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REPORT

UPON THE

Health of Wolverhampton

FOR THE YEAR 1909,

BY

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Medical Officer of Health.

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MEDICAL OFFICER'S REPORT,

1909.

PREVALENCE AND PREVENTION OF INFECTIOUS DISEASE.

Table 2 gives the weekly number of cases of certain diseases certified by Medical Men under the Infectious Diseases Notification Act. The crosses represent the degree to which the disease heading those columns prevailed—these are only rough approximations. Any certificate detected as erroneous before the close of the week is not entered.

Table 1 gives the total number of cases about which enquiries were made and which were recorded; no erroneous cases are entered in this Table.

Small Pox.—No case was reported during the year.

Measles.—Up to the close of the first quarter of the year we had been for some eighteen months singularly free from Measles, and we had had nothing approaching an epidemic since the first quarter of 1906, when the 1905 epidemic was dying out. At the close of the first quarter there was a rather sudden and considerable increase in the number of cases heard of, and three deaths were registered in the East in the last week of the quarter. There had been exceptionally severe and fatal epidemics of Measles in several of the large towns during the previous six months, and the above outbreak proved to be the commencement of a similar epidemic here. The severity of the epidemic is shown by the weekly death returns, which were as follows, commencing with the last week of the first quarter, that ending April 3:—3, 4, 3, 6, 3, 5, 14, 14, 15, 9, 8, 10, 10, 2, 11, 6, 5, 3, 2, 5, 2, 3, 1, 2. There were occasional deaths registered up to the close of the year, nearly all in the East Sub-district; the deaths in the

East began earlier, and continued later than in the West, but during the height of the epidemic the West fatality was the greater (see Table No. 5). On April 21st I advised the general closure of the Infant Schools throughout the Borough, until the close of the Whitsuntide Vacation. The closure was limited to Infant Departments, because the fatality is so little amongst the seniors. Of the 156 deaths this year only 17 were over 5 years of age; of these 17, 12 were 5 years of age, 2 were 6, two were 7, and 1 was 38 years of age. As our Infant Departments retain children until they are more than seven years old, we note the remarkable facts that in all our heavy fatality there was not one death amongst children beyond the Infant Department, and that the enormous majority of the deaths were amongst children below our school age. I have little belief in the utility of a late school closure in a crowded town; when schools are closed we hear of fewer cases merely because our main source of information is cut off. In the present instance when the schools re-opened, on June 8th, after the holidays, cases were again reported as numerously as before, and the weekly death returns given above are quite unaffected by the partial closure. A few weeks later the prevalence was so general that our ordinary work was almost completely stopped, owing to the time taken up by inquiring into the cases reported from the schools with a view to exclusion of scholars, and I was compelled, partly in the interest of the general public health, partly with the hope that the sources of infection would be thereby reduced, to advise the general closure of schools throughout the Borough, the Pupil Teachers Centre being excepted; on July 12th the schools were closed up to the commencement of the summer holidays. Then, as usual, the number of cases reported rapidly fell off, but there was also a continuous decline in the deaths, and in about six weeks these ceased to be anything extraordinary. When the schools re-opened on August 22nd, after the summer holidays, we appeared to be fairly free from Measles, only some scattered cases being heard of. Early in November a number of cases were heard of, quite suddenly, in connection with the Willenhall Road Infant Schools, which were therefore closed for four weeks on November 3rd. Three weeks later a similar outbreak occurred in connection with St. Stephen's Schools, which were in consequence closed for four weeks on November 25th. Neither of these outbreaks extended, and this was as far as we know the last of the

epidemic. The last two instances given above rather point to the advantage of a prompt school closure on the first intimation of an outbreak; which is the only form of school closure I consider of much use in a town. On the other hand it is quite probable that these outbreaks subsided because all the material available for infection had already been used up. Our records of deaths from Measles since 1884 are as follows:—

1884.	1885.	1886.	1887.	1888.	1889.	1890.
98	1	111	31	39	40	32
1891.	1892.	1893.	1894.	1895.	1896.	1897.
25	41	21	73	40	8	49
1898.	1899.	1900.	1901.	1902.	1903.	1904.
19	2	76	48	21	56	—
1805.	1906.	1907.	1908.	1909.		
45	28	23	5	156		

Our population in 1884 was nearly 78,000, in 1909 nearly 105,000; but as our birth-rate in 1884 was about 35, compared with about 24 at present; our ratio of child population then to now would be more than the ratio of the total population 78 to 105. Again the present year's epidemic fell within the year, and some former epidemic began in one year and ended in another; thus the fatality of the 86—87 epidemic was actually about 140; taking all these facts into account it is evident that, with the possible exception of 86—87, this year's fatality is much the heaviest we have ever had. It is most important that the general public should realise the gravity of a disease, generally but little regarded by them; apart from the unknown element of epidemicity, the main factor in causing the epidemic is the absolute indifference with which the majority of the public treat Measles, we had numerous instances of healthy children being allowed free access to infected children in their homes; and of the most reckless exposure of infectious children in public; but none of these were attended by doctors, and it is held that in the absence of medical evidence of Measles before the exposure a conviction could not be obtained, even though the person in charge of the child believed it to have Measles. Thus we were barred from prosecuting any of the offenders, and the educative value of publicly reported cases was lost.

Scarlet Fever.—We began recording our cases in 1884, but as we have only had notifications since 1890 (inclusive) the returns before that year are less complete than those since. The death records in my possession go back to 1870; the following are the deaths since that year, and the known cases since 1884:—

	1870.	1871.	1872.	1873.	1874.	1875.	1876.
Deaths	54	26	69	121	34	26	58

	1877.	1878.	1879.	1880.	1881.	1882.	1883.
Deaths	226	40	17	39	64	27	24

	1884.	1885.	1886.	1887.	1888.	1889.	1890.
Deaths	37	46	5	16	17	6	13
Cases	212	244	47	168	194	124	500

	1891.	1892.	1893.	1894.	1895.	1896.	1897.
Deaths	14	3	25	55	34	21	24
Cases	419	242	623	1096	592	372	529

	1898.	1899.	1900.	1901.	1902.	1903.	1904.
Deaths	20	6	9	10	15	14	14
Cases	359	177	242	408	549	550	477

	1905.	1906.	1907.	1908.	1909.
Deaths	15	17	24	8	9
Cases	307	523	604	423	246

The fatality varies in different periods, so that the deaths bear little ratio to the cases. The prevalence this year has been very low, the mortality per case rather high; one of the deaths registered was of a 1908 case.

The following table gives quarterly particulars as to the cases in the two Sub-districts. The deaths are those of the cases reported in each quarter, and sometimes occur later; excepting Table No. 2, they do not necessarily correspond to the deaths in the Mortality Tables, which are those registered in each quarter:—

Quarters.			1st.	2nd.	3rd.	4th.	Year.
EAST ..	Total	Cases ..	16	18	25	25	84
		Deaths ..	..	3	2	..	5
	Hospital	Cases ..	14	16	24	22	76
		Deaths ..	..	2	2	..	4
	At Home	Cases ..	2	2	1	3	8
		Deaths ..	..	1	..	..	1
West ..	Total ..	Cases ..	43	37	26	56	162
		Deaths ..	..	1	..	2	3
	Hospital	Cases ..	33	32	22	42	129
		Deaths ..	..	1	..	2	3
	At Home	Cases ..	10	5	4	14	33
		Deaths ..	..	..	..	..	..

The East Mortality is 5·95 per cent.; the West 1·85.

There were in all 205 cases treated in Hospital, with a mortality of 3·41 per cent.; 41 cases treated at home, with a mortality of 2·44 per cent.

On account of the larger size of many of the houses in the West a greater number of cases in this Sub-district have fair facility for home isolation; hence the greater proportion of cases so treated there. The following table give the proportion of cases kept at home in the Sub-districts since 1884. I give the total deaths registered also, because the cases were imperfectly reported before 1890. Column 'R' is the rate of the total cases per 10,000 of population.

	EAST.				WEST.			
	Total. Deaths.	Cases.	R.	Cases at home.	Total. Deaths.	Cases.	R.	Cases at home.
1884	28	140	36·1	?	9	72	18·4	?
1885	37	146	37·6	78	9	98	24·6	70
1886	2	19	4·9	4	3	28	6·9	19
1887	5	52	13·4	25	11	116	28·2	82
1888	5	53	13·5	27	12	141	33·8	56
1889	0	45	11·5	16	5	79	18·6	29
1890	5	239	61·3	61	8	261	60·6	100
1891	7	154	39·4	28	7	265	60·4	74
1892	2	76	19·4	19	1	166	37·1	50
1893	17	301	76·6	20	8	322	70·4	47
1894	39	600	152·1	53	16	496	106·1	104
1895	16	234	59·2	28	18	358	75·0	98
1896	10	155	39·1	20	11	217	44·5	55
1897	11	219	55·0	37	15	310	62·3	77
1898	5	124	31·1	12	15	235	46·2	57
1899	4	52	13·0	6	2	125	24·1	33
1900	3	93	23·1	5	6	149	28·1	51
1901	5	131	32·5	21	5	277	51·1	75
1902	7	189	46·7	13	8	360	65·0	102
1903	8	237	58·3	31	6	313	55·3	76
1904	9	186	45·8	19	5	291	50·2	65
1905	6	118	29·1	16	9	189	31·8	51
1906	6	226	55·7	24	11	297	48·8	57
1907	8	282	69·5	21	16	322	51·6	74
1908	2	159	39·2	18	6	264	41·3	54
1909	6	84	20·7	8	3	162	24·7	33

This table was fully commented on in the report for 1908, this year's figures are so low that they give no additional information.

The following is the summary of the apparent effects of removal and home care on the spread of the infection in the households attacked during the year. No account is taken of houses where there is no susceptible child after the first case attacked; children who have already had Scarlet Fever being counted as insusceptible:—

East Sub-District.—During the year there were 31 instances in which no second case occurred after the removal to the Hospital of first cases. In these 31 houses there remained 72 children who had not previously had Scarlet Fever.

In 6 instances secondary cases occurred without Hospital removal, there were 6 such cases; they occurred at the following intervals after the previous case was taken ill:—One day, 2 cases; two days, 2 cases; and 1 case each after three and eight days.

In most of these Hospital removal was ultimately effected, and in 3 instances where 4 susceptible children still remained there was no further recurrence.

Thus in 34 instances there was no further ease after Hospital removal, though 76 children remained in these houses.

In 5 instances further cases occurred *after* Hospital removal, there were 5 such cases at the following intervals after the removal:—One, six, eight, twenty-one, and twenty-seven days.

In these houses 6 children still remained unaffected, so that in all 82 children escaped infection in 39 houses after Hospital removal.

In the East, cases were isolated at home in 15 houses; in 2 of these there were no other susceptible children. In 2 the other children were all sent away. In 3 instances other children remained in the house during the isolation, there were 6 such children; none of these children took Scarlet Fever.

West Sub-District.—There were 65 instances in which the first cases of Scarlet Cases were removed, and no others occurred. In these 65 houses there remained 137 susceptible children.

In 8 instances secondary cases occurred without Hospital removal; there were 11 such cases; they occurred at the following intervals, after the preceding case had been taken ill:—One, two, three, four, and five days, 1 case each; thirteen days, 6 cases.

In some of these houses Hospital removal was ultimately effected. In 4 instances where there were susceptible children there was no further recurrence, 7 children escaping.

Thus, in 69 houses there was no recurrence after Hospital removal, 144 children escaping.

In 4 houses cases occurred *after* Hospital removal, 4 cases occurring at the following intervals after the previous removal:—One, seven, eight, and thirteen days

In these houses 3 children still remained unaffected; so that in all 147 children in 73 houses escaped infection after Hospital removal.

In the West, cases were treated at home in 30 houses. In 13 there were no other susceptible children. In 6 instances the other children were sent away. In one house (nine-roomed) where there were 5 other children, one of these was taken ill after thirteen days; both cases were then removed to the Borough Hospital, this case should count against home isolation, but it is difficult to classify it, so it is omitted. In only ten instances isolation was continued, other children remaining in the house. There were 15 such children, of these 3 had Scarlet Fever in three separate houses, at five. nine, and eighteen days interval after the primary case. In seven of these ten instances there was only one other child in the house; in two of these the primary case was doubtful, one of them had been reported as Scarlet Fever five years previously; two of the secondary cases occurred in the other five of these houses. The other secondary case was one of four children in a six-roomed house. In another instance where two children were unaffected there were eleven

rooms in the house. These facts show that in the home treated cases there were exceptional facilities for isolation, such as rarely exist in those where the cases are removed.

The summary for the Borough is as follows:—Hospital removal was effected in 112 houses. After the first removals there remained in these houses 238 children. In 103 of these houses there was no recurrence after removal, 220 children escaping. In 9 houses there was recurrence, 9 children being attacked. In these 9 houses 9 children still escaped after final Hospital removals; of the 9 secondary cases 2 were taken ill within two days of the previous removal, and probably infected before it; 1 case was taken ill twenty-seven days after the previous removal, and was probably due to independent infection. This leaves probably only 6 cases due to failure of Hospital removal, or, more correctly speaking, to failure of disinfection after removal.

Cases were treated at home with reasonable facility for isolation in 13 houses, where there were 21 children besides the primary case. Secondary cases occurred in 3 of these houses, 3 cases occurring.

The following tabular statement shows the results at a glance.

	Hospital Removal.	Home Isolation.
Total houses	112	13
Cases recurred in	9	3
Number of children after primary cases ..	238	21
Number subsequently attacked	9, or 3·8%	3, or 14·3%
Number possibly due to failure	6, or 2·5%	3, or 14·3%
Number of children escaping	229, or 96·2%	18, or 85·7%

The following is the total for the sixteen years, 1894-1909:—

	Hospital.	Home.
Total houses	3,516	443
Cases recurred in	347	142
Number of children after primary cases ..	9,196	840
Number of these attacked	432, or 4·7%	194, or 23·1%
Number possibly due to failure	217, or 2·4%	131, or 15·6%
Number of children escaping	8,764, or 95·3%	646, or 76·9%

The cases treated at home were, of course, in roomy houses where isolation was possible; those removed to the Hospital include a great majority from small and comparatively crowded houses; thus, the evidently greater protection afforded the latter is very striking. Another factor which slightly favours the home statistics is that a certain percentage of cases are erroneously reported, when such are removed to Hospital they are excluded from our records, but when kept at home we rarely hear of the error, and the home treatment is credited with their non-infectiousness. Another correction must be made which counts against the Hospital removal, in some instances after the return home of a Hospital case fresh cases occur. This year we had 10 such cases, if we add these to our 6 failures after removal we get 16 re-infections, due to failure of the removal system, out of 238 children, or 6·7% as compared with 14·3% amongst the home treated cases. During the past sixteen years we had a total of 275 of these return cases, far more than the 217 recurrent cases after removal to Hospital; together these give 492 re-infections in 9,196 children, or 5·4% as compared with 15·6% in the case of home isolation.

Diphtheria.—The quarterly cases of, and deaths from, Diphtheria in the borough since 1890 have been:—

	1890				1891				1892			
Cases ..	11	3	4	5	8	8	6	11	1	7	4	4
Deaths ..	3	—	—	1	1	2	1	1	—	3	1	—
	1893				1894				1895			
Cases ..	7	5	12	11	11	16	33	22	34	78	56	140
Deaths ..	—	1	1	3	5	8	10	10	19	24	14	27
	1896				1897				1898			
Cases ..	108	101	87	64	73	72	75	91	61	25	64	52
Deaths ..	19	15	9	12	11	10	11	26	19	5	11	8
	1899				1900				1901			
Cases ..	29	20	29	27	24	15	32	24	24	21	22	39
Deaths ..	5	4	5	7	3	3	4	—	2	2	3	6
	1902				1903				1904			
Cases ..	15	33	21	22	6	13	13	14	11	9	14	4
Deaths ..	3	6	3	6	2	4	1	3	2	1	3	12
	1905				1906				1907			
Cases ..	24	15	23	24	21	16	25	34	22	40	40	58
Deaths ..	6	1	6	5	5	5	2	11	3	9	6	8
	1908				1909							
Cases ..	46	40	39	35	12	15	10	19				
Deaths ..	11	12	6	4	2	4	4	1				

The annual cases and deaths in the Sub-districts have been :—

		1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
East	Cases	11	8	3	14	36	88	114	121	76	37
	Deaths	2	1	2	2	20	29	21	21	18	12
West	Cases	12	25	13	21	46	220	246	190	126	68
	Deaths	2	4	2	3	13	55	34	37	25	9

		1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.
East	Cases	35	30	36	9	23	20	22	43	44	17
	Deaths	4	7	12	2	7	3	7	8	12	3
West	Cases	60	76	55	37	55	66	74	117	116	39
	Deaths	6	6	6	8	11	15	16	18	21	8

We have been very free from Diphtheria during the year, both the cases and deaths being very low returns; but the returns of cases are somewhat doubtful, many mild cases being altogether overlooked, and some septic and other forms of sore throat being reported as Diphtheria. During the year, I think, rather more use has been made of the facilities afforded for bacteriological examination; but it is by no means in general use. During the year 54 Bacteriological reports were received, 16 of these were of patients in the General Hospital, 11 negative (one not belonging to the Borough) and two being of one case, 5 were positive (one not belonging to the Borough). Of the other 38 reports, 25 were single negative reports, 4 were double negative reports on two cases, 4 were two positive and two negative reports on the same case; and 5 were single positive reports. This gives only ten Borough cases reported as positive, and yet 56 cases of Diphtheria were reported In July arrangements were made for the gratuitous supply of Antitoxin Serum for Borough residents, conditional on a bacteriological examination being made; the doctors in the Borough were notified of this. From this date to the close of the year thirty cases of Diphtheria were reported, and eleven applications were made for serum.

The following is a sketch of the quarterly prevalence during the year.

First Quarter.—There were only five cases in the East, a father and infant in one house, and three separate cases, two of the latter were removed to the General Hospital, one of these died. There were seven cases in the West, all separate; four were removed to the General Hospital; of the three kept at home two were fatal.

Second Quarter.—There were four cases in the East, three were treated in the General Hospital, one being a nurse there, all recovered. There were eleven West cases, two in one house; six were treated at the General Hospital, all urgently severe cases, three of these were fatal.

Third Quarter.—There were only three cases reported in the East; in separate houses, all kept at home: one was fatal. There were seven West cases; five were kept at home, two in one house; one home and one Hospital case was fatal.

Fourth Quarter.—Only five cases reported in the East, all separate; one was a nurse in the General Hospital, the others were kept at home; none were fatal. Fourteen cases were reported in the West, five were removed to the General Hospital, of the nine kept at home one was fatal. Two cases were in the following connection; a mother and child travelled here by train, a young lady (a stranger) in the same compartment was wrapped up, apparently with a sore throat. On the following day the child ailed, and nine days later her mother, who was nursing her, was taken ill; Diphtheria baccilli were found in both these cases.

Enteric Fever.—The cases and deaths since 1890 have been—

		1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899
East	Cases	22	34	22	53	27	78	89	51	76	115
	Deaths	6	5	6	7	10	10	24	9	13	23
West	Cases	22	64	53	83	54	56	49	45	41	79
	Deaths	3	11	9	16	7	8	13	12	7	21
Boro'	Cases	44	98	75	136	81	134	138	96	117	194
	Deaths	9	16	15	23	17	18	37	21	20	44

		1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909
East	Cases	106	50	49	36	19	10	23	12	27	13
	Deaths	22	7	12	10	6	4	6	2	4	1
West	Cases	80	39	44	35	23	26	24	21	22	9
	Deaths	17	10	3	6	6	6	2	5	6	2
Boro'	Cases	195	89	93	71	42	36	47	33	49	22
	Deaths	39	17	15	16	12	10	8	7	10	3

We have been very free from Enteric Fever for some years, but this year's record is really remarkable.

The quarterly returns of cases during the year were :—

East ..	Cases	6	5	..	2
	Fatal	..	..	..	1
West ..	Cases	..	2	6	1
	Fatal	..	..	1	1

The number of fatal cases do not necessarily tally with the deaths registered, as the deaths may occur, and therefore be registered, after the close of the quarter.

Of the six cases in the East during the first quarter three occurred in the General Hospital, one being a nurse there; the other three were separate cases, and were all sent into the General Hospital. One of these last cases had milk from a small milk shop next door; and of the five cases in the East in the second quarter, the second was at this shop, and the fifth had milk from it; but nothing was traced. Of the remaining three second quarter East cases, one apparently occurred in the Hospital, and one came here ill from abroad. All these cases were treated in the General Hospital. The two West cases were kept at home, one of these came here from a distance, ill.

During the third quarter the only six cases reported were in the West; two were in one house and had been infected together when staying away; two others from separate houses had been staying away together when infected; the other two cases were apparently separate, one of them was removed to Hospital.

Only three cases were heard of during the fourth quarter; of the East two, one was a doubtful case in a child; the other was a case of a young man who went from a Lodging House ailing to the Workhouse and was there found to have Enteric Fever; this case was fatal; and so was the one West case.

Rather more use is made of the facilities given for having Vidal's test done than is made of the Bacteriological examination for Diphtheria. During the year 35 cases were sent for examination; of these however 26 were from the General Hospital; nineteen of these were negative and one doubtful, the latter case, and one of the negative, ultimately gave positive results, and there were four other positives; six positive in all. Of the

nine cases sent by other doctors, seven were negative, two of these on re-examination were positive, making the nine.

Table No. 2 gives the total proportion of cases of Scarlet Fever, Diphtheria, and Enteric Fever treated in Hospital. We see that a total of 33 cases of Diphtheria were treated at home with only 5 deaths; and 23 were treated in the General Hospital with 6 deaths; this high fatality in the Hospital cases is always observed, and is due partly to the facts that most of the cases kept at home are so kept because of their mildness; and a considerable proportion are not confirmed bacteriologically, and may not be Diphtheria; whereas many of the Hospital cases are taken there because of their urgent gravity, and any case taken to the Hospital, and found not to be Diphtheria, is excluded from our returns.

The only Hospital death from Enteric Fever was that of the man mentioned who went ill to the Workhouse and died there. The 12 cases treated in the General Hospital all recovered, of the 9 cases treated at home 2 died.

Whooping Cough.—Although there was no definite epidemic of Whooping Cough we had rather more than the average prevalence throughout the year, especially during the first two quarters. Through the third quarter there was still some prevalence in the West Sub-district, at the close of the year we seemed fairly free.

Influenza.—There was a prevalence of rather severe Influenza during the first quarter of the year, causing considerable fatality, especially amongst the old.

Diarrhœa.—The annual deaths returned as due to Diarrhœa since 1875 have been :—

1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.
96	105	59	93	48	111	46	87	56
1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.
140	50	149	105	60	84	68	105	55
1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
161	62	135	131	188	174	132	117	109
1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	
72	86	161	126	130	48	44	27	

With the exception of the years 1875-6 and 1886-7 there were regular alternation of high and low returns up to 1895, when the returns were high until the years 1902 and 1903, both of which were rather low; in 1904 we had a very high return, and in the two years 1905 and 1906, a rather high return.

The last three years returns have been (in proportion to the increasing population) record low returns, 1909 is quite a striking contrast even to the two preceding years. For three years we have been free from any actual epidemic prevalence.

Table No. 5 gives the weekly deaths from Diarrhœal diseases, which gives a better idea of the actual prevalence than the deaths only registered as due to Diarrhœa. The child, and more especially the infant population of the East is probably greater than that of the West. All conditions that would contribute to intestinal disorders, such as poor feeding, constitutional weakness, and general poverty conditions, are more prevalent in the East; and we would therefore ordinarily expect to find such diseases more fatal there. This always appears in Table No. 5, where we see Diarrhœal deaths occurring throughout the year, more in the East than the West. We always see also an increased record during the late summer, which represents the epidemic type.

Our experience before 1907 went to show that when the 4ft. ground temperature exceeded 52° and the 1ft. exceeded 60° circumstances favoured epidemic Diarrhœa; but that rain modified this, higher temperatures being needed to foster the zymotic in the presence of heavy rain.

During the non-epidemic years 1907 and 1908 this was not at all so marked, but both those years and 1909 were characterised by heavy rainfalls which apparently modified the effects of temperature. The following table gives the Weekly Diarrhœal deaths, rainfall, mean air temperature, mean 1ft., and 4ft. earth temperatures for twenty weeks.

Week ending	Deaths.	Rain-fall. ins.	Temperature. Air degs.	1ft. degs.	4ft. degs.
June 26	1	3·30	52·1	57·6	52·6
July 3	—	·25	53·5	57·5	52·8
,, 10	2	1·07	55·5	59·7	53·3
,, 17	1	1·05	57·7	61·2	54·1
,, 24	1	·28	57·8	62·8	55·2
,, 31	2	1·63	56·3	60·2	55·7
Aug. 7	2	0·8	58·2	60·8	55·6
,, 14	1	..	64·6	65·2	56·5
,, 21	1	1·20	60·7	63·9	57·7
,, 28	4	·17	55·4	60·3	57·3
Sept. 4	6	·81	51·5	58·6	56·7
,, 11	5	·37	50·7	56·9	55·8
,, 18	2	·34	51·3	57·6	55·0
,, 25	5	·42	53·7	55·5	54·4
Oct. 2	2	1·83	52·1	54·9	54·0
,, 9	—	·80	53·9	54·8	53·9
,, 16	3	1·35	53·5	53·5	53·6
,, 23	2	·82	52·1	53·0	53·1
,, 30	2	·40	39·7	48·0	52·2
Nov. 6	1	·08	43·3	46·5	50·3

It is seen from Table No. 5 that the above deaths are almost all in the East. The deaths this year are too few to draw much in the way of inference from them; but on the whole they confirm former conclusions. The weekly deaths would indicate the prevalence of the disease about a fortnight earlier than their registration; thus it would appear that the heavy rains up to July 31st kept the disease in check; that during the dry hot fortnight ending August 14th some prevalence was started, but kept in abeyance by succeeding rains. We notice also (as formerly) that when once the disease has started it takes greater cold and wet to check it than it did to inhibit its commencement.

The following table gives the annual Diarrhœal deaths since 1900, and the weekly means of the 4ft. deep earth temperature, the figures in the columns after the second give the number of weeks in each year during which this temperature exceeded the degree at the head of the column:—

	Deaths.	52°	53°	54°	55°	56°	57°	58°
1900 ..	177	19	17	14	12	8	4	—
1901 ..	144	20	16	14	12	7	2	—
1902 ..	101	16	15	12	10	—	—	—
1903 ...	113	17	15	12	8	—	—	—
1904 ..	188	18	15	12	11	6	1	—
1905 ..	151	18	15	13	12	8	2	—
1906 ...	174	18	17	14	10	8	4	—
1907 ..	77	17	14	12	8	—	—	—
1908 ...	85	21	19	17	12	6	3	—
1909 ..	82	19	16	11	8	4	2	—

The following gives similar figures for the 1ft. deep earth temperature.

	Deaths.	60°	61°	62°	63°	64°	65°	66°
1900 ..	177	11	9	6	5	2	1	1
1901 ..	144	9	8	7	5	2	—	—
1902 ..	101	5	3	3	2	1	—	—
1903 ..	113	7	1	1	—	—	—	—
1904 ..	188	8	6	5	3	2	1	—
1905 ..	151	10	6	6	4	3	2	—
1906 ..	174	11	9	6	5	1	—	—
1907 ..	77	5	2	1	1	—	—	—
1908 ...	85	9	7	5	3	3	1	1
1909 ..	82	7	4	3	2	1	1	—

These records for the previous decade will be found in the 1903 report. The subject is more fully gone into in the 1897 and 1905 reports.

BOROUGH HOSPITAL.

There were 18 cases of Scarlet Fever in the Borough Hospital at the close of last year; the quarterly numbers dealt with during this year have been as follows :—

Quarters.	Remaining in from previous Quarter.	Admitted	Total Dischargd	Died.	Average number of days in of the cases admitted.	Average daily number of Patients in Hospital.
First ..	18	57*a*	40	1	47·3	22·8
Second ..	35	46*b*	68	3	41·9	27·6
Third ..	13	58*c*	49	1	37·8	22·4
Fourth ..	22	67*d*	68	2	37·1	28·2
Year ..	18	228	225	7	40·7	25·3

(*a*) 2 cases from the Wednesfield, 1 from the Short Heath, and 1 from the Tettenhall district.

(*b*) 2 cases from the Tettenhall district.

(*c*) 4 ,, ,, ,, ,,

(*d*) 1 case from the Tettenhall district, and 1 from the Workhouse.

Thus there were 21 cases left in at the close of the year.

The following are the summaries of the cases admitted each quarter :—

First Quarter.—57 cases were admitted, 6 did not have Scarlet Fever. Of the 51 cases of Scarlet Fever none were fatal. Six cases were very severe, and eleven severe. Complications :—Otorrhœa, 5 cases ; Rhinitis, 7 cases ; Adenitis, 6 cases ; Suppuration, 2 cases, one of glands, the other an axillary abscess in connection with a wound of hand (admitted with) ; Skin Affections, 10 cases ; Onychia, 2 cases ; Nephritis, 2 cases ; Rheumatism, 4 cases. One child had Whooping Cough on admission.

Second Quarter.—46 cases were admitted, 6 did not have Scarlet Fever. Of the 40 cases of Scarlet Fever 3 were fatal :—A, 8 years old, very severe septic case, toxæmia, 12 hours in ; B, 4 years old, septic case, Meningitis, 11 days in ; C, 5 years old, very severe septic case, general cellulitis of neck, 5 days in. Besides the above, three cases were very severe, and eight cases severe. Complications :—Otorrhœa, 4 cases ; Rhinitis, 4 cases ; Adenitis, 8 cases ; Suppuration, 2 cases ; Skin Affections, 2 cases ; Onychia, 1 case ; Rheumatism, 1 case. One case had a severe secondary throat 15 days after admission. One case was admitted with a virulent attack of Measles, evidently having just had Scarlet Fever, and still desquamating. One case was admitted with a very severe attack of Pneumonia apparently following Measles, this child took Scarlet Fever 33 days after admission.

Third Quarter.—58 cases were admitted, 12 did not have Scarlet Fever. Of the 46 cases of Scarlet Fever 1 was fatal :—A, 13 years old, desperately severe septic case, toxæmia, 6 days in. Besides the above, one case was very severe, and five severe. Complications :—Otorrhœa, 3 cases ; Rhinitis, 2 cases ; Adenitis, 2 cases ; Suppuration, 1 case ; Skin Affections, 5 cases ; Onychia, 1 case. One case had a severe attack of Influenza. Eight cases were found to be typical Measles on admission, two of which had just had Scarlet Fever also ; another case, doubtful on admission, proved to be Measles. The actual work in connection with Scarlet Fever this quarter was very light ; but the presence of so much Measles necessitated opening an extra Pavilion, and caused greatly increased work and anxiety.

Fourth Quarter.—67 cases were admitted, 2 did not have Scarlet Fever. Of the 65 cases of Scarlet Fever 2 were fatal—A, 12 years old, very severe septic case, toxæmia, 3 days in ; B, 7 years old, very severe septic case, extensive cellulitis of neck and chest, 3 days in. Besides the above, two cases were very severe, and nine were severe. Complications :—Otorrhœa, 1 case ; Rhinitis, 3 cases ; Skin Affections, 8 cases ; Onychia, 1 case ; Rheumatism, 2 cases. Two patients had rather severe attacks of Influenza. One patient had Chorea. One case contracted Measles 39 days after admission. Two cases (brother and sister, admitted together) developed Chicken Pox 23 and 29 days after their admission, another case developed it 3 days after the last, and another case that went home the day after the last case developed Chicken Pox, died at home 23 days later of Chicken Pox.

During the year 15 cases were attended by their own doctors, six doctors attending.

Of the 202 cases of Scarlet Fever treated 6 died, one of these was only 12 hours in, 2 others were only 3 days each in.

The following Table gives the proportion of cases without definite signs of Scarlet Fever when seen after admission, and the results :—

Quarters.	Total Admissions.	Indefinite when admitted.			
		Total.	Apparently not had Scarlet Fever		
			Total.	Caught Scarlet Fever.	Died.
First ..	57	6	6*a*	..	..
Second ..	46	9	7	1	..
Third ..	58	15	12*b*	..	..
Fourth ..	67	12	2	..	..
Year.	228	42	27	1	..

(*a*) One of these, and (*b*) seven of these were evident Measles, most of the others apparently had recently had Measles.

Excepting last year's, this is the worst record we have ever had, and this is undoubtedly due to the excessive prevalence of Measles, many cases of which would be seen at home under conditions of considerable difficulty. We were most fortunate that only one of these cases contracted Scarlet Fever, and that only one Scarlet Fever patient contracted Measles during the year. This was probably due to the fact that most of the erroneous cases were detected early and promptly removed to a separate Pavilion.

Return Cases.—These are cases supposed to have contracted infection from cases recovered and discharged from isolation as presumably free from infection. The subject was dealt with rather fully in the 1907 Annual Report. The following two instances illustrate how readily cases might erroneously be attributed to Hospital cases, and indicate the necessity for caution in drawing conclusions about other apparently evident return cases. A case X was treated at home, but on a second case Y occurring after thirteen days, both X and Y were removed to Hospital, leaving 4 other children at home, in a nine-roomed house. X had nasal discharge, and was detained in Hospital because of this; Y was clear on March 29th, having been five weeks in Hospital, but on account of the number of children at home was detained as an extra precaution; on April 5th, being still clear, Y was ordered for discharge on the 6th. On April 4th one of the children at home was taken ill, and another on the 6th (before Y's return), another was taken ill on the 7th; these three were removed to Hospital on the 6th, 7th, and 8th; the last remaining child was taken ill on April 10th and removed on the 13th. Y was still in Hospital with nasal trouble, not going out until May 11th. Had X been discharged, as would usually have been done, when found clear on March 29th, it would have been positively concluded that the other four were return cases due to X. A case returned from Hospital, having been 35 days in, 36 ill; no complications; 47 days after the return a brother was taken ill. On inquiry it transpired that when the first case was removed an eider-down quilt from the bed had only been hung in the room whilst the latter was being sulphured, and was then put away in a drawer. Eight days before the second case was taken ill he had taken this quilt out of the drawer and used it regularly on his own bed. Similar occurrences to this may account for many so-called return cases, but are difficult to trace; some article

used by the first case in the initial, and most infectious time of the illness, is thoughtlessly put away, and only re-produced on the patient's return from Hospital, and then another case occurs. Many people are apt to be negligent about the initial illness through the mistaken notion that the danger from infection is principally in the later stages; this is a very grave error; the greatest care should be taken to have everything in contact with the patient when first taken ill destroyed or thoroughly disinfected The following are the particulars of the apparently return cases :—A, was 83 days in Hospital, 85 days ill; was an indefinite case, with no evident desquamation; had onychia, herpes, adenitis, alveolar abscess; when discharged on September 17th had enlarged tonsils; two days after return home had some nasal discharge which lasted until October 5th; on October 13th, 26 days after A's return, another case occurred in the house. B, returned from Hospital November 15th, 33 days in, 38 ill, no complications; a brother who was away from home returned on December 2nd, and on December 8th took Scarlet Fever, 23 days after B's return from Hospital. C returned from Hospital on May 1st, 46 days in, 49 ill; had slight otorrhœa, clear for some days before return, but recurred 3 days after coming home; slept with a brother, who had Scarlet Fever 22 days after C's return home, another child in the house was unaffected. D came from Hospital on December 14th, 38 days in, 40 ill; the only complication was a small pustule at the angle of the mouth, clear some days before discharge; on coming home D was kissed by a sister, who also slept with her that night, then left home, returning about December 28th; this sister developed Scarlet Fever on January 2nd, 19 days after D's return; another child in the house all the time was unaffected. E came home from Hospital on January 19th, 36 days in, 42 ill; no complications in Hospital, but on the evening of the return home there was slight discharge from the right ear, lasting two days; another case was taken ill on January 28th, nine days after E's return. F returned home March 1st, 37 days in, 39 ill; was a doubtful case, the only symptom in Hospital being a branny indefinite desquamation; the day after returning home there was some nasal discharge; a second case occurred on March 5th and a third on the 12th; four and eleven days after F's return. G came from Hospital October 9th, 37 days in, 40 ill, only complication a herpetic spot below the nose, clear when discharged and since; three further cases occurred on October the 12th, 16th, and 18th,

three, seven, and nine days after G's return home. There is reasonable probability that all the above cases were really "return"; the interval after the primary cases return home was long in A, B, and C, but A and C had for a time conditions generally recognized as infective, and in the case of B the interval between the brother's first contact with B and his infection was only 6 days. There are two points particularly worth attention, first that out of the above seven cases in four of them the probably infective complication occurred after their return home, in three of them actually for the first time; it is practically impossible to foresee or guard against this; and because of this, when a patient is discharged from the Hospital, on the card announcing the fact to the parents a caution is printed in heavy type that ***"no patient should caress or mix intimately with other children, for at least two weeks*** after leaving the Hospital." The second point worthy of attention in our cases is that in two out of the seven this caution was disregarded, in C's case the infected child actually slept with C, and D was kissed by the sister subsequently infected; in both these cases other children in the house escaped infection. In all ten "return" cases occurred from the above seven Hospital patients.

METEOROLOGY.

(See Table 4.)

First Quarter.—The first two weeks were fairly mild; the third week was very cold, the fourth extremely; the fifth week was fairly mild; the next six weeks were very cold, at times intensely so. The mean temperature for the ninth week was only 27°·9. The last fortnight was milder. On the whole the cold during the quarter was exceptionally severe and prolonged.

There was an unusual amount of high wind. There was a wind from S.W. to N.W. on January 7th and 8th; high S.W. wind on the 11th, and on the 13th and 14th, high S.W. wind with intense cold on the 17th and 18th. There was severe N.W. wind on February 2nd, 3rd, 4th and 5th, on the 4th it amounted to a severe gale. There was high N.N.W. wind

on March 13th; and S.W. on the 24th. The prevailing direction was West, but there were frequent N.E. winds in the fourth, sixth, eighth, and tenth weeks; and S.E. in the eleventh and thirteenth.

The rain-fall (4·12 inches) was very low. During the first fortnight there were only moderate infrequent showers, snow on January 15th and 16th. The next three weeks were very dry. Showers in the sixth week, seventh and eighth very dry. During the ninth week 1·21 inches of rain fell as snow; there was a severe snow-storm on March 2nd, and an exceptionally severe snow-storm on the 6th (equal to ·68 inches of water). The tenth and eleventh weeks were dry, only occasional moderate falls of snow. The twelfth week was rather wet, frequent moderate showers; the last week was rather dry, scattered showers.

The mean humidity, 80, was moderately high.

The barometer was very variable, and the variations were at times rapid and extreme. The mean range was rather high.

Second Quarter.—The weather was in every respect most unseasonable; after an exceptionally severe winter there was a wet and cold summer. The first three weeks in May were bright, but cool, there were occasional hot, sometimes sultry, days in June; otherwise there was no summer temperature.

There was not much wind, April 5th was windy (S.E.), and on the 24th there was high S.W. wind; on the 29th and 30th there was high W.N.W. wind with some hail and snow. From the 5th to the 8th of May there was very high S.E. wind.

The rain-fall (7·54 inches) was very heavy; and there was an unusual amount of exceptionally heavy showers. During April, the 12th, 13th, and 17th were showery, on the 19th there was very heavy rain, on the 22nd and 23rd rather heavy; during the last week there were frequent showers, sometimes heavy. There was heavy brief rain on May 1st and 12th, and rain and hail on the 14th; on the night of the 24th there were torrents of rain, heavy showers on the 25th, 26th, and 27th; a thunderstorm on the 26th. June 1st was showery, on the 5th there were torrents of rain at night; heavy rain at night on the 10th and 12th; on the 20th

there was thunder, and very heavy showers on this day and on the 21st and 22nd. June 23rd was showery, and there was almost tropical rain during the night (1·3 inches in the 24 hours); on the 24th there was a thunderstorm, and frequent heavy thunder showers; continuing through the 25th; there were some heavy showers on the 27th.

The mean humidity 79 was moderately high; the intervals between the heavy rain showers were dry enough to keep the humidity down.

The barometer as a rule ranged fairly high, but there were great variations with the variable weather. During the very wet twelfth week the barometer was extremely low.

Third Quarter.—There was a continuance of the unsettled unseasonable weather of the previous quarter. The third week (ending July 24th) was dry (there were a few showers at night) and fairly warm; the fortnight ending August 14th was dry, bright, and hot; practically this was the only continuous summer weather.

Apparently there was little wind; there was no noticeable high wind. The prevailing direction was West, varying from N.W. to S.W.; during the fortnight ending September 18th there were frequent N.E. winds.

The rain-fall (9·25 inches) was very heavy; as during the last quarter the rain fell mostly in very heavy showers, with fairly fine intervals. During the first fortnight there were over 2 inches of rain; during the fourth week there were 1·63 inches (on July 27th, 1·12 inches). After a fine fortnight, in the seventh week, there were 1·2 inches of rain; the eighth week was moderately dry, the ninth very wet. During the next three weeks there were many heavy showers, but the total fall was not excessive; during the last week we had frequent torrents of rain, total fall 1·83 inches.

The mean humidity 86 was naturally high.

The general level of the barometer was rather low, and variations were not extreme. During the fortnight ending August 14th and September 25th the range was high.

Fourth Quarter.—The weather was exceptionally severe and unsettled, the rain-fall excessive, the cold at times intense, the changes sudden and extreme. The last week in October and the first in November were intensely cold, practically all through November was very cold, with frequent severe night frosts; but there were many brief mild intervals. November 8th and 9th, the 15th and 16th, and from the 20th to the 24th, were intensely cold with severe frosts and some snow. December 3rd to the 6th was cold with snow, 7th and 8th sharp frost; then thaw with heavy rain. From December 18th to the 22nd there was hail and snow with rather severe frost; then again thaw and rain; the close of the quarter was fairly mild.

There was not much wind. On October 5th there was a S.W. moderate gale; S.W. storm on the 23rd, and high winds changing from N.W. to S.E. from the 24th to the 26th. On December 1st and 2nd there was high S.W. wind, and again on the 21st.

The rain-fall, 8·66 inches, was very heavy. The first three weeks were very wet (2·97 inches); in the fourth week there were some heavy showers; the next four weeks were fairly dry, with only occasional showers of rain or snowfalls. The ninth and tenth weeks were very wet, the falls of rain and snow amounted to 2·45 inches. During the eleventh week there were frequent heavy falls of rain, hail, and snow; during the twelfth week there was at first very heavy snow, then torrents of rain (total fall in week 1·24 inches). The closing week was fairly fine, with occasional heavy showers.

The mean humidity 93 was very high.

The barometer as a rule was rather low, and variations were at times very great; during the first four weeks it was low, and, after the first week, fairly steady, then for four weeks the range was moderately high, and excepting some rapid changes during the sixth week, it was steady. During the ninth and tenth weeks it was extremely low; during the eleventh it was moderately high, the changes during the tenth and eleventh weeks were very extreme. The twelfth week was very low, the thirteenth week moderate, with extreme changes during both weeks.

The total rain-fall for the year 29·57 inches was excessively heavy.

VITAL STATISTICS.

The total number of deaths registered in Wolverhampton during 1909 was 1,616 (see Table No. 9); of these, 146 dying in Public Institutions in the Borough, were deaths of persons from outside. The particulars of these deaths are sent quarterly to the Medical Officers of Health of the districts from which they came; and these deaths are excluded from our returns. Besides the above the deaths of 166 persons belonging to the Borough were reported to me from outside districts during the year; most of these were from the Workhouse, but some were from other districts. These deaths are all included in our returns, and make the total deaths belonging to our district 1,636, giving a rate per thousand per annum of 15·6. This (see Table No. 9) is the highest rate we have had since 1902, and is only 0·7 below the average for the previous ten years; it is the first serious break in an almost continuous improvement since 1900.

The only ready method of comparison with other towns is from the Registrar-General's Annual Summary; the number of deaths allotted to Wolverhampton in this is 1,666, the 30 excess over my figures is supposed to be due to the deaths of Wolverhampton Residents in the County Asylums.

Taking the Registrar-General's figures the death-rate for England and Wales for 1909 was only 14·5, the 1908 rate was 14·7, and was the lowest then recorded, so that this year's rate is a further record; it is 1·6 below the previous ten years average. The death rates for the 76 towns whose populations exceeded 50,000 at the 1901 census, and those for Wolverhampton during the last eight years are :—

	76 Towns.	Wolverhampton.
1902 ..	17·4	16·2
1903 ..	16·3	15·2
1904 ..	17·2	14·6
1905 ..	15·7	14·8
1906 ..	15·9	14·8
1907 ..	15·4	15·1
1908 ..	14·9	14·3
1909 ..	14·7	15·9

Forty-nine of the towns have a lower rate this year than ours, we being 50th in the list. Roughly speaking our bad position, both as regards comparison with our own rates for recent years, and with the

towns, is due to the specially heavy death return from Measles, already referred to. Only two of the towns have had a heavier Measles death-rate than ours, and they are 65th and 71st in the list of towns.

Table No. 11 gives our position amongst the 33 towns that used to be known as the 33 greater towns. The smaller comparison being adhered to for convenience in size of table, and comparison with former years. In this Table No. 11 the general death rates are corrected for the varying sex and age distribution in the populations of the towns, this affords a fairer comparison than if the ordinary rates were taken.

For the nine years preceding 1901 our position in the 33 great towns has been

	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Position ..	25th.	24th.	29th.	26th.	24th.	26th.	27th.	26th.	27th.

There was then, in spite of a sudden reduction in the death-rate of all the towns, a great change for the better in our position, from which we have somewhat receded this year. The last nine years position has been

	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.
Position ..	8th.	8th.	11th.	3rd.	6th.	6th.	11th.	11th.	19th.

Table No. 11 shows what a factor our exceptional death return from Measles has been in lowering our position; Whooping Cough is also in excess; in all other details in this table we stand fairly well.

Table No. 9 gives some Borough Statistics for 29 years. The alteration in the general death rate, and in the infantile death rate are worth notice; it is satisfactory that our infantile death-rate has not increased to any degree this year, indeed the actual deaths of infants are lower than they have ever been, although the rate is slightly increased, owing to our reduced number of births, which are lower this year than ever before. This continuous diminution in the birth-rate is really the most striking item in the table, a glance down the figures of column 4 must seriously impress anyone; I have previously drawn attention to the extraordinary fall in the birth-rate, but this year the reduction is (especially in relation to the rate last year) far the greatest we have ever had.

