

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

**Contributors**

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Bateson, Henry.

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183 Euston Road  
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# Parish of St. George the Martyr, Southwark.

## ANNUAL REPORT

### MADE TO THE VESTRY

BY THE

### MEDICAL OFFICER OF HEALTH.

FOR THE YEAR ENDING LADY-DAY, 1870.

MR. CHAIRMAN AND GENTLEMEN,

With the ending of another year arrives the duty of reporting upon the events which have happened therein, with reference to the health and sanitary condition of this district.

The past year has been characterised by commercial depression, lack of employment, and the train of evils which follow such a state of affairs. During this period there have also occurred two epidemics affecting man and beast. One of scarlet fever amongst the former; and amongst the latter that of foot-and-mouth disease. Towards the close of the year we were threatened with yet another epidemic, that of relapsing fever, and consequently urgent solicitations were sent out by the Medical Officer of the Privy Council that we should make every preparation for its onset: hitherto I am glad to state that the fears entertained have not been realised. Here and there a case has happened, and chiefly in the Common Lodging Houses, but not more in number than would equal other kinds of fever that are always present, and which to some extent the relapsing fever seems to have replaced.

With reference to the scarlet fever epidemic, I shall postpone its consideration until I speak of zymotic diseases in general; at present I shall give a hasty glance at the foot-and-mouth epidemic, which has in various places affected our Cattle, and to some extent the health of those who in anyway have used such Cattle for food. This epidemic was by no means so fatal as its predecessor; neither was it requisite, in order to prevent its spread, to have recourse to the pole-axe. The physical and chemical character of the milk was considerably altered, and it proved so pernicious, especially when given to pigs, producing in them a similar disease, with other evils, that its use was discontinued. Many farmers forbade its use in their own families, but still continued to send it up to London for con-





sumption. There was one fortunate fact however, and that was the early drying up of the milk. No disease happened during this period which we could with promptitude and certainty refer to the use of this milk; we could hardly expect this, when we reflect upon the multifarious causes which are constantly in operation producing and modifying disease. There were prevalent however at the time, and to a far greater extent than usual, affections of the mouth and alimentary canal of children, and which many, with good reason, attributed to that source. The fact was noticed, that in the cattle plague of 1865, as it increased in extent, so typhoid fever increased in like proportion. In that year the cases of admission in the London Fever Hospital "were more than double that of every preceding year, and more than treble that of the majority of years." "We should conclude," says Dr. Parkes, "from general principles, that all diseases must affect the composition of flesh, and as the composition of our own bodies is inextricably blended with the composition of the substances we eat, it must be of the greatest importance for health to have those substances as pure as possible."

Epidemics of one kind or another are never long absent. The causes of many of them, and the laws by which they are governed are as yet little understood; although some advance has been lately made in that direction. They have their rise, their culmination, and their decline. When once the tide of an epidemic has set in, few and feeble are the means we possess that can stay its progress. There are in crowded towns so many fostering causes, with a population so weakly and degenerate, that no resistance with any hope of success can be made. It is quite probable that the germs of epidemics are always present, but not always those conditions by which they become developed. And, as yet, no real and hearty effort has been made to rid ourselves of these formidable conditions. We cannot boast of the vast sums of money expended, of the unwearied labour made, of the ungrudging self sacrifice offered in behalf of this cause. No mighty league has been formed with its tracts and its missionaries, to deliver us from evils as perilous and as oppressive, as any which have happily been swept away from the earth, by the united efforts of wise and earnest men. Until now the highest skill and talent have been "directed to give range to the famine, seed to the plague, and sway to the sword." The implements of war, by which man's life may be blown out, and his body shattered, have arrived at tolerable perfection. Only contrast for a moment the amount of money spent, the experiments unceasingly made and the rewards and honours achieved in this department, with what has been done to prevent sickness, save life, and develop to the greatest extent the body and soul of man. Truly no contrast is possible. The footprints all point towards destruction. Perhaps we may venture to hope that the end of war amongst civilized nations approacheth; that we have learned all that its terrible teaching can give, and, that henceforth and for ever, man's ingenuity and aim will be expended in higher and holier purposes.

In the year that ended on Saturday, 2nd April, 1870, 1989 deaths were registered in this district; 1003 were male children, and 986 were female children. There was a decrease of 163 compared with the preceding year.

The deaths registered were 1740; the deaths of the males were 896; and those of the females 844. The deaths were in excess of the preceding year, and to the number of 239. The excess of births over deaths was 249.





TABLE No. 1.

Years .....	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869
Deaths .....	1263	1385	1457	1534	1732	1479	1561	1386	1475	1657
Excess of Births over Deaths ...	658	553	679	519	266	703	514	728	649	316

Upon examining the first Table, we learn that during the last ten years, the year 1864 was the most fatal, and that the excess of births over deaths during that period was the least. There were registered in that year 469 more deaths than in the year 1860, in which year the death rate was the lowest. The last year follows next in the number of deaths, only 75 less being registered than in 1864.

TABLE No. 2.

