailing diseases were Scarlatina, Diarrhoea, Whooping Cough, and Fever. Measles, Diphtheria and Small Pox, were unattended with fatality. It will be, however, seen on reference to the Tables of Sickness current amongst the parochial poor (Appendix), that the last-named disease was present to some extent. Twelve cases occurred, all of which were sent to Hospital, where two ended fatally. The greatest fatality resulted from Scarlatina, which prevailed extensively during the first six months of the year. Diarrhoea was the next most fatal, and prevailed during the whole year; but as usual, was most fatal in the autumn. Whooping Cough and Fever prevailed chiefly during the first seven months of the year. There was a remarkable absence of Measles, no death from that disease having been recorded, and not a single case having come under treatment amongst the parochial poor during the year. This is more noticeable from the circumstance that the disease prevailed as a very fatal epidemic in the Metropolis. The following Table exhibits the months in which these diseases were attended with fatality. The largest number of deaths will be seen to have occurred in the four middle months, a less number in the four first months, and by far the smallest number in the four last months of the year.

DISEASE.	January	February	March	April	May	June	July	August	September	October	November	December
Small Pox .....	...	...	...	...	...	...	...	...	...	...	...	...
Measles .....	...	...	...	...	...	...	...	...	...	...	...	...
Scarlatina	3	1	1	3	9	2	1	...	...	...	1	...
Diphtheria .....	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	2	1	3	1	...	...	3	1	...	...	...	...
Diarrhoea	1	1	1	...	...	...	1	5	2	2	...	3
Fever	1	...	1	1	1	2	2	...	...	...	...	1
TOTALS.....	7	3	6	5	10	4	7	6	2	2	1	4

Sickness and Mortality amongst the Parochial Poor. The amount, nature, and fatality of the sickness which occurred amongst the parochial poor during the year are exhibited in Table 5 (Appendix).* The total amount of sickness is found to have been considerably less than half the average of the previous 10 years, and its resulting fatality three-tenths less than such average; while the amount of Epidemic disease was upwards of one-third less, and its fatality nearly half less than its corresponding average. This record of the relative amount of sickness, and of its resulting fatality, occurring amongst a considerable portion of the population, becomes of great service in affording the means—indeed the only means—of estimating the amount of sickness which has prevailed generally throughout the sub-district, and furnishes another valuable indication of the state of the public health, in a manner which the death-rate alone fails to supply; for the latter, while it shows the number of deaths which have occurred in a given population, affords no clue to the amount of sickness from which those deaths have resulted. By accepting the proportion which the deaths bore to the cases of sickness amongst the parochial poor as a measure of the proportion borne by the deaths to the cases of sickness amongst all classes, the entire amount of sickness which prevailed last year is thus estimated to have affected about 30 per cent. of the populations, while the average amount of the preceding five years was 51 per cent. This calculation, although approximate only, cannot err by exaggeration, and furnishes further confirmation of the evidence derived from the figures in the Table of the highly favourable state of the health of the Sub-district during the past year.

Inquests, Violent Deaths, &c.—Twenty-one inquests were held during the year with the following results, viz. :—

* For the sake of accuracy, it should be stated that four of the cases (two of Small Pox, and two of Fever) contained in the Table died in the Metropolitan Asylums set apart for the treatment of those diseases, and that these deaths do not appear in the Table.

Deaths from Natural Causes	-	-	11
Deaths from Violence	{	Accidental	- 8
		Suicidal	- 1
		Cause unknown	- 1

In five instances the cause of death was uncertified by medical testimony. In the absence of such certificate, the cause of death must obviously have been registered on mere conjecture. Such course of procedure, inasmuch as it admits of the *possibility* of the occurrence of these deaths from other than natural causes, must be held to be highly objectionable, and, for the welfare of society, demanding legislative interference. Fortunately, the evil admits of being easily obviated by the simple remedy of employing a medical investigation in every case of death, the cause of which has not been attested by a registered Medical Practitioner. For security of life, and even if only for consideration of convenience and economy, it is desirable that such investigation should precede instead of following (often too late) in the wake of the legal inquiry; for if the necessity for putting the law in motion were determined by a preliminary medical inquiry, instead of the present system of employing hearsay, and, therefore, untrustworthy evidence for the purpose, the majority of inquests now held could be dispensed with, to the saving of much valuable time to the juryman, and much cost to the ratepayer. (For further information on this subject the reader is referred to previous reports).

Sanitary Proceedings.—Table 6 (Appendix) contains, as usual, a brief summary of the principal sanitary proceedings which were carried out during the year. It will be seen with satisfaction that, with one exception, they were all conducted without the necessity for interference of the law. By a comparison of the figures in this Table with those of former years, a much larger amount of work of this kind will be found to have been accomplished than heretofore, and is mostly observable in the number of inspections of houses which is nearly double that of the

year preceding. It should be observed that the extent of the work comprehended in the conduct of these operations cannot be exhibited in a tabulated form. As, for instance, the number of examinations, &c., comprised in the removal of one nuisance.

The Slaughter-houses and Cow-houses also underwent the usual annual examination previous to the renewal of their owners' licenses, and although no objection could be sustained against the condition of the latter in consequence of the existing state of the law, or rather the absence of law in reference to them, it must be confessed that their condition was generally not so satisfactory as it ought to be; and it is here worthy of remark that, when it is considered of what great value a supply of pure milk is to the human economy, especially in sickness, and of what *vital* importance it is to a large proportion of the infant population, it is much to be regretted that the law which fully recognizes such value by its action in reference to adulteration, is not directed to the employment of some standard regulations, such as are already applied to Slaughter-houses, for the purpose of insuring the health of the cattle upon which the purity of the milk-supply so essentially depends. The direction for improvement would be indicated in the determination of the cubical space allotted for each cow, of proper ventilation, water supply, and daily removal of ordure and other arrangements for general cleanliness.