Table No. 8 gives further details for eleven years. The readiest use of this table is to compare the present year's figures with the previous ten years averages in the last column. Respiratory and Phthisis deaths are rather above the average, Measles and Whooping Cough are in excess; other diseases are low. The absence of Diarrhœa helps to cause a low return of Infant deaths (under 1 year), Measles and Whooping Cough cause a very heavy return of Child deaths (from 1—5 years). There is a heavy return of deaths of old persons (65 years and upwards), this is partly due to Respiratory deaths, and in part is a favourable item, as indicating a greater number of persons reaching old age.

Table No. 10 gives some particulars for the past 25 years for the two sub-districts. The proportion of unmarried persons is much higher in the West, hence the birth-rate in that sub-district is invariably lower than in the East, but the relative drop in the birth-rate of late years, and especially the drop this year, is greatest in the West. The population of the West is to that of the East rather more than in the ratio of 3 to 2, this must be taken into account comparing figures other than rates; but in comparing age periods the ratio would be different, there would relatively be more children and less old persons in the East. The increase in the death-rate this year is much more in the East (2·5) than in the West (1·3). The infantile death-rate is bad in the West (122) but far worse in the East (159); but the improvement on the previous ten years rate is greatest in the East.

Tables No. 6, 7, and 7a give details for the Sub-districts for the year. Taking the age periods after infancy in Table 7—from 1—5 years we have 120 deaths in the West, this would be equivalent to 80 in the East, where we have 148, an enormous excess; mainly due to Measles, which is almost double in fatality in the East. From 5 to 25 years the rate of deaths in the two Sub-districts is almost equal; the 71 West would correspond to 47 East, where there are 51. From 25 to 65 years the 239 West would mean 193 in the East, where there are 242; the main factors are :—Phthisis, West 37 would equal 25 in the East, where there are 46. Heart Diseases, West 23, would equal 15 in the East, as compared with 30 :—Respiratory Diseases, West 51, equal to 34 East, compared with 49. These factors are obviously due to the different social and labour conditions of the Sub-districts. The same proportion of populations would

not apply after 65 years of age; we have 244 deaths in the West and 178 in the East; if the ratio of 3 to 2 applied the West deaths would be equivalent to only 163 in the East, but as the West old population is certainly much higher relatively to the East than the whole population the East deaths over 65 years are really far heavier than the West. The distribution of these deaths before and after 75 years of age is interesting; the West total before 75 is 132, would in 3 to 2 ratio correspond to 88 East, the actual East being 117; after 75 the West total is 112, the East is only 61. Indicating the earlier age of death in the East.

Table No. 7a is well worth notice. In comparing the East and West deaths of infants it is best to use the ratio of the births, roughly East to West as 11 to 14; thus the 169 West deaths would be equivalent to 133 East, where the actual figure is 174, this is a terrible excess. Measles and Whooping Cough are naturally rather more fatal in the poorer and more crowded district. But the factor which dominates all others is the East excess in Diarrhœal Diseases, the West 20 deaths would be equivalent to 16 East, the actual East figure is 41, this is largely the result of maternal ignorance. The excess of Bronchitis deaths in the West is peculiar; it possibly may mean Whooping Cough, which certainly was very prevalent in the West.

Table No. 6 gives the quarterly statistics of the Borough and Sub-districts; generally it shows how much more severely the winter affects the poorer district.

SANITARY CONDITION OF, AND SANITARY WORK DONE IN THE BOROUGH.

The sanitary condition of the Borough remains practically unchanged, in a general way it has been brought up to a fairly good standard, and that standard is being maintained. There is still room for great improvement in the character and situation of many of the poorer class dwellings; many of the older streets are too narrow, and crowded too closely together; not really possible to make ideally healthy; and the courts and yards off these streets are far worse. These are not easy to deal with; in spite of

the great extension of the town there are no houses put up of sufficiently low rental to supply the needs of those who would be displaced by the closure of the houses in the courts, and though there is some drift upwards from the older streets to the newer, and although there are many voids in the older streets, at present even these are beyond the resources of the very poor.

We still have our Pail Closets, but I believe the time is approaching when an increased water supply will lead to their reduction and final abolition. It is a curious anomaly that in so much of the Borough the removal of night soil is effected by a defective and costly method, for which no charge is made; whereas where the cheaper and far more efficient method of water carriage is adopted the water has to be paid for. Had we a sufficient water supply it would pay economically to supply water for closets at any rate to houses below a certain rateable value, and from the health point of view the gain would be enormous.

I have said that our fairly good standard of sanitary condition is being maintained; the Report of the Chief Inspector, Mr. J. Peers, appended to this, and his tables, show very fully and clearly the amount of work which is being done to maintain our standard. But I must again emphasize, what I have frequently drawn attention to before, that the full strength of our staff is only equal to our ordinary routine work, and this year the outbreak of Measles, for a time, quite disorganised our work; indeed, except for the fortunate circumstance that other infectious diseases were so exceptionally few, the results would have been very serious.

There is another very important point dwelt on in the same relation in Mr. Peers' Report, that is the degree to which the inspection of meat at the Corporation Abattoir interfered with the work of the South-East Inspector, and with the work of the Department generally.

In a general way I consider that the inspection of our food is well done; each inspector on his rounds makes a special work of this; and a rota of Inspectors take charge of the Markets and Market Hall. But the inspection of meat is not quite satisfactory; in spite of the gradual closure of the most unsuitable private slaughter houses, we still have a large number of these, in which, as slaughtering may be carried on at any

hour of the night or day, thorough inspection is not possible. And at the Corporation Abattoir a peculiar condition of things has arisen; a few individuals have made a practice of buying emaciated and worthless cattle, slaughtering them at our Abattoir, carefully removing all viscera, and even dissecting out glands, and trusting to these measures to render it impossible for us to detect the diseased character of the meat; in one specially bad case where the disease was detected and the offender prosecuted, the Bench dismissed the charge on the plea *that the meat was not "intended for the food of man" until after it was passed by our Inspector.* This of course rendered our Abattoir open to gross abuse, and continuance of the above custom caused the increase in the work of meat inspection at the Abattoir already alluded to. Fortunately the enormous amount of meat condemned rendered the practice unprofitable, and it fell off. But the position is unsatisfactory, and seriously prejudices the use of the Abattoir by respectable butchers. I have advised that more stringent regulations should be made as to the use of the Abattoir.

Another instance of the continually increasing work thrown upon Health Departments has occurred this year in the Tuberculosis Order, by which all cases of Phthisis coming under the notice of the Poor Law Officials are reported to the Medical Officer of Health. This is the first step in the important direction of the general notification of Phthisis, but unfortunately it only affects those who are the least able to carry out the preventive and curative measures required; and the methods of notification are not altogether satisfactory. During the year we had in all 97 notifications; 15 were of cases that had been long periods in the Workhouse (some for years) 17 were re-reports of the same person or persons; in 3 cases the persons reported as leaving workhouses never turned up at the address given. We had 62 persons actually reported; 34 were in houses in the Borough, being reported by the District Medical Officers; 24 were of cases in the Workhouse, having recently left the Borough, reported by the Medical Officers at the Workhouse; and 4 were of persons leaving the Workhouse and coming into the Borough, reported by Workhouse officials. Wherever possible, premises were disinfected, and advice given, but I think little good will be effected unless the cases are systematically visited, and advised in a friendly way. Even then it would seem somewhat heartless to limit the advice merely to those steps necessary for the pro-

tection of others; and it would be mere mockery to advise these poor people as to the open air and abundant feeding necessary for their treatment. What is really needed is the extension of the notification, the provision of a Health Visitor who could systematically follow up the cases, and, above all, a Sanatorium, where a few months' residence would impress on the patients the advantage of, and the details of open air treatment and proper precautions against infection.

Workshops.—We have practically only one special Inspector, that is the Workshops Inspector; the work done will be found fully set forth in the Tables appended to Mr. Peers' report, and it is a satisfactory record. We have to contend with some prejudice and distrust; and as usual the antiquated character of many of the premises dealt with causes special difficulty.

Supervision of Midwives, and Notification of Births.—The report of the Inspector of Midwives, at the close of this report, gives a very faint idea of the amount of valuable work done in this direction; in fact, at present, no part of the work of our Department impresses one with such a sense of direct good done as the supervision of midwives. Of course this is because such new ground is being broken; indeed the previous state of things was so bad that it is a wonder that results were not worse. The general improvement, and the doing away with old prejudices, and many vile habits, has exceeded all expectation. I am confident that nearly all the credit for this is due to Miss Carter's devotion to duty, capacity, and tact in dealing with the midwives; she has impressed it on them at once that she is their friend, and that she will insist on things being properly done; and she succeeds.

The early Notification of Births proves very useful, as in every case where no doctor is in attendance Miss Carter can visit promptly, and supervise the midwife's work; and she is able to give some advice as to care of the infant, and see that that the mother is provided with suitable leaflets as to Infant Feeding. This must eventually prove of great value in reducing our heavy Infantile Mortality, but more personal relationship with the mothers is needed for this than is possible for Miss Carter to give. If tactful Health Visitors could follow up each infant for some weeks after its birth, and in a friendly way advise and guide the mothers, more good would be done than can ever be effected by mere literature.

REPORT OF THE INSPECTOR OF MIDWIVES.

(January, 1909, to January, 1910).

No. of Midwives on the Register	39
No. of visits to Midwives in their own homes ...	1,250
No. of visits to patients	449
Inquests attended	1

Notifications received :—

(*a*)	Sending for Medical help	167
(*b*)	Still births	60
(*c*)	Death of child	5
(*d*)	Births—of the number received 449 have been visited during the first 10 days, advice and instructions given.	

One of the most unsatisfactory of the Certified Midwives voluntarily surrendered her certificate on account of ill health and inability to keep the rules, and her name was removed from the Roll.

Eight cases of Puerperal Fever have been notified. Of these, four have been attended exclusively by Certified Midwives. Two proved fatal, in one case only was an inquest held, and the midwife was exonerated from all blame.

Lectures given to Certified Midwives	26
Average attendance	20

Subjects :—

Rules of C.M.B. read and fully explained.

Asepsis and Antiseptics. Preparation or hands, bed, and patient. Disinfection of person, bag, etc. Mother's care of self and infant.

Use of Clinical Thermometer. Temperature, pulse and respiration.

Ventilation. Diseases of Infants, Anatomy with use of Skeleton.

Practical Demonstrations in:—Bed making, etc. Artificial respiration. Urine testing. Washing and dressing of infants.

Artificial feeding of infants.

Respiration. Circulation. Digestion.

Care of infants' eyes, mouth, etc.

No serious case of Ophthalmia Neonatorum has occurred among the cases attended exclusively by Certified Midwives in the Borough.

Every mother attended by a midwife is presented with our printed leaflets A. and B., and in cases where it is found necessary to artificially feed the infant a further leaflet C. is given.

The improvement in the work of the midwives has been well maintained, and the influence they exercise on their patients is very noticeable. The disgusting habits formerly practised by some mothers in the treatment of their infants are becoming a thing of the past.

Cases where a Doctor has been engaged to attend with a midwife are not visited by the Midwives' Inspector.

Six new and beautifully fitted up maternity clothing bags have been given by Mr. Alderman and Miss Jones, Coton House, and have been of incalculable value. Miss Jones has also given large amounts of clothing for women, woollen vests for babies, and infants' clothing.

Mrs. Baldwin Bantock has on several occasions given relief in money for necessitous cases, also flannel, and flannellette.

Mrs. Millington, The Clevelands, money for woollen vests, and infants' gowns.

Mrs. Jones, Waverley House, large quantities of clothing, sheets, etc.

Mrs. G. R. Thorne, clothing, etc.

A parcel of clothing and two small money donations were also received.

(Signed) MAUD CARTER,
C.M.B I M.

INDEX TO TABLES.

TABLE No. 1.

Cases of Infectious Diseases recorded in 1909.

		East Sub-District. Population 40,541.					West Sub-District. Population 65,590.					Borough. Population 104,895.					Totals.			Rate per 10,000 of Population.		
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year	East Sub-District	West Sub-District	Borough	East Sub-District	West Sub-District	Borough
Small Pox ..	Under 5 years ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	5 years and upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..						
Scarlet Fever	Under 5 years ..	5	7	6	4	22	10	9	5	7	31	15	16	11	11	53	84	162	246	20·7	24·7	23·5
	5 years and upwards	11	11	19	21	62	33	28	21	49	131	44	39	40	70	193						
Diphtheria ..	Under 5 years ..	3	2	1	..	6	1	5	2	2	10	4	7	3	2	16	17	39	56	4·2	5·9	5·3
	5 years and upwards	2	2	2	5	11	6	6	5	12	29	8	8	7	17	40						
Enteric Fever	Under 5 years ..	1	..	..	1	2	..	2	..	..	2	1	2	..	1	4	13	9	22	3·2	1·4	2·1
	5 years and upwards	5	5	..	1	11	..	..	6	1	7	5	5	6	2	18						

TABLE No. 2. (TABLE III, L.G.B.)

Cases of Infectious Disease Recorded during the Year 1909 and the Proportion treated in Hospital.

	DISEASE.		CASES RECORDED.							CASES TREATED IN HOSPITAL.						
			At all Ages.	At Ages—Years.						At all Ages.	At Ages—Years.					
				0—	1—	5—	15—	25—	65—		0—	1—	5—	15—	25—	65—
EAST SUB-DISTRICT.	Scarlet Fever	Cases.....	84	..	22	53	7	2	..	76	..	19	49	6	2	..
		Deaths	5	..	2	2	1	...	..	4	..	2	2	..	..	..
	Diphtheria	Cases.....	17	..	6	5	5	1	..	6	..	2	1	3	..	..
		Deaths....	3	..	3	..	..	..	..	2	..	2	..	..	..	..
	Enteric Fever	Cases.....	13	..	2	4	3	4	..	12	..	1	4	3	4	..
		Deaths	1	..	..	..	..	1	..	1	..	..	..	..	1	..
WEST SUB-DISTRICT.	Scarlet Fever	Cases.....	162	2	29	116	9	6	..	129	1	21	96	6	5	..
		Deaths	3	..	..	3	..	..	..	3	..	..	3	..	..	..
	Diphtheria	Cases.....	39	..	10	19	5	5	..	17	..	6	9	2	..	..
		Deaths	8	..	3	4	..	1	..	4	..	2	2	..	..	..
	Enteric Fever	Cases.....	9	..	2	..	3	4	..	1	..	..	..	..	1	..
		Deaths	2	..	..	..	2	..	..	..	..	..	..	..	..	..
BOROUGH.	Scarlet Fever	Cases.....	246	2	51	169	16	8	..	205	1	40	145	12	7	..
		Deaths	8	..	2	5	1	..	..	7	..	2	5	..	..	..
	Diphtheria.....	Cases.....	56	..	16	24	10	6	..	23	..	8	10	5	..	..
		Deaths	11	..	6	4	...	1	..	6	..	4	2	..	..	..
	Enteric Fever	Cases.....	22	..	4	4	6	8	..	13	..	1	4	3	5	..
		Deaths	3	..	..	..	2	1	..	1	..	..	...	..	1	..

Diphtheria includes "Membranous Croup," and Enteric Fever includes "Continued Fever."

The Scarlet Fever hospital cases were treated in the Borough Isolation Hospital, except 8 East and 4 West in the General Hospital, and 1 West in a Public Institution.

All of the Diphtheria hospital cases were treated in the General Hospital. 12 of the Enteric Fever hospital cases were treated in the General Hospital, and 1 (fatal) in the Union Infirmary.

Of the General Hospital cases, 4 East and 17 West Diphtherias, and 7 East and 1 West Enteric Fevers were treated on the order of the Health Committee.

TABLE No. 3.

WEEKLY RETURNS under the Infectious Diseases Notification Act, and prevalence of certain other Diseases.

A few cases x. Prevalent xx. Very prevalent xxx.

1909. Week ending.	Small Pox.	Scarlet Fever.	Diphtheria	Enteric Fever.	Puerperal Fever.	Measles.	Whooping Cough.	Pneumonia	Influenza.
January 9th..	..	9	6	..	..	x	xx	xx	x
,, 16th..	..	3	1	1	..	x	xx	xx	xx
,, 23rd..	..	6	..	1	1	x	xx	xx	xxx
,, 30th..	..	5	1	..	..	x	xx	xx	xxx
February 6th..	..	4	..	1	..	x	xx	xx	xx
,, 13th..	..	3	..	..	..	xx	xx	xx	xxx
,, 20th..	..	1	1	..	1	xx	xx	xxx	xxx
,, 27th..	..	4	..	..	..	xx	xx	xxx	xxx
March 6th..	..	5	1	..	..	xx	xx	xxx	xxx
,, 13th..	..	11	..	..	..	xx	xx	xxx	xxx
,, 20th..	..	5	1	..	..	x	xxx	xxx	xxx
,, 27th..	..	5	1	2	..	x	xxx	xxx	xxx
April 3rd..	..	4	2	..	..	x	xxx	xx	xxx
,, 10th..	..	10	2	..	..	x	xxx	xx	xxx
,, 17th..	..	6	3	1	2	xx	xxx	xx	xxx
,, 24th..	..	9	1	1	1	xxx	xx	xx	xx
May 1st..	..	12	3	..	..	xxx	xxx	xx	xx
,, 8th..	..	2	1	2	1	xxx	xxx	xx	xx
,, 15th..	..	1	2	1	..	xxx	xx	xx	xx
,, 22nd..	..	1	2	1	..	xxx	xx	xxx	xxx
,, 29th..	..	4	..	..	..	xxx	xxx	xxx	xx
June 5th..	..	2	..	..	..	xxx	xxx	xxx	xx
,, 12th..	..	3	..	..	..	xxx	xxx	xxx	xx
,, 19th..	..	7	1	1	..	xxx	xxx	xx	xx
,, 26th..	..	4	..	1	..	xxx	xx	xx	xx
July 3rd..	..	4	..	..	..	xxx	xx	xx	x
,, 10th..	..	6	1	1	..	xxx	xx	xx	x
,, 17th..	..	2	1	..	..	xxx	xx	xx	x
,, 24th..	..	4	..	..	..	xxx	xx	xx	x
,, 31st..	..	4	1	..	..	xxx	xx	xx	x
August 7th..	..	2	1	..	..	xxx	xx	xx	x
,, 14th..	..	3	..	..	..	xxx	xx	xx	x
,, 21st..	..	7	1	..	..	xxx	xx	xx	x
,, 28th..	..	6	1	..	..	xxx	xx	xx	x
September 4th..	..	3	1	..	..	xxx	x	x	x
,, 11th..	..	8	2	2	..	xx	x	x	x
,, 18th..	..	3	..	2	..	xx	x	x	..
,, 25th..	..	10	..	2	..	x	x	x	..
October 2nd..	..	5	1	1	..	x	x	x	x
,, 9th..	..	9	..	1	1	xx	xx	x	x
,, 16th..	..	14	4	..	..	x	xx	x	x
,, 23rd..	..	7	1	..	..	x	x	x	x
,, 30th..	..	6	5	1	..	x	x	x	x
November 6th..	..	6	1	1	..	xx	x	x	x
,, 13th..	..	6	1	..	1	x	x	x	x
,, 20th..	..	10	..	..	..	x	x	x	x
,, 27th..	..	5	1	..	..	xx	x	x	x
December 4th..	..	3	..	..	..	xx	x	x	x
,, 11th..	..	5	5	..	..	xx	x	xx	xx
,, 18th..	..	3	..	..	..	x	x	xx	xx
,, 25th..	..	4	1	..	..	x	x	xx	xx
January 1st/10..	..	7	2	..	..	x	x	xxx	xxx
YEAR ..	..	278	60	24	8				

This Table, 3, does not tally with Tables 1 and 2, these including a few cases not reported by doctors, and Table 3 including some cases which ultimately proved incorrect.

TABLE No. 4.

Weekly Meteorological Report, from observations taken at 9 a.m. daily.

Week ending.	Barometer Reduced to 32° and Sea Level.		Humidity.	Temperature					Rain.	Wind.	Death Rate per 1,000 per annum.
							Earth.			Prevailing Directions.	
	Mean.	Range		Max.	Min.	Mean.	1 ft.	4 ft.			
1909	in.	in.	0-100	o	o	o	o	o	in.		
January 9th	30·429	·806	92	47·7	29·7	40·6	40·2	44.7	·33	SW	16·9
,, 16th	29·578	·587	90	49·0	30·6	39·2	38·7	44·2	·45	SW, NW	14·9
,, 23rd	30·240	·712	*	49·1	26·8	35·7	37·6	43·8	·09	SW, NW	15·4
,, 30th	30·345	·375	*	43·0	21·8	30·9	34·7	42·9	·04	NE, SW	15·9
February 6th	29·953	·471	92	55·1	29·8	41·7	38·4	42·0	·22	SW, NW	19·4
,, 13th	30·041	1·130	91	40·5	28·1	34·1	36·7	42·5	·43	NW, NE.	15·9
,, 20th	30·254	·496	87	48·7	27·1	36·8	36·3	41·9	..	SW	15·9
,, 27th	30·420	·275	89	51·4	23·0	34·0	34·5	41·4	·02	NW, NE	22·4
March 6th	29·560	·596	*	37·5	12·0	27·9	34·2	40·7	1·21	NW, SW	20·9
,, 13th	29·751	·895	93	42·9	29·4	33·6	34·7	40·2	·24	NE NW	22·4
,, 20th	29·423	·368	*	51·8	29·7	36·2	36·8	40·0	·21	NE SE	20·9
,, 27th	29·627	·676	91	52·3	33·0	42·2	42·0	41·2	·63	SW	14·4
April 3rd	29·920	1·346	84	53·5	29·3	42·5	43·3	42·4	·25	SW, SE	17·8
,, 10th	30·350	·311	65	69·9	30·1	50·2	43·6	43·2	..	SE, NE	18·4
,, 17th	29·767	·380	78	67·1	35·8	48·3	48·0	44·5	·35	SW	17·4
,, 24th	29·786	·473	74	62·6	37·6	48·9	49·1	45·6	·85	SW	13·9
May 1st	29·854	·481	77	59·9	31·7	45·2	49·7	46·6	·58	NW	17·8
,, 8th	30·301	·195	62	67·3	32·5	49·0	50·0	47·2	..	SW, SE	21·9
,, 15th	30·175	·250	78	73·7	29·8	46·4	52·9	48·4	·08	E	19·9
,, 22nd	30·104	·393	74	79·9	32·5	52·0	53·1	49·0	·02	W	28·8
,, 29th	29·852	·879	82	71·5	42·1	53·5	57·0	50·3	1·15	SW	20·4
June 5th	30·013	·403	86	70·1	42·5	51·7	56·3	51·1	·58	NE	19·4
,, 12th	30·062	·201	87	62·1	40·4	48·4	54·8	51·3	·34	NW, NE	15·9
,, 19th	30·277	·188	83	69·3	40·5	54·1	57·7	51·5	·04	NW	17·4
,, 26th	29·649	·591	88	67·9	39·8	52·1	57·6	52·6	3·30	SW NW	14·4
July 3rd	30·062	·351	87	72·2	43·2	53·5	57·5	52·8	·25	N W	11·4
,, 10th	29·853	·408	84	71.1	47·4	55·5	59·7	53·3	1·07	SW, NW	16·9
,, 17th	29·973	·475	83	72·9	46·7	57·7	61·2	54·1	1·05	NW	14·9
,, 24th	29·934	·686	79	71·5	47·0	57·8	62·8	55·2	·28	NW, SW	12·9
,, 31st	29·764	·505	86	68·6	48·1	56·3	60·2	55·7	1·63	NW, SW	10·9
August 7th	30·199	·211	81	77·2	45·6	58·2	60·8	55·6	·08	NW	10·4
,, 14th	30·182	·228	84	85·7	51·5	64·6	65·2	56·5	..	NW	8·0
,, 21st	29·786	·654	80	82·7	46·0	60·7	63·9	57·7	1·20	SW	12·9
,, 28th	29·895	·525	81	70·0	43·0	55·4	60·3	57·3	·17	SW, NW	9·9
Septem. 4th	29·975	·426	87	66·0	38·1	51·5	58·6	56·7	·81	NW	15·9
,, 11th	29·936	·571	89	63·8	37·0	50·7	56·9	55·8	·37	NW, NE	13·9
,, 18th	30·200	·417	93	62·5	39·1	51·3	57·6	55·0	·34	NE	13·9
,, 25th	30·044	·243	91	67·9	42·0	53·7	55·5	54·4	·42	SE, SW	15·9
October 2nd	29·964	·620	96	65·2	43·3	52·1	54·9	54·0	1·83	SW	10·9
,, 9th	29·718	·943	92	64·8	40·0	53·9	54·8	53·9	·80	SW	9·5
,, 16th	29·764	·415	93	63·1	44.1	53·5	53·5	53·6	1·35	SW	13·4
,, 23rd	29·807	·647	95	63·2	41·2	52·1	53·0	53·1	·82	SW	15·9
,, 30th	29·783	·421	87	50·4	31·1	39·7	48·0	52·2	·40	NW, NE	7·0
Novem. 6th	30·147	·183	95	51·7	23·5	43·3	46·5	50·3	.08	NE, NW	13·9
,, 13th	30·095	·726	90	50·9	26·9	39·6	44·8	49·6	·22	NE, NW	12·4
,, 20th	30·054	·612	92	43·7	24·7	34·0	41·1	48·1	·16	NE	13·4
,, 27th	30·197	·492	94	47·4	24·4	36·0	39·1	46·5	.12	NE, SW	15·9
Decem. 4th	29·497	·546	90	51·4	32·7	41·3	41·6	45·7	1·49	SW	13·9
,, 11th	29·682	1·268	97	49·9	26·0	36·7	39·3	45·0	·96	SW	12·9
,, 18th	30·092	1·039	93	41·3	32·6	37·2	41·0	44·4	·60	E.SE	17·8
,, 25th	29·671	·808	99	48·8	19·7	36·3	38·3	43·9	1·24	SW	14·9
Jan. 1st, 10.	30·020	·818	92	52·0	32·0	42·7	40·7	43·5	·42	SW, NW	14·9

* Wet bulb frozen. Total rainfall 29·57 inches.

TABLE No. 5.—Weekly Returns of Deaths in the Sub-Districts.

		Week ending	January.				February.				March.				April.				May.					June.				July.				August.				Septem				October.				Novem.				Decem.				Jan.	1909.
			9	16	23	30	6	13	20	27	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28	4	11	18	25	2	9	16	23	30	6	13	20	27	4	11	18	25	1	Totals
EAST SUB-DISTRICT.	Measles	Under 5 years	..	..	..	..	..	..	..	..	..	..	..	..	2	3	2	4	1	2	7	6	5	4	5	3	3	1	6	3	2	1	..	3	2	2	1	1	..	1	2	..	1	..	1	..	..	..	1	..	1	1	..	..	75
		5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	1	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	7
	Scarlet Fever	Under 5 years	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
		5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
	Whooping Cough	Under 5 years	..	..	..	..	..	..	..	..	5	1	..	2	..	..	..	..	..	..	1	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14
		5 & upwards	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	Diphtheria	Under 5 years	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
		5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Enteric Fever	Under 5 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	Diarrhœal Diseases	Under 5 years	1	3	1	1	..	..	2	2	1	1	..	..	..	1	..	1	..	1	..	..	..	..	..	1	1	..	1	1	..	1	2	1	..	3	3	2	2	4	1	..	3	2	2	..	..	1	2	1	1	..	..	2	52
		5 & upwards	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	7
	Phthisis	Under 5 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	2
		5 & upwards	..	1	..	..	2	1	..	2	3	..	2	1	2	2	2	..	..	1	3	1	1	2	2	1	2	..	..	..	1	1	2	..	3	..	2	2	1	..	..	5	..	1	..	2	4	..	1	1	..	..	57
	Respiratory Diseases	Under 5 years	1	..	3	2	1	1	2	3	..	2	1	2	1	3	1	..	..	4	1	2	3	..	..	1	..	1	2	1	..	..	..	1	1	2	..	..	..	..	..	1	1	..	1	..	2	1	4	..	..	1	..	54
		5 & upwards	..	3	1	3	4	3	2	7	4	3	2	2	1	1	1	1	1	1	2	3	1	2	3	2	1	..	1	2	1	2	..	..	..	4	2	..	3	..	1	..	2	3	..	..	3	1	..	..	5	1	2	..	87
WEST SUB-DISTRICT.	Measles	Under 5 years	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	2	1	6	7	10	5	3	5	7	1	2	2	1	2	2	2	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	64
		5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	2	1	..	..	..	..	2	..	..	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10
	Scarlet Fever	Under 5 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	3
	Whooping Cough	Under 5 years	1	..	..	1	1	..	1	..	2	..	..	1	..	1	1	1	1	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	2	1	..	..	2	..	..	..	..	..	..	..	..	..	..	1	19
		5 & upwards	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	Diphtheria	Under 5 years	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
		5 & upwards	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	5
	Enteric Fever	Under 5 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	2
	Diarrhœal Diseases	Under 5 years	1	..	..	..	..	..	2	1	..	1	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	1	1	1	2	..	..	1	..	..	..	..	1	..	..	1	1	..	..	..	1	18
		5 & upwards	..	..	..	..	..	..	..	..	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
	Phthisis	Under 5 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		5 & upwards	1	..	..	2	1	2	2	..	..	..	2	..	2	1	2	2	..	1	..	..	..	2	..	1	..	2	2	..	1	..	2	1	..	..	..	1	2	1	1	..	..	..	2	1	1	..	3	..	1	2	1	2	47
	Respiratory Diseases	Under 5 years	2	3	2	2	1	1	2	..	1	3	1	3	..	1	2	1	6	1	4	..	..	..	3	2	1	3	4	1	..	..	1	2	..	1	..	..	2	..	1	1	1	1	..	3	..	2	2	1	..	1	3	1	72
		5 & upwards	2	1	1	1	6	4	1	7	4	7	1	3	3	3	4	..	5	..	3	4	4	2	2	..	..	1	5	..	1	4	..	2	..	..	2	..	..	..	4	1	..	1	..	1	..	4	3	2	6	3	1	..	109

Table No. 6.—Quarterly Births and Deaths during 1909.

