[Report of the Medical Officer of Health for Southwark, The Vestry of the Parish of St. George the Martyr].

THE

ANNUAL REPORT

OF

HENRY BATESON, Esq., M.D. Lond.

THE MEDICAL OFFICER OF HEALTH

FOR THE PARISH OF

SAINT GEORGE THE MARTYR,

SOUTHWARK,

READ TO THE VESTRY OF THE PARISH AT THE MEETING HELD ON THE 30th DAY OF JUNE, 1874.

Extracted, by order of the Sanitary Committee of the Vestry, from the Vestry's Eighteenth Annual Report.

1874.

Francis Passmore, Printer & Stationer, 60, Borough Road, Southwark—S.E.

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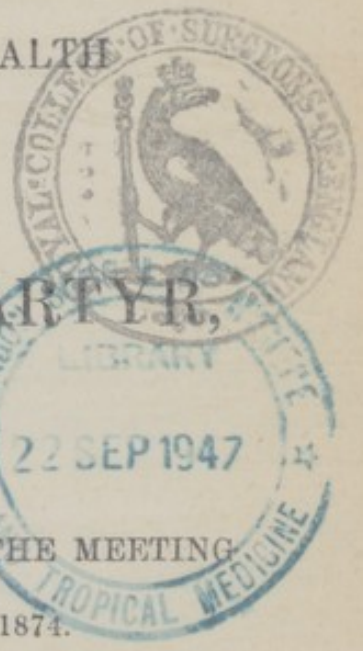

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ANNUAL REPORT

MADE TO THE VESTRY

BY THE

MEDICAL OFFICER OF HEALTH.

FOR THE YEAR ENDING LADY DAY, 1874.

Mr. Chairman and Gentlemen,

By reason of a long and wearing indisposition, I shall be compelled to give you a somewhat short Report; indeed had I not possessed some of the material by me, I should only have been able to give you little more than the bare statistics, as I have been incapacitated mentally and physically from writing satisfactorily.

Reports are most tedious to hear and read; indeed they have been called "most confidential," and if you want a secret kept, all that you have to do is to place it within one, where it will remain free from discovery: they are taken up, the leaves turned carelessly over, hastily glanced at, and then put down again. Yet these annuals are useful; they give in a small space a considerable amount of information concerning the condition of the District to which they refer. They tell the number of deaths, and point out the causes which brought about each death; they lay bare the worst parts of the district, where epidemics run riot, and where the death rate is highest. They mark out the seasons of the year which are most prejudicial to life, and the effects which a change of temperature will rapidly produce upon health. Thus we now know that while in the 17th century the mortality was greatest in summer (July, August, September,) it is now greatest in the winter, shewing, that the then wretched sanitary state of the people proved more fatal in the warm and healthy months, than in the cold and fatal months: cold being most inimical to the health of a large class of the people. A fall of temperature in London from 45° to 27° will increase the weekly mortality by 400, bronchitis being the chief cause of the increase. In eighteen large towns including London, which are estimated to contain a population of six and a half millions of persons, the death rate during five weeks ending February first, when the mean temperature averaged 42°·0, or 5° 0 above the average, the annual death rate averaged 21·9 per 1000, while in the last eight weeks of the quarter, when the mean temperature was 38°·1, or 2°·1 below the average, the death rate was 26·6 per 1000 (R. G.).

I have striven to make these Reports as interesting, as suggestive, and as useful as lay within my power. They seem small matters, yet do they cost much time and labour.

I consider it right to tell you, that every requisite sanitary duty during my illness has been attended to and rigidly carried out: with reference to this matter nothing has been neglected, for if I had known that my duties were not being performed, I should at once have sent in my resignation.

TABLE 1.

Years	1864-5	1865-6	1866-7	1867-8	1868-9	1869-70	1870-1	1871-2	1872-3	1873-4
Deaths	1646	1482	1502	1352	1501	1740	1410	1444	1119	1256
Excess of Births	422	707	542	706	671	249	655	499	997	828

In the year that ended Saturday, April 4th, the births registered in this District were 2084, of this number 1032 were males, and 1052 were females. During the same period the deaths have been 1256, of these 632 were males, and 624 were females. The excess of births over deaths was 828. Thus the births have been 32 less than in the preceding year, and the deaths 137 more. Only in one year during the last ten have the deaths been less, and only in one year has there been a larger excess of births, and that was the year 1872-3. The variation of the death rate from the highest to the lowest in these years was 621.

TABLE No. 2.

Week.	Kent Road.	Borough Road.	London Road.	Total.	Mean Temperature.	Week.	Kent Road.	Borough Road.	London Road.	Total.	Mean Temperature.
14	10	11	9	30	48°·6	40	3	4	8	15	57°·2
15	5	9	6	20	41°·7	41	3	5	7	15	52°·0
16	9	5	8	22	52°·1	42	1	11	8	20	48°·4
17	9	8	7	24	42°·5	43	6	7	9	22	44°·8
18	1	8	7	16	48°·5	44	7	4	10	21	38°·9
19	9	8	4	21	48°·4	45	13	10	14	37	44°·9
20	7	7	3	17	50°·1	46	10	4	13	27	40°·8
21	10	12	6	28	49°·6	47	4	9	7	20	43°·3
22	2	7	7	16	53°·4	48	7	5	7	19	48°·0
23	4	3	7	14	55°·4	49	6	8	15	29	43°·3
24	2	10	4	16	56°·8	50	7	3	11	21	33e·6
25	4	4	7	15	60°·4	51	14	13	7	34	45°·4
26	10	4	5	19	62°·0	52	12	8	6	26	42°·9
27	11	9	6	26	61°·6	53	11	9	9	29	39°·0
28	2	6	2	10	62°·6	1	9	5	6	20	40°·0
29	13	8	8	29	59°·4	2	11	6	11	28	41°·6
30	14	15	15	44	68°·8	3	4	3	10	17	43°·6
31	10	11	9	30	63°·7	4	13	6	10	29	41°·1
32	9	10	11	30	66°·0	5	5	8	4	17	36°·5
33	9	13	13	35	63°·5	6	9	7	5	21	36°·3
34	12	11	10	33	60°·0	7	6	12	10	28	40°·0
35	12	5	11	28	61°·9	8	10	7	14	31	42°·2
36	10	5	10	25	56° 0	9	9	8	8	25	41°·6
37	10	8	8	26	55°·0	10	5	5	8	18	35°·7
38	6	3	5	14	55°·0	11	3	8	12	23	46°·5
39	9	9	10	28	54°·0	12	13	8	8	29	48°·2
						13	4	6	9	19	48°·1

