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County Borough of Derby.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

FOR THE

YEAR 1905,

BY

William J. Howarth, M.D., D.P.H., &c.,

Medical Officer of Health, Medical Superintendent of the Borough Isolation Hospital, and Medical Officer to the Education Committee.

DERBY:
J. HARWOOD, PRINTER, DERWENT BUILDINGS, TENANT STREET.

PUBLIC HEALTH DEPARTMENT,

FORD STREET, DERBY,

March 15th, 1906.

TO THE

Chairman and Members of the Sanitary Committee.

GENTLEMEN,

I beg to present herewith a Report upon the Health and Sanitary condition of the County Borough of Derby during the year 1905, this being the 29th Annual Report of the Medical Officer of Health.

The chief points of interest are as follows :—*a.* The progressive decline of the birth-rate which has been noticed for many years past has continued, the rate for 1905 being the lowest on record (page 9); *b.* the general mortality rate—14.3 per 1,000—is the lowest recorded in the Borough with one exception, viz., 13.5 in 1903. During the past five years the death-rate has never exceeded 15.2 per 1,000 (page 13); *c.* Diphtheria shows an unfortunate tendency to become both more prevalent and more fatal, the causes contributing to this are discussed fully in the Report (page 36); *d.* Enteric Fever, the undue prevalence of which testifies against the salubrity of a town even if the converse does not hold, has been progressively declining during the past eight years, until last year only 41 cases of this disease were notified. This is by far the fewest number recorded since notification became compulsory, and if that level can be maintained, it will be a cause for considerable satisfaction (page 51); *e.* Small-pox reappeared in the town during the year, and owing to its incidence on school children, more than ordinary vigilance was necessary to prevent its spread; *f.* The inquiry into the method of feeding infants has now exceeded 10,000 investigations, these are tabulated and commented upon in the Report (page 16).

With the approval of the Education and Sanitary Committees, the Report on School Hygiene which has been issued separately in the past, is printed in this Report (page 64).

I am, Gentlemen,

Yours obediently,

WILLIAM J. HOWARTH,

Medical Officer of Health.

County Borough of Derby.

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Medical Officer of Health.

WILLIAM J. HOWARTH, M.D., D.P.H., &c.

By order of the Local Government Board, dated March 23rd, 1891, Article 18, Section 14, it is prescribed that the Medical Officer of Health shall "prepare an Annual Report, to be "made to the end of December in each year, comprising a "summary of the action taken during the year for preventing "the spread of disease, and an account of the Sanitary state of "his district generally at the end of the year. The Report "shall also contain an account of the enquiries which he has "made as to conditions injurious to health existing in his dis-"trict, and of the proceedings in which he has taken part or "advised under the Public Health Act, 1875, so far as such "proceedings relate to those conditions; and also an account "of the supervision exercised by him or on his advice, for "Sanitary purposes over places and houses that the Sanitary "Authorities have power to regulate, with the nature and "results of any proceedings which may have been so required "and taken in respect of the same during the year. It shall "also record the action taken by him or on his advice, during "the year, in regard to offensive trades, and to factories and "workshops. The Report shall also contain tabular state-"ments (on forms to be supplied by the Local Government "Board, or to the like effect) of the sickness and mortality "within the district, classified according to diseases, ages, and "localities."

STATISTICAL SUMMARY, 1905.

Population estimated to the middle of 1905	Males .. 59,564 Females 62,643	Total ..	122,207
Marriages			972
Annual Rate of Persons Married per 1,000 of the population			16.0
Births	Males .. 1,565 Females 1,543	Total ..	3,108
Annual rate of Births per 1,000 of the population			25.5
Deaths	Males .. 856 Females 890	Total ..	1,746
Annual rate of Mortality per 1,000	Males .. 14.4 Females 14.2	Total ..	14.3
Excess of Registered Births over Deaths			1,362

Area.—The area of the old Borough is 3,445 acres. The acreage of the portions of Normanton, Osmaston, and Alvaston and Boulton, added to the Borough, Nov., 1901, is 1,815 acres.

Elevation.—The inhabitants of Derby reside at a mean elevation of 182 feet above sea level, the highest point being at the Borough Boundary in Burton Road, 325 ft., and the lowest at "The Siddals," 142 ft. The elevation at the Market Place is 157 ft.

Houses.—At the Census of 1901 there were 26,625 houses, of these, 24,851 were inhabited, and of the remaining 1,774, there were, on Census night, 995 "in occupation," that is, utilised for business or other purposes but without occupants, whilst 779 were not "in occupation." In addition there were 228 houses in course of erection.

Density.—The mean density of the Borough was equal to 24 persons per acre. The density of the various wards was as follows:—Abbey 33, Arboretum 78, Babington 68, Becket 77, Bridge 24, Castle 74, Dale 19, Derwent 6, Friar Gate 52, Kingsmead 84, Litchurch 20, Markeaton 51, Normanton 73, Osmaston 5, Peartree 19, and Rowditch 25 persons per acre.

Annual Rateable Value.—The rateable value of the Borough for 1905 was £525,903 for District Rate purposes, and £556,817 for Poor Rate purposes.

TABLE I.—Population, Number of Births, Total Deaths, and Deaths from certain causes, with the rates per 1,000 of the Population in the Borough of Derby for the past twenty-eight years.

YEAR.	Population.	Corrected Number of Deaths.	Death-rate per 1,000 living.	Births.	Birth-rate per 1,000 living.	Deaths from seven principal Zymotic Diseases.	Zymotic rate per 1,000 living at all ages.	Deaths from Phthisis.	Phthisis Death-rate.	Infantile Mortality per 1,000 Births.	Deaths. from Respiratory Diseases exclusive of Phthisis.	Respiratory Death-rate
1878	80,385	1,613	20.1	3,092	38.4	257	3.1	162	2.0	148	296	3.6
1879	80,385	1,970	24.5	3,139	39.4	380	4.7	147	1.8	132	407	5.0
1880	80,385	1,614	20.1	3,050	37.9	233	2.8	140	1.7	145	224	2.7
1881	81,470	1,529	18.9	3,156	38.8	166	2.03	131	1.6	129	287	3.5
1882	82,687	1,533	18.5	2,959	35.7	187	2.2	140	1.6	139	259	3.1
1883	83,922	1,549	18.6	3,074	36.6	144	1.7	146	1.7	146	263	3.1
1884	85,176	1,569	18.4	3,013	35.3	181	2.1	131	1.5	143	259	3.0
1885	86,449	1,591	18.4	3,055	35.3	132	1.5	128	1.3	138	310	3.5
1886	87 741	1,651	18.8	3,069	35.9	166	1.8	154	1.7	148	272	3.1
1887	89,052	1,683	18.9	2,858	32.9	223	2.5	146	1.6	138	247	2.7
1888	90,383	1,550	17.1	2,824	31.2	163	1.8	116	1.2	145	271	2.9
1889	91,733	1,582	17.2	2,906	31·6	133	1.4	99	1.7	147	281	3.0
1890	93,105	1,843	19.8	2,699	28·9	260	2.7	143	1.5	160	326	3.5
1891	94,422	1,765	18.7	2,885	30.6	126	1.4	139	1.5	139	158	1.7
1892	95,528	1,734	18.2	3,038	31.8	174	1.9	140	1.5	171	295	3.1
1893	96,648	1,740	18.1	3,123	32.4	190	2.0	132	1.4	155	281	2.9
1894	97,781	1,468	15.1	2,890	29.6	151	1.6	103	1.1	121	249	2.6
1895	98,927	1,669	16.9	2,909	29.4	178	1.8	105	1.1	158	254	2.6
1896	100,087	1,577	15.8	2,834	28.4	182	1.9	137	1.4	150	240	2.4
1897	101,262	1,656	16.4	2,803	27.7	173	1.8	99	0.98	168	249	2.5
1898	102,448	1,756	17.2	2,860	28.0	235	2.3	133	1.3	169	257	2.6
1899	103,649	1,775	17.2	2,984	28.8	173	1.7	116	1.2	163	244	2.4
1900	104,684	1,854	17.7	2,900	27.7	247	2.4	113	1.1	173	271	2.6
1901	106,076	1,598	15.1	2,939	27.8	189	1.8	99	0.94	155	220	2.8
1902	116,869	1,639	14.1	3,326	28.5	145	1.3	102	0.87	126	264	2.3
1903	118,707	1,596	13.5	3,215	27.1	108	0.9	102	0.86	128	210	1.8
1904	120,449	1,824	15,2	3,282	27.3	167	1.4	121	1.01	143	264	2.2
1905	122,207	1,746	14.3	3,108	25.5	183	1.5	96	0.79	151	254	2.1

Vital Statistics for the Year 1905.

Estimated Population.—The estimated population of the Borough at the middle of 1905 was 122,207. This total includes the inhabitants living in the parts of the Borough added in the year 1901, and also makes allowance for the probable increase in these districts. The increase in population during the twelve months is thus estimated at 1,756, which is 394 higher than the excess of births over deaths.

Marriages.—The number of marriages which were solemnized during 1905 was 972; this represents a rate of persons married equal to 16.0 per 1,000 of the population, which is rather less than the rate recorded last year, and is lower than any recorded since 1893, the first year of which I have a record. The following table gives information relating to the marriage rate for the past 10 years :—

Year.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.
Number of Marriages.	908	953	961	961	1025	943	948	957	973	972
Rate.	18.2	18.9	18.8	18.6	19.6	17.8	16.3	16.1	16.17	16.0

Birth-rate.—The births registered during the year numbered 3,108, of which there were :—

	Males.	Females.	Total.	Grand Total.
Legitimate ..	1,500	1,469	2,969	3,108
Illegitimate ..	65	74	139	

From these figures it will be seen that the illegitimate births represent nearly 4.5 per cent. of the present total, as compared with 4.0 per cent. in the previous year. In the following table is set out the distribution of all births, both legitimate and illegitimate :—

TABLE **II.**—Relating to Births, Legitimate and Illegitimate.

WARD.	BIRTHS.			Birth Rate per 1,000	Illegitimate Births per 1,000 Births in 1904.	Total Legitimate and Illegitimate Births registered during the years 1902 to 1905.		
	Legitimate.	Illegitimate.	Total.			Legitimate.	Illegitimate.	Illegitimate per 1,000 Births.
Abbey ..	287	12	299	32.1	41	1199	47	38
Arboretum ..	191	8	199	21.1	41	803	20	25
Babington ..	135	5	140	15.6	36	587	21	35
Becket ..	152	12	164	21.2	74	629	34	52
Bridge ..	109	4	113	20.9	36	408	21	50
Castle ..	228	12	240	29.0	50	965	43	43
Dale ..	193	7	200	39.3	35	718	24	33
Derwent ..	150	4	154	29.4	26	626	18	28
Friargate ..	190	8	198	21.9	41	881	23	26
Kingsmead	160	19	179	23.9	107	727	57	75
Litchurch ..	139	6	145	16.1	42	632	25	38
Markeaton ..	195	9	204	26.7	45	881	42	46
Normanton..	214	4	218	28.4	19	995	19	19
Osmaston ..	193	11	204	35.4	54	777	31	39
Pear Tree ..	238	12	250	34.0	48	873	25	28
Rowditch ..	195	6	201	23.5	30	738	42	54
Totals ..	2,969	139	3,108	25.5	45	12,439	492	39

The greatest proportion of illegitimate births was noted in King's Mead Ward, next to which came Becket Ward. The proportion of illegitimate births was much higher in many districts during 1905 than in the preceeding year, but as I have previously pointed out, the numbers recorded in each year for the separate wards are too small to admit of any very reliable inferences being deduced therefrom. The aggregated totals for previous years are, however, reaching a figure which will help to eliminate the error of annual variation and the proportion which each ward bears to the total

is becoming more accurate. It will be observed that King's Mead Ward is a long way ahead of the others as regards the rate of illegitimacy, the next nearest being Rowditch, in which ward is placed the Workhouse, and to this fact must be attributed some proportion of the high rate, whilst Becket and Bridge Wards, with no such disturbing factor, have an almost similar rate. The average for the whole town of 39 per 1,000 is only exceeded in one other of the sixteen wards namely—Markeaton Ward; this ward it will be remembered, includes part of what was formerly King's Mead Ward before the division of the town into 16 areas instead of eight.

The births registered during the year numbered 3,108, and in this total are included 1,565 boys and 1,543 girls. The rate per 1,000 of the population was therefore 25.5, as compared with 27.3 last year, and 27.1—the previous lowest on record—in 1903. This continuously falling birth-rate is a very unpleasant feature of our social life, and one wonders at what point it is going to stop. If the statistics of 20 years ago are referred to in Table 1, it will be seen that in that year the birth-rate was no less than 35.3, or practically 10 per 1,000 more than it is to-day, which means that not less than 1,000 more births would have had to be registered in 1905 than actually were, in order to maintain the 1885 rate, this decline operating each year does not take long to amount to a most formidable total.

As regards the various wards, the birth-rate varied within very wide limits, being as low as 15.6 in Babington Ward and as high as 39.3 in Dale Ward; it is probably more than a coincidence that these two wards had respectively the lowest and highest birth-rates in the previous year. Rates of over 30 per 1,000 were recorded in Abbey, Osmaston and Pear Tree Wards, as was also the case last year, when they were also associated in this position with Castle, Derwent, Markeaton and Normanton. Although these latter four districts in the year under review show rates below 30, a reference to table II. indicates that they closely approximate that total. The only ward other than Babington with a rate below 20 was Litchurch. This was likewise the case last year, when these two wards were associated with Bridge Ward, which this year has a rate of slightly over 20. These variations in the birth-rate are not entirely due to errors resulting from the fewness of the numbers available for comparison, for each year since the sub-division of the town into small areas the higher birth-rates

are always recorded in the same districts. The subject is worth more detailed consideration, and this it will receive when figures extending over a longer period, are available.

In the last Annual Report reference was made to the correspondence which had taken place between the Registrar-General and the Sanitary Committee relating to the method of certification of still-births before burial in the Corporation Cemeteries. The result has been that I have forwarded a letter to each registered practitioner in the town, requesting him to certify all still-births on official forms. I was, through the courtesy of the Registrar-General, enabled to send with the letter a book of these official forms, and at the same time it was intimated that further supplies could be obtained from the local registrar. That the method of still-births registration stands in need of reform, I do not think any one will deny, but meanwhile the best should be made of the available methods. A reference to the subjoined table—for the particulars contained therein I am indebted to Mr. C. E. Oliver, Clerk to the Derby Burial Board—shows that over eight per cent of the total burials were of still-born children; this is in itself a strong argument in favour of a proper system of registration of such cases by a duly authorised official.

Burials in the Derby Cemeteries during the past 11 *years.*

Year.	Ordinary Burials.	Burials of Still-born Children.	Total.	Percentage of Burials of Still-born Children to the whole.
1895	1587	210	1797	11.7
1896	1510	218	1728	12.7
1897	1581	182	1763	10.4
1898	1744	178	1922	9.3
1899	1787	193	1980	9.8
1900	1887	195	2082	9.4
1901	1627	246	1873	13.2
1902	1552	217	1769	12.3
1903	1522	184	1706	10.8
1904	1704	154	1858	8.3
1905	1692	161	1853	8.5

Annual Rate of Mortality.—The total number of deaths registered during the year was 1,825, as against 1,905 in 1904, and 1,671 in 1903; of these deaths 79 were of strangers; these being deducted there is left a net total of 1,746 occurring among people usually resident in Derby, but making no allowance for Derby residents who may have died outside the town. The net death-rate, therefore, from all causes was 14.3 per 1,000 as against 15.2 in 1904, and 13.5 in 1903. With one exception, viz., in the year 1903, this is the lowest death-rate recorded in the Borough. In the last five years the rate has been below 15 on three occasions, whilst in the two other years it was very little over 15. Considering that this is a working class community this rate is highly satisfactory and I trust it will be maintained.

Mortality in Age Groups.—The type of disease to which persons succumb varies considerably at different ages, as also does the resisting power of the individual ; it is therefore worth while briefly to consider the causes of mortality at the different periods of life, viz., infancy, childhood, school-age, puberty, maturity, and decline.

a. INFANCY. In the accompanying Table III. are set out the deaths which have occurred among children who have not reached the age of one year. This is included for the first time in the tables which are required to be filled up for the information of the Local Government Board. It will be seen that there were 467 such deaths and that of this total practically one-fourth of them died during the first week of life. The great cause of this early mortality is immaturity of the child with insufficient vitality to enable it to live as a separate individual. Amongst those who are not born prematurely, overlaying and convulsions cause many deaths, convulsions most frequently resulting at this age from digestive disorders. By the end of the first month over one-third of the deaths have occurred, and up to this age the prematurely born children continue to succumb as well as those who are regarded as debilitated children at birth—many of whom ought to have been included in the category of children prematurely born.

It will be observed that from this age forward prematurity drops out of the causes of death and atrophy and debility assume an increasing importance as does also convulsions, and with these are associated practically a new introduction, diarrhœa. In my opinion the majority of these deaths are directly the result of improper feeding, although to the causes contributing to deaths from convulsions must, at a later period, be added the dangers incidental to dentition which result in an irritable condition of the nervous system predisposing to dangerous convulsive attacks. Tubercular diseases and deaths from chest ailments assume an increasing importance after the age of one month.

The importance of the method of feeding as a factor influencing the mortality of infants under the age of one year, is such as to justify separate and detailed consideration and to obtaining more precise information on this subject we have—in this town—been devoting a considerable amount of time and energies for many years past. Since the year 1900 the local registrar has forwarded to the Medical Officer of Health the names and addresses of all children registered. These have been systematically visited and accurate

TABLE III.—**Infantile Mortality during the year 1905.**

Deaths from stated Causes in Weeks and Months under One Year of Age.

	CAUSE OF DEATH.	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.	STRANGERS.
ALL CAUSES.	Certified	108	21	13	21	163	41	42	34	36	35	29	21	21	20	12	13	467	..
	Uncertified	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Common Infectious Diseases.	Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Chicken-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles	..	..	1	..	1	1	..	..	..	1	..	..	1	5	1	..	10	..
	Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Diphtheria: Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Whooping Cough	..	..	..	1	1	1	1	1	..	..	1	..	1	1	2	2	11	..
Diarrhœal Diseases	Diarrhœa, all forms	..	..	..	2	2	1	5	7	10	13	5	4	2	1	2	3	55	..
	Enteritis (*not Tuberculous*)	..	1	..	1	2	1	1	1	..	..	2	..	1	..	..	..	8	..
	Gastritis, Gastrointestinal Catarrh	..	..	..	..	..	2	..	..	1	2	..	..	..	..	..	..	5	..
Wasting Diseases.	Premature Birth	64	6	2	3	75	..	..	..	1	..	1	..	..	..	..	..	76	..
	Congenital Defects	2	..	1	..	3	1	..	..	1	..	..	..	..	..	..	..	6	..
	Injury at Birth	5	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	5	..
	Want of Breast-milk	..	..	1	..	1	1	..	2	..	..	..	..	..	..	..	..	4	..
	Atrophy, Debility, Marasmus	14	4	3	5	26	7	8	6	5	5	..	3	..	1	1	..	62	1
Tuberculous Diseases.	Tuberculous Meningitis	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	2	..
	Tuberculous Peritonitis: Tabes Mesenterica	..	..	..	..	..	3	..	..	1	3	1	..	..	2	..	..	10	..
	Other Tuberculous Diseases	..	..	..	..	..	1	..	1	2	2	..	1	1	1	1	1	11	..
	Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Syphilis	..	..	..	1	1	2	..	..	..	..	..	..	..	..	..	..	3	..
	Rickets	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	3	..
	Meningitis (*not Tuberculous*)	..	..	..	..	..	..	..	..	..	..	1	2	1	..	..	1	5	..
	Convulsions	8	4	2	2	16	11	10	2	7	2	3	3	3	2	2	..	61	..
	Bronchitis	..	..	..	1	1	2	8	2	4	3	5	4	1	2	2	..	34	..
	Laryngitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Pneumonia	..	..	1	1	2	1	..	3	..	1	2	..	5	3	..	2	19	1
	Suffocation, overlaying	4	1	..	1	6	2	..	2	..	..	1	..	..	..	..	..	11	..
	Other causes	11	5	2	3	21	4	9	7	3	2	6	3	4	2	1	4	66	2
		108	21	13	21	163	41	42	34	36	35	29	21	21	20	12	13	467	4

records kept of the method of feeding, as well as of deaths which have occurred amongst them before attaining the age of one year. The total number of children which have been so observed is now over 10,000. There have been registered 12,579 children between November 1900 and November 1904, the last member of this group attained the age of twelve months in November 1905. From the total the following deductions must be made :—on account of no visit being made, but in respect of whom no death has been registered, 1,045 ; and on account of no visit being made, owing to death occurring before any information could be obtained, 47. There are also excluded the deaths of 413 children, for the reason that the death could not have been influenced by the manner of feeding, thus 40 of them suffered from some congenital defect incompatible with life, in 113 cases death took place owing to debility and no food was given, whilst in 300 instances the child was prematurely born, which leaves a net total of 11,034 children who had been under the direct observation of the women inspectors. Of this number 66 per cent. were breast-fed, 19 per cent. were wholly hand-fed, and the remaining 16 per cent. were partly reared by hand and partly by natural means. The method of feeding has a very important bearing on the probability of a child surviving to the age of one year, as will be seen from the following Table :—

Table **IIIa.**—*Mortality per* 1,000 *from Certain Diseases among Children who were Breast-fed or Hand-fed, or who were at first Breast-fed and subsequently Hand-fed* (*Mixed*).