Week.	Kent Road.	Borough Road.	London Road.	Total.	Mean Temperature.	Week.	Kent Road.	Borough Road.	London Road.	Total.	Mean Temperature.
14	9	13	9	31	47.1°	40	12	12	9	33	56.7°
15	13	20	11	44	55.2°	41	13	14	3	30	51.5°
16	12	18	5	35	50.3°	42	6	11	6	23	42.7°
17	9	11	11	31	51.9°	43	5	13	13	31	40.0°
18	6	15	10	31	50.5°	44	13	11	9	36	46.6°
19	9	12	9	30	51.2°	45	6	7	12	25	41.1°
20	16	10	9	35	50.0°	46	11	21	12	44	45.8°
21	8	15	5	28	51.7°	47	12	10	15	37	41.0°
22	5	7	9	21	50.3°	48	13	5	10	33	31.2°
23	8	11	7	26	50.0°	49	13	9	17	39	39.2°
24	5	8	9	22	51.3°	50	9	7	15	31	44.7°
25	8	9	5	22	51.3°	51	13	14	13	40	38.2°
26	10	8	11	29	56.5°	52	17	12	9	38	34.2°
27	10	4	5	19	61.2°	1	13	12	7	32	45.2°
28	14	11	6	31	66.2°	2	15	14	8	37	39.3°
29	12	14	12	38	69.0°	3	19	13	10	42	36.1°
30	17	16	9	42	61.3°	4	8	17	12	37	31.6°
31	13	12	7	32	59.8°	5	14	18	14	46	42.0°
32	17	18	14	49	58.5°	6	3	15	10	28	32.4°
33	12	16	10	38	53.7°	7	6	11	15	32	30.7°
34	17	14	12	43	63.4°	8	10	20	8	38	36.9°
35	15	11	9	35	56.1°	9	9	17	8	34	45.6°
36	12	18	15	45	63.3°	10	3	14	6	23	38.4°
37	14	11	9	34	58.1°	11	11	15	12	38	41.0°
38	14	12	11	37	52.8°	12	13	8	13	34	38.1°
39	9	13	8	30	53.8°	13	5	9	7	21	37.2°

The second Table points out the number that died weekly, and also the sub-districts in which they died, with the mean temperature of the week. The highest death rate that happened in one week in 1868-9 was 39, the lowest that happened in one week in the same year was 17: the highest that happened in one week of the year now ended was 49, the lowest 19. The weather was characterized by extreme variations and great range of temperature. The alterations from heat to cold were frequent and sudden, which doubtless more or less injuriously affected the public health.





TABLE 3.

SUB-DISTRICTS.	NUMBER OF DEATHS IN 1869—70.	POPULATION IN 1861.	SUPPOSED POPULATION IN 1863—9.
Kent Road .....	571	19652	21224
Borough Road.....	659	16668	18001
London Road .....	510	19190	20725
TOTAL.....	1740	55510	59950

You have in the third Table the number of deaths which have been registered in each sub-district. The Borough Road sub-district presents, as usual, the highest death-rate; it has reached to 36 deaths in 1000 persons living. When we consider the condition of this locality with reference to its habitations and population, we could expect no other result. In the Kent Road sub-district 26 died in 1000 living, and in the London Road sub-district 25 in 1000 living. Thus the London Road sub-district is the healthiest in our Parish.

TABLE No. 4.

	1865-6		1866-7		1867-8		1868-9		1869-70	
	BIRTHS.	DEATHS.	BIRTHS.	DEATHS.	BIRTHS.	DEATHS.	BIRTHS.	DEATHS.	BIRTHS.	DEATHS.
Quarter ending June.....	359	315	491	375	532	292	538	324	476	385
Quarter ending September .....	479	351	466	377	512	334	501	367	462	473
Quarter ending December .....	552	383	509	366	489	373	579	451	511	410
Quarter ending March .....	599	433	578	381	525	353	551	359	510	442

I place before you in the fourth Table, the number of births and deaths that have been registered in each quarter during the last five years. This Table is so far interesting, that it shows the variation which occurs in the death rate, and the quarters which are most fatal. It will be found that the greatest number of persons die in the quarters ending December and March. There is one exception in the year 1869-70, when the quarter ending September, proved the most fatal.

I now come to the consideration of the deaths brought about by zymotic diseases, and which add so large a number to our death rate. I must confess the Table looks very uninviting, yet it is none the less important on that account. In fact this Table deserves serious study.





TABLE No. 5.

	1865—6					1866—7					1867—8					1868—9					1869—70				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total.	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
Small Pox ...	2	...	1	3	6	8	14	8	14	44	7	10	6	1	24	2	...	...	2	4	3	7	3	1	11
Measles .....	...	9	17	8	34	13	5	3	4	25	3	1	5	4	13	11	3	16	5	35	14	13	13	6	46
Scarlatina ...	2	16	4	6	28	7	12	5	10	34	6	5	20	11	42	8	11	29	3	51	6	59	61	26	152
Erythema...	...	1	3	2	6	...	2	2	3	7	1	2	1	2	6	1	1	3	1	6	...	1	2	...	3
Whooping-Cough .....	7	5	15	21	48	29	11	11	4	55	13	8	21	25	67	19	16	5	3	43	20	11	22	21	74
Diarrhoea ...	12	63	6	4	85	6	29	8	1	44	4	44	4	6	58	11	68	6	3	88	7	63	3	2	75
Typhus.....	11	10	12	18	51	...	26	12	...	38	6	9	8	11	34	11	10	12	15	48	11	11	4	10	36

According to many sanitarians of high repute, no such Table should be necessary. I may truly affirm that no death, nor ailment from certain zymotic diseases, should be possible. But during the year four hundred and fifty deaths from these causes have been recorded. Small pox has been fatal in fourteen cases, measles in forty-six, scarlet fever in one hundred and fifty-two, whooping-cough in seventy-four, fever in thirty-six, and diarrhoea in seventy-five.

I beg first to direct your attention to small pox, which has been, as I have told you, the cause of fourteen deaths. The victims were all children, with three exceptions, they were under five years of age. It would be interesting to know how many cases have occurred, and the damage sustained by those who have recovered. We find it stated, that before vaccination was practised, every man seemed more or less speckled with pock-holes, and that the race presented one moving mass of pits and scars. Out of every hundred cases of blindness, thirty were the result of small pox. The Medical Officers of the Small-pox Hospital, in a Report for 1868, state that after the experience of the late small-pox epidemic, which has brought under their care 8000 cases of small-pox, that their confidence in the value of vaccination has in no degree diminished, and that the opinion which some time ago they felt it their duty to express on vaccination, "neither requires qualification nor admits of limitation." They moreover state, that "it is the greatest boon which was ever conferred by man upon his species." Let us consider for a few moments the safety of the application of this "great boon," as we have lately heard more than enough of the evils which have been said to follow, and which have changed the blessing into a curse. For this purpose I shall place before you the opinions of men high in position, and of vast ex-



TABLE No. 2.