In the second Table will be found the deaths for each week in each of the three Sub-districts, and also the mean temperature for each week. In one week, the 28th, there were registered 10 deaths, the smallest number in the year, and in another, the 30th, there were registered 44 deaths. Only one week intervened between the highest and lowest rate of mortality.

TABLE No. 3.

SUB-DISTRICTS.	POPULATION IN 1871.	NUMBER OF DEATHS IN 1873-4.
Kent Road	20430	414
Borough Road	16694	398
London Road	18959	444

In the Kent Road Sub-district, there were registered 414 deaths, or one death in about 50 persons living; in the Borough Road Sub-district, there were registered 398 deaths, or one in about 42 persons living; and in the London Road Sub-district, there were registered 444 deaths, or one in about 43 persons living. The Kent Road Sub-district was as usual the most healthy. The Borough Road and London Road Sub-districts in that respect were nearly equal. In the whole District one died in about 45 persons living, and the death rate was 23½ in a 1000 persons living.

TABLE No. 4.

1873-4.	BIRTHS.	DEATHS.
Quarter ending June	498	258
Quarter ending September	491	358
Quarter ending December	553	335
Quarter ending March	542	305

The fourth Table simply shows the number of births and deaths in each quarter of the year. The greatest number of deaths occurred in the quarter ending September, which is usually the case, but this quarter only exceeds that ending December, by twenty three. The quarter ending June was the most healthy.

TABLE No. 5.

	1869—70				1870—1				1871—2				1872—3				1873—4			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Small Pox ...	3	7	3	1	1	1	2	49	79	22	11	8	10	7	1	...	...	...	1	...
Measles	14	13	13	6	3	1	3	10	8	15	20	15	6	...	...	2	13	19	18	5
Scarlatina ...	6	59	61	26	14	27	17	7	7	8	9	5	3	2	5	1	...	7	5	4
Diphtheria ...	..	1	2	...	1	2	1	1	2	2	2	1	3	...	1	1	2	4	...	2
Whooping-Cough	20	11	22	21	8	5	5	8	8	11	22	41	19	9	7	10	15	21	10	15
Diarrhœa ...	7	63	3	2	10	47	8	1	3	63	6	6	4	60	5	1	4	90	11	3
Typhus.....	11	11	4	10	11	8	8	11	5	4	7	3	6	4	...	10	...	6	4	2

The Zymotic class of diseases are the most fatal; then follow Lung diseases; from the former 309 persons have perished from the latter 290. Zymotic diseases are mainly preventable, hence their gradual decrease may be anticipated. However, during the year now ended, they caused 78 more deaths than in the preceding year, and this increase was brought about chiefly by an excess of deaths from measles. In the year 1872-3 there were registered 8 deaths from this disease, whilst in the year 1873-4 there were registered 57 deaths, making the large increase of 49. From diarrhœa 38 more died than in the year 1872-3; and 18 more from Whooping-cough. The deaths from Fever were very few. But the number of deaths here placed, does not include the whole number who have died from this disease, inasmuch as many sufferers are removed to the Fever Hospital, where if they die, their deaths are registered. The deaths recorded in the Table are those who have died in their own homes. Nevertheless, the deaths from Fever have greatly diminished, and will continue to diminish. In the year 1863-4, 113 deaths, and in the year 1864-5, 128 deaths occurred from this disease in this District. These doubtless were exceptional years, but they show to what a height the tide of death from Fever has risen. This disease has proved a greater cause of pauperism and distress than any other, as it so often strikes down the heads of families, leaving a helpless offspring whose future must mainly be the Workhouse. But, besides its cost, there is to be considered the suffering undergone, and which no table of mortality reveals, or can reveal. The late accomplished physician, Dr. Southwood Smith, who knew more about fever both from experience and observation than any man of his day, said of it, "that it was one of the most painful maladies to which the human frame was subject."

This disease has now been traced back to its lair, and the laws which govern it discovered. Who, a few years ago would have thought, that the Milkman carried it in his milk-can, and whilst delivering that innocent and nourishing fluid, he was at the same time distributing this deadly disease. Yet so it was. This of course is not the only way in which it is spread; water used for domestic purposes, and the air breathed, are two more highways on which it travels, but which may be so thoroughly closed as to stop its fatal career.

TABLE No. 6.

