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City of



Carlisle.

**Health Department.**

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ANNUAL REPORT  
ON THE  
SANITARY CONDITION  
OF THE  
CITY OF CARLISLE  
*DURING THE YEAR 1907*

(With the Annual Report of the Veterinary Inspector on  
the Inspection of Dairy Cattle within the City),

BY

*WILLIAM BROWN, F.R.C.S.E.,*  
MEDICAL OFFICER OF HEALTH.

**Printed by Order of the Health Committee.**

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—  
1908.

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1907.

# CARLISLE URBAN DISTRICT COUNCIL.

## *Annual Report of the Medical Officer of Health.*

To the Carlisle Urban District Council.

Gentlemen,

I have the honour of presenting to you my Twenty-fifth Annual Report on the Health of Carlisle for the year 1907. The general and zymotic death rates for the year are somewhat higher than those of the previous year, owing to a very fatal epidemic of measles during the first half of the year, but in no previous year have the zymotic deaths apart from measles been so few, notwithstanding the present increased population of the City. If we deduct the deaths from measles, over which the Sanitary Authority has practically no control, from the total number of deaths, we obtain a death rate of 15.9 from all causes and 0.4 from zymotic causes.

### STATISTICAL SUMMARY.

(Compared with that of 1906.)

	1907.	1906.
Area of District in Acres ... ..	2,029	2,029
Estimated Population ... ..	49,400	48,425
Density of Population per acre ...	24.3	23.8
Inhabited Houses (1901 census) 9,464 (1891 census) 7,624		
Rateable Value of District ...	£230,864	£230,777
Births ... ..	1,178	1,227
Birth-rate ... ..	23.8	25.3
Deaths ... ..	848	811
Death-rate from all causes ...	17.1	16.7
Nett Death-rate from all causes ...	16.3	15.9
Zymotic Deaths ... ..	77	34
Zymotic Death-rate ... ..	1.5	0.7
Infant Mortality ... ..	169	163
Ratio of Infant Deaths to Births per 1,000 ... ..	143	132
Infectious Cases Notified ... ..	275	778
Infectious Cases Isolated at Fever Hospital ... ..	99	355

### REGISTRATION SUB-DISTRICTS.

St. Mary's Sub District—Population	28,207	27,561
St. Cuthbert's do. do.	21,193	20,864



**Summary of important sanitary measures carried out by the Carlisle Sanitary Authority since 1883, the year in which I received my appointment as Medical Officer of Health for Carlisle :—**

Extension of the filtering beds in connection with the old water supply from the River Eden.

Erection of Public Abattoir and abolition of private Slaughter Houses, twenty-five in number. Foundation stone laid October, 1886; opened November, 1887.

Erection of public baths.

Adoption of Infectious Disease (Notification) Act, 1889.

Extension and reconstruction of Corporation Wards at Crozier Lodge Fever Hospital.

Abolition of almost all piggeries in the City, which in 1883 were very numerous.

Abolition of practically all ashpits and privies in the City.

Abolition of horse slaughtering and boiling premises in Blackwell Road.

Veterinary inspection of dairy cattle within the City commencing in 1898.

Arrangement for voluntary notification of three principal tubercular diseases on the part of parochial Medical Officers and Medical Officers of Public Institutions in the City.

Provision of Bacteria Beds for the treatment of the whole of the town's sewage (works now in progress.)

Provision of new Water Supply from Geltsdale Hills, twelve miles from Carlisle.

Erection of Smallpox Hospital at Belle Vue, two miles from Carlisle.

Acquisition and demolition of old property in Old Grapes Lane.

Reclamation of land known as "The Sands," conversion of portion of same into a pleasure ground, and

the remainder into a cattle market, three sides of the latter being bounded by an enclosed shrubbery.

Demolition of a number of tenement dwellings in East Tower Street, Lowther Street and Eden Street, for opening out, extension and improvement of Lowther Street.

Demolition of premises known as Glover's Row.

Demolition of a number of tenements in, and the widening of Bridge Lane.

Acquisition of property in Bridge Street, John Street, and John's Lane, for the purpose of widening and improving Bridge Street and the erection of "Artizans' Dwellings" to accommodate the tenants who were displaced when the property was demolished.

Closure of four tenements in Loughran's Lane, Rickergate, and dwelling house, bakehouse, and out-standing buildings in Drovers' Lane.

The closure of thirty-nine tenement dwellings in Duke Street, and house and workshop, 29 John Street.

Making fit for habitation four rooms in Welsh's Square, Finkle Street.

Closure of seventeen tenement dwellings in Whippery Lane.

Making fit for habitation two tenements in Barley Stack Lane, three tenements in Bowman's Court, and seven tenements in Brewery Row. The closure of four houses in East Tower Street and the rebuilding of ten tenement houses, Keys Lane.

The re-modelling of five houses in Sewell's Lane, Scotch Street.

Provision of bowling green and pleasure ground in Botchergate and a bowling green at Newtown.

Reformation with improved paving of a number of streets in various parts of the City, including the whole of the principal thoroughfares.

Provisions of several storm water overflows to relieve the sewers during excessive rainfall.

Extension of sewerage system.



**Average death-rates in Carlisle for quinquennial periods since 1874 to the present time :—**

Years.	Average Death-rate from all Causes per 1,000 of the population.	Average Death-rate from Zymotic Causes per 1,000 of the population.
1874—1878	26·6	4·9
1879—1883	22·0	2·7
1884—1888	19·8	1·5
1889—1893	19·9	1·9
1894—1898	19·6	1·2
1899—1903	18·3	1·3
1904—1907	*17·3 { Aver for 4 years.	1·3 { Aver. for 4 years.

\* Average corrected death-rate for the last four years  
16.6.



## MORTAL STATISTICS.

During the past year 848 deaths were registered in the Carlisle Urban District. This number includes 447 males and 401 females. The death-rate is equal to 17.1 per 1,000 of the population, as compared with 16.7 per 1,000 in 1906, when 811 deaths were registered. Twenty-one deaths belonging to the district occurred in Public Institutions outside the City, while 62 deaths not belonging to the district occurred in Public Institutions within the City. After making allowance for these deaths a nett death-rate of 16.3 is obtained.

Number of deaths of persons not belonging to the district occurring in Public Institutions inside the City:—

Cumberland Infirmary	...	...	45
Fusehill Workhouse	...	...	10
Strathclyde House	...	...	2
Fever Hospital	...	...	3
H.M. Prison	...	...	1
Citadel Station (accident)	...	...	1
<hr/>			
Total	...	...	62
<hr/>			

Number of deaths of persons belonging to the district occurring in Public Institutions outside the City:—

Garlands Asylum	...	...	12
St. Joseph's Home, Botcherby	...	...	3
Cockermouth Industrial School	...	...	1
York Workhouse	...	...	1
Blencathra Sanatorium	...	...	1
Chalmer's Hospital, Edinburgh	...	...	1
Royal Albert Asylum, Lancaster	...	...	1
Motherwell	...	...	1
<hr/>			
			21
<hr/>			

Table showing the death rate of Carlisle from 1874 to 1907 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	808	21.6	145	3.6
1894	780	19.0	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



## CHART

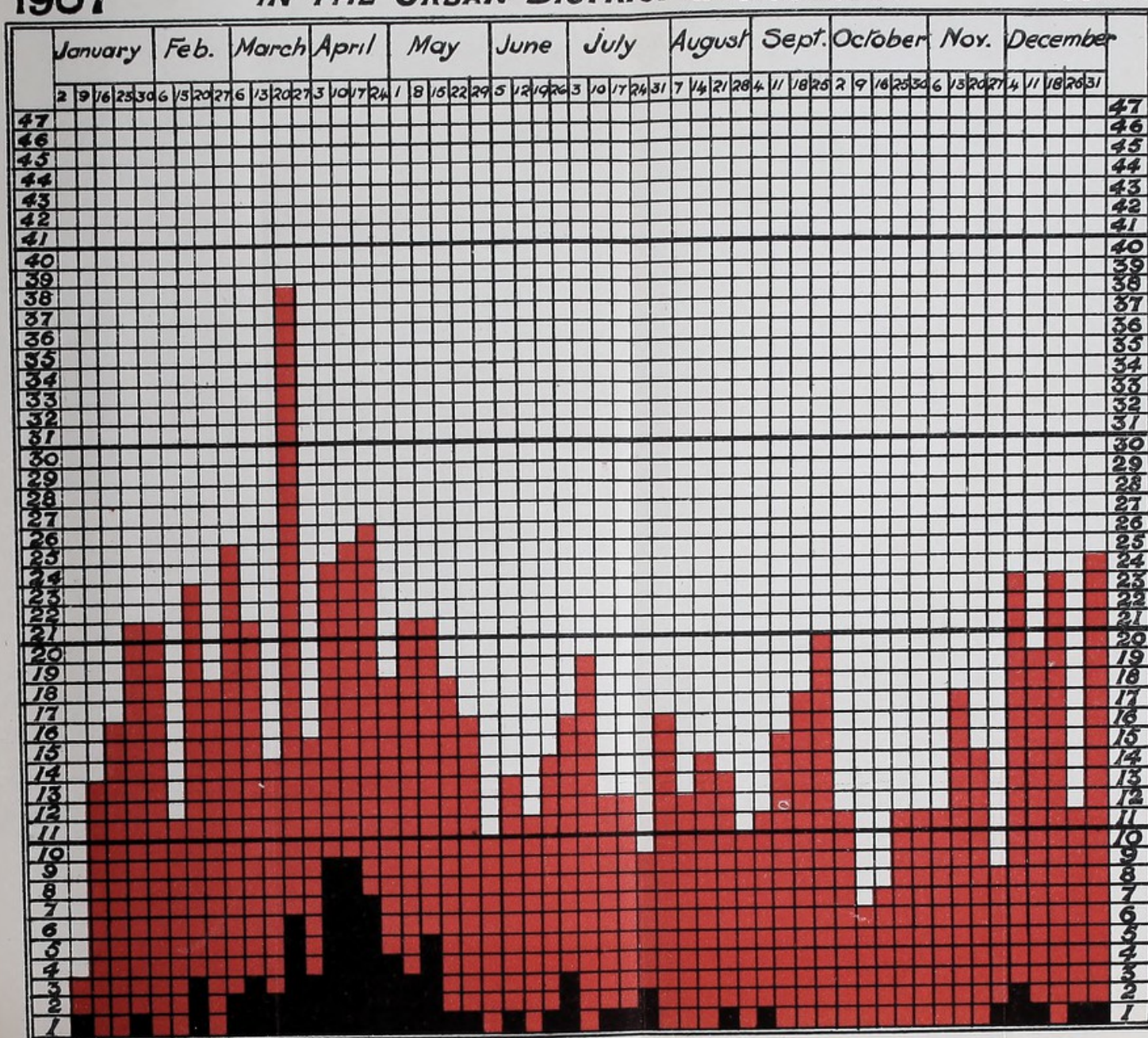
**WEEKLY DEATHS FROM ALL CAUSES SHOWN RED**

DO. DO. ZYMOTICS DO. BLACK.


1907

IN THE URBAN DISTRICT OF CARLISLE.

1907







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## DEATHS FROM THE EIGHT PRINCIPAL ZYMOTIC DISEASES.

There have been 77 deaths from the eight principal zymotic diseases as compared with 34 last year and 66 in 1905, giving a rate of 1.5 per 1,000 of the estimated population, the number registered from each disease being as follows:—

Smallpox	...	...	...	0
Measles	...	...	...	54
Scarlet Fever	...	...	...	6
Diphtheria and Membranous Croup	...	...	...	3
Whooping Cough	...	...	...	11
Typhus Fever	...	...	...	0
Enteric Fever	...	...	...	0
Diarrhœa and Dysentery	...	...	...	3
Total				77

## VITAL STATISTICS.

During the year the births of 1,178 children have been registered. Of these 586 were boys and 592 girls. The total gives a rate of 23.8 per 1,000 of the population, the lowest birth-rate on record for Carlisle. The following are the annual birth-rates since 1874:—

1874	...	...	...	No returns
1875	...	...	...	35.5
1876	...	...	...	38.6
1877	...	...	...	38.5
1878	...	...	...	38.7
1879	...	...	...	37.7
1880	...	...	...	37.0
1881	...	...	...	36.0
1882	...	...	...	35.3
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

### INFANT MORTALITY.

During 1907, 169 infants under one year of age have died within the City, the ratio of infant deaths to births being 143 per 1,000 as compared with 132 per 1,000 in 1906. The following are the yearly rates since 1885 :—

	Infants deaths per 1,000 births.		
1907	...	...	143
1906	...	...	132
1905	...	...	139
1904	...	...	152
1903	...	...	118
1902	...	...	117



				Infants death per 1,000 births
1901	...	...	...	129
1900	...	...	...	134
1899	...	...	...	145
1898	...	...	...	183
1897	...	...	...	134
1896	...	...	...	137
1895	...	...	...	142
1894	...	...	...	133
1893	...	...	...	178
1892	...	...	...	123
1891	...	...	...	137
1890	...	...	...	150
1889	...	...	...	142
1888	...	...	...	129
1887	...	...	...	141
1886	...	...	...	146
1885	...	...	...	164

As the result of recent Parliamentary legislation an adoptive Act (the Notification of Births Act, 1907) has been passed, for the immediate notification of all births, to the Medical Officer of Health. Under previous existing law the Medical Officer of Health receives intimation of births from the district registrars shortly after registration. The new Act imposes upon the medical man or other person in attendance on the mother, the duty of giving notice of the nativity to the Medical Officer of Health within thirty-six hours, the purpose of the Act being to give the Sanitary Authority an opportunity of furnishing the mother or other person in charge of the child, instructions as to the hygienic rules to be observed in the rearing of the infant. It is difficult to see how this Act can have any beneficial effect unless the Sanitary Authority makes provision for the personal supervision of a trained staff of nurses during the first year of the children's existence. Such supervision would undoubtedly reduce to a very considerable extent the infant mortality by rescuing feeble children from the

results of ignorance and neglect, but at the same time, we must bear in mind the ulterior effect of fostering a weak population.

The 169 deaths of infants under one year of age are recorded under the following headings, arranged in order of their frequency:—

Premature Birth	...	...	...	26
Pneumonia	...	...	...	23
Atrophy, Debility, Inanition, Marasmus	...			20
Measles	...	...	...	16
Bronchitis	...	...	...	10
Enteritis, Muco-enteritis, and Gastro-enteritis				9
Gastritis, Gastro-intestinal Catarrh			...	8
Congenital Defects	...	...	...	6
Tubercular Meningitis		...	...	6
Whooping Cough	...	...	...	5
Convulsions	...	...	...	5
Tabes Mesenterica, Tuberculous Peritonitis				4
Syphilis	...	...	...	3
Other Tubercular Diseases		...	...	2
Diarrhœa	...	...	...	2
Injury at Birth	...	...	...	1
Other Causes	...	...	...	23
				<hr/>
				169
				<hr/>

### TYPHOID FEVER.

A remarkable event in the sanitary history of Carlisle has been the almost non-existence of Typhoid Fever during the year, a disease communicated to human beings by infected air, water and food. As will be seen from the subjoined table Typhoid Fever was for many years after the passing of the Public Health Act, 1875, a very conspicuous and serious feature of the zymotic returns. The



annual average number of cases, estimated approximately from the death returns from 1874, to the adoption of the Infectious Diseases Notification Act, in 1890, being 76, and during the first ten years of compulsory notification being close upon 20 (19.9). During the last eight years the annual average has been 9.5, and during the past year there has been only one case recorded. As a matter of fact there has been only one case notified for the last fifteen months, an event which I venture to say is without precedent in the sanitary history of the City. It may be considered that this remarkable immunity from Typhoid Fever is due to the new water supply, and possibly the purity of the new supply along with the meteorological conditions of the year may have contributed to the phenomenal result, but we must not forget that the two great factors in the reduction of Typhoid in Carlisle have been the sanitary improvements effected by the abolition of the numerous private slaughter houses and the removal of ashpits and ashpit privies. As I pointed out in 1884, a very fatal form of Typhoid Fever persistently lingered in the immediate vicinity of slaughter houses, insanitary cowsheds, triperies, and gut cleaning premises. Thus during the four-and-a-half years immediately preceding 1887, there occurred in Carlisle in the vicinity of two slaughter houses placed in close proximity, seven cases of Typhoid Fever, near another slaughter house the same number of cases, near a shed where tripe and intestines were cleansed five cases, at a similar place one case, in a short street where four slaughter houses existed eleven cases, near a large cowshed nine cases, and near two cow-byres six cases, making a total of 46 cases, of which eleven proved fatal.

The ashpits of the City, upon which I reported in 1888, numbered 1,690 and the ashpit privies 116. Many of the ashpits were virtually middens for all kinds of refuse, and some of such huge



dimensions as to measure nearly twenty feet in length and eight feet in depth, being only emptied when "full." Such accumulations of organic filth necessarily had a very deleterious influence upon the health of the people, and to my personal knowledge were a fertile source of the spread of Typhoid Fever. In fact, during the days of the ashpit system of refuse disposal the air of the City was always more or less charged with the products of organic putrefaction, and no one could pass along the rear of houses even in the best parts of the City without being made sensible of this fact. Hence we may consider that the decline in typhoid prevalence in Carlisle is due to three improvements of paramount importance:—

1. The removal of the numerous private slaughter houses, insanitary cowsheds and triperies.
2. The removal of ashpits and ashpit privies.
3. General sanitary measures with a view to cleanliness.

### TYPHOID FEVER IN CARLISLE.

					Annual No. of Cases.
BEFORE ADOPTION OF NOTIFICATION ACT.	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

					Annual No. of Cases
Cases of Typhoid Fever 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

*Tabular Statement of the Case of Typhoid Fever during the year 1907, with action taken thereon.*

Date.	Locality.	Insanitary conditions present	Action taken.	Result.
1907. 3rd July	Isabella Street	None found.	Removed to Crozier Lodge. Instructions given as to disinfection.	One case No extension

### MEASLES.

There was a very fatal epidemic of Measles during the first half of the year. There is no provision for the compulsory notification of Measles in Carlisle, but on February 5th and 6th I had intimation from the School Attendance Officers that Measles were very prevalent in the following schools, viz.:—Caldewgate Infants', St.



Cuthbert's Infants', and Christ Church Infants'. On obtaining written reports from the School Attendance Officers, I recommended the Health Committee to close the aforesaid schools, and this recommendation was carried out on February 6th, 1907 (see table re closure of schools). On February 27th St. John's Infants' School was closed, and from that date to April 15th the Infants' Departments of seven other schools were closed in consequence of the prevalence of the disease.

It will be seen from the following table (Weekly Mortalities) that from January 1st to June 19th there were fifty-four deaths from Measles in Carlisle. It will also be noticed from the same table that the months of March and April give rise to the highest fatality.

#### WEEKLY MORTALITY FROM MEASLES.

From January 1st to July 31st, 1907.

	Week.	Month.
	-----	-----
Week ending January 2nd, 1907 ...	1	
"    "    "    9th    "    ...	Nil	
"    "    "    16th   "    ...	Nil	
"    "    "    23rd   "    ...	1	
"    "    "    30th   "    ...	Nil	2
"    "    February 6th  "    ...	Nil	
"    "    "    13th   "    ...	3	
"    "    "    20th   "    ...	Nil	
"    "    "    27th   "    ...	2	5
"    "    March 6th   "    ...	1	
"    "    "    13th   "    ...	2	
"    "    "    20th   "    ...	6	
"    "    "    27th   "    ...	3	12
"    "    April 3rd   "    ...	8	
"    "    "    10th   "    ...	8	



				Week.	Month.
				—	—
Week ending	April 17th,	1907	...	7	
"	"	" 24th	" ...	4	27
"	"	May 1st	" ...	3	
"	"	" 8th	" ...	3	
"	"	" 15th	" ...	Nil	
"	"	" 22nd	" ...	1	
"	"	" 29th	" ...	Nil	7
"	"	June 5th	" ...	Nil	
"	"	" 12th	" ...	Nil	
"	"	" 19th	" ...	1	
"	"	" 26th	" ...	Nil	1
"	"	July 3rd	" ...	Nil	
"	"	" 10th	" ...	Nil	
"	"	" 17th	" ...	Nil	
"	"	" 24th	" ...	Nil	
"	"	" 31st	" ...	Nil	0
				—	—
Total ...				54	54
				—	—

The Measles epidemic in the past year was similar to what Carlisle experienced in 1893, when fifty-three deaths from Measles were recorded during the first three months of the year. In that year there were 10 deaths from Measles in January, 14 in February, and 29 in March. There were 18 deaths in the second quarter of that year, 6 in the third quarter, and nil in the fourth quarter. The deaths from Measles during the past year were all in children under five years (see table). In 41 cases the deaths were registered "Measles, Broncho-Pneumonia," and in 13 cases "Measles." It will be noticed from the table of Weekly Mortalities that there have been no deaths from Measles since June 19th, 1907.

## MEASLES MORTALITY.

January 1st to June 30th, 1907.

## AGE INCIDENCE

Under 1 year.	1 and under 2 years.	2 and under 3 years.	3 and under 4 years.	4 and under 5 years.	5 and under 6 years.	6 and under 7 years.
14	21	11	4	4	Nil.	Nil.

QUARTERLY MORTALITY FROM MEASLES IN  
THE CARLISLE URBAN SANITARY DISTRICT,  
1907.

First Quarter	...	19 deaths
Second Quarter	...	35 deaths
Deaths since June 30th	...	Nil

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

### SCARLET FEVER.

As we might expect after the cyclic prevalence of Scarlet Fever in 1906, the number of cases notified have been much reduced during the past year, only 177 cases being notified for the whole year. There were 6 deaths (one belonging to the Rural District), and the case mortality was 3.2, as compared with 1.3 last year. The percentage isolated at Crozier Lodge was 51.9, as compared with 50.8 last year.

The following table gives the School incidence of Scarlet Fever for 1905, 1906, 1907:—

		1907.	1906.	1905.
		—	—	—
Robert Ferguson Schools	...	25	73	0
Brook Street	do. ...	16	60	31



Denton Holme Schools	...	12	45	3
Caldewgate do.	...	12	21	26
Ashley Street do.	...	11	54	35
St. Bedes do.	...	8	14	3
Fawcett's do.	...	6	16	20
St. John's do.	...	5	29	23
Christ Church do.	...	5	9	11
Bishop Goodwin do.	...	4	40	18
St. Stephen's do.	...	3	16	22
Holy Trinity do.	...	2	17	8
St. Cuthbert's do.	...	1	6	4
Botcherby do.	...	1	2	0
Private do.	...	1	3	4
Higher Grade School	...	0	7	1
Upperby Schools	...	0	5	0
Grammar School	...	0	3	0
St. Patrick's Schools	...	0	3	7
Girls' High School	...	0	2	0
Lowther Street Schools	...	0	10	14
No School	...	65	235	147
		----	----	----
Totals	...	177	670	378
		----	----	----

Table showing the number of cases of Scarlet Fever during the year 1907, arranged as to age:--

Under 1 year	...	...	3
From 1 to 2 years	...	...	9
„ 2 „ 3	...	...	9
„ 3 „ 4	...	...	14
„ 4 „ 5	...	...	26
„ 5 „ 6	...	...	15
„ 6 „ 7	...	...	17
„ 7 „ 8	...	...	20
„ 8 „ 9	...	...	15
„ 9 „ 10	...	...	10

From 10 to 11 years	...	...	6
„ 11 „ 12 „ ...	...	...	11
„ 12 „ 13 „ ...	...	...	6
„ 13 „ 14 „ ...	...	...	3
„ 14 „ 15 „ ...	...	...	0
„ 15 „ 16 „ ...	...	...	0
„ 16 „ 17 „ ...	...	...	4
„ 17 „ 18 „ ...	...	...	2
„ 18 „ 19 „ ...	...	...	1
„ 19 „ 20 „ ...	...	...	2
„ 20 „ 21 „ ...	...	...	0
„ 21 „ 22 „ ...	...	...	0
„ 22 „ 23 „ ...	...	...	0
„ 23 „ 24 „ ...	...	...	0
„ 24 „ 25 „ ...	...	...	1
Over 25 years	...	...	3
			----
			177
			----

Number of cases of Scarlet Fever reported each week  
from January 1st to December 31st, 1907:—

January 1st to 5th	...	...	4
Week ending January 12th	...	...	13
„ „ „ 19th	...	...	7
„ „ „ 26th	...	...	4
„ „ February 2nd	...	...	4
„ „ „ 9th	...	...	1
„ „ „ 16th	...	...	3
„ „ „ 23rd	...	...	—
„ „ March 2nd	...	...	9
„ „ „ 9th	...	...	2
„ „ „ 16th	...	...	2
„ „ „ 23rd	...	...	3
„ „ „ 30th	...	...	5
„ „ April 6th	...	...	3

Week	ending	April	18th	..	...	7
"	"	"	20th	...	...	2
"	"	"	27th	...	...	2
"	"	May	4th	...	...	3
"	"	"	11th	...	...	4
"	"	"	18th	...	...	2
"	"	"	25th	...	...	2
"	"	June	1st	...	...	2
"	"	"	8th	...	...	5
"	"	"	15th	...	...	6
"	"	"	22nd	...	...	—
"	"	"	29th	...	...	1
"	"	July	6th	...	...	2
"	"	"	13th	...	...	4
"	"	"	20th	...	...	5
"	"	"	27th	...	...	2
"	"	August	3rd	...	...	1
"	"	"	10th	...	...	3
"	"	"	17th	...	...	4
"	"	"	24th	...	...	2
"	"	"	31st	...	...	1
"	"	September	7th	...	...	7
"	"	"	14th	...	...	4
"	"	"	21st	...	...	4
"	"	"	28th	...	...	7
"	"	October	5th	...	...	6
"	"	"	12th	...	...	—
"	"	"	19th	...	...	1
"	"	"	26th	...	...	1
"	"	November	2nd	...	...	5
"	"	"	9th	...	...	1
"	"	"	16th	...	...	2
"	"	"	23rd	...	...	5
"	"	"	30th	...	...	7
"	"	December	7th	...	...	3
"	"	"	14th	...	...	1



Week ending December 21st	...	...	2
"      "      "      28th	...	...	—
"      "      "      31st	...	...	1
			---
	Total	177	---

### DIPHTHERIA.

During the past year there has been a considerable decrease in the number of cases of Diphtheria, 12 cases being notified as compared with 20 cases in the previous year. The comparative school incidence for the years 1905, 1906, and 1907 is shewn below:—

		1905.	1906.	1907.
		---	---	---
Ashley Street Schools	...	0	0	5
Robert Ferguson	do. ...	0	1	0
St. John's	do. ...	2	1	1
Higher Grade	do. ...	0	0	1
Denton Holme	do. ...	0	0	0
Brook Street	do. ...	2	1	0
Fawcett's	do. ...	4	1	0
Kendal Street	do. ...	1	0	1
Christ Church	do. ...	0	0	0
St. Bede's	do. ...	0	0	0
St. Cuthbert's	do. ...	2	0	0
Lowther Street	do. ...	0	0	0
St. Stephen's	do. ...	0	0	0
Goodwin	do. ...	1	2	0
Cathedral School	... ..	1	0	0
Private Schools	... ..	0	2	0
No. School	... ..	12	12	5
		---	---	---
Totals	...	25	20	12
		---	---	---

CASE MORTALITY.—The case mortality from the disease is 8.3 per cent. as compared with 25 per cent. last year and 24 per cent. in 1905.

*Tabular Statement of Cases of Diphtheria during the year 1907, with action taken thereon.*

Date.	Locality.	Insanitary conditions present.	Action taken.	Result.
1907.				
Feb. 19th	Gardenia Street	None	Instructions given as to disinfection	One case No extension
Mar. 12th	Gibbon's Terrace, Newtown	None	Do.	do.
Apr. 4th	Dalston Street	None	Do.	do.
„ 13th	Myddleton Street	Two bottom outlet gullies in yard	Do.	do.
May 6th	Shakespeare Street	None	Removed to Crozier Lodge	do.
Aug. 10th	Shaddongate	None	Do.	do.
Sept. 19th	Cumberland Infirmary, from Back Street, Longtown	None	Do.	do.
Oct. 5th	Bower Street	None	Do.	One case One extension
Nov. 15th	Orfeur Street	None	Instructions given as to disinfection	One Case No extension
„ 26th	Kenmount Place	None	Do.	do.
Dec. 3rd	2 Elm. Terrace	Bottom outlet gully abolished	Removed to Crozier Lodge	do.
„ 20th	Bower Street	None	Do.	do.



# PULMONARY PHTHISIS, TABES MESENTERICA, AND TUBERCULAR MENINGITIS.

The following table gives the number of notifications sent by Parochial Surgeons and Medical Superintendents of Public Institutions, according to the arrangements made:—

Date.	Sex.	Age.	Address.	Name of Disease.
1907.				
Jan. 8th	Female	4½	Albert Square, Blackfriars St.	Tabes Mesenterica
" 8th	Male	18	Linton Street ... ..	Phthisis
" 8th	Female	18	Alexander Street ... ..	Do.
" 8th	Do.	35	Barrock Street ... ..	Do.
" 8th	Male	11	Saddle Lane, Botchergate ...	Tabes Mesenterica
" 8th	Female	28	Old Greystone ... ..	Phthisis
" 8th	Do.	27	Crown Street ... ..	Do.
" 8th	Do.	—	Morton Street ... ..	Do.
" 16th	Do.	9½	Rigg Street ... ..	Tabes Mesenterica
" 16th	Do.	5	John Street ... ..	Pulmonary Tuberculosis
" 16th	Do.	35	Trinity Buildings ... ..	Phthisis
" 16th	Do.	—	Longcake's Lane, Scotch Street	Do.
" 16th	Male	9½	Union Street ... ..	Tabes Mesenterica
" 16th	Do.	31	Rigg Street ... ..	Phthisis
Mar. 12th	Do.	16	Garfield Street ... ..	Do.
" 12th	Do.	10	Warwick Street ... ..	Pulmonary Tuberculosis
" 12th	Do.	14	Garfield Street ... ..	Do.
" 12th	Do.	21	Bridge Lane, Caldewgate ...	Do.
" 12th	Do.	—	Union Street ... ..	Tabes Mesenterica
" 12th	Do.	18	Water Street ... ..	Phthisis
May 23rd	Female	22	Crummock Street ... ..	Do.
" 23rd	Do.	1½	Mary Street ... ..	Tubercular Meningitis
" 23rd	Do.	5	William Street ... ..	Disseminated Tuberculosis
" 30th	Male	17	Bridge Lane, Caldewgate ...	Pulmonalis Phthisis
Aug. 16th	Do.	1½	Hare and Hounds Lane ...	Tabes Mesenterica
				Pulmonary Phthisis
Nov. 16th	Do.	8½	Rigg Street ... ..	Tabes Mesenterica
" 16th	Do.	28	Collingwood Street ... ..	Tubercular Lung
" 26th	Do.	21	South Street ... ..	Phthisis
" 26th	Do.	2	Slack's Court, Milbourne Street	Do.
" 26th	Do.	6	Trinity Buildings ... ..	Do.
" 28th	Do.	13	Bread Street ... ..	Do.
Dec. 9th	Female	35	Trinity Buildings ... ..	Do.
" 9th	Do.	5	Dann's Court, South John St.	Do.
" 13th	Male	7	Union Street ... ..	Do.
" 13th	Do.	14	Corporation Road ... ..	Do.
" 23rd	Do.	—	Andrew's Court, Studholme's Lane ... ..	Do.
" 30th	Do.	—	Gate's Court, Brook Street ...	Do.
" 30th	Do.	—	King Street ... ..	Do.
" 30th	Do.	—	Blackwell Road ... ..	Do.

## NOTIFICATION OF INFECTIOUS DISEASES.

There has been a marked decrease in the number of Infectious Diseases notified during the year, 275 cases having been notified as compared with 778 cases last year and 503 in 1905. In every case detailed enquiries were made according to printed instructions.

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 ... ..	2	3	2	5	12
Membranous Croup ... ..	0	0	2	0	2
Erysipelas ... ..	27	22	13	20	82
Scarlet Fever ... ..	57	39	47	34	177
Typhoid or Enteric Fever	0	0	1	0	1
Typhus Fever ... ..	0	0	0	0	0
Relapsing Fever ... ..	0	0	0	0	0
Continued Fever ... ..	0	0	0	0	0
Puerperal Fever ... ..	1	0	0	0	1
Totals ... ..	87	64	65	59	275

## VISITS PAID IN CONNECTION WITH INFECTIOUS CASES.

I have made 162 visits in connection with Infectious Cases during the year, the visits being for the purpose of determining the suitability of cases for removal to Hospital, supervision of disinfection and the question of freedom from infection.



## ISOLATION OF INFECTIOUS DISEASE AT CROZIER LODGE FEVER HOSPITAL.

There have been 99 infectious cases isolated at Crozier Lodge during the year as compared with 355 cases the previous year. The cases isolated were 92 of Scarlet Fever, 6 of Diphtheria, and one of Enteric Fever.