	Breast-fed.		Mixed.		Hand-fed.		All three classes.	
Number of Children.	7214		1756		2064		11034	
Disease.	Number of deaths.	Death-rate per 1,000.	Number of deaths.	Death-rate per 1,000.	Number of deaths.	Death-rate per 1,000.	Number of deaths.	Death-rate per 1,000.
Bronchitis and Pneumonia	100	13.9	22	12.6	60	29.1	182	16.5
Diarrhœa and Epidemic Enteritis	60	8.4	39	22.3	117	56.7	216	19.6
Gastritis and Gastro-Enteritis	10	1.4	7	4.0	17	8.3	34	3.1
Marasmus	37	5.2	23	13.1	49	23.8	109	9.9
Atrophy and Debility	56	7.8	12	6.8	43	20.9	111	10.1
Tabes Mesenterica ..	6	0.9	2	1.2	12	5.9	20	1.9
Various Abdominal Tuberculoses ..	3	0.5	6	3.5	10	4.9	19	1.8
All other Tuberculous Diseases	19	2.7	9	5.2	6	3.0	34	3.1
Convulsions	103	14.3	36	20.6	57	27.6	196	17.8
Dentition	8	1.2	7	4.0	10	4.9	25	2.3
Zymotic Diseases other than Diarrhœa ..	44	6.1	15	8.6	25	12.2	84	7.7
All other Diseases ..	67	9.3	8	4.6	42	20.4	117	10.6
Totals	513	71.2	186	106.0	448	217.1	1147	104.0

The death-rate among the breast-fed children is 71.2 per 1,000, as compared with 217.1 per 1,000 among those hand-fed, and 106 per 1,000 among those only partly breast-fed. It is important also to note that not only is this marked difference to be seen in the aggregated death-rate but in every classification there is the same result, the death-rate is invariably higher—in fact there is not a

single instance where the death-rate among breast-fed children even approximates the high rates noted among those who were hand-fed. As I have previously stated in dealing with this subject* it is not easy to associate an increase of 15 per 1,000 or over 100 per cent. in the mortality from Bronchitis and Pneumonia with the manner of feeding, nor would an increase of over 100 per cent. from Zymotic Diseases, excluding Diarrhœa, appear to be associated with a similar cause, nevertheless the statistics point to this result, and the probable reason is to be found in the production of children suffering from what may be termed lessened powers of resistance or diminished vitality. That these conditions are not the result of marked differences in their social position is shown from the following summary of the house accommodation of 100 children fed naturally and the same number fed by hand and taken in consecutive order from the register :—

	One or two roomed tenements.	Three Rooms.	Houses of Four Rooms.	Five or more Rooms.
Breast-fed	6	7	27	60
Hand-fed	2	3	13	82

This summary would rather make it appear that the hand-fed children are on the whole better housed than the breast-fed. It is more probable that the method of feeding produces enfeebled constitutions which are less able to resist attacks of disease. From this one is justified in assuming that the toll which is paid for this method of feeding is not wholly seen in the mortality tables, for a large proportion of survivors must suffer from these enfeebled constitutions which in many cases will operate as a heavy handicap in the race of life. If any diseases can be singled out as contributing more than others to this excessive mortality among the hand-fed children it is those associated with disorders of the digestive tract, though, as I have said, there is an excess of mortality from every class of disease and that appears to me to be not always fully appreciated.

There is one further point which the above statistics make clear and it is the fact that the great difference in the mortality rates among hand-fed children, and children who are partly breast-fed and partly hand-fed is so great that every mother who has not

* *Lancet*, July 22, 1905.

sufficient food to satisfy her child should be encouraged to continue feeding the child by the breast and to supplement any deficiency by artificial feeding, and only in case of absolute and unavoidable necessity should resort be had to hand-feeding alone.

Other Ages.—During the years 1 to 5 it will be observed from Table **IV.** that the commoner zymotic ailments, particularly Measles, Scarlet Fever, and Whooping Cough, cause most deaths. Diarrhœa diminishes in prevalence, whilst tubercular diseases, other than Phthisis, and also chest ailments are nearly as common as during the first year of life. At the school ages, 5–15, the zymotic diseases are still most fatal, but of these it is from Diphtheria that the greatest risk is incurred. Tubercular diseases are among the most common of the fatal attacks, but with these exceptions there are no very prominent causes of death. With the arrival of puberty, 15-25, years, Phthisis begins to make its influence seen in the mortality returns—11 deaths out of a total of 47 registered at this age period were due to this disease. At ages 25 to 65 we find Phthisis is one of the most frequent causes of death. Deaths from Cancer likewise increase in number and at the later half of the period chest ailments and heart diseases are the diseases which most frequently result fatally. Suicides are most frequently recorded in this age period as also are deaths from Enteric Fever. From 65 years upwards—the decline of life—Bronchitis, heart diseases and Cancer cause most deaths, and the influence of the so-called preventable diseases is now practically a negligible quantity.

District Mortality Rates.—In Table IV. the various mortality rates which have been recorded in the different wards into which the town is divided are set out ; the deaths in public institutions have been relegated to the wards to which the various persons belonged before they were removed. Judged by the general death-rate, the healthiest districts were Osmaston, with a rate of 10 per 1,000, Litchurch and Normanton, with rates of 11.6, and Babington, 11.7. Only one ward, namely Castle, had a rate of over twenty (this ward had a similar high rate last year), and now, for the first time, King's Mead Ward, to which so much attention has been directed in the past, does not show the highest death-rate, being in fact, below Bridge Ward, whether this is a permanent improvement or not time will show. There is a probability that the rate in this ward will not be so high again for progressively with the removal of a considerable amount of old property there has been an increase of new and properly constructed dwellings on the outskirts of the ward, and these two factors will, I think, result in a lowering of

COUNTY BOROUGH OF DERBY.

TABLE VII.—Cases of Infectious Disease Notified during the Year 1905.

Notifiable Disease.	Cases notified in whole District							Total Cases Notified in each Locality.																No. of Cases removed to Hospital from each Locality.																
	At all Ages.	At Ages—Years.						Abbey.	Arboretum.	Babington (I)	Becket.	Bridge.	Castle.	Dale.	Derwent (H)	Friargate.	King's Mead.	Litchurch.	Markeaton.	Normanton.	Osmaston.	Pear Tree.	Rowditch (W)	Abbey.	Arboretum.	Babington (I)	Becket.	Bridge.	Castle.	Dale.	Derwent (H).	Friargate.	King's Mead.	Litchurch.	Markeaton.	Normanton.	Osmaston.	Pear Tree.	Rowditch (W)	Total.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.																																	
Small-pox	117	2	11	45	16	41	2	10	..	2	8	4	19	3	26	5	15	5	15	1	..	1	3	10	..	2	8	3	19	3	25	5	14	5	14	1	..	1	3	113
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	277	1	37	185	26	28	..	22	25	31	5	8	13	9	13	43	5	21	18	24	10	10	20	9	..	13	1	1	3	5	5	5	1	3	7	2	..	2	4	61
Membranous Croup ..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	89	..	1	6	7	69	6	4	8	8	6	1	6	6	5	8	7	3	6	5	5	4	7	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	541	3	145	332	46	15	..	29	68	21	16	22	22	36	34	65	41	31	12	32	49	24	39	11	21	14	3	11	8	10	11	25	17	13	5	8	17	5	15	194
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	41	..	2	8	10	19	2	3	1	4	3	2	7	..	2	3	6	2	4	..	2	2	..	..	..	2	2	2	..	..	..	..	..	..	..	..	..	..	..	..
Relapsing Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever ..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	13	..	..	..	2	11	..	1	..	..	2	2	1	..	1	1	2	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	2
*Phthisis .. .. .. (Voluntary Notification)	84	..	1	13	22	47	1	9	5	4	4	8	5	4	1	5	10	5	7	5	5	2	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	1164	6	197	590	129	231	11	78	107	71	44	47	73	58	82	130	87	67	62	67	72	43	76	30	22	31	14	17	33	18	43	37	40	23	29	11	18	8	22	396

(I) Derbyshire Royal Infirmary for treatment of Enteric Fever and Diphtheria cases.
(H) Derby Borough Isolation Hospital for treatment of cases of Scarlet Fever and Small Pox.
(H) Five cases of Diphtheria were also treated in the Borough Hospital.
(W) The locality in which a Workhouse is situated.

TABLE V.—Population, Density, Deaths, and certain Death Rates in the various Wards of the Borough of Derby for the Year 1905.

WARDS.	Population in 1901.	Estimated population at middle of 1904.	Acreage	Density in persons per acre.	Total Deaths.	Death-rate per 1,000 living.	Deaths from seven princip'l Zymotic Diseases	Zymotic death rate.	Deaths from Respira-tory Diseases exclusive of Phthisis	Respira tory death rate.	Deaths from Phthisis	Phthisis death rate.	Number of deaths of infants under 1 year.	Deaths of infants under 1 year of age per 1,000 births.
Abbey ..	8,747	9,306	285	33	140	15.1	9	1.0	26	2.8	9	1.0	43	144
Arboretum ..	8,889	9,459	122	78	120	12.7	6	0.7	18	1.9	8	0.9	24	121
Babington ..	8,447	8,988	134	68	105	11.7	9	1.1	12	1.4	4	0.5	18	129
Becket ..	7,297	7,765	102	77	100	12.9	9	1.2	17	2.2	8	1.1	29	177
Bridge ..	5,081	5,407	229	24	101	18.7	11	2.1	13	2.5	8	1.5	27	239
Castle ..	7,786	8,285	112	74	195	23.6	28	3.4	26	3.2	8	1.0	58	242
Dale ..	4,785	5,092	269	19	82	16.2	7	1.4	9	1.8	2	0.4	22	110
Derwent ..	4,933	5,249	907	6	73	14.0	3	0.6	5	1.0	2	0.4	20	130
Friargate ..	8,516	9,061	176	52	118	13.1	16	1.8	18	2.0	5	0.6	35	177
King's Mead ..	7,064	7,517	90	84	138	18.1	20	2.7	20	2.7	8	1 7	33	185
Litchurch ..	8,474	9,017	462	20	104	11.6	12	1.4	21	2.4	8	0.9	15	104
Markeaton ..	7,200	7,661	151	51	114	14.9	9	1.2	21	2.8	8	1.5	32	157
Normanton ..	7,225	7,688	106	73	89	11.6	15	2.0	10	1.4	3	0.4	24	106
Osmaston ..	5,429	5,777	1,381	5	53	9.2	6	1.1	7	1.3	4	0.7	23	113
Pear Tree ..	6,930	7,374	392	19	97	13.2	16	2.2	15	2.1	4	0.6	30	120
Rowditch ..	8,045	8,561	354	25	117	13.7	7	0.9	16	1.9	7	0·9	34	170
*Institutions ..	..	..	..	..	336	..	31	..	35	..	13	..	..	..
Non-Residents	..	..	..	..	79	..	2	..	4	..	1	..	4	..
†Totals	114,848	122,207	5,272	24	1,746	14.3	183	1.5	254	2.1	96	0.79	467	151

* The deaths in Institutions have been relegated to the various Wards.
† Excluding Non-Residents.

the death-rate, if only by what may be likened to a method of dilution. The high death-rates in both Castle and Bridge Wards are contributed to, in no small measure, by the very great death-rate among children under one year of age ; the deaths of children under one year of age per 1,000 births numbered 151 in the town as a whole, but in these two districts they amounted to 242 and 239 respectively. In actual figures, 58 out of a total of 195 deaths in Castle Ward were of infants, as also were 27 out of 101 in Bridge ; this compares very unfavourably with 151 out of 1,746 for the whole town. The death-rate from Phthisis was highest in King's Mead Ward, and the highest Zymotic mortality was recorded in Castle Ward.

Inquests.—I am informed by the Borough Coroner that the number of Inquests held by him during the year ended December 31st, 1905, was 203, being made up by 117 held on males, and 86 on females. There were no unregistered deaths in the Borough ; the cause of every death was certified by a medical practitioner or by the Coroner.

Mortuary.—The Coroner's Officer, Mr. John Dexter, informs me that the number of dead bodies which were received into the Mortuary during 1905 was 19, and that three post-mortem examinations were conducted in the building during the year. Considerable repairs have been carried out during the year and the building which was adversely commented upon in the last Report may now be considered as in a satisfactory condition.

The Notification of Infectious Diseases.—The total number of cases of infectious diseases notified in accordance with the requirements of the Infectious Diseases Notification Act of 1890, was 1,076, as compared with 1,216 in the previous year.

The highest and lowest weekly incidences were as follows :—

Week ending, 1905.		Cases notified.
4th November ..	highest number ..	43
19th August ..	lowest number ..	9

The following summary gives particulars of these various diseases :

Cases of Infectious Disease notified during 1905.

Quarters.	Totals.	Small Pox	Scarlet Fever	Diphtheria	Continued Fever.	Enteric Fever.	Erysipelas	Puerperal Fever.	Membraneous Croup.
First ..	260	..	134	81	..	7	35	3	..
Second	280	71	123	46	..	10	27	3	..
Third ..	222	52	118	22	1	15	11	3	..
Fourth	314	..	160	122	..	11	16	4	1
Year ..	1,076	123	535	271	1	43	89	13	1

Table VI. gives information respecting the notification of infectious diseases in previous years. It will be recognised that the number notified last year was well above the average, the increase being chiefly due to the continued prevalence of Small Pox and the excessive incidence of Diphtheria.

In dealing with these cases the Inspectors made some four thousand visits to infected houses.

TABLE **VI.**—Number of cases of Infectious Disease notified in the Borough of Derby during 1905, and in each year since 1881.

DISEASES.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905
Small Pox ..	46	15	2	7	..	..	..	20	..	5	..	11	52	3	94	1	1	..	..	1	1	8	48	210	123
Scarlet Fever ..	423	770	506	389	232	167	64	756	775	346	318	470	501	513	364	427	432	481	885	602	616	332	185	638	535
Diphtheria ..	6	10	8	..	1	6	27	23	46	81	66	67	50	46	43	45	57	74	60	52	74	63	83	150	271
Membranous Croup ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Enteric & Con. Fever ..	95	113	51	344	57	162	105	163	99	64	66	55	111	104	99	104	125	159	41	125	114	85	64	64	44
Typhus Fever	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera ..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	6	6	7	11	2	1	1	3	5	1	8	9	11	7	10	3	3	6	8	7	10	13	14	16	13
Erysipelas ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	67	52	88	135	138	89
Phthisis* ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	57	119	112	84
Totals ..	577	914	574	751	292	336	197	965	925	497	458	612	727	673	610	580	618	720	1094	854	867	646	648	1328	1160

In addition to the above, the following cases of Measles were also notified during short periods of voluntary notification :—1884, 513 cases ; 1887, 874 cases ; 1888, 33 cases ; also 34 cases of Scarlet Fever, and 3 cases of Enteric Fever from the annexed areas during 1901.

*Phthisis became a notifiable (voluntarily) disease in July, 1902.

Hospital for Infectious Diseases.—During the greater part of the year the Hospital was in use for the treatment of cases of Smallpox, and this resulted in the Scarlet Fever cases being treated at home —of the former disease 113 patients were passed through the wards and of the latter 196. The number of patients suffering from Scarlet Fever who desired removal, but for whom no accommodation could be found, was 97, whilst in 73 other instances their removal was delayed owing to want of room. The continued prevalence of Diphtheria made considerable demand on the beds which are reserved for this class of disease in the wards of the Royal Infirmary, and there were twenty instances in which patients desired removal but it was not found possible to do so. Among these patients were five who developed the disease in the homes which the Guardians have established for bringing up the children who are under their care. These children were treated in the Borough Hospital, but in reply to a letter sent to the Committee by the Guardians suggesting that the Sanitary Committee should in future undertake the treatment of such cases, it was stated that at the present time such arrangements could not be made. In addition to the cases dealt with in the Borough Hospital, 26 cases of Enteric Fever, 58 cases of Diphtheria, and 2 cases of Erysipelas were treated in the Royal Infirmary. The difficulties which arise in connection with the treatment of cases of Scarlet Fever during the time that cases of Smallpox are under treatment in the Borough Hospital received considerable attention from the Committee during the latter half of the year, and finally it was decided to recommend that application should be made for a loan to enable them to erect a small self-contained hospital in the field next adjoining the hospital, on land which belongs to the Corporation. It was the intention of the Committee to use this hospital for such cases of Scarlet Fever as presented features of urgency during the time the ordinary buildings were in use for Smallpox. Intimation was received from the Local Government Board that such an application would not be favourably considered and the matter has since been in abeyance. In reference to the existing hospital it has been decided to surround the site with an unclimable fence where the same does not now exist, such as will conform to the requirements laid down in the Local Government Board's memorandum on hospital construction, and tenders for carrying out the work have during the present year been invited. The Medical Officer of Health is also giving attention to the present arrangements for the disposal of the sewage ; these two items have been the subject of previous correspondence between the Sanitary Committee and the Board. I have again to

express my appreciation of the work performed by Sister Moulds and the whole of the resident staff for their assistance and co-operation which have materially helped in promoting the efficiency of the hospital.

The average length of stay in hospital was 48 days for Scarlet Fever, as compared with 45, and 46 days in the two previous years. The longest time any patient was under treatment was 97 days. The average duration for the treatment of Smallpox cases was 23 days.

The cost of provisioning the Hospital, and other details respecting the same, are contained in the subjoined Table :—

Hospital Provisioning 1905.

1905.	Days of treatment.	Average Patients per day.	Cost of Provisioning.	Average Cost per Patient per day.*
			£ s. d.	s. d.
1st Quarter	3777	41.97	151 16 10	0 9.64
2nd ,,	2905	31.92	157 12 4	1 1.02
3rd ,,	1893	20.57	137 11 1	1 5.44
4th ,,	2863	31.12	130 12 1½	0 10.95
Totals 1905	11,438	31.39	577 12 4½	1 0.12
Totals for previous year	8997	24.58	584 17 8	1 3.6

*This includes cost of provisioning staff, but does not include working days of staff.

Mortality from Zymotic Diseases :—

Zymotic Mortality during the past five years.

Years.	Ten Years' Average.	1901.	1902.	1903.	1904.	1905.		
						Derby.	England & Wales	76 great Towns.
Rate per 1,000	1.7	1.8	1.2	0.9	1.4	1.5	1.52	1.88

COUNTY BOROUGH OF DERBY.

Table VII.—Cases of Infectious Disease Notified during the Year 1905.

Notifiable Disease.	Cases notified in whole District							Total Cases Notified in each Locality.														Number of Cases removed to Hospital from each Locality.																
	At all Ages.	At Ages—Years.						Abbey.	Arboretum.	Babington (I)	Becket.	Bridge.	Castle.	Dale.	Derwent (H)	Friargate.	King's Mead	Litchurch.	Markeaton.	Normanton.	Osmaston.	Pear Tree.	Rowditch (W)	Abbey.	Arboretum.	Babington (I)	Becket.	Bridge.	Castle.	Dale.	Derwent (H).	Friargate.	King's Mead.	Litchurch.	Markeaton.	Normanton.	Osmaston.	Pear Tree.	Rowditch (W)	Total.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.																															
Small-pox	117	2	11	45	16	41	2	10	..	2	8	4	19	3	26	5	15	5	15	1	..	1	3	10	..	2	8	3	19	3	25	5	14	5	14	1	..	1	3	113
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	277	1	37	185	26	28	..	22	25	31	5	8	13	9	13	43	5	21	18	24	10	10	20	9	..	13	1	1	3	5	5	5	1	3	7	2	..	2	4	61
Membranous Croup ..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	89	..	1	6	7	69	6	4	8	8	6	1	6	6	5	8	7	3	6	5	5	4	7	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Scarlet Fever	541	3	145	332	46	15	..	29	68	21	16	22	22	36	34	65	41	31	12	32	49	24	39	11	21	14	3	11	8	10	11	25	17	13	5	8	17	5	15	194
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	41	..	2	8	10	19	2	3	1	4	3	2	7	..	2	3	6	2	4	..	2	2	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Relapsing Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever ..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever.. ..	13	..	..	..	2	11	..	1	..	..	2	2	1	..	1	1	2	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	2
*Phthisis.. .. .. (Voluntary Notification)	84	..	1	13	22	47	1	9	5	4	4	8	5	4	1	5	10	5	7	5	5	2	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	1164	6	197	590	129	231	11	78	107	71	44	47	73	58	82	130	87	67	62	67	72	43	76	30	22	31	14	17	33	18	43	37	40	23	29	11	18	8	22	396

(I) Derbyshire Royal Infirmary for treatment of Enteric Fever and Diphtheria cases.
(H) Derby Borough Isolation Hospital for treatment of cases of Scarlet Fever and Small Pox.
(H) Five cases of Diphtheria were also treated in the Borough Hospital.
(W) The locality in which a Workhouse is situated.

The diseases which are included in the above total and which are usually designated the seven principal zymotic diseases, are Small Pox, Measles, Scarlet Fever, Whooping Cough, Diphtheria, Enteric Fever, and Diarrhœa. From this group of diseases there resulted 185 deaths, of which number one case of Scarlet Fever and one case of Diarrhœa were strangers to the town, leaving a total of 183 cases, representing a zymotic mortality of 1.5 per 1,000 of the population. This is higher than the similar mortality for any year since 1901, it is, however, less than the previous ten year's average. The comparison between England and Wales, and Derby, and the 76 greatest towns is also shown in the table. Each disease will receive separate detailed consideration, and in Table VII. will be found numerous details calling for no special explanation, which have reference to the ward distribution of all the notifiable diseases, and the nature of the isolation, whether treated in hospital or at home.

Small-pox :—

Mortality from Small-pox during the past five years.

Years.	Ten Years' Average.	1901.	1902.	1903.	1904.	1905.		
						Derby.	England & Wales	76 great Towns.
Rate per 1,000	0.01	nil.	nil	0.02	0.03	0.02	0.00	0.00

During the year 1905, 123 persons were notified as suffering from Small-pox. Of these, 113 were removed to the Borough Hospital for treatment. In six of the remaining ten cases the diagnosis was found to be incorrect when visited by the Medical Officer of Health, and in four instances, patients, when notified, were sufficiently advanced in convalescence as to require removal to Hospital only for the purpose of disinfection. This was also the case in respect to five other persons who had not been notified as suffering from Small-pox, but who probably were convalescent from the disease and were discovered in the course of investigation into other cases. One of the 113 cases removed to Hospital was not Small-pox. The net total of cases, therefore, was 121, which comprised 112 treated in the Hospital and nine convalescents. Among this number there were two deaths, which represents a case mortality of under 2 per cent., and a general mortality of under 0.02 per 1,000, as com-

pared with a case mortality of .5 per cent., and a general mortality of 0.03 per 1,000 in the previous year. During the years 1903, 1904, and 1905, 361 cases of Small-pox were treated in the Borough Hospital, among which there were 5 deaths, representing an extremely satisfactory case mortality of 1.4 per cent. Two deaths occurred in 1904 of patients who were not removed to Hospital, and if these also are included the case mortality is still under 2 per cent. of all known cases. From this it will rightly be inferred that the disease which was prevalent was of an extremely mild type.

History of the Cases.—The history of the outbreak of Small-pox during the year 1905 presents several features of interest, not the least important of which was the greater prevalence of the disease among children of school-age than had been the case in previous outbreaks.

During 1904 the last case of Small-pox was notified on December 27th, and the Hospital was freed from the previous year's cases on January 30th. No further cases were notified until April 17th, 1905. On that day information was received that a man, F. B., of no settled residence, was suffering from Small-pox. The case was not discovered at the address given, but was eventually found at a common lodging house in Nun Street. He was obviously suffering from Small-pox and the disease had then reached the vesicular stage. On Monday, April 10th, he had been committed to the Derby gaol, from one of the country districts, to undergo a sentence of seven days imprisonment. He stated that he had first felt chills, accompanied by pains in the back and head on the 12th, and that he noticed a rash on his legs and body on the 14th. He did not make any complaint to the prison doctor, notwithstanding that he had felt very ill; he was discharged at about 8 a.m. on the 15th. The primary fever having subsided, and feeling better he went along the London Road to try and get work, and eventually returned to the Nun's Street lodging house, where he arranged for a bed and then proceeded to the Cotton Lane end of the town on a begging expedition, returning to his lodgings at night. On the following day (Sunday) he walked the streets in the neighbourhood of Nun Street, and on Monday he applied for medical relief, when he was recognised as suffering from Small-pox.

It seemed probable that several cases would arise from this one, as the circumstances were such as to render it impossible for all contacts to be visited and for the usual preventive measures to be

adopted; but the period of infection passed with the notification of only 2 cases, one from Nun Street, and one from Byron Street, both of which were notified on May 3rd. No direct association between these cases and the first case could be ascertained, and one is only justified in assuming that it is highly probable that the first case was the source of infection.

On May 15th, a case of Small-pox was discovered at another Common Lodging-house, but this was without doubt another importation of the disease, as he had arrived in Derby from the South only a day or two previous to notification, sickening from the attack.

On May 22nd, the series of cases to which a great part of all the subsequent cases are associated was discovered. A boy, aged 10, living in Carrington Street, and a girl, aged 13, living in Park Street, were both notified on that day, as suffering from Small-pox. The circumstances in connection with these cases led me to believe that they had been infected at Trinity Schools. I at once visited the schools, made enquiries, and examined the children in attendance. As a result of the examination, I discovered a girl, aged 13, suffering from Small-pox in the vesicular stage, and also a convalescent (case 412). This latter child—a girl—had sickened on April 29th or 30th. The early symptoms had been sufficiently acute to keep her from school for a few days, after which she resumed attendance, as the disease from which she had suffered was thought to have been chicken-pox. Where this child contracted her infection I am unable to state, but I thought that she had probably been in contact with the first case reported, as this man had been perambulating the streets in this neighbourhood on April 15th and fourteen or fifteen days afterwards—April 29th or 30th—the usual period of incubation of Small-pox, the patient was attacked with the disease. Enquiries had now to be made among children who were absent from school, and as a result of these visits, cases 415 and 419 were found to be absenting themselves from school on account of attacks of Small-pox. No doctor was treating either case. The next case notified was 421, and the manner in which this case was probably infected shows clearly the risks to which the public are exposed by these unrecognised cases. This patient was an elderly lady, living in the Green Hill District, who, owing to infirmity, rarely went out. She, however, attended divine service at the same chapel, on the same day, and only day, that case 412—the first unrecognised case from Trinity Schools—attended, at which time I consider case 412 was suffering from the disease. Cases 413, and 425 were notified on May 23rd

and 25th respectively they also were scholars attending Trinity Schools. Case 439 was a girl, aged 6, who had evidently been infected by case 412. This child had been ill for about 14 days when discovered on June 1st, the nature of her illness was again supposed to have been Chicken-pox ; this case and case 415, gave rise to a large number of subsequent cases. On June 6th, case 465 was discovered. This patient had suffered from the initial symptoms of Small-pox on May 15th, and the source of infection was again traced to case 412. In the house at the time of my visit I found one youth who was practically convalescent, and brothers in different stages of the disease.

Several other cases were notified from among scholars attending Trinity Schools other than those referred to above, the last being case 479, on June 12th. The disease then left that school and district and made the Orchard Street Schools the centre from which subsequent cases were to be reported.

Although it is impossible to trace any relationships between the Trinity School cases and those arising at Orchard Street, I am inclined to the belief that the first case in the latter group was infected by one of the earlier unrecognised cases at Trinity School. In both outbreaks the introduction of an unrecognised case into the school was the starting point of the series.

On or about May 15th, it appears that a boy named G.T., who lived in Goodwin Street, was attacked with what might have been the early symptoms of an attack of Small-pox. A rash followed on May 18th. This boy was taken to the school and seen by the schoolmaster, who sent him home. He was treated for a few days with some "home cure," and allowed to re-commence school on May 29th. On June 20th, I had occasion to visit Orchard Street Schools on account of certain cases of Small-pox being reported among the children in attendance at those schools, among the othrs, I examined this boy G. T., and had practically no doubt that he had passed through an attack of Small-pox. I also discovered that a patient whom I had removed to hospital on June 6th, and who lived at the opposite end of the town, at least two miles away, was the uncle of this lad, and that he had paid a visit to the boy's home on a day which would correspond with his having received the infection. This fact supported my diagnosis. In addition to this boy, I found two other children in attendance who were then in the convalescing stage, viz. : cases 504 and 509, both had been at school for some considerable time and neither

had been under medical treatment. Case 495 was a scholar in attendance at these schools, and he was reported the day before my visit to the Schools.

Following up the absentees, I found two other cases at the home of case 495, two sisters of case 504 were also at home in the acute stage, and on visiting case 510, who had been absent from school for some weeks, I found four other cases in different stages of illness, whilst later on several other cases were reported which had been probably infected by the first of this series.

Case 440 was removed to Hospital on June 1st and died from haemorrhagic Small-pox ; at the time I could not trace the infection, but as he lived in the Orchard St. School area, he was probably infected by one or other of the unrecognised cases.

Up to this stage the large majority of the cases notified were school children, and in nearly all cases the source of infection had been traced with a reasonable degree of certainty, but as always happens, this was impossible in some instances, typical examples of which were :—case 471, a woman, age 43, notified on June 7th ; case 478, a man, aged 46, notified on June 10th ; cases 529, 547, 555, and 561, whilst in addition, cases 487, and 503 were separate importations.

The remaining cases may be grouped into three separate localised outbreaks, the chief interest in respect to each was the growth of the series from mild unrecognised cases. The districts were Chester Green, Mundy Street, and Riddings Street, in each case there was some extension to a distant district owing to a contact who lived away from the infected area being attacked after a visit to the infected house. In none of these instances was there the same possibility of considerable extension as there was in the school cases. The last case was notified on August 28th ; the last case was discharged from Hospital on September 29th.

Age Incidence and condition as to Vaccination :—

The following Table sets out the age and sex of persons attacked and also their condition as to vaccination. Among the vaccinated are placed two males and two females who were stated to have been vaccinated in infancy, but no scars, indicating that the operation had been successfully performed, were discoverable, and among the unvaccinated is one male who was said to have been *un*successfully vaccinated in infancy :—

Sex.	Under 1 Year.	1 and under 5.	5 and under 10	10 and under 15	15 and under 20	20 and under 25	25 and under 35	35 and under 45	45 and under 55	55 and under 65	65 and under upwards.	Totals.	
Vaccinated	..	..	..	1	1	..	7	7	6	3	..	25	
Males ..													55
Unvacced.	2	1	10	12	1	2	2	..	..	..	..	30	
Vaccinated	..	..	..	2	3	4	4	9	2	1	2	27	
Females													57
Unvacced.	..	7	4	14	2	3	..	..	..	..	..	30	
Vaccinated	..	..	..	3	4	4	11	16	8	4	2	52	
Total ..													112
Unvacced.	2	8	14	26	3	5	2	..	..	..	..	60	

The tendency of Small-pox to keep among the class in which it arises is seen in most outbreaks and in the one under consideration children under the ages of 15 years contributed a majority of the cases until June, when the schools ceased to be the centre from which the disease was being disseminated, and individual homes took the place of them, then adults were attacked in greater numbers, but, notwithstanding this fact, children have been attacked in such considerable numbers that 53 cases were of 14 years and under, as against 59 among persons 15 years of age and over. This is a much greater proportion than last year, when the numbers were 65 and 137 respectively.

As regards the influence of vaccination it is not necessary to say more than that under the age of 15 years there were 53 attacks, of these 3 were vaccinated cases, so that if the disease had shown an equal incidence on vaccinated and unvaccinated alike, it would necessitate there being only one vaccinated child to every 18 unvaccinated, a proportion much less than that which actually exists.

The immunity of the Hospital Staff from this disease has also continued, whilst, on the other hand, an occasional new nurse continues to be attacked with Scarlet Fever when she has not been protected by a previous attack. These points dealing with the

preventive value of vaccination are referred to in detail in my last Annual Report.

Type of Disease.—As will have been gathered from the low case mortality—under two per cent.—the disease was again of an exceedingly mild type. Complications were uncommon and severe cases were rare, practically no great difference, which can be illustrated by a classification, can be shown between the cases which had been, and those which had not been, vaccinated.

There is no doubt that this mildness in type was responsible, in some measure, for the considerable number of unrecognised cases which were discovered, and the errors in diagnosis which resulted. Among the former the premonitory illness in some cases had been severe and in others it had passed practically unobserved, and among the latter the disease was most frequently mistaken for varicella, but as illustrating the difficulties which surround outbreaks of mild Small-pox, and the absolute necessity of examining all cases before admission, I found the following conditions caused difficulties in diagnosis :—Varicella, Measles, Sudamina, Syphilis, Impetigo, Pemphigus.

The following Table shows the type of the disease, subdivided into classes, according to the condition as to vaccination :—

Vaccination.	Discrete modified.	Discrete natural.	Severe Discrete.	Semi-Confluent.	Confluent.	Not Small-Pox	Totals.
Vaccinated at the time of exposure	6	39	1	1	1	—	48
Stated to have been Vaccinated, but showing no scar . .	—	4	—	—	—	—	4
Unvaccinated at the time of exposure	—	57	—	2	1	1	61
Totals . .	6	100	1	3	2	1	113

In the Report of the year 1903, the method of dealing with Small-pox cases was fully described. A few variations from the practice

therein set out, and suggested improvements are contained in the Report for 1904. This year no alterations have been made in the routine. In addition to the defects to which reference has been made, I have only to state that the removal of contacts in an open float has frequently been productive of considerable criticism and in some instances a hindrance to smooth working has resulted. This defect has been brought to the notice of your Committee, and in future I think that a properly covered conveyance should be purchased for this particular part of the work. I must again express my indebtedness to the District and Special Inspectors for the additional energies which they displayed when the stress was greatest, which energies obviated the employment of additional assistance ; and to the Staff at the Hospital for their loyal observance of special regulations and I have again to record that in no instance was infection from the Hospital found or even suggested ; and to the Clerks in the Health Department who were called upon to perform extra office duties, the time for which was most ungrudgingly given. In recognition of these various extra services the grants to the Office Staff, and the additional pay to the Hospital Staff, were much appreciated, such recognition of services will always result in extra work being cheerfully and efficiently executed.

Vaccination :—

During the years 1903 and 1904, when the number of cases of Small-pox was fairly large, the number of vaccinations showed a considerable increase, and—for Derby—the high proportion of 48 per cent. of all available children was vaccinated. This increase had been going on irregularly since 1897, during which year the low number of only 6 per cent. was recorded. Although Small-pox was present in the town during 1905, the number of vaccinations showed a distinctly decreasing tendency, the percentage having fallen from 48 to 31.

I am indebted to Mr. Payne, Vaccination Officer, for the information from which the following Table has been prepared :—

TABLE **VIII.**—*Showing the percentage of successful Vaccinations in the Borough of Derby for the* 11 *years*, 1873-83, *and for each year from* 1884-1905.

Year.	Births.	Died un-vacci-nated.	Insus-ceptible and postponed.	Total available Children.	Success-fully Vaccinated	Percentage of Children Vaccinated.
11 Years 1873-83	31,011	3,767	180	27,244	24,723	90.7
1884	2,882	356	7	2,526	1,673	66.
1885	2,904	337	44	2,567	2,151	83.
1886	2,896	328	39	2,568	2,363	92.
1887	2,673	281	30	2,392	2,209	92.
1888	2,720	306	47	2,414	2,186	90.
1889	2,707	314	12	2,393	2,032	84.
1890	2,597	289	4	2,308	1,893	82.
1891	2,914	368	5	2,546	1,681	66.
1892	3,015	428	5	2,587	1,134	43.
1893	3,142	420	4	2,722	737	27.
1894	2,934	345	2	2,589	453	17.
1895	2,941	454	4	2,487	283	11.
1896	2,876	406	3	2,470	210	8.
1897	2,826	430	1	2,396	145	6.
1898	2,869	389	0	2,480	330	13.
1899	3,000	475	292	2,525	784	31.
1900	2,935	488	78	2,447	432	18.
*1901	3,046	449	158	2,597	796	31.
*1902	3,277	388	15	2,874	1,137	40.
*1903	3,244	377	159	2,708	1,307	48.
*1904	3,318	445	125	2,748	1,339	48.
*1905	3,129	453	13	2,663	814	31.

*Added area included.

Mr. W. H. Whiston informs me that the number of exemption certificates granted under the Vaccination Act during the year 1905 to persons resident within the Borough was 440, as compared with 220 in 1904. There were 10 certificates granted to persons residing outside the Borough of Derby, as compared with 8 in the previous year.

Scarlet Fever :—

Mortality from Scarlet Fever during the past five years.

Year.	Ten Years' Average.	1901.	1902.	1903.	1904.	1905		
						Derby.	England and Wales	76 Great Towns.
Rate per 1,000.	0.13	0.17	0.07	0.07	0.03	0.09	0.11	0.13

The number of cases of Scarlet Fever notified during the year was 541, as compared with 638 in 1904, and 185 in 1903. The disease showed an almost equal incidence on all parts of the town, and if any districts can be singled out as having given rise to the greatest number of cases, Arboretum and Friar Gate Wards would be selected. From within the boundaries of these divisions notifications referring to 68 and 65 cases respectively were received. Osmaston Ward with 49 cases, and King's Mead Ward with 41 cases, were the districts with the next greatest number. The disease continued of a mild type throughout the year, and only nine deaths resulted which is equal to a case mortality of under two per cent., and a general mortality rate of 0.09 per 1,000 of the population. Although this is a slightly higher rate than in the three preceeding years it is very satisfactory and compares favourably with the ten years' average, and with the mortality recorded in England and Wales as a whole, and in the 76 Great Towns.

The disease showed the greatest incidence upon persons between the ages of 5 and 15. Considerably more than half—332—were of children of these ages. Children between the ages of 1 and 5 contributed 145 of the cases, and under one year there were only 3 attacks. Persons between 15 and 25 years were attacked to the number of 46, and over that age there were another 15 cases.

It was not found possible to remove to the Isolation Hospital the large porportion of cases which is usual in this town, owing to the Hospital being used during several months for the treatment of Small-pox cases. 194 cases were, however, treated in the Borough Hospital, and among these there were 5 deaths, which represents a case mortality of practically 2.5 per cent.

Measles :—

Mortality from Measles during the past five years.

Year.	Ten Years' Average.	1901.	1902.	1903.	1904.	1905.		
						Derby.	England and Wales	76 Great Towns.
Rate per per 1,000	0.27	0.00	0.33	0.04	0.12	0.37	0.32	0.39

The mortality from Measles was higher during 1905 than in any year since 1900. There were 45 deaths registered, representing a mortality of 0.37 per 1,000 of the population. Comparisions

with previous years and with England and Wales are shown in the above summary. Of the 45 deaths, 43 occurred among children under the age of 5 years. Under one year of age there were 10 deaths, and between one and 5 years, there were 33.

The action taken to check the spread of the disease is detailed in the report of school work, for it is from the teachers of the elementary schools that the chief knowledge of the existence of this disease is obtained.

The toll paid by children under 5 years of age to this disease is enormous, since it exceeded the aggregate of deaths from Small-pox, Scarlet Fever, Whooping Cough, Diphtheria, Croup, Typhoid Fever, and Influenza. Hundreds of circulars were sent to homes where Measles was known to exist, drawing the parents' attention not only to the danger which results from cases of Measles being carelessly treated, but to the dangers to which healthy children are submitted by careless exposure of children in an infected condition, and in numerous cases the suggestions and advice were, I fear, ignored, and I can only attribute such culpable negligence to ignorance. The impression seems to exist among a certain class of people that every child *must* have Measles, and the sooner it takes the disease and gets over it the better for all concerned. If parents would only recognise that Measles is most fatal during the earlier years of life, and that with every year which a child passes through without taking the disease its chances of being attacked are being lessened, and if attacked, its chances of recovering are being rapidly increased, I am sure that greater care would be exercised in preventing children being unnecessarily exposed to risks when so suffering, and at the same time safe-guarding healthy children by requiring a proper home isolation of the unfortunate sufferers.

Whooping Cough :—

Mortality from Whooping Cough during the past five years.

Year.	Ten Years' Average.	1901.	1902.	1903.	1904.	1905.		
						Derby.	England and Wales.	76 Great Towns.
Rate per 1,000	0.28	0.28	0.25	0.27	0.23	0.17	0.25	0.29

There were 20 deaths attributed to Whooping Cough, as compared with 28 in the previous year. The rate is well below the ten years'

average, and also the rate for the five previous years. The deaths all occurred among children under five years of age, and 11 were under the age of one year. Practically no district was free from the disease, though there was less in Osmaston Ward than in most of the others. The usual precautionary measures have been taken when cases have come to my knowledge, and, as in Measles, I am indebted to the School Teachers for the notification of these cases.

Diarrhœa :—

Mortality from Diarrhœa during the past five years.

Year.	Ten Years' Average.	1901.	1902.	1903.	1904.	1905.		
						Derby.	England and Wales	76 Great Towns.
[Rate per 1,000	0.80	0.99	0.39	0.38	0.68	0.61	0.59	0.83

The deaths from Diarrhœa numbered 73, as against 82 in the previous year. 55 of these deaths were of children under one year of age, whilst twelve others were among children under the age of five. The mortality rate is thus 0.6 per 1,000, which is less than the ten years' average, and also considerably less than the rate recorded in the 76 Great Towns. It is about equal to the rate for the country as a whole. In addition to these deaths there were 15 deaths registered as due to Enteritis, 8 of these being of infants under one year. of age. The usual preventive measures which have been fully discussed in previous reports, have been continued.

Diphtheria :—

Mortality from Diphtheria during the past five years.

Year.	Ten Years' Average.	1901.	1902.	1903.	1904.	1905.		
						Derby.	England and Wales	76 Great Towns.
Rate per 1,000	0.11	0.19	0.10	0.07	0.25	0.19	0.16	0.16

During the year 1905, there were notified 277 cases of Diphtheria with 23 deaths ; the death-rate was therefore equal to 0.19 per 1,000. The rate of mortality is less than in the previous year, this diminuation is, however, not due to lessened prevalence, but to a lessened case mortality ; in the year 1904 there were 29 deaths among 150 cases, which is equivalent to 19.4 per cent., as compared with 8.3 per cent.—less than half—in the year under consideration.

Whatever the influences may have been which have tended to confer upon this town that comparative freedom from Diphtheria which it has during recent years enjoyed, indications are not wanting to show that they are now being replaced or overpowered by other and adverse conditions, the tendency of which is in the direction of causing a marked increase in the prevalence of this disease. This is clearly seen from the following Diphtheria statistics relating to the years 1881-1905.

Year.	Cases of Diphtheria Notified.	Case Incidence per 1,000 of the Population.	Deaths.	Case Mortality per cent.
1881	6	0.08	2	33.3
1882	10	0.13	3	30.0
1883	8	0.10	1	15.5
1884	1	0.02	1	..
1885	1	0.02	0	nil.
1886	6	0.07	2	33.3
1887	27	0.31	7	26.0
1888	23	0.26	7	30.5
1889	46	0.51	19	41.4
1890	81	0.87	20	24.7
1891	66	0.71	17	25.8
1892	67	0.71	20	29.9
1893	50	0.52	6	10.8
1894	46	0.47	5	10.9
1895	43	0.44	6	14.0
1896	45	0.45	10	22.2
1897	57	0.57	9	15.8
1898	74	0.73	9	12.2
1899	60	0.58	8	13.3
1900	52	0.41	7	13.5
1901	74	0.70	20	27.0
1902	63	0.54	12	19.0
1903	83	0.70	3	3.6
1904	150	1.25	29	19.4
1905	277	2.27	23	8.3

From this Table it is quite clear that during the last two years the number of cases per 1,000 of the population has shown a marked increase. The total number of cases, even when due allowance is made for the increased population, is greater than in any year since the notification of infectious diseases has been obligatory. The Table shows in addition that the years 1889 to 1892 were years in which there was an amount of Diphtheria in excess of normal. This fact is more clearly brought out by noting the number of deaths rather than the number of notifications. It is, I think, quite possible that all the cases were not notified in those years, as the case fatality is so high, but whether that be so or not, the tendency of the disease to show during a period of four years a comparative excessive incidence, agrees with the experience of most towns, that when epidemics of Diphtheria occur they tend to extend over a period of three or four years before declining. This has been clearly shown in a Table prepared by Dr. Armstrong, Medical Officer of Health for Newcastle-on-Tyne, from which the statistics relating to the following towns are taken :—

Cases notified in the under-mentioned towns during the years 1894–1904.

	1894	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	Total
Derby ..	46	43	45	57	74	60	52	74	63	83	150	747
Leicester ..	66	75	170	229	218	892	1452	1034	320	211	97	4764
Oldham ..	67	70	61	38	39	71	94	56	187	201	158	1042
Swansea ..	23	31	29	44	503	837	494	189	199	13	216	2708
Blackburn ..	40	31	25	15	77	229	334	284	83	132	60	1310
Cardiff ..	326	229	296	512	940	628	706	724	686	438	389	5874

If Derby is going to follow the experience of many of the other large towns and its own past experience, a period of two or three more years of excessive Diphtheria prevalence may be expected, and attention must be given to the causes which tend to assist the dispersion of infection, so that appropriate measures, if any are available, may be taken to minimise that tendency.

The mortality from the disease calls for some notice. It will be seen from the above table that there are extremely wide variations in the case fatality, and, as I have already stated, part of the varia-

tion between the earlier and the later periods may be due to differences in the completeness of the notifications. This deficiency, if it exists, will be in the direction of increasing the case fatality in the earlier years. The lowest mortality does not coincide with the year of least prevalence, for in 1903 with an incidence of 0.7 per 1,000 of the population (83 cases) there were only 3 deaths, whilst in 1901, with the same attack rate (74 cases) there were 20 deaths ; to what cause this variation in case fatality is to be attributed I am unable to say.

Referring to the causes which contribute to the spread of the disease, the following appear to me to be the most important in this town.

1. Unrecognised Cases.—The type of disease which has been prevalent has varied in severity, in some instances being exceedingly severe with grave symptoms, often resulting in a fatal issue, developing at an early stage, in others nothing has been noticed except slight febricula, associated with an inflammatory condition of the mucous membrane of the throat and tonsils. Even these symptoms were frequently of a most transient character, not persisting in some cases for more than 24 to 36 hours. The mild cases then were in a preponderating majority, and, as must happen under such conditions, many defied a positive opinion being expressed by even skilled observers without the assistance of a bacteriological examination of the material which could be scraped from the mucous membrane of the throat. Under these circumstances it is not surprising that persons who are not in a pecuniary position which will enable them to call in the assistance of a medical man immediately they or their children develop symptoms of feverishness, should regard the illness as unimportant and of no consequence. In such instances the patient is almost immediately allowed his or her liberty, the interval being in the majority of the cases too short to rid the throat of infection. The real nature of the illness is frequently only recognised when some other member of the family or a neighbour is attacked by a more severe type of the same disease.

2. School Influence.—From what has been stated of the means of spread of the disease from person to person, it is obvious that in schools the most favourable conditions for this means of extension are to be found. I have in several instances traced small outbreaks to school association, and in a few instances I have been able to discover the child which was disseminating the infection, with

the result that the exclusion of the patient was followed by a cessation of cases.

The School grouping of cases is illustrated in the appended tabulation, and it will be seen that at the Practising School there was the most serious outbreak. In this instance a large number of children were reported to be away ill with sore throats. I visited all absentees and discovered among them several cases of Diphtheria, which were not under treatment, the diagnosis in several instances being confirmed by a subsequent bacteriological examination. In one or two houses there was a child suffering from Diphtheria, and one or other members of the same family gave a history of sore throat, which necessitated absence from school for a day or two and then return, no doubt mild Diphtheria. I examined the throats of the children who were in attendance at this school and who recently had been absent owing to indefinite throat illness, and although several showed congested throats only in one instance was the diphtheria bacillus discovered. It will be observed that between March 25th and April 3rd, thirteen scholars from this school were discovered suffering from Diphtheria, but the visitation of absentees and the exclusion of doubtful cases resulted in the outbreak being quickly got under control.

A similar outbreak, with almost identical details, history of sore throats, children ill at home and no doctor in attendance, others in the same house convalescent from sore throats, and one or two children at school with the infection still present in the nose or throat, was investigated at St. Mark's School, with a similar rapid improvement following on an investigation into the cause of absence of the absentees.

In other instances there was not this explosive outbreak, but cases were continually arising among the scholars at fairly lengthy intervals; such were the cases reported among the children attending St. James's Higher Grade Girls' and the Ashbourne Road Schools, from January to the middle of May. These illustrations are sufficient to show how the schools increase the number of cases when other conditions are favourable to the spread of the disease and they likewise show the good results which ensue from investigating the cause of absence of children reported as sick when any doubt exists as to the nature of the illness from which they are suffering.

TABLE IX—Incidence of Diphtheria cases on the Scholars attending the various Schools in the Borough.

St. James' Council.		St. Peter's.		Ashbourne Road.		St. Mark's.		Parliament Street.		St. Anne's Boys'.	
No.	Date.	No.	Date.	No.	Date.	No.	Date.	No.	Date.	No.	Date.
922	10 Nov.	921	10 Nov.	919	10 Nov.	918	10 Nov.	904	8 Nov.	893	7 Nov.
901	7 Nov.	—	—	908	8 Nov.	910	7 Nov.	895	6 Nov.	57	18 Jan.
898	6 Nov.	—	—	832	22 Oct.	894	7 Nov.	331	25 April	—	—
875	4 Nov.	—	—	792	9 Oct.	872	2 Nov.	—	—	—	—
864a	31 Oct.	—	—	400	19 May	856	30 Oct.	—	—	—	—
845	27 Oct.	—	—	394	17 May	851	28 Oct.	—	—	—	—
711	6 Sept.	—	—	362	7 May	847	27 Oct.	—	—	—	—
263	31 Mar.	—	—	348	2 May	206	13 Mar.	—	—	—	—
259	30 Mar.	—	—	325	20 April	—	—	—	—	—	—
194	9 Mar.	—	—	184	7 Mar.	—	—	—	—	—	—
175	3 Mar.	—	—	179	4 Mar.	—	—	—	—	—	—
—	—	—	—	93	31 Jan.	—	—	—	—	—	—
—	—	—	—	63	20 Jan.	—	—	—	—	—	—
—	—	—	—	58	19 Jan.	—	—	—	—	—	—
—	—	—	—	53	16 Jan.	—	—	—	—	—	—
—	—	—	—	2	1 Jan.	—	—	—	—	—	—
AVERAGE ATTENDANCES MARCH, 1905.											
1920		278		1,646		265		210		176	
Case Incidence per 1000 Attendances.											
5.7		3.6		9.8		30.2		14.3		11.4	

St. Anne's Girls' and Infants'.		St. Alkmund's.		All Saints.		St. James' H. G. Girls' and Infants'.		St. Luke's.		St. Thomas'.	
No.	Date.	No.	Date.	No.	Date.	No.	Date.	No.	Date.	No.	Date.
312	12 April	877	3 Nov.	876	3 Nov.	862	31 Oct.	858	31 Oct.	849	27 Oct.
—	—	780	4 Oct.	—	—	751	22 Sept.	842	26 Oct.	838	24 Oct.
—	—	—	—	—	—	740	19 Sept.	482	13 June	747	20 Sept.
—	—	—	—	—	—	684	19 Aug.	—	—	—	—
—	—	—	—	—	—	641	1 Aug.	—	—	—	—
—	—	—	—	—	—	636	31 July	—	—	—	—
—	—	—	—	—	—	552	5 July	—	—	—	—
—	—	—	—	—	—	519	21 June	—	—	—	—
—	—	—	—	—	—	274	3 April	—	—	—	—
—	—	—	—	—	—	261	30 Mar.	—	—	—	—
—	—	—	—	—	—	84	29 Jan.	—	—	—	—
—	—	—	—	—	—	24	6 Jan.	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—

Average Attendances, March, 1905					
264	210	361	438	576	165
Case Incidence per 1000 Attendances					
3.8	9.6	2.8	27.4	5.3	18.2

Canal Street.		St. John's.		Firs Estate.		St. Joseph's.		St. Mary's.		Training.	
No.	Date.	No.	Date.	No.	Date.	No.	Date.	No.	Date.	No.	Date.
848	27 Oct.	835	23 Oct.	825	19 Oct.	812	14 Oct.	799	12 Oct.	788	6 Oct.
244	22 Mar.	816	16 Oct.	811	14 Oct.	—	—	—	—	269	3 April
—	—	790	9 Oct.	431	27 May	—	—	—	—	253	28 Mar.
—	—	—	—	376	12 May	—	—	—	—	252	28 Mar.
—	—	—	—	244	26 Mar.	—	—	—	—	251	28 Mar.
—	—	—	—	149	18 Feb.	—	—	—	—	250	28 Mar.
—	—	—	—	143	15 Feb.	—	—	—	—	249	28 Mar.
—	—	—	—	65	20 Jan.	—	—	—	—	248	28 Mar.
—	—	—	—	56	18 Jan.	—	—	—	—	247	28 Mar.
—	—	—	—	—	—	—	—	—	—	240	25 Mar.
—	—	—	—	—	—	—	—	—	—	234	26 Mar.
—	—	—	—	—	—	—	—	—	—	233	26 Mar.
—	—	—	—	—	—	—	—	—	—	232	25 Mar.
—	—	—	—	—	—	—	—	—	—	231	25 Mar.
—	—	—	—	—	—	—	—	—	—	85	29 Jan.
—	—	—	—	—	—	—	—	—	—	64	21 Jan.

Average Attendances, March, 1905.					
550	509	1,433	246	368	321
Case Incidence per 1000 Attendances.					
3.7	5.9	6.3	4.1	2.8	49.9

Pear Tree Council.		Orchard Street.		St. James' H.G. Boys'.		St. Paul's.		St. Andrew's.		Brighton Road.	
No.	Date.	No.	Date.	No.	Date.	No.	Date.	No.	Date.	No.	Date.
785	5 Oct.	772	1 Oct.	707	5 Sept.	685	20 Aug.	545	2 July	485	14 June
770	30 Sept.	—	—	654	4 Aug.	300	11 April	349	3 May	323	19 April
484	14 June	—	—	382	12 May	208	14 Mar.	308	13 April	273	3 April
477	10 June	—	—	221	20 Mar.	—	—	282	6 April	272	3 April
377	12 May	—	—	60	19 Jan.	—	—	277	5 April	271	3 April
360	7 May	—	—	—	—	—	—	235	26 Mar.	172	2 Mar.
296	10 April	—	—	—	—	—	—	76	26 Jan.	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—

Average Attendances, March, 1905.					
1,096	318	492	595	421	659
Case Incidence per 1000 Attendances					
6.4	3.2	10.2	5.1	16.7	9.2

Gerard Street.		Trinity.		Abbey Street.		Traffic Street.		Osmaston Council.		Christ Church.	
No.	Date.	No.	Date.	No.	Date.	No.	Date.	No.	Date.	No.	Date.
239	25 Mar.	215	15 Mar.	161	23 Feb.	146	16 Feb.	25	6 Jan.	1015	5 Dec.
168	28 Feb.	180	4 Mar.	—	—	—	—	—	—	—	—
82	28 Jan.	36	11 Jan.	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
AVERAGE ATTENDANCES, MARCH, 1905.											
879		504		—		657		704		504	
Case Incidence per 1000 Attendances;											
3.5		6.0		—		1.6		2.5		1.99	

Curzon Street.		Nun Street	St. Chad's	St. Dunstan's.	Special.	Diocesan.		Alvaston Village.		Chaddesden.	
No.	Date.					No.	Date.	No.	Date.	No.	Date.
1062	19 Dec.	*Nil.*	*Nil.*	*Nil.*	*Nil.*	245	27 Mar.	346	30 April	74	25 Jan.
—	—	—	—	—	—	—	—	—	—	1027	6 Dec.
—	—	—	—	—	—	—	—	—	—	1042	12 Dec.
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—

						Average Attendances, March, 1905.	
299		560	548	396	73	—	—	—	—
						Case Incidence per 1000 Attendances.	
		—				—	—
3.35		—	—	—	—	—	—	—	—

3. ISOLATION.—The value of the isolation of Diphtheria cases in controlling outbreaks depends upon the completeness of the isolation and the duration. Unless efficient isolation is practised it is not surprising that some extension follows at any rate among the rest of the patient's family, and, unfortunately, owing to the limited accommodation for Diphtheria which is provided in this town, by far the larger number of cases must be treated at home, which means inefficient isolation. No matter how willing people may be, the best that can be done in many instances is only an apology for isolation, whilst in other cases I fear there is not even a pretence. This, as I have suggested, would affect principally the occupants of the house, but when the duration of the isolation is too short, danger threatens the neighbours, for if the patient is allowed out of the house before the throat is free from infection, the neighbours' children become associated with the patient and they are thus exposed to considerable risk. This tendency to premature removal of restrictions was also noticed among cases under medical treatment; the period between notification and the receipt of the medical certificate was frequently so short that I obtained the consent of the Sanitary Committee to investigate this suggestion by forwarding swabbings from the throats of convalescents for bacterological examination when the medical man would oblige by taking such. This was very rarely refused, and the following Table shows the results in all cases, the isolation of which was under three weeks, except those where the report stated "no growth has been obtained," which are excluded from the summary.

Progressive number of the Case.	Date of Notification.	Date of Receipt of Disinfection Certificate.	Interval in Days.	REPORT.
245	27 Mar.	11 April	15	Negative.
*261	30 Mar.	18 April	19	Short Diphtheria Bacilli.
*269	3 April	19 April	16	A few suspicious Bacilli.
271	3 April	10 April	7	Negative.
*272	3 April	10 April	7	Diphtheria Bacilli (chiefly short form) found.
281	6 April	26 April	20	Negative.

Progressive number of the Case.	Date of Notification.	Date of Receipt of Disinfection Certificate.	Interval in Days.	Report.
282	6 April	26 April	20	Negative.
293	10 April	19 April	9	Negative.
*301	11 April	19 April	8	Diphtheria Bacilli found.
308	13 April	2 May	19	Short Diphtheria Bacilli found.
312	12 April	1 May	19	Short Diphtheria Bacilli found.
325	20 April	8 May	18	Negative.
331	25 April	10 May	15	Negative.
378	12 May	25 May	13	Negative.
422	25 May	8 June	14	Negative.
431	27 May	13 June	17	Negative.
485	24 June	29 June	15	A few short Diphtheria Bacilli found.
*519	21 June	4 July	13	Diphtheria Bacilli found.
*545	2 July	17 July	15	A few short Diphtheria Bacilli found.
894	6 Nov.	16 Nov.	10	Negative.
896	7 Nov.	15 Nov.	9	Negative.
*910	7 Nov.	27 Nov.	20	Diphtheria Bacilli found.
*931	12 Nov.	30 Nov.	18	Diphtheria Bacilli (chiefly short form) found.
975	27 Nov.	17 Dec.	20	Negative.
982	28 Nov.	14 Dec.	16	A few Diphtheria Bacilli found.
983	29 Nov.	13 Dec.	14	Short Diphtheria Bacilli found.
984	28 Nov.	6 Dec.	8	Negative.
986	29 Nov.	12 Dec.	13	A few Diphtheria Bacilli found.
996	1 Dec.	8 Dec.	7	Short Diphtheria Bacilli found.
1023	6 Dec.	27 Dec.	21	Negative.
1042	12 Dec.	21 Dec.	9	A few Diphtheria Bacilli found.

In addition, further swabbings were taken from certain of the above cases, with the following results :—

Case 261.—Further swabbings on May 2nd, May 24th, and June 16th were reported upon as follows :—" A few suspicious short bacilli found," " A few doubtful short Diphtheria bacilli found," " Diphtheria bacilli (short form) found."

Case 269.—Negative result from swabbing taken May 2nd.

Case 272.—The following reports were made on further swabbings, taken on April 23rd and 28th : " Diphtheria bacilli found," " Short Diphtheria bacilli found."

Case 301.—A negative result was obtained from a swabbing taken on May 2nd.

Case 519.—A negative result was obtained from a swabbing taken on July 18th.

Case 545.—Further swabbings were taken from this case on August 4th and September 2nd ; in the latter case no growth was obtained, but in the former " Short bacilli were found."

Case 910.—Further swabbings were sent for examination on December 12th and 19th, with the result that " short Diphtheria bacilli were found " on the first and a negative result was obtained on the second.

Case 931.—A swabbing sent on December 9th gave a negative result.

The above results are sufficiently serious to justify a request being made for restrictions not to be removed in cases of Diphtheria until at least three weeks have elapsed from the onset of symptoms, unless a bacterological examination has shown the throat to be free from infection. Out of thirty-one swabbings, 15 gave a positive result, and one was doubtful, whilst the remaining 15 were negative ; but in these latter cases it must be remembered that no bacteriological examination was made at the commencement of the illness to confirm the diagnosis, so that among these there are possibly some errors, but, even if none were made, the fact that 50 per cent. of the above cases were in a more or less infectious condition at the time the patient was thought to be convalescent, is sufficient justification for making the above rule.

In suggesting a cause for the spread of diphtheria infection, the personal factor is, in my opinion, the most important. Although

this is undoubtedly the case at present, it is difficult to suggest any satisfactory reason why it should be such a prominent factor now as compared with the years 1893 to 1900. During these periods Diphtheria was never quite absent from the town. It was associated with a case fatality which was exceedingly low, if that can be regarded as an indication of mildness of type, and I do not see why it should not be, there must have been in those years cases equally mild with those noted to-day. There were likewise the same facilities for extension as the number of susceptible persons has not decreased to any considerable extent in consequence of previous attacks, and yet the disease did not extend.

Whatever the fundamental conditions may be which result in the tendency to increased prevalency, I am satisfied that insanitary conditions are not the cause. The disease has made its appearance in some of the best class houses and in the large majority of instances no defects were reported, neither was the disease most prevalent in what are rightly recognised as the least salubrious districts.

In regard to preventive measures, the following are the lines which would appear to offer the best scheme of successfully dealing with the outbreak :—

1.—All cases of doubtful throat illness should be carefully watched, and swabbings examined bacteriologically. In the past very little work of this kind has been done in this town owing to the fact that it has not been necessary, but, during the past year, 36 swabbings, taken for the purpose of confirming the diagnosis, were sent to Professor Delépine, Manchester, for examination ; in 14 instances the diphtheria bacillus was found, in 18 it was not, and in 4 there was no growth from the specimen.