	1864-5	1865-6	1866-7	1867-8	1868-9	1869-70	1870-1	1871-2	1872-3	1873-4
Small Pox.....	8	6	44	24	4	14	53	120	18	1
Measles	53	34	25	13	35	46	17	58	8	57
Scarlatina.....	78	28	34	42	51	152	65	29	11	16
Diphtheria	5	6	7	6	6	3	5	7	5	8
Whooping Cough ..	64	48	55	67	43	74	26	82	45	63
Diarrhœa	44	85	44	58	88	75	66	78	70	108
Fever	128	51	38	34	48	36	38	19	20	13

The sixth Table shows the number of deaths that have happened from small-pox, measles, scarlet fever, diphtheria, whooping-cough, diarrhœa, and fever, in each of the last ten years,

Consumption has caused 129 deaths, one more than in the preceding year. This disease used to head the death list, but it has only been second during the last two years, bronchitis leading and to the extent of 55 deaths; in the year 1872-3, the excess was but 21. Probably, diseases once put down to consumption are now placed to chronic bronchitis; both diseases being very like one another in one or more of their stages. Be this as it may the disease is most fatal, yet it comes within the list of the preventable. This, people will not believe; anyhow, they continue to act as if they did not. The disease owes its rise from breathing impure air, and from unwise marriages. This latter cause I dwelt upon in my last Report. Who may count the thousands of deaths brought about by closed doors, closed windows, fire boards, list and sand bags? All as deadly instruments as the rifle or the sword, or the mitrailleuse; indeed far more so, as they are in constant operation. The air with health on its wings, abounds outside, but the entrance to it within is "bann'd and barred." Nothing can compensate for the want of fresh air; its purity and plenteousness are absolutely necessary for health. Humanity voluntarily bares its chest for the death stroke, and our cemeteries and churchyards bear witness to the result. Deaths from consumption arising from breathing air which has been breathed before, have emphatically been proved. It would take too long, and I should weary your patience, by bringing before you army statistics proving this fact; but the results they show are astounding and almost

past belief. The glanders of horses arise often from the same cause, and it is stated that the nation has saved some £10,000 a year in cavalry horses, merely from attention being paid to this subject.

There are many trades of themselves fruitful in its production, especially those that give off particles of dust, whether organic or inorganic. These act upon the delicate structure of the lungs and bring about destructive changes, and when we reflect that the whole surface of the cells exceeds 20,000 square inches, which would very nearly equal the floor of a room 12 feet square, we need not be surprised.

The length of time that will intervene in these cases before death takes place, will greatly depend whether the work is carried on out-of-doors or in-doors The death rate from lung diseases, other things being equal, will always be far higher amongst those whose work is confined and sedentary. "Where an industrial system," says Simon, "is bad,—bad, either in excessive length of daily work, or in the overcrowdedness and non-ventilation of work-places," this disease "may be vastly developed. The maximum may be expected to prevail in places where an overtasked population does its work in ill-ventilated factories and cottages." Very few workshops are so constructed as to preserve the health of the workman. Sufficient consideration in this respect has not been exercised. There is, however, another and opposite view of this subject, which demands notice: for not always wrong and selfishness lie on the side of the masters, and patience and resignation on the part of the workmen. There are numbers employed in deadly trades, where a painful and premature death is certain, where the wages are proportionally high, who resist to the uttermost every improvement and suggestion made for their benefit, lest more enter the trade, and so their wages fall.

The deaths from brain and nerves were 182, being 27 in excess of last year. The four previous years showed a gradual decrease, 223, 212, 175, and 155. The excess arose from apoplexy in adults, and convulsions in children.

Deaths from the digestive organs vary little; last year they were 62, in the previous year 63.

Out of the 1,256 deaths, 28 were registered from premature birth and debility. Six infants were suffocated, their ages ranging from 6 weeks to 9 months. Three males aged respectively 22, 39, and 63 years died from injury to the brain. A male and female, aged 56 and 65 years, hung themselves. A male aged 60 blew out his brains, and a male aged 64 was murdered.

As regards our future water supply, we are at present in great uncertainty. What we require is obvious enough, viz., a continuous and abundant supply, and at the cheapest rate possible. The Metropolis in these respects is placed at a disadvantage with most provincial towns. The purest water is rain water after long continued rain. The Thames water is hard and not good for cooking. It is said that it is so hard that 35 oz. of soap in 100 gallons of its water will be destroyed before any lather or cleansing effect can be produced: then there is to be considered the increase of labour required, and the destruction of clothing necessarily incurred. We need purer water, although it is much better in this

respect than we had distributed to us only a few years ago, when it was rich in fœcal matter. Now it often is discoloured, and still contains "living organisms." We must hope Government will see to this, and give us their aid.

TABLE No. 7.*

NAME OF WATER COMPANY.	TONS.	NAME OF WATER COMPANY.	TONS.
1873.		1873.	
Southwark Company—April	29	Lambeth Company—April	30
" " May	26	" " May	28
" " June	25	" " June	27
" " July	23	" " July	26
" " August	24	" " August	25
" " September	25	" " September	26
" " October	25	" " October	27
" " November	28	" " November	30
" " December	31	" " December	31
1874.		1874.	
" " January	30	" " January	30
" " February	32	" " February	33
" " March	31	" " March	32

The Slaughter-houses, Cow-sheds and Bakeries have been regularly visited according as the Law demanded; and the required sanitary measures have been carried out. In all, thorough improvement is manifest.

Great changes have been made in the London-road Sub-district, and for the better. Courts and alleys where the health of those who occupied them was impossible have been abolished, and new streets of a superior class have been made; for which change we cannot be too thankful. The contrast between the present and the past is great.

It is high time that the disused churchyards of the Metropolis were converted into shrubberies and gardens, which would regale sight and smell, and prove sources of health and delight, instead of sources of disease and ugliness. Some of them have been thus converted, and present a very pleasing appearance; the authorities of which deserve the thanks of the community in general. I am glad to be able to congratulate this Vestry in having followed the example, if only to a limited extent. The interest will far more than repay the outlay.

As churchyards now exist they are dangerous, (although of course not so much as formerly when burials went on), from the decomposing animal matter they hold, which constantly gives off poisonous gases, and often so rapidly that the earth can neither absorb nor decompose them. Water percolating through them is highly injurious, if used for domestic purposes. Facts have often most markedly shown the unhealthiness of dwellings situated near them. Carbonic Acid, Ammonia, and an highly offensive putrid vapour are the emanations exhaled from the soil. In vaults more complicated gaseous compounds are met with, and men have been struck dead on entering them. Churchyards should be planted with grass, flowers, shrubs, and trees. Nothing absorbs the carbonic acid, and

*The tons figured, are so many tons of impurity in 100,000 tons of water.

organic matter like these; and the shrubs and trees should be planted in great numbers, and of such as grow most rapidly, not the "cypress and the yew," which are so generally met with.