The Water Supply.—The water supplied to this neighbourhood still retains its long continued unenviable notoriety of possessing the worst quality of any supplied to the Metropolis. According to Dr. Frankland's analyses published in the Registrar-General's Annual Summary for 1877, of all the Water supplied to the Metropolis, the quantities of organic matter were, on an average, greatest in the water supplied by the Southwark Company.

In conclusion, it cannot but be highly gratifying to

the inhabitants of Wandsworth to learn from the foregoing statistical information the satisfactory evidence which it has been my pleasing duty to record, of the unprecedentedly high sanitary status attained by this Sub-district during the past year.

GEORGE EDWARD NICHOLAS, M.D.,

Medical Officer of Health for Wandsworth.

Deaths and Death-rate.—During the past year 244 deaths were registered, 118 of males and 126 of females. This shows a decrease of 16 deaths upon the number recorded in 1876, and (relatively to the population) less than the mortality during the past five years. The death-rate is, therefore, at the unprecedentedly low figure of 12.6 per 1000, unapproached by any parish of this District, and probably by few, if any, in the whole five groups of London Districts.

Births and Birth-rate.—An increase of 43 births over the number of last year shows that the decrease of the population cannot account for the above extraordinary death-rate, for 565 births were registered during the year as compared with 536 during the year 1876. Of these 310 were males and 255 females. The birth-rate is 34.0 per 1000. The excess of births over deaths was 341, giving a rate of natural increase of 20 per 1000.

Statistics of Mortality.—In the Table given below the statistics of the mortality of this Sub-district are represented in the usual form:—

STREATHAM AND TOOTING.

Population.—At the middle of the year 1877 the population of this Sub-district is officially estimated at 17,227.

Deaths and Death-rate.—During the past year 244 deaths were registered, 116 of males, and 128 of females. This shows a decrease of 16 deaths upon the number recorded in 1876, and (relatively to the population) less than the mortality during the past five years. The death-rate is, therefore, at the unprecedentedly low figure of 12·5 per 1000, unequalled by any parish of this District, and probably by few, if any, in the whole five groups of London Districts.

Births and Birth-rate.—An increase of 49 births over the number of last year shows that the decrease of the population cannot account for the above extraordinary death-rate, for 585 births were registered during the year as compared with 536 during the year 1876. Of these 310 were males, and 275 females. The birth-rate is 34·0 per 1000. The excess of births over deaths was 341, giving a rate of natural increase of 20 per 1000.

Statistics of Mortality.—In the Table given below the statistics of the mortality of this Sub-district are represented in the usual form :—

STATISTICS OF MORTALITY.

STREATHAM, INCLUDING TOOTING & BALHAM.		SEX		AGE									SOCIAL POSITION					
Population in 1871—14,475. Estimated Popula- tion middle of 1877—17,227. Area in Statute Acres—3,465.				Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	Under 20 years, including all under 10 years.	At 20 and under 40 years of age.	At 40 and under 60 years of age.	At 60 and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Mer- chants, Bankers, &c.	Middle & Trading Class, Shopmen, Clerks, &c.	Industrial and Laboring Classes.	
DISEASES, And other Causes of Death.		Total Deaths from each Class of Disease, &c., in the Sub-District.																
Classes :—																		
1. Zymotic	Small Pox...	4	4	1	...	2	...	2	2	2	
	Measles	2	...	2	...	2	...	2	1	1	
	Scarlatina ...	1	...	1	1	1	
	Diphtheria ...	3	...	3	...	1	1	3	3	
	Quinsy	
	Croup.....	1	1	1	...	1	1	
	Whooping Cough ..	6	2	4	3	3	...	6	3	3	
	Typhus and other	
	Fevers ...	5	3	2	1	1	1	1	2	1	4	
	Erysipelas...	
	Metria, Childbirth	3	...	3	2	1	1	2	
	Carbuncle...	
	Influenza	
Diarrhoea & Choleraic Disease	4	1	3	3	...	...	3	...	...	1	...	...	...	...	...	4
Totals of Zymotic Class		29	11	18	7	8	1	19	3	4	3	...	...	1	7	21
2. Tubercular*		23	8	15	2	3	...	6	13	4	...	...	1	3	4	15
3. Of Brain, Nerves, &c.		33	23	10	6	6	...	14	3	8	6	2	2	7	10	14		
4. Of the Heart, &c. ...		33	14	19	1	2	...	3	3	11	15	1	4	5	8	16		
5. Of Respiratory Or- gans		36	19	17	2	7	...	10	10	5	8	3	3	6	13	14		
6. Of Digestive Organs		25	14	11	4	3	...	7	5	9	4	...	7	3	7	8		
7. Of Urinary Organs .		7	3	4	...	...	...	...	...	1	6	...	2	2	2	1
8. Of Organs of Gene- ration		11	...	11	...	...	...	...	2	9	...	...	2	5	2	2
9. Of Joints, Bones, &c.		7	5	2	...	...	...	1	1	...	5	...	1	1	3	2
10. Of Skin		2	1	1	1	...	...	1	...	1	...	...	1	...	...	1
11. Premature Birth, Low Vitality, Mal- formation, &c. ...		15	5	10	11	4	...	15	...	...	...	...	...	1	4	10
12. Of Uncertain Seat...		4	4	...	1	...	...	2	...	2	...	...	...	1	1	2
13. Age		14	6	8	...	...	...	...	...	...	6	8	2	3	3	6
14. Violence.....		5	3	2	2	1	...	3	2	...	...	...	...	3	...	2
15. Not Specified.....		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS		244	116	128	37	34	1	81	42	54	53	14	25	41	64	114		

* Of the Tubercular class of Diseases, 15 deaths appear to have resulted from Phthisis.