2.—Additional use should be made of the bacteriological test for ascertaining whether the throat is clear from infection. 65 swabbings were examined to confirm convalescence, in 23 instances bacilli were still present ; in 28 they were absent, and in 4 cases there was no growth from the specimen. The importance of the requirement is obvious from these figures.

3.—The isolation which is practised at home should be more complete, and parents ought to give more intelligent assistance to the Health Officials. The difficulties which arise are in respect of those cases which have a slight initial illness and are apparently well in a few days ; it becomes almost a matter of impossibility to convince those in charge of such children that the patients are not quite free from infection, or perhaps that they have ever suffered from Diphtheria.

4.—In schools extra attention should be paid to the children, particularly those who show symptoms of sore throat or an acrid discharge from the nostrils; all such should be sent home till the child has been examined by a medical man.

5.—A discussion of the treatment of the disease would hardly be a suitable subject for this Report, although it has some bearing on prevention; but the fact that the Sanitary Committee supply anti-toxin free for use in necessitous cases, will, perhaps, provide me with a reason for stating that in my opinion the statistics relating to the treatment of Diphtheria by anti-toxin are so convincingly in favour of this method of treatment, and that its value is so enormously enhanced by its early use, that anti-toxin ought to be used immediately there is reasonable justification for assuming that the case is one of Diphtheria. During the year 1905, 65 vials of anti-toxin were given to medical practitioners, each containing 2,000 units, as well as 3 containing 1,500 units.

Enteric Fever :—

Mortality from Enteric Fever during the past five years.

Year.	Ten Years' Average.	1901.	1902.	1903.	1904.	1905.		
						Derby.	England and Wales	76 Great Towns.
Rate per 1,000	0.17	0.20	0.12	0.06	0.05	0.08	0.09	0.08

There were 41 cases of Enteric Fever notified during the year, and one case of Continued Fever. The latter case proved fatal, as also did 9 of the former. The death-rate from this disease is, therefore, 0.08 per 1,000 of the population, as compared with 0.05 in the previous year. Although the death-rate is higher than in the two previous years there has been a further gratifying decline in the number of notified cases; the higher rate of mortality being due to a worse type of disease and a consequent higher case fatality. In last year's Report I wrote as follows :—" Prior to the year 1903, I have always had the disagreeable duty of directing attention to the fact that the death-rate from Enteric Fever in Derby was much higher than that recorded in England and Wales, and that this high death-rate from what is regarded as the best example of a filth disease had an increased importance because the death-rate from " all causes " compared favourably with the rate recorded in the

country as a whole." It is extremely satisfactory to be able to report a further decline and the following summary, relating to the years since 1898, shows that the decline in the number of notifications of cases of this disease—from which are excluded all non-residents brought to the Infirmary for treatment—has been practically a progressive one.

Year.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.
Number of Cases ..	139	128	102	108	82	62	54	41

I have again given a tabulation of the cases of the disease according to their probable cause of origin, and once more the number of cases occurring in houses where more or less gross sanitary defects were discovered is considerable. Except for the fact that cases which are due to direct infection are proportionately large the cases call for no other comment.

TABLE IX.—An analysis of the cases of Enteric Fever notified during the year 1905.

A.—*Cases in which Sanitary defects were prominent.*

Progressive No.	Age	Sex	Sanitary Conveniences.				Nuisances.	Remarks.
			W.C.	Pail.	Privy.	Privy Cesspool.		
111	23	M.	..	..	1	..	Privy and Ashpit.	Resident 15 years in this house.
257	23	F	..	..	1	..	Privy and Ashpit.	
280	71	M.	1	..	..	..	Bad leakage of sewage into cellar of this house 3 months ago	Cellar dry at time of outset of disease.
347a	37	M.	1	..	..	..	Recently engaged on offensive work.	Enteric in this house eight years ago.
361	50	M.	..	1	..	..	Pail Closet.	
366	58	F.	..	1	..	..	Defective gully and channel.	
444	22	M.	..	..	1	..	Privy and Ashpit.	Three years resident in this house.
524	25	F.	..	1	..	..	Pail Closet.	Five Months ,, ,,
551	5	M.	..	1	..	..	Pail Closet.	Twelve months ,, ,,
623	28	M.	..	..	1	..	Privy and Ashpit.	27 Years ,, ,,
631	13	F.	..	..	1	..	Privy. Complained of offensive Street gullies.	
663	19	M.	..	..	1	..	Offensive Street Gully.	
674	27	M.	..	..	1	..	Offensive Privy and Ashpit.	Dates illness from emptying of privy vault.
697	25	M.	..	1	..	..	Pail Closet.	House without thorough ventilation.
699	23	M.	..	1	..	..	Pail Closet.	15 Years resident in this house.
732	4	F.	..	..	1	..	Privy & Ashpit drains in adjoining property recently blocked	Sewage flooded cellar.
776	14	M.	..	..	1	..	Offensive Privy and Ashpit. Iron **D** traps to drains. No interception.	One month in house.
906	53	M.	..	1	..	..	Pail. Iron **D** trap. No interception.	Six months in this house.
154	32	F.	..	..	1	..	Note Privy and Ashpit.	Nursed mother through illness. Cancer.

B.—*Cases in which direct infection was the probable cause.*

Progressive No.	Age	Sex	Sanitary Conveniences. W.C.	Pail.	Privy.	Privy Cesspool.	Nuisances.	Remarks.
585	2½	M.	..	1	..	..	Note Pail.	Mother recently removed to Hospital with Enteric Fever.
741	25	F.	1	..	..	..	.. .. ..	Nurse recently nursed Enteric.
769	40	F.	1	..	..	..	.. .. ..	From son-in-law, 697.
782	8	M.	1	..	..	..	.. .. ..	From above case, 769.
783	43	F.	..	1	..	..	.. .. ..	From case 697.
784	24	F.	..	1	..	..	.. .. ..	From nursing husband, 697.
965	30	F.	1	..	..	..	.. .. ..	Nurse. Recently nursing Enteric.
1036	7½	F.	1	..	..	..	.. .. ..	Case of acute Diarrhœa next door.

C.—*Eating of Shell-fish probable cause.*

913	53	M.	1	..	..	..	None.	Partook of mussels three weeks prior to notification and not well since.
1005	65	M.	1	..	..	..	None.	Partook of mussels three weeks prior to notification and had Diarrhœa since.

D.—*Other Cases.*

90	54	F.	1	..	..	..	No Complaints.	
203	39	M.	1	..	..	..	No Complaints.	Public House.
374	35	M.	1	..	..	..	No Complaints.	
404	6	F.	1	..	..	..	No Complaints.	Anæmic.
560	28	F.	1	..	..	..	Softwater Cistern required cleansing.	
645	18	M.	1	..	..	..	No Complaints.	
668	28	M.	1	..	..	..	No Complaints.	
692	32	M.	1	..	..	..	No Complaints.	
781	10	M.	1	..	..	..	No Complaints.	
1031	42	F.	1	..	..	..	No Complaints.	Recent sufferer from Influenza.
236	32	M.	..	..	..	..		Stranger to Derby and brought to Infirmary for treatment.
526	15	M.	..	..	..	..		,, ,, ,, ,,
13	9	M.	..	..	..	..		Apparently developed Enteric whilst convalescing from Diphtheria at the Infirmary.

Puerperal Fever.—There were 13 cases of Puerperal Fever notified, among which there were 4 deaths, as compared with 16 notifications in the previous year and 10 deaths. The usual precautionary measures have been continued, which include the disinfection of the clothing of the midwife in attendance on the case, and also the disinfection of the midwive's residence.

Midwives' Act. 1902.—In accordance with the requirements of the Midwives' Act, 58 women registered as midwives, gave notice of their intention to practise as such within the boundaries of the Borough. 58 records of midwives having had to send for medical assistance were received, and the number of still-births recorded was 33. In 4 instances a notification was forwarded, stating that the child had died before a medical man could attend. In no case did the mother die without medical assistance. It was not found necessary to report any midwife to the Central Midwives Board.

The following queries, from the Central Midwives Board, relating to the administration of the Midwives' Act, 1902, were answered in the following terms :—

1. Has the Council delegated all or any of its powers and duties to a special Committee appointed *ad hoc* ?	Sanitary Committee.
2. If so, what is the composition of this Committee ? Have any women been appointed, etc. ?	No Women.
3. Has an Inspector of Midwives been appointed ? If so, what are her qualifications, and what remuneration does she receive ?..	No.
4. If not, what arrangements have been made for securing a proper inspection of the case book and appliances of every Midwife, and, if necessary, her place of residence and mode of practice, all required by Rule E, 20 ?	Medical Officer of Health is responsible.
5. Do any, and if so, what, facilities exist within the administrative area of your Council for the disinfection of midwives, their clothing and appliances, after being in attendance, on a patient suffering from an infectious complaint. ?	Yes. Ample facilities
6. What is the total number of Certified Midwives in practice within the jurisdiction of your Council ?	55
What proportion of them have been certified by reason of having been in bona-fide practice since July, 1901 ?	37

7. What course of practical instruction, if any, is given to untrained Midwives under the supervision of your Council, with a view to their carrying out with greater efficiency the Rules of the Central Midwives' Board ?	None.
8. What arrangements, if any, are made for the payment of Medical Practitioners sent in accordance with the Rules of the Board ?	None.

The question of a midwife being compelled to send for a medical man under certain conditions, which are categorically set forth in the book of rules governing her general conduct, raises the question of who shall pay the medical man who attends in response to the midwife's request ? This subject was discussed by the Sanitary Committee, and the Medical Officer of Health was instructed to ascertain the opinion of the Board of Guardians in respect to it. The latter body did not consider that the subject was one which came within the scope of their duties, except in special cases, and the former Committee did not think they could accept responsibility for the fee for various reasons, and so no instruction was given. It does certainly seem an anomoly that the rules should compel a midwife to send for a medical man without providing for the means of payment, but the obvious way out of the difficulty is for the midwife to refuse to undertake the responsibility of delivering a woman single-handed, unless she is assured by the husband that he has made provision for the doctor's fee in the event of medical assistance being found necessary. Unless such a requirement were general among midwives, I fear, however, that the suggestion would result in a serious diminuation of any midwife's practice who made such a requirement a *sine qua non* before accepting an engagement.

Influenza.—Influenza was registered as the cause of 21 deaths, as compared with 30 in the preceeding year. This number is well below the average of the last ten years. The largest number of deaths occurred between the ages of 25 and 65. There were 4 deaths attributed to this disease among infants under one year of age, as compared with three in 1904.

Tubercular Diseases.—This class of diseases is subdivided in the statistical tables into Phthisis Pulmonalis, or Tubercle of the Lungs, and all other tubercular diseases. The former of these—Phthisis—is responsible for a very heavy incidence on persons in early adult life, and as it is essentially a preventable disease, a considerable amount of time is devoted to the removal of causes which tend to

facilitate its spread. Probably in no disease are the directions for improvement so easy to lay down, or favourable results following such action so certain of being attained, as in the case of Phthisis. This is due to the intimate knowledge which we possess of the life history and peculiarities of the infection, and in this town it is gratifying to again record a further lowering of the minimum mortality from the particular ailment. Since 1898 the death-rate has been almost a progressively decreasing one, the only exception to this rule being in 1904, when the rate exceeded that of 1903, in every other instance the later year was lower than the one before it. During 1905 the disease caused 96 deaths, which represents a mortality of 0.79. In the case of all other tubercular diseases, which include Tabes Mesenterica, Tubercular Meningitis, Scrofula, and the remaining diseases of tubercular origin, the decline has not been so pronounced, still the results are satisfactory the number of deaths being 61 as compared with 64 in 1904, and 65 in 1903.

I have in previous reports referred to the favourable reception which the medical practitioners of this town have accorded to the system of voluntary notification of Phthisis, which was started in 1902, and it is a source of satisfaction to be able to report that all cases are being notified which medical men are of opinion that visitation of the patient by an official of the Health Department would be of advantage to the general public :—

The following Table shows the number of notifications received each year since notification has been practised :—

Year.	Private Practitioners.	Institutions.	Poor Law Cases.	Total.
July 1st to Dec. 31st, 1902.	35	17	5	57
1903.	42	71	6	119
1904.	42	73	12	127
1905.	39	41	4	84

It will be observed that the notifications received from private practitioners remain at a remarkably constant figure, but that there is a decline in the numbers received from institutions and the Poor Law officials. This is perhaps due to the fact that in the former two years a larger number of chronic cases were notified

than in the last year, and that the cases now coming to the knowledge of such officials are the more recently attacked patients.

The Ward distribution of the cases was as follows :—

Abbey	9	Litchurch	5
Arboretum	5	Markeaton	7
Babington	4	Normanton	5
Becket	4	Osmaston	5
Bridge	8	Pear Tree	2
Castle	5	Rowditch	5
Dale	4		
Derwent	1		—
Friar Gate	5	Total	84
King's Mead	10		—

As in previous years, the disease shows a marked excess in King's Mead Ward, the reasons for this have been fully discussed in previous reports. In the other wards there is a marked tendency to annual variation which is due in great measure to the fewness of the numbers being dealt with, very few more or less than the previous year's total results in the relative positions being materially altered when they are classified according to the percentage attack rate, the only constant position is the unenviable one occupied by King's Mead Ward.

In reference to the age of persons attacked, each year shows that the incidence of the disease is mainly on persons between the ages of 25–45. This is one of the tragical circumstances associated with this disease, persons are removed at the time when they can least be spared ; the bread-winner is taken from the family after a period of inability to work, a period during which a drain is made on the resources of the family which is only partly met ; a lowered condition results all round, and the infection which the patient disperses finds a suitable starting point for further mischief in the bodies of one or other members of the family, and so when the first sufferer is removed another is frequently found to continue the disaster.

Age incidence of persons attacked with Phthisis :—

	All Ages.	0–15.	15–25	25–45	45–65	65 upwards.
Males	47	5	10	23	8	1
Females	37	9	11	14	3	—
Total	84	14	21	37	11	1

The facilities for bacteriological examinations of the sputum have been continued during the year, but advantage has not been taken to any considerable extent of the opportunities thus afforded as only 10 specimens were forwarded for examination. In 6 of these instances no tubercle bacilli were found, which, as I have previously suggested, seems to point to the fact that it is only in very doubtful cases that specimens are sent for examination.

Enquiries have been made into the occupation followed by the patients, and the information thus derived has been tabulated in the subjoined table. There does not appear to be any excessive incidence on any trade or group of trades. There is a distinctly lessened incidence in the workers in what are classified as the textile trades, and the same observation applies to the class of persons who come under the designation of labourers.

Textile Workers.	
Surgical Bandage Maker	2
Lace Hand	1
Twist Hand	1
Hosiery Worker	1
Total	5
Workers in Wood.	
Wood Sawyer	1
Pattern Maker	1
Total	2
Labourers.	
General	1
Midland Railway Co.	2
Gas Company	1
Total	4
Indoor Trades.	
Compositor	1
Tailoress	1
Dressmakers	2
Milliner	1
Shop Assistant	1
Bookbinder	1
Laundress	1
Total	8
Workers in Metal.	
Grate Fitter	1
Brass Finisher	1
Fitters	2
Moulder	1
Strikers	2
Total	7
Clerks.	
Total	3
Domestic Duties.	
Housewives	3
Parlour Maid	1
Domestic Servants	4
Washer Woman	1
Total	9

School Children.	
Total	8
Others.	
Musicians	2
Boot Clicker	1
Publican	1
Errand Boy	1
House Painter	1
Tram Conductor	1
Discharged Soldier	1
Electrical Engineer ..	1
Carters	2
Plumber	1
Total	12
Grand Total ..	58

As in previous years, an attempt has been made to ascertain the source of infection of the persons notified. It is obviously a matter of some difficulty to obtain quite accurate information on this point, and in many cases, other than those suggested as due to direct infection, the cause of the illness amounts to little more than an impression created in the mind of the patient, which is, of course, of varying value. One or two points stand out clearly in this respect, and they are that in a very large number of cases direct infection is the cause of the disease, and that Phthisis very frequently follows an attack of acute illness such as Influenza, Pneumonia, or the zymotic diseases. The number of cases in series 2, in which a bad family history of Phthisis was a feature, is not sufficiently numerous to justify the conclusion that a family history indicating a phthisical tendency among relatives is a very serious predisposing cause to attacks of Phthisis, for I think that the proportion of such cases is hardly, if at all, in excess of the proportion which families with a phthisical history bear to those without such a history; I, of course, refer to one generation only, for probably there are few families in which one or more of its members have not been removed in two generations.

There were no cases which could be suggested as due to house infection, that is to say where a previous resident in a house had suffered from Phthisis, and a member of a family subsequently occupying the house became infected in consequence. The number of cases in which phthisical workpeople or friends gave rise to infection in others in not large.

SERIES 1.—**Probably direct infection :**

Case 12.—The brother of this patient died in 1904 from Phthisis. The predisposing cause was a series of colds from which he suffered during that year.

Case 24.—This patient was apparently infected by his brother, who was discharged in a Phthisical condition from the army.

Case 27.—A brother of this patient died eighteen months ago from Phthisis. This patient dates illness to an attack of influenza.

Case 40.—This patient is 16 years of age. There have been three deaths from Phthisis in the family.

Case 49.—This patient occupies a house without thorough ventilation. She suffered from Enteric Fever one-and-a-half years ago. Two of her children have died from Phthisis.

Case 54.—This patient's brother died of Consumption. He is described as a delicate person, who was formerly a clerk, but now following the occupation of a publican.

Case 58.—Two sisters and one brother of this patient have died from Consumption

Case 60.—This patient's brother died three months ago from Phthisis ; a brother also died a few years ago from the same disease.

Case 64.—This patient's father died from Phthisis a few days before he (case 64) was notified as being a sufferer from this disease.

Case 77.—Patient's age 18. Brass finisher. Father died of Consumption.

Case 91.—Father, mother, and sister of this patient have all died of Phthisis.

SERIES 2.—**Cases characterised by a marked family history of Phthisis, but no recent contact with such cases :—**

Case 2.—Mother died of Phthisis, and the deaths of two brothers were attributed to Bronchitis.

Case 8.—Mother and cousin of this patient died of Phthisis. Patient has never been very strong and has suffered from various chronic ailments.

Case 14.—Father died phthisical. Always a delicate fragile person.

Case 23.—Mother died phthisical. Married sister now ill with Phthisis. Suffered from Pleurisy eighteen months ago.

Case 28.—Three paternal uncles have died from Consumption.

Case 34.—This patient's mother died from Consumption.

Case 35.—Only sister died from Consumption. Patient's occupation very laborious and with marked extremes of temperature.

Case 39.—Paternal uncle died from Consumption. This patient supplements her income by dressmaking at home.

Case 67.—Mother died from Consumption. Always a delicate person.

Case 68.—Mother died from Consumption. Poor physique.

Case 81.—Two paternal uncles died phthisical.

Case 92.—Several of this patient's cousins died from Consumption. He has suffered from recurrent attacks of Pleurisy.

SERIES 3.—Notification received of persons who have been in frequent contact with individuals suffering from Phthisis :—

Case 7.—This patient is a compositor and has worked in many different towns. Persons suffering from Phthisis have followed their occupation in the same room as this patient.

Case 56.—A friend of this patient died four months ago from Phthisis and this patient paid him frequent visits.

Case 59.—Several cases have been reported from among the employées where this patient works.

Case 86.—This patient works at the same mill as Case 59.

SERIES 4.—Cases in which the nature of the occupation has been suggested as a predisposing cause :—

Case 16.—A miller.

Case 33.—A surgical bandage maker. Delicate constitution.

Case 51.—Engaged in a hosiery factory. Very subject to chills.

Case 57.—A worker in a large laundry.

Case 61.—Supplements family income by dressmaking in addition to ordinary domestic duties.

Case 65.—A tailoress in a large works. Complained of the effects of dust inhalation.

SERIES 5.—Cases following Illness :—

INFLUENZA.

Case 15.—Had Influenza two years ago, and has not been well since. Works in a textile factory.

Case 17.—Has had Influenza in each of two consecutive years, and has been very liable to contract chills.

Case 30.—Suffered from Influenza in three successive years. This left her with a delicate constitution. Patient is a widow and has had a hard struggle to earn a livelihood.

Case 32.—Influenza two successive years, with a cough ever since.

Case 38.—Influenza eight years ago, with an attack two years ago which was followed by blood-spitting.

Case 55.—Influenza, followed by Bronchitis and Asthma.

Case 97.—Many attacks of Influenza, also met with an accident a few years ago which has practically confined him to the house.

PNEUMONIA.

Case 6.—Suffered from Pneumonia and Pleurisy a few months ago, to which attack the present illness is attributed.

Case 53.—Illness dated from an attack of Bronchitis and Pneumonia.

Case 73.—Treated for Pneumonia at Derby Royal Infirmary two years ago, and has not been well since.

Case 94.—Illness attributed to an attack of Pneumonia.

PLEURISY.

Case 18.—Suffered from Pleurisy about eighteen months ago, since which time this patient has suffered from blood-spitting.

Case 76.—Pleurisy twelve months ago.

Case 98.—Patient, who is a pattern maker, attributes his illness to an attack of Pleurisy.

ZYMOTIC DISEASES.

Case 20.—Patient aged ten years, has suffered from marked physical weakness since an attack of Whooping Cough.