Trees should be planted in our streets and roads and wherever possible, being always objects of beauty, besides clearing the air, and according to St. Bernard, acting as educators, for he said, "Believe me I have learned more from trees than I ever learned from men."

TABLE No. 8.

1873-4.	Small Pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhœa
Ann's Place	...	...	...	...	...	1	...
Adam's Place	...	...	1	...	...	...	...
Angel Place	...	...	...	...	2	...	...
Angel Court	...	...	...	...	1	...	...
Arrow Street	...	1	...	...	...	...	...
Amicable Row	...	1	...	...	...	...	...
Borough Road	...	...	1	...	...	...	1
Blackfriars Road	...	...	...	...	...	...	1
Blackman Street	...	...	...	...	...	...	1
Bethlem Hospital	...	...	...	...	...	...	1
Belvidere Place	...	1	...	...	...	...	...
Brook Cottage	...	...	...	...	...	...	1
Clarendon Street	...	2	...	...	2	...	2
Collinson Street	...	...	...	...	1	...	...
Charles Street	...	1	...	...	...	...	...
Collier's Rents	...	...	...	...	1	...	1
Chapel Court	...	...	...	...	...	...	1
Clarence Place	...	...	...	...	1	...	...
Darwin Street	...	...	...	...	1	...	1
Duke Street	...	...	...	...	1	...	3
Dobbs' Cross	...	...	...	...	1	...	...
Evelina Hospital	...	1	...	3	4	2	...
Edmond's Court	...	...	...	...	...	...	1
Etham Street	...	...	...	...	...	...	1
Earl Street	...	...	...	...	...	...	...
Elliott's Row	...	...	1	...	...	...	...
Elliott's Place	...	...	...	...	...	...	1
Elizabeth Place	...	...	1	...	...	...	...
East Place	...	...	1	...	...	...	...
Ely Place	...	...	...	...	1	...	...
Fox's Buildings	...	...	...	...	...	...	2
Falstaff Yard	...	...	...	...	...	...	2
Frederick Place	...	...	1	...	...	...	...
Francis Place	...	1	...	...	1	...	1
Friars' Place	...	...	1	...	...	...	...
Friar Street	...	2	...	...	...	...	3
Gaywood Street	...	...	...	...	...	...	1
Green Street (Upper)	...	1	...	..	...	...	...
Green Street	...	1	...	...	...	1	2
Gray Street	...	1	...	...	...	...	...
George Street	...	3	...	...	1	...	2
Gun Street	...	1	...	...	...	...	...
Garden Row	...	...	...	...	1	...	1
Herbert's Buildings	...	...	...	...	2	...	...
Hill's Alms Houses	...	...	...	...	...	...	1
Hill Street	...	...	...	...	...	...	1
Hunter Street	...	2	...	...	...	...	2
Henry Street	...	3	...	...	1	...	2

1873-4.	Small Pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhœa
Hayle's Street	...	...	...	1	...	...	
Hendre Terrace	...	...	..	...	...	1	
Hendre Road	...	...	...	...	...	...	
Justice Court	...	...	..	...	1	...	
Joiner Street	...	...	1	...	...	...	
John Street	...	...	...	...	3	...	
James Street	...	...	...	...	...	1	
James Place	...	1	...	...	...	...	
King's Bench Walk	...	...	...	...	1	...	
Kent Street	...	2	...	...	2	...	
Kell Street	...	...	...	...	...	...	
Lansdowne Place	...	...	...	...	...	..	
Layton's Grove	...	...	1	...	1	1	
Lancaster Street	...	1	...	...	2	...	
Lombard Street	...	1	...	...	...	...	
Lant Street	...	1	...	...	...	...	
London Street	...	1	...	...	...	...	
London Road	...	...	...	...	...	...	
Mint Street	...	4	...	...	2	...	
Market Street	...	2	1	...	...	...	
Martin Street	...	1	...	...	1	...	
Marshall Street	...	...	...	...	...	...	
Mason Street	...	...	...	...	1	1	
Mason's Buildings	...	...	...	...	1	...	
Mermaid Court	...	...	...	...	...	...	
Northampton Row	...	...	...	1	...	...	
Nelson Place	...	...	...	...	...	...	
Noel Street	...	...	...	...	...	...	
Old Kent Road	...	1	...	...	1	...	
Price's Buildings	...	...	...	...	1	...	
Peabody Square	...	...	...	...	3	...	
Paul's Yard	...	...	1	...	...	...	
Potier Place	..	2	...	...	...	...	
Princes Street	...	...	...	...	...	1	
Peter Street	...	...	...	...	2	...	
Pitt Street	...	...	...	...	1	...	
Pages Walk	...	...	...	...	1	...	
Paragon	1	...	...	...	...	...	
Queen's Court	...	...	...	...	1	...	
Queen Street	...	...	...	...	...	...	
Richmond Terrace	...	1	...	...	...	...	
Russell Place	...	...	...	...	...	1	
Rephidim Street	...	1	1	...	...	...	
Red Cross Street	...	...	...	...	...	1	