1869-70										1868-9										1867-8										1866-7										1865-6																								
Small-pox	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10
Deaths	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10
Small-pox	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10
Deaths	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10
Small-pox	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10
Deaths	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10
Small-pox	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10
Deaths	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10
Small-pox	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10
Deaths	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10
Small-pox	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10
Deaths	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10
Small-pox	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10
Deaths	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10
Small-pox	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10
Deaths	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10
Small-pox	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10
Deaths	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10
Small-pox	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10
Deaths	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10
Small-pox	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10
Deaths	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10
Small-pox	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10
Deaths	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10
Small-pox	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10
Deaths	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10
Small-pox	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10
Deaths	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10
Small-pox	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10	Small-pox	1	2	3	4	5	6	7	8	9	10
Deaths	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2	3	4	5	6	7	8	9	10	Deaths	1	2																			

According to many authorities of high repute, no such Table should be necessary. I say truly affirm that no death, nor attendant from certain epidemic diseases, should be possible. But during the year four hundred and fifty deaths from these causes have been recorded. Small-pox has been fatal in fourteen cases, measles in forty-six, scarlet fever in one hundred and fifty-two, whooping-cough in seventy-four, fever in thirty-six, and typhus in seventy-five.

I beg first to direct your attention to small-pox, which has been, as I have told you, the cause of fourteen deaths. The victims were all children, with three exceptions, who were under five years of age. It would be interesting to know how many cases have occurred, and the damage sustained by those who have recovered. We find it stated, that before vaccination was practised, every man seemed more or less spotted with pock-marks, and that the race presented one moving mass of pits and scars. Out of every hundred cases of small-pox, thirty were the result of small-pox. The Medical Officers of the Small-pox Hospital, in a Report for 1846, state that after the experience of the late small-pox epidemic, which has brought under their care 2000 cases of small-pox, that their conclusion is, that the value of vaccination has in no degree diminished, and that the opinion which some have expressed, that it is their duty to expose on vaccination, "neither requires qualification nor admits of limitation." They moreover state, that "it is the greatest boon which was ever conferred by man upon his species." Let us consider for a few moments the safety of the application of this "great boon," as we have lately heard more than enough of the evils which have been said to follow, and which have changed the blessing into a curse. For this purpose I shall place before you the opinions of men high in position, and of ex-

perience. Sir William Jenner, Bart., after having had under his observation 13,000 children, during a period of 17 years, tells us that he had no reason to believe, or even suspect, that any constitutional taint had been conveyed from one person to another by vaccination. Dr. West's experience, which was still larger, to the extent of 26,000 infants and children, speaks to the like effect. And Professor Paget of Bartholomew's, whose means of knowledge have equalled the above, writes, "Now vaccination may do, though I believe it rarely does, disturb for a time the general health, and may give opportunity for the external manifestation and complete evolution of some constitutional affection, which, but for it might have remained rather longer latent. This is the worst thing," he goes on to say, "that with any show of reason can be charged against vaccination." Mr. Mason, who has performed more than 50,000 vaccinations, has never seen other diseases communicated with the vaccine disease, nor does he believe they are so communicated. And Simon, Medical Officer of the Privy Council, making special reference to the conveyance of the syphilitic poison, declares "that if it could be diffused by the vaccine lymph of children with an hereditary taint of that disease, this possibility must long ago have been made evident on a scale far too considerable for question." These men speak concerning that which they know, with impartiality, and with freedom from vanity and prejudice, and consequently their evidence is worthy the fullest credence. I present you with a Table given by Dr. Seaton, comparing the annual mortality in England and Wales from small pox from 1838 to 1865.

TABLE No. 6.

PERIODS COMPARED.	ANNUAL DEATHS BY SMALL POX IN ENGLAND AND WALES.
1. Average of three years (1838—40) when Vaccination had become diffused, but before any public provision had been made for its gratuitous performance.....	11,941
2. Average of the nine years (1841—53) when public Vaccination was gratuitously provided, but not obligatory .....	5,221
3. Average of the twelve years (1854—65) during which Vaccination has been to a certain extent obligatory .....	3,967

In Ireland, by careful and universal vaccination, small-pox has been stamped out. In the ten years ending 1841, 58,006 persons died in that country from this disease, whilst many thousands suffered disfigurement and permanent injury to their constitutions. During the next ten years the numbers decreased to 12,727. In 1866, 187 deaths occurred, and in 1867 only 21 persons fell victims to this disease. In 1868 no case happened. Thus one of the most fatal and disgusting diseases that ever afflicted mankind may be reduced from 37 deaths in the hundred to not a single one. I might bring before you many other countries in which the death rate from small-pox has been remarkably diminished by vaccination, but I will not weary you further.

Of zymotic diseases scarlet fever has been by far the most fatal. It has prevailed not only in every parish in London, but almost in every parish in the kingdom, and to an extent our experience bears no parallel. Anyhow, since the registration of deaths were began no such mortality has been recorded.





TABLE No. 7.

10 Years 1850-9.....	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859
Number of deaths in London ...	2145	1178	1269	2519	2069	3139	1795	1587	4118	4197
10 Years 1860-9.....	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869
Number of deaths in London ...	2457	2358	3457	5075	3212	2181	1885	1438	2921	5803

TABLE No. 8.

14 Years 1856-7 to 1869-70.	1856-7	1857-8	1858-9	1859-60	1860-1	1861-2	1862-3	1863-4	1864-5	1865-6	1866-7	1867-8	1868-9	1869-70
Number of deaths in this District	32	27	110	69	44	79	87	92	78	28	31	42	51	152

From the seventh Table you will see at a glance the number of deaths that have occurred from scarlet fever in London during the last twenty years: and from the eighth Table the number of deaths that have occurred from the same disease in this district during the last fourteen years. In London the next most fatal year compared with the one now passed was 1863, when 5,075 deaths were registered. In this district the next most fatal year was 1858-9, when 110 deaths were registered. In London the range of the death rate from the lowest to the highest was 4,625; and in this district 125. During this epidemic great efforts were made to arrest its spread, but without much avail. There was, however, evoked a fear and dread I have never previously witnessed in any other epidemic. Help when most urgently needed, could not be had. A house wherein was scarlet fever, needed no red cross marked upon the door to prevent communication. No one would come nigh, neither relation, nor friend, nor acquaintance, nor nurse. Those who had their families down with this disease, had to struggle and watch, and work unheeded and unsympathised with as best they might. Doubtless, this selfishness was sustained by the means taken to stay the disease.

Now it appears to me, as the fever will attack every one during some period of their life, and only once, that it would be better that it should be passed through during childhood than afterwards, such fear would thereby be prevented, and aid got when needed.

With reference to zymotic diseases, I shall merely add that the deaths from fever have been less, with one exception, than in any year during the last five; and in that exceptional year the deaths were only less by two. The deaths from diarrhoea were less than in the preceding year.

Constitutional disease includes consumption, mesenteric disease, hydrocephalus, with many others; but I shall only make a few remarks upon these three. Consumption stands always at the head of the death rate, and by a great majority; the only other disease that makes any approach to it in that respect is bronchitis. To consumption were referred 237 deaths, eleven in excess of the year 1868-9. One main cause of this disease is want of ven-





tilation, of which I have frequently spoken; there are many other causes I shall for the present pass over. Mesenteric disease destroyed 88 children, nine in excess of the year 1868-9; and hydrocephalus 13. These diseases are mark of a degenerate constitution; and so far as regards the health and strength of society the deaths may not be deplored.

Diseases of the brain and nerves come under the order of local diseases, and have proved fatal in 223 cases, an excess of two over the previous year. One hundred and fourteen children died from convulsions. Deaths from this cause have steadily increased. Deaths from disease of the brain have risen from 29 of 1868-9 to 40 of 1869-70. Insanity too is upon the increase, and strange to say, this increase is confined to the poor, amongst whom we should certainly not expect to meet with high sensibility, or exhausted and overwrought brains. The savage feels no sorrow for the past, and is troubled with no distrust about the future. He lives for the day. But civilization destroys this apathy, and man can no longer go on in this heedless course. Anxiety and sorrow leave their impress indelibly stamped upon his brow, and he is filled with despair when he thinks of old age with all its attendant evils gradually stealing upon him, and dreads ending a life of weary and hard labour within the gloomy walls of a workhouse. The physical condition of man claims far more attention and care than has yet been given to it. Not only may the brain suffer from brain work, but equally from the sanitary surroundings in which man is placed. There are numerous cases of insanity on record, the cause of which were with certainty owing to overcrowding, and bad sanitary conditions in general. Physical deterioration will produce mental deterioration. To prevent the former falls within the line of your duties.

Thirty-eight deaths were attributed to premature birth and debility. Ten infants were accidentally suffocated, their ages ranging from five days to six months. Two of them were found dead in the shawls in which they had been closely wrapped, to preserve them from the cold. A male infant was scalded to death by a cup of hot tea being spilled over him; and two more boys met with a similar kind of death. Two girls were burnt to death from their clothes taking fire. Two females, aged respectively 46, and 64, met their death by falls. Three males, aged respectively 10, 37, and 44 years, were run over, and died from the injuries received. A male, aged 78, died from congestion of the brain, produced by cold. Two infants were found dead; one in the Paragon, the other in York Court. A male, aged 50, cut his throat; another, aged 48, poisoned himself; and a female, aged 52, hung herself. A man, aged 37, was killed by being struck with a poker; and a woman, aged 21, had her throat cut. Three females died in the Workhouse, aged respectively 90, 95, and 98 years. Another female, aged 97, died in New Street; and a fifth female died in Webber Street, aged 100. She had been a widow and an annuitant for 82 years. Of those who died, 875 were under five years of age, 250 were sixty years of age and upwards, and 42 were over eighty.





TABLE No. 9.

NAME OF WATER COMPANY.	TONS.	NAME OF WATER COMPANY.	TONS.
1869.		1869.	
Southwark Company—April .....	30	Lambeth Company—April .....	29
" " May .....	27	" " May .....	28
" " June .....	27	" " June .....	28
" " July .....	25	" " July .....	25
" " August .....	24	" " August .....	25
" " September ..	25	" " September .....	25
" " October .....	25	" " October .....	26
" " November.....	27	" " November.....	29
" " December.....	28	" " December.....	29
1870.		1870.	
" " January .....	31	" " January .....	29
" " February .....	32	" " February .....	31
" " March .....	31	" " March .....	30

The condition of the water used by this district will be seen by the ninth table. Discussion as to the best source of supply for this necessary article still goes on; and mainly is conducted in a very angry spirit. Some of our chief chemists and engineers told us not to fear about the use of water, into which "immense quantities of sewage" had been poured; for that a few miles flow would so purify it, as to make it most pure and safe for consumption. Our instincts rebelled against such teaching, and obedience to instinct is generally safe. Anyhow, it proves to be so in this case; for the consoling assertion does not stand the test of experiment. In a report just presented to Parliament, concerning the rivers of the Mersey and Ribble basins, it is stated, that if you were to mix one part of sewage with twenty parts of water, that so far from the whole being oxidized or done away with in a ten or twelve miles flow, not two thirds of it would be so destroyed. "Thus," it is stated in the report, "whether we examine the organic pollution of a river at different points of its flow, or the rate of the disappearance of the organic matter of sewage, when the latter is mixed with fresh water, and violently agitated in contact with air, or finally, the rate at which dissolved oxygen disappears in water polluted with five per cent. of sewage, we are led in each case to the inevitable conclusion that the oxidation of organic matter in sewage proceeds with extreme slowness, even when the sewage is mixed with a large volume of unpolluted water; and that it is impossible to say how far such water must flow before the sewage matter becomes thoroughly oxidised." The writers infer, that there is not a river in the United Kingdom long enough to destroy the sewage. Now the Royal Commission, appointed in 1865, to make enquiries concerning the uses and condition of the water of our rivers, declared that water contaminated by sewage was a "wholesome beverage." The danger which results from drinking water thus contaminated does not arise from the salts it contains, and which have been aptly described by Dr. FRANKLAND as the "inorganic skeleton of sewage," but from germs which are supposed to be held in suspension. Every particle of sewage in water might be destroyed, yet these germs remain in full activity. They are so small as to evade the test of the chemist and the search of the microscopist. They may be thrown upon the land with sewage; and as the fluid part evaporates, they may be lifted up into the air, and there perish; or they may fall upon some suitable