Zymotic Diseases.—The various diseases grouped under the First Class in the preceding Table caused 29 deaths, or about an eighth part of the total mortality. The epidemic of Small Pox, which occurred at the beginning of the year, was somewhat severely felt in this Sub-district. Four deaths occurred in the District, although strenuous efforts were made to remove the cases to hospital. The want of sufficient hospital accommodation, the distance from the then existing hospitals, and the difficulty of conveyance, contributed to this unfortunate result. The occurrence of fatal cases of such a disease in private houses is to be greatly deplored, and, if possible, avoided, since it means, probably, the exposure of many lives to needless danger from, in all likelihood, the worst types of the disease. In a District such as this, the Cottage Hospital system would be a suitable means of meeting prevailing epidemics.

With the exception of Small Pox, this Sub-district has rarely been so free of infectious diseases, as the following little Table will show :—

DISEASES.		1873	1874	1875	1876	1877
Seven principal Epidemics.	Small Pox .....	...	2	...	...	4
	Measles	3	9	2	2	2
	Scarlatina.....	1	3	4	4	1
	Diphtheria.....	...	1	3	7	3
	Whooping Cough.....	8	3	5	7	6
	Typhus, &c.....	7	2	2	5	5
	Diarrhoea and Choleraic Disease..	10	6	9	6	4
Totals :—		29	31	25	13	25

The deaths from Diarrhoea are singularly few. Scarlatina has been exceptionally light also.

Non-Zymotic Diseases.—The diseases grouped under

the other Classes hardly merit any discussion, presenting as they do the usual characters, and bearing the usual relations to each other. Neither the exceptionally high mortality of 1876 from Respiratory diseases, nor the abnormally low mortality from Heart affections, occurred during the past year. The deaths from Tubercular disease are fewer than usual. The deaths from Cancer in this Sub-district are not represented under that name in the Mortality Table, but are so exceptionally numerous as to merit prominent notice. No less than 17 deaths were due to Cancer during 1877, or 7 per cent. of the entire mortality.

Ages of Deceased.—The mortality amongst children is not so great in this District as in most—81, or one-third of the total mortality. Epidemic diseases, Respiratory diseases, Nervous diseases, and Premature Births, &c., are the most frequent cause of juvenile mortality. The deaths of persons of great age are numerous. Fourteen persons of 80 years and upwards died in the Sub-district, 3 at 80, 3 at 81, 1 at 85, 2 at 86, 3 at 87, 1 at 89, and 1 at 90. The oldest, and six of the others, or exactly one-half, were females. Eighteen died upwards of 70, of whom also the half were females.

Sickness and Mortality among the Union Poor.—The amount of this has been exceedingly small; only 47 cases were under treatment, of whom only 5 suffered from Epidemic disease (two of Small Pox, and three of Diarrhœa). Six deaths occurred amongst them, giving a percentage of 12—rather a high mortality.

Social Position of the Deceased.—As is to be expected, the higher classes are proportionately more numerous in this District, making a total, when combined, considerably greater than the industrial. The latter class shows a majority in Epidemic diseases, Tubercular diseases, and Premature Birth.

Inquests, &c.—Ten inquests were held during the year. The verdicts may be grouped as follow :—

I. Natural (1) Heart Disease, 4; (2) Hemorrhage, 1; (3) Asthma, 1.

II. Accidental (1) Asphyxia, 1; (2) Injury, 2; (3) Poisoning 1.

In one case the certificate of death was refused by a Medical man who had not seen the patient alive. As, however, the death is registered Whooping Cough, we presume the Coroner used his prerogative, and decided that the case was not one which called for an inquest. This we conceive is likely to detract from the protective value of a Coroner's court to the safety of life in the community.

Sanitary Proceedings.—The sixth table in the Appendix gives an epitome of the sanitary operations. The amount accomplished will bear favourable comparison with the other Sub-districts. It is particularly gratifying to record the removal of so many as 16 piggeries during the year. No appeal to the police court was required during 1877. The cow and slaughter-houses were duly inspected, and found unobjectionable.

D. C. NOEL,

*Medical Officer of Health
for Streatham and Tooting.*

PUTNEY and ROEHAMPTON.

The mortality statistics of a small District such as this vary considerably, even over long spaces of time. The exceptionally low mortality of 1876 has been followed, during 1877, with one which somewhat exceeds the average. Still, a consideration of the causes of death will subsequently show, that there is in this fact nothing to justify alarm or even to detract from the usually high character of this District in point of salubrity.

Population.—The official method of calculation, that of taking for the years subsequent to the last census the same rate of increase as that which obtained during the previous decade, is manifestly erroneous, taking, as it does, no cognizance of the augmenting rate of natural increase, or the influence of constantly progressing immigration. However, for the sake of uniformity, we must accept its dictum, and fix the population at the middle of 1877 at 11,287.

Deaths and Death-rate.—During 1877, 170 deaths were registered, of which 89 were of males, and 81 of females. This gives a death-rate of 15.0 per 1000 per annum, or 1 in 66½ persons living. Compared with

1876 this seems a discouraging retrogression ; but a glance down the 3rd and 4th columns in the table below will show that it is only slightly over the average of the last ten years. This death-rate also may be seen in a yet more favourable light when compared with the mortality of London, which has just been published by the Registrar-General, at 21·9 per 1000, notwithstanding that the latter is the lowest death-rate recorded, with two exceptions, for the last 38 years.