TABLE No. 8, *Continued.*

1873-4.	Small Pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhœa
Southwark Bridge Road	...	...	...	...	...	1	6
St. George's Passage	...	1	...	...	...	...	1
St. George's Row	...	...	...	...	...	...	1
St. George's Road	...	...	1	...	1	...	1
Surrey Court	...	1	...	...	...	...	...
Surrey Street	...	1	...	...	...	...	2
Suffolk Street	...	1	...	...	2	...	4
Staple Street	...	1	...	...	...	...	1
Star Yard	...	...	...	...	...	...	1
Swan Place	...	1	...	...	...	...	...
Townsend Street	...	...	...	2	...	1	...
Temple Street	..	...	1	...	...	...	...
Tower Street	...	...	...	...	1	...	4
Type Court	...	...	...	...	...	...	1

1873-4.	Small Pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhœa
Valentine Row	...	...	...	...	...	...	1
Willmott's Buildings	...	...	...	...	...	...	1
Waterloo Road	...	2	...	1	..	1	2
Warwick Street	...	...	...	...	..	...	2
Warwick Square	...	...	...	...	...	...	1
Wellington Place	...	...	...	...	1	...	...
Wellington Street	...	1	...	..	...	...	...
Westcott Street	...	3	...	...	...	...	...
William Street	...	1	...	...	1	...	2
Webber Street	...	1	1	...	...	...	3
Webber Row	...	...	...	...	...	...	1
Wickham Place	...	1	...	...	2	...	...
White Street	...	...	2	...	...	1	...
York Street	...	...	...	...	...	...	1

When we reflect concerning disease, we cannot but be amazed at the enormous sums of money, and the great amount of care and thought expended upon it. Our towns are supplied with Hospitals to meet it in its most varied aspects. Hospitals, Consumptive Hospitals, Homes for the Incurables, Convalescent Homes, and others, dot the country over. The voluntary efforts made for their maintenance have called forth the wonder and admiration of the foreigner. In some of these places manifest deeds of skill have been wrought; marvellous cures of the sick and maimed have been brought about, and great eclat has rested upon all those engaged in this work. The thousands upon thousands of pounds left by the charitable, have sustained names, and given rise to expressions of gratitude and thankfulness. But what can be said for the prevention of disease? Comparison seems impossible. Disease is prevented, and what remains to be shown? Neither praise, nor glory, nor gratitude is called forth; as we cannot express these emotions upon that which is not to be touched, nor handled, nor seen, nor felt. Great skill, much self-denial, and unbounded charity may have been exercised in this prevention, yet no fame shall be called forth, and the name of the Sanitary Reformer would soon sink into oblivion, if even it ever claimed public attention. Yet preventive medicine takes a far higher and more noble stand than does curative medicine. "To mend broken china is a beautiful art; yet we should prefer the prudence which keeps the china whole." It may be likened to the still small voice which accomplished more than the flashing lightning, or the tumultuous earthquake. There remains for it a great future, when knowledge of it shall be increased, and its teachings shall be adopted in College, School, and Public place, and when Government shall deem it worthy of their profound care and attention.

Only lately have Medical Boards and Schools recognised the subject, and established examinations upon it. Yet Hygiene is not a modern science, a hoary dignity rests upon it. But its progress has been halting, almost has it resembled the monotonous sweep of the pendulum, describing one unvarying arc. The precepts of Moses in some of their aspects,

have never been surpassed; and so far carried out as they have been by the Jews from generation to generation, they have preserved this people to a remarkable degree. The Jews have been borne almost unscathed, through the most fearful epidemics, as in our day we have witnessed. Pure living keeps the body in that condition, which presents a soil of rock to the ever floating clouds of germ-poison, upon which if they fall they perish.

To Cholera we owe our sincerest gratitude, yet no blessing ever came in a more questionable shape. All efforts made for the improvement of the sanitary condition of the lower classes, yea, and I may say for that of the middle classes also, had proved vain and useless. Vested and all manner of interests raised their horrid crests, and hindered progress. Mere pleadings were simply useless. Damp, dirty, dilapidated houses stood there, the only homes for the poor. There were no other for them. They were built in undrained unpaved streets; with stagnant fœtid pools, and level channels signalising them. Heaps of refuse and garbage covered every vacant space, and upon which the children made their playground. One stand-pipe giving water about three times a week, for twenty minutes or so at a time, supplied a dozen or two of houses. Cess-pools abounded, now considered a curse, then a blessing, for in many localities there were absolutely none. Courts and alleys literally stank from masses of fœcal and decomposing animal and vegetable matter. Open ditches ran in all directions, filled more or less with a thick foul liquid, creeping sluggishly along, and giving off most offensive smells. Roads were without sewers, and without scavengers. Neglect was everywhere manifest, and as a result pollutions abounded. This was our condition when the Cholera first appeared; indeed, upon its second advent our condition was little better. The first visitation proved of small benefit in forwarding sanitary progress, owing to the superstition and ignorance which then prevailed. The Cholera, then, was supposed to be the manifestation of God's anger, against our moral delinquencies, instead of being against our physical delinquencies. From all the pulpits of the land rang out this assertion, an assertion which might reasonably have been doubted, seeing that the disease fell with overwhelming force upon the poor, who perished in thousands, whilst the middle and higher classes comparatively escaped. Were the poor, sinners above all the rest?

It is well to take a retrospect, and from our present position survey the past; see the point from whence we started; the way we have travelled, and the distance passed over This retrospect will invigorate our hopes, and renew our energy to carry on the good work. We have cause to rejoice that we have not suffered in vain, which is manifest on every hand, especially to those who knew the sanitary condition of this District, but a few years back. From a table which I place before you, there will be seen what a great change has taken place regarding deaths from Cholera between 1849 and 1866, including exactly that period of time in which Vestries have been exercising their powers as sanitary workers.

Cholera has destroyed itself, as well as many other diseases, by the sanitary changes it has compelled us to bring about, acting chiefly through our fears.

TABLE No. 9.

SUB-DISTRICTS.	YEARS.	DEATHS.	NUMBERS IN EVERY 10,000
Kent Road	1849	267	158
Borough Road	,,	312	172
London Road	,,	257	155
			485
Kent Road	[illegible]	219	142
Borough Road	,,	301	167
London Road	,,	105	71
			380
Kent Road	1865	9	4
Borough Road	,,	13	7
London Road	,,	22	11
			22

The Metropolis Local Management Act was passed in the last quarter of 1855, and Vestries commenced their duties early in the following year. Let the Labourers have their meed of gratitude, seeing that this great work has been done without fee or reward; indeed, not only without fee or reward, but often whilst suffering from abuse and contempt.

It is a fact now thoroughly recognised, that the tendency of the people is more and more to aggregate in towns. It is the age of "great cities." In thus associating together, man is probably impelled by the same instinct as that which influences "the Beaver, the Bee, the Ant," and other animals and insects. Man is formed for society, and much of his happiness springs from it. And it is by these aggregations that the great works in science and art, as well as the basis of political freedom have been accomplished. "Great cities rule the world." They may be descried as the ultimate destination of man. The town population outnumbers by far the urban population. This is just the reverse of what was the case some fifty years ago. And this decrease on the one part, and increase upon the other, has ever since that period been gradually and constantly going on. It is not the result of a sudden and wayward caprice on the part of the people. This change throws an ever increasing responsibility upon all Bodies charged with the maintenance of the Public Health in Towns and Cities.

Town life is characterised by increase of disease, and by shortening of life. It involves overcrowding, impure air, craving after excitement, and the opportunity for the gratification of the passions, all of which lead to the most unhappy results. And many of the homes in them, if we may use that word, are such as tend only to demoralise and destroy. Families consisting of father, mother, grown up sons, and daughters may often be met with, living and sleeping in one room. Health, morality, humanity in such conditions are totally impossible. A journeyman Carpenter, or Engineer, I forget which, writing upon this subject in Fraser's Magazine, most truly remarks, that the poorer members of the Working classes often fare worse than the beasts of the field. In every requisite of health, their dwellings are inferior to most stables. "We have seen" he says "piggeries in comparison with which the same may be said of them, and any Master of Fox-hounds,

would be indignant if he were asked to kennel his hounds in such foul dens for a single night." "Grouse and Blackcock so many brace to the acre; men and women so many brace to the garret." "I often wonder," says RUSKIN, "what the Angelic Builders and Surveyors—the Angelic Builders who built the many mansions up above there, and the Angelic Surveyors who measured the four-squared city with their measuring reeds: I wonder what they think of the laying out of the ground of this nation, which has set itself as it seems, literally to accomplish word for word, in the person of those poor whom its Master left to represent Him, what that Master said of Himself, that the foxes and birds had homes but that He had none."

For an experiment, some lease-hold and some free-hold property were bought in the East end of London, to see by practice what could be done by taking a just rent, and by improving the habits and comforts of the poor. The result which followed the experiment was, that the lease-hold paid 5 per cent., but then the family which previously had occupied but one room, enjoyed two; and a little surplus was left. The free-hold paid only 3 per cent. In both cases, as we may most readily believe, the families "became more content, more orderly, and more helpful." The word helpful in this respect, signifies much to those who have witnessed the utter helplessness shown by this class. I once heard an old woman living in St. George's New Town, when speaking of her home or room, declare that "it was only fit for a stable, and gave no heart nor courage to live in it." Hope dies out: there remains nothing to stimulate effort, nor sustain self-respect, and things go from bad to worse.

A man whose surroundings are such as I have just been describing, and which are only fitted for the beast, can never develope the virtues which are inherent in humanity; full surely he will develope the vices which therein dwell. We do not sufficiently consider how greatly morals depend upon health and comfort. I have always been desirous of placing before you illustrations to prove the truth of that which I have said; hence, I now quote the description of the uncivilised and the civilised poor as written by two master minds. "No where" says the Rev. Canon KINGSLEY, in his "At last" "are to be seen those haggard, down-trodden mothers grown old before their time, and so commonly to be met with in England. Rude health is the mark of the negro man and woman; their faces shine with fatness, they seem to enjoy, nay do enjoy the mere act of living. It may be said they are meant for something else than mere enjoyment. Doubtless. But surely they are meant for enjoyment also. Now we have here in England thousands of paupers, rogues, and what-nots, who are not a whit more cultivated, intellectual, or virtuous than the negro, and in the meanwhile, neither healthy nor comfortable. The negro may have the sound body without the sound mind. But what of those whose bodies and souls are alike unsound. If we cannot have both let us have one, for that is so far good." And what said the late ALEXANDER SMITH about the civilised lower classes? "Within sound of the rich man's chariot wheels, within hearing of multitudinous sabbath bells, I have met with evil scents, and sounds, and sights; of windows stuffed with rags; of female faces that look out upon you as out of a sadder inferno than that of Dante; of faces of men containing the debris of the entire decalogue, faces which hurt you more than a blow would; of infants poisoned with gin, of children bred for the prison and the hulks."

Model dwellings show fairly the benefit of healthy homes. Still in these cases there needs a due watchfulness and care over the occupants, to prevent them falling into apathetic and slovenly habits, and so turning their habitations into "little nurseries of disease." What they cannot do for themselves must be done for them, and what they can do for themselves ought to be enforced. The death rate in Peabody's Buildings presents a favourable return. There were 20 deaths in a population of about 1130, or nearly 18 in 1000 persons living, or about one in 57 persons living.

We have as yet little knowledge of the power we can exercise over the prevention of disease. The disastrous fear of expense is a mighty obstruction. Pounds are willingly paid for cure, where ha'pence would be grudged to prevent. Some diseases we can create; most we can propagate and send on their errand of misery and destruction. Neither small-pox, nor measles, nor scarlet fever can we start as far as we know de novo, but we can by carelessness and recklessness spread them to an untold extent. Disease is not an accident; it neither comes, nor stays, nor departs by chance. All is order and harmony, and governed by laws as rigid as the ebb and flow of the tide, the return of day and night, and the change of the seasons. "Pitiless law avails itself of our success when we obey it, and of our ruin when we contravene it."