Case 21.—Patient, aged six years, has suffered from repeated attacks of Croup and Bronchitis.

Case 50.—Patient, aged 14 years, suffered from a severe attack of Enteric Fever two and-a-half years ago, which left him in a very weak state of health.

Case 72.—Patient, aged 5 years, had Scarlet Fever a little over a year ago, followed by Diphtheria at the end of six months, Phthisis developing subsequently.

INDEFINITE ILLNESS.

Case 79.—Severe Colds, followed by a chronic cough.

Case 93.—Asthma and a chronic cough.

Case 95.—Chronic Cough.

SERIES 6.—**Exposure as a predisposing cause :—**

Case 5.—Occupation has necessitated much travelling about the country. Illness resulting from colds contracted through sleeping in damp room, etc.

Case 25.—Soldier who went through the South African Campaign.

Case 36.—This patient has been an occasional heavy drinker. Plays a musical instrument in the streets.

Case 62.—Very heavy drinker.

Case 71.—Had a hard time whilst in Turkey on railway work.

Case 84.—No work for several months past.

SERIES 7.—**Persons engaged only in Domestic Duties :—**

Case 13.—Only illness to which reference was made on enquiry was a severe cough in 1904.

Case 26.—No cause for onset of symptoms was suggested.

Case 43.—No cause for onset of symptoms was suggested.

Case 44.—No cause for onset of illness was suggested.

Case 45.—Illness commenced after miscarriage five years ago.

Case 48.—Illness attributed to enfeebled constitution resulting from prolonged suckling of last child.

Case 66.—No cause for onset of symptoms was suggested.

Case 70.—No cause for onset of symptoms was suggested.

Cases 3, 10, 41, 46, 82, and 85, were children in attendance at different elementary schools.

No information was obtained in respect of the following 17 cases, on account of removals, wrong addresses, re-notification, or the fact that they were strangers only brought into the town for treatment :—1, 9, 11, 22, 29, 31, 37, 42, 47, 52, 63, 74, 75, 78, 80, 88 and 95.

School Hygiene.—The chief matters coming under consideration have been :—

1.—The examination of candidates with reference to their physical fitness for the profession of school teacher, and the examination of teachers who have been absent from duty for a longer period than one month on account of sickness.

2.—The examination of children who have been absent from school on account of alleged ill-health which is stated to have been sufficient to prevent their attendance at school.

3.—Special matters referred to the Medical Officer by the Education Committee.

4.—The examination of individual children in the schools to discover any who may be suffering from defects of various kinds which prevents their benefitting to the full by the teaching provided.

5.—Examination of defective children as to their suitability for admission to the Special School, and as to the progress of children in attendance at that school.

6.—Notification by teachers of children who are absent on account of some infectious ailment, and the control of such scholars either by exclusion of the affected individuals or of the whole class, or by general school closure.

7.—Action taken at the schools to prevent the spread of infectious diseases.

A detailed description of the work of which the preceding is a summary is contained in the following report :—

There were examined during the year six pupil teachers who required Form 42 to be filled up before they could commence their duties.

48 young people, who had obtained the Committee's Bursaries, were examined to ascertain their suitability for the teaching profession. They all passed the test.

13 Teachers resuming duty after sickness of one month's duration were examined, and the following children for various purposes :—

Children examined at home on account of sickness ..	118
Children examined for the various Industrial Schools ..	37
Youths as to their fitness for boy Artificers in the Navy	2
Children, as to fitness for admission to the Blind School	1
Children, as to fitness for admission to the Deaf and Dumb Institution	4

Among children examined at home, a large number was found to be suffering from conditions which could be easily improved under proper methods of treatment, and I again emphasize the suggestion which I have made in previous reports that a school nurse would be a valuable addition to school work.

The following children were examined at the various schools, and the numbers suffering from the various defects were as follows :—

Defective vision	893
Defective hearing	340
Abnormal conditions of the throat or nose	236
Various skin eruptions	262
Various defects—physical and mental	169
Total	1,900

Defective Vision.—Of the 893 children who were presented for some defect or other of vision, 557 were found to be suffering from a condition which justified a recommendation being made to the parents that medical advice should be sought. Errors of refraction were the chief cause of trouble. The majority of these cases are only advised to seek medical advice when the defect is sufficient to materially interfere with school work. Acute conditions were fairly frequently discovered, in which case the parent was at once sent for to interview the teacher and the dangers to which the child was exposed were pointed out. The complaint is still made in reference to refractive defects, that, although the eyes in a large number of cases are examined, the parents are too poor to provide the spectacles necessary.

Defective Hearing.—Of the 340 children who were suffering from ear trouble, 103 were considered sufficiently severe to require medical treatment. In many of the remaining cases catarrhal deafness was the cause of the ailment, and suggestions were made to the teachers for transmission to the parents, which would no doubt in many cases remedy the defect. The majority of the 103 severe cases suffered from Otorrhœa on one or both sides. The discharge as a rule was extremely offensive and rendered the child objectionable as a school-fellow ; it is very necessary that such cases should receive proper treatment.

Throat Cases.—Large tonsils and adenoids were the cause for the majority of children suffering from defects in the throat or

nose being presented to me for examination. Of the 236 cases, 66 required medical treatment.

Skin Lesions.—262 children were suffering from various skin eruptions. Ringworm and contagious impetigo were the principal defects, although scabies was more frequently discovered in some parts of the town than I had previously noticed it.

Physical and Mental Defects.—169 children were presented for examination under this heading. As in the past, many of them were simply backward children. Others suffered either mentally or physically from such conditions that it was hopeless to expect them to derive advantage from attendance at an ordinary school.

Special School Work.—The following visits were made to the Special School for the purpose of examing children as to their suitability for admission to the Special School, and also for considering the children who were then in attendance.

Date of Visit.	Number of Children.			Sent for but did not appear.	Number of Children in School examined as to progress
	Admitted.	Rejected.	Deferred.		
25th Jan.	5	1	—	2	14
2nd Mar.	4	—	1	3	1
24th ,,	—	—	—	—	11
19th May	4	1	—	4	—
28th June	1	2	—	—	42
8th Sept.	10	7	4	8	—
22nd ,,	15	5	1	5	1
10th Nov.	—	—	—	—	23
13th Dec.	—	—	—	—	every child.

The defects to which I referred in my last Report, viz., the failure of children to appear for an examination when summoned, and in a less number of instances, the failure of children to attend who have been passed as suitable for admission, have not been so pronounced. The arrangements which have been made with the Secretary in this respect are working satisfactorily.

Notification of Infectious Diseases.—A regular system of inter-notification of infectious diseases is in operation between the Health Department and the heads of the various schools. When the Medical Officer of Health is notified that an occupant of any house is suffering from one of the compulsorily notifiable diseases which has its chief incidence on children, the school-master is notified if there are any children in attendance at school from that house. Intimation is likewise sent to the school when a child is removed to the Hospital for Infectious Diseases, and, in the case of Scarlet Fever, when it is discharged. On the other hand the School Authorities report to the Medical Officer of Health any case of infectious disease which may come to their knowledge, and in respect of which they have received no communication from the Health Department. This inter-notification has developed into a very important branch of preventive work, as may be gathered from the subjoined table, which shows that the total number of cases of these various diseases reported was 2,377.

TABLE X.—Cases of Infectious Disease notified by the heads of the various Schools within the Borough.

SCHOOL.	Scarlet Fever.	Measles	Chicken pox.	Diph-theria.	Mumps	Whoop-ing Cough.	Small-pox.	Various
Ashbourne Road ..	25	73	2	19	2	1	4	4
Brighton Road ..	3	15	17	—	8	—	—	5
Firs Estate	—	105	2	—	—	—	—	—
Gerard Street ..	—	103	2	1	—	36	—	—
Nuns Street ..	—	54	—	—	—	—	—	3
Orchard Street ..	—	86	2	—	1	—	—	1
Osmaston	—	17	5	—	2	24	—	—
Pear Tree Council ..	4	294	15	2	—	15	—	10
St. James' Road Cl.	14	163	5	2	—	2	—	3
Traffic Street ..	5	185	9	2	—	—	—	2
All Saints	13	71	5	—	3	—	—	2
Canal Street ..	—	3	—	—	—	—	—	—
Christ Church ..	—	29	—	1	—	—	—	—
Curzon Street ..	—	—	—	—	—	—	—	—
Parliament Street ..	—	13	2	1	—	—	—	1
Pear Tree Mission ..	—	60	7	—	—	—	—	5
Practising	—	58	—	—	—	—	—	—
St. Alkmund's ..	2	31	2	1	—	—	—	5
St. Andrew's ..	—	30	—	—	—	—	—	—
St. Anne's	1	181	—	—	—	9	—	2
St. Chad's	—	—	1	—	—	—	—	—
St. Dunstan's ..	—	22	—	—	—	—	—	—
St. James's Church	4	26	—	—	—	—	—	5
St. John's	—	169	12	—	—	16	—	2
St. Joseph's ..	—	1	—	—	—	—	—	—
St. Luke's	4	76	3	3	4	—	—	12
St. Mary's	1	36	—	—	—	1	—	1
St. Paul's	2	14	—	—	—	—	—	1
St. Peter's	—	—	—	—	—	—	—	—
St. Thomas's ..	—	26	—	—	—	—	—	—
Trinity	2	28	1	1	—	—	—	4
Special	—	—	—	—	—	—	—	—
Municipal Secondary	3	4	—	—	—	—	—	—
Total	83	1973	92	33	20	104	4	68

Measles caused the greatest difficulty in respect to School work owing to a wide-spread outbreak which had its origin in the cases which were known to exist in the town at the end of the year 1904.

The following is a copy of a circular which was sent to the Head of every Department when it became apparent that additional energy would be necessary on everybody's part if the disease was to be kept within bounds.

PUBLIC HEALTH DEPARTMENT,
FORD STREET, DERBY,
March 1st, 1905.

NOTICE TO SCHOOL TEACHERS.

MEASLES.

IMPORTANT.

I regret to inform you that a considerable outbreak of Measles has recently occurred in the Borough, particularly in the Siddals and London Road districts. There is reason to apprehend another serious outbreak such as occurred in 1900. These epidemics of Measles greatly interfere with the work of elementary schools, and during the year referred to, the number of deaths from this cause was almost double that of the combined mortality from Small-pox, Scarlet Fever, Diphtheria, and Enteric Fever.

I therefore earnestly invite you to be kind enough to co-operate with this Department in seeking to limit the extension of the disease, by instructing your Teachers to at once notify to me the occurrence of any suspicious illness amongst their scholars, with the address of the sufferers. Special attention should be directed to the members of the Infant Classes, as they are more liable to attack than older children.

The ordinary symptoms of Infection are those of Feverish Colds, with running from the Eyes and Nose, Sneezing and Cough, and, as Measles is highly infectious from the first, any child presenting such signs, together with any other member of the family, should be excluded from your school; this remark applies with equal force to Sunday Schools, congregations, and other public assemblies.

Much of the heavy mortality from Measles results from exposure and neglect due to widespread ignorance of the really grave nature of the disease. In the event of any notification coming from your school, a supply of handbills giving instructions will be forwarded to you, and I should be obliged if you would kindly assist in the diffusion of this information by handing to such of your pupils as you think desirable a copy of the handbill for transmission to parents or guardians.

Although at the present time the disease, except in a few instances, has not affected the children in other districts than the above-mentioned to any considerable extent, the fact that it is four years since any outbreak did occur makes it probable that unless the strictest vigilance is maintained, the present year will witness a considerable epidemic.

MEDICAL OFFICER OF HEALTH.

The cases increased so rapidly, and the notifications received from the schools became so numerous, that it was an impossibility for all the houses where there were cases to be visited. In substitution of this house visiting I sent by post to every infected house a printed form of precautionary measures which ought to be adopted. In one or two instances this action appeared to be

resented, though I must admit that the reasons for the objection which were raised by one or two individuals were very difficult to appreciate; the following is a copy of the circular alluded to :—

BOROUGH OF DERBY.

PREVENTION OF MEASLES.

Measles being prevalent in certain parts of the Borough, the attention of householders is particularly directed to the following points :—

1.—Measles is not the harmless disease which it is frequently considered; it causes a considerable number of deaths each year in this town, and on that account it behoves parents to pay every attention to sufferers from this disease, and to adopt every precaution against giving the infection to others.

2.—Measles is particularly infectious before the rash appears, and the symptoms of this stage of the disease are coughing, sneezing, redness of the eyes, and a feeling of illness; these symptoms should be sufficient—when Measles is prevalent in a district—to justify a parent in keeping a child so suffering away from school, and isolating the sufferer in a bedroom.

3.—If Measles exists in a house, it is important that the younger members of the family should not be allowed to associate with other children, nor should they be taken to entertainments or allowed to journey in public conveyances.

4.—*Anyone attacked by Measles should be placed in a separate room, and kept warm. Other children in the house who have not been attacked by the disease should not go to either Day or Sunday School for at least three weeks after the appearance of the eruption in the first case, and if further cases occur, not until three weeks after the eruption in the last case. The Teacher of the school where the children attend should be at once informed.*

5.—Disinfection of the clothing and the sick room will be of benefit, and suitable disinfectants for use in these cases may be had, free of charge, on application to the Sanitary Offices, Ford Street.

MEDICAL OFFICER OF HEALTH.

Diphtheria and Small-pox also necessitated a considerable amount of attention in respect of schools to which work reference is made under the respective headings of these diseases on pages 36 and 25 respectively.

Disinfection.—No schools have been closed during the year for a longer period than has been found necessary to disinfect school buildings and appliances. The following schools were disinfected by the fumes generated from burning sulphur, subsequently to which

the walls, floors, and cupboards were thoroughly cleansed with soap and water ; in addition the accummulations which each day are being gradually added to were examined and useless articles destroyed.

On account of Diphtheria :—The Practising School in April.

On account of Measles :—Traffic Street Schools and Trinity Schools, both in April.

On account of Scarlet Fever :—St. James' Church Schools, in September, and the Infants' Department of All Saints' Schools, in December. In both these cases unrecognised cases of Scarlet Fever had been in attendance for some considerable time before they were discovered.

Trinity Schools were again disinfected in May, and Orchard Street Schools in June on account of several cases of Small-pox having been in attendance at these schools during practically the whole of the exanthematous stage.

In addition to these disinfections for specific reasons, it is my practice during each summer vacation to cause to be disinfected a number of schools, and all materials used therein, as I am strongly of opinion that good results follow this practice, and the following schools were so dealt with in August, 1905 :—

St. John's.	St. Anne's.	St. Luke's.
St. Paul's.	St. Mary's.	Parliament Street.
All Saints'.		

On June 30th I received from your Committee instructions to prepare for the inter-departmental Committee, which was dealing with the question of Medical Inspection and Feeding of Children attending Public Elementary Schools, replies to a series of questions which were forwarded with the instruction. The information which I submitted is contained in Vol. 2 of the Minutes of evidence of that Committee, and as it indicates to a certain extent the methods which are adopted for supervising the physical condition of the children, it is, perhaps, sufficiently interesting to you to justify its inclusion in this Report.

A. Staff.

1. It is impossible to state exactly the time devoted to education duties by the Medical Officer, but one afternoon in each week is devoted to the examination of scholars in attendance at one or more schools. This enables each school in the Borough to be visited

once in each six months, a time-table being drawn out at the beginning and middle of each year which is strictly adhered to for that period. If, for any cause, a visit to any school is postponed, an opportunity is taken as soon as possible to visit at a later date. (This is a routine inspection of Schools and does not include the frequent visits necessary as a part of preventive work).

2. No nurses are employed by the Education Committee, but the Sanitary Committee engages both a woman Inspector and a trained nurse, the latter devoting four afternoons per week to sanitary work, a considerable portion of which is really school work and consists in visiting homes where non-notifiable diseases have been reported from the School. I have advocated in reports to the Education Committee, the appointment of a School Nurse, to devote the whole of her time to visiting children who may be suffering from some ailment or other, in the hope that frequent visitation and, if necessary, progressive pressure, would result in the parents devoting more attention to getting their children better from these ailments than is sometimes the case, apathy being most frequently observed in cases of ringworm, pediculosis, impetigo, and other contagious ailments of a similar character. In addition to the fixed half-day per week, the Medical Officer has to devote time to the visitation of cases on the request of the School Attendance Officer, and also conduct the medical examination of candidates for the position of pupil teacher. (There are now two Women Inspectors attached to the Health Department).

3. There are no other persons who undertake the supervision of the health of the children, excluding, of course, the teaching staff.

Organisation.

(*a*) There is no systematic medical inspection of Schools, having for its object the prevention of the spread of infectious disease, but when a particular incidence of any disease is observed in any school, visits are made to that school for the purpose of ascertaining whether children suffering from the particular disease are in attendance, and for the purpose of giving advice to the teachers. Instances of this kind occur fairly frequently.

(*b*) Children kept at home and alleged to be physically unfit are examined by the Medical Officer on the request of the School Attendance Officer. If a medical man is in attendance a certificate is

given that the child is unfit to attend; this is usually accepted. The School Attendance Officer uses his discretion in respect to making such requests. The report of the Medical Officer is subsequently forwarded to the Clerk of the Education Committee. (Where children are considered by the School Attendance Officer to be sufficiently well to go out, the parents are now requested to bring such children to the Office of the Medical Officer in Ford Street, on Thursday afternoons, that day having been set apart for this work.)

(*c*) Nutrition and general personal attention.

(*d*) Inability, whether physical or mental, to profit by instruction given.

(*e*) Defective children—mental and physical.

(*f*) Epileptics.

(*g*) Eyes.

(*h*) Ears.

(*j*) Heads—cleanliness and freedom from vermin.

Cases coming under the above headings are prepared by the teachers for examination by the Medical Officer at his regular half-yearly visit, but in addition, defective children, mental and physical, are examined, at frequent intervals at the Special School. So far, no attention has been paid to the teeth.

2. No records are kept of weights and measurements of children, nor of infectious diseases they have suffered from.

3. The organization extends over the whole area.

4. Each School is visited as stated above by the Medical Officer twice a year.

7. The names of all children specially selected by the teachers for examination by the Medical Officer are placed on a list under various headings. If the Medical Officer considers the case is one for treatment, he makes a note on the form and requests the teacher to see the parent of this particular child and advise that the child shall be placed under medical treatment. He further requests the teacher to return the form to the office with observations as to the action taken in reference to his suggestion. In the case of infectious diseases, all cases are visited by a member of the sanitary

staff, except when Measles becomes excessively epidemic, when it is impossible for each case to be visited. At this stage, a circular giving directions as to the precautions which should be adopted to prevent the spread of the disease is sent by post to the parent of every child who has been notified to the Medical Officer as suffering from Measles.

8. The only voluntary organization of which I am aware to provide spectacles, is the "Samaritan Fund," at the Derbyshire Royal Infirmary, and on occasions I have given a note suggesting that the bearer would be a suitable case to receive assistance from the charity dispensed from that fund.

9. I know of no case where parents have objected to the examination of their children. On the contrary, when it becomes known that the doctor is visiting on a certain day, parents frequently attend the schools with a request that their child shall be examined and a report made to them.

10. (*a*) A scheme of inter-notification of infectious diseases, whether notifiable or not, has been working in this Borough for several years. The notification is made to the Medical Officer of Health.

(*b*) Most of the teachers are provided with copies of the official precaution forms.

(*c*) I have not found it necessary to notify the teachers of the outbreak of any epidemic except Measles, and when I anticipate the occurrence of this disease in an epidemic form, the Head of each Department is communicated with.

(*d*) I am not aware of the length of time that medical inspection of children in public Elementary Schools has been in operation in this district, but I have done the work, so far as relates to the examination of individual scholars, for two years. So far as concerns the notification of infectious diseases and the examination of schools for that purpose, I have done the work for seven years. The present system works smoothly and satisfactorily. Its defects may be regarded as follows :—

1st. The value of the School notification of infectious diseases, particularly the non-compulsorily notifiable diseases, is materially diminished owing to the withdrawal of the grant (Article 101*) for scholars excused by order of the Sanitary Authority, there is not the inducement for teachers to notify cases of infectious disease.

2nd. Many parents do not realise the importance of taking action in cases where their children are known to be suffering from defects which interfere with their school work. Apathy and want of means are responsible in the main for this, and, although the general infirmary treats patients free who present a recommendation, the poorer people state that they find some difficulty in obtaining this recommendation. In the case of children requiring spectacles, many children have their eyes tested at the Infirmary, and receive a prescription for glasses, but do not obtain them, because they cannot afford the money. I consider that it would be of advantage if some scheme could be arranged whereby a school-master or school-mistress could purchase these spectacles, and payment for them could be made by instalments to the headmaster. There are cases of abject poverty where glasses should be provided without any charge.

3rd. Children sent home on account of contagious ailments are another difficult class to deal with, for the very carelessness which frequently is the cause of the disease, is continued when the child is sent home, and such cases are absent from school for a period which is quite in excess of that which is necessary to produce a cure. As I have said, a tactful nurse, visiting such homes, would do a great deal in the way of obtaining a speedy return."

Factories and Workshops.

FACTORY AND WORKSHOP ACT.—Section 132 of the Factory and Workshop Act, 1901, provides that :—"The Medical Officer of Health of every District Council shall, in his Annual Report to them, report specifically on the administration of this Act in workshops and workplaces, and he shall send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State." The following is a summary of the work which has been done in respect to factories and workshops in 1905 :—

FACTORIES.—The Factory Inspectors appointed by the Home Office are chiefly responsible for the administration of the law relating to factories. The question of means of escape in case of fire, and the provision of suitable sanitary conveniences for each sex are the chief matters for which the local Authority has any responsibility. The former matter is dealt with by the Borough Surveyor, and eight visits have been made by the Inspectors in reference to the latter. Several defects which were discovered

were referred to the Borough Surveyor to report upon in accordance with Section 22 of the Public Health Acts Amendment Act, 1890.

Workshops.—The number of workshops on the register, and the various trades carried on therein, are shown in the following table :—

LIST OF WORKSHOPS.

Trade.	No.	Trade.	No.
Artificial Limb Maker	1	Milliners	17
Occupied Bakehouses	107	Paper Bag Making	1
Basket Makers	3	Parchment Works	1
Beer Bottler	1	Plumbers	3
Blacksmiths	4	Saddlers	2
Bone Burning	1	Shoe Makers	11
Brush Maker	1	Skin Curing	2
Cabinet Makers	7	Soap Boiling	1
Carpenters and Joiners	7	Spar Turning	2
Coach Builders	2	Tailors	34
Confectionery Works	1	Tallow Melters	2
Cork Cutter	1	Tape Drying	1
Currier	1	Tinsmiths	8
Cycle Works	4	Tripe Dressers	7
Dressmakers	81	Umbrella Maker	1
Gut Scraper	1	Varnish Making	1
Hide and Skin Marts	2	Venetian Blind Making	1
Jewellers	5	Wheelwrights	3
Laundries	8	Various	5
Leather Tanning	1		—
Locksmith	1	Total	346

The following tabulation is in accordance with the form supplied by the Home Office. It gives information respecting various matters which do not call for further comment. The number of visits made by the Inspectors is in excess of those made in previous years, but I again venture the opinion which I have expressed in previous reports, that workshops inspection would justify the appointment of an additional special inspector who would devote most of his time to that work alone.

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, AND HOMEWORK.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of	
	Inspections.	Written Notices.
Factories (including Factory Laundries) ..	70	14
Workshops (including Workshop Laundries)	1040	48
Workplaces	—	—
Homeworkers' Premises	25	0
Total	1135	62

2.—DEFECTS FOUND.

Particulars.	Number of	
	Found.	Remedied.
Nuisances under the Public Health Acts—		
Want of cleanliness	34	31
Want of ventilation	4	3
Overcrowding	2	2
Want of drainage of floors	—	—
Other nuisances	22	22
Sanitary accommodation — Insufficient	13	11
Sanitary accommodation — Unsuitable or Defective	6	5
Sanitary accommodation — Not separate for sexes	5	2
Offences under the Factory and Workshop Act :		
Illegal occupation of underground bakehouses (S. 101)	—	—
Breach of special Sanitary requirements for Bakehouses (SS. 97 to 100) ..	70	69
Failure as regards lists of outworkers (S. 107)	15	13
Giving out work to be done in premises which are — Unwholesome (S.108)	—	—
Giving out work to be done in premises which are — Infected (S. 110)	—	—
Allowing wearing apparel to be made in premises infected by Scarlet Fever or Small-pox (S. 109)	—	—
Other Offences —	—	—
Total	171	158

3.—OTHER MATTERS.

Class.	Number	
Underground Bakehouses (S. 101) :—		
Certificates granted during the year ..	1	
In use at the end of the year	1	
	Number of	
	Lists.	Outworkers.
Homework :—		
Lists of Outworkers received	69	753
Addresses of Outworkers :—		
Forwarded to other Authorities ..	24	
Received from other Authorities ..	14	
	Wearing Apparel.	Other.
Homework in unwholesome or infected premises :—		
Notices prohibiting homework in unwholesome premises (S. 108) ..	—	—
Cases of infectious disease notified in homeworkers' premises	—	—
Orders prohibiting homework in infected premises (S. 110)	—	—
Workshops on the Register (S. 131) at the end of the year 1905 :—		
Occupied Bakehouse	107	
Tailors .. .. —	34	
Offensive Trades	19	
Dressmakers and Milliners	98	
Bootmakers	11	
Tinplate Workers	8	
Carpenters and Joiners	7	
All others	62	
Total number of Workshops on Register ..	346	

Work of Women Inspectors and Nurse.—The arrangement to which I made reference in my last Report, of having two nurses to assist Miss Fitzgerald in the visitation of homes where there is known to be a young baby, and also to follow up the Phthisis cases, has been continued during the year, with the alteration that one nurse has been employed instead of two, but the one has devoted the same number of hours to the work that the two formerly did. The work of the woman inspector has grown to such an extent that the Committee decided to recommend the Council to appoint an assistant and this recommendation was unanimously approved by the Council.

The following tabulation shows at a glance the extent and variety of work which is performed by these special inspectors, and as the additional inspector was not appointed until November, almost the whole of the following work was done by Miss Fitzgerald.

	Births.	Infant Deaths.	Special Visits.	School Notificat's	Work-shops.	Out-workers.	Total.
January	313	7	33	1	—	—	354
February	282	8	18	12	2	2	324
March ..	207	10	26	82	—	2	327
April ..	206	11	12	36	—	1	266
May ..	321	20	23	59	—	—	423
June ..	316	17	20	26	3	1	383
July ..	116	5	8	5	—	—	134
August	405	45	28	—	—	2	480
Sept. ..	240	26	15	4	5	40	330
October	284	9	6	20	—	7	326
Nov. ..	*516	11	12	7	5	3	554
Dec. ..	191	3	8	—	2	1	205
	3397	172	209	252	17	59	4106

Of these 4,106 visits

289	visits were	2nd	visits on account of	non-admittance on		1st visit
121	,, ,,	3rd	,, ,,	,,		2nd ,,
39	,, ,,	4th	,, ,,	,,		3rd ,,
15	,, ,,	5th	,, ,,	,,		4th ,,
3	,, ,,	6th	,, ,,	,,		5th ,,
3	,, ,,	7th	,, ,,	,,		6th ,,
2	,, ,,	8th	,, ,,	,,		7th ,,

The following Lectures were also given during the year. The Syllabus of these various Lectures are fully set out in the 1904 report.

" Home Hygiene " (at five Girls' Clubs)	..	25 Lectures.
" Health Lectures for Women " (Temperance Hall)		3 ,,
" Elements of House Sanitation " (Nurses Institution)	..	2 ,,
Total	..	30

Nurses Visits :—

Visits of instruction to mothers, *re* Infant Rearing	1018
School Notifications	404
Visits to Phthisical Patients in their homes	535
Total	1957

The question of out-workers' homes and the work carried on in them was fully described in the last Report, and nothing additional has transpired to necessitate further reference to this subject.

Offensive Trades.—The following are the chief offensive trades which are carried on in the Borough :—

Bone Boiling	1	Soap Boiling ..	1
Gut Scraping	1	Tallow Melting ..	2
Hide Skin Mart ..	2	Tripe Boiling ..	7
Leather Dressing ..	1	Varnish Making ..	1
Leather Tanning ..	1		
Parchment Works ..	1	Total ..	19
Skin Curing	1		

These places have been regularly visited and notices served to remedy such defects as were discovered, all of which were of a minor character.

General Inspectorial Work.—The supervision of common lodging houses and tenement houses has been carried out by the special inspector who has made some 1,500 visits for that purpose. Full particulars are set out in the tabulation supplied to me by the Chief Inspector of Nuisances, as also are the details as to infringements of the Bye-Laws, or sanitary defects which were discovered, and the results of action taken to remedy such. There has not been discovered any instance of an overcrowded common lodging house, and I am of opinion that the number of private houses used as lodging houses has greatly decreased.

300 visits were made to places where ice cream was prepared for sale, but no complaints were made in respect to any of them. Nearly seven thousand visits were paid to the 76 registered slaughter-houses, but even with this amount of visiting only a portion of the slaughtered animals are seen. As in previous years a large amount of food was destroyed, practically the whole of which was voluntarily tendered for destruction.

Water Supply.—During the year the Water supply of the Borough has been frequently submitted for analysis, and it has not been found necessary to adversely criticise the water supplied. Several wells have been closed in the Alvaston area, and a corresponding number of houses were put on the town's supply.

The following analyses were made by Mr. Otto Hehner, the Borough Analyst, and refer to samples of Water forwarded to him by the Borough Surveyor. The report is dated December 12th, and the results are expressed in parts per 100,000 :—

	Low Service Reservoir.	High Service Reservoir.
Chlorine	1.90	1.80
Sulphuric Acid	4.64	4.44
Nitric Acid	0.84	0.31
Phosphoric Acid	None.	None.
Free Ammonia	0.0027	0.0018
Albumenoid Ammonia ..	0.0031	0.0066
Oxygen absorbed from permanganate, at 80-F. in 15 minutes	0.0190	0.0156
Ditto in 4 hours	0.0380	0.0308
Total solids, dried at 212-F. ..	30.24	31.68
Loss on ignition	3.52	3.55
Appearance of solid on heating	Faint char.	Faint char.
Total hardness	20.0	21.3
Colour	None ; clear.	None ; clear.

Bacterioscopic Results—per cubic centimetre :—

Total number	13	43
Growing at blood heat in neutral agar ..	3	4
Growing at blood heat in phenolised acid agar	0	0

Remarks :—The samples of filtered water are unexceptional, and in every way of good quality, the filtration having been very effective. The water as actually supplied to the town is in a most satisfactory condition.

Meteorological Return.—I have to thank Mr. W. G. Carnt, Secretary-Superintendent of the Derbyshire Royal Infirmary, for the information from which the subjoined table has been compiled. The highest mean shade temperatures were registered during the month of July. The greatest variation between the maximum and minimum temperature was observed during the months of June and July. January was the coldest month, most rain fell during the month of August. The greatest number of rainy days was observed in March, April, and November, The heaviest amount of rainfall in twenty-four hours was on 17th June, when .67 inch was registered. The nearest approach to this was on the 9th September, when .56 inch and on 4th October, when .49 inch fell :—

TABLE XI—Shewing the means of the Meteorological Observations taken at the Derbyshire Royal Infirmary for the 12 months ended 31st December, 1905.

1905.	Thermometers.				Rainfall in inches.		Greatest fall in 24 hours.		No. of Rainy days days 1905.
	Dry Bulb.	Wet Bulb.	Shade Temperature. Maxi-mum.	Shade Temperature. Mini-mum.	Infir-mary Ground 1905.	1904.	Amount in inches.	Date.	
January	37.3	35.8	42.9	32.9	1.04	2.17	.21	16th	16
February	40.2	38.1	46.3	36.0	.83	3.01	.22	27th	18
March ..	44.8	42.1	51.5	37.9	2.93	1.69	.39	10th	25
April ..	46.4	43.3	51.7	40.1	1.64	1.96	.36	6th	22
May ..	53.1	48.1	60.3	43.1	.46	1.98	.29	1st	6
June ..	59.6	52.9	67.7	50.6	2.28	.59	.67	17th	19
July ..	66.3	59.4	73.7	55.5	.93	2.08	.50	26th	8
August ..	60.1	55.7	66.4	51.8	3.24	2.77	.45	17th	21
Sept. ..	54.8	52.2	61.5	47.4	1.37	1.85	.56	9th	14
October	45.8	43.7	51.7	39.3	1.53	.67	.49	4th	19
November	40.0	39.7	45.4	35.8	2.62	1.42	.39	4th and 10th	22
December	39.6	38.7	44.4	36.0	.69	1.66	.28	28th	16

SANITARY INSPECTOR'S REPORT, 1905.

FORD STREET STABLES.

Number of Horses at last Report ..	68	
Bought during the year	9	
	—	77
Disposed of	6	
Surveyor's Horses sent to Nottingham Road Stables	4	
	—	10
Horses remaining at Ford Street		67
Inspector's Department		41
Surveyor's Department		21
Police and Fire		5

PRIVY AND ASHPIT CLEANSING.

Night-Work.—Privies Cleansed	6,663
,, Ashpits Cleansed	3,792
,, Privy Cesspools Cleansed	630
Day-Work.—Dry Ashpits Cleansed	639
	11,724

REFUSE COLLECTED.

Night-Work.—Loads (Excreta only)	5,906
,, ,, Ashes and Excreta	3,592
,, ,, Ashes only	3,094
Day-Work.— ,, Ashes	23,892
	36,484

REFUSE DISPOSAL.

Disposed of as Manure :—

By Boats, 472 loads.

By Customers' own Carts, 411 tons 3 cwts.

Delivered to Farmers from pits, 4,497 cart loads.

Deposited on tips, 1,415 cart loads.
Burned in the Destructors, 27,165 tons.
Day Ashes and Trade Refuse, 25,335 tons 6 cwts.

Extracted from Refuse, and sold, 14 tons 13 cwts. 1 qr. Scrap Iron, and 1 ton 15 cwts. Bones.

At the request of the Sanitary Committee, the following special Report was prepared :—

RELATIVE COST OF NIGHTSOIL COLLECTION AND DISPOSAL, 1895 and 1905.

Night Men.

	Average No. of Men including hired.	Loads.		Wages only, including hired Men.
1895.	42.39	16,832	@ 2/10.53 each	= £2422 0 2½
1905.	34.16	12,592	@ 3/4.47 ,,	= £2123 8 4½

At 1895 rate, the cost for labour in 1905, should have been (own men only) £1926 3 11.3
Actual cost (own men only) £2096 16 4.5
an increase of £170 12s. 5d., but an increase of 2s. per man had been in the men's wages, equal to £175 8s. 11½d., therefore there was an actual saving of £4 16s. 6½d. in 1905 over 1895.

Day Men.

	Average No. of Men including hired.	Loads.		Wages only, including hired Men.
1895.	25.93	15,306	@ 1/10.44 each	= £1,431 8 5½
1905.	43.98	23,892	@ 2/1.90 ,,	= £2578 8 11

At 1895 rate, the cost for labour in 1905, should have been (own men only) £2,367 10 1½
Actual cost (own men only) £2,518 18 11
an increase of £151 8s. 9½d., but day ash-men were advanced 1s. each, and 16 drivers came on a further extra 1s. each, owing to advance of scale, making the natural increase in wages equal to £167 1s. 6d, showing a saving of £15 12s. 8½d., on wages over 1895 rate. Therefore, whilst, collection and dis-

posal, based upon the total net cost, in 1895 was 4/10.27 per load, this had increased in 1905 to 5/9.09 per load, the increase –/10.82 being, as shown, more than accounted for by the advances in wages made to the workmen during the ten years.

To put the case another way, each workman received wages during 1905, more than in 1895, as follows, Depot £2 2s. 0d. each, Ashing men £3 10s. 8d. each, and Night-men £5 1s. 1d. each.

Comparison.

	Day.	Night.	Total.
1905.	23892	12592	36484
1895.	15306	16832	32138
	8586 increase	4240 decrease	4346 loads net increase

5,284 new houses, and 3,140 old houses were added to the Day collection.

RELATIVE COST OF WORK AT CHESTER DEPOT.

1895. 26.90 men handled 28,830 loads @ 1/0.86 each = £1,545 7 4½ (Wages only)

1905. 43.34 men handled 31,729 loads @ 1/7.52 each = £2,580 17 1½ (Wages only)

an increase of 2,899 loads handled.

Taken at 1895 rate, this work in 1905 should have cost £1700 2 10

Actual cost £2580 17 1½

an increase in cost of £880 14s. 3½d., but as previously pointed out, a second Destructor was started in the interim (in 1898), doubling all the highest paid men in the yard, which, on working out, gives an increase in wages per year, of £644 16s. 0d., and to this must be added increases to Foreman and Workmen, of £97 1s. 8d., and, taking the increase on loads dealt with, 2,899, at 1895 rate of cost, we have a natural increase owing to extra work done of £155 6s. 9d. These three items total up to £897 4s. 5d., which more than accounts for the £880 14s. 3½d., which might appear at first sight to be excessive, and shows an actual saving of £16 10s. 1½d. on the basis of 1895.

It must also be remembered that in the 1905 cost is included £25 17s. 3d. for making the dry dock.

BAKEHOUSES.

Bakehouses in use at end of 1904	109
Old houses re-opened	4
New houses opened	1
	114
Closed during the year (6 demolished)	7
Occupied houses at end of 1905	107
Unoccupied Bakehouses at end of 1905	44
Total number of Bakehouses in Borough	151

A certificate has been granted in the case of an underground Bakehouse, the only one of this class existing in the town.

Visits made to Bakehouses	633
Verbal and written notices given to cleanse, etc. ..	95
Notices complied with	92

CANAL BOATS.

Annual Report for the year 1905, in accordance with Section 3, Canal Boats Act, 1884.

1. Inspector and Salary, Chief Inspector and Assistant. No salary allocated.

Address : Sanitary Inspector's Office, Ford Street, Derby.

2. Boats inspected, 53. Visits to Canal, 72.

3. Infringements of Acts and Regulations, 9.

a.—Registration	0	*i.*—Painting	1
b.—Change of Master ..	0	*j.*—Provision of Water Cask	0
c.—No certificate on board	1	*k.*—Removal of Bilge Water	0
d.—Absence of Marking	1	*l.*—Notification of Infectious	
e.—Overcrowding ..	3	Diseases	0
f.—Separation of Sexes ..	1	*m.*—Admittance of Inspector	0
g.—Cleanliness	0	*n.*—Boats found in bad	
h.—Ventilation	1	repair	1

4. Legal proceedings taken, none.

5. Other steps taken, nine caution forms served and several letters written.

6. Cases of infectious diseases dealt with, none.

7. Detention of boats for cleansing and disinfection, none.

8. Number of boats on Derby register at end of year 1905, 31.

9. Number registered during 1905, none.

10. During the year one boat has been struck off the register, owing to disuse as a dwelling.

COMMON LODGING HOUSES.

No change has taken place in the number of these houses during the year, although two applications for registration have been made. One application could not be entertained owing to the entire unsuitability of the house and premises for the purpose, and in the other case the matter was dropped because the owners did not see their way to carry out all the alterations and improvements suggested by the Medical Officer of Health as necessary to put the house in a proper condition for a Common Lodging House.

A portion of one registered house was converted into a shop and bakehouse, and was used as such for some time, but a new bakehouse having been constructed on another part of the premises it was re-converted into a dwelling house with shop, and is now occupied by the keeper and his family, together with four of the rooms on the first floor originally used as lodger's bedrooms. Six rooms have thus been taken off the accommodating strength of the house, reducing the number of beds by 29.

Applications for registration for 1906 have been made by all the present keepers, and granted in each case.

Four cases of Small-pox occurred during the year affecting two houses, but the disease was confined to the first cases.

1498 visits have been paid during the year, and 126 verbal or written notices served to remedy defects or infringements of the Bye-Laws, resulting in the removal of 124 causes of complaint.

Number of houses in use at end of 1905, 19.

HOUSES LET IN LODGINGS.

No. of houses in use end of 1904	41
Further registration during the year	1
	42
Struck off the register	2
In use at end of 1905	40

Visits of inspection, 2,570.

253 verbal or written cautions were administered respecting infringements of the Bye-Laws, securing the removal of 272 causes of complaint.

DISEASES OF ANIMALS ACTS.

Constant Inspection of Markets and Pig Dealers' premises has been made, and particular attention given to cleansing and disinfecting, under the Order issued by the Board of Agriculture and Fisheries.

An Order, relating to importation of fat Swine, from Ireland came into force on 21st January, 1905, and still remains in operation, Licences having been granted and movement of Swine supervised throughout the year.

In October and November, five outbreaks of Swine Fever were reported. One of these proved not to be Swine Fever, but the other four were, with 31 pigs in contact, and a still larger number which had been in contact during the incubation period.

Acting in conjunction with the Inspectors and Veterinary Surgeons of the Board who were sent down, every assistance was given by Inspector Turner and myself, and I am pleased to say the outbreak was confined to the first cases notified to me, and by the end of the year three places had been declared free, one still remaining under observation, with 7 healthy pigs on the premises.

The outbreak caused the Borough and Markets to be put under special restrictions and Licenses, thus making much extra work, and we still remain under an Order which requires the issue of Licenses and supervision of all Swine coming into the Borough from outside our local area.

DAIRIES, COWSHEDS, AND MILKSHOPS.

Dairymen and Purveyors within the Borough :—

On Register at end of 1904	340
Registered during 1905	88
	428
Struck off Register	68
On Register at end of 1905	360

Cowkeepers within the Borough :—

On Register at end of 1904	28
Registered during 1905	4
	32
Struck off Register	4
On Register at end of 1905	28

Two Legal Notices were served during the year to compel registration, which were complied with. In addition to these Legal Notices, 137 verbal or written cautions have been administered respecting infringements of the Regulations or Orders, and 134 have been complied with.

1,545 visits of inspection have been made.