TABLE No. 2.

NAME OF WATER COMPANY.	TOOK	NAME OF WATER COMPANY.	TOOK
1862.		1862.	
London Waterworks Company—Ayerly	20	London Waterworks Company—Ayerly	20
" " " "	21	" " " "	21
" " " "	22	" " " "	22
" " " "	23	" " " "	23
" " " "	24	" " " "	24
" " " "	25	" " " "	25
" " " "	26	" " " "	26
" " " "	27	" " " "	27
" " " "	28	" " " "	28
1863.		1863.	
" " " "	29	" " " "	29
" " " "	30	" " " "	30
" " " "	31	" " " "	31
" " " "	32	" " " "	32

The condition of the water used by this district will be seen by the ninth table. Discussion as to the best source of supply for this necessary article will grow up; and mainly is connected in a very angry spirit. Some of our chief chemists and engineers told us not to fear about the use of water, into which "immense quantities of sewage" had been poured; for that a fair water flow would so purify it, as to make it most pure and safe for consumption. Our instincts rebelled against such teaching, and obedience to instinct is generally safe. However, it proves to be so in this case; for the controlling question does not stand the test of experiment. In a report just presented to Parliament, concerning the river of the Trent and Humber basins, it is stated, that if you were to mix one part of sewage with twenty parts of water, that so far from the whole being oxidized or done away with in a few or twelve miles flow, not two thirds of it would be so destroyed. "Then," it is stated in the report, "whether we examine the organic pollution of a river at different points of its flow, or the rate of the disappearance of the organic matter of sewage, when the latter is mixed with fresh water, and violently agitated in contact with air, or finally, the rate at which dissolved oxygen disappears in water polluted with five per cent. of sewage, we are led in each case to the inevitable conclusion that the oxidation of organic matter in sewage proceeds with extreme slowness, even when the sewage is mixed with a large volume of unpolluted water; and that it is impossible to say how far such water must flow before the organic matter becomes thoroughly oxidized." The writers infer, that there is not a river in the United Kingdom long enough to destroy the sewage. Now the Royal Commission, appointed in 1865, to make enquiries concerning the uses and condition of the water of our cities, declared that water contaminated by sewage was a "wholesome beverage." The danger which results from drinking water thus contaminated does not arise from the salts it contains, and which have been aptly described by Dr. PARKEMAN as the "inactive portion of sewage," but from germs which are supposed to be held in suspension. No very minute particles of sewage in water might be destroyed, yet these germs remain in full activity. They are so small as to evade the test of the chemist and the sound of the microscope. They may be thrown upon the land with sewage; and as the field part evaporates, they may be lifted up into the air, and there perish; or they may fall upon some suitable