If the town population is increasing over the urban population, we must adapt ourselves to the fact, and bring the country into the town. It is grievous to witness the way in which our open spaces are built upon, and the manner in which most of the buildings are put up. However in spite of our shortsightedness and unwise proceedings, there is in all our doings a tendency to the ideal. Within us are implanted certain intuitions, from which arise the love of the good and beneficial, and hatred of the bad and injurious, a desire for justice and truth, and a dislike of injustice and falsehood; and besides these there exists an undying hope of brighter and better days yet to come. Events may not be hurried nor retarded. "We might as well stand on the shore of some atlantic bay, and shout to frighten back the tide or urge it on. What boots the cry? Gently the sea swells under the moon, and, in the hour of God's appointment the tranquil tide rolls in, to inlet and river, to lave the rocks, to bear on its bosom the ship of the merchant, the weeds of the sea."

HENRY BATESON, M.D., Lond.

June 30th, 1874.

TABLE No. 10.—DEATHS Registered in St. George the Martyr, Southwark, during the year ending April 4th, 1874.

Deaths in the Year 1872—73.	CAUSES OF DEATH.	ALL AGES.			AGES.												
		M.	F.	T.	Under 1—	1.—	2.—	3.—	4.—	All under 5	5.—	10.—	15.—	All under 20	20.—	40.—	60.—
1119	ALL CAUSES.	632	624	1256	397	166	69	43	19	694	37	20	16	767	131	184	188
231	1. Zymotic	152	157	309	137	68	33	22	4	264	10	4	4	282	6	13	5
24	II. Dropsy, &c.	10	16	26	1	..	..	2	..	3	..	3	..	6	1	15	4
205	III. Tubercular	104	83	187	29	21	8	3	8	69	3	4	9	85	39	48	15
153	IV. Brain and Nerves	98	84	182	66	16	11	5	3	101	9	4	2	116	12	27	27
37	V. Heart, &c.	20	29	49	2	..	1	1	1	5	2	4	..	11	12	12	14
228	VI. Lungs, &c.	155	135	290	80	44	15	9	2	150	9	..	1	160	14	41	72
63	VII. Digestive Organs	29	33	62	13	12	1	1	1	27	2	1	..	30	5	14	13
18	VIII. Kidneys, &c.	4	4	8	..	..	..	..	..	..	..	..	..	..	..	4	4
6	IX. Childbirth, &c.	..	12	12	..	..	..	..	..	..	..	..	..	..	5	5	2
5	X. Joints, Bones, &c.	3	..	3	..	..	..	..	..	..	..	..	..	..	1	2	..
1	XI.—Skin, &c.	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	2
2	XII.—Malformation	3	1	4	4	..	..	..	..	4	..	..	..	4	..	..	..
42	XIII.—Premature Birth and Debility	13	15	28	28	..	..	..	..	28	..	..	..	28	..	..	..
19	XIV.—Atrophy	13	17	30	27	3	..	..	..	30	..	..	..	30	..	..	..
41	XV.—Old Age	8	27	35	..	..	..	..	..	..	..	..	..	..	..	..	25
3	XVI.—Sudden	3	2	5	..	1	..	..	..	1	1	..	..	2	1	..	2
31	XVII.—Violence, Privation, &c.	13	8	21	11	1	..	..	..	12	1	..	..	13	3	2	3
8	XVIII.—Not Specified	2	1	3	..	..	..	..	..	..	..	..	..	..	2	1	..
18	I. Small Pox	1	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..
8	Measles	25	32	57	18	26	6	4	.	54	1	..	1	56	1	..	..
11	Scarlatina	8	8	16	2	2	4	1	2	11	5	..	..	16	..	..	..
45	Hooping Cough	23	40	63	24	16	14	6	1	61	2	..	..	63	..	..	..
24	Croup	8	6	14	3	4	3	3	..	13	1	..	..	14	..	..	..
3	Thrush	3	..	3	3	..	..	..	..	3	..	..	..	3	..	..	..
70	Diarrhœa	65	43	108	75	16	1	3	1	96	..	..	..	96	2	5	2
..	Dysentery	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2	Cholera	1	2	3	1	1	..	..	..	2	..	..	..	2	1	..	..
..	Influenza	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..
1	Scurvy and Purpura	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Ague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Remittent Fever	1	..	1	.	..	..	..	..	..	1	..	..	1	..	..	..
..	Infantile „	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
20	Typhus „	3	10	13	..	1	1	2	..	4	..	2	3	9	1	3	..
..	Metria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
7	Rheumatism	2	2	4	..	..	..	..	..	..	..	2	..	2	..	2	..
7	Erysipelas	3	7	10	4	..	..	..	..	4	..	..	..	4	1	2	3
1	Pyæmia	..	1	1	..	..	1	..	..	1	..	..	..	1	..	..	..
9	Syphilis	3	4	7	7	..	..	..	..	7	..	..	..	7	..	..	..
..	Noma	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5	Diphtheria	6	2	8	..	2	3	3	..	8	..	..	..	8	..	..	..
..	Hydrophobia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5	II. Hæmorrhage	2	2	4	..	..	..	1	..	1	..	..	..	1	..	3	..
7	Dropsy	1	5	6	..	..	..	1	..	1	..	1	..	2	1	2	1
1	Abscess	2	1	3	1	..	..	..	..	1	..	2	..	3	..	..	..
..	Ulcers	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..
..	Fistula	1	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..
..	Mortification	1	..	1	..	..	..	..	..	.	..	..	..	..	..	..	1
10	Cancer	3	8	11	..	..	..	..	..	..	..	..	..	..	..	9	2
1	Gout	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	III. Scrofula	..	1	1	..	..	..	..	1	1	..	..	..	1	..	..	..
54	Tabes Mesenterica	20	18	38	18	10	5	1	2	37	..	1	..	38	..	..	..
128	Phthisis	74	55	129	7	3	3	1	1	15	1	3	9	28	39	48	14
3	Spasmodic Croup	2	3	5	..	3	..	..	..	3	1	..	..	4	..	..	1
20	Hydrocephalus	8	6	14	4	5	..	1	3	13	1	..	..	14	..	..	..
1	IV. Cephalitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
24	Apoplexy	22	15	37	..	..	..	..	..	..	1	..	..	1	4	13	19
14	Paralysis	3	8	11	..	..	..	..	..	..	1	..	..	1	..	4	6
..	Delirium Tremens	4	..	4	..	..	..	..	..	..	..	..	..	..	3	1	..
..	Chorea	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
11	Epilepsy	1	1	2	..	..	..	..	..	..	..	..	..	..	1	1	..
..	Tetanus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
11	Insanity	5	5	10	..	..	..	..	..	..	..	..	..	..	3	5	2
77	Convulsions	48	39	87	64	15	6	..	..	85	2	..	..	87	..	..	..
17	Disease of Brain, &c.,	15	16	31	2	1	5	5	3	16	5	4	2	27	1	3	..

Table No. 10 *continued.*

Births....M. 1032. F. 1052. Total....2084.

Excess of Births over Deaths....828.

Deaths....M. 632. F. 624. Total....1256.

Deaths in the Year 1872—73.	CAUSES OF DEATH.	ALL AGES.			AGES.												
		M.	F.	T.	Under 1	1.—	2.—	3.—	4.—	All under 5	5.—	10.—	15.—	All under 20	20.—	40.—	60.—	80 and upwards
6	V. Pericarditis	2	..	2	1	..	..	1	..	2	..	..	..	2	..	..	..	..
2	Aneurism	2	..	2	..	..	..	..	..	..	..	..	..	..	..	1	1	..
29	Disease of Heart, &c.	16	29	45	1	..	1	..	1	3	2	4	..	9	12	11	13	..
1	VI. Laryngitis	4	2	6	1	1	..	..	..	2	3	..	..	5	..	1	..	..
149	Bronchitis	95	89	184	51	20	6	4	2	83	2	..	..	85	6	32	58	3
5	Pleurisy	3	..	3	..	..	..	..	..	..	..	..	..	..	1	2	..	..
66	Pneumonia	46	39	85	27	22	8	5	..	62	4	..	1	67	5	5	8	..
3	Asthma	2	1	3	..	..	..	..	..	..	..	.	..	..	..	.	3	..
4	Disease of Lungs	5	4	9	1	1	1	..	..	3	..	..	..	3	2	1	3	..
19	VII. Teething	8	9	17	8	8	1	..	..	17	..	..	..	17	..	..	..	..
..	Quinsey	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..
2	Gastritis	..	2	2	..	..	..	..	1	1	..	..	..	1	..	1	..	..
3	Enteritis	..	2	2	..	1	..	..	..	1	1	..	..	2	..	..	..	..
8	Peritonitis	5	10	15	1	1	..	1	..	3	1	1	..	5	3	5	2	..
4	Ascites	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..
1	Ulceration of Intestines	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..
1	Hernia	2	1	3	1	1	..	..	..	2	..	..	..	2	.	..	1	..
1	Ileus	1	..	1	1	..	..	..	..	1	..	..	..	1	..	..	..	..
2	Intussusception	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	Stricture of Intestines	1	1	2	1	..	..	..	..	1	..	..	..	1	..	..	1	..
..	Fistula	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..
..	Disease of Stomach, &c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Disease of Pancreas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2	Hepatitis	2	1	3	..	1	..	..	..	1	..	..	..	1	..	1	1	..
4	Jaundice	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..
15	Disease of Liver	7	5	12	..	..	..	..	..	..	..	..	..	..	1	6	5	..
..	Disease of Spleen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	VIII. Nephritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12	Nephria (Bright's Disease)	2	2	4	..	..	..	..	..	..	..	..	..	..	..	2	2	..
..	Ischuria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2	Diabetes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Stone	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2	Cystitis	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	2	..
..	Stricture of Urethra	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Disease of Kidneys, &c.	..	2	2	..	..	..	..	..	..	..	..	..	..	..	2	..	..
..	IX. Paramenia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Ovarian Dropsy	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	2	..
5	Childbirth	..	4	4	..	..	..	..	..	..	..	..	..	..	3	1	..	..
1	Disease of Uterus, &c.	..	6	6	..	..	..	..	..	..	..	..	..	..	2	4	..	..
..	X. Arthritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3	Disease of Joints, &c.	3	..	3	..	..	..	..	..	.	..	..	..	..	1	2	..	..
1	XI. Carbuncle	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	2	..
..	Phlegmon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Diseases of Skin, &c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	XII. Cyanosis	2	..	2	2	..	..	..	..	2	..	..	..	2	..	..	..	..
1	Spina Bifida	1	1	2	2	..	..	..	..	2	..	..	..	2	..	..	..	..
1	Other Malformations	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2	XIII. Intemperance	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..
..	Privation of Food	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2	Want of Breast Milk	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	Neglect	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Cold	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	Poison	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..
1	Burns and Scalds	..	2	2	..	1	..	..	..	1	1	..	..	2	..	..	..	..
2	Hanging	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..
12	Suffocation	6	5	11	11	..	..	..	..	11	..	..	..	11	..	..	..	..
..	Drowning	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10	Fractures and Contusions	4	..	4	..	..	..	..	..	..	..	..	..	..	2	..	2	..
..	Wounds	1	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..
..	Other Violence	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..