## REDUCTION OF TARIFF FOR THE ISOLATION OF CARLISLE URBAN SANITARY PATIENTS AT CROZIER LODGE FEVER HOSPITAL.

In the early part of the year a conference of the Health Committee and the Fever Hospital Committee was held for the purpose of discussing the question as to the modification of charges for the maintenance and medical treatment of patients sent to the Hospital by the Carlisle Urban District Council. The following satisfactory terms were agreed upon and adopted by the Council:—

First.—The Fever Hospital Committee to maintain and repair in future the two Corporation wards.

Second.—The Corporation to continue to pay the present yearly cost of £31 10s. 0d. towards the funds of the Institution and to have the Mayor for the time being and two members of the Council as representatives on the Fever Hospital Committee.

Third.—The present payment of £1 1s. 0d. upon the admission of each patient to be discontinued.

Fourth.—The present payment of £1 5s. 0d. per week for each patient to be continued, the minimum payment in the event of death of any patient within the expiration of a week to be £1 5s. 0d. from the time of admission.



## THE NEW SMALLPOX HOSPITAL.

The new Smallpox Hospital, Belle Vue, is now fully equipped and ready for the reception of patients. Fortunately there have been no Smallpox cases in Carlisle for over three years. The staffing of the Hospital was carried out in the spring of the year, Dr. Hall of Carlisle being appointed Medical Attendant to the Hospital, and Mr. C. W. Hill, your Sanitary Inspector, was appointed Resident Custodian.

## CLOSURE OF SCHOOLS.

The following table shows the schools closed, and periods of closure for the undermentioned disease, viz., Measles:—

SCHOOL.	PERIOD.	DISEASE.
Caldewgate Schools ... ..	Four and half weeks.	Measles.
Christ Church Infants... ..	do.	do.
St. Cuthbert's „ ... ..	do.	do.
St. John's „ .. ...	Fours weeks.	do.
St. Stephen's „ ... ..	do.	do.
Holy Trinity „ ... ..	do.	do.
Brook Street „ ... ..	do.	do.
Ashley Street „ ... ..	do.	do.
Goodwin „ ... ..	do.	do.
Robert Ferguson Infants' ..	do.	do.
St. Bede's „ ... ..	do.	do.

## CEREBRO-SPINAL FEVER.

A circular letter and memorandum, dated February 20th, from the Local Government Board, on the subject of

Cerebro-Spinal Fever, was presented to the Health Committee on the 1st of March, and on the recommendation of the Health Committee, the Council made a temporary order for the provisions of the Infectious Diseases Notification Act (1889) to apply in the Carlisle Urban Sanitary district, to Cerebro-Spinal Fever. The temporary order, which expired on 21st April, was, with the approval of the Local Government Board, extended for a period of 12 calendar months from May, 1907. So far no cases of the disease have been notified. Weekly memoranda were kept of the deaths from Acute Pneumonia and Tubercular Meningitis, with which Cerebro-Spinal Fever is sometimes confused in diagnosis, but the deaths so tabulated were not found to be in excess of the usual number.

MEDICAL INSPECTION OF CHILDREN IN THE  
PUBLIC ELEMENTARY SCHOOLS UNDER  
SECTION 13 OF THE EDUCATION  
(ADMINISTRATIVE PROVISIONS)  
ACT, 1907.

Provisions for the carrying out of the above Act which requires the medical examination and supervision of all school children in the Elementary Schools, is at present under the consideration of the Education Committee and the Health Committee.

STEAM DISINFECTOR.

In the Spring of the year the Health Committee had under consideration the question of providing a high-pressure steam disinfector for the City. This subject has been before the Committee and Council on two previous occasions, viz., in 1883 and 1897. The Health Committee, after having obtained due information from its Sanitary Officials, and also from six English towns of similar



population to Carlisle, where such disinfection has been in use for many years, arrived at the conclusion that it was not justified in recommending the Council to incur the expense involved in providing the plant and management required for this mode of disinfection.

### MEAT INSPECTION.

During the year 117 examinations of diseased carcasses have been made, as compared with the same number in 1906, 77 of these examinations being made by myself, and 40 by Mr. Hill.

The following table gives particulars of the carcasses examined:—

Animal.	Number of Examina- tions.	Whole pronounced unfit for food.	Portions pronounced unfit for food.	Number affected with Tuber- culosis.
Oxen ... ..	71	47	24	57
Sheep ... ..	39	24	15	...
Goats ... ..	...	...	...	...
Calves ... ..	3	3	...	1
Pigs ... ..	4	4	...	2
Totals ... ..	117	78	39	60

The number of oxen affected with Tuberculosis was 1.4 per cent. of the total number slaughtered.



Of the 39 sheep examined, 10 had Chronic Pneumonia, 1 Acute Pneumonia, 1 Pericarditis, 2 Uræmic Poisoning, 2 Pleurisy, 1 Congestion of Lungs, 1 Inflammation from fracture of Thigh Bone, 1 Emaciation, 8 Contusions, 9 were "dead sheep," and 3 where the actual nature of the disease was not apparent.

Of the 4 pigs examined, 2 were extensively contused and 2 were tuberculous.

The Public Slaughter House continues to be managed in a highly satisfactory manner.

### THE NEW WATER SUPPLY.

The New Water Supply from Geltsdale, which was turred on to the City on August 16th, 1906, has proved a great success. The water is of excellent quality, and the supply has been abundant notwithstanding the non-completion of the Storage Reservoir at Castle Carrock, now in the course of construction. In addition to Carlisle the supply furnishes water to the following centres of population in the vicinity of the City, viz.:—Stanwix, Edentown, Etterby, Botcherby, Durran Hill, Harraby, Upperby, Blackwell, Cummersdale, Belle Vue, Kingstown, and Scotby. The quantity of water used during the year ending March 31st, 1907, per head of estimated population, per day, was 29.8 gallons, and the water used for domestic purposes per head of estimated population, per day, was 20.28 gallons.

The following report upon the sample of the new water, taken at the middle of December, at a period of heavy rainfall in the district is from Robert Hellon, Esq., Ph.D., and F.I.C., the late Dr. Walker's successor as City Analyst.

## DR. HELLON'S REPORT.

The County Analyst's Laboratory,  
Whitehaven.

Dear Sir,

I beg to inform you that the following is the result of my analysis of the sample of water marked "X," received from you on 16th December, 1907:—

Physical Properties—Slightly turbid, greenish-yellow colour. Microscopical examination—Vegetable debris.

## Chemical Analysis—

Free Ammonia	...	traces	
Albuminoid Ammonia	...	.002	grains per gallon.
Chlorine existing as Chlorides	...	.490	„ „
Nitrogen existing as Nitrates	...	.040	„ „
Total Solid Matter in solution, dried at 212° Fahr.	...	8.120	„ „
Lead and other poisonous metals	...	none	„ „
Smell when heated to 100° Fahr.	...	none	„ „
Hardness, Temporary	...	6.25°	Clarke's Scale
Permanent	...	.75°	„ „
Total	...	7.0°	„ „
Oxygen absorbed in 15 minutes at 80° Fahr.	...	.035	grains per gallon.
Oxygen absorbed in 4 hours at 80° Fahr.	...	.075	„ „

Opinion and Remarks—So far as it is justifiable to base an opinion in the chemical analysis alone, the quality of this water is satisfactory.

I am, Dear Sir,

Yours faithfully,

ROBERT HELLON.

Dr. Brown,

Medical Officer of Health,

Carlisle.



It will be noticed from Dr. Hellon's report that the hardness of the new water is chiefly of a temporary character and that it can be almost entirely removed by boiling.

### SANITARY ARRANGEMENTS OF FACTORIES.

I have visited the following factories during the year, viz.:—Buck's, Nelson Street; Carr & Co., Caldewgate; Carrick's, Norfolk Street; Stordy's, Norfolk Street; Teasdale's, Westmorland Street; Morton's, Lorne Crescent; Main's, London Road; Lamplugh Works; Hudson Scott's, James Street, Whitelaw's, Willow Holme; Todd's, Shad-dongate. The sanitary arrangements, with two exceptions, were found in a satisfactory condition.

The following table gives the results of inspections of factories and workshops in accordance with the administration of the Factory and Workshop Act, 1901:—

### FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, AND HOMEWORK

#### 1.—INSPECTION.

##### INSPECTIONS MADE BY SANITARY INSPECTORS.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions
FACTORIES ... .. (Including Factory Laundries.)	3	2	Nil
WORKSHOPS ... .. (Including Workshop Laundries)	372	44	...
WORKPLACES ... .. (Other than Outworkers' premises included in Part 3 of this Report)	6	...	...
TOTAL ... ..	381	46	Nil.



## 2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :—</i>				
Want of cleanliness .. ...	12	12	...	...
Want of ventilation ... ..	3	...	...	...
Overcrowding... ..	1	1	...	...
Want of drainage of floors ...	...	...	...	...
Other nuisances .. ...	4	4	...	...
<i>Sanitary accommodation :—</i>				
{ 1. Insufficient ... ..	2	1	...	...
{ 2. Unsuitable or defective	4	4	...	...
{ 3. Not separate for sexes	1	1	...	...
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouse (s. 101) ...	...	...	...	..
Breach of special sanitary requirements for bakehouses (ss. 97 to 100) ... ..	27	27	...	...
Total .. ...	54	50	...	...

## 3.—HOME WORK.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107,					
	Lists received from Employers.					
	Twice in the year.			Once in the year.		
	Lists.	Outworkers.		Lists.	Outworkers.	
		Con-tractors.	Work-men.		Con-tractors.	Work-men.
Wearing apparel—						
(1) Making, &c....	7	4	8	...	...	...
(2) Cleaning and Washing ...	...	...	...	...	...	...
Total ...	7	4	8	..	...	...

## 4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year		
Important classes of workshops, such as workshop bakehouses, may be enumerated here.	Workshops ...	248
	Bakehouses ...	65
Total number of workshops on Register ...		313

## 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) ... ..	18
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5) :—	
1. Notified by H.M. Inspectors ... ..	11
2. Reports (of action taken) sent to H.M. Inspectors ... ..	...
Other ... ..	...
Underground Bakehouses (s. 101) :—	
Certificates granted during the year ... ..	Nil.
In use at the end of the year ... ..	3

## ICE CREAM SHOPS.

The ice cream shops, which are now very numerous, have been visited by the Sanitary Inspectors, and the premises are suitable for the purpose for which they are used.

### UNDERGROUND BAKEHOUSES.

There are three Underground Bakehouses, all of which I have visited since last report. The yard leading into one of the bakehouses was found to contain hens and a great accumulation of house ashes, the whole yard being in a very dirty condition.

The other two bakehouses were found to be in a satisfactory state.

### COMMON LODGING HOUSES.

There are four Common Lodging Houses, viz.:—The Model Lodging House, Drovers' Lane; Fay's, Drovers' Lane; Roberts', Jane Street; Durkin's, Gawthorpe's Lane. Nugent's house, Gawthorpe's Lane, which was registered as a Common Lodging House in 1896, is now being used for weekly boarders. I have visited all the registered Lodging Houses and found matters satisfactory.

### COWSHEDS.

I have visited the following cowsheds during the year, viz.:—Rayson's, Newtown; Gillespie's, Newtown; Barker's, Wigton Road; Johnston's, Trinity Buildings; Henry's, Port Road; Rogerson's, Richardson Street; Johnston's, Silloth Street; Bell's, Back Bowman Street; and Davidson's, Tyne Street.

The air space in some of the byres is still defective. A byre at Newtown, which had considerably less than the required cubic space is now being re-constructed so as to give practically 800 cubic feet of air for each cow. In one case of defective air space the owner promised to increase the size of the byre, but I found on visiting the place in the autumn of the past year, that though he enlarged the byre as promised, he had increased the number of cows to such an extent, so as to make matters as bad as they were before.



### SEWAGE DISPOSAL.

The bacteria beds for the disposal of the whole of Carlisle Sewage will be completed by June of the present year.

### INSANITARY PROPERTY.

There has been no insanitary property reported during the year.

### VETERINARY INSPECTION OF DAIRY CATTLE.

The report of the Veterinary Inspector of the City is appended, from which it will be seen that the usual amount of work has been done. There is a very complete inspection of Dairy Cattle in Carlisle, but this work is very much restricted owing to the absence of Veterinary inspection in the Carlisle Rural District, from which a large part of the milk supply of Carlisle is derived. However, legislation seems to be moving in the matter and there is now a reasonable prospect of the inspection of dairy cattle being made general.

I am, Gentlemen,

Your obedient servant,

WILLIAM BROWN,

Medical Officer of Health.

Health Department,

Fisher Street,

January 23rd, 1908.

TABLE I.  
BIRTHS, 1907.

QUARTER ENDING.	ST. MARY.			ST. CUTHBERT.			TOTALS FOR CITY.
	Males.	Females.	Totals.	Males.	Females.	Totals.	
March 31 .....	88	76	164	69	80	149	313
June 30 .....	93	81	174	66	63	129	303
September 30	78	83	161	63	67	130	291
December 31...	79	75	154	50	67	117	271
Totals .....	338	315	653	248	277	525	1178

TABLE II.  
DEATHS, 1907.

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	26	48	13	48	135	21	29	28	26	104	239
June 30	28	51	20	46	145	16	26	18	28	88	233
Sept. 30	13	45	6	40	104	12	29	10	25	76	180
Dec. 31	16	39	19	39	113	12	36	9	26	83	196
TOTALS	83	183	58	173	497	61	120	65	105	351	848

TABLE III.

Showing the number of Deaths at all ages in 1907, from certain groups of Diseases, and proportions to 1,000 of Population, and to 1,000 Deaths from all causes; also the number of Deaths of Infants under one year of age from other groups of Diseases, and proportions to 1,000 Births and to 1,000 Deaths from all causes under one year.

Division I. (Adults)	Total Deaths.	Deaths per 1000 of Population, at all ages.	Deaths per 1000 of Total Deaths at all ages.
1. Principal Zymotic Diseases ...	77	1.5	90.8
2. Pulmonary Diseases ... ..	134	2.7	158.0
3. Principal Tubercular Diseases	81	1.6	95.5
Division II. (Infants under one year).	Total Deaths.	Deaths per 1000 of Births.	Deaths per 1000 of Total Deaths under one year.
4. Wasting Diseases ... ..	99	84.0	585.7
5. Convulsive Diseases ... ..	5	4.2	29.5

1—Includes Smallpox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Typhus, Enteric (or Typhoid), and Simple Continued Fevers and Diarrhœa.

3—Includes Phthisis, Scrofula, Tuberculosis, Rickets, and Tabes.

4—Includes Marasmus, Atrophy, Debility, Want of Breast Milk, and Premature Birth.

5—Includes Hydrocephalus, Infantile Meningitis, Convulsions and Teething.



TABLE IV.

Table showing the Number of Deaths from the principal Zymotic Diseases in the 10 Years 1897 to 1906, and in the year 1907.

DISEASE.	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	Annual Average of 10 Years 1897-1906	Proportion of 1000 Deaths in 10 years, 1897-1906.	Total Deaths in 1907.	Proportion of Deaths to 1000 Deaths in 1907.
Smallpox .....	...	...	..	...	...	...	4	...	...	...	4	4	...	...
Measles... ..	1	59	5	13	5	10	3	7	17	1	12.1	14.4	54	63.6
Scarlet Fever .....	7	8	3	2	6	17	5	3	5	9	6.5	7.7	6	7.0
Diphtheria .....	10	9	2	3	14	41*	20	14	6	5	12.4	14.8	3	3.5
Whooping Cough.....	24	1	20	17	14	5	20	20	11	5	13.7	16.0	11	12.9
2 ) Typhus .....	...	...	...	...	...	...	...	...	5	...	5	5	...	...
3 ) Enteric .....	3	2	1	2	5	7	3	3	3	1	3.0	3.5	...	...
24 ) Simple continued	...	...	..	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea .....	9	24	11	23	20	2	3	16	19	13	14.0	16.7	3	3.5
Totals .....	54	103	42	60	64	82	58	63	66	34	62.6	75.0	77	90.8
Rate per 1000 of population.....	1.3	2.4	.9	1.4	1.3	1.7	1.2	1.3	1.3	0.7	1.3	...	1.5	...

\* Includes Membranous Group.

TABLE V.

Vital Statistics of whole District during 1907 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	
1897	42,930	1324	30.8	178	134	811	18.8	142	42	No information.	769	17.9	
1898	43,566	1311	30.0	240	183	935	21.4	133	39		896	20.5	
1899	44,202	1300	29.4	188	145	818	18.5	128	36		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		13	813	17.6
1903	46,500	1322	28.4	157	118	781	17.4	105	39		7	781	16.7
1904	47,350	1278	26.9	195	152	933	19.7	176	63		7	877	18.5
1905	47,920	1168	24.3	163	139	783	16.3	150	37		13	759	15.8
1906	48,425	1227	25.3	163	132	811	16.7	163	56		16	781	15.9
Averages for years 1897-1906.	45,728	1277	27.9	177	138	834	18.3	142	44	...	800	17.4	
1907	49,400	1178	23.8	169	143	848	17.1	161	62	21	807	16.3	

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

TABLE VI.

Vital Statistics of separate Localities in 1907 and previous years.

NAMES OF LOCALITIES.	1—WHOLE DISTRICT.				2—ST. MARY'S SUB-DISTRICT.				3—ST. CUTHBERT'S SUB-DISTRICT.			
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.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1897	42,930	1,324	811	178	25,052	742	485	100	17,878	582	326	78
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	648	450	81	20,643	520	333	82
1906	48,425	1,227	811	163	27,561	685	473	95	20,864	542	338	68
Averages of Years 1897 to 1906	45,728	1,277	830	177	26,165	708	486	97	19,563	569	344	59
1907	49,400	1,178	848	169	28,207	653	497	84	21,193	525	351	85



TABLE VII.

Cases of Infectious Diseases notified during the year 1907.

NOTIFIABLE DISEASE.	Cases notified in whole District.							Total Cases notified in each Locality.		No of Cases removed to Hospital from each Locality.		TOTAL CASES REMOVE 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 65.	65 and upwards.					
Small Pox... ..	...	...	...	...	...	...	...	..	...	...	...	...
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (in- cluding Mem- branous Croup) }	14	...	5	8	...	1	..	12	2	6	...	6
Erysipelas... ..	82	1	1	8	9	59	4	48	34	...	..	...
Scarlet Fever ...	177	3	58	103	10	3	...	112	65	53	39	92
Typhus Fever ...	...	...	...	...	...	...	...	...	..	...	...	...
Enteric Fever ...	1	...	...	...	...	1	..	1	..	1	..	1
Relapsing Fever ...	...	...	...	..	...	...	..	...	...	...	...	...
Continued Fever ...	...	...	...	...	...	...	...	..	...	..	..	...
Puerperal Fever ...	1	...	...	...	...	1	..	...	1	...	..	...
Plague ... ..	...	...	...	...	..	...	...	...	...	...	...	...
Totals ... ..	275	4	64	119	19	35	4	173	102	60	39	99





TABLE IX.  
 INFANTILE MORTALITY DURING THE YEAR 1907.  
 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 ...	16	6	6	2	30	5	6	7	5	3	4	5	6	2	5	6	84
	Uncertified ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Common Infectious Diseases.	Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles ...	...	...	...	...	...	...	...	...	...	...	2	1	1	...	3	3	10
	Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diphtheria: Croup ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoeal Diseases.	Whooping Cough ...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	2
	Diarrhoea, all forms ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
	Enteritis, Muco-enteritis ...	...	...	...	...	...	1	...	1	1	1	...	...	1	...	...	...	5
	Gastro-enteritis ...	...	...	...	1	1	...	1	2	1	...	...	...	...	...	...	...	5
	Gastritis, Gastro-intestinal Catarrh ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wasting Diseases.	Premature Birth ...	8	2	1	...	11	...	...	...	...	...	...	...	...	...	...	...	11
	Congenital Defects ...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1
	Injury at Birth ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Want of Breast-milk ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Atrophy, Debility, Marasmus ...	3	1	...	...	4	...	...	...	1	1	...	...	1	...	...	...	7
Tuberculous Diseases.	Tuberculous Meningitis ...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	1	3
	Tuberculous Peritonitis: Tabes Mesenterica ...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	2
	Other Tuberculous Diseases ...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
	Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Syphilis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rickets ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Meningitis (not Tuberculous) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Convulsions ...	...	...	1	1	2	1	...	...	...	...	...	...	...	...	...	...	3
	Bronchitis ...	...	...	2	...	2	...	...	2	1	...	...	...	2	...	...	1	8
	Laryngitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, over-lying	Pneumonia ...	...	...	...	...	...	2	1	...	1	...	...	3	...	1	2	1	11
	Other Causes ...	5	3	1	...	9	1	2	...	...	...	1	1	...	...	...	...	14
		16	6	6	2	30	5	6	7	5	3	4	5	6	2	5	6	84
District (or sub-division) of St. Mary. Births in the year } Legitimate, 619. } Illegitimate, 34. Deaths from all Causes at all Ages, 459 (corrected).																		Population. Estimated to middle of 1907. 28,207.





TABLE X.

Mortality from Diarrhœa and Typhoid Fever—1874—1907.

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	...















TABLE XI—continued.  
 CARLISLE URBAN SANITARY AUTHORITY.  
*Deaths Registered from all Causes during the year 1907.*

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—continued.											
4.—Diseases of Blood Vessels.											
Cerebral Hæmorrhage, Embolism, Thrombosis ...	...	...	...	...	1	7	11	8	6	...	33
<i>Apoplexy, Hemiplegia</i> ...	...	...	...	...	...	1	...	2	2	...	5
Aneurysm ...	...	...	...	...	...	2	2	...	...	...	4
Senile Gangrene ...	...	...	...	...	...	...	...	3	1	...	5
Embolism, Thrombosis (not Cerebral)	...	...	...	...	...	...	...	1	...	...	1
Phlebitis ...	...	...	...	...	...	...	...	...	...	...	...
Varicose Veins ...	...	...	...	...	...	...	...	...	...	...	...
Blood Vessels, other Diseases...	...	...	...	...	...	...	...	1	2	...	3
Hæmorrhage of Umbilical Cord	1	...	...	...	...	...	...	...	...	...	1
5.—Diseases of Respiratory Organs.											
Laryngitis ...	...	...	...	...	...	...	...	...	...	...	...
Membranous Laryngitis (not Diphtheritic) ...	...	...	...	...	...	...	...	...	...	...	...
<i>Croup (not Spasmod. or Membr.)</i>	...	...	...	...	...	...	...	...	...	...	...
Larynx, other Diseases (not specified)	...	...	...	...	...	...	...	...	...	...	...
Bronchitis ...	10	4	...	1	1	1	10	10	7	1	45
Lobar, Croupous-Pneumonia ...	...	...	...	1	1	2	2	1	1	...	10
Broncho, Catarrhal, Lobular Pneumonia	16	6	1	...	...	...	2	4	5	1	27
<i>Pneumonia</i> ...	8	10	1	2	3	1	8	1	...	...	46
Emphysema, Asthma ...	...	...	...	...	1	1	1	...	...	...	5
Pleurisy ...	...	...	...	...	...	...	...	...	...	...	...
Fibroid Disease of Lung	...	...	...	...	...	1	...	...	...	...	1
Respiratory Diseases, other ..	1	...	...	...	1	...	...	...	...	...	2





TABLE XI—continued.  
CARLISLE URBAN SANITARY AUTHORITY.  
Deaths Registered from all Causes during the year 1907.

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	
II.—LOCAL DISEASES—continued.											
10.— <i>Accidents of Childbirth.</i>											
Abortion, Miscarriage ...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Mania ...	...	...	...	...	...	1	...	...	...	...	...
Puerperal Convulsions ...	...	...	...	...	...	...	...	...	...	...	...
Placenta Prævia, Flooding ...	...	...	...	...	...	...	...	...	...	...	...
Other Accidents of Pregnancy and Childbirth ...	...	...	...	...	1	3	...	...	...	...	...
11.— <i>Diseases of Bones and Joints.</i>											
Caries, Necrosis ...	...	...	1	1	...	...	...	...	...	...	...
Arthritis, Periostitis ...	...	...	1	...	...	1	...	...	...	...	...
Other Diseases of Locomotor System ...	...	...	...	...	...	...	...	...	...	...	...
12.— <i>Skin Diseases.</i>											
Ulcer, Bed sore ...	...	...	...	...	...	...	...	...	...	...	...
Eczema ...	...	...	...	...	...	...	...	...	...	...	...
Pemphigus ...	1	...	...	...	...	...	...	...	...	...	...
Skin Diseases, other ...	1	...	...	...	...	...	...	...	...	...	...
III.—DEATHS FROM VIOLENCE.											
1.— <i>Accident or Negligence.</i>											
Fractures and Contusions ...	...	2	...	1	2	1	3	1	...	...	...
Gunshot Wounds ...	...	...	...	...	...	...	...	...	...	...	...
Cut, Stab ...	...	...	...	...	...	...	...	...	...	...	...
Burn, Scald ...	1	2	2	...	...	...	...	1	...	...	...





TABLE XII.  
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>								
Drover's Lane ... ..	...	...	...	...	1	...	...	...
Dixon Street .. .. .	...	1	...	...	...	...	...	...
Milbourne Street ... ..	...	3	...	...	1	...	...	...
Rigg Street ... .. .	...	2	1	...	...	...	...	1
Crosby Street .. .. .	...	1	...	...	...	...	...	...
Fever Hospital ... .. .	...	...	3	1	...	...	...	...
Queen Street ... .. .	...	1	...	...	...	...	...	...
Holme Terrace ... .. .	...	1	...	...	...	...	...	...
Taylor's Court, Caldewgate	...	1	...	...	...	...	...	...
Dale Street.. ... .. .	...	1	...	...	...	...	...	...
Clifford Street ... .. .	...	1	...	...	...	...	...	...
Chapel Street, Willow Holme	...	3	...	...	...	...	...	...
Colville Terrace ... .. .	...	1	...	...	...	...	...	...
Port Road ... .. .	...	1	...	...	...	...	...	...
Metcalf Street ... .. .	...	...	1	...	...	...	...	...
Colville Street ... .. .	...	1	...	...	...	...	...	...
Jane Street ... .. .	...	1	...	...	...	...	...	...
Milton Street ... .. .	...	1	...	...	...	...	...	...
Willow Holme .. .. .	...	1	...	...	...	...	...	...
Collingwood Street ... ..	...	1	...	...	...	...	...	...
Colville Street ... .. .	...	1	1	...	...	...	...	...
Foster's Court, Caldewgate	...	1	...	...	...	...	...	...
Cumberland Street ... ..	...	1	...	...	...	...	...	...
Shakespeare Street ... ..	...	2	...	...	...	...	...	...
Denton Crescent .. .. .	...	1	...	...	...	...	...	...
Clift Street ... .. .	...	1	...	...	...	...	...	...
Norfolk Street ... .. .	...	1	...	...	...	...	...	...
Byron Street ... .. .	...	1	...	...	...	...	...	...
Artizans' Dwellings ... ..	...	1	...	...	...	...	...	...
Milbourne Crescent .. .. .	...	...	...	1	...	...	...	...
Infirmery ... .. .	...	1	...	...	...	...	...	...
East Dale Street ... .. .	...	1	...	...	...	...	...	...
Duke Street ... .. .	...	...	...	...	...	...	...	1
Northumberland Street ...	...	...	...	1	...	...	...	...
Head Street ... .. .	...	...	...	...	1	...	...	...
Trinity Buildings .. .. .	...	...	...	...	1	...	...	...
<i>St. Cuthbert's Sub-District—</i>								
St. Nicholas Street ... ..	...	2	...	...	1	...	...	...
Berlin Terrace ... .. .	...	...	...	...	1	...	...	...
Water Street ... .. .	...	3	...	...	1	...	...	...
Court Street ... .. .	...	1	...	...	...	...	...	...
Jackson Street ... .. .	...	1	...	...	...	...	...	...
Wood Street .. .. .	...	1	...	...	...	...	...	...
King Street .. .. .	...	1	...	...	...	...	...	...
Brook Street ... .. .	...	1	...	...	...	...	...	...
Union Street ... .. .	...	2	...	...	...	...	...	...
Half-way Houses .. .. .	...	1	...	...	...	...	...	1
South Street ... .. .	...	1	...	...	...	...	...	...
Doughall's Lane, Botchergate	...	1	...	...	...	...	...	...
Harrison Street ... .. .	...	1	...	...	1	...	...	...
Blackhall Road ... .. .	...	1	...	...	...	...	...	...
Somerset Place ... .. .	...	1	...	...	...	...	...	...
Charles Street ... .. .	...	1	...	...	...	...	...	...
Alton Street ... .. .	...	1	...	...	...	...	...	...
Rome Street ... .. .	...	...	...	...	1	...	...	...
Myddleton Terrace ... ..	...	...	...	...	1	...	...	...
Collier Lane ... .. .	...	...	...	...	1	...	...	...
Totals .. .. .	...	54	6	3	11	..	...	3



TABLE XIII.

## RAINFALL

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

MONTHS.	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	Average for 10 years 1897-1906.	1907.	
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	Rainfall, days on which Rain fell.	Number of days on which Rain fell.
January	.94	2.58	4.62	2.58	2.02	2.40	4.34	2.18	1.42	4.02	2.71	1.16	15
February	2.16	2.73	1.66	3.82	1.08	1.04	5.00	2.24	1.38	1.70	2.28	1.74	11
March	3.92	.94	1.60	.54	1.84	2.36	3.76	2.54	2.56	2.00	2.19	2.65	15
April	1.42	3.44	2.58	2.44	2.28	1.58	2.06	2.36	2.90	.94	2.20	2.06	15
May	1.50	2.98	3.00	1.94	2.02	2.48	2.76	2.62	1.56	3.80	2.46	3.30	18
June	3.48	2.38	1.18	6.58	1.76	1.66	1.60	1.86	1.26	1.46	2.32	4.64	27
July	1.68	1.06	3.80	1.60	1.26	2.46	4.80	1.84	2.54	2.04	2.30	2.38	17
August	4.46	4.04	1.80	5.60	4.40	2.50	4.90	3.54	3.06	4.72	3.90	3.32	22
September	4.40	1.64	3.68	1.98	.98	1.62	3.76	1.14	2.20	1.36	2.27	.70	9
October	2.00	3.68	2.28	4.74	4.18	2.94	9.54	1.54	2.22	4.40	3.75	6.22	28
November	3.78	3.10	3.22	3.70	3.64	1.28	2.58	2.60	2.54	3.02	2.94	2.68	14
December	3.70	3.44	1.76	4.14	3.74	3.20	2.14	2.26	1.34	2.48	2.82	5.64	20
Totals	33.44	32.01	31.18	39.56	29.20	25.52	47.24	26.72	24.98	31.88	32.08		
Total number of days on which Rain fell {	188	204	187	218	187	216	236	198	182	194	201	36.49	211

Health Department,  
Fisher Street,  
10th January, 1908.

## VETERINARY INSPECTOR'S ANNUAL REPORT.

To the Chairman and Members of the Health  
Committee.

Gentlemen,

I have the honour of submitting to you my ninth Annual Report, showing the work done by me during the year 1907.

One hundred and sixty-nine newly purchased cows have been examined by me and of these one hundred and sixty-two were found to be free from disease. Of the remainder three were found to be suffering from chronic lung disease, two nodular enlargement in the udder (the milk of the latter two animals on microscopical examination was found to contain pus.) Two of the animals suffering from chronic lung disease were tested with tuberculin and a characteristic re-action was obtained. All these seven animals were returned to the sellers.

Three thousand nine hundred and sixty-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 supply were discovered amongst the regular occupants of the byres, viz.:—5 cases of gastric derangement, 3 milk fever, 6 blood-poisoning, 2 inflammation of udder, 1 stomach staggers, 1 congestion of the lungs, and one abscess in throat caused by injury. The milk of these animals was destroyed until they were free from disease. The animal suffering from abscess in throat was slaughtered at the Public Slaughter Houses at my request, and the carcass was passed by Medical Officer of Health as fit for food.



At the request of the Medical Officer of Health and Chief Sanitary Inspector, I made the following examinations at the Public Slaughter Houses, viz.:—1 heifer and 1 sheep. I certified the same to be unfit for human food.

The Auction Marts have been regularly visited each Monday and 15,277 pigs have been examined by me.

The horses belonging to the Corporation Stud number twenty, including two animals used for Fire Brigade purposes. I am pleased to report that during the year the stud has been free from serious illness. Two horses were injured through falling in the stable. They were both blistered and turned out to grass, which cured them of their lameness. I advised the Committee to dispose of one, which was sold privately. The other has remained sound since being again put to work.

I am, Gentlemen,

Your obedient Servant,

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

Vetinary Inspector.