TABLE No. 10 *Continued.*

1869—70.	Small Pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhoea	Tubercles, &c.	1869—70.	Small Pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhoea	Tubercles, &c.
Martin Street	...	...	...	...	...	...	...	2	Staple Street	...	...	1	...	...	...	...	1
Marble Terrace	...	2	...	...	...	...	...	2	St. George's Road	...	...	1	...	...	...	1	...
Marble Court	...	...	1	...	...	...	...	2	Surry Street	...	...	...	...	...	...	2	4
Marble Street	...	...	...	...	...	1	1	1	St. George's Place	...	1	2	...	...	...	...	...
Marble Court	...	...	...	...	...	...	...	1	Stanford Place	...	...	...	...	...	...	...	2
Marble Street	...	1	...	...	...	...	...	1	Star Court	...	...	1	...	...	...	...	1
Marble Street	...	...	...	...	...	...	...	1	St. Stephen's Place	...	...	1	...	...	...	...	...
Marble Street	...	...	...	1	...	...	1	1	St. Stephen's Square	...	...	...	2	...	...	...	...
Marble Street	...	2	...	2	...	...	1	...	St. George's Market	...	...	...	...	...	...	...	1
Marble Prison	...	1	...	...	...	...	...	...	St. George's Circus	...	...	...	...	...	...	...	1
Marble Alley	...	...	1	...	...	...	...	1	Scan Place	...	...	...	...	...	...	...	1
Marble Place	...	...	2	...	...	...	...	...	Stange Court	...	...	...	1	...	...	...	...
Marble Court	...	...	...	...	...	...	...	1	Townsend Street	...	...	...	...	...	1	2	2
Marble Street	1	...	...	...	...	...	1	...	Tower Street	1	...	5	...	...	...	2	2
Marble Row	...	...	...	...	...	1	...	1	Temple Street	...	...	1	...	1	1	1	...
Marble Road	...	...	2	...	...	1	...	...	Trillick Place	...	...	...	...	1	...	...	...
Marble Street	...	...	3	...	...	1	1	...	Union Street, K.R.	...	...	...	...	1	...	...	1
Marble Causeway	...	...	1	...	...	...	...	1	Union Street, L.R.	...	2	1	...	...	...	...	2
Marble Street	...	...	...	...	...	...	...	1	Union Place	...	...	1	...	...	...	...	...
Marble Road	...	...	2	...	1	...	4	1	Vere Street	...	...	1	...	...	...	...	...
Marble Yard	...	...	...	...	...	...	...	1	Valentine Place	...	...	1	...	...	...	...	...
Marble Yard	...	...	...	...	...	1	...	2	Waterloo Road	...	...	...	...	...	...	1	4
Marble Place	1	...	1	...	...	1	...	1	Wickham Place	...	...	...	...	...	...	3	3
Marble Street	1	...	4	...	...	...	...	1	Webber Row	...	2	...	...	4	...	1	5
Marble Street	...	...	...	...	...	...	1	1	Westcott Street	...	...	2	...	1	...	...	5
Marble Place	...	...	2	...	...	...	...	3	Warner Street	...	1	3	...	4	...	1	2
Marble Place	...	1	...	...	1	...	...	2	Willmott's Buildings	...	4	...	1	...	...	...	...
Marble Street	...	...	...	...	...	...	...	1	White Horse Yard	...	...	...	...	...	...	1	1
Marble Walk	...	...	...	...	...	...	...	1	William Street	...	...	...	...	...	1	...	...
Marble Street	...	...	1	...	...	...	...	1	Westminster Bridge Road	...	...	2	...	...	...	1	3
Marble Street	...	...	...	...	...	...	...	1	Warwick Street	...	...	1	...	1	...	...	1
Marble Street	...	...	...	...	1	...	...	2	Webber Street	...	1	1	...	...	1	2	...
Marble Square	...	...	...	...	1	...	...	...	Wellington Street	...	...	...	...	...	2	2	3
Marble Street	...	...	...	...	...	1	...	1	White Street	...	1	1	...	...	...	...	...
Marble Place	...	...	1	...	...	...	1	...	Walker Street	...	...	2	...	1	...	...	...
Marble Street	...	1	1	...	...	...	...	...	West Square	...	...	2	...	1	...	...	...
Marble Terrace	...	...	...	...	...	...	...	1	Wirtenburg Place	...	...	...	...	1	...	...	...
Marble Street	...	1	1	...	...	...	...	...	York Street, L.R.	...	1	2	...	...	...	...	1
Marble Bridge Road	...	2	3	...	3	...	1	2	York Buildings	...	...	...	...	...	...	...	1
Marble Street	...	1	4	...	1	...	1	3	York Street, K.R.	...	...	...	...	...	...	1	2
Marble Buildings	...	...	...	...	...	...	...	1	Workhouse	...	...	...	...	...	...	...	11
Marble Row	...	1	...	...	1	...	1	1									

The fifth table which I shall present to you, points out the localities in which deaths from zymotic diseases have happened, and is of importance. Where we find the greatest numbers of zymotic diseases, there we shall find the greatest amount of crime, immorality,

ness, poverty, and premature death. There is nothing strange in this; there is merely cause and sequence. Breathe a contaminated air, and you breathe disease and its results. The atmosphere is purest on the mountain tops; most impure in our alleys and courts.

Between these two the utmost variation may be met with. The air of towns is loaded with dust and impurity of every kind. If we could but see its foulness, we should dread to breathe it. Every impurity passes through the gateway of the lungs into the blood, affecting every part of the system, but more especially the brain and nervous system. Dr. Angus examined some time ago the air of a large town, by means of washing a portion of the air in bottles of pure water. One drop of this contaminated water was found to contain





hundreds of fungoid spores. A bottle of this water, after being kept for some days, showed minute creatures moving about. As much air as would pass through the lungs of a man in ten hours, was thoroughly washed in like manner; and one hundred and fifty drops of this solution, when examined, was found to contain innumerable fungi and dust; from which latter proceeded numbers of animalcules. This air, crowded with embryos of low and foul forms of life, and with morbid germs, we are "churning in our lungs" as often and as long as we continue to breathe. No wonder we suffer from disease: rather is the wonder that our diseases are not more varied and grave, and our deaths more premature. The danger lies, not so much from diminution of oxygen in the air, or even excess of carbonic acid, as from the presence of organic matter given off from the lungs and body. We are often met with the question—How is it that the children we see in these courts, alleys, and wretched streets seem so healthy and hardy; indeed, far more so than is seen in any of the classes above them, if overcrowding, neglect, dirt, and bad food be so prejudicial as they are asserted to be? The answer is ready. These children are but the gleanings of the harvest, gathered in by death. Only those possessed of strong and vigorous constitutions could have struggled successfully through the difficulties with which they have had to contend. They are the choice of the whole. The result of wealth and poverty on the duration of early life, has been strongly shown by Caspar of Berlin: he states as the result of his inquiries, that of 1000 children born in the families of affluent persons, 911 attained the age of fifteen years; whilst of 1000 paupers only 584 arrived at that age. Thus, simply from poverty and its consequences, 327 children perished. Poverty is one of the most powerful predisposing causes of disease; with poverty, however, we are not called upon to strive, only with disease, which tends so greatly to extend and intensify it. There is nothing so precious as health, and yet there is nothing so recklessly squandered away. It should simply be the aim of every man and woman to be as healthy as possible. Health, not wealth, constitutes the safety and permanence of a nation. "For performance of great mark, it needs extraordinary health. Sickness is poor-spirited, and cannot serve any one; it must husband its own resources to live." The deliverance from those causes which fill our graves with the young, our homes and hospitals with pain and sickness, our prisons with occupants, and which exposes our country to the periodic death sweep of plague and pestilence, must be the work of our own hands. We must no longer attribute these disasters to any supernatural cause, and so sit down bemoaning our fate with more or less of resignation. Every plague and pestilence with which we have been visited, have been the consequence of infringements of the laws by which we are surrounded. As those laws are more clearly understood, and more rigidly obeyed, the less shall we suffer the sore punishments that follow from disobedience. We are now bearing the consequences of evils committed by our ancestors. Many a startling crime, and brutal exhibition, and conduct strange and wayward, are but the developement of hereditary tendencies. "There are thousands now sowing the seeds of corruption, moral and physical, which others shall reap and garner, when they, the living seed of pestilence, walk no more in darkness, but have laid down therein." The problem is—How the race of man shall be exalted, and the life lived worthy of him and his destination. To bring about a solution to this problem, lies within the compass of your duty, a duty than which none more great and responsible can be met with.

