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CITY OF CARLISLE.

REPORT

ON THE

Sanitary Condition of the City of Carlisle,

FOR THE YEAR 1908,

BY THE

MEDICAL OFFICER OF HEALTH,

JOSEPH BEARD, D.P.H., Camb.,

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Member of the Royal College of Surgeons, England.

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HEALTH COMMITTEE  
OF THE  
CARLISLE CITY COUNCIL, 1908-1909.

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MR. COUNCILLOR DALTON

MR. COUNCILLOR KING

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and

HIS WORSHIP THE MAYOR (MR. COUNCILLOR MAXWELL, J.P.)



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---

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JOSEPH BEARD, D.P.H. (Cantab).

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\*C. W. HILL.

## *Inspector under Sale of Food and Drugs Act.*

\*C. W. HILL.

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## *Public Analyst.*

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## *Veterinary Surgeon.*

R. CRAIG ROBINSON, M.R.C.V.S.

\*Certificated Inspectors.

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## STATISTICAL SUMMARY FOR THE YEAR 1908.

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Area in Acres ... ..	2,028
Estimated Population (June, 1908) ... ..	50,047
Population per Acre ... ..	24·6
Number of Inhabited Houses (1901 Census) ... ..	9,464
Rateable Value ... ..	£229,159
Number of Inhabitants per House at the last Census ... ..	4·8
Birth Rate per thousand living ... ..	24·4
Death Rate per thousand living ... ..	Nett 13·4
Infantile Mortality per thousand Births ... ..	129
Percentage of Uncertified Deaths ... ..	1·9
Total Deaths from Diarrhœa ... ..	14
Phthisis Death Rate per thousand living ... ..	1·11
Infectious Cases Notified ... ..	189
Infectious Cases Isolated at the Fever Hospital ... ..	79
Total Rainfall in inches... ..	33·30 ins.



**To the Chairman and Members of the Health  
Committee of the Carlisle City Council.**

Gentlemen,

I beg to present my Report on the Health of the City for the year 1908.

The population at the last census, taken on April 1st, 1901, was 45,478, an estimate made at the middle of the year 1908 shows the population to be 50,047, and it is upon the latter figures that I have calculated the Birth and Death rates.

The Birth rate calculated at the rate per 1,000 of the total population is 24.4, being a very slight increase (.6 per 1,000) over that of the previous year, which was the lowest rate recorded in Carlisle, and being 2.1 per 1,000 below the figures for the whole of England and Wales.

The nett Death rate for the year was 13.4 per 1,000 of the population, showing a decrease over the years 1906-7 which were 15.9 and 16.3 respectively, and being slightly below the corrected death rate for the whole of England and Wales which was 14.7 per 1,000.

In the Public Institutions of the City there occurred 68 deaths.

The Infantile Mortality rate was 129 per 1,000, being 8 per thousand higher than the figure for the whole of England and Wales, viz., 121 per 1,000.

A detailed account of the Infantile Mortality is set out in another part of the Report. The figures show that of 158 deaths of infants under twelve months, 42 or 26.5



per cent. occurred in the first month of life, and of the 42 no less than 37 or 88 per cent. took place before the end of the first week of life; 73, or equal to 46.2 per cent. of the total deaths occurred within the first three months of life.

During the second three months of life the deaths numbered 35, and in the third and fourth three months the deaths were 31 and 19 respectively.

The chief causes of this Infantile Mortality were Pneumonia, Whooping Cough, Tubercular Disease of the Meninges (Brain Fever), Tubercular Disease of the Peritoneum, Marasmus, Debility, Premature Birth, etc.

The number of Deaths from notifiable diseases during the year was very low. The total number of cases of all Infectious diseases notified was 187 against 275 in 1907.

The decrease was principally with respect to Scarlet Fever, the notification of which was 50% less than in 1907.

No case of Smallpox occurred.

Two cases only of Enteric Fever were notified.

There was an increase in the number of cases of Diphtheria and Membranous Croup 32 as against 14 in 1907.

No case of Anthrax, Glanders, or Hydrophobia occurred either in man or animal during the year.

There was a decrease in the number of Deaths recorded from Cancer and other malignant diseases, Heart Disease, Syncope, and Old Age.

During the past year special attention has been given to inspection of foods, and a great number of the places in the City, where food is prepared for purposes of sale, have

been visited, and I am pleased to be able to state that I have no adverse criticism to add in respect to preservatives or other form of adulteration in the samples of food taken.

Particular attention has been given to milk and milk shops in the way of teaching and encouraging cleanliness, and to cow byres in bringing them more into compliance with the Bye Laws.

The work of the department relating to the Factory and Workshops Acts has increased slightly during the year, the number of inspections made being 400 as against 381 in 1907. No prosecution took place under the Act during the year, fewer defects were found, and all the defective conditions found were remedied.

The number of Workshops on the register at the end of the year was 306 as against 313 in 1907, showing a decrease of 7.

The Midwives practising in the district have been regularly visited by me since my appointment, and I have no serious complaint to make against any one of them.

I have during the year reported upon the necessity of appointing a Female Sanitary Inspector.

I have also reported the nuisance caused by dogs being allowed to roam about the Covered Markets.

I have also reported upon the spitting nuisance in streets and public places, and also upon the condition of the footpaths as a result of the excrement of dogs being deposited upon them (see appendix). The absence of a steam disinfecter renders the work of the Department imperfect, to which I have referred in the appendix.

The Committee are aware that part of my time is taken up with the work in connection with my appoint-



ment as Medical Officer to the Education Committee, which is the Administrative body for this City under the Education (Administrative Provisions) Act, 1907, Section 13.

In conclusion I have to thank the staff of my department for their assistance to me since my appointment. A great amount of work has been accomplished which could not have been attempted without their whole-hearted co-operation.

My thanks are also due to your Town Clerk for his advice and assistance, to the Assistant Town Clerk (Mr. Allerton), and the other members of the Town Clerk's staff for their help, willingly given whenever called upon.

I am, Mr. Chairman and Gentlemen,

Your obedient Servant,

JOSEPH BEARD,

Medical Officer of Health.

Health Department,  
19 Fisher Street,  
Carlisle.

March 19th, 1909.



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# STATISTICS

RELATING TO

BIRTHS, DEATHS, AND CAUSES OF  
DEATHS, ETC.

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## BIRTHS.

The number of Births registered during the past year was 1,223, comprising 676 males and 547 females. Making the calculation upon the estimated population of 50,047, the birth-rate for the year was 24.4 per 1,000. It shows a slight increase of .6 per 1,000 over the year 1907, and is the second lowest birth-rate ever recorded in this city. The birth-rate varies from 14.7 per 1,000 living in Aglionby Ward, to 33.5 per 1,000 in Newtown Ward.

The birth-rate for the whole of England and Wales was 26.5 per 1,000 living, and for the 76 great towns 27.0 per 1,000. The 142 smaller towns (to which classification Carlisle belongs) show a birth-rate of 26.0 per 1,000, whilst for England and Wales, less the 218 large and small towns, the rate was 26.2 per 1,000 living.

## ILLEGITIMATE BIRTHS.

69 Illegitimate births registered during the year give a proportion of 56.4 per 1,000 of the total births, which were distributed to the Registration Sub Districts as follows:—

St. Cuthbert's	34	Illegitimate Births	or	66.2	per 1,000
St. Mary's	35	do.	do.	54.6	do.

The following list shows the annual birth-rate in Carlisle since 1875, which appears to be the earliest record available.

Year.				Birth-rate.
1875	...	...	...	35.5
1876	...	...	...	38.6
1877	...	...	...	38.5
1878	...	...	...	38.7
1879	...	...	...	37.7
1880	...	...	...	37.0
1881	...	...	...	36.0
1882	...	...	...	35.3

Year.				Birth-rate.
1883	...	...	...	32.3
1884	...	...	...	35.0
1885	...	...	...	34.0
1886	...	...	...	33.0
1887	...	...	...	31.3
1888	...	...	...	33.5
1889	...	...	...	30.6
1890	...	...	...	30.0
1891	...	...	...	30.8
1892	...	...	...	30.5
1893	...	...	...	34.5
1894	...	...	...	32.0
1895	...	...	..	31.4
1896	...	...	...	29.6
1897	...	...	...	30.8
1898	...	...	...	30.0
1899	...	...	...	29.4
1900	...	...	...	30.1
1901	...	...	...	27.3
1902	...	...	...	27.0
1903	...	...	...	28.4
1904	...	...	...	26.9
1905	...	...	...	24.3
1906	...	...	...	25.3
1907	...	...	...	23.8
1908	...	...	...	24.4

## BIRTHS, 1908.

QUARTER ENDING.	ST. MARY.			ST. CUTHBERT.			TOTALS FOR CITY.
	Males.	Females.	Totals.	Males.	Females.	Totals.	
March 31 .....	89	83	172	69	83	152	324
June 30.....	97	94	191	66	70	136	327
September 30	91	84	175	64	68	132	307
December 31..	73	65	138	69	58	127	265
Totals.....	350	326	676	268	279	547	1223



## DEATHS.

The total number of deaths during 1908 was 713, as compared with 848 in 1907.

The annual gross death-rate per 1,000 of the population living at all ages is shown to be 14.2.

The corrected death-rate for the whole of England and Wales was 14.7, and for the 76 great towns 15.8 per 1,000. The death-rate for the 142 smaller towns being 14.7, whilst the rate for England and Wales less the 218 large and smaller was 13.8 per 1,000.

Thirteen deaths belonging to the district occurred in public institutions outside the City, while 55 deaths not belonging to the district occurred in public institutions within the City.

After making allowance for these deaths a nett death-rate of 13.4 is obtained.

Number of deaths of persons not belonging to the district occurring in public institutions and other places inside the City :—

Cumberland Infirmary	...	...	39
Fusehill Workhouse	...	...	5
Strathclyde House	...	...	4
Fever Hospital	...	...	3
H.M. Prison	...	...	1
Dr. Lediard's Home	...	...	1
Caldew Railway Bridge (accident)	...	...	1
Millholme Terrace	...	...	1
			—
Total	...	...	55
			—

Number of deaths of persons belonging to the district occurring in public institutions outside the City :—

Garlands Asylum	...	...	9
St. Joseph's Home	...	...	3
Victoria Infirmary, Glasgow	...	...	1
			—
Total	...	...	13
			—

## DEATHS, 1908.

QUARTER ENDING.	ST. MARY.					ST. CUTHBERT.					TOTALS FOR CITY.
	Males.		Females.		Totals.	Males.		Females.		Totals.	
	Under 5 years	Over 5 years	Under 5 years	Over 5 years		Under 5 years	Over 5 years	Under 5 years	Over 5 years		
March 31	14	34	23	50	121	19	31	14	31	95	216
June 30	8	35	5	39	87	7	32	8	27	74	161
Sept. 30	17	21	21	27	86	18	21	10	12	61	147
Dec. 31	19	51	11	37	118	18	24	7	22	71	189
TOTALS	58	141	60	153	412	62	108	39	92	301	713

Table showing Birth-rates and Death-rates for Carlisle as compared with England and Wales for 1908:—

	Annual Rate per 1,000 living.				Deaths under 1 Year to 1,000 Births.
	Births.	Deaths.		Principal Epidemic Diseases.	
		Crude.	*Corrected		
England and Wales ... ..	26.5	14.7	14.7	1.29	121
76 Great Towns ... ..	27.0	14.9	15.8	1.59	128
142 Smaller Towns ... ..	26.0	14.0	14.7	1.26	124
England and Wales, less the 218 Towns	26.2	14.7	13.8	0.99	110
CARLISLE ... ..	24.4	14.2	13.4 Nett.	0.80	129

\*The corrected Death-rates are the rates which would have been recorded had the sex and age constitution of the populations of the several areas been identical with that of England and Wales, as enumerated in 1901.

Table showing the number of deaths at various age periods in Carlisle:—

	All Ages.	Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and up- wards.	St. Mary's Sub-District.	St. Cuthbert's Sub-District.
No. of Deaths at all ages and age periods ... ..	713	158	61	22	43	254	174	412	301



Table showing the gross Death-rate of Carlisle from  
1874 to 1908 inclusive:—

Year.	Deaths from all causes.		Deaths from Principal Zymotic Diseases.	
	No. Registered.	Rate per 1000 of Population.	No. Registered.	Rate per 1000 of Population.
1874	1055	32·6	367	11·3
1875	934	29·2	201	6·3
1876	800	25·0	100	3·0
1877	750	23·0	55	1·7
1878	828	23·5	83	2·3
1879	818	23·5	76	2·0
1880	777	22·2	106	3·0
1881	717	20·0	67	1·8
1882	852	23·6	189	5·0
1883	779	21·0	67	1·8
1884	783	21·0	38	1·0
1885	769	20·3	66	1·7
1886	745	19·4	62	1·6
1887	772	19·9	75	1·9
1888	722	18·5	59	1·5
1889	723	18·1	69	1·7
1890	792	19·5	65	1·6
1891	789	20·1	63	1·6
1892	805	20·2	55	1·3
1893	868	21·6	145	3·6
1894	780	19·2	44	1·1
1895	794	19·4	33	0·8
1896	753	18·2	30	0·7
1897	811	19·4	54	1·3
1898	935	22·2	103	2·4
1899	818	19·2	42	0·9
1900	807	18·8	60	1·4
1901	810	17·8	64	1·4
1902	856	18·5	82	1·7
1903	813	17·4	58	1·2
1904	933	19·7	63	1·3
1905	783	16·3	66	1·3
1906	811	16·7	34	0·7
1907	848	17·1	77	1·5
1908	713	14·2	42	0·8

Town.	Estimated Population.	General Death Rate.	Infantile Mortality Rate.	Phthisis Rate.
Accrington ...	46,000	14.39	137.3	.78
Ashton-under-Lyne ...	45,798	19.0	183.3	1.4
Barnsley ..	45,500	18.68	161.9	1.25
Barrow-in-Furness ...	70,634	11.64	111.0	.9
Bath ...	50,000	13.6	79.0	1.12
Blackpool ...	59,741	12.72	127.8	.79
Bootle ...	70,000	17.3	143.0	1.4
Burton-upon-Trent ...	53,000	12.90	112.0	1.28
Cheltenham ...	51,000	12.5	90.0	.96
Crewe ...	48,359	11.06	105.0	.4
Darlington ...	50,000	14.0	115.3	.92
Eastbourne ...	51,500	9.90	88.0	.8
Exeter ...	48,300	15.57	126.6	1.32
Gloucester ...	53,176	13.4	113.1	.94
Handsworth (Staffs.) ...	70,518	10.81	90.0	.73
Ilford ...	75,801	8.87	80.4	.05
Lincoln ...	54,067	13.7	93.8	1.25
Oxford ...	51,943	12.97	94.4	1.01
Rotherham ...	64,000	15.62	149.0	.97
Southport ...	53,318	{ 12.94Crude 11.35Local }	{ 104.0 }	1.03
Stockton-on-Tees ...	54,242	17.51	150.0	1.21
Wakefield ...	43,611	15.3	135.0	1.33
Wimbledon ...	54,274	8.3	71.0	.68
Worcester ..	49,318	16.6	116.0	1.25
Cumberland (whole County)	274,796	14.9	126.0	1.01
<b>City of Carlisle ...</b>	<b>50,047</b>	<b>14.2</b>	<b>129.0</b>	<b>1.06</b>

## CAUSES OF DEATH.

Table showing diseases causing largest number of deaths:—

	1907.	1908.	Increase or Decrease
Influenza ... ..	9	10	+ 1
Whooping Cough ... ..	11	23	+ 12
Diarrhoea and Dysentery ... ..	3	14	+ 11
Pulmonary Tuberculosis & Phthisis ...	51	53	+ 2
Tubercular Peritonitis and Tabes Mesenterica ... ..	{ 11	13	+ 2
Tubercular Meningitis ... ..	12	18	+ 6
Cancer and other Malignant Disease ...	57	36	— 21
Prematurity and Injury at Birth ...	31	20	— 11
Old Age ... ..	51	47	— 4
Syncope, Heart Disease (not specified)...	71	54	— 17
Valvular Disease of Heart ... ..	35	20	— 15
Cerebral Hæmorrhage, Embolism, Thrombosis and Apoplexy	{ 38	41	+ 3
Pneumonia ... ..	83	69	— 14
Bronchitis ... ..	45	44	— 1
Kidney and Bladder Disease... ..	26	18	— 8
Debility, Atrophy, Inanition, Marasmus	24	26	+ 2

The number of deaths from Whooping Cough, Diarrhoea, and Tubercular Meningitis, was greater than the previous year, but the number of deaths from Cancer, Prematurity, and Injury at Birth, Heart Disease, and Pneumonia, was less than the previous year.



## Vital Statistics of whole District during 1908 and previous years.

YEAR.	Population estimated to Middle of each Year	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				TOTAL DEATHS IN PUBLIC INSTITU- TIONS IN THE DISTRICT	Deaths of Non- residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT	
		Number.	Rate.*	UNDER ONE YEAR OF AGE.		AT ALL AGES.					Number.	Rate.*
				Number.	Rate per 1,000 Births registered.	Number.	Rate.*					
1	2	3	4	5	6	7	8	9	10	11	12	13
1898	43,566	1311	30.0	240	183	935	21.4	133	39	No in- formation.	896	20.5
1899	44,202	1300	29.4	188	145	818	18.5	128	33		782	17.6
1900	44,838	1354	30.1	182	134	807	17.9	135	35		772	17.2
1901	45,478	1246	27.3	161	129	810	17.8	113	39		771	16.9
1902	46,078	1245	27.0	146	117	856	18.5	180	56		813	17.6
1903	46,500	1322	28.4	157	118	781	17.4	105	39		781	16.7
1904	47,350	1278	26.9	195	152	933	19.7	176	63		877	18.5
1905	47,920	1168	24.3	163	139	783	16.3	150	37		759	15.8
1906	48,425	1227	25.3	163	132	811	16.7	163	56	16	781	15.9
1907	49,400	1178	23.8	169	143	848	17.1	161	62	21	807	16.3
Averages for years 1898-1907.	46,375	1262	27.2	176	139	838	18.1	144	46	...	803	17.3
1908	50,047	1223	24.4	158	121	713	14.2	128	55	13	671	13.4

\* Rates calculated per 1,000 of estimated population.

## Vital Statistics of separate Localities in 1908 and previous years.

NAMES OF LOCALITIES.	1—WHOLE DISTRICT.				2—ST. MARY'S SUB-DISTRICT.				3—ST. CUTHBERT'S SUB-DISTRICT.			
	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1898	43,566	1,311	935	240	25,228	742	546	138	18,338	569	389	102
1899	44,202	1,300	818	188	25,404	694	492	105	18,798	606	326	83
1900	44,838	1,354	807	182	25,580	731	429	80	19,258	623	378	102
1901	45,478	1,246	810	161	25,756	679	502	100	19,722	567	308	61
1902	46,078	1,245	813	146	26,274	723	486	72	19,804	522	327	74
1903	46,500	1,322	781	157	26,534	738	460	97	19,966	584	321	60
1904	47,350	1,278	933	195	26,984	701	537	111	20,366	577	396	84
1905	47,920	1,168	783	163	27,277	643	450	81	20,643	520	333	82
1906	48,425	1,227	811	163	27,561	685	473	95	20,864	542	338	68
1907	49,400	1,178	848	169	28,207	653	497	84	21,193	525	351	85
Averages of Years 1898 to 1907	46,375	1,262	833	176	26,480	699	487	96	19,895	563	346	80
1908	50,047	1,223	713	158	28,576	676	412	85	21,471	547	301	73



Causes of, and Ages at, Death during year 1908.

CAUSES OF DEATH.	DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING IN OR BEYOND THE DISTRICT.						DEATHS AT ALL AGES OF "RESIDENTS" BE- LONGING TO LOCALITIES, WHETHER OCCURRING IN OR BEYOND THE DISTRICT		TOTAL DEATHS WHETHER OF "RESI- DENTS" OR "NON-RESI- DENTS" IN PUBLIC INSTITU- TIONS IN THE DISTRICT.	
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and up- wards.	St. Mary Sub-Dist.		St. Cuthbert Sub-Dist.
Small-pox ...	...	...	...	...	...	...	...	...	...	...
Measles ...	...	...	...	...	...	...	...	...	...	1
Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ...	23	8	15	...	...	...	...	16	7	...
Diphtheria and Membranous Croup ...	4	...	3	1	...	...	...	4	...	2
Croup ...	1	...	1	...	...	...	...	1	...	...
Fever { Typhus ...	...	...	...	...	...	...	...	...	...	...
Enteric ...	...	...	...	...	...	...	...	...	...	...
Other continued	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza ...	13	4	5	...	1	2	1	6	7	...
Cholera ...	...	...	...	...	...	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...
Diarrhoea ...	14	10	3	...	...	1	...	7	7	...
Enteritis ...	10	7	1	1	1	...	...	5	5	...
Puerperal Fever ...	2	...	...	...	1	...	...	1	1	...
Erysipelas ...	2	...	...	...	2	...	...	...	2	...
Phthisis (Pulmonary Tuberculosis)	56	1	2	2	15	35	1	29	27	4
Other Tubercular Diseases	17	10	2	2	1	2	...	8	9	3
Cancer, Malignant Disease	35	...	...	...	...	24	11	21	14	9
Bronchitis ...	46	6	4	...	...	13	23	30	16	3
Pneumonia ...	65	21	12	2	...	18	12	36	59	7
Pleurisy ...	3	...	...	1	...	1	1	1	2	...
Other Diseases of Respiratory Organs ...	8	1	...	...	1	4	2	3	5	3
Alcoholism, Cirrhosis of Liver	4	...	...	...	...	2	2	2	2	1
Veneral Diseases	1	1	...	...	...	...	...	...	...	...
Premature Birth ...	11	11	...	...	...	...	...	6	5	...
Diseases and Accidents of Parturition	3	2	...	...	...	...	...	1	2	...
Heart Diseases	77	3	...	1	...	45	28	37	40	19
Accidents ...	13	4	1	...	2	6	1	7	6	4
Suicides ...	5	...	...	...	1	4	...	3	2	1
Tubercular Meningitis	17	8	7	1	...	1	...	9	8	2
All other Causes	241	61	2	5	6	79	83	138	103	69
All Causes	671	158	58	16	29	240	170	371	300	128

## LIST OF ILL DEFINED DEATHS REGISTERED 1908.

SEX.	AGE.	CAUSE OF DEATH AS SHOWN IN DEATH RETURN.
Female.	36 years.	Obstinate vomiting 5 days. Exhaustion.
Female.	3 years.	Hyperemesis. Collapse.
Male.	81 years.	Exhaustion.
Male.	2 days.	Harelip Cleft Palate. Respiratory difficulty.
Female.	8 days.	Feebly developed child twin from Prematurity.
Male.	56 years.	Inflammation.
Male.	3 months.	Malnutrition. Cardiac failure.
Male.	12 days.	Sclerema 3 days.













## Deaths Registered from all Causes during the year 1908.

CAUSE OF DEATH.	AGES.										Totals.
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards
II.—LOCAL DISEASES - <i>continued.</i>											
4.— <i>Diseases of Blood Vessels.</i>											
Cerebral Haemorrhage, Embolism, Thrombosis ... ..	..	..	..	1	1	7	10	6	5	1	31
Apoplexy, Hemiplegia ... ..	..	..	..	..	1	1	4	3	2	..	10
Aneurysm ... ..	..	..	..	..	..	..	1	..	..	..	2
Senile Gangrene ... ..	..	..	..	..	..	..	1	3	1	..	5
Embolism, Thrombosis (not Cerebral)	..	..	1	..	..	1	..	..	..	..	2
Phlebitis ... ..	..	..	..	..	..	..	..	..	..	..	..
Varicose Veins ... ..	..	..	..	..	..	..	..	..	..	..	..
Blood Vessels, other Diseases...	..	..	..	..	..	1	1	1	..	..	3
5.— <i>Diseases of Respiratory Organs.</i>											
Laryngitis ... ..	..	..	..	..	..	..	..	..	..	..	..
Membranous Laryngitis (not Diphtheritic) ... ..	..	..	..	..	..	..	..	..	..	..	..
Croup (not Spasmod. or Membr.)	..	1	..	..	..	..	..	..	..	..	1
Larynx, other Diseases (not specified)	..	..	..	..	1	1	..	..	..	..	2
Bronchitis ... ..	6	4	..	1	1	3	7	9	11	2	44
Emphysema, Asthma ... ..	1	..	..	1	..	..	..	1	..	..	4
Pleurisy ... ..	..	..	1	..	..	1	..	1	..	..	3
Fibroid Disease of Lung	..	..	..	..	..	..	..	..	..	..	..
Respiratory Diseases, other ...	..	..	..	..	..	..	1	1	..	..	2











## INFANTILE MORTALITY.

This term is used as an interpretation of the mortality amongst infants under the age of twelve months, and the rates are calculated upon the number of deaths of such infants per 1,000 born.

The Infantile Mortality rate during 1908 was 129 per 1,000.

The rate for the whole of England and Wales was 121 per 1,000, for the 76 great towns it was 128 per 1,000, for the 142 smaller towns 124 per 1,000, and for the whole of England and Wales less the 218 large and small towns, it was 110 per 1,000.

The table shows that the Infantile Mortality rate, 129, was slightly lower than the previous year, but it does not exhibit a fall of a permanent nature, and is exactly the same as it was in 1888, twenty years ago.

The subject of Infantile Mortality, its various and varying causes, and its remedy, has, during later years, called forth the attention of a great number of Public Health Authorities and other Societies and workers, interested in the fearful loss of infant life.

Rates of Infantile Mortality up and down the country, are subject to wide fluctuation, and this fluctuation bears close relationship to the variations of summer temperature and rainfall (Tatham), but the question of the causes of Infantile Mortality does not depend solely upon the climatic variations of summer, they are perennial, and there are many special agencies at work prejudicial to infantile existence.

Amongst these are *ignorance and neglect* on the part of the mother in respect to the feeding of her young.

Alcoholism.

Ante-natal causes.

Injurious conditions incidental to labour and including unskilled midwifery.

Impure milk.

Insanitary environment.

Overcrowding in the house.

Contamination of the infants' food by dust, flies, etc.

The employment of mothers in factories and workshops, practically up to the time of and immediately after the birth of a child.

With such a complexity of causes, the necessary remedies would appear to be almost overwhelming, but shortly, the directions in which the work of reform should be carried out, and which holds out the best assurance of success, are those reforms directed towards a better condition of bodily health in the mother, better nursing and care, including better feeding of the child.

At the important conference on Infantile Mortality which was held in London in June, 1906, the President, the Right Hon. John Burns, M.P., President of the Local Government Board, in his speech, in laying stress upon concentrating the energy upon the mother, said, "What the mother is, the children are. The stream is no purer than the source. Let us glorify, dignify, and purify motherhood by every means in our power. In every respect of this subject let us have good mothering, that is at the bottom of happy, healthy children."

Amongst the resolutions passed at this conference were those recommending:—

The teaching of domestic hygiene to girls in the upper classes in Elementary Schools.

Establishment of milk depôts.



**Earlier notification of births.**

The question of insurance of infant lives under twelve months.

That a mother should not be allowed to engage in such work as factory work for 3 months before the birth of the child, and not return until having produced satisfactory evidence as to the care of the infant.

That houses to which infants are sent to be nursed during the absence of the mother at work should be under supervision by the Local Authority.

That patent foods sold as infants' food should be certified by a Government Analyst as non-injurious.

That there should be more power given under the Dairies, Cowsheds, and Milk Shops Order, to deal with dirty milk, and milk which does not comply with conditions of purity agreed upon.

**That in the opinion of the conference the appointment of qualified women, specially trained in the hygiene of infancy is necessary as an adjunct to public health work.**



## St. Mary's Sub-District.

## INFANTILE MORTALITY DURING THE YEAR 1908.

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.
All Causes.	Certified ...	17	4	...	3	24	18	3	4	5	3	8	5	3	4	5	3	85
	Uncertified ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Common Infectious Diseases.	Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diphtheria, including Membranous Croup ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoeal Diseases.	Whooping Cough ...	...	...	...	...	...	1	...	3	...	1	1	...	1	...	...	...	7
	Diarrhoea, all forms ...	...	...	...	...	...	2	1	...	1	...	1	...	...	1	...	...	6
	Enteritis, Muco-enteritis ...	...	...	...	...	...	...	...	1	...	1	...	...	...	1	...	...	3
	Gastro-enteritis ...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	2
	Gastritis, Gastro-intestinal Catarrh ...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	2
Wasting Diseases.	Premature Birth ...	4	1	...	...	5	1	...	...	...	...	...	...	...	...	...	...	6
	Congenital Defects ...	7	...	...	...	7	1	...	...	...	...	...	...	...	...	...	...	8
	Injury at Birth ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Want of Breast-milk ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Starvation ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Diseases.	Atrophy, Debility, Marasmus ...	4	2	...	1	7	4	1	1	1	1	...	...	...	1	...	...	16
	Tuberculous Meningitis ...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	3
	Tuberculous Peritonitis : Tabes Mesenterica ...	...	...	...	...	...	2	1	1	...	...	...	...	...	...	...	...	4
	Other Tuberculous Diseases ...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	2
	Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes.	Syphilis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rickets ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Meningitis (not Tuberculous) ...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
	Convulsions ...	...	1	...	...	1	2	...	...	...	...	1	...	...	...	...	...	4
	Bronchitis ...	...	...	...	1	1	1	...	...	...	...	...	1	...	1	...	...	4
	Laryngitis ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
	Pneumonia ...	...	...	...	...	...	2	...	1	...	...	...	1	1	...	2	2	9
	Suffocation, overlying ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
	Other Causes ...	1	...	...	1	2	...	...	...	...	...	3	1	1	...	1	1	9
		17	4	...	3	24	18	3	4	5	3	8	5	3	4	5	3	85

Sub-District of St. Mary's

Births in the year { Legitimate, 641. Deaths in the year of { Legitimate Infants 80.  
 { Illegitimate, 35. { Illegitimate " 5.

Population—Estimated to middle of 1908—28,576.

Deaths from all Causes at all Ages—371.





# INFANTILE MORTALITY.

Population, births, birth-rate, and infant mortality rates for a series of years, 1884-1908:—

Year.	Population.	No. of Births.	Rate per 1000.	Infantile Death Rate per 1000 births.
1884	37,285	1303	35.0	158
1885	37,881	1285	34.0	164
1886	38,402	1262	33.0	146
1887	38,793	1214	31.3	141
1888	39,027	1307	33.5	129
1889	39,944	1224	30.6	142
1890	40,500	1215	30.0	150
1891	39,200	1207	30.8	137
1892	39,750	1213	30.5	123
1893	40,150	1389	34.5	178
1894	41,022	1315	32.0	133
1895	41,658	1311	31.4	142
1896	42,294	1246	29.6	137
1897	42,930	1324	30.8	134
1898	43,566	1311	30.0	183
1899	44,202	1306	29.4	145
1900	44,838	1354	30.1	134
1901	45,478	1246	27.3	129
1902	46,078	1245	27.0	117
1903	46,500	1322	28.4	118
1904	47,350	1278	26.7	152
1905	47,920	1168	24.3	139
1906	48,425	1227	25.3	132
1907	49,400	1178	23.8	143
1908	50,047	1223	24.4	129

The 158 deaths of infants under one year of age are recorded under the following headings arranged in order of their frequency:—

Atrophy, Debility, Inanition, Marasmus	...	28
Pneumonia	... ..	21
Premature Birth	... ..	11
Congenital Defects	... ..	11
Diarrhœa	... ..	10
Tabes Mesenterica, Tubercular Peritonitis	...	9
Tubercular Meningitis	... ..	8
Whooping Cough	... ..	8



Convulsions	...	...	...	...	8
Enteritis, Muco-enteritis, and Gastro Enteritis					7
Bronchitis	...	...	...	...	6
Gastritis, Gastro-intestinal Catarrh				...	4
Other Tubercular Diseases			...	...	2
Syphilis	...	...	...	...	1
Other Causes	...	...	...	...	24
Total					158

Amongst the deaths from other causes are—

Want of Breast Milk	...	...	...	4
Meningitis (non-tubercular)			...	2
Overlaying	...	...	...	3

### ZYMOTIC DISEASES.

The number of deaths from this class of diseases was 42 during the past year as compared with 77 the previous year, a large percentage of the deaths in 1907 being due to measles.

Showing number of deaths from Zymotic Diseases during 1906-7-8:—

Diseases.	1906	1907	1908
Scarlet Fever	9	6	1
Measles	1	54	0
Small Pox	0	0	0
Diphtheria and Membranous Croup	5	3	4
Whooping Cough	5	11	23
Typhus Fever	0	0	0
Typhoid do.	1	0	0
Other Fevers (doubtful character)	0	0	0
Epidemic Diarrhoea and Dysentery	13	3	14
Total Zymotic Diseases	34	77	42

# — CHART —

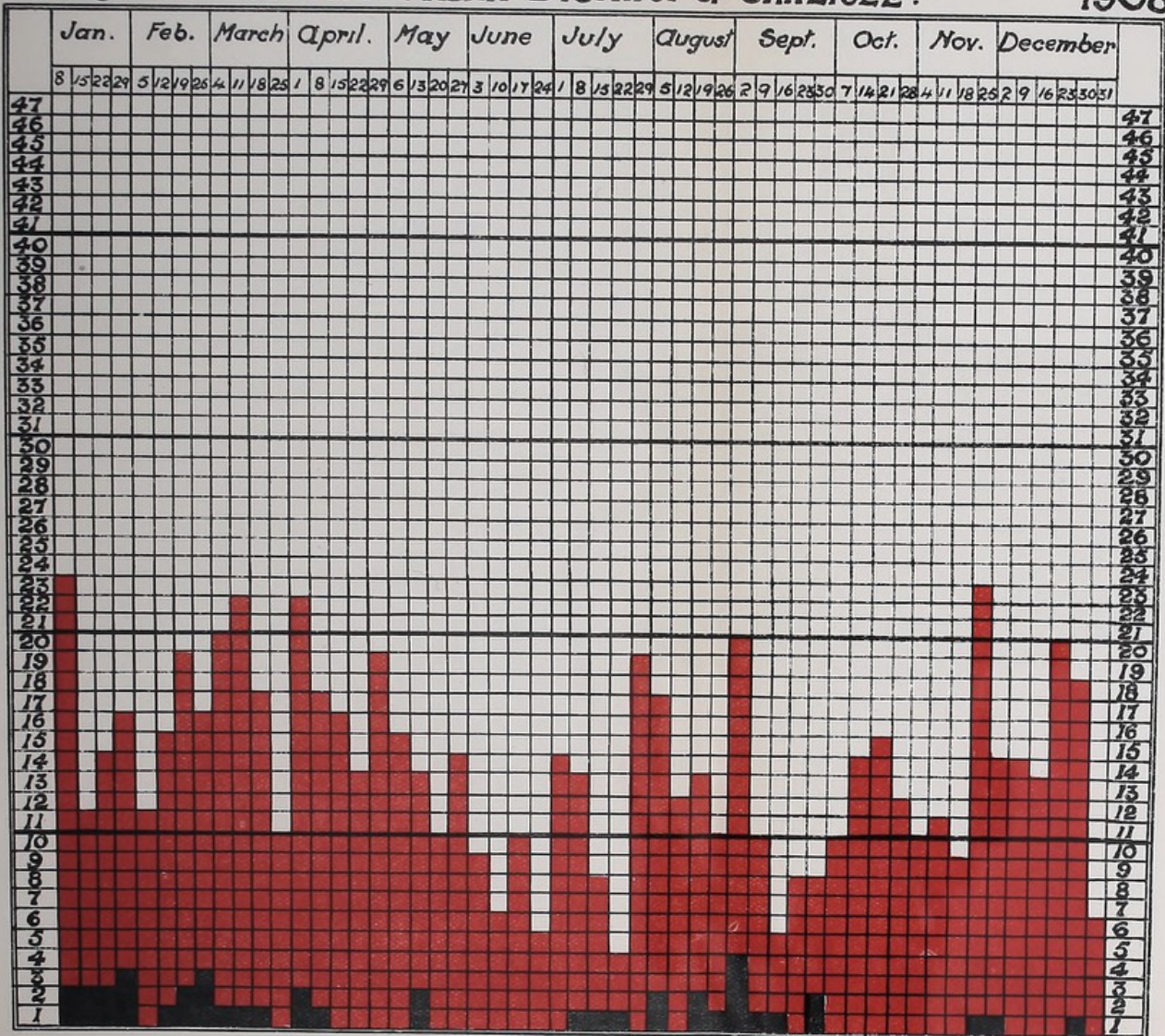
**WEEKLY DEATHS FROM ALL CAUSES SHOWN RED.**

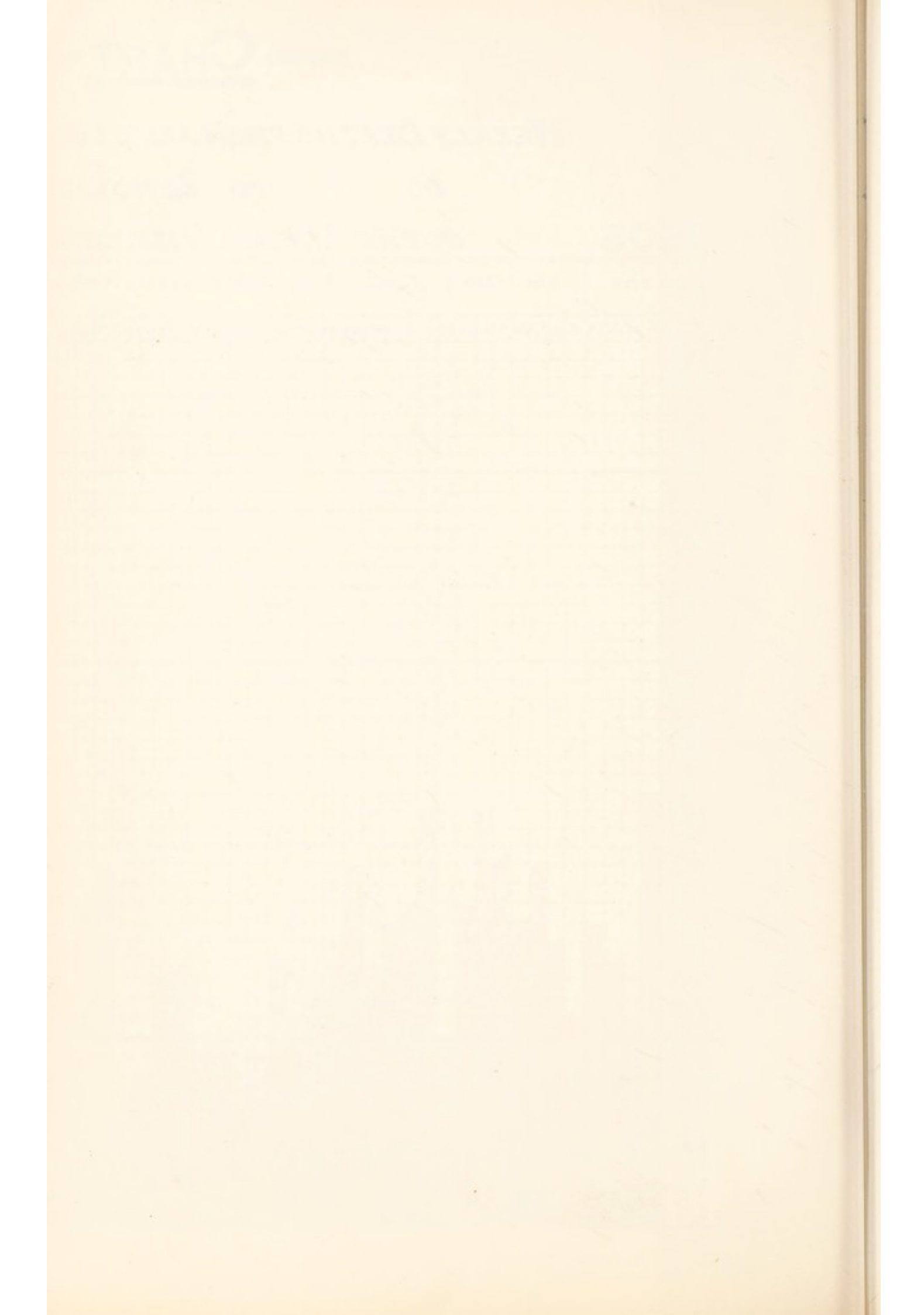
DO.                      DO. ZYMOTICS                      DO. BLACK.

**1908**

**IN THE URBAN DISTRICT OF CARLISLE.**

**1908**







The following table shows the number of notifications to the Sanitary Authority during the year of each disease specified in the Infectious Diseases (Notification) Act:—

Nature of Infectious Disease.	Number of Notifications sent in during				Totals.
	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	
Smallpox ... ..	0	0	0	0	0
Diphtheria ... ..	4	5	5	13	27
Membranous Croup ... ..	0	4	0	1	5
Erysipelas ... ..	19	13	7	24	63
Scarlet Fever ... ..	7	11	10	61	89
Typhoid or Enteric Fever	0	0	0	2	2
Typhus Fever ... ..	0	0	0	0	0
Relapsing Fever ... ..	0	0	0	0	0
Continued Fever ... ..	0	0	0	0	0
Puerperal Fever ... ..	1	2	0	0	3
Totals ... ..	31	35	22	101	189

Table showing the Number of Deaths from the principal Zymotic Diseases in the 10 Years  
1898 to 1907, and in the year 1908.

DISEASE.	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	Annual Average of 10 Years 1898-1907	Total Deaths in 1908.
Smallpox .....	...	...	...	...	...	4	...	...	...	...	4	...
Measles.....	59	5	13	5	10	3	7	17	1	54	17.4	...
Scarlet Fever .....	8	3	2	6	17	5	3	5	9	6	6.4	1
Diphtheria * .....	9	2	3	14	41	20	14	6	5	3	11.7	4
Whooping Cough.....	1	20	17	14	5	20	20	11	5	11	12.4	23
Typhus .....	...	...	...	...	...	...	...	5	...	...	5	...
Enteric .....	2	1	2	5	7	3	3	3	1	...	2.7	...
Simple continued .....	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhea .....	24	11	23	20	2	3	16	19	13	3	13.4	14
Totals .....	103	42	60	64	82	58	63	66	34	77	64.9	42
Rate per 1000 of population.....	2.4	.9	1.4	1.3	1.7	1.2	1.3	1.3	0.7	1.5	1.3	.84

\* Includes Membranous Croup.  
Diarrhea and Whooping Cough caused the greatest mortality.

LOCALITIES OF DEATHS FROM PRINCIPAL  
ZYMOTIC DISEASES.

LOCALITY.	Smallpox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Typhus Fever	Enteric Fever	Diarrhoea
<i>St. Mary's Sub-District—</i>								
Chapel Street, Willow Holme	...	...	...	...	1	..	...	...
Northumberland Street	...	...	...	...	1	...	...	...
Sheffield Street	...	...	...	...	1	...	...	...
Morton Street	...	...	...	...	1	...	...	...
Studholme's Lane	...	...	...	1	1	...	...	...
Willow Holme	...	...	...	...	1	...	...	...
Finkle Street	...	...	...	...	1	...	...	...
Lonsdale's Lane	...	...	...	...	1	...	...	...
Fever Hospital	...	...	1	2	...	...	...	...
Trinity Buildings	...	...	...	...	1	...	...	...
West Walls	...	...	...	...	1	...	...	...
Crummock Street	...	...	...	...	1	...	...	...
Priory Road	...	...	...	...	1	...	...	...
Granville Road	...	...	...	...	1	...	...	...
Rigg Street	...	...	...	...	1	...	...	1
Westmorland Street	...	...	...	...	2	...	...	...
Devonshire Walk	...	...	...	...	...	...	...	1
Scotch Street	...	...	...	...	...	...	...	2
Isabella Street	...	...	...	...	...	...	...	1
Denton Street	...	...	...	1	...	...	...	...
<i>St. Cuthbert's Sub-District—</i>								
Raven Street	...	...	...	...	1	...	...	...
King Street	...	...	...	...	1	...	...	4
Brook Street	...	...	...	...	2	...	...	...
Oswald Street	...	...	...	...	1	...	...	...
St. Nicholas	...	...	...	...	1	...	...	...
Saddle Lane	...	...	...	...	1	...	...	...
South John Street	...	...	...	...	...	...	...	1
Union Street	...	...	...	...	...	...	...	3
South George Street	...	...	...	...	...	...	...	1
Totals	..	...	1	4	23	..	...	14



## Cases of Infectious Diseases notified during the year 1908.

NOTIFIABLE DISEASE	Cases notified in whole District.							Total Cases notified in each Locality.		No of Cases removed to Hospital from each Locality.		TOTAL CASES REMOVED TO HOSPITAL.
	At all ages.	At Ages—Years.						St. Mary Sub- District.	St. Cuthbert Sub-District.	St. Mary Sub- District.	St. Cuthbert Sub-District.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	65 and upwards.					
Small Pox... ..	...	...	...	...	...	...	...	..	...	...	...	...
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (in- cluding Mem- branous Croup) }	32	...	12	16	3	1	..	18	13	12	8	20
Erysipelas ... ..	63	3	1	3	10	43	3	45	19	2	..	2
Scarlet Fever ...	89	2	27	52	5	3	...	37	52	20	36	56
Typhus Fever ... ..	...	...	...	...	...	...	...	...	..	...	...	...
Enteric Fever ...	2	...	...	...	2	...	..	2	..	1	..	1
Relapsing Fever ...	...	...	...	..	...	...	..	...	...	..	...	...
Continued Fever ..	...	...	...	...	...	...	...	..	...	..	..	...
Puerperal Fever ...	3	..	...	...	2	1	..	2	1	...	..	...
Plague ... ..	...	...	..	...	..	...	...	...	...	...	...	...
Totals ... ..	189	5	40	71	22	48	3	104	85	35	44	79

## SCARLET FEVER OR SCARLATINA.

The number of cases of this disease notified to the Health Department, principally through the provisions of the Infectious Diseases Notification Act was 89 compared with 177 cases notified in 1907. No death occurred belonging to the City from this disease during the year. One case of Scarlet Fever occurred in a showman's van, which was probably imported from Lockerbie. The case was kept under observation until convalescent. The van and other effects were afterwards disinfected.

Of the 89 cases notified 56 or 62.9 per cent. were sent to the Isolation Hospital.

The following table gives the incidence of Scarlet Fever for 1906, 1907, and 1908, in scholars attending the following schools:—

			1906.	1907.	1908.
Robert Ferguson Schools	...	...	73	25	2
Brook Street	do.	...	60	16	15
Denton Holme	do.	...	45	12	0
Caldewgate	do.	...	21	12	0
Ashley Street	do.	...	54	11	11
St. Bede's	do.	...	14	8	1
Fawcett	do.	...	16	6	1
St. John's	do.	...	29	5	0
Christ Church	do.	...	9	5	0
Bishop Goodwin	do.	...	40	4	18
St. Stephen's	do.	...	16	3	1
Holy Trinity	do.	...	17	2	0
St. Cuthbert's	do.	...	6	1	0
Botcherby	do.	...	2	1	0
Private	do.	...	3	1	0
Higher Grade School	...	...	7	0	0
Upperby Schools	...	...	5	0	1
Grammar School	...	...	3	0	0
St. Patrick's Schools	...	...	3	0	0
Girls' High School	...	...	2	0	0
Lowther Street Schools	...	...	10	0	1
Norman Street	do.	...	—	—	2
St. Thomas's Convent (Chatsworth Square)	...	...	—	—	1
No. School	...	...	235	65	35
			<hr/> 670	<hr/> 177	<hr/> 89

#### DIPHTHERIA.

Thirty-one cases of Diphtheria and Membranous Croup were notified, 18 from St. Mary's and 13 from St. Cuthbert's Registration Sub-Districts respectively.

Twenty cases in all were removed to the Isolation Hospital,

There were four deaths from this disease equal to 12.9 per cent. compared with a percentage of 21.3 the previous year.

Table showing incidence of Diphtheria for 1906-7-8 in scholars attending the following schools:—

			1906.	1907.	1908.
Ashley Street Schools	..		0	5	4
Robert Ferguson do.	...		1	0	1
St. John's do.	...		1	1	1
Higher Grade do.	...		0	1	0
Denton Holme do.	...		0	0	0
Brook Street do.	...		1	0	1
Fawcett do.	...		1	0	1
Kendal Street do.	...		0	0	1
Christ Church do.	...		0	0	0
St. Bede's do.	...		0	0	1
St. Cuthbert's do.	...		0	0	0
Lowther Street do.	...		0	0	0
St. Stephen's do.	...		0	0	0
St. Patrick's do.	...		0	0	1
Botcherby do.	...		0	0	1
Goodwin do.	...		2	0	3
Cathedral School	...	...	0	0	0
Private Schools	...	...	2	0	0
No. School	...	...	12	5	12
Totals.			20	12	27



Tabular statement of cases of Diphtheria during the year 1908, with action taken thereon:—

Date.	Locality.	Insanitary conditions present.	Action taken.	Result.
1908. Jan. 6th.	Warwick Road	None	Removed to Isolation Hospital	No extension
" 14th	Hassel Street	None	Isolated at home, and subsequent disinfection	Do.
" 27th	Newtown Road	Drains defective	Removed to Isolation Hospital	Do.
Feb. 21st	Derwent Street	None	Do.	Do.
Apr. 6th	Lindisfarne Street	None	Do.	Do.
" 18th	Strand Road	None	Isolated at home, and subsequent disinfection	Do.
" 22nd	Garfield Street	None	Do.	Do.
" 22nd	Do.	None	Do.	Do.
June 6th	Orfeur Street	Drains defective	Do.	Do.
July 6th	Denton Street	None	Do.	Do.
" 30th	Grey Street	None	Do.	Do.
Aug. 5th	Granville Road	None	Do.	Do.
Sept. 17th	South Street	None	Removed to Isolation Hospital	Do.
" 22nd	Simpson's Ct. C'gate.	None	Do.	Do.
Oct. 21st	South Western Terr.	None	Do.	Do.
" 21st	Do.	None	Do.	Do.
Nov. 12th	Princess Street	None	Do.	Do.
" 13th	Clift Street	None	Do.	One extension
" 13th	Do.	None	Do.	Do.
" 13th	Do.	None	Do.	Do.
" 19th	Wood Street	None	Do.	No extension
" 20th	Denton Street	None	Do.	Do.
" 26th	Gibbon's Terrace	Drains defective	Do.	Do.
" 30th	Clift Street	None	Do.	Do.
Dec. 2nd	Clementina Terrace	None	Do.	Do.
" 7th	Strand Road	None	Isolated at home, and subsequent disinfection	Do.
" 31st	Crummock Street	None	Removed to Isolation Hospital.	Do.

Secondary Cases of Scarlet Fever and Diphtheria.  
SCARLET FEVER.

Address.	Date of notification of first case.	Date of Discharge of first case from Hospital.	Date of notification of second or more cases at same house.	If sent to Hospital.	If treated at home.
Blackwell Road ...	3rd Nov., 1908	30th Dec., 1908	8th Nov., 1908	Yes	No
Thomson Street ...	12th Nov., 1908	11th Jan. 1909	23rd Nov., 1908	Yes	No
Currock Road ..	17th Nov., 1908	...	22nd Jan., 1909	No	Yes
Montreal Street ...	29th Nov., 1908	3rd Feb., 1909	17th Dec., 1908 19th Dec., 1908 21st Dec., 1908	Yes	No
Sybil Street ...	1st Dec., 1908	...	8th Jan., 1909	No	Yes
Sybil Street ...	1st Dec., 1908	27th Jan., 1909	2nd Dec., 1908 15th Dec., 1908	Yes	No
Harold Street ...	11th Dec., 1908	Not yet discharged	16th Feb., 1909	Yes	No

DIPHTHERIA.

Clift Street ...	13th Nov., 1908 (3 cases)	...	30th Nov., 1908 (1 case)	All sent to Hospital	No
------------------	------------------------------	-----	-----------------------------	----------------------	----

No return case of Scarlet Fever or Diphtheria occurred during the year.

SMALLPOX.

The district was free from Smallpox during the year.

MEASLES.

No death due to Measles was recorded during the year.

Annual Mortality from Measles in the Carlisle Urban Sanitary District from 1874 to the present time:—

1874	...	...	...	1
1875	...	...	...	56
1876	...	...	...	5
1877	...	...	...	12
1878	...	...	...	2
1879	...	...	...	22

1880	...	...	...	4
1881	...	...	...	0
1882	...	...	...	36
1883	...	...	...	11
1884	...	...	...	0
1885	...	...	...	22
1886	...	...	...	4
1887	...	...	...	16
1888	...	...	...	3
1889	...	...	...	44
1890	...	...	...	1
1891	...	...	...	22
1892	...	...	...	3
1893	...	...	...	77
1894	...	...	...	20
1895	...	...	...	5
1896	...	...	...	1
1897	...	...	...	1
1898	...	...	...	59
1899	...	...	...	5
1900	...	...	...	13
1901	...	...	...	5
1902	...	...	...	10
1903	...	...	...	3
1904	...	...	...	7
1905	...	...	...	17
1906	...	...	...	1
1907	...	...	...	54
1908	...	...	...	0

#### TYPHOID FEVER.

Only two notifications were received during the year from this disease. One of the cases which was removed to the Isolation Hospital, soon after admission, gave rise to symptoms which negated the previous diagnosis of Typhoid Fever. It was in reality a case of Tuberculous Meningitis, which disease in its early stages may be indistinguishable from Typhoid Fever.



*Tabular Statement of the Cases notified as Typhoid Fever during the year 1908, with action taken thereon.*

Date.	Locality.	Insanitary conditions present	Action taken.	Result.
11th Oct.	Murrell Hill	None	Removed to Hospital and house disinfected.	One case No extension
31st Oct.	East Dale Street	None	Isolated at home. House afterwards disinfected	One case No extension

TYPHOID FEVER IN CARLISLE.

BEFORE ADOPTION OF NOTIFICATION ACT.					Annual	No. of Cases.	
Typhoid Cases estimated from the deaths on the basis of the case mortality of Typhoid Fever during the 18 years of compulsory notification.	1874	...	...	...	...	172	
	1875	...	...	...	...	180	
	1876	...	...	...	...	75	
	1877	...	...	...	...	37	
	1878	...	...	...	...	82	
	1879	...	...	...	...	82	
	1880	...	...	...	...	112	
	1881	...	...	...	...	52	
	1882	...	...	...	...	67	
	1883	...	...	...	...	60	
	1884	...	...	...	...	52	
	1885	...	...	...	...	7	
	1886	...	...	...	...	45	
	1887	...	...	...	...	127	
	1888	...	...	...	...	60	
	1889	...	...	...	...	7	
	Cases of Typhoid Fever notified during 18 years of compulsory notification.	1890	...	...	...	...	21
		1891	...	...	...	...	18
1892		...	...	...	...	32	
1893		...	...	...	...	20	
1894		...	...	...	...	15	
1895		...	...	...	...	20	
1896		...	...	...	...	13	
1897		...	...	...	...	19	
1898		...	...	...	...	22	
1899		...	...	...	...	19	
1900		...	...	...	...	7	
1901		...	...	...	...	19	
1902		...	...	...	...	16	
1903		...	...	...	...	6	
1904		...	...	...	...	15	
1905		...	...	...	...	7	
1906		...	...	...	...	5	
1907		...	...	...	...	1	
1908		...	...	...	...	2	

## DIARRHŒA.

The number of deaths from all forms of this disease was 14, as compared with 3 in 1907; 10 of the deaths were infants under 1 year, and 13 out of the 14 were children under 5 years.

Deaths from this disease are more numerous during the hotter months of the year. Twelve out of the 14 deaths took place as follows:—July 2, August 3, September 7. Epidemic Diarrhœa occurs every year, and its intensity varies considerably from year to year.

There is a strong relationship between the occurrence of epidemic Diarrhœa, temperature, and other atmospheric and telluric (earth) conditions, a hot dry summer being usually associated with an increase in the number of deaths from Diarrhœa, and a cool wet summer with a decrease.

It will be observed from the foregoing remarks that the conditions which favour the occurrence of Diarrhœa, are such as are responsible for the dissemination of dust and dirt, an increase in the number of house flies, and increased susceptibility of all food stuffs to rapidly decompose, and these are the most important exciting causes of the malady.

So that with the approach of hot weather, greater precautions should be taken to prevent decomposition and contamination of food stuffs, particular mention of which might be made to milk, which readily decomposes in warm weather, which forms the principal diet of infants, amongst whom the greater number of deaths from Diarrhœa are found.

Last year a warning with regard to Diarrhœa was issued in form of a poster, which was placed at the entrance to all courts, lanes, and narrow streets in the City (see appendix).



## Mortality from Diarrhœa and Typhoid Fever—1874—1908.

Year.	DEATHS FROM DIARRHŒA.															Deaths from Typhoid Fever.
	Autumn Quarter. No. Registered.	Rate per-1000 of population	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total for Year.	No. Registered.
1874	35	1.50	2	2	...	...	1	1	6	20	9	6	...	3	50	23
1875	27	1.30	2	...	4	1	2	4	5	12	10	2	...	2	44	24
1876	12	1.10	3	1	3	3	1	...	2	5	5	1	6	7	37	10
1877	10	.84	2	1	2	1	2	2	2	6	2	1	3	4	28	5
1878	26	1.06	1	2	1	1	3	3	9	8	9	1	1	1	40	11
1879	4	.34	2	1	1	1	...	2	2	2	...	...	1	...	12	11
1880	31	1.20	...	...	5	...	...	...	3	7	21	5	1	...	42	15
1881	7	.50	...	2	...	2	...	2	2	2	3	3	...	2	18	7
1882	17	.55	...	1	...	...	...	1	5	7	5	1	...	...	26	9
1883	8	.45	...	2	...	...	...	...	...	3	5	6	1	...	17	8
1884	14	.61	2	...	...	1	1	1	7	3	4	3	1	...	23	7
1885	4	.26	1	1	1	...	...	1	2	2	...	...	1	1	10	1
1886	8	.60	1	2	...	...	...	2	1	1	6	7	1	2	23	6
1887	7	.36	1	...	1	2	...	2	...	5	2	1	...	...	14	17
1888	8	.23	1	...	1	1	...	...	...	3	5	1	...	1	13	8
1889	6	.27	2	1	...	...	...	...	...	5	1	1	...	1	11	1
1890	16	.54	...	...	2	...	1	...	1	7	8	1	1	1	22	2
1891	5	.22	1	...	...	...	...	1	1	2	2	2	...	...	9	2
1892	2	.10	1	...	...	...	...	...	...	...	2	1	...	...	4	3
1893	9	.49	...	2	2	2	...	2	...	2	7	1	2	...	20	5
1894	1	.09	...	...	...	...	...	...	...	...	1	1	2	...	4	2
1895	3	.24	2	1	...	1	...	...	1	...	2	3	...	...	10	4
1896	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
1897	4	.21	...	...	2	1	...	...	1	...	3	2	...	...	9	3
1898	16	.57	...	...	2	...	1	1	1	4	11	2	1	1	24	2
1899	10	.25	...	...	...	...	...	...	...	3	7	1	...	...	11	1
1900	7	.53	...	...	...	1	...	4	1	3	3	8	3	...	23	2
1901	11	.43	2	3	...	...	...	1	1	5	5	3	...	...	20	5
1902	1	.04	...	...	...	...	...	...	1	...	...	...	1	...	2	7
1903	1	.06	...	...	1	...	...	1	...	...	1	...	...	...	3	3
1904	7	.33	...	...	...	...	...	1	...	4	3	2	3	3	16	3
1905	10	.39	3	...	...	1	2	...	...	5	5	2	1	...	19	3
1906	7	.26	2	...	1	1	...	...	...	2	5	...	2	...	13	1
1907	...	.05	...	...	...	...	1	2	...	...	...	...	...	...	3	...
1908	12	...	...	...	...	1	...	...	2	3	7	...	...	1	14	...

## Age at Death (from Diarrhœa), 1908.

Under 1 Year.	1-5	5-10	10-15	15-25	25-35	35-45	Over 45	All Ages.
10	3	...	...	...	...	...	1	14



## SCHOOL CLOSURE.

It was not found necessary to close any school during the year on account of Epidemic Disease.

## TUBERCULOUS DISEASES.

The list of Tuberculous Diseases includes Pulmonary Tuberculosis (Phthisis), Tuberculous Meningitis, Tuberculous Peritonitis, Generalized Tuberculosis and Tabes Mesenterica, to which conditions are assigned during last year 90 deaths, 56 of which were due to Tuberculosis of the lungs.

## PHTHISIS.

The commonest of Tuberculous diseases, namely, Tuberculous disease of the Lungs (Phthisis), is an infective disease transmitted from man to man, and from animals to man.

By far the greater number of cases are those which are caused by infection with the bacilli from the sputum of a person suffering from Tuberculosis of the Lungs.

Tuberculosis cannot occur in any part of the body without the introduction of the specific bacillus; it is a disease especially of the poor, and the infection of healthy persons by those suffering from the disease is very often due to ignorance, filthy habits, and mode of living.

Towns suffer from it more than rural districts, and there is a close relationship between overcrowding of houses and of rooms and Phthisis mortality; overcrowding very often means poverty, and is usually accompanied by an impure atmosphere in the rooms.

Many trades predispose to the disease, especially those in which the trade process is accompanied by the formation of dust, or where work is carried on in overcrowded, hot, moist workrooms.

Intemperance is an important predisposing factor, as also is any other debilitating condition which may be at work.

“ Phthisis depends largely upon known and remediable conditions and improved hygiene, and has led to a steady decline in mortality from this cause. Nevertheless it still ranks amongst the most fatal diseases, especially during adult life, and so recently as the decennial period, 1894—1903, it was the recorded cause of nearly one-tenth of the whole mortality of England, and about 40% of the deaths at ages between 20 and 45 (Newsholme).”

#### AGES AT DEATH OF THE 56 CASES IN CARLISLE DURING 1908.

Under 1 Year.	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65-75	All Ages.
1	2	2	14	12	9	10	5	1	56

St. Mary's Sub Registration District ...	29
St. Cuthbert's do. do. ...	27
	—
Total ...	56
	—

Three of the chief diseases of the chest, viz., Pneumonia, Bronchitis, and Pleurisy, accounted for 112 deaths during 1908.

St. Mary's Sub Registration District ...	66
St. Cuthbert's do. do. ...	46
	—
Total ...	112
	—



# PULMONARY TUBERCULOSIS (PHTHISIS), TABES MESENTERICA, & TUBERCULAR MENINGITIS.

The following table gives the number and nature of notifications sent by Parochial Medical Officers and Medical Officers of Public Institutions:—

Date.	Sex.	Age.	Address.	Name of Disease.
1908.				
Jan. 1st	Female	—	Newtown ... ..	Pulmonalis Phthisis
Feb. 7th	Male	$\frac{4}{12}$	Barrock Street ... ..	Tabes Mesenterica
" 7th	Do.	7 wks.	Back Solway Street ... ..	Do.
" 11th	Do.	10	South John Street ... ..	Phthisis
" 11th	Do.	25	Willow Holme ... ..	Do.
" 11th	Female	34	Trinity Buildings ... ..	Do.
" 18th	Do.	44	Crescent Place ... ..	Do.
Mar. 2nd	Do.	$\frac{1}{12}$	South George Street ... ..	Tabes Mesenterica
" 10th	Male	15	South John Street ... ..	Phthisis
" 10th	Do.	—	Brook Street ... ..	Do.
April 6th	Do.	27	Mary Street ... ..	Do.
" 6th	Do.	$\frac{5}{12}$	Rigg Street ... ..	Tabes Mesenterica
" 6th	Do.	6 wks.	Do. ... ..	Do.
" 6th	Do.	Do.	Do. ... ..	Do.
May 1st	Do.	24	Milbourne Street ... ..	Phthisis
" 1st	Do.	27	Wood Street ... ..	Do.
" 1st	Female	10wks.	Water Street ... ..	Tabes Mesenterica
" 1st	Male	—	Shaddongate ... ..	Do.
" 9th	Do.	22	Scotch Street ... ..	Phthisis
" 9th	Do.	—	South John Street ... ..	Tabes Mesenterica
" 15th	Female	7	William Street ... ..	Phthisis
" 27th	Do.	25	John Street ... ..	Do.
" 27th	Male	—	19 Queen Street ... ..	Do.
June 10th	Female	7 $\frac{1}{2}$	White Row ... ..	Do.
" 12th	Do.	3 $\frac{1}{2}$	Old Greystone ... ..	Phthisis and Tabes Mesenterica
" 12th	Do.	37	Trinity Buildings ... ..	Phthisis
" 22nd	Male	32	Scotch Street ... ..	Do.
July 3rd	Female	9	Duke Street ... ..	Do.
" 8th	Do.	39	Milbourne Street ... ..	Do.
" 22nd	Male	10wks.	Willow Holme ... ..	Tabes Mesenterica
" 22nd	Do.	—	Botchergate ... ..	Phthisis
" 25th	Do.	—	Trinity Buildings ... ..	Do.
Aug. 7th	Do.	—	Milbourne Street ... ..	Do.
" 7th	Female	16	Montreal Street ... ..	Do.
" 18th	Do.	11	Union Street ... ..	Do.
" 18th	Male	—	Byron Street ... ..	Do.
" 18th	Female	19	Rigg Street ... ..	Do.
" 21st	Male	—	Bassenthwaite Street ... ..	Do.
" 21st	Do.	46	Blackfriars Street ... ..	Do.
" 25th	Do.	—	Willow Holme... ..	Do.
" 28th	Do.	1	Union Street ... ..	Do.
" 28th	Female	5	East Norfolk Street ... ..	Tubercular Meningitis



*Pulmonary Tuberculosis, &c.—Continued.*

Date.	Sex.	Age.	Address.	Name of Disease.
Sept. 1st	Male	38	South John Street ... ..	Phthisis
" 2nd	Do.	15	Union Street ... ..	Do.
Oct. 9th	Do.	38	Priory Road ... ..	Do.
" 30th	Do.	—	English Damside ... ..	Do.
Nov. 5th	Do.	—	Charlotte Street ... ..	Do.
" 5th	Do.	—	Oswald Street ... ..	Do.
" 5th	Do.	—	Kendal Street ... ..	Do.
" 5th	Do.	—	London Road ... ..	Do.
" 5th	Do.	—	Collingwood Street ... ..	Do.
" 5th	Do.	—	Norfolk Street .. ...	Do.
" 17th	Do.	45	Annetwell Street ... ..	Do.
" 17th	Do.	—	Milbourne Street ... ..	Do.
" 17th	Do.	—	Charles Street ... ..	Do.
Dec. 1st	Do.	—	Devonshire Walk ... ..	Do.
" 11th	Do.	—	West Walls .. ...	Do.
" 14th	Do.	—	Scotch Street ... ..	Do.

ACREAGE, PHTHISIS, DENSITY, INFANT  
MORTALITY, &c.

Wards.	Acreage.	Density of population per acre.	Phthisis. Death rate per 1,000 of population	Birth Rate.	General Death Rate.	Infantile Mortality.
Castle ... ..	131	33	...	16·8	9·5	202·7
Rickergate ... ..	342	13	·4	15·3	12·3	117·6
Aglionby ... ..	120	47	·7	14·7	9·8	47·6
Greystone .. ...	77	79	1·4	28·7	20·6	124·2
St. Nicholas ... ..	126	38	1·6	28·3	14·4	143·8
Carrock ... ..	228	26	·9	28·4	12·1	152·0
Denton Holme .. ..	95	46	·4	25·6	10·2	115·0
Murrell Hill ... ..	211	22	1·6	20·6	10·1	102·0
Caldewgate ... ..	165	24	1·7	30·3	15·3	195·1
Newtown ... ..	533	9	1·3	33·5	25·9	90·9

CANCER.

The deaths from malignant disease of the several varieties recorded, amounted to 35 as compared with 48 the previous year.

The age distribution was as follows:—

Age.				1908
25—35 years	...	...	...	1
35—45 „	...	...	..	3
45—55 „	...	...	...	8
55—65 „	...	..	...	12
65 and over	...	...	..	11
Total				35

### PUBLIC SLAUGHTER HOUSES. MEAT INSPECTION, ETC.

During the year 92 examinations of diseased carcasses have been made, as compared with 117 in 1907.

The following table gives particulars of the carcasses examined:—

Animal.				Number of Examina- tions.	Whole Carcass pronounced unfit for food.	Portions of Carcass pronounced unfit for food.	Number affected with Tuber- culosis.
Oxen	...	...	...	49	29	20	29
Sheep	...	...	...	31	20	11	...
Goats	...	...	...	...	...	...	...
Calves	...	...	...	5	4	1	1
Pigs	...	...	...	7	5	2	1
Totals				92	58	34	31

## COMMON LODGING HOUSES.

No prosecutions were instituted against Registered Lodging House Keepers, but proceedings were entered against four other householders for keeping common lodging houses contrary to the provisions of the Act. Convictions were obtained in all four cases.

## INQUESTS.

The City Coroner held 35 inquests during the past year. Of these 26 were held upon the bodies of those who had been resident in the City, and 9 upon the bodies of persons who had resided in other districts of the County, but who died within the City.

Six of the inquests were held upon the bodies of children under five years, four of these being children under one year.

The finding of the Jury in these six cases respectively were:—

- |                                              |     |               |
|----------------------------------------------|-----|---------------|
| (1) Suffocation by overlaying                | ... | age, 10 weeks |
| (2) Suffocated in bed                        | ... | „ 4 weeks     |
| (3) Shock from scalding                      | ... | „ 10 months   |
| (4) Shock from burns                         | ... | „ 2½ years    |
| (5) Heart failure whilst under<br>chloroform | ... | „ 6 months    |
| (6) Suffocated whilst in bed                 | ... | „ 5 weeks     |

## UNCERTIFIED DEATHS.

Fourteen deaths were registered without a certificate, either by a Medical Practitioner or by the Coroner. Four of these were infants under one year of age, the deaths being registered as follows:—

	Sex.	Age.	Cause of Death.
1	Female ..	11 days ..	Sclerema Neonatorum
2	Male ...	9 months ...	Convulsions
3	Not stated ...	5 hours ...	Inanition
4	Male ...	8 months ...	Influenza



## DISINFECTION.

An attempt has been made during the past year to bring about a better system of disinfection of rooms in the City in cases where Infectious Diseases have occurred, but, in the absence of disinfection of the bedding and articles of clothing which cannot be boiled, whatever has been done in this direction, and however satisfactory it may have been, it is accompanied by a false sense of security.

The term disinfection means the destruction of agents causing infection. An object is said to be infected when it is contaminated with those living germs which are capable of causing disease, so that thorough disinfection means that articles of clothing, bedding, etc., which have been in contact with, or which have received upon them the voided infective materials from the skin, mouth, nose, ears, or internal organs of a person suffering from one of the dangerous infective diseases, must either be destroyed, boiled, or disinfected by steam (and it is difficult for many reasons to be sure of thorough disinfection by any other means).

To destroy all the articles of bedding and clothing, means a large and unjustifiable expenditure, seeing that a Local Authority must compensate for any articles they destroy.

Many articles cannot be boiled, in fact the greatest bulk, and by far the greater number of articles are composed of materials which will not admit of boiling without causing alteration of such a character as to render them unfit for further use. On the other hand, steam disinfection can be utilised for practically every article that is to be disinfected, and whilst possessing the advantage where apparatus is available for steam disinfection of contaminated articles from the ordinary cases of infectious disease, the Local Authority has more chances of fulfilling its obligation towards fighting, and endeavouring to minimise the incidence and death-rate from the greatest of all social evils, viz.:—Tuberculosis of the Lungs.

Research has thrown a flood of light upon the causation and spread of this disease, but more recently

light equally important, and much more obligatory, has been brought to bear upon those concerned, viz., Health Authorities, in respect to the question of its extinction.

Thorough disinfection in all infective diseases should be the aim of those concerned in their administration, but disinfection in Tuberculosis in the future must receive more consideration from Health Authorities, and it is in this disease particularly that the question of steam disinfection arises.

Infective diseases cannot be prevented, much less eradicated, if administrative desiderata are absent. Many cases arise through ignorance, and it is in attacking this ignorance by teaching that our constructive policy of reform must proceed. But the constituted factor, the disease germ, requires other measures and these only can be obtained by their destruction.

The work of the Department so far as disinfection is concerned may be said to be severely handicapped owing to the absence of a steam disinfector. I understand that the question of the provision of a steam disinfector has on previous occasions received the consideration of the Committee, but the recommendation of the then Medical Officer of Health was not adopted.

The Education (Administrative Provisions) Act, 1907, discloses cases, which it will be the duty of the Education Committee to consider in respect to cleansing of children and disinfection of their verminous clothing.

The Children's Bill, which takes effect from April 1st, 1909, throws similar responsibility and duties upon the Local Authorities.

#### HOUSING OF WORKING CLASSES ACT, 1890. INSANITARY PROPERTY.

During the past year I have reported upon the insanitary condition of four separate properties which are set out in detail in the Sanitary Inspector's Report, and I have visited the properties several times since.



The Durham Ox Lane property reported, was allowed to fall into a total ruin.

The Barley Stack Lane property reported, was repaired, and put into a habitable condition.

The Drovers' Lane property, reported, is under repair, and the repair of the Scott's Court property is contemplated.

I have met the owner of this last named property upon the site, and he has agreed to remove entirely one dwelling which projects the width of the Court, and practically cuts the Court into two portions.

The demolition of this house and the repair to the remaining property will be very beneficial to the health of the inmates of the Court.

#### WATER SUPPLY.

The Corporation are to be congratulated upon their excellent works of Water Supply, which, when the storage reservoir is completed may be regarded as one of the best schemes carried out in this country, comprising as it does an almost inexhaustible source of supply, and a thoroughly efficient impounding, filtration, and distribution plant, the beneficial effects of which may not by any means be the lowest factor contributing towards the substantial decrease in the incidence of certain of the specific diseases.

#### SEWAGE WORKS.

The Corporation are also to be congratulated upon the thoroughly efficient manner in which they have carried out their works of Sewage Disposal, the particular process of sewage purification which they have adopted being one of the very latest and best.

The effluent in appearance exceeds all expectations, and the results of its chemical analysis bear out the prognostications of the most sanguine supporters of the scheme.



## AMBULANCE.

It is gratifying to notice that the Corporation have provided a Horse Ambulance which will be in keeping with every modern requirement, and which will be available for use by the general public either for accidental cases or for the removal of sick or convalescent cases, other than infectious diseases (for which a special ambulance is provided). It is to be kept under the supervision and control of the Police Fire Brigade, and housed at the Fire Station in Spring Gardens Lane.

## FACTORY AND WORKSHOPS' ACT, 1901.

## FACTORIES, WORKSHOPS, BAKEHOUSES, ETC.

I have visited several of the largest Factories, a large number of Workshops, and all the Bakehouses in the District during the past year, in addition to 400 visits made by the Inspectors.

## FACTORIES, WORKSHOPS, WORKPLACES, AND HOMEWORK.

## 1.—INSPECTION OF FACTORIES, WORKSHOPS, AND WORKPLACES.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF NUISANCES.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
FACTORIES . . . . . (Including Factory Laundries)	4	...	...
WORKSHOPS ... .. (Including Workshop Laundries)	386	37	...
WORKPLACES ... .. (Other than Outworkers' premises included in Part 3 of this Report)	...	...	...
TOTAL ... ..	400	37	Nil.

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS, AND  
WORKPLACES.

Particulars.	Number of Defects.			Number of Pro- secutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :—</i>				
Want of cleanliness .. ...	11	11	...	...
Want of ventilation ... ..	...	...	...	...
Overcrowding... ..	1	1	...	...
Want of drainage of floors ..	...	...	...	...
Other nuisances .. ...	2	2	...	...
Sanitary accommodation :—				
{ 1. Insufficient ... ..	...	...	...	...
{ 2. Unsuitable or defective	..	...	...	...
{ 3. Not separate for sexes	...	...	...	...
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of under- ground bakehouse (s. 101) ...	...	...	...	..
Breach of special sanitary re- quirements for bakehouses (ss. 97 to 100) ... ..	23	23	...	...
Other offences ... .. (Excluding offences relating to outwork which are in- cluded in Part 3 of this report)	...			
Total .. ...	37	37	..	...

## 3.—HOME WORK.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.				
	Lists received from Employers.				
	Twice in the year.			Addresses of Outworkers.	Inspection of Out- workers' Premises.
	Lists.	Outworkers.		Received from other Councils.	
Con- tractors.		Work- men.			
Wearing apparel—					
(1) Making, &c. ...	4	1	6	1	4
(2) Cleaning and Washing ...	...	...	...	...	...
Total ..	4	1	6	1	4

## 4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year		
Important classes of work-shops, such as workshop bakehouses, may be enumerated here.	Workshops ...	242
	Bakehouses ...	64
Total number of workshops on Register ...		306

## 5.—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspectors of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133) ... ..	1
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5) :—	
Notified by H.M. Inspectors ... ..	7
Reports (of action taken) sent to H.M. Inspector ... ..	4
Other ... ..	...
Underground Bakehouses (s. 101) :—	
Certificates granted during the year ... ..	...
In use at the end of the year ... ..	3



## PUBLIC BATHS.

The figures below show to what extent the Baths were used during the past year.

The total number of bathers was 42,838.

SWIMMING BATHS.					1st Class.	2nd Class.	Total.
Men	...	...	...	...	2,475	11,342	13,817
Women	...	...	...	...	357	3,589	3,946
Grammar School	...	...	...	...	428	...	428
School Children (Free)	...	...	...	...	...	10,000	10,000
Harraby Hill Boys (Workhouse)	...	...	...	...	...	500	500
Boys' Brigade, &c. (swimmers charged 1d. each, no record taken)	...	...	...	...	...	...	5,000 (approx- imately.)
Club and Contract Bathers	...	...	...	...	3,167	36	3,203
PRIVATE BATHS.							
Men	...	...	...	..	3,381	6,166	9,547
Women	...	...	...	...	141	1,053	1,194
Vapour	...	...	...	...	190	...	190
Salt	...	...	...	...	4	9	13
						Total	42,838

## MORTUARY.

The bodies of 9 persons were conveyed to the Mortuary during the year, and a post-mortem examination was performed upon one of the bodies.

# REPORT ON WATER, CHEMICAL AND BACTERIOLOGICAL.

## CHEMICAL ANALYSIS BY DR. HELLON.

### REPORT ON SAMPLES OF WATER FROM DOMESTIC TAP.

Results shown in grains per gallon.

CHEMICAL.	1908.	
	JUNE.	DECEMBER.
Total Solid Matter in solution dried at 212° F ... ..	7.560	7.280
Chlorine existing as Chlorides ...	.490	.490
Free Ammonia ... ..	.001	Traces
Albuminoid Ammonia ... ..	.003	.002
Nitrogen existing as Nitrates ...	.020	.040
Oxygen absorbed in 15 minutes at 80° F ... ..	.039	.062
Oxygen absorbed in 4 hours at 80° F	.071	.105
Lead and other Poisonous Metals	None	None
Hardness before boiling degrees	5 $\frac{1}{4}$	5 $\frac{1}{2}$
Hardness after boiling do.	$\frac{3}{4}$	$\frac{3}{4}$
Appearance in two-foot tube Clear greenish yellow		Clear Green
Smell when heated at 100° F ...	None	None
Microscopical Examination	A few diatoms and vegetable debris	Slight deposits of vegetable debris
(Plumbo Solvent action, not tested)		

BACTERIOLOGICAL EXAMINATION BY  
PROF. DELÉPINE.

QUANTITATIVE ANALYSIS.		AVERAGE RESULTS OF TWO EXAMINATIONS.			
A Aerobic micro-organisms growing for 3 days in nutrient gelatine at 20° C to 21° C.		Number of colonies in one gramme of water.		No. of kinds of bacteria clearly recognisable.	
		JUNE.	OCTOBER.	JUNE.	OCT.
Non-Liquefying Bacteria	...	13,600	128	2	2
Liquefying Bacteria	...	550	4	2	3
Other Micro-Organisms	...	...	...	..	...
B Anaerobic Micro-Organisms	...	..	...	...	...

QUALITATIVE ANALYSIS.		JUNE	OCTOBER.
A Bacteria associated with sewage or faecal pollution	...	A bacillus giving all the re-actions of B. Coli communis with the exception of the formation of Indol.	Bacillus Coli not found in 10 C C of water.
B Bacteria associated with disease			
(B. Enteritidis Sporogenes)		Nil	Nil



# RAINFALL

Collated by Mr. Walter Veitch, Curator, Cemetery, Carlisle.

MONTHS.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	
											Average for 10 years 1898-1907.	Number of days on which Rain fell.
January	in. 2.58	in. 4.62	in. 2.58	in. 2.02	in. 2.40	in. 4.34	in. 2.18	in. 1.42	in. 4.02	in. 1.16	in. 2.74	14
February	in. 2.73	in. 1.66	in. 3.82	in. 1.08	in. 1.04	in. 5.00	in. 2.24	in. 1.38	in. 1.70	in. 1.74	in. 2.23	18
March	in. .94	in. 1.60	in. .44	in. 1.84	in. 2.36	in. 3.76	in. 2.54	in. 2.56	in. 2.00	in. 2.65	in. 2.06	21
April	in. 3.44	in. 2.58	in. 2.44	in. 2.28	in. 1.58	in. 2.06	in. 2.36	in. 2.90	in. .94	in. 2.06	in. 2.26	16
May	in. 2.98	in. 3.00	in. 1.94	in. 2.02	in. 2.48	in. 2.76	in. 2.62	in. 1.56	in. 3.80	in. 3.30	in. 2.64	24
June	in. 2.38	in. 1.18	in. 6.58	in. 1.76	in. 1.66	in. 1.60	in. 1.86	in. 1.26	in. 1.46	in. 4.64	in. 2.63	10
July	in. 1.06	in. 3.80	in. 1.60	in. 1.26	in. 2.46	in. 4.80	in. 1.84	in. 2.54	in. 2.04	in. 2.38	in. 2.37	18
August	in. 4.04	in. 1.80	in. 5.60	in. 4.40	in. 2.50	in. 4.90	in. 3.54	in. 3.06	in. 4.72	in. 3.32	in. 3.78	16
September	in. 1.64	in. 3.68	in. 1.98	in. .98	in. 1.62	in. 3.76	in. 1.14	in. 2.20	in. 1.30	in. 6.70	in. 1.90	18
October	in. 3.68	in. 2.28	in. 4.74	in. 4.18	in. 2.94	in. 9.54	in. 1.54	in. 2.22	in. 4.40	in. 6.22	in. 4.17	11
November	in. 3.10	in. 3.22	in. 3.70	in. 3.64	in. 1.28	in. 2.58	in. 2.60	in. 2.54	in. 3.02	in. 2.68	in. 2.83	16
December	in. 3.44	in. 1.76	in. 4.14	in. 3.74	in. 3.20	in. 2.14	in. 2.26	in. 1.34	in. 2.48	in. 5.64	in. 3.01	19
Totals	32.01	31.18	39.56	29.20	25.52	47.24	26.72	24.98	31.88	36.49	32.62	201
Total number of days on which Rain fell	204	187	218	187	216	236	198	182	194	211	203	33.30

Health Department,  
Fisher Street,  
14th January, 1909.

## VETERINARY INSPECTOR'S ANNUAL REPORT.

To the Chairman and Members of the Health Committee.

Gentlemen,

I have the honour of submitting to you my tenth Annual Report, which shows the work done by me during the year 1908.

One hundred and sixty newly purchased and newly calved cows have been examined by me, and of these 151 were found to be free from disease. Of the remainder, one was suffering from inflammation of the udder, due to overstocking, one blood poisoning, one enlarged glands in the throat, one catarrhal inflammation of udder, and five had nodular enlargements in the udder. The milk of the latter five animals was submitted for bacteriological examination, and was found to contain pus and blood. The whole of the nine animals were returned to the sellers. I made searching enquiries to ascertain the destination of these cows, and found that they left the district and consequently were no longer a menace to the milk supply of the City.

Three thousand nine hundred and forty-one examinations have been made to ascertain the presence of disease likely to affect the milk supply. In addition to the cases mentioned above, the following diseases likely to affect the milk secretion were discovered amongst the regular occupants of the byres:—Three cases congestion of lungs, one catarrhal inflammation of the udder, one septicæmia, one gastric derangement, 3 milk fever—one of the latter animals was seized with paralysis, and as her case was hopeless, I advised the owner to have her destroyed—one



pulmonary tuberculosis. I kept this animal, which was immediately removed from the byre, under observation for three weeks, the disease progressing very rapidly. I advised the owner to have it destroyed, to which he readily consented. On making a *postmortem* examination on the carcass at Miller's Knackery, I found it had suffered from acute pulmonary tuberculosis, all the other organs being healthy. The milk of the 7 animals that recovered was destroyed until they were convalescent.

In December a serious outbreak of illness occurred in a cowshed, all the cows, 11 in number, being affected. I was called in to attend the same, the symptoms presented being identical in each case. The milk secretion was very much affected, only 3 gallons being obtained as compared with 16 gallons on the previous day. I attributed the illness to the feeding. On making a searching investigation as to the latter, I found that there had been no alteration in the food except that some new hay had been brought on to the premises. My suspicion fell on the hay as the cause of all the mischief. I submitted a sample to Professor Harvey Gibson, and he confirmed my diagnosis. All the animals recovered except one, which has ceased to give milk.

At the request of the Medical Officer of Health, I made the following examinations at the Public Slaughterhouses:—Two carcasses of beef, two carcasses of pigs, and one calf. I certified all the carcasses with the exception of one pig, to be unfit for human food. I was also called to examine the carcass of a heifer suspected to be suffering from anthrax. On microscopical examination of the blood no anthrax bacilli were found to be present.

At the request of the Chief Constable I was also called to investigate a reported case of suspected anthrax at the dog kennels, as one dog had died suddenly and three others were very ill, one seriously. I attributed the illness to ptomaine poisoning. A microscopical slide of blood from the dog that had died had been prepared. I examined the same and found that numerous bacilli were



present, but they were those of putrefaction and not anthrax. The slide was then forwarded to Sir John Mc.Fadyean, London, who confirmed my diagnosis.

The Auction Marts have been regularly visited each Monday, and 14,415 pigs have been examined by me.

The horses belonging to the Corporation Stud numbering 20, including two horses used for Fire Brigade purposes, I am pleased to report have during the past year been free from any illness.

I am,

Your obedient Servant,

R. CRAIG ROBINSON,

Veterinary Inspector.

## APPENDIX.

During the past year I have made the following important recommendations and reports:—

Report recommending the appointment of a Female Sanitary Inspector.

Report on the nuisance caused by dogs in the Covered Markets.

Report on the filthy condition of footwalks, due to faeces of dogs.

Report on the spitting nuisance.

The appointment of a Female Inspector would expedite the work of the Department very much, as so much of the work is of the class for which a Female Inspector is eminently suited. This work does not decrease, because the factors of its production do not lessen, and in addition, new legislative measures tend to increase it more and more. I respectfully call earnest attention to my recommendation.

With respect to the nuisance caused by dogs in the Covered Markets as pointed out in my report to the Markets and Tolls Committee, on June 23rd last, a copy of which is appended, I would point out that in spite of the resolution of the Market and Tolls Committee (a copy of which is appended), very little appreciable change has taken place. Scores of dogs are to be found in the Market on any day the Market is open, and more particularly is this noticed on Saturday mornings. I respectfully call urgent attention to this condition.

A warning was issued in the summer respecting the prevalence of Diarrhœa, a copy of which is appended.

A printed letter was sent round to the cow-keepers and dairy-men, setting forth observations upon the manipulation of milk and milk vessels, a copy of which is appended.

[COPY]

*Copy of recommendation of the Medical Officer of Health respecting the Appointment of a Female Sanitary Inspector, with additional information desired by the Health Committee relating to Female Inspectors in other towns.*

3rd September, 1908.

Owing to the innumerable extra duties which have within the last few years fallen upon Health Departments of local bodies, including, as they do, a number of Acts of Parliament which it is incumbent upon a Health Department to administer compulsorily, combined with the progressive changes embracing more extensive and rigid general Health Administration which have taken place throughout the country, it is scarcely necessary to add that Carlisle, occupying as it does a not inconspicuous position with regard to sanitary Science, renders it imperative that you should keep in the front rank of progress, which means, in a few words, a sufficient and efficient staff of well trained assistants in your Public Health Department.



The enormity and importance of the routine work of a progressive Health Department, which includes:—

- (a) Investigation and the giving of advice in cases of Phthisis.
- (b) Infant Mortality.
- (c) Infectious Diseases.
- (d) Housing of the Poor (which, if left to themselves, always spells overcrowding, with its attendant moral delinquencies).
- (e) Teaching of inexperienced mothers the care and feeding of their young—and more recently—
- (f) The scarcely less important branches, viz.:—Inspection of School Children, and earlier Notification of births.

And the importance of effective supervision of these, which form only a few of the duties of the routine work, is obvious to the least enthusiastic person, but they also form that part of the administration which requires care, gentleness, and tact in their handling, if it is to be to the best interests of the public.

Many Health Departments of Local Authorities have added to their staff one or more Female Sanitary Inspectors, whose work amongst the poorer classes is an institution of great value, and upon whom much reliance can be placed by the heads of health departments, for, by their tact and gentleness, and their earnest endeavour to teach and uplift the classes which it is their duty to visit, and the energy they put forth undoubtedly increase the health and safety of the district generally, and fully justify the eulogism which has been poured upon them wherever they are found.

We in Carlisle are now faced with several important matters which demand that care and untiring gentleness and energy of the Female Sanitary Inspector.



The most important of these being:—

- (1) The question of careful enquiry and observation into cases of infant mortality.
- (2) The earlier notification of births.
- (3) Assistance in respect to school inspections and the visiting of the homes of the school children in cases where they are found to be dirty, diseased, or virminous.
- (4) Visiting and instructing persons suffering from pulmonary tuberculosis.

I therefore feel it is my duty to put these facts before the Committee, and to ask that a Female Sanitary Inspector be added to the staff of the Health Department, as I feel sure that it will make an improvement in the lives and the health of the inhabitants of the City.

I have the honour to be, Gentlemen,

Your obedient Servant,

(Signed) JOSEPH BEARD,  
Medical Officer of Health.

The Committee will remember that the preceding recommendation was read at a Health Committee meeting, held September 3rd, 1908.

It was not proposed to discuss the recommendation that day, but it was proposed that the question be postponed to September 25th, 1908, when it could be discussed at length.

The Medical Officer was instructed to ascertain in the meantime what had been done in the matter in a number of other towns.

I find that in a number of towns these officers are also called Health Visitors, but I presume this means that they do not possess a Sanitary Inspector's Certificate,

which is very desirable that they should, as I fear it gives them no power of entry to such places, say as factories and workshops; and in places such as these, where none but females are employed, it is desirable that the Female Officer should have unrestricted power of entry. Again, the possession of a certificate from one of the examining bodies is proof of fitness in sanitary science, and is a good test of the general education of the holder. Female Sanitary Inspectors are no longer on their trial, they are an institution of undoubted and great value to the staff of a Health Department, and as pointed out by the President of the Local Government Board (the Right Hon. John Burns) at a congress held in London, which was convened for the discussion of infant mortality, who in his opening address laid emphasis upon the employment of Female Sanitary Inspectors, and shewed that the class of work which they were called upon to perform was essentially a woman's work, and that enquiries essential in the sphere in which they laboured, were often faced with much obstruction when carried out by male inspectors.

Taking the question of infant mortality alone, it is a fact that one-third of the total deaths of infants occur in the first month of life; the question arises, Why do they die? The answer too often is that they perish as a result of ignorance on the part of the mother.

The young mother must be educated in domestic hygiene, and to do this requires either a Female Sanitary Inspector or Health Visitor.

Much benefit has been derived, in the opinion of those well able to judge, in towns well equipped with a female staff, and personally I am of the opinion that this is one of the most useful methods of preventive work.

In compliance with the request of the Health Committee I sent out printed lists of enquiries to 51 towns in England and Wales, and I have received answers to my questions from Medical Officers of 39 of these towns. These answers I have tabulated, and have shewn on the



folded sheet "A" which accompanies this pamphlet, and a glance at it will shew that the questions embrace the population of the town, the total number of Inspectors, and a statement as to the number of Female Inspectors, and lastly, a brief tabulation of the duties as furnished to me by the various Medical Officers of Health. It will be seen that in several of the towns two or three Female Officers are employed, and out of the 39 towns from which replies were received, 25, or 64 per cent., employ Female Officers.

It will be observed that the above tabulations were restricted to the smaller towns in order that a more uniform and accurate comparison with Carlisle could be obtained, for had one put forth the replies from larger towns, as shewn in the folded sheet "B" the comparison with Carlisle would have been unfair.

In the enquiries made in the large towns shewn on Sheet "B" the information asked for was of a different character. These embraced some of the largest of the English and Welsh towns where Female Inspectors and Health Visitors may well be said to have passed the trial stage, and in which their work is felt to be of the greatest possible value.

Therefore, in urging you to make this appointment, I am not asking you to try any experiment. I know it to be a step in the right direction, a step which would commend this town to others, and which would raise it considerably in the eyes of the large pioneer towns, and would be of immense benefit to the less fortunate inhabitants of your City, and will reflect the greatest credit upon you as an administrative body.

I have the honour to be, Gentlemen,

Your obedient Servant,

JOSEPH BEARD,

Medical Officer of Health.



# A.

## Summary of Replies from Medical Officers of Health *re* Female Sanitary Inspectors.

TOWN.	Popu- lation.	Number of Inspectors	FEMALES.	Routine work of the Female Inspector briefly tabulated.
BLACKPOOL ... ..	59,900	7	1 at £70-90	Visits houses where births have occurred. Investigation of deaths under one year of age. Investigates deaths from diarrhoea. Visits midwives. Carried out, if required, duties under Shop Hours Act, etc.
BATH ... ..	50,000	5	1 at £92	Four additional male inspectors to be shortly employed.
BECKENHAM ... ..	33,000	3	1 at £95	Inspection of outworkers' premises. Duties under Notification of Births Act. Visit children in cases of illness where they are kept away from school.
BURY ... ..	59,064	4	1 at £88	Feeding and care of Infants. Infantile mortality. Visit <i>re</i> cases of diarrhoea, measles, and whooping cough. Seats for Shop Assistants.
BARRY ... ..	32,000	2		Paid nurse visits homes under Notification of Births Act.
CHESTER ... ..	40,000	4	1 at £90	School inspection work. Laundries, workshops, employing female labour. Infant mortality prevention. Visits cases discharged from Isolation Hospital. Visiting and reporting on cases of phthisis. General work of a Sanitary Inspector.
CHELTENHAM .. ..	51,000	4	None	
COVENTRY .. ..	91,000	6	1 at £85	See list of duties attached.
CHISWICK ... ..	36,770	4	1 at £60	Notification of Births Act, and feeding of infants. Visits to cases of measles, whooping cough, chicken pox.
CAMBRIDGE ... ..	40,118	3	—	3 Health Visitors appointed by National League.
ENFIELD ... ..	55,500	3	None	
EXETER .. ..	48,300	5	1 at £65	House visits to poorer parts of City.
EDMONTON .. ..	61,928	4	1 at £85	Factory and workshops <i>re</i> female labour. Infantile mortality.
FINCHLEY .. ..	40,000	3	1 at £80	Notification of Births Act.
GLOUCESTER ... ..	53,176	4	None	
GRIMSBY ... ..	71,220	4	—	Appointing Lady Inspector.
HOVE ... ..	42,801	4	1 at £50	To visit houses <i>re</i> feeding of infants. Visits <i>re</i> cases of measles, etc. Enquiries into phthisis notifications Giving advice to mothers of newly-born children. Part time only.
HUDDERSFIELD ... ..	95,000	7	None	
IPSWICH .. ..	73,851	4	1 at £100	Visits <i>re</i> Notification of Births Act. Infantile mortality.
KINGS NORTON ... ..	78,608	5	1 at £85	Visits <i>re</i> Notification of Births Act.
MERTHYR TYDFIL ... ..	77,219	6	1 at £75-105	Midwives' Inspector and Health Visitor.
NORTHAMPTON ... ..	93,300	5	1 at £75-90	Visits <i>re</i> Notification of Births Act. Enquire into infants' deaths, also into cases of diarrhoea, whooping cough, measles, etc., notified from schools.
OXFORD ... ..	51,946	4	1 at £85	Visits Midwives, factory and workshops <i>re</i> female labour. Visits dirty children for Education Committee.
ROCHESTER ... ..	34,000	2	None	
RICHMOND ... ..	35,000	2	None	
ROCHDALE ... ..	88,820	6	2 at £112s. and £5 per annum in lieu of uniform.	Makes investigation in cases of phthisis, diarrhoea, puerperal fever, etc., and giving of advice in cases of newly-born infants. Gives advice on general sanitation, etc.
ROTHERHAM ... ..	64,000	4	1 at £85	Visits <i>re</i> Notification of Births Act. Superintends midwives. Visits cases of phthisis, measles, etc. Visits all deaths under one year of age.
ST. HELENS ... ..	93,812	8	3-1 at 32s. 1 at 30s. 1 at 26s.	Infant visitation. School inspection, etc. Non-notifiable infectious diseases, contagious skin diseases.
SCARBOROUGH ... ..	41,600	4	1 at £80	Infantile mortality.
SWINDON ... ..	51,000	2	None	
SOUTHEND-ON-SEA ... ..	57,399	3	None	
TORQUAY ... ..	34,000	3	None	
WARRINGTON ... ..	72,164	5	1 at £80 and £5 for uniform.	Work under Midwives' Acts. Visiting new born-babies and neglected homes.
WAKEFIELD ... ..	41,413	4	1 at £75 and £5 for uniform.	Following up births in poorer parts of the City. Visiting homes of neglected children found in schools Generally educating in domestic hygiene.
WIMBLEDON ... ..	52,000	4	None	
WALLASEY ... ..	73,000	7	1 at £78	House-to-house visiting. Visiting midwives. Special enquiries <i>re</i> puerperal fever. Workshops <i>re</i> female labour. Enquiries into all deaths of children under one in certain districts.
WIGAN ... ..	91,817	6	None	
WOOD GREEN ... ..	49,000	4	1 at £52	Enquiry into births and deaths from phthisis. Visits factories and workshops where female labour is employed.
YORK ... ..	85,816	8	3 at £75 and £5 per annum for uniform.	Visiting mothers and infants and consumptive women and children. Inspecting midwives and female workshops. Following up defective or contagious school children until cured and helping in the inspection of school children.

## B.

### Summary of Replies from Medical Officers of Health *re* Female Sanitary Inspectors.

TOWN.	How many Female Sanitary Inspectors?	When was Appointment made?	Salaries.	Have they any difficulties in carrying out their work, or are they well received by the people they visit?	Is the Medical Officer of opinion that such appointments are beneficial?	
OLDHAM ... ..	2	March, 1902 November, 1902	28/-, rising to 38/-	No, occasionally their visit is objected to at first, but they are usually asked to come again	Yes, decidedly so	
NORWICH ... ..	1	Three years ago	£90 inclusive	Very few difficulties	Yes	
BURNLEY ... ..	3	One in 1903 Two in 1904	28/- a week, and £5 for Uniform	Yes, well received	Yes	
NEWCASTLE-ON-TYNE	4	Two in 1901 Two in 1904	Commence at £75, and rise to £110 with Uniform	No	Yes	
SHEFFIELD ... ..	6	Two in 1899 Four since	Chief £100, others £65	No	The work is of greatest possible value	
BATTERSEA ... ..	2	One in 1902 One in 1904	One at £115 One at £110	They have nearly always been welcomed by the people visited	I consider such appointments are most beneficial, and indeed necessary in large Urban Districts	
ISLINGTON ... ..	1	Eleven years ago	£130—£150	No. She has always been well received	Yes	
LIVERPOOL ... ..	8	First in 1907	30/- to 42/- per week	No difficulty. Usually well received	Yes	
WEST HAM ... ..	3	One in 1898 Two in 1900	£100—£150	Well received by people visited	Yes	
POPLAR ... ..	1	1900	£130—£185	No difficulties, and well received	Yes. Absolutely	
CARDIFF ... ..	1	1903	£80—£100	Well received	Yes	
WILLESDEN ... ..	3	—	One to £100—£150 Two at 20/- a week	Very rarely any difficulties in carrying out duties. Well received, and value of their work highly appreciated	Absolutely	
BIRMINGHAM ... ..	12	1899	From 25/- to 48/- per week	No	Highly satisfactory	
SOUTHWARK ... ..	3	1896 & 1900	£175—180, £160	Two at £110—	No difficulty. They have always been well received	Very satisfied
WANDSWORTH ... ..	2	1902 & 1905	£120—£150	No difficulties, and well received	Yes	
LAMBETH ... ..	2	1901 & 1903	£100—£150	No	Yes	
STOCKPORT ... ..	2	1900 & 1902	£71 to £91	They are welcomed	No Health Department can conduct its work properly without Female Inspectors	
BRADFORD ... ..	2	1901 & 1903	£110 and £95	No difficulty, and being well received	Yes	
DERBY ... ..	3	1900 & 1905	£65 with Uniform	No difficulties, well received	Yes. Emphatically so	
SUNDERLAND ... ..	1	1904	£75 with Uniform	Do. do.	Yes	
STOCKTON ... ..	1	1902	£85	At first considerable difficulty. Now none	I have no doubt whatever on the matter	
MIDDLESBOROUGH ...	1	1901	£110	She has been well received	Yes	
WOOLWICH ... ..	1	1904	£120 to £140	Well received, no difficulty	Most decidedly indispensable for Infantile Mortality	
CROYDON ... ..	3	1900, 1901, and 1902	£95 to £100, and £5 for Uniform	No practical difficulty in the work allotted to them	Certainly	
FINSBURY ... ..	2	1904 1905	£130 to £150 £120 to £140	No obstruction of any consequence has been experienced	—	
WESTMINSTER ... ..	2	1904	£110 to £160	No serious difficulty	Yes	
HOLBORN ... ..	1	1903	£130 to £150	No, and has with one exception been well received	Yes	
HANLEY ... ..	1	1905	£150	Have not experienced any difficulty, and been well received	Yes	
MANCHESTER ... ..	18	—	16/- per week	Very little difficulty is experienced, on the whole they are well received	Under suitable conditions, and with careful selections and supervision, yes	
LEICESTER ... ..	1	1900	£78	No difficulty, very well received	Yes	
PORTSMOUTH ... ..	1	1905	£75 to £100	Gets on very well with the people	I was not very enthusiastic over the appointment at first, but am quite satisfied now, and think it very beneficial	
SWANSEA ... ..	1	1902	£85	No difficulties, being well received	Yes, I have no doubt as to the beneficial influences	
PRESTON ... ..	2	1903	25/- to 35/- per week	Very little difficulty. Well received	Yes, they are useful in many ways	



[COPY.]

23rd June, 1908.

Dear Sir,

CARLISLE COVERED MARKETS.  
EXCLUSION OF DOGS.

On many occasions on which I have inspected the Covered Markets in Fisher Street, I have found a number of dogs in the Market, and have observed that the dogs pass urine upon articles deposited for the sale of food. I have also observed them to deposit their excrement in various places up and down the Market.

This custom of allowing dogs to come into the Market, is not without danger to the health of human beings attending the Markets, and I need hardly add that to contemplate eating food upon which the excreta of dogs have been voided, is not one of the pleasantest. I therefore ask the Committee to insist that Bye-law 39 of the Bye-laws of the Corporation relating to the exclusion of dogs, be strictly enforced.

I am,

Yours faithfully,

(Signed) JOSEPH BEARD,

Medical Officer of Health.

A. H. Collingwood, Esq.,

Town Clerk,

Carlisle.

MARKETS AND TOLLS COMMITTEE.

7th July, 1908.

A letter, dated the 23rd ultimo, from the Medical Officer of Health, directing the attention of the Committee to the nuisance and consequent danger to health caused by dogs in the Covered Markets, was read.

*Resolved*—That the Town Clerk be requested to give public notice directing attention to Bye-law No. 39, and the Market Superintendent instructed to institute proceedings to enforce the penalties against persons wilfully offending.



Health Department,  
Fisher Street, Carlisle,

To the Chairman and Members      24th December, 1908.  
of the Health Committee.

Gentlemen,

I think something should be done to mitigate the nuisance caused by dogs passing their excreta on the pavements and in other public places, and while I do not like to belittle the uses of the canine friend under proper conditions, I am of opinion that too many dogs of a useless order are allowed to roam about the streets and public places of this City without proper control, and that the excreta of many of these animals contains the parasites of serious disease, to say nothing of the sickening effect upon the senses which this ever recurring nuisance produces, and the objectionable conditions one's boots and clothing are subjected to.

With regard to the objectionable and dangerous spitting nuisance, I may say that but for pressure of other matters I had intended bringing this question before the Committee earlier.

The Public Health (Tuberculosis) Regulations 1908, which come into operation on the 1st of January next, the particulars of which have now been sent out by the Local Government Board, compel me to bring the question before you to-day.

It is an established fact that the sputum of consumptive persons is the chief mode of infection from one person to another, and amongst the innumerable masses of sputum which are voided in the Streets day after day, are to be found those containing large numbers of Tubercle bacilli in an active living condition, and capable of reproducing the disease.

Carlisle should not be behind towns of even less importance, who have framed Bye-laws to prohibit this dangerous and filthy practice, and I therefore advise this Committee to make a Bye-law forbidding spitting in the streets, public places, etc., and to put such Bye-law into force at the earliest possible date.

I have, Gentlemen, the honour to be,

Your obedient Servant,

(Signed) JOSEPH BEARD.

Medical Officer of Health.

## City of Carlisle.

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# Summer Diarrhoea & Infant Mortality

IN RELATION TO

## Artificial Feeding of Infants.

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### WARNING.

On account of the prevalence of DIARRHŒA and associated diseases during the hotter months of the year, and its effect on the increase of DEATHS AMONGST INFANTS IN THE FIRST YEAR OF LIFE, more especially of those ARTIFICIALLY FED; it is very important that MOTHERS and those having the CARE and REARING of CHILDREN at this delicate age should endeavour to PREVENT INFANTS AND YOUNG CHILDREN from contracting these serious forms of disease.

The greater number of these deaths are due to the manner in which ARTIFICIAL FEEDING IS PERFORMED, and as foods, especially MILK, are EASILY CONTAMINATED, either before, during, and after DELIVERY to the CONSUMER, it is essential that they should NOT BE PUT INTO VESSELS WHICH HAVE NOT BEEN PREVIOUSLY SCALDED AND COOLED.

In every case VESSELS CONTAINING FOOD SHOULD BE PROTECTED FROM DUST AND HOUSE FLIES, which are amongst the commonest sources of contamination, and it is advisable during the hotter weather to BOIL ALL MILK used for the food of young children as soon as it is purchased.

**J. BEARD,**

*Medical Officer of Health.*

Public Health Offices, June, 1908.





DAIRIES, COWSHEDS, AND MILK SHOPS ORDER.

**Cleansing of Udders, Grooming of Cows,  
Collection & Storage of Milk, &c.**

Milk being the principal food of **Infants and Children**, especially those who are artificially fed, and being an article rich in the constituents which favour the growth of **Micro-Organisms**, it is essential, in order to secure the **Freedom of Milk from Contamination**, that the **Udders** of all **Cows** be **Properly and Efficiently Cleansed** before each Milking, and that the **Cows** be **Regularly Groomed**, and their Hips and Thighs kept free from **Excrement**.

**The Hands** of all **Milkers** should be washed thoroughly immediately **before Milking**, and the **Milk** from each **Cow** **should be Removed** from the **Byre** immediately after the act of Milking is performed.

It is important that great care should be given to the **Efficient Cleansing of Dairy Utensils**. Any **Vessel** into which **Milk** is **Received** or **Stored** should have been **Scrupulously Cleansed with Boiling Water** and **Cooled** before using.

**Storage Places for Milk, Rooms, Pantries**, and other parts of **Premises** from which **Milk** is **Sold** must not be situated where **Articles of an Offensive Nature** are kept, such, for example, as **Paraffin Oil, Candles, Cattle Oils, and Cattle Medicines**, or any other article of an **Offensive or Objectionable Nature**.

J. BEARD, Medical Officer of Health.

R. CRAIG ROBINSON, M.R.C.V.S., Veterinary Inspector.

PUBLIC HEALTH OFFICES,  
CARLISLE,

JUNE 30TH, 1908.



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ANNUAL REPORT

OF

CHIEF SANITARY INSPECTOR.

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CHIEF SANITARY INSPECTOR'S ANNUAL  
REPORT.

**To the Chairman and Members of the Health  
Committee of the Carlisle City Council.**

Gentlemen,

I have the honour of submitting to you my Sixteenth Annual Report, dealing with the work of the Department for the year 1908, in administering the various Health Acts and Bye-laws in force within the City.

INSPECTION OF THE CITY AND REMOVAL OF  
NUISANCES.

The lanes, courts, and yards in the City have at frequent intervals been inspected, and the necessary steps have been taken to procure the abatement of such nuisances as were discovered.

As in previous years, in very many instances, verbal intimation was given to householders to remedy nuisances which were not owing to structural defects, but in addition to these verbal intimations 809 notices have been served, calling for the abatement of nuisances.

I have pleasure in again recording that in no case has it been necessary to institute Police Court proceedings to procure compliance with the provisions of the Public Health Acts.



The following table shows the number and nature of the nuisances dealt with by statutory notice during the year:—

Nature of Nuisance.	Number.
Choked and filthy water-closets ... ..	52
Defective and dilapidated water-closets ... ..	57
Defective and unventilated soil pipes .. ..	5
Defective w.c. cisterns, and absence of overflow pipes to same ... ..	29
Choked and defective drains ... ..	77
Offensive and defective gullies .. ..	24
Insufficient drainage ... ..	14
Insufficient water-closet accommodation ... ..	2
Dilapidated and insufficient flagging & paving of yards	77
Defective eaves-gutters and down-spouts ...	133
Defective sinks and sink waste pipes ... ..	14
Defective roofs of premises ... ..	13
Defective walls, floors, ceilings, &c. ... ..	22
Dirty passages and staircases ... ..	48
Overcrowding of houses ... ..	7
Nuisances caused by keeping animals ... ..	2
Accumulations of refuse and manure ... ..	36
Bottom outlet gullies abolished ... ..	57
Nuisances caused by keeping fowls ... ..	7
Sump gullies abolished ... ..	17
Chimneys heightened ... ..	6
Damp walls remedied ... ..	6
Urinal abolished and new one fixed ... ..	1
Sunk Areas cleansed ... ..	79
Miscellaneous Nuisances ... ..	24
Total ... ..	809

## HOUSE TO HOUSE INSPECTION.

The house to house inspection has been carried on in the streets mentioned in the table set out. This table shows an increase upon the number inspected last year.

Name of Street or Court.	Number of Houses.	Dirty Houses, Passages, and Staircases.	Dirty and Defective Water Closets.	Choked and Defective Drains, Gullies, and Wastepipes.	Dilapidated Paving and Flagging.	Defective Roofs and Spouting of Houses.	Insufficient Drainage and W.C. Accommodation.	Defective Floors, Walls, Staircases, and Ceilings of Houses.	Miscellaneous.
Howard Street ...	21	...	2	1	7	3	...	2	6
Wood Street ...	7	...	...	...	...	...	...	...	...
Wood Square ...	11	...	...	...	2	2	...	1	5
Ann Street ...	4	...	...	...	...	...	...	...	...
Dale Street ...	9	1	4	3	2	1	...	...	3
Westmorland Street ...	61	1	...	36	2	3	1	1	3
Cumberland Street ...	51	1	3	12	3	5	...	2	1
Denton Street ...	4	...	1	1	1	...	...	...	2
Norfolk Street ...	16	...	...	7	...	1	...	1	1
Norfolk Terrace ...	8	...	1	...	...	1	...	...	1
Northumberland Street ...	6	...	...	1	1	1	...	...	...
Dalston Street ...	17	...	1	12	3	3	...	4	2
East Dale Street ...	13	...	...	6	3	4	...	2	3
East Norfolk Street ...	5	...	...	...	...	2	...	...	...
Corporation Road ...	21	...	...	8	5	1	2	1	1
Peter Street ...	9	...	...	3	...	1	...	...	...
Rickergate ...	7	...	...	6	3	2	...	1	7
„ Scott's Court ...	5	...	...	...	2	1	...	4	2
„ Dudson's Court ...	4	...	...	...	1	...	...	...	...
„ Bay Horse Lane ...	1	...	...	...	1	...	...	...	...
„ The Sands ...	6	...	See Insanitary Property.	...	...	...	...	...	...
„ Fox & Hounds Lane ...	1	...	...	1	1	1	1	...	2
„ Drover's Lane ...	7	...	See Insanitary Property.	...	...	...	...	...	...
„ Blue Bell Lane ...	5	...	...	...	...	1	...	...	1
„ Durham Ox Lane ...	4	...	See Insanitary Property.	...	...	...	...	...	...
Warwick Street ...	20	...	1	4	2	...	1	...	...
Totals ...	323	3	13	101	39	33	5	19	40

## INSANITARY PROPERTY.

During the year four separate properties have been reported upon as being unfit for human habitation, viz.:—13 rooms let as tenement dwellings in Durham Ox Lane; tenement dwellings Nos. 18 to 30, Drover's Lane; 9 tenement dwellings in Scott's Court, Rickergate; and one house in Barley Stack Lane. The dwellings in Durham Ox Lane were closed by the owners upon receipt of notice, and are now a heap of ruins. The house in



Barley Stack Lane was repaired and made fit for human habitation, and the Drovers' Lane and Scott's Court properties are now being repaired so as to comply with the requirements of the notices served. With regard to the latter property, your Medical Officer and I have met the owner upon the site and have arranged that one dwelling, which projected the whole width of the court, shall be demolished. This demolition will allow of more sunshine and air in the court, and will materially improve the remaining property.

#### DRAIN TESTING.

Four applications have been made to open out and examine drains under the provisions of Section 41 of the Public Health Act, 1875. In each instance the drains upon examination were found to be defective, and in one case the main drain conveying the drainage of thirteen houses had to be entirely re-constructed. In addition to the drains mentioned above, there have been discovered, during the periodical inspection of the City, a number of other defective drains. These have been repaired or re-constructed, and are enumerated in the table dealing with general nuisances.

#### PUBLIC ABATTOIR AND RAILWAY SLAUGHTER HOUSES.

The Public Slaughter House has been frequently inspected and has at all times been found in a satisfactory condition.

The Slaughter Houses of the London and North Western and North Eastern Railway Companies have also been frequently inspected, and I am pleased to state that on the whole they have been conducted in a satisfactory manner.

The depositing and carriage of "offal," which was referred to at length in my last Report, has not yet been arranged to the satisfaction of your Medical Officer of Health and myself. An improvement, however, has taken place, and we are hoping, as a result of our interview with the Railway Superintendent, that this matter will be arranged satisfactorily.



The following tables give the number of animals killed at the Slaughter Houses during the years mentioned.

Year.	Beasts.	Sheep and Lambs.	Calves.	Pigs.	Total.
1899	3,975	17,192	647	4,824	26,638
1900	4,052	17,098	521	5,023	26,694
1901	3,787	16,298	611	3,953	24,649
1902	3,758	17,153	660	3,808	25,379
1903	3,845	16,301	692	4,322	25,160
1904	4,075	16,860	759	4,753	26,447
1905	3,946	15,657	751	4,674	25,028
1906	4,059	15,274	797	4,139	24,269
1907	4,020	14,745	962	4,419	24,146
1908	3,772	14,911	760	4,064	23,507

#### L. & N. W. RAILWAY COY.'S SLAUGHTER HOUSE.

Year.	Sheep.	Lambs.	Calves.	Pigs.	Total.
1907	41,078	...	...	...	41,078
1908	31,623	...	...	...	31,623

#### N. E. RAILWAY COY.'S SLAUGHTER HOUSE.

Year.	Sheep.	Lambs.	Calves.	Pigs.	Total.
1907	14,624	...	...	...	14,624
1908	28,402	...	...	...	28,402

#### DISEASED AND UNSOUND FOOD.

The Public Markets have been regularly visited, and the produce exposed for sale therein inspected. The fish, fruit, etc., exposed for sale in the streets from hawkers' barrows have also received attention.

The table below gives details of the food condemned as being unfit for human consumption:—

Beef ... ..	12,728 pounds
Mutton ... ..	558 „
Pork ... ..	555 „
Veal ... ..	134 „
1 box of Cod	
171 Rabbits	
27 boxes of Kippers	
A large quantity of Strawberries	

#### HOUSE REFUSE REMOVAL.

12,896 loads of refuse have been collected and removed to the refuse tips and destructor during the year.

#### GARBAGE.

204 loads of garbage and refuse have also been removed from the Public Slaughter House by the Corporation Carters.

Month.	Number of Loads removed from the			Total.	Slaughter House Garbage. Loads Removed.
	East District.	West District.	Morning Ashes.		
January ...	322	237	604	1,163	16
February ...	280	209	562	1,051	14
March ...	304	248	593	1,145	15
April ...	282	236	577	1,095	15
May ...	303	235	567	1,105	12
June ...	263	212	530	1,005	14
July ...	258	196	549	1,003	18
August ...	236	173	521	930	17
September ...	269	218	528	1,015	21
October ...	279	226	556	1,061	25
November ...	297	215	523	1,035	17
December ...	314	272	582	1,168	20
Totals ...	3407	2677	6692	12,776	204



## URINALS AND GULLIES.

The urinals and gullies have received the same amount of attention as in previous years. They have been regularly cleansed by the staff of men employed for that purpose. There has been no increase made in the number of public conveniences, but arrangements have been made for erecting a public urinal near to the Tram Terminus on the London Road.

## FACTORY AND WORKSHOPS ACT, 1901.

The whole of the workshops upon the register have been inspected, and where any infringement of the Act was discovered, steps were at once taken to remedy the same.

The total number of workshops upon the register is 242 as compared with 248 last year.

One workshop was found to be without the factory abstract affixed as prescribed by Section 128 of the Factory and Workshops Act. The Factory Inspector was notified in accordance with provisions of Section 133 of the Act.

Seven complaints have been received from H.M. Inspector of Factories, regarding factories and workshops. They are as follows:—

1	Factory Laundry	...	No closet accommodation
2	Factory	...	do. do.
3	Factory Laundry	...	Insufficient privacy at entrances to women's and men's w.c.'s
4	Bakehouse	...	Dirty floor
5	Workshop...	...	Insufficient means of escape in case of fire
6	Factory	...	W.C.'s dirty and defective
7	Workshop...	...	Insufficient means of escape in case of fire
8	Workshop...	...	Insufficient means of escape in case of fire



The annexed tables give particulars of workshops (excluding bakehouses), number of registered workrooms, accommodation for workers, number of inspections made, defects found and action taken.

Occupation.	No. of Premises.	No. of Registered Work-rooms.	Accommodation for	
			Males.	Females.
Dressmakers, Milliners, Mantlemakers, Costumiers ... ..	86	127	...	559
Tailors ... ..	38	55	168	68
Boot & Shoe Repairers	16	17	35	...
Cloggers ... ..	21	23	48	...
Jewellers, Watch Repairers ... ..	11	13	27	...
Joiners, including Cabinet Makers and Upholsterers ...	21	24	85	...
Saddlers and Harness Makers ... ..	5	7	26	2
Cycle Repairers ... ..	5	5	12	...
Tin Plate Workers ... ..	2	2	7	...
Confectionery and Sugar Boiling ... ..	5	5	9	14
Box Maker ... ..	1	1	3	...
Plumbers' Workshops...	8	9	58	...
Weighing Machine Repairers ... ..	2	2	5	...
Fishing Tackle Makers	3	3	2	3
Umbrella Repairers ... ..	2	3	6	2
Photographers ... ..	6	14	5	8
Stocking Knitters ... ..	1	2	...	9
Leather Dresser ... ..	1	2	3	...
Coach Painter ... ..	1	1	3	...
Electrical Engineer ..	1	1	3	...
Lath Maker ... ..	1	1	1	...
Wood Carving ... ..	1	1	8	...
Polisher ... ..	2	2	5	...
Carpet Repairing ... ..	1	1	3	...
Waterproof Makers ...	1	1	1	...
Totals ... ..	242	322	523	665

Premises.	No. of In- spections made.	No. of Defects found.	Notices written.	Defects remedied.
Factories ... ..	4	...	...	...
Workshops ... ..	386	14	14	14
Workplaces ... ..	...	...	...	...
Bakehouses ... ..	87	23	23	23
Total ... ..	477	37	37	37

### BAKEHOUSES.

There are 64 bakehouses upon the register, a decrease of one as compared with last year. Included in this number are four underground bakehouses, but three only are in use at present.

### DAIRIES, COWSHEDS, AND MILKSHOPS.

There are 42 cowkeepers and milksellers upon the register, seven having been registered during the year. Their premises have been frequently inspected and several improvements have been carried out in connection with cow-byres in providing more abundant air space and ventilation, and also in the matter of drainage.

### COMMON LODGING HOUSES.

The number of Common Lodging Houses upon the register is four. These have been frequently inspected and are kept in a satisfactory condition. From observations made during the course of my inspections of the City, I came to the conclusion that several persons residing in the Caldewgate and Rickergate districts were keeping Common Lodging Houses in contravention to the provisions of the Act. I therefore, with my assistants, made a number of night visits to these suspected houses, and found that my



opinion regarding them was correct. The offenders were reported to your Committee, and upon receiving instructions proceedings were instituted in the Police Court and convictions obtained against them.

### OFFENSIVE TRADES.

The premises used for the purpose of carrying on offensive trades have received careful attention, and I am pleased to say that they are conducted in a satisfactory manner.

### FRIED FISH AND POTATO SHOPS.

There are 32 fried fish and potato shops in the City. These places have all been inspected, and 15 notices have been served to procure the abatement of the nuisances discovered as enumerated below:—

Dirty premises	...	...	...	6
Dirty utensils	...	...	...	5
Defective floors and ceilings	...	...	...	2
Defective hood	...	...	...	1
Dirty sanitary conveniences	...	...	...	1
				—
				15
				—

### VANS USED AS DWELLINGS.

As usual all vans used as dwellings entering the City to attend fairs, etc., have been visited for the purpose of discovering the existence of any nuisance or infectious disease.

One person was discovered to be ill, and upon medical examination the case was diagnosed as Scarlet Fever. The van in which the person was confined was at once isolated from the other vans. As the parents of the infected person did not wish the case to be removed to Hospital, the van was detained here until the patient had recovered, when it was thoroughly disinfected before being allowed to leave the City.



## ICE CREAM.

The premises whereon this article is known to be made have been frequently inspected and cautions administered in several instances regarding the cleanliness of the utensils used.

## FOOD AND DRUGS ACT.

During the year I have purchased the under-mentioned articles and submitted them to the Public Analyst for analyses. The result of such analyses will be seen in the table set out below:—

The following table gives the particulars of the articles analysed, and action taken:—

Article.	Number of Samples taken.	Genuine.	Adulterated.	Extent and Form of Adulteration.	Remarks.
Butter ... ..	36	36	..	Non-fatty solids '3 below limit	Vendor cautioned
Milk ... ..	34	33	..		
Do. ... ..	...	...	1		
Coffee ... ..	5	3	..	31% of Chicory	Samples purchased Informally. Vendors cautioned
Do. ... ..	...	...	1		
Do. ... ..	...	...	1	21% of Chicory	
Tartaric Acid ..	5	5	..		
Milk of Sulphur	5	5	..		
Arrowroot ...	5	5	..		
Sago ... ..	5	5	..		
Number of Samples taken {	95				
Genuine ... ..	...	92			
Adulterated ...	...	...	3		

## INFECTIOUS DISEASES.

During the year the Infectious Diseases enumerated below have been investigated and reported upon to your Medical Officer of Health :—

Nature of Disease.	Investigated.		Removed to Hospital.	
	1907.	1908.	1907.	1908.
Smallpox ... ..	...	...	...	...
Diphtheria ... ..	12	27	6	18
Membranous Croup ... ..	2	5	...	2
Erysipelas ... ..	82	63	...	2
Typhoid or Enteric Fever ... ..	1	2	1	1
Scarlet Fever ... ..	177	89	92	56
Typhus Fever ... ..	...	...	...	...
Puerperal Fever ... ..	1	3	...	...
Totals ... ..	275	189	99	79

The Stud of Horses under my control at the Corporation Dépôt numbers 18. These are engaged in connection with the removal of house refuse and street cleansing.

There has been no serious illness among them during the year.

I am, Gentlemen,

Your obedient Servant,

C. W. HILL,

Chief Sanitary Inspector.