	Quarters.	East Sub-District. 40,541.					West Sub-District, 65,590					Borough, 104,895.				
		1st.	2nd.	3rd.	4th.	Year.	1st.	2nd.	3rd.	4th.	Year.	1st.	2nd.	3rd.	4th.	Year.
BIRTHS.	Males	127	136	114	122	449	185	162	179	161	687	312	298	293	283	1186
	Females	162	159	133	144	598	183	211	149	157	700	345	370	282	301	1298
	Total	289	295	247	266	1097	368	373	328	318	1387	657	668	575	584	2484
	Rate	28·6	29·2	24·5	26·3	27·2	22·5	22·8	20·1	19·5	21·2	25·1	25·6	22·0	22·3	23·8
DEATHS.	Males	132	124	98	74	428	124	133	92	91	440	256	257	190	165	868
	Females	87	116	69	93	365	126	104	78	95	403	213	220	147	188	768
	Total	219	240	167	167	793	250	237	170	186	843	469	477	337	353	1636
	Rate	21·7	23·8	16·5	16·5	19·6	15·3	14·5	10·4	11·4	12·9	17·9	18·3	12·9	13·5	15·6
	65 years and upwards	62	50	31	35	178	93	51	45	55	244	155	101	76	90	422
	Under 1 year ...	44	49	41	40	174	45	40	41	43	169	89	89	82	83	343
	1—5 years ...	30	60	36	22	148	16	63	27	14	120	46	123	63	36	268
	Zymotics (7) ...	15	57	43	8	123	14	65	28	11	118	29	122	71	19	241
	Rate	1·5	5·6	4·3	0·8	3·0	0·9	4·0	1·7	0·7	1·8	1·1	4·7	2·7	0·7	2·3
	Small Pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles	3	49	24	6	82	1	54	17	2	74	4	103	41	8	156
	Scarlet Fever ...	1	3	2	...	6	...	1	...	2	3	1	4	2	2	9
	Whooping Cough ...	9	5	1	...	15	8	5	4	3	20	17	10	5	3	35
	Diphtheria ...	1	...	2	...	3	1	4	2	1	8	2	4	4	1	11
	Enteric Fever ...	...	...	...	1	1	...	...	...	2	2	...	...	...	3	3
	Diarrhœa ...	1	...	14	1	16	4	1	5	1	11	5	1	19	2	27
	Influenza ...	12	1	...	3	16	16	5	...	3	24	28	6	...	6	40
	Phthisis ...	14	17	12	16	59	12	11	11	13	47	26	28	23	29	106
	Respiratory Diseases	54	35	24	28	141	62	49	32	38	181	116	84	56	66	322
	Uncertified ...	1	1	1	...	3	2	1	1	1	5	3	2	2	1	8
	Inquests ...	18	13	12	17	60	20	15	12	17	64	38	28	24	34	124
Deaths in Public Institutions	General Hospital											63	73	52	61	249
	Borough Infectious Hospital											1	3	1	2	7
	Other Institutions											4	4	2	4	14
	Non-residents in the Borough (excluded from our Tables)											35	35	35	41	146
Borough Residents dying outside (included in our Tables)												49	56	22	39	166

TABLE No. 7a. (Being Table V., L.G.B.)

INFANTILE MORTALITY during the Year 1909. *Deaths from stated causes in Weeks and Months under One Year of Age.*

CAUSE OF DEATH.		EAST SUB-DISTRICT.																WEST SUB-DISTRICT.													
		Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths under One Year.	Under 1 Week	1-2 Weeks	2-3 Weeks	2-4 Weeks	Total under 1 Month	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths under One Year.
ALL CAUSES	Certified	29	7	7	3	46	17	13	12	5	9	20	10	12	6	9	12	171	37	7	6	7	57	19	12	5	11	5	5	10	10	11	7	14	166
	Uncertified	3	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	3	3	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	3
COMMON INFECTIOUS DISEASES.	Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Chicken-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles	..	..	1	..	1	..	..	..	..	..	1	..	3	..	3	4	12	..	..	..	..	..	..	..	..	..	..	..	2	3	3	2	1	11
	Scarlet Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Diphtheria : Croup ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Whooping Cough ..	..	..	..	..	..	2	..	..	2	..	..	1	2	1	..	1	9	..	..	..	1	1	..	..	..	..	..	1	1	1	..	2	3	9
DIARRHŒAL DISEASES.	Diarrhœa, all forms ..	..	..	1	..	1	..	1	1	..	2	1	..	..	..	..	..	6	..	..	..	1	1	1	3	..	..	1	..	..	..	..	..	1	7
	Enteritis *(not Tuberculous)* ..	..	..	..	..	..	..	3	3	2	2	9	1	4	1	1	3	29	..	1	..	..	1	..	1	1	2	..	2	..	..	1	..	..	8
	Gastritis, Gastro-intestinal Catarrh ..	..	..	..	..	..	1	1	1	..	3	..	..	..	..	..	..	6	..	..	..	2	2	2	1	..	..	..	..	..	..	..	..	..	..	5
WASTING DISEASES.	Premature Birth	21	4	1	1	27	1	..	..	..	..	..	..	..	..	..	..	28	21	1	..	1	23	2	..	..	..	..	..	..	..	..	..	..	..	25
	Congenital Defects ..	5	..	..	..	5	..	1	..	..	..	..	1	..	1	..	..	8	2	1	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	3
	Injury at Birth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
	Want of Breast-milk ..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
	Atrophy, Debility, Marasmus ..	6	..	..	1	7	1	2	..	1	..	1	1	1	1	..	..	15	13	1	4	..	18	1	..	..	..	..	..	..	..	..	..	..	..	19
TUBERCULOUS DISEASES.	Tuberculous Meningitis ..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	2
	Tuberculous Peritonitis : Tabes Mesenterica ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	2
	Other Tuberculous Diseases ..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	1	..	3	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Other causes	Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
	Syphilis	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
	Rickets	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1
	Meningitis *(not Tuberculous)* ..	..	..	..	..	..	..	..	2	..	..	..	1	..	..	1	1	5	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	2
	Convulsions	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	2	1	3	..	1	1	..	1	..	..	..	..	..	9
	Bronchitis	..	1	1	..	2	2	3	1	..	..	1	4	1	1	2	1	18	..	..	..	..	..	7	1	3	6	2	2	4	2	4	2	2	35
	Laryngitis	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Pneumonia	..	..	1	..	1	..	1	2	..	1	2	..	..	1	1	1	10	..	..	..	1	1	1	1	..	..	..	..	1	1	2	1	4	12
	Suffocation, overlying ..	..	1	..	..	1	5	..	..	..	..	..	..	..	..	..	..	6	1	1	..	..	2	..	1	..	1	..	..	..	..	..	..	..	..	4
	Other Causes	..	1	2	1	4	4	..	2	..	1	1	1	..	..	..	1	14	1	2	..	1	4	2	..	..	..	..	..	1	1	..	..	2	10
		Total Births				1097	.. .. ..											1387																	
		Total Deaths at all ages				793	.. .. ..											843																	
		Estimated Population				40,541	.. .. ..											65,590																	

TABLE No. 8.—Eleven Years' Annual Deaths, &c.

	1899	1900	1901	1902*	1903	1904	1905	1906	1907	1908*	1909	A
Small Pox	...	1	...	...	1	...	...	...	...	...	...	0·2
Measles	2	76	48	21	56	...	45	28	23	5	156	30·4
Scarlet Fever	6	9	10	15	14	14	15	17	24	8	9	13·2
Whooping Cough	21	70	29	25	7	60	12	20	15	25	35	28·4
Diphtheria	21	10	13	18	10	18	18	23	26	33	11	19·0
Enteric Fever	44	39	17	15	16	12	10	8	7	10	3	17·8
Diarrhœa	132	117	109	72	86	161	126	130	48	44	27	102·5
Seven Zymotics	226	322	226	166	190	265	226	226	143	125	241	211·5
Rate per 1,000	2·5	3·5	2·4	1·7	2·0	2·7	2·3	2·3	1·4	1·2	2·3	2·20
Phthisis	111	110	98	102	86	88	87	80	80	86	106	92·8
Respiratory	374	444	248	334	285	240	258	253	283	296	322	301·5
65 years and upwards ...	367	383	302	344	314	287	326	345	360	388	422	341·6
Under 1 year	575	622	487	420	414	446	389	386	351	357	343	444·7
1—5 years	209	301	193	199	185	195	182	182	164	146	268	195·6

* These years contain 53 weeks.

A—Annual Averages for the ten years preceding 1909.

TABLE No. 9. (being Table I, L.G.B.)

Vital Statistics during 1909 and 28 previous years.

Year.	Population estimated to middle of each year.	Births.		Deaths belonging to the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents occurring outside the District.	Total Deaths Registered.	
				Under 1 year of age.		At all Ages.						
		Number	Rate.	Number	Rate per 1,000 Births regist'd	Number	Rate.				Number	Rate.
1	2	3	4	5	6	12	13	9	10	11	7	8
*1881	75,932	2769	35·9	410	148	1552	20·1	272	96	...	1648	21·3
1882	76,596	2762	36·1	433	156	1634	21·4	266	79	...	1713	22·4
1883	77,266	2804	36·4	419	149	1542	20·0	329	101	...	1643	21·3
1884	77,942	2691	34·6	509	189	1734	22·3	287	123	...	1857	23·9
*1885	78,624	2806	35·1	390	138	1564	19·5	322	106	...	1670	20·9
1886	79,311	2803	35·4	490	174	1701	21·5	301	121	...	1822	23·0
1887	80,005	2675	33·5	469	175	1664	20·8	329	128	...	1792	22·4
1888	80,705	2674	33·2	445	166	1595	19·8	295	117	...	1712	21·2
1889	81,411	2666	32·8	479	179	1620	19·9	291	119	...	1739	21·4
*1890	82,124	2735	32·8	477	174	1772	21·2	364	136	...	1908	22·8
1891	82,932	2820	34·1	531	188	1914	23·1	351	122	...	2036	24·6
1892	84,022	2805	33·5	482	171	1716	20·5	308	125	...	1841	22·0
1893	85,126	2902	34·2	600	206	1853	21·8	398	137	...	1990	23·4
1894	86,244	2889	33·6	484	167	1719	20·0	392	124	...	1843	21·4
1895	87,377	3027	34·7	659	217	2069	23·7	404	138	...	2207	25·3
*1896	88,525	3023	33·6	561	185	1740	19·3	329	121	...	1861	20·7
1897	89,688	3054	34·2	671	219	1900	21·2	371	127	...	2027	22·7
1898	90,866	3140	34·7	634	202	1845	20·4	373	145	...	1990	22·0
1899	92,060	3113	33·9	575	184	1908	20·8	420	138	...	2044	22.3
1900	93,270	2997	32·2	622	207	1993	21·4	448	188	...	2181	23·5
1901	94,495	3000	31·9	487	162	1577	16·7	356	132	...	1709	18·1
*1902	95,736	3073	31·6	420	137	1575	16·2	392	148	...	1723	17·7
1903	96,994	2943	30·4	414	141	1465	15·2	382	168	...	1633	16·9
1904	98,268	2924	29·8	446	152	1426	14·6	206	103	60	1469	15·0
1905	99,559	2851	28·7	389	136	1468	14·8	221	108	128	1448	14·6
1906	100,867	2761	27 5	386	140	1486	14·8	231	123	150	1459	14·5
1907	102,193	2684	26·4	351	131	1473	14.5	254	126	169	1430	14·0
*1908	103,535	2712	25·8	357	132	1459	13·9	229	108	165	1402	13·3
Averages for years 1899-1908	97,697	2906	29·8	445	152	1583	16·3	314	134	134	1650	17·0
1909	104,895	2484	23·8	343	138	1636	15·6	270	146	166	1616	15·5

* These years contain 53 weeks. Area of District in Acres, 3,525.

Census, 1901. { Total Population at all ages .. .. 94,187.
Number of Inhabited Houses .. .. 19,285.
Average number of persons per house .. .. 4·9

Institutions within the Borough receiving sick and infirm persons from without the Borough—The Wolverhampton and Staffordshire General Hospital; The Wolverhampton Borough Hospital; the Wolverhampton Eye Infirmary; the Wolverhampton and District Hospital for Women; the Queen Victoria Nursing Institution.

TABLE No. 10.

(Which includes Table II., L.G.B.)

EAST SUB-DISTRICT.								WEST SUB-DISTRICT.							
Year.	Population estimated to middle of each year.	Births.		Deaths.				Population estimated to middle of each year.	Births.		Deaths.				
				At all ages.		Under 1 year of age					At all ages.		Under 1 year of age		
		Number.	Rate.	Number.	Rate.	Number.	Rate per 1,000 Births regist'd		Number.	Rate.	Number.	Rate.	Number.	Rate per 1,000 Births regist'd	
	a	*b*		*c*		*d*		*a*	*b*		*c*		*d*		
1884	38,748	1382	35·8	981	25·4	275	199	39,146	1309	33·5	753	19·3	231	176	
*1885	38,791	1451	36·8	844	21·4	210	145	39,779	1355	33·5	720	17·8	178	131	
1886	38,834	1464	37·8	955	24·6	271	185	40,423	1339	33·2	746	18.5	218	163	
1887	38,876	1399	36·1	944	24·3	294	210	41,077	1276	31·2	720	17.5	174	136	
1888	38,919	1408	36·3	827	21·3	254	180	41,741	1266	30·4	768	18·5	118	149	
1889	38,962	1417	36·5	883	22·7	270	190	42,417	1249	29·5	737	17·4	209	167	
*1890	39,005	1403	35·4	977	24·6	270	192	43,103	1332	30·4	795	18·1	207	155	
1891	39,067	1507	38·7	1026	26·3	310	206	43,856	1313	30·0	888	20·3	220	168	
1892	39,190	1493	38·2	935	23·9	273	183	44,794	1312	29·4	781	17·5	209	159	
1893	39,312	1497	38·2	1040	26·5	360	240	45,752	1405	30·8	813	17·8	240	171	
1894	39,435	1487	37·8	975	24·8	276	186	46,730	1402	30·1	744	16·0	208	148	
1895	39,559	1505	38·2	1106	28·0	383	254	47,729	1522	32·0	963	20·2	276	181	
*1896	39,683	1595	39·6	899	22·3	310	194	48,750	1428	28·8	841	17·0	251	176	
1897	39,807	1543	38·9	1022	25·7	363	235	49,792	1511	30·4	871	17·7	308	204	
1898	39,931	1561	39·2	951	23·9	354	227	50,856	1579	31·2	894	17·6	280	177	
1899	40,057	1508	37·8	1030	25·8	310	206	51,944	1605	31·0	878	16·9	265	165	
1900	40,182	1404	35·1	1030	25·7	318	226	53,054	1593	30·1	963	18·2	304	191	
1901	40,307	1408	35·5	800	19·9	271	192	54,188	1592	29·5	777	14·4	216	136	
*1902	40,434	1434	34·9	818	19·9	235	164	55,347	1639	29·2	757	13·5	185	113	
1903	40,654	1337	33·0	722	17·8	220	165	56,550	1606	28·5	743	13·2	194	121	
1904	40,635	1283	31·7	699	17·3	230	179	57,965	1641	28·4	727	12·6	216	132	
1905	40,616	1290	31·9	655	16·2	206	159	59,416	1561	26·4	813	13·7	183	117	
1906	40,597	1225	30·3	726	17·9	204	166	60,903	1536	25·3	760	12·5	182	118	
1907	40,578	1224	30·3	687	17·0	172	141	62,427	1460	23·5	786	12·6	179	123	
*1908	40,560	1186	28·8	703	17·1	185	156	63,989	1526	23·5	756	11·6	172	113	
Averages for years 1899-1908	40,462	1330	32·9	787	19·5	235	175	57,578	1576	27·5	796	13·9	210	133	
1909	40,541	1097	27·2	793	19·6	174	159	65,590	1387	21·2	843	12·9	169	122	
Census, 1901 — Population						40,696							53,491		
Census, 1901 — Number of Inhabited Houses						7,984							11,293		
Census, 1901 — Number of Persons per house						5·1							4·7		

At the beginning of 1903 the dividing line between the Sub-Districts was altered; the alteration affects the 1901 census by transferring 418 from the West population to the East, and so far vitiates the comparison with previous years. Another result is that until the next census the estimated East population will be a diminishing one.

* These years contain 53 weeks.

County Borough  of Wolverhampton.

REPORT

OF THE

CHIEF SANITARY INSPECTOR

(JOHN PEERS, R.P., A.R.San.I.)

UPON THE

WORK OF THE INSPECTION DEPARTMENT

For the Year 1909.

PRINTED BY ORDER OF THE HEALTH COMMITTEE.

REPORT OF THE CHIEF SANITARY INSPECTOR

FOR THE YEAR 1909.

HEALTH OFFICES,
TOWN HALL,
WOLVERHAMPTON,
March, 1910.

To the Chairman and Members of the Health Committee.

Gentlemen,

I herewith submit the report upon the work of your Inspectorial and Clerical Staffs for the year 1909. This is my eleventh successive Annual Report to you.

INTRODUCTION.

After a period of about five years continuity of service among the sub-district Inspectors, no less than three of our Inspectors resigned early in 1909. These changes alone were sufficient to cause serious disorganisation of routine work, but when coupled with another source of impediment in the shape of an abnormal epidemic of Measles, which persisted for upwards of five months, with a severity hitherto unknown; our resources were taxed to the utmost, and but for the closure of schools (first of the infants, and later of all the schools except the P.T.C.) we should have been completely overwhelmed. Nearly 2,000 investigations in respect of Measle cases alone were recorded, an increase of 117% above the average figures of the past five years.

Fortunately there was a substantial reduction in the number of legally notifiable Infectious Diseases to be dealt with, and this afforded some little respite.

To the foregoing abnormal circumstances must be added the enormous increase in the amount of "food stuff" (particularly diseased meat) dealt with; nearly 200% increase as compared with the past five years' average figures. Indeed, so oppressive did this work become that I had ultimately to report on the matter, and appeal to be relieved of the great responsibility at the Markets, Auctions, and Abattoirs. It is only right, however, to point out that quite two thirds of the diseased beast carcases dealt with were the property of two or three men of one family from outside the Borough, and these have since become less troublesome here.

Last year special attention had to be drawn to this matter, and to the time and expense attaching to the work involved. It was then pointed out that the demands made upon the time of the S.E. Sub-district Inspector, in dealing with this particular work, interfered very materially with his routine work, and that full allowance for this should be made when considering comparisons. These remarks apply with even greater force this year.

Notwithstanding the above, however, it is gratifying to find that as regards the important work of "Inspections and re-inspections" generally, our past records have been more than maintained. Visits of inspection to bakehouses, cowhouses, dairies and milkshops, slaughter-houses, courts, &c., are well above the average; but in almost every other respect there is, as might well be expected, all round reductions in the total figures of the Tables. *E.g*, the sanitary defects discovered are 8·5% below the average, and the notices issued 11% less. The improvements secured are 20% less than the previous five years average; each District Inspector's returns being down. The Workshop Inspector, however, shows a 22% increase. The total number of premises improved are 13% below our averages; each Inspector's figures, except those of the S.E., showing a decrease.

After making a careful review of the year's work, and taking into consideration the several peculiar circumstances obtaining, the total results are satisfactory, but the necessary conditions favourable to pail closet conversions are still being awaited.

The report, details, and tables follow on the same lines as hitherto, so that each Inspector's returns may be separately reviewed and compared;

but it should be remembered that the S.E., N.E., and N.W. Sub-district Inspectors are new to their districts this year, and that to the S.E. district records must be added the very heavy demands made by attendances at the Abattoir. To the Workshop Inspector's record, add practically the whole of the Canal Boats work.

I attach a copy of the Statutory Report to the Local Government Board, in connection with our work under the provisions of the Canal Boats Acts; and there is also annexed a brief summary of the several reports of your Veterinary Inspector.

GENERAL SANITARY WORK.

SOME COMPARISONS AND BRIEF COMMENTS.

COMPLAINTS.
(Table A.)

450 complaints were received alleging the existence of sanitary defects. This is the lowest number ever recorded since records have been kept; it is 10% below last last year's figures, and 21% below the five years' averages. 28% were anonymous, or of a semi-anonymous character.

The complaints and requests received in reference to closet pails and ash receptacles numbered 653; these are by far the lowest figures ever recorded in this respect, and are 27% below the average. This is an excellent attainment, and is to be recorded mostly to the credit of those responsible at the Team and Cleaning Depôt.

INSPECTIONS, Etc.

(Table A.)

45,290 inspections, re-inspections, calls, &c., have been recorded by the several Inspectors; an approximate daily average of about 30 each, varying from 36 by the N.W. Inspector to 30 by the S.E. Inspector, a very fair standard.

The principal figures of the table this year are satisfactory, particularly those of the N.W. Inspector. Increased attention has been given to the inspection of bakehouses, cowhouses, milk shops, and slaughter-houses by the N.W., N.E., and S.E. Inspectors.

The total figures in every case, except the S.W., show an advance in comparison with those of the past five years. The N.W. returns are 8·8% better; N.E. 7·5%, S.E. 18·2%, and the Workshops 8·9% better. The S.W. figures, though good, are 0·3% below the average.

House Inspection.—1,968 inspections of dwelling houses have been made, as compared with 1,846 last year, and an average of 2,118 for the past five years. This year's returns are, therefore, nearly 7% better than last year's, but are 7% below the average. The N.E. returns show the great fall of 55% as compared with the average; whilst the N.W. and S.E. returns show increases of 41% and 23% respectively. A good record.

Re-inspections, Calls, &c,—14,509 is the total number recorded under this item of the schedule. The figures are 10% less than those of last year, and 4·4% below the average. The N.E. returns are the most favourable in this respect.

The visits under this heading embrace all the calls made in connection with outstanding notices, supervision and direction of structural remedies; and the examinations and testing necessary in connection with the re-construction of defective drainage work.

Inspections of, or visits paid to :—

Bakehouses.—1,095 visits have been paid to the several Borough bakehouses, which numbered 90 in occupation at the end of the year, a

reduction of 23 as compared with 1908. This is by far the best return since 1899, being 7% better than last year, and no less than 30% better than the five years' average.

It is only on very rare occasions now that any difficulty arises in connection with these premises. We have only one underground bake-house, and this is well looked after.

Cowhouses.—311 special visits have been paid to the 24 Cow-houses within the Borough, as compared with 293 last year, or an average of 209 during the past five years. This year's work is, therefore, highly satisfactory, being 6% better than the 1908 returns, and no less than 48% better than the average.

With two or three exceptions we have little to complain of regarding the attention given to these premises generally. On the whole the Registered keepers now recognise the necessity of reasonable requirements.

During the year the Veterinary Inspector reported having inspected 1,054 Cows. (See separate summary of this Inspector's reports). These visits are not included in the above reference.

Dairies and Milkshops.—1,865 visits of inspection have been paid to the Borough dairies and milkshops, which numbered about 320. This surpasses last year's returns, which were the best since 1899. It is 14% better than the 1908 figures, and 64% better than the average. The difficulties hitherto met with as regards the covering of all vessels containing milk for sale have almost disappeared.

During the year about 40 milkshops were discontinued, and 49 new applications for Registration were received and dealt with.

Slaughter-Houses.—3,544 visits have been recorded in connection with the 42 Slaughter-house premises licensed until 9th November, 1909, and the Abattoirs. These premises are very evenly distributed throughout the sub-districts, there being 9 on the N.W. and 11 each on the S.W., N.E., and S.E. respectively. On the latter district, however, there is, in addition, the extremely heavy demands of the Abattoirs, and this needs to be strictly remembered when reviewing the S.E. district work.

The visits this year are 13% better than last year, and are 7% better than the previous five years' average. The N.W. returns are far better than have ever been recorded before; the S.W. and N.E are about the average, and the S.E. are slightly below. The actual weekly average visits have been on the N.W. district 18, S.W. 8, N.E. 20, and S.E. 22.

On the whole the premises are reported to be well kept, but there are a few instances where more care might be exercised with regard to the treatment of offal, &c.

During the year transfers of existing licenses were applied for and granted in three cases. One license lapsed, but was subsequently granted anew.

On the occasion of the renewals in November, five licenses were refused, but the premises continued to be used by arrangement up to the time of writing.

Circular letters relative to the use of licensed premises by the licensee only were issued in every case. In four cases special letters concerning unsuitability of premises, and in five cases regarding the position, were issued with the license. (See Table D for record of meat destroyed).

Court, &c., Inspection.—11,328 visits of inspection have been recorded by the four Sub-district Inspectors in connection with courts, their conveniences, surfaces, drains, &c.

These figures are 9% below those of last year's exceptional returns, but are 15% above the average.

This work falls within the routine of our systematic "morning block inspection," which each District Inspector is expected to perform, and though often only of a superficial character owing to the time involved, the conditions sometimes met with must have a far-reaching adverse effect upon the inhabitants of the courts and their immediate neighbourhood, unless promptly dealt with.

Food Inspection.—3,101 special examinations have been recorded by the District Inspectors in connection with meat and food work

generally. These figures are 17% better than those of last year, and are practically identical with our five years' average returns in this behalf. The amount of material dealt with, however, surpasses all previous records ; it is 38% in excess of last year's amount, and no less than 198% above the average amount of the past five years. This work became so onerous that, as previously mentioned, I felt compelled to appeal to be relieved of the great strain and responsibility involved, and, though I have already pointed out, I will again repeat that quite two-thirds of this work is entirely due to the operations of two or three persons of one family from outside the Borough.

On reference to the Table it will be seen that nearly 6½ tons of the whole amount dealt with was voluntarily surrendered for destruction, and 7½ tons was surrendered to us after due inspection, leaving about 5¼ tons seized ; in connection with which latter 18 Justices' orders were necessary. Legal proceedings followed on one seizure, but the case was dismissed. (See Table E).

Miscellaneous Inspections.—960 inspections were made, the nature of which are too varied in character to admit of detailed description here. They include observations made in connection with smoke nuisances, visits of inspection to the few premises where offensive businesses are conducted, and other cases of a special character. Inspections made by the Medical Officer of Health, and myself, with reference to houses reported as unfit for habitation ; examinations as to meat and other food material ; special cases of reference to, or from the Committee, and the operations relative to legal proceedings, are not included in the table.

SANITARY DEFECTS.

(Table B.)

4,943 Sanitary defects have been reported upon and dealt with by the several Inspectors ; 4,456 by the four Sub-district men, and 487 by the Workshop Inspector, as compared with 4,497 and 587 respectively during 1908. This year's returns are, therefore, somewhat below those of last year ; each Inspector showing a decrease, particularly the N.E. and Workshops Inspector, as compared with their averages during the past five years.

Table B shows clearly the particular type and number of defects discovered by each Inspector, so that only a very brief reference is necessary here. The returns dealing with dirty, damp, and dilapidated houses, and defective eaves gutters, are again rather heavy. Foul and offensive W.W.C.'s have not been so numerous as formerly, but ordinary drain inlet stoppages have been more abundant. These latter are generally due to sheer negligence, and are dealt with accordingly.

NOTICES.

(Table C.)

3,355 Notices have been issued in connection with the above-mentioned sanitary defects. Of this number 23·4% were served upon occupiers, and, as in previous years, mostly had reference to the improper use of W.C.'s and W.W.C.'s, drains, surfaces, ash receptacles, and foul conditions of conveniences and the approaches thereto.

The total notices issued consisted of 2,574 "intimations" (preliminary) and 781 duly authorised Statutory Notices.

These numbers are 10% less than those of last year; the former being 3·8% less, and the latter 26% less. Compared with the past five years' averages, the total figures this year show a reduction of 31%.

The greatest reductions occur on the N.E. and S.E. Sub-districts, and in respect of the Workshops.

In only five instances this year were summonses issued in respect of non-compliance with notices. There was also a summons issued in respect of a diseased meat case. (See Table E).

IMPROVEMENTS.

(Table C.)

It is in this Table where the effects of the several troublesome conditions referred to in the introduction to this report are most obvious. The returns are the lowest recorded since proper records began to be kept.

In view of the fact that these returns are often looked upon as being perhaps the fairest index the Inspectors can provide as showing the useful effect of their respective efforts in connection with matters of a structural

character, it is only fair that when making comparisons the fullest allowances should be made for any and every extraordinary circumstance such as have obtained this year.

The improvements secured number 5,355, and the premises sharing in the improvements number 3,804. The figures last year were 6,808 and 4,353 respectively. This year's returns are therefore 27% and 14% respectively below those of last year; and they are also 24% and 17% respectively below the average for the past five years.

Each of the Sub-district Inspectors share in the fall; the N.W. 30%, S.W. 19%, N.E. 26%, and the S.E. 16%. The Workshop Inspector's returns, however, show a 22% increase.

There are only a few items in the Table upon which the Inspectors can take credit this year. Repairs or improvements to drainage systems show an increase of 7%; and the cleansing or limewashing of houses generally are prominent with an increase of 19%, as compared with our average figures.

The East Sub-district Inspector's returns show to advantage in the former respect, and the Workshops Inspector as regards the latter.

It is to be observed that neither polluted wells or privy-middens have been met with during the year.

DISINFECTION.

There have been 268 houses, one cab, and three school premises disinfected after infectious disease.

The Borough Hospital disinfecting apparatus has dealt with 4,468 separate articles by steam, and 269 by sulphur fumes. These are the lowest figures since 1900.

WORKSHOPS.

The Medical Officer of Health having been provided with a special Table by the Local Government Board, at the request of the Secretary of

State, with a view to securing uniformity in the Reports relating to Factories and Workshops, &c., the following Table is submitted, with the particulars desired, as far as we are able to supply them from the records of our Workshops diary, registers, weekly returns, &c. :—

1.—INSPECTIONS.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions (4)
Factories (including Factory Laundries)	96		
Workshops (,, Workshop ,,) } Workplaces .. .. .. }	4814	250	—
Total	4910	250	—

2.—DEFECTS FOUND.

Particulars. (1)	Number of defects			Prosecutions. (5)
	Found (2)	Remedied. (3)	Referred to H.M. Insp'ctr (4)	
NUISANCES UNDER THE PUBLIC HEALTH ACTS—				
Want of cleanliness	241	474	...	...
Want of ventilation	24	22	...	...
Overcrowding	4	7	...	...
Want of drainage of floors ..	—	—	...	...
Other Nuisances	202	237	...	...
*Sanitary Accommodation — insufficient ..	—	—	...	...
*Sanitary Accommodation — unsuitable, or defective ..	14	23	...	...
*Sanitary Accommodation — not separate for sexes ..	2	2	...	...
OFFENCES UNDER THE FACTORY AND WORKSHOPS ACT—				
Illegal Occupation of Underground Bakehouses (s. 101)	...	...	...	...
Breach of special sanitary requirements for Bakehouses (s. 97—100)	...	...	...	...
Other offences	...	...	...	...
Total	487	765	—	—

* Section 22 of the Public Health Acts Amendment Act, 1890, is in force, and the standard aimed at is that of the Order of February, 1903.

3.—HOME WORK.

NATURE OF WORK. *	Outworkers Lists, Sec. 107.											Inspections of Outworkers' Premises.	Outwork in unwholesome Premises (Section 108)			Outwork in Infected Premises. (Sections 109, 110.)		
	Received from Employers.						Addrs's of out workers		Notices served on Occupiers as to Keeping or Sending Lists.	Prosecutions								
	Twice in the year.			Once in the year.														
	Lists	Out Workers		Lists	Contractors	Workmen	Received from other Councils	Forwarded to other Councils		Failing to keep &c. Lists	Failing to send Lists		Instances	Notices Served	Prosecutions	Instances	Order made (Sec. 110)	Prosecutions S. 109, 110.
		Contractors	Workmen															
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Wearing Apparel—Making, &c. ..	48	35	87	11	—	26	1	16	54	—	—	89	—	—				
Furniture & Upholstery	—	—	—	1	—	2	—	—	2	—	—	4	—	—				
Paper Bags and Boxes	2	—	4	1	—	2	—	—	2	—	—	4	—	—				
File Making ..	2	—	4	—	—	—	—	—	2	—	—	4	—	—				
Electro Plate ..	2	—	4	—	—	—	—	—	1	—	—	4	—	—				
Locks, Latches and Keys	36	13	181	1	—	1	18	42	24	—	—	137	—	—				
Totals ..	90	48	288	14	...	31	19	58	85	..	..	242	..	..				

* Where the return is "nil" the item is omitted from the table.

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year. (1)	Number. (2)
Boot and Shoe Makers and Repairers, 165; Dressmakers, 126; Lockmakers, 126; Bakehouses, 90; Tailors, 119; Milliners, 52; Cabinet Makers and Upholsterers, 33; Smiths, 37; Keymakers, 23; Spectacle Frame Makers, 23; various other trades, 309	1103
Total number of Workshops on Register ..	1103

5.—OTHER MATTERS.

Class. (1)	Number. (2)
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of Factory and Workshop Act ..	13
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Acts. — Notified by H.M. Inspectors ..	16
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Acts. — Reports (of action taken) sent to H.M. Inspectors ..	?
Others	—
Underground Bakehouses (s. 101):—	
Certificates granted during the year	—
In use at the end of the year	1

SUMMARY of VETERINARY INSPECTOR'S REPORTS, 1909.

The several reports of the Veterinary Inspector (Mr. J. E. Cartwright, M R.C.V.S.), go to show that the number of milch cows inspected and re-inspected during 1909 was 1,054. The number recorded in 1908 was 996, and the average number for the past five years has been 959. This year's figures are therefore 6% better than last year's, and 10% better than the five years average returns.

29 cases of affected udder, and 7 cases of "fever" have been discovered, in addition to numerous cases of general minor illnesses. None of the udder affections were of a tuberculous nature, and most of the cases arose from chills.

The Inspector again emphasises the dangers to the milk supply arising from the importation of fresh animals into a cowhouse; and suggestions on this and other matters have been made to the proper authorities.

Mr. Cartwright has been impressed with the apparent growing interest evinced by cowkeepers as regards the importance of ventilation and cleanliness of their premises, and also with reference to the proper feeding of the animals; and he expresses the opinion that the milch cows within the borough and the immediate adjacent districts will compare favourably with those of the country generally.

CANAL BOATS ACTS.

BOROUGH OF WOLVERHAMPTON REPORT FOR THE YEAR 1909.

1. The duties of Canal Boat Inspection in this Borough devolve upon the Chief Sanitary Inspector (John Peers, Health Offices, Town Hall, Wolverhampton) and mainly one of the Assistant Inspectors.

No Remuneration is Specified for the Work.

2. 302 boats have been inspected during the year, as compared with 333 during 1908, and an average of 311 during the previous five years. This year's work, therefore, shows a 10% decrease on last year's figures, and is 3% below the previous five years average returns.

Of the total number inspected, 86 or 28·5% were infringing the Acts or Regulations in one or more respects.

In nine cases inspection was made at the dock, i.e., they were not in actual occupation; 293 of the boats, however, were in full occupation at the time of inspection, the total number of occupants being 989 persons; equal to an average of 3·4 occupants per boat. This figure seems to have been fairly constant during the last few years.

The occupants were divided as follows:—Adult male persons 414, adult female persons 223, Total adults 637. There were 352 children, 186 boys and 166 girls

There were 14 cases of overcrowding discovered, as compared with an average of only 7 during the previous five years. Moreover, infringements relative to the separation of the sexes have also increased; the number this year is 6, as against an average of only 2 during the previous five years.

In only three cases, however, have we found cause to complain of want of cleanliness.

On the whole, the canal boat population we meet with here give us only little trouble; and taking all the circumstances of the work into consideration, with few exceptions, they merit some credit rather than any censure.

3. 127 Infringements were discovered in connection with 86 of the 293 boats inspected whilst actually plying. These figures are hardly as creditable to the boats as in some previous years. Still, when two of the items (water vessels and leaking cabins) are substracted from the total, there is very little left to complain of. The details are:—

(*a*)	Registration	2
(*b*)	Notification of change of Master ..	0
(*c*)	Certificates	12
(*d*)	Marking	7
(*e*)	Overcrowding	14
(*f*)	Separation of the Sexes	6
(*g*)	Cleanliness	3
(*h*)	Ventilation	0
(*i*)	Painting	17
(*j*)	Provision of Water Cask	24
(*k*)	Removal of Bilge Water	0
(*l*)	Notification of Infectious Disease ..	0
(*m*)	Admittance of Inspector	0
(*n*)	Leaking Cabins	25
(*o*)	Dilapidations	16
(*p*)	Boats without Pump..	1
	Total ..	127

4. No cases of legal proceedings have been taken in respect of our Canal Boat work.

5. All infringements have been dealt with by means of complaint notes or notices, 93 such notices having been issued respecting 86 boats. In some cases special letters have been required before the nesessary remedies have been secured.

6. There have been no cases of Infectious Disease notified from a Canal Boat during the year.

7. There has been no cause for disinfection brought to our notice.

8. 895 boats have been entered on the Register since 1878, but

   (*a*) Only 186 are believed to be now in use as dwellings, the

   (*b*) Remaining 709 have not been heard of or met with during the past five years here, and are therefore presumed to be "untraceable."

9. 16 boats were Registered during 1909. One was a new boat, 12 others being cases of re-registration owing to changes of ownership; and as regards the remaining three, whilst they were not new boats, it appeared doubtful as to whether they had ever been previously registered as dwellings.

JOHN PEERS,

Chief Sanitary Inspector, and
Examining Officer under the Canal Boats Acts.

Health Offices,
Town Hall, Wolverhampton,
January, 1910.

TABLE A.

Public Complaints or Requests received and dealt with.

Complaints in respect of:—Alleged or Suspected Sanitary Defects ..	450
,, ,, Closet Pans or Ash Receptacles ..	103
Requests ,, ,, ,, ,, ..	550
TOTAL	1103

Summary of Routine Inspection Work.

	Districts.				Work-shops.	Total for Borough
	N.W.	S.W.	N.E.	S.E.		
Investigations made into Notifiable Infectious Diseases	141	158	87	87	..	473
Investigations made into other Infectious Diseases	500	494	356	520	..	1870
Number of Houses inspected	612	603	269	484	..	1968
Re-inspection, Calls made, &c.	3604	1894	2408	1766	4837	14509
Inspections of, or visits paid to, Bakehouses	194	399	171	331	..	1095
,, Cowhouses	117	71	51	42	..	311
,, Dairies and Milkshops ..	551	444	486	384	..	1865
,, Slaughter-houses	948	429	1037	1133	..	3547
,, Stables and Stable Yards..	461	335	306	299	..	1401
,, Courts, Outdoor Closets, Drains, &c.	2420	3694	2948	2266	..	11328
,, Workshops	..	..	1	..	119	120
,, Piggeries, Fowls, and other Animals kept	389	360	704	372	..	1825
,, Meat and Food	501	383	1128	1089	..	3101
Ashpits reported for Clearing	205	57	97	42	11	412
Dangerous Buildings, Street Gullies, &c., reported	87	21	123	8	28	267
Waste of Water	80	30	30	80	18	238
Miscellaneous	100	10	99	308	*443	960
TOTAL INSPECTIONS, &c... ..	**10940**	**9382**	**10301**	**9211**	**5456**	**45290**

* Includes Canal Boats Inspected by this Inspector.

TABLE B.

Sanitary Defects Reported.

Sanitary Defects.	Districts.				* Workshops.	Total for Borough
	N.W	S.W.	N.E.	S.E.		
*1. The house or part of the house in a dirty condition	80	75	53	83	147	438
2. ,, ,, ,, ,, damp condition	209	116	169	133	19	646
3. ,, ,, ,, ,, dilapidated condition or without sufficient light or ventilation	14	5	34	66	24	143
4. The house or part of the house being overcrowded	9	9	28	33	4	83
5. The water closet or waste water closet being foul or offensive ..	24	28	25	17	9	103
6. ,, ,, being without a water supply, or with a defective flush of water	2	3	6	6	2	19
7. ,, ,, being improperly constructed	3	—	1	4	1	9
8. ,, ,, or waste-water closet being stopped or partially stopped	23	28	23	15	5	94
9. Urinal being improperly constructed or improperly drained	—	2	—	1	—	3
10. Closet accommodation being insufficient or unsuitable	3	—	2	5	11	21
11. The pail closet being improperly situated ..	5	6	—	5	3	19
12. The privy, midden, or cesspit being a nuisance	—	—	—	—	—	—
13. The soil pipe defective	2	1	2	1	3	9
14. ,, unventilated or ill-ventilated	1	—	—	—	1	2
15. The bath or lavatory being improperly drained	3	1	2	1	4	11
16. The sink being improperly constructed or drained	48	24	22	24	7	125
17. The premises being improperly drained or being insufficiently drained	9	8	6	6	—	29
18. The drain inlet untrapped or improperly trapped	10	4	1	—	9	24
19. The drain or drain inlet being foul ..	60	69	99	83	13	324
20. ,, being stopped	62	72	100	90	13	337
21. The drainage being defective	15	9	12	8	4	48
22. The drain being unventilated or ill-ventilated	3	2	—	1	—	6
23. The rain-water pipe being in direct communication with drain	1	—	2	2	2	7
24. The rain-water pipe being defective or stopped	62	41	38	44	7	192
25. The guttering being defective or eaves being without guttering	133	66	120	73	13	405
26. The roof of house being defective	43	21	45	30	25	164
27. The soft-water cistern being foul	6	4	10	2	—	22
28. The floor of house, or yard, or court, or closet being in an insanitary condition for want of proper paving	24	17	26	28	11	106
29. The walls or floors of outbuildings, (yard, court, washhouse or closet) being foul ..	47	79	132	61	30	349
30. The outbuildings being dilapidated ..	53	39	75	82	8	257
31. The ash receptacle being defective or foul ..	52	41	43	21	6	163
32. The premises being without proper or sufficient ash accommodation	22	40	39	30	6	137
33. The premises being without a proper manure receptacle	3	1	2	1	3	10
34. An animal or animals kept	20	22	9	42	7	100
35. An accumulation of offensive matter ..	44	20	31	49	41	185
36. The urinal being foul or offensive	1	6	—	4	3	14
Miscellaneous	53	37	104	99	46	339
Totals	**1149**	**896**	**1261**	**1150**	**487**	**4943**

* Under Workshops Column read "Workshop" where "house" occurs in the schedule.

TABLE C.

Notices served dealing with the aforesaid Sanitary Defects.

Form of Notice.	Districts. N.W.	S.W.	N.E.	S.E.	Workshops.	Total for Borough
Intimation (Preliminary)	597	525	674	578	200	2574
Statutory	222	142	232	135	50	781
Totals ..	**819**	**667**	**906**	**713**	**250**	**3355**

Improvements made in Compliance with Notices served.

	Districts. N. W	S.W.	N.E.	S.E.	* Workshops.	Total for Borough
Drains (Reconstructed	18	19	16	15	4	72
Drains (Improved or Repaired	105	106	151	162	22	546
Drains (Traps fixed or refixed	54	68	47	42	24	235
Cesspools Abolished	—	4	—	1	—	5
Privy Middens Ditto	—	—	—	—	—	—
Privies (Waste Water Closets	—	—	1	—	—	1
Altered to (Water Closets	7	—	—	—	4	11
Water Closets (Constructed	8	2	2	—	4	16
Water Closets (Improved or Repaired ..	30	64	53	14	15	176
Ashpits (Ash Bins provided	57	69	73	56	7	262
Ashpits (Altered to Bin	22	29	3	1	2	57
Ashpits (Improved or Repaired ..	51	1	18	5	—	75
Courts, Yards, and Channels (Relaid or Repaved ..	32	82	36	19	6	175
Water (Wells Closed	—	—	—	—	—	—
Water (Water laid on	—	2	3	6	—	11
Water (Soft Water Cisterns Cleansed ..	24	16	8	1	—	49
*Houses (Cleansed or Limewashed ..	63	69	99	42	286	559
*Houses (Generally Repaired	57	120	157	74	14	422
*Houses (Lighted or Ventilated	—	6	14	1	22	43
*Houses (Spouting, etc., provided to ..	259	157	185	134	15	750
Overcrowding Abated	11	12	27	32	7	89
Out-door Premises Limewashed or Repaired	118	206	250	113	119	806
Animals Removed	20	20	25	42	15	122
Offensive Accumulations Removed ..	71	112	119	67	72	441
Other Amendments or Nuisances Abated ..	113	30	111	51	127	432
Total Improvements	**1120**	**1194**	**1398**	**878**	**765**	**5355**
Total Premises Improved ..	**1014**	**744**	**900**	**760**	**386**	**3804**

* Under Workshops Column read "Workshop" where "house" occurs in the schedule.

TABLE D.

Unwholesome Food Destroyed.

		Beasts	Calves.	Sheep.	Lambs.	Pigs.	Totals.
Carcases	Diseased ..	53	0	1	0	4	58
	Unsound ...	1	10	12	1	10	34
Internal Organs	Diseased ...	344	8	94	0	129	575
	Unsound ...	32	1	2	5	10	50
	TOTALS ...	430	19	109	6	153	717

Two live cows, diseased
Three sides of beef ,,
Eleven forequarters ,,
Three hind ,, ,,
Eight beast heads ,,
Sundry pieces of beef, bruised, &c.
,, ribs ,, ,,
,, pieces of mutton ,,
Three legs ,, ,,
One shoulder ,, ,,
Sundry pieces of pork ,,
Hind quarters of pig ,,
Four pigs' heads, diseased

Several separate quantities of fish, unsound:—Plaice, hake, skate, cole-fish, cod, roes, mussels.

Several separate quantities of fruit, unsound:—Apples, pears, black currants, red currants, cherries, strawberries, gooseberries, raspberries.

Small quantity of chestnuts, unsound.

36 couple rabbits, unsound.

2 cases of fowl (foreign).

Eighteen Justices' Orders were obtained in connection with those of the above articles that were seized.

	Tons	Cwts.	Qrs.	lbs.
Approximate weight surrendered (voluntarily)	6	8	1	20
Do. (after inspection)	7	10	0	7
Approximate weight seized	5	4	2	15
TOTAL ...	19	3	0	14

Disinfection.

Number of houses disinfected	268
,, schools ,, ...	3
,, cabs ,, ...	1
,, Articles disinfected in Steam Disinfector ...	4468
,, ,, ,, by Sulphurous Fumes ...	269

TABLE E.

Prosecutions.

Premises.	Nature of Offence.	Result.
27—31, Cannock Road	Non-compliance with statutory notice, re foul houses, dilapidated outbuildings, &c.	Summons withdrawn on payment of costs, 4/6. Work done.
8—12, Camp Street	Non-compliance with statutory notices, re choked and foul W.W.C.'s, defective soft water tanks, and roof, and ash receptacles	After four adjournments order made for remainder of work to be completed in 14 days. Defendant to pay costs, 13/6.
Court 5, Steelhouse Lane	Non-compliance with statutory notice, re ash accommodation	After one adjournment summons withdrawn on payment of costs, 6/- Work done.
33—36, Brook Street	Non-compliance with statutory notice, re choked and defective rain-water pipes and eaves guttering, and want of ash accommodation	After two adjournments summons withdrawn on payment of costs, 4/6. Work done.
15—18, St. Mark's Street	Ditto	Ditto
Tempest Street	Being in possession of diseased meat	Dismissed.