HENRY DATESON, M.D.

May 7th, 1870.





TABLE No. 11.—DEATHS Registered in St. George's, Southwark, during the year ending April 2nd, 1870. (52 Weeks.)

Year 1869-70.	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.
1869	ALL CAUSES.	896	811	1740	125	210	121	70	49	875	91	17	24	1007	177	264	250	42
1	I. Zymotic .. .. .	251	196	450	119	91	62	44	33	352	53	3	3	411	11	16	10	2
2	II. Dropsy, &c. .. .	24	23	47	..	..	1	2	..	3	3	1	..	7	7	16	17	..
3	III. Tubercular .. .	171	168	339	69	33	17	5	..	124	13	1	11	149	94	76	20	..
4	IV. Brain and Nerves .. .	105	118	223	76	31	10	5	4	126	6	..	3	135	17	29	36	6
5	V. Heart, &c. .. .	19	24	43	..	..	..	..	..	..	3	5	1	9	7	25	2	..
6	VI. Lungs, &c. .. .	186	165	351	68	42	26	9	5	150	9	..	3	162	21	74	90	4
7	VII. Digestive Organs .. .	35	29	64	10	8	1	1	5	25	3	1	1	30	7	17	10	..
8	VIII. Kidneys, &c. .. .	11	1	12	..	1	1	..	1	3	..	..	..	3	7	1	1	..
9	IX. Childbirth, &c. .. .	..	8	8	..	..	..	..	..	..	..	..	1	1	4	3	..	..
10	X. Joints, Bones, &c. .. .	4	2	6	..	..	1	..	..	1	1	3	1	6	..	..	..	..
11	XI.—Skin, &c. .. .	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..
12	XII.—Malformation .. .	1	1	2	..	..	..	..	..	2	..	..	..	2	..	..	..	..
13	XIII.—Premature Birth and Debility .. .	17	21	38	38	..	..	..	..	38	..	..	..	38	..	..	..	..
14	XIV.—Atrophy .. .	13	11	24	19	1	1	1	1	23	..	1	..	24	..	..	..	..
15	XV.—Old Age .. .	35	54	89	..	..	..	..	..	..	..	..	..	..	..	61	24	..
16	XVI.—Sudden .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17	XVII.—Violence, Privation, &c. .. .	16	17	33	19	..	1	2	..	22	..	2	..	24	2	5	1	1
18	XVIII.—Not Specified .. .	5	5	10	5	..	..	1	..	6	..	..	..	6	..	1	2	1
19	I. Small Pox .. .	9	5	14	1	5	2	1	2	11	3	..	..	14	..	..	..	..
20	Measles .. .	26	20	46	13	18	9	4	2	46	..	..	..	46	..	..	..	..
21	Scarlatina .. .	91	58	152	9	25	33	20	22	109	39	2	..	159	2	..	..	..
22	Whooping Cough .. .	37	37	74	23	21	10	8	3	68	5	1	..	74	..	..	..	..
23	Croup .. .	8	6	14	1	2	4	4	2	13	1	..	..	11	..	..	..	..
24	Thrush .. .	2	..	2	2	..	..	..	..	2	..	..	..	2	..	..	..	..
25	Diarrhoea .. .	40	35	75	50	17	1	1	..	69	..	..	..	69	1	1	2	2
26	Dysentery .. .	..	1	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..
27	Cholera .. .	3	4	7	5	..	..	1	..	6	..	..	..	6	..	1	..	..
28	Influenza .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
29	Scurvy and Purpura .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
30	Ague .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
31	Remittent Fever .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
32	Infantile .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
33	Typhus .. .	19	17	36	..	1	3	3	2	9	5	..	3	17	4	9	6	..
34	Puerperal .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
35	Rheumatic .. .	2	1	3	..	..	..	..	..	..	..	..	..	1	2	..	..	..
36	Erysipelas .. .	4	2	6	..	1	..	..	..	1	..	..	..	1	1	3	1	..
37	Pyæmia .. .	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..
38	Syphilis .. .	8	8	16	15	..	..	..	..	15	..	..	..	15	1	..	..	..
39	Noma .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
40	Diphtheria .. .	1	2	3	..	1	..	2	..	3	..	..	..	3	..	..	..	..
41	Hydrophobia .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
42	II. Hemorrhage .. .	..	3	3	..	..	..	..	..	..	..	..	..	..	2	..	1	..
43	Dropsy .. .	11	3	14	..	..	1	2	..	3	2	1	..	6	3	3	2	..
44	Abscess .. .	1	3	4	..	..	..	..	..	..	1	..	..	1	..	1	2	..
45	Ulcers .. .	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
46	Fistula .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
47	Mortification .. .	3	..	3	..	..	..	..	..	..	..	..	..	1	..	2	..	..
48	Cancer .. .	9	13	22	..	..	..	..	..	..	..	..	..	1	11	10	..	..
49	Gout .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
50	III. Scrofula .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
51	Tuberc Mesenterica .. .	42	46	88	56	17	11	3	..	87	1	..	..	88	..	..	..	..
52	Phthisis .. .	123	114	237	7	13	3	2	..	25	10	1	11	47	91	76	20	..
53	Spasmodic Croup .. .	..	1	1	1	..	..	..	..	1	..	..	..	1	..	..	..	..
54	Hydrocephalus .. .	6	7	13	5	3	3	..	..	11	2	..	..	13	..	..	..	..
55	IV. Cephalitis .. .	1	1	2	..	..	..	..	..	..	..	..	..	..	1	1	..	..
56	Apoplexy .. .	12	19	31	..	..	..	..	..	..	..	..	1	1	4	6	16	4
57	Paralysis .. .	11	10	21	..	..	..	..	..	..	..	..	..	..	2	7	11	1
58	Delirium Tremens .. .	1	2	3	..	..	..	..	..	..	..	..	..	..	..	3	..	..
59	Chorea .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
60	Epilepsy .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
61	Tetanus .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
62	Insanity .. .	2	10	12	..	..	..	..	..	..	..	..	1	1	4	7	..	..
63	Convulsions .. .	56	58	114	67	26	10	3	4	110	4	..	..	111	..	..	..	..
64	Disease of Brain, &c., .. .	22	18	40	9	5	..	2	..	16	2	..	1	19	6	5	9	1





Table No. 11 continued.

Births.... M. 1003. F. 986. Total....1989.

Excess of Births over Deaths....249.

Deaths....M. 896. F. 844. Total....1740.

Deaths in the Year 1868-9.	CAUSES OF DEATH.	ALL AGES.			AGES.												
		M.	F.	T.	Under 1	1-1	1-2	2-3	3-4	All under 5	5-10	10-15	All under 20	20-30	30-40	40-50	50 and upwards
2	V. Pericarditis .. .. .	2	2	2	..	..	..	..	..	..	2	..	2	..	..	..	..
57	Aneurism .. .. .	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
	Disease of Heart, &c. .. .	18	22	40	..	..	..	..	..	..	1	3	1	7	2	2	..
10	VI. Laryngitis .. .. .	2	4	6	..	1	1	2	..	4	..	..	4	1	1	..	..
156	Bronchitis .. .. .	108	110	218	26	18	13	2	1	60	3	..	1	61	9	61	59
1	Pleurisy .. .. .	1	1	2	..	..	..	..	..	..	..	..	..	1	1	..	4
89	Pneumonia .. .. .	64	42	106	49	21	11	4	3	79	6	..	2	87	17	3	..
11	Asthma .. .. .	6	3	9	..	..	..	..	..	..	..	..	..	1	1	4	..
6	Disease of Lungs .. .. .	5	5	10	2	2	1	1	1	7	..	..	7	2	3	5	..
15	VII. Teething .. .. .	5	9	14	6	8	..	..	..	11	..	..	11	..	..	..	..
2	Quinsy .. .. .	..	3	3	1	..	..	..	..	..	..	..	..	..	..	..	..
1	Gastritis .. .. .	1	1	2	1	..	..	1	1	3	..	..	3	..	..	1	..
5	Enteritis .. .. .	4	2	6	2	..	1	..	..	3	2	..	5	..	1	..	..
6	Peritonitis .. .. .	5	2	7	..	..	..	..	..	..	..	..	..	..	..	..	..
5	Ascites .. .. .	6	..	6	..	..	..	..	3	3	..	1	1	3	1	2	..
..	Ulceration of Intestines ..	..	..	..	..	..	..	..	..	..	..	..	3	..	3	..	..
1	Hernia .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Ileus .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2	Intussusception .. .. .	..	1	1	..	..	..	..	1	1	..	..	1	..	..	..	..
..	Stricture of Intestinal Canal	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Pistula .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
5	Disease of Stomach, &c. ..	..	2	2	..	..	..	..	..	..	..	..	..	..	1	1	..
..	Disease of Pancreas .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Hepatitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5	Jaundice .. .. .	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..
29	Disease of Liver .. .. .	15	7	20	..	..	..	..	..	..	1	..	2	4	1	1	..
..	Disease of Spleen .. .. .	..	..	..	..	..	..	..	..	..	..	1	2	4	10	4	..
1	VIII. Nephritis .. .. .	2	1	3	..	..	1	..	1	2	..	..	2	..	..	1	..
3	Nephritis (Bright's Disease)	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..
..	Ischuria .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Diabetes .. .. .	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Stone .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Cystitis .. .. .	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..
2	Stricture of Urethra .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6	Disease of Kidneys, &c. ..	5	..	5	..	1	..	..	..	1	..	..	1	3	1	..	..
..	IX. Paramenia .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Ovarian Dropsy .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3	Childbirth .. .. .	..	5	5	..	..	..	..	..	..	..	1	1	4	..	..	..
2	Disease of Uterus, &c. ..	..	3	3	..	..	..	..	..	..	..	..	..	..	3	..	..
..	X. Arthritis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4	Disease of Joints, &c. ..	4	2	6	..	..	1	..	..	1	1	3	1	6	..	..	..
..	XI. Carbuncle .. .. .	..	1	1	..	..	..	..	..	..	..	..	..	..	1	..	..
..	Phlegmon .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Diseases of Skin, &c. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2	XII. Cyanosis .. .. .	1	..	1	1	..	..	..	..	1	..	..	1	..	..	..	..
1	Spina Bifida .. .. .	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
3	Other Malformations .. ..	..	1	1	1	..	..	..	..	1	..	..	1	..	..	..	..
..	XIII. Intemperance .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Privation of Food .. .. .	..	1	1	1	..	..	..	..	1	..	..	1	..	..	..	..
4	Want of Breast Milk .. ..	3	2	5	5	..	..	..	..	5	..	..	5	..	..	..	..
..	Neglect .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Cold .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	Poison .. .. .	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..
1	Burns and Scalds .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5	Hanging .. .. .	3	2	5	1	..	1	2	..	4	..	1	5	..	1	..	..
7	Suffocation .. .. .	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Drowning .. .. .	5	7	12	12	..	..	..	..	12	..	..	12	..	..	..	..
5	Fractures and Contusions ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3	Wounds .. .. .	3	3	6	..	..	..	..	..	..	..	1	1	1	2	1	1
..	Other Violence .. .. .	1	1	2	..	..	..	..	..	..	..	..	..	1	1	..	..