Purveyors resident outside the Borough :—

On Register at end of 1904	142
Registered during 1905	17
	159
Removed during the year	19
On Register at end of 1905	140

Thirteen letters have been written to secure registration, 11 of which were complied with, but in two cases it was found necessary to serve legal notices to compel compliance with the Order in this respect.

NOTICES SERVED.

		A	B	C	X	Total.
Ashpits	To Demolish	..	2	..	..	2
	,, Repair	..	1	..	..	1
Drains	,, Cleanse and Repair (or soil pipes)	42	113	42	..	197
	,, Disconnect from Sinks	1	3	2	..	6
	,, Provide (or Soil Pipes)	2	5	2	..	9
	,, Relay Defective	67	57	19	..	143
	,, Remove from inside Houses	..	3	..	..	3
	,, Remove Soil Pipes from inside Houses	2	2	..	..	4
	,, Replace Brick	..	4	..	..	4
	,, Trap inlets and provide or repair Inspection Chambers	..	11	1	..	12
	,, Ventilate Soil Pipes and Drains	2	2	..	..	4
	,, Unstop, repair, renew, &c., Waste Pipes	..	7	..	..	7
Houses	,, Cleanse	3	31	4	..	38
	,, ,, and Limewash Cellars	1	3	2	..	6
	,, Damp course and make dry	..	4	..	..	4
	,, Prevent Overcrowding	1	6	..	..	7
	,, Provide Ash Bins	1	17	3	..	21
	,, Repair Cellar Coverings	..	1	..	..	1
	,, ,, Dangerous Walls or Buildings	..	1	..	..	1
	,, ,, Paving Yards or Passages	5	9	2	..	16
	,, ,, Roofs, Floors, &c.	1	11	2	..	14
	,, ,, Disconnect or Provide Spouting	1	21	8	..	30
	,, Ventilate Rooms	..	..	..	..	..
Privies	,, Cleanse and Repair or Provide New Tubs	241	146	162	..	549
	,, Convert to W.C.'s	59	87	85	..	231
	,, Demolish	..	1	1	..	2
Urinals	,, Erect	..	..	1	..	1
	,, Remove	..	..	..	..	..
	,, Repair	..	..	..	..	..
Water	,, Cleanse and Repair foul Soft Water Tanks and Pumps	11	16	3	..	30
	,, Fill in Disused Wells	..	10	..	..	10
	,, Provide with Town Water	1	2	4	..	7
	,, Repair Covers of Tanks or Wells	..	..	..	..	..
W.C.'s	,, Cleanse and Repair	2	1	4	..	7
	,, Lay on Flushing Water	3	1	1	..	5
	,, Provide Additional	1	3	4	..	8
	,, Repair Fittings	5	7	3	..	15
	,, Ventilate	..	..	..	..	..
	Carried forward	452	588	355	..	1395

DEALT WITH.

NUISANCES ABATED.

		A	B	C	X	Total.
Ashpits	Demolished	176	79	111	..	366
	Repaired	..	..	..	..	..
Drains	Cleansed or Repaired (or Soil Pipes)	121	431	109	..	661
	Disconnected from Sinks	5	14	60	..	79
	Provided (or Soil Pipes)	261	282	384	..	927
	Re-laid and New	381	460	411	..	1,252
	Removed from Inside Houses	36	33	88	..	157
	Soil Pipes Removed from Inside Houses	13	8	5	..	26
	Brick replaced by salt-glazed E.S.Pipes	19	28	106	..	153
	Inlets Trapped and Inspection Chambers provided or repaired	911	608	987	..	2506
	Soil Pipes and Drains Ventilated	204	137	243	..	584
	Waste Pipes unstopped, repaired, &c.	180	44	..	..	224
Houses	Cleansed	11	28	15	..	54
	Cellars Cleansed and Limewashed	17	8	13	..	38
	Damp Coursed and made dry	7	4	..	..	11
	Overcrowding Prevented	1	5	..	..	6
	Ash Bins provided	176	141	171	..	488
	Cellar Coverings Repaired	8	..	3	..	11
	Dangerous Walls or Buildings Repaired	..	..	21	..	21
	Paving of Yards and Passages ,,	303	37	135	..	475
	Roofs, Floors, &c. ,,	28	26	23	..	77
	Spouting Repaired, Disconnected or Provided	147	131	108	..	386
	Rooms Ventilated	..	..	5	..	5
Privies	Cleansed and Repaired or New Tubs Provided	241	131	163	..	535
	Converted to W.C.'s	207	195	230	..	632
	Demolished	..	8	..	..	8
Urinals	Erected	9	6	10	..	25
	Removed	1	1	7	..	9
	Repaired	..	3	2	..	5
Water	Soft Water Tanks and Pumps Cleansed and Repaired	91	58	25	..	174
	Disused Wells Filled in	13	15	20	..	48
	Provided with Town Water	4	2	29	..	35
	Covers of Tanks or Wells Repaired	18	..	1	..	19
W.C.'s	Cleansed and Repaired	10	16	10	..	36
	Flushing Water Laid on	5	26	..	..	31
	Additional Provided	3	14	80	..	97
	Fittings Repaired	25	22	27	..	74
	Ventilated	..	..	5	..	5
	Carried forward	3632	3001	3607	..	10240

NOTICES SERVED.

	A	B	C	X	Total.
Brought Forward	452	588	355	..	1395
For Bakehouses	..	..	..	95	95
,, Common Lodging Houses	..	..	..	126	126
,, Dairies, Cowsheds, and Milkshops	..	..	..	150	150
,, Factories and Workshops	14	10	..	..	24
,, Houses Let in Lodgings	..	..	..	253	253
,, Slaughter Houses	2	..	1	..	3
,, Smoke Nuisances	..	2	..	..	2
To Remove Accumulations of Manure, &c., and Cleanse Premises	..	10	3	..	13
,, ,, Fowls or Animals	5	10	..	..	15
,, ,, Manure Pits or Cesspools	3	1	1	..	5
,, ,, Stagnant Water	..	3	..	..	3
Offensive Trades, to Limewash, &c.	..	..	..	12	12
Stables—To Drain or Pave	2	..	1	..	3
To Bury Corpse	..	1	..	..	1
	478	625	361	636	2,100

DEALT WITH—*continued.*

NUISANCES ABATED.

	A	B	C	X	Total.
Brought forward	3632	3001	3607	..	10240
Bakehouses, Contraventions Remedied ..	..	..	..	96	96
Common Lodging Houses ,, ,, ..	..	..	..	124	124
Dairies, Cowsheds, & Milkshops ,, ,, ..	..	..	..	144	144
Factories and Workshops ,, ,, ..	12	21	..	..	33
Houses Let in Lodgings ,, ,, ..	..	..	..	272	272
Slaughter Houses ,, ,, ..	..	..	2	..	2
Smoke Nuisances abated	..	2	..	..	2
Accumulations of Manure, &c., removed and Premises Cleansed	10	8	8	..	26
Fowls or Animals Removed	16	11	12	..	39
Manure Pits or Cesspools removed	8	13	4	..	25
Stagnant Water .. ,, ...	..	5	..	..	5
Offensive Trades, Limewashing, &c.	..	..	..	12	12
Stables—Drained or Paved	13	10	6	..	29
Corpse Buried	..	1	..	..	1
	3691	3072	3639	648	11050

ICE CREAM PREMISES.

No. of Places on Books at end of 1904	259
Added during 1905	65
	324
Struck off list	76
On Books at end of 1905	248

No serious causes of complaint were discovered in connection with these premises or their occupation and use.

Visits of Inspection 360

POLICE COURT PROCEEDINGS.

No. of Cases	Offence.	Result.	Total Costs. £ s. d.
1	Selling Adulterated Milk ..	Fined 5s. and Costs	1 4 0
1	Selling Milk which was 7 per cent. deficient in fat ..	Fined 2s. 6d. & costs	1 0 6
1	Selling Adulterated Milk ..	Fined 1s. and Costs	1 3 0
1	Selling Milk which was 9 per cent. deficient in Fat ..	Dismissed.	..
2	Selling Adulterated Milk ..	Fined 10s. and costs each	3 0 0
1	Selling Adulterated Milk ..	Fined 10s., including costs	0 10 0
1	Using Un-Registered Slaughter House	Fined £1 and costs ..	1 8 6
1	Blowing Head of Calf ..	Fined 10s. and costs	0 17 6
1	Selling Adulterated Butter ..	Fined 10s. and costs	1 8 0
1	Delivering Margarine in unmarked wrapper	Fined 10s. and costs	0 17 6
1	Selling Adulterated Whiskey ..	Pay Costs	0 18 6
1	Selling Adulterated Gin ..	Fined 10s. and costs	1 8 0

REGISTERED SLAUGHTER HOUSES.

At the end of the year 1905 :—

In the hands of private holders	52
Corporation houses let to private tenants	16
,, ,, used as public	3
Standing empty—private	2
,, ,, Corporation	3
	76

Visits of inspection for the year, 6,650.

One Corporation house has been converted into a Tripe Boiling place.

UNSOUND FOOD

Condemned and Destroyed.

2127 lbs. Beef.	1 Pig.
3 Calves.	108 lbs. Pig's Kidneys.
588 lbs. Cat Fish.	84 lbs. Plaice.
315 lbs. Cod Fish.	150 lbs. Prawns.
336 lbs. Fish Chitterlings.	38 couples Rabbits.
84 lbs. Halibut.	112 lbs. Roe.
1120 lbs. Herrings.	48 lbs. Sheep's Kidneys
476 lbs. Hog's Kidneys.	150 lbs. Shrimps.
2687 lbs. Liver, Lungs, &c.	22 lbs. Soles.
60 lbs. Mackerel.	98 lbs. Spragg.
636 lbs. Mussels.	1 Turkey.
80 lbs. Mutton.	196 lbs. Water Cress.
2743 lbs. Peas.	8 Wood Pigeons.

In 1904 Report attention was called to the large number of Cows, which were found, on being slaughtered for human food, to be suffering in some degree from tuberculosis.

Similar account has been kept during the past year, and it is again found that a large number of animals, 75, slaughtered for human food, were affected with this widely distributed disease, and that 68 of this number, over 90 per cent., had been milking cows.

The question of transmissibility of this disease to man by means of meat or milk is not for me to discuss, but from my own knowledge, I can say that as regards sufficient air space, light, good construction, and ventilation to cowsheds, in many country places, these conditions are conspicuous by their absence, and steps ought to be taken to protect the consumers from this diseased food, by stopping its production in insanitary cowsheds.

FOOD AND DRUGS ACTS.

Samples submitted to the Borough Analyst (Mr. Otto Hehner).

Samples.	Article.	Genuine.	Adulterated.
9	Brandy	9	—
1	Butter	—	1
2	Margarine	2	—
7	Gin	6	1
73	Milk	64	9
9	Rum	6	3
14	Whiskey	13	1
115		100	15

Thus 13.04 per cent. of samples taken were adulterated.

OFFENSIVE TRADES.

There were 19 Offensive Trades in the Borough at the end of 1905, as per following details :—

Gut Scraping	1	Leather Tanning ..	1
Hide and Skin Marts ..	2	Varnish Works ..	1
Tripe Boiling	7	Skin Curing	2
Soap Boiling	1	Bone Burning ..	1
Tallow Melting	2	Parchment Works ..	1

This number is three in excess of 1904, owing to four additional Tripe Boiling places being added to, and one eliminated from the list.

Of the four fresh places, one (Co-operative Stores) has been sanctioned by the Council; one is an old business which had been previously removed from the list by mistake, the trade never having ceased although a change of tenants took place; one has never previously been on the list although the business has been carried on on Corporation premises for considerably over 20 years; while the fourth case is comparatively a new business, opened during the first week of December, 1901, without the sanction of the Council. This is now being dealt with. The removal of a Tripe Boiling business from the register was done by order of the Council, the business having been transferred from old to new premises without the necessary sanction being first obtained.

83 visits of inspection have been paid to the Offensive Trades during the year, resulting in 12 notices being served for cleansing of premises, &c., all of which have been complied with.

W. WILKINSON,

Chief Sanitary Inspector.

BOROUGH SURVEYOR'S REPORT.

WATER USED DURING 1905.

	Gallons.
Sewer Flushing	7,160,325
Court Flushing	317,916
Street Watering	10,777,200
Steam Rolling	1,065,960
Cabstands, Bridges, and Wood Paving	245,200
Total	19,566,601

Disinfectant Powder used .. .. 4 Tons.
Disinfectant Fluid used .. .. 480 gallons.

NEW SEWERS LAID DURING 1905.

Ashbourne Road 12″
Burghley Street 12″
Bridge Street 9″
Cotton Lane 9″
Henry Street 9″
Kedleston Road 12″ and 9″
Merchant Street 9″
Vale Street 12″
William Street 9″

MANHOLES CONSTRUCTED DURING 1905.

Barlow Street	1	Liversage Street	3
Bridge Street	2	Little Bridge Street ..	1
Burghley Street	1	Mansfield Road	1
Colombo Street	1	Merchant Street	3
Cotton Lane	1	Noel Street	2
Duffield Road	2	Peet Street	1
Derwent Street	2	Quarn Street	1
Derby Lane	1	Queen Street	3
Elms Street	2	Roman Road	2
Friar Gate	1	St. Thomas's Road ..	2
Full Street	1	St. Michael's Lane ..	1
Henry Street	2	Traffic Street	1
King Street	1	Uttoxeter Road	4
Kedleston Street ..	2		—
London Road	1	Total	48
Leyland Street	2		—

SEWERS CLEANED OUT DURING 1905.

	Loads		Loads.
Brighton Road	2	Mansfield Road	8
Colombo Street	3	Noel Street	1
City Road	2	Nottingham Road ..	3
Dickinson Street	2	Rugby Street	3
Erasmus Street	6	Roman Road	1
Graham Street	2	Slack Lane	6
Holcombe Street	2	Stanley Street	1
Kedleston Road	3	Woods Lane	1
Litchurch Lane	2		—
Liversage Street	9	Total	59
London Road	2		—

MANHOLES CLEANED DURING 1905.

	Loads.		Loads.
Brighton Road	2	Nottingham Road ..	10
Duke Street	4	Normanton Road ..	1
Howard Street	1	Slack Lane	5
Harrington Street ..	1	Uttoxeter New Road ..	7
London Road	2		—
Mansfield Road	6	Total	39

River Derwent Dredging .. .. 180 tons.
Markeaton Brook Cleansing .. .. 110 boat loads

JOHN WARD,

Borough Surveyor.

COUNTY BOROUGH OF DERBY.

Vital Statistics of Whole District during 1905 and previous years.

Year.	Population estimated to middle of each Year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the Dist.	Nett Deaths at all ages belonging to the District.	
				Under One Year of Age.		At all Ages.						
		Number.	*Rate.	Number.	Rate per 1,000 Births Registered.	Number.	*Rate.				Number.	*Rate.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
1895.	98,927	2,900	29.4	459	158	1,698	17.2	216	29	*no record*	1,669	16.9
1896.	100,087	2,834	28.4	426	150	1,620	16.2	234	43	,, .	1,577	15.8
1897.	101,262	2,803	27.7	470	168	1,720	17.0	286	64	,, .	1,656	16.4
1898.	102,448	2,860	28.0	484	169	1,830	17.9	197	74	*nil.*	1,756	17.2
1899.	103,649	2,984	28.8	488	163	1,856	18.0	310	81	,,	1,775	17.2
1900.	104,684	2,900	27.7	504	173	1,932	18.5	342	78	,,	1,854	17.7
1901.	106,076	2,939	27.8	455	155	1,673	15.8	304	75	,,	1,598	15.1
1902.	116,869	3,326	28.5	417	126	1,698	14.6	290	59	,,	1,639	14.1
1903.	118,707	3,215	27.1	411	128	1,671	14.1	309	75	,,	1,596	13.5
1904.	120,449	3,282	27.3	467	143	1,905	15.9	346	81	,,	1,824	15.2
Avr'gs for yrs 1895-1904.	107,316	3,005	28.0	459	153	1,761	16.5	284	66	,,	1,695	15.8
1905.	122,207	3,108	25.5	471	152	1,823	15.0	336	79	2	1,746	14.3

*Rates in Columns 4, 8, and 13, calculated per 1,000 of estimated population.

Note.—The Deaths included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the District or Division. The Deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the District on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

Area of District in Acres (exclusive of area covered by water) .. 5,272 acres.

Total Population at all Ages	114,848	At Census of 1901
Number of Inhabited Houses	24,851	
Average Number of Persons per House	4.7	

Appendix II.

COUNTY BOROUGH OF DERBY.

Vital Statistics of separate Localities in 1905 and previous years.

Columns for each locality: a. Population estimated to middle of each year. b. Births registered. c. Deaths at all Ages. d. Deaths under 1 year.

Names of Localities.	Whole District.				Abbey Ward.				Arboretum Ward.				Babington Ward.			
Year.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1895	98,927	2,906	1,669	450	..	..	..	..	..	..	..	..	..	..	..	..
1896	100,067	2,834	1,577	426	..	..	..	..	..	..	..	..	..	..	..	..
1897	101,262	2,803	1,656	450	..	..	..	..	..	..	..	..	..	..	..	..
1898	102,448	2,860	1,736	460	..	..	..	..	..	..	263	31	..	..	199	59
1899	103,649	2,984	1,775	484	..	..	..	..	..	..	261	44	..	..	169	35
1900	104,894	2,900	1,836	505	..	..	..	..	..	..	211	51	..	..	165	36
1901	106,076	2,939	1,598	434	..	..	..	..	..	579	266	74	..	291	159	44
1902	114,819	3,326	1,639	457	8864	312	142	50	9065	230	110	25	4596	190	103	20
1903	118,707	3,215	1,599	406	9040	317	128	39	9246	286	110	30	4720	149	120	19
1904	120,449	3,282	1,836	467	9155	318	147	34	9324	206	104	22	4861	139	109	19
Averages of Years 1895 to 1904	107,316	3,065	1,695	457	..	..	..	..	..	..	..	..	..	..	..	..
1905	122,207	3,108	1,745	467	9356	299	140	43	9450	199	120	24	4988	140	105	18

Names of Localities.	Becket Ward.				Bridge Ward.				Castle Ward.				Dale Ward.				Derwent Ward.			
Year.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1895	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1896	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1897	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1898	..	..	350	90	..	..	..	..	..	..	195	62	..	..	..	..	..	..	123	44
1899	..	..	334	88	..	..	..	..	..	..	204	47	..	..	..	..	..	..	134	45
1900	..	..	388	120	..	..	..	..	..	..	211	65	..	..	..	..	..	..	134	42
1901	..	607	296	89	..	..	..	..	..	109	168	69	..	..	..	..	..	230	133	27
1902	7435	345	159	17	5170	97	70	16	7924	237	149	39	4868	170	87	19	5030	165	66	22
1903	7542	176	154	25	5250	122	61	13	8048	247	157	43	4944	183	72	22	5099	137	67	20
1904	7655	156	97	22	5329	97	51	6	8152	264	169	56	5019	199	85	21	5174	168	58	26
Averages of Years 1895 to 1904	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1905	7765	184	100	29	5407	123	102	27	8285	249	195	56	5092	203	82	22	5249	154	73	29

Names of Localities.	Friar Gate Ward.				King's Mead Ward.				Litchurch Ward.				Markeaton Ward.				Normanton Ward.			
Year.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1895	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1896	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1897	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1898	..	..	106	45	..	..	279	82	..	..	92	18	..	..	..	..	..	..	..	..
1899	..	..	218	20	..	..	300	87	..	..	114	35	..	..	..	..	..	..	..	..
1900	..	..	196	36	..	..	284	74	..	..	131	39	..	..	..	..	..	..	..	..
1901	..	391	169	45	..	392	290	93	..	139	152	30	..	..	..	..	..	..	..	..
1902	8867	359	94	22	7268	238	177	46	8625	183	109	20	7327	239	104	27	7315	266	83	23
1903	8862	225	109	26	7317	174	150	36	8714	161	97	13	7441	243	95	27	7466	259	103	36
1904	8953	216	122	32	7426	233	169	43	8886	166	113	25	7552	237	106	39	7578	290	104	39
Averages of Years 1895 to 1904	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1905	9061	198	118	31	7517	179	138	32	9057	243	106	13	7908	204	114	32	7688	228	89	24

Names of Localities.	Osmaston Ward.				Pear Tree Ward.				Rowditch Ward.				Deaths in Institutions not relegated to Wards.				Strangers.	
Year.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	c.	d.
1895	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1896	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1897	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1898	..	..	..	..	..	..	..	..	..	..	..	..	..	..	123	..	..	6
1899	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
1900	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
1901	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6
1902	3525	198	60	23	7051	232	93	26	8186	199	102	22	..	..	..	..	30	..
1903	3601	213	53	20	7163	207	79	22	8314	191	90	21	..	..	..	..	73	5
1904	3685	206	84	27	7270	219	102	33	8438	189	115	34	..	..	..	..	81	..
Averages of Years 1895 to 1904	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1905	3777	204	53	23	7374	239	97	30	8561	266	137	34	..	..	..	..	79	4

Note Ward Boundaries re-arranged in 1902. It is impossible to group the old arrangement so as to render them statistically comparable with the new arrangement.