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BOROUGH OF DARWEN.

REPORT

— OF —

F. G. HAWORTH,

M.B.C.M., L.R.C.S., D.P.H.

MEDICAL OFFICER OF HEALTH,

Medical Officer of the Education Committee,

POLICE SURGEON,

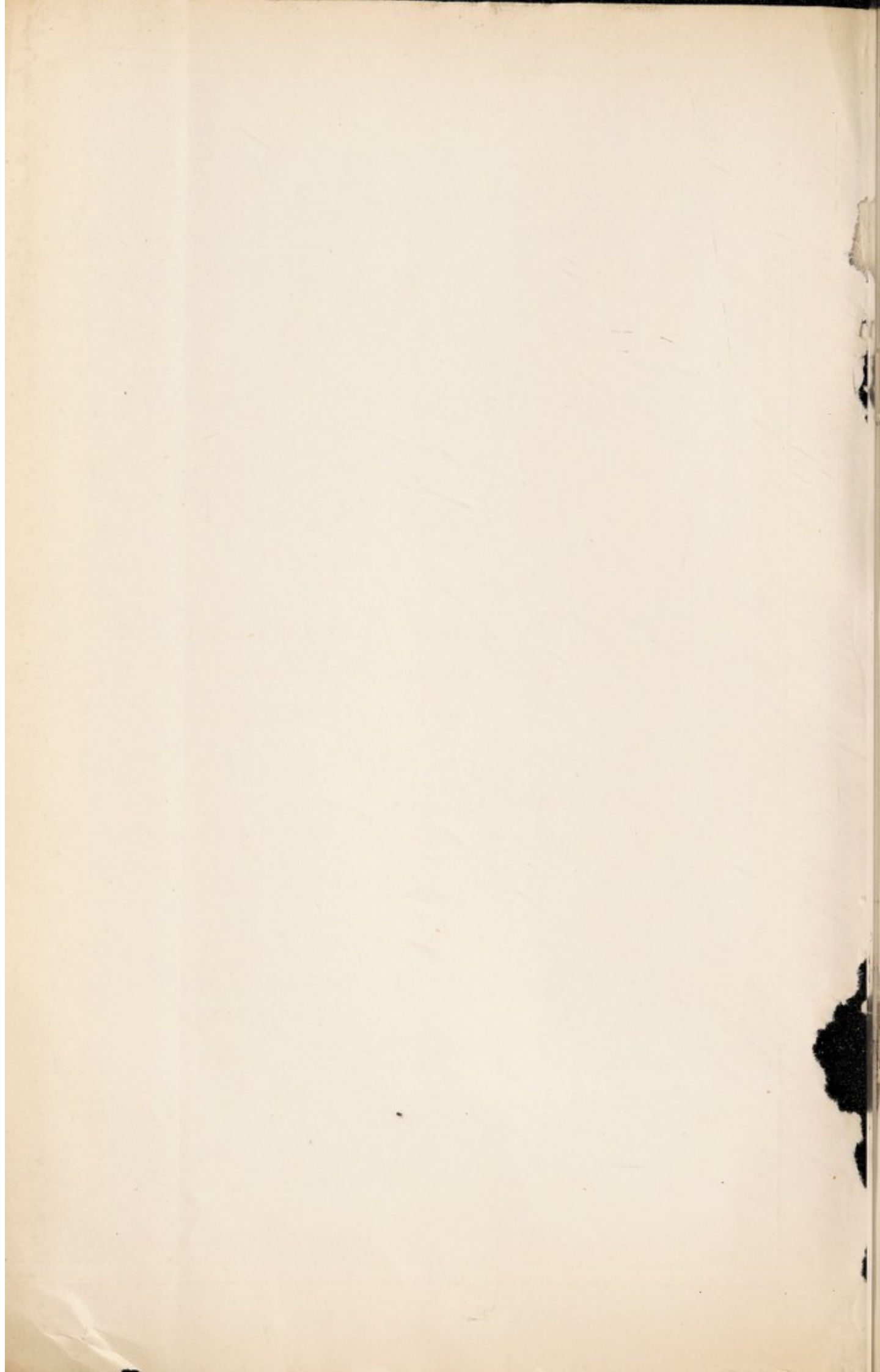
FOR THE

Year ending December 31st, 1910.