Births and Birth-rate.—Whilst we have to record an increase in the number of deaths, we have also to record a still greater increase in the number of births registered during the year. There were 351 births, 193 of males, and 158 of females, during 1877, giving a birthrate of 31·1 per 1000, or 1 in 32. The Table below gives a comparative view of the births, deaths, &c., during the past 11 years.

YEARS.	Births.	Birth-rate.	Number of Deaths from all Causes.	Death-rate.	Rate of Natural Increase.	No. of Deaths from Seven of the prin- cipal Epidemic Diseases.	Percentage of Deaths from seven prin- cipal Epidemics to Deaths from all causes.
1867	207	24·8	128	15·4	9·3	20	15·6
1868	263	30·5	118	13·6	16·8	11	9·3
1869	248	26·6	133	14·9	12·8	31	23·3
1870	271	29·5	145	15·7	13·7	19	12·4
1871	275	28·9	151	15·8	13·0	32	21·4
1872	279	28·4	144	14·6	14·0	19	13·1
1873	320	30·6	125	13·3	18·3	6	4·8
1874	290	27·8	156	15·0	12·8	10	6·4
1875	292	27·3	167	15·7	11·6	20	11·9
1876	300	27·3	143	13·0	14·3	19	13·2
1877	351	31·1	170	15·0	16·0	22	13·0

This great increase in the number of births is en-

couraging, not only as a substantial addition to the population, but as an indication of a rapid increase in our tidal population—so to speak. It has been found (as was explained on pages 7 and 8 of last year's Report) that the number of births bears a more uniform and reliable relation to the population than that of the deaths, so that given a certain number of births, we can approximately arrive at the population of the District in which they occurred. By making use of this method, we find that our population in 1877 ought to be 12,375, instead of 11,287, a probably correct estimate. The increase in the deaths does not appear so formidable with this altered population, reducing as it does the rate of mortality from 15·0 to 13·7 per 1000.

From the above table it will be seen that the natural increase (*i. e.* the difference between the number of births and deaths) was 181, giving a rate of 16.0 per 1000.

The Table which follows presents in a concise form the entire mortality of the District, giving the cause of death and the sex, age, and social status of the deceased.

STATISTICS OF MORTALITY.

PUTNEY AND ROEHAMPTON.		SEX.		AGE.								SOCIAL POSITION.			
Population (Census) 1871— 9,439. Estimated population in middle of the year 1877— 11,287 Area in Statute Acres—2,176.															
DISEASES, And other causes of Death.		Total Deaths from each Class of Disease, &c., in the Sub-District.													
		Males.	Females.	Under 1 year.	From 1 to 5 years.	From 5 to 10 years.	Under 20 years, including all under 10 years.	At 20, and under 40 years of age.	At 40, and under 60 years of age.	At 60, and under 80 years of age.	80 years and upwards.	Nobility and Gentry.	Professional Class, Mer- chants, Bankers, &c.	Middle & Trading Class, Shopmen, Clerks, &c.	Industrial & Labouring Classes.
Classes:—															
1. Zymotic	Small Pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles	2	2	...	1	1	2	...	...	...	...	...	...	1	1
	Scarlatina ...	6	2	4	...	3	3	6	...	...	...	...	1	3	2
	Diphtheria ...	1	...	1	...	1	1	...	...	...	...	...	...	1	...
	Quinsy .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Croup ...	1	1	...	...	1	1	...	...	...	...	...	...	1	...
	Whooping Cough ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Typhus and other Fevers	4	3	1	...	...	1	1	2	...	...	...	...	2	2
	Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Metria, Childbirth }	1	...	1	...	...	...	1	...	...	...	...	...	...	1
	Carbuncle ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Influenza ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diarrhoea & Choleraic ...	7	4	3	3	4	...	7	...	...	...	...	...	2	5
	Disease.														
Totals of Zymotic Class...		22	12	10	4	10	3	18	2	2	...	...	1	10	11
*2. Tubercular		26	11	15	5	6	...	14	9	1	2	...	5	10	11
3. Of Brain, Nerves, &c.		29	12	17	6	4	1	11	2	7	7	2	9	8	12
4. Of the Heart, &c.....		8	5	3	1	...	...	1	1	2	4	...	1	2	5
5. Of Respiratory Organs		29	21	8	14	5	...	19	4	3	3	...	2	7	18
6. Digestive Organs ...		12	4	8	1	1	...	2	1	1	5	3	3	5	4
7. Urinary Organs		11	9	2	...	...	...	4	2	4	1	...	1	6	4
8. Of Organs of Gene- ration		2	...	2	...	...	...	...	2	...	...	...	...	1	1
9. Of Joints, Bones, &c.		2	2	...	...	...	...	1	...	1	...	...	1	1	...
10. Of Skin		1	...	1	...	...	...	...	...	1	...	...	...	...	1
11. Premature Birth, Low Vitality, Mal- formation, &c. ... }		8	5	3	8	...	...	8	...	...	...	...	...	1	7
12. Of Uncertain Seat ...		3	...	3	1	...	...	1	...	2	...	...	...	1	2
13. Age		8	2	6	...	...	...	...	...	4	4	...	4	3	1
14. Violence		9	6	3	4	...	1	6	3	...	...	...	...	4	5
15. Not Specified .....		...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS		170	89	81	44	26	5	80	27	20	34	10	3	26	82

* Of the Tubercular class of diseases there were 10 deaths registered as being due to Pulmonary Phthisis.

Zymotic Diseases.—It will be seen that we had 22 deaths from Zymotic or Epidemic disease during the year, exactly the same number as last year, and distributed, as then, over seven of the sub-classes of the group. For the sake of better comparison in this important class of diseases, I have drawn out the Table which follows and which comprises the seven chief epidemic diseases.

YEARS.	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877
Small-pox.	1	...	...	...	1	...	...	...	...	1	...
Measles ...	...	1	5	4	1	...	2	3	...	1	2
Scarlatina.	1	2	6	3	21	7	...	...	...	3	6
Diphtheria	2	1	2	1	1	1	...	1	4	...	1
Whooping-cough ...	9	...	6	3	1	6	1	...	9	7	...
Typhus, &c.	3	2	5	...	1	...	2	...	...	...	4
Diarrhoea & Cholera	4	5	7	8	6	5	1	6	7	5	7
TOTALS ...	20	11	31	19	32	19	6	10	20	19	20

No death has occurred from Small Pox during the year; but to speak of that with much satisfaction is of course impossible. The disease was amongst us in all its loathsomeness and characteristic danger, and at a time too when we were ill-prepared to meet and arrest its progress. Hospital accommodation, especially for the non-pauper class, was scanty, and the only means of conveyance consisted of the Workhouse Ambulance, deficient, difficult to be got, and degrading to the feelings. In dealing with cases of infectious disease, we find our greatest enemies are prejudice, pride, and parsimony, and unless we can satisfy the sufferer and friends that we can safely, decently, and economically remove the case to Hospital,

and effectually, and without expense, disinfect the house and its contents, we will in many cases waste time and trouble in trying to stop the ravages of this fearful disease. It is not proper that the classes should be mixed indiscriminately in the Hospitals. To meet the case thoroughly, we want accommodation for each class, either in the same or different Hospitals. We want suitable carriages for patients, warm, yet well ventilated, easy, accessible, and not too conspicuous in appearance. Proper disinfecting apparatus is a great boon, for rather than consume an old bed or worthless mattress, many a man would expose his family and neighbours to the risk of deadly diseases. The parish now happily possesses a disinfecting oven, so that the last named difficulty is thoroughly overcome.

Turning again to the preceding Table, we find that Whooping Cough has not claimed a single victim. Scarlatina and the other fevers are somewhat fatal, and Diarrhœa maintains its average.

These cases of Epidemic disease are divided in the following Table according to the quarter of the year in which they occurred :—

DISEASE.	1877.			
	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.
Small Pox .....	...	...	...	...
Measles.....	...	2	...	...
Scarlatina.....	...	1	4	1
Diphtheria	1	...	...	...
Whooping Cough .....	...	...	...	...
Diarrhœa	4	...	1	2
Fever .....	...	2	1	1
TOTAL.....	5	5	6	4

Scarlatina was most prevalent in the third quarter, and Diarrhœa during the first.

The Table given below is a continuation of the Table on page 75, comparing the causes of death for ten years in the remaining 14 Classes :—

YEARS.	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877
Tubercular.....	21	24	20	18	22	24	19	24	26	26	26
Of Brain, Nerves,&c.	19	16	17	18	19	20	26	39	23	26	29
Of the Heart, &c. ...	9	9	6	9	9	14	13	8	13	6	8
Of Respiratory Or- gans	20	21	15	31	29	26	21	30	36	23	29
Of Digestive Organs	9	8	11	17	8	7	12	11	7	5	12
Of Urinary Organs	2	2	...	5	1	5	4	3	8	7	11
Of Organs of Gene- ration	2	2	1	...	1	...	2	...	1	1	2
Of Joints, Bones,&c.	...	2	...	1	...	1	1	...	1	1	2
Of Skin	1	...	...	...	...	...	...	...	...	...	2
Premature Birth, Low Vitality, Mal- formation, &c.....	13	9	11	8	11	5	7	7	16	10	8
Of Uncertain Seat...	2	4	6	5	5	5	2	6	1	1	3
Age.....	5	1	4	8	7	3	3	6	11	8	8
Violence	4	6	8	4	4	6	5	6	4	7	9
Not Specified.....	1	...	...	1	2	2	1	2	...	...	...
TOTALS	108	104	99	125	118	124	116	146	147	121	151

A wonderful uniformity will be seen in the number of deaths from Tubercular disease. An increase will be observed in the diseases of the Brain, of the Respiratory, the Digestive, and the Urinary Organs, and in deaths from Violence. It is satisfactory to note that the deaths from Premature Birth, &c., are again diminishing.

Ages of the Deceased.—The increased mortality of the past year has been almost entirely among the young. The deaths under 20 are 2 in excess of last year, and form nearly half of the entire mortality. All the cases of Epidemic disease, except Fever, occurred amongst children, and the Tubercular and Respiratory diseases were most prevalent amongst them, as also, curiously enough, the

deaths from Violence. There is a decided increase of the mortality amongst the very old. Ten persons, of whom 8 were females, died over 80, the oldest (a female) being 88.

Social Position.—As usual in this District the mortality amongst the Industrial Class is largely exceeded by that of the other classes combined. Causes of death, implying hardship or exposure, are rather more common, of course, among the lower class, such as Respiratory disease, Epidemic diseases, Premature Birth, Violence, &c.; while Old Age, Brain, and diseases of the Digestive Organs are more common among the better classes.

Sickness and Mortality among the Union Poor.—It is very remarkable that during the year only two cases—(see Table V. in Appendix)—of any infectious disease, were reported among the poor of the parish. When we consider their chances of infection, &c., this seems very surprising. Both those cases were of Small Pox.

Inquests, Uncertified Deaths, &c.—There were nine inquests held during the year. The verdicts may be grouped as follow :—

- I. Accidental (1) Asphyxia, 4; (2) Drowning, 2; (3) Wounding, 1; (4) Fracture of Skull, 1.
- II. Natural Spasm of Glottis, 1.

Most of these inquests, however, were held over the bodies of children. Suffocation from overlying is the most frequent cause of this destruction of infantile life, and that, notwithstanding the many simple safeguards against such accidents.

One death was registered “convulsions,” without being certified, and without an inquest. Surely the temptations and opportunities for crime are great enough without leaving a door of escape open from its conse-

quences, such as this does. In such a case an inquest is called for; and it seems very extraordinary that the Coroner should be invested with the power of pronouncing upon a case without the aid of a legally constituted jury. Two deaths were registered from information derived from an unqualified Medical practitioner. It is surely due to the position and dignity of the Medical profession that its rights should be safeguarded, and with them the safety of the community, by the refusal of the Legislature to recognise certificates of death from persons who practise without a legal qualification, especially when there is qualified Medical attendance at the call even of the humblest pauper.

Sanitary Proceedings, &c.—A useful guide to the sanitary labours of the year may be found in the last Table of the Appendix. It is pleasant to record the gradual weeding out of the cesspool system of drainage. We cannot but rejoice, too, over the demise of another piggery, raising, as it does, the distant hope that ere long we may banish the ill-favoured animals from city and suburbs. Appeals to the magistrate still diminish, a hopeful sign of increasing sanitary knowledge and tractability.

In connection with the sanitary work of the District it is only right that I should here express my thanks to the Surveyor for his hearty co-operation and valuable assistance in all sanitary matters in which we have come in contact.

The Slaughter and Cow-houses received their annual inspection during the year. The former, happily, prove each year more conclusively the wisdom and practical value of the regulations imposed upon their keepers. In no case, even in crowded localities, was there any complaint, or cause of complaint. But with regard to the Cow-houses, though we have no very bad example in this Sub-district, there is reason for desiring a similar set of

regulations. Perhaps even of more importance to the community than the condition of the Slaughter-house is the condition of the place whence comes one of the most indispensable parts of our daily food supply. The following points require regulation with regard to the Cow-houses :—(1). The size of the byre or byres ; (2). Their efficient ventilation ; (3). Their proper drainage ; (4). Their frequent cleansing ; (5). The number of animals kept ; (6). The number of men employed. But the duty of the Sanitary Inspector should not end with the condition of the houses themselves. The following additional points require his attention :—(7). The proximity of other dwellings, especially the dairy ; (8). Their cleanliness, ventilation, and drainage ; (9). The condition of the yard, paving, drainage, &c. ; (10). The keeping of other animals in or near the yard ; (11). The position of the dung-heap, if allowed at all.

In speaking of Slaughter and Cow-house regulations, it may not be irrelevant to the subject to press the importance of having piggeries either prohibited in populous places, or strictly licensed and regulated. There is no more offensive and disgusting sight or smell than that of a piggery, to say nothing of the nondescript character of the sties in which the animals are usually kept, or the hideous noises with which they invade even the silence of the night. The odour they create is one of the most sickening conceivable, and, to delicate persons, positively injurious. In order to gratify their filthy appetites, the most offensive garbage is collected for their food, which, especially in hot weather, emits noxious and dangerous odours. It is highly desirable and necessary that suburbs, upon whose salubrity and amenities the greatest city in the world places such high value, should not be made offensive and even unhealthy, that a comparatively unimportant though lucrative trade should exist, and be possessed of privileges denied to many less disgusting occupations.

The Water Supply.—The complaints regarding the Water Supply are neither so numerous nor well founded as they used to be. Still, our demands are not yet satisfied for thorough filtration and constant supply. See the Introduction, pages 15-17.

ALEXANDER WALKER, M.B.

*Medical Officer for Putney
and Roehampton.*

APPENDIX OF STATISTICAL TABLES.

TABLE I.

Summary of Deaths and their Causes, registered in the entire District during 1876, classified according to Sex, Age, and Social Position, and showing also the relative Numbers in each Sub-District.

POPULATION OF ENTIRE DISTRICT, As corrected by the Re- gistrar General.		SUB-DISTRICTS.										SEX.		AGE.								SOCIAL POSITION.				
Census 1871—125,060.		Total Deaths from each Class of Disease, &c. in the entire District.																								
Estimated Population for middle of year, 1877,— 159,234.		Chapman—Population in 1871, 27,347, area in acres, 1,233.																								
Area in Statute Acres, 11,695.		Wandsworth—Population in 1871, 19,783, area in acres, 2,478.																								
DISEASES, And other Causes of Death.		Battersea—Population in 1871, 54,016, area in acres, 2,348.																								
		Putney—Population in 1871, 9,439, area in acres, 2,176.																								
		Streatham, Tooting, and Balham—Popu- lation 1871, 14,475, area in acres, 3,465.																								
		Males.										Females.														
		Under 1 year.										From 1 to 5 years.														
		From 5 to 10 years.										Under 20 years, including all under 10 years.														
		At 20, and under 40 years of age.										At 40, and under 60 years of age.														
		At 60, and under 80 years of age.										80 years and upwards.														
		Nobility and Gentry.										Professional Class, Merchants, Bankers, &c.														
		Middle and Trading Class, Shopmen, Clerks, &c.										Industrial and Labouring Classes.														
Classes:—																										
1. Zymotic	Small Pox...	57	12	...	41	...	4	32	25	12	10	10	35	11	9	2	...	...	...	7	50		
	Measles.....	64	5	...	55	2	2	36	28	16	43	4	63	1	...	...	...	...	...	11	53
	Scarlatina...	58	4	21	26	6	1	26	32	3	34	17	56	2	...	...	...	...	2	16	40	
	Diphtheria	7	...	...	3	1	3	1	6	.	2	1	5	2	...	...	...	...	...	2	5
	Quinsy.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Croup.....	20	3	...	15	1	1	14	6	4	16	...	20	...	...	...	...	...	1	3	16
	Whooping Cough...	73	12	11	44	...	6	30	43	33	38	2	73	...	...	...	...	...	5	16	52
	Typhus & other Fever	64	4	9	42	4	5	30	34	4	9	9	32	15	12	4	1	1	2	14	49					
	Erysipelas...	13	3	3	7	...	...	8	5	4	..	..	5	1	3	4	...	...	1	2	1
	Metria, Childbirth	20	2	3	11	1	3	...	20	...	...	...	...	19	1	...	...	...	1	4	15
Carbuncle...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza ..	1	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	1	...	...	...			
Diarrhoea & Choleraic Disease	114	18	16	69	7	4	56	58	87	14	1	102	2	6	3	1	2	4	24	84						
Totals of Zymotic Class.		491	64	63	313	22	29	233	258	163	168	44	391	53	31	14	2	4	16	97	374					
2. Tubercular		514	46	54	365	26	23	265	249	145	66	18	273	136	88	17	...	5	23	68	418					
3. Of Brain and Nerves		450	47	111	230	29	33	253	197	96	66	13	185	52	90	107	16	8	44	75	323					
4. Of Heart		204	49	21	93	8	33	84	120	4	...	...	22	37	56	84	5	15	14	40	135			
5. Of Respiratory Or- gans		519	84	42	328	29	36	267	252	160	126	15	308	30	68	98	16	11	25	80	402					
6. Of Digestive Or- gans		155	31	18	69	12	25	76	79	23	11	3	40	22	36	50	14	13	16	36	91					
7. Of Urinary Organs.		63	13	9	23	11	7	37	26	...	1	1	4	15	18	24	2	3	7	21	32					
8. Of Organs of Gene- ration		29	4	3	9	2	11	...	29	1	1	...	2	6	20	1	...	2	7	5	16					
9. Of Joints, Bones, &c.		13	3	...	1	2	7	8	5	...	...	...	1	3	2	8	...	1	2	7	3		
10. Of Skin		6	3	...	...	1	2	3	3	4	...	...	4	...	1	1	...	1	1	...	4	
11. Premature Birth, Low Vitality, Mal- formation, &c. ...		212	73	19	97	8	15	111	101	201	11	...	211	...	...	...	...	3	5	47	157	
12. Of Uncertain Seat		101	...	17	77	3	4	43	58	15	6	1	24	8	29	38	2	3	4	16	78					
13. Age.....		126	28	13	63	8	14	47	79	...	...	...	...	...	1	69	56	6	14	36	70
14. Violence.....		82	8	11	49	9	5	61	21	22	6	7	41	17	14	9	...	...	5	11	66			
15. Not Specified		26	14	3	9	...	...	18	8	6	2	2	11	7	5	3	...	...	4	5	14	
Totals		2991	467	384	1726	170	244	1505	1486	840	466	109	1517	387	458	525	104	75	187	544	2185					

TABLE II.

BIRTHS registered during the year 1877.

SUB-DISTRICTS.						Males.	Females.	Total.
Clapham	...	...	..	...	...	544	514	1,058
Wandsworth	..	...	...	...	...	338	346	684
Battersea	{ East—Males, 994; Females, 978 West—Males, 763; Females, 746 }					1,757	1,724	3,481
Putney and Roehampton	...	...	...	...	...	193	158	351
Streatham, including Tooting and Balham	...	...	...	...	...	310	275	585
Total ...						3,142	3,017	6,159

. The excess of Births over Deaths in the entire district is 3168.

TABLE III.

METEOROLOGICAL TABLE FOR LONDON, 1877.

(Deduced from Observations, at Greenwich, under the Superintendence of the Astronomer Royal, and compiled from Quarterly Tables, furnished to the Registrar General by James Glashier, Esq., F.R.S.)

Winter . . . Jan., Feb., March. Spring . . . April, May, June. Summer . . . July, Aug., Sept. Autumn . . . Oct., Nov., Dec.	Temperature of										Elastic Force of Vapour.	Weight of Vapour in a Cubic Foot of Air.		Degree of Humidity.	Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.	Reading of Thermometer on Grass.						
	Air.		Evapora- tion.		Dew point.		Air— Daily Range.		Number of Nights it was																	
Mean.	Diff. from Average of 100 Years.	Diff. from Average of 36 Years.	Mean.	Diff. from Average of 36 Years.	Mean.	Diff. from Average of 36 Years.	Mean.	Diff. from Average of 36 Years.	Mean.	Diff. from Average of 36 Years.	Mean.	Diff. from Average of 36 Years.	Mean (Sat's = 100).	Diff. from Average of 36 Years.	Mean.	Diff. from Average of 36 Years.	Amount.	Diff. from Average of 62 Years.	At or below 30°.	Between 30° and 40°.	Above 40°.	Lowest Reading at Night.	Highest Reading at Night.			
1877.	°	°	°	°	°	°	°	°	°	in.	in.	grs.	gr.			in.	in.	grs.	grs.	in.	in.	Sums.			°	°
YEAR	49.4	+0.8	+0.0	46.1	+0.7	42.8	0.9	15.9	0.0	0.281	—0.014	3.2	—0.2	79	—3	29.725	—0.049	541	—1	26.9	+1.6	80	145	140	18.2	58.1
First Quarter	42.3	+3.6	—2.5	40.0	—2.1	37.3	+1.8	12.1	+0.2	0.222	+0.015	2.6	+0.1	82	—2	29.622	—0.100	548	—4	8.3	+3.3	36	43	11	18.2	46.0
Second do. .	51.9	+0.4	—1.1	47.6	—1.6	43.3	—2.2	19.0	—1.1	0.281	—0.024	3.3	—0.3	73	—3	29.713	—0.077	538	—1	5.3	—0.5	9	36	46	23.0	57.1
Third do. .	58.5	+1.2	—1.9	54.2	—3.2	50.4	—2.5	19.2	—0.7	0.368	—0.037	4.1	—0.4	75	—2	29.784	—0.017	532	+2	6.4	—1.0	3	21	68	25.6	58.1
Fourth do. .	45.0	—1.5	+0.3	42.7	0.0	40.1	—0.7	13.4	+1.5	0.250	—0.011	2.9	—0.2	84	—4	29.743	—0.003	546	0	6.9	—0.2	32	45	15	20.3	46.5

In this Table, + and - respectively signify that the numbers in the preceding column are above or below the average to the extent of the quantities to which these signs are prefixed.

TABLE IV.

Showing the total Deaths from the Principal Epidemic Diseases registered in each Sub-District, and in the entire District, and the relation which they bore to the total Mortality in the several years 1867—77.

YEARS.	DEATHS FROM THE SEVEN PRINCIPAL EPIDEMICS IN EACH SUB-DISTRICT.					ENTIRE DISTRICT.		
	Clapham.	Battersea.	Wandsworth.	Putney.	Streatham.	Total Deaths from the Seven Epidemics.	Total Deaths Registered from all causes.	Per centage of Deaths from the Seven Epidemics to Total Deaths.
1867	56	122	33	21	10	242	1937	12·4
1868	99	194	64	14	28	399	2168	18·4
1869	117	247	94	31	27	516	2393	21·5
1870	119	404	113	19	37	692	2659	26·0
1871	178	463	103	32	31	807	2867	28·8
1872	128	220	47	20	31	446	2421	18·4
1873	65	205	43	6	32	350	2570	13·6
1874	105	238	52	10	26	440	2796	15·7
1875	74	307	46	20	25	472	3096	15·2
1876	86	340	71	19	31	547	3154	17·4
1877	55	280	57	22	25	439	2991	14·6

. The Diseases included in the above Table constitute, as in the Registrar-General's Returns, the principal maladies only of the Zymotic class—viz.: Small Pox, Measles, Scarlatina, Diphtheria, Whooping-cough, Diarrhoea and Cholera, and Fever.

TABLE V.

Cases of Sickness amongst the Poor under the treatment of the Union Medical Officers, with the Deaths from each class of Disease, during the year ended 31st December, 1877. Compiled from the District Medical Relief Books.

SUB-DISTRICTS.		Total Cases of Sickness treated in each Sub-district.		1—Small Pox.		2—Measles.		3—Scarlatina and Malignant Sore Throat.		4—Whooping Cough.		5—Diarrhoea and Dysentery.		6—Cholera.		7—Fever.		8—Erysipelas.		9—Puerperal Fever.		10—Lung Diseases except Phthisis.		11—Phthisis.		12—Hydrocephalus, Atrophy, Scrofula, and Convulsions of Children.		13—Other Diseases.		14—Violence, Privation, and Premature Birth.		Total Deaths in each Sub-District	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.				
Clapham	...	...	808	57	1	14	...	2	...	17	1	19	2	...	...	101	1	3	...	5	...	73	10	12	9	...	...	548	11	22	...	34
Wandsworth	...	...	650	12	...	...	...	24	2	3	...	32	...	...	...	4	...	6	...	...	...	139	7	9	9	1	1	384	16	36	...	35
Battersea	{	East	...	750	106	3	9	...	1	...	7	...	36	1	11	...	4	138	5	30	2	3	2	391	9	14	...	22
		West	...	287	41	1	3	...	2	4	6	...	6	47	2	5	1	1	...	158	5	15	...	9
Putney and Roehampton		...	131	2	...	...	...	...	...	...	...	7	...	...	...	1	...	...	...	...	...	24	...	3	...	2	...	81	1	10	...	1
Streatham, including Tooting and Balham		{	47	2	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	5	1	...	...	...	...	34	4	3	1	6
Totals			...	2673	220	5	26	...	29	2	27	1	101	3	123	1	19	...	5	...	426	25	59	21	7	3	1596	46	100	1	107

. The ratio of deaths to cases treated is 4.0 per cent.

TABLE VI.

SUMMARY of the Sanitary Operations in the entire District during the year 1877.

	Clapham.	Battersea.	Wandsworth.	Putney and Rochampton.	Streatham, including Tooting and Balham.	TOTALS.
Number of Houses and Premises in- spected	2100	3,061	267	789	316	6,533
1st Notices served	212	394	48	52	16	722
2nd Notices served	55	25	2	21	1	104
Cesspools emptied and cleansed ...	...	...	...	...	1	1
Cesspools abolished	5	20	1	5	...	31
Waterclosets con- structed ... ..	...	42	...	3	291	336
Houses supplied with water ...	7	40	6	43	292	388
Drains constructed or connected with Sewer	110	339	95	48	107	699
No. of feet of New Sewers and Branch Drains	2,600	10,306	2,296	918	9,834	25,954
Drains repaired or trapped, or ob- structions re- moved	93	174	4	7	28	316
Open Ditches, Ponds, &c., cleansed ...	...	...	1	...	1,500 ft.	...
Dust-bins provided	109	123	1	4	292	529
Pig Nuisances re- moved	9	9	12	1	16	47
Accumulations of Offal, Manure, &c., removed ...	17	21	9	23	6	76
Unwholesome and di- lapidated Houses cleansed or re- paired	129	317	28	5	12	491
Cases investigated by Magistrates...	...	11	1	2	...	14
Compulsory Orders obtained ... ..	...	11	1	2	...	14
Compulsory works executed ... ..	...	11	...	2	...	13
Works remaining in abeyance from various causes ...	...	...	...	...	...	...