PRESTON:

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MDCCCXI.





VALE HOUSE, DARWEN,

FEBRUARY, 1911.

**TO THE CHAIRMAN AND MEMBERS OF THE
HEALTH COMMITTEE.**

GENTLEMEN,

I have the honour to present to you my Sixteenth Annual Report, being
for the Year ending December 31st, 1910.

I am, Gentlemen,

Your obedient Servant,

F. G. HAWORTH,

Medical Officer of Health,

Darwen Urban Sanitary Authority.

Members of the Health Committee

1910—1911.

COUNCILLOR W. P. KAY, J.P., MAYOR.

Chairman :

ALDERMAN RALPH SHORROCK, J.P.

Vice-Chairman :

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„ RD. WILCOCK.

„ F. HINDLE, C.C.

„ W. WORTH, J.P.

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ASSISTANT TOWN CLERK JOHN DERBYSHIRE.

NUISANCE INSPECTORS..... South Division)—W. E. MARSDEN
(North Division)—C. R. WALSH.

SUPERINTENDENT OF SCAVENGING JOSEPH NICCOLL.

SLAUGHTER HOUSE AND MEAT INSPECTOR WILLIAM BICKERSTAFFE.

MEDICAL OFFICER OF INFECTIOUS DISEASES HOSPITAL F. G. HAWORTH.

SCHOOL NURSE AND LADY HEALTH VISITOR MISS C. A. ORPIN.

REPORT.

The town of Darwen is situated in a valley, Latitude $53^{\circ} 41' 25''$ N. and Longitude $2^{\circ} 28' 32''$ W., and runs almost due north and south, being about five miles in extent, on the highway between Blackburn on the north and Bolton on the south. The centre of the town stands 500 feet above sea level, the higher parts of the town reaching over 800 feet above sea level, its situation favouring the free circulation of air and free exposure to sunlight.

The soil on which the town is built consists of boulder clay overlying the sandstone or shale of the coal measures. In the middle of the valley along the river side, gravel and sand form the subsoil, the land rises up on each side to the moorland, that on the west side forming the gathering ground.

There is only one outlying district of any importance, viz., Hoddlesden, situate at a distance of two miles to the east, with a population of about 800.

The River Darwen runs northwards through the valley.

The inhabitants are chiefly of the artisan and labouring classes. Area of town 5,919 acres. Rateable value £161,597.

The town is divided into six wards :—Central, West Central, North East, North West, South East, South West.

The population, based on the natural increment, is estimated for the middle of 1910 at 43,000.

Population.

Wards.	Census, 1901.	Estimated Population.	
		1909.	1910.
CENTRAL.....	6,919	7,800	7,858
WEST CENTRAL.....	3,860	4,073	4,079
NORTH EAST.....	9,079	10,334	10,454
NORTH WEST.....	4,984	5,694	5,706
SOUTH EAST.....	6,500	7,141	7,202
SOUTH WEST.....	6,869	7,626	7,701
BOROUGH	38,211	42,668	43,000

Births.

There were 394 Males and 382 Females born and registered during the year, making a total of 776. This gives a birth-rate of 18.05 per 1,000 of the population, and a decrease of 1.07 per 1,000 on the previous year.

May gave the highest rate with 20.37 per 1,000, and February and June the lowest with 15.63 per 1,000,

The average birth-rate for the last 29 years is 26.87 per 1,000 of the population.

The highest annual rate was in 1883, when it was 34.39 per 1,000; and the lowest was in 1910 when it was 18.05 per 1,000 of population.

BIRTH RATE.

This was again lower than the previous year, being 18.05 per 1,000, as compared with 19.12 per 1,000 in 1909. The estimated population was placed at 43,000 for the middle of the year.

In 1881 the population was 27,589, and in 1891 it was 34,192, as these were Census years the numbers were accurate and not approximate.

If the same rate of increase had been maintained up to the present as obtained during those inter-censal years, the population for 1911 would have been, as obtained by logarithms, 52,517, or an increase of 9,517 over what it is at present.

This is a startling fact which should be more considered than it is because it would mean a much larger working population, and that more persons of wage earning years to be on the rate list and to help to keep both the old and young.

Of course, there are two sides to this as to all other questions, and if trade had not improved we might have had many more unemployed. I believe that nature brings about a state of equilibrium, and it is not a chance reduction of birth-rate, but one owing to conditions entirely outside our ken.

This estimated population by logarithms of 52,517, has been reduced for the middle of 1911 to 43,000, and this, I fear, will turn out too high.

According to a further enquiry into the natural increment, as estimated by logs., taking this increase from the Census years 1891 to 1901, and estimating a similar increase to obtain from 1901 to 1911, it brings our population at Easter to be 42,700, or 300 less than the present estimated number. Added to this a large number of people has emigrated to Canada, and to the Antipodes. The number of emigrants can only be approximately ascertained from the Agents acting for the Steamship

Companies. As the persons most useful to our colonies are the active working middle age or young people, this exodus will in time show a further influence in lessening the birth-rate in the years to come.

The following table will be interesting as showing the increase in our population during the whole of the 19th century :—

POPULATION.

1801	.....	3,587	.....	Increase.
1811	.....	4,411	.....	824
1821	.....	6,711	.....	2,300
1831	.....	6,972	.....	261
1841	.....	9,348	.....	2,376
1851	.....	11,702	.....	2,354
1861	.....	16,492	.....	4,790
1871	.....	21,277	.....	4,785
1881	.....	27,589	.....	6,312
1891	.....	34,192	.....	6,603
1901	.....	38,211	.....	4,019

An interesting feature of the foregoing table is the small increase which took place during the inter-censal periods, 1821-1831, and it would be interesting to know why only 261 persons were added to the population of the village when the previous period added 2,300 to those figures.

A similar episode is noticable during the 10 years, 1891 to 1901, when the increase by census figures was about 2,600 fewer added to the population.

BIRTHS IN WARDS—1910

	Central.		West-Central.		North-East.		North-West.		South-East.		South-West.		Total		Rate per 1,000 estimate Population
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
January	1	6	5	6	14	6	6	5	10	4	5	2	41	29	19.53
February ..	1	7	2	3	6	6	5	4	5	5	4	8	23	33	15.63
March	1	8	8	6	9	7	7	4	7	6	3	3	35	34	19.26
April	8	4	2	3	10	5	5	9	4	3	5	4	34	28	17.30
May	4	7	3	5	7	14	6	8	6	5	2	6	28	45	20.37
June	5	3	1	1	10	7	2	9	4	5	4	5	26	30	15.63
July	7	5	2	5	9	13	3	7	1	3	5	4	27	37	17.86
August	6	3	5	1	11	7	3	7	6	5	10	3	41	26	18.70
September	6	5	2	5	9	7	4	9	7	4	6	5	34	35	19.26
October	6	4	4	3	12	8	5	4	10	5	2	5	39	29	18.98
November	4	5	5	3	9	7	6	5	6	7	2	5	32	32	17.86
December	7	3	...	3	9	13	5	1	7	3	6	1	34	24	16.19
	56	60	39	44	115	100	57	72	73	55	54	51	394	382	18.05
TOTAL	116		83		215		129		128		105		776		
Population	7,858		4,079		10,454		5,706		7,202		7,701		43,000		
Birth-rate	14.76		20.35		20.57		22.61		17.77		13.63		18.05		

TABLE showing the Estimated Populations, Number of Births, and the Birth-rates for the Darwen Sanitary District since 1882 inclusive.

Year.	Estimated Population at the Middle of Each Year.	Total Births	Birth-rate.
1882	30,295	987	32.57
1883	30,733	1057	34.39
1884	31,360	978	31.18
1885	31,720	1015	31.99
1886	32,185	965	29.98
1887	32,491	1000	30.77
1888	33,500	994	29.67
1889	34,500	972	28.17
1890	36,500	1075	29.45
1891	34,192	1115	32.60
1892	35,000	1057	30.20
1893	35,500	955	26.90
1894	36,000	1039	28.86
1895	36,000	1128	31.33
1896	36,652	1032	28.15
1897	37,500	1114	29.70
1898	37,500	1131	30.16
1899	37,900	1062	28.02
1900	38,600	980	25.38
1901	38,212	858	22.45
1902	38,712	891	23.01
1903	39,114	941	24.05
1904	39,516	820	20.75
1905	39,918	818	20.49
1906	41,164	811	19.70
1907	41,864	876	20.92
1908	42,266	895	21.17
1909	42,668	816	19.12
1910	43,000	776	18.05

Average for the last 29 years—26.87

ILLEGITIMATE BIRTHS.

There were 16 children born out of wedlock, at the rate of 2.06 per cent. of the total births.

Since 1901 the average annual number is 24. 1910 showed the lowest for that period, viz. 16.

The rate per cent, of births average 2.88, the highest was in 1904, 4.02.

The Infantile death-rate of illegitimates averages for the past six years 248, and the same rate for last year was 313. Whilst our rate for the whole of the deaths was 122.

Table showing number of Illegitimate Births, etc., during the past 10 years.

Year.	Number of Births.	Rate % of Total Births.	No. of Deaths under 1 year.	Death-rate per 1,000 Births.
1901	21	2.45	...	...
1902	22	2.47	...	...
1903	23	2.44	...	...
1904	33	4.02	...	...
1905	25	3.06	8	320
1906	28	3.45	6	214
1907	29	3.31	5	172
1908	18	2.01	6	333
1909	29	3.55	4	138
1910	16	2.06	5	313
Average	24	2.88	6	248

ILLEGITIMATE BIRTHS.

	Number.	Percentage of Births.
JANUARY	1	1.43
FEBRUARY.....	2	3.57
MARCH	2	2.90
APRIL	1	1.61
MAY	0	0.00
JUNE	0	0.00
JULY	2	3.12
AUGUST	2	2.99
SEPTEMBER	1	1.45
OCTOBER	3	4.41
NOVEMBER.....	2	3.12
DECEMBER	0	0.00
	16	2.06

ILLEGITIMATE BIRTHS.

These figures during the previous ten years have shown a tendency to decline, at least since 1903. The average up to 1909 was 2.97, whilst the average up to the following year, 1910, came down to 2.88.

The following table shows the number of Births and the percentage of these attended by Medical Men during the last thirteen years :—

Years.	No. of Births.	Attended by Medical Men.	
		Number.	Percentage.
1898	1131	815	72.06
1899	1062	653	61.48
1900	980	540	55.10
1901	858	420	48.95
1902	891	401	45.00
1903	941	461	48.99
1904	820	421	51.34
1905	818	411	50.24
1906	811	376	46.36
1907	876	394	44.97
1908	895	427	47.71
1909	816	389	47.67
1910	776	352	45.36

With a lowering birth-rate it is interesting to note that the people are more and more taking advantage of the improved midwifery arrangements. In 1898 the medical men attended 72.06 of the confinements, whilst in the year under review only 45.36 were similarly attended.

RETURN OF VACCINATION FOR DARWEN—1910.

MONTHS.	Success-ful Vaccination.	Died Unvaccinated.	Insus-ceptible.	Ex-empted.	Post-poned	Re-moved out of Town and Traced.	Re-moved and Cannot Trace	Unac-counted for	Success-fully vac-cinated each quarter.
January ...	33	7	0	28	0	0	2	0	84
February .	18	3	2	33	0	0	0	0	
March	33	4	0	28	2	1	1	0	
April	31	5	1	24	0	0	0	1	84
May	35	6	1	28	1	0	0	2	
June	18	4	0	32	0	0	1	1	
July	22	8	0	29	3	0	2	0	71
August	30	1	0	32	1	0	0	3	
September	19	7	2	40	0	0	0	1	
October ...	21	6	0	26	0	2	0	13	36
November.	11	4	0	22	0	0	0	27	
December	4	2	0	12	0	0	0	40	
	275	57	6	334	7	3	6	88	275

VACCINATION.

Year.	Births.	Successfully vaccinated.	Rate per cent. vaccinated.
1899	1062	851	80.1
1900	980	705	71.9
1901	858	651	75.9
1902	891	765	85.9
1903	941	750	79.7
1904	820	662	80.7
1905	818	618	75.6
1906	811	593	73.1
1907	876	597	68.2
1908	895	447	49.9
1909	816	294	36.0
1910	776	275	35.4

Now that we are threatened with the advent of small-pox it will be interesting to put under review the returns of the Vaccination Officer for the district. There were 275 children successfully vaccinated, out of 776 children born. The year before the number vaccinated was 294 out of 816 children born. The rate per cent. for the year of this report was 35.4, the year previous it was 36.0 per cent., so that we have reached the low water mark of vaccination as a preventive measure against the most loathesome and foul disease known.

The percentage of vaccinations for 1899 was 80.1. Since that year we have seen a gradual diminution with the exception of 1902 and 1904, when in the former year it was 85.9 per cent., and the latter year 80.7 per cent. Perhaps the fact that we had 3 cases of Smallpox in 1902, and 2 cases in 1904, will explain for the increased percentage of vaccinations. A large number of people when scared seek the protection of the lymph provided.

Marriages.

The number of Marriages solemnized in Darwen during the year ending December 31st, 1910, was as follows :—

MARRIAGES.

The rate for the year was 1.8 per 1,000 lower than the previous year. This is an economic question not easy to solve unless it is that the number of persons at a marriageable age has diminished.

Church of England	167
Nonconformist Places of Worship.....	138
Total	<u>305</u>

This means that 610 people were united in the bonds of wedlock, and is at the rate of 14.19 per 1,000 of the population, as compared with 16.04 per 1,000 in the previous year.

Year.	Births.		Deaths.		Marriages.	
	Number.	Rate.	Number.	Rate.	Number.	Rate.
1882	987	32.57	650	21.45	490	16.0
1883	1057	34.39	518	16.85	478	15.5
1884	978	31.18	595	18.97	444	14.1
1885	1015	31.99	489	15.41	480	15.1
1886	965	29.98	641	19.91	540	16.7
1887	1000	30.77	716	22.03	558	16.6
1888	994	29.67	600	17.90	616	18.2
1889	972	28.17	544	15.76	570	16.5
1890	1075	29.45	673	18.43	586	16.0
1891	1115	32.60	660	19.30	648	18.7
1892	1057	30.20	641	18.31	670	19.1
1893	955	26.90	677	19.07	592	16.7
1894	1039	28.86	542	15.05	640	17.7
1895	1128	31.33	640	17.77	676	18.7
1896	1032	28.15	627	17.10	696	18.9
1897	1114	29.70	651	17.36	688	18.3
1898	1131	30.16	632	16.85	700	18.6
1899	1062	28.02	647	17.07	666	17.5
1900	980	25.38	789	20.44	532	13.7
1901	858	22.45	620	16.22	576	15.0
1902	891	23.01	569	14.69	606	15.6
1903	941	24.05	501	12.80	612	15.6
1904	820	20.75	606	15.33	606	15.3
1905	818	20.49	562	14.07	578	14.4
1906	811	19.70	540	13.11	744	18.0
1907	876	20.92	527	12.58	702	16.7
1908	895	21.17	550	13.01	636	15.1
1909	816	19.12	616	14.44	684	16.0
1910	776	18.05	573	13.33	610	14.2
Average 29 years...	971	26.87	607	16.71	608	16.5

OCCUPATION.

The occupation of the population is mostly in the manufacture of cotton goods, which includes weaving, spinning, winding, warping, etc. Other principal occupations are paper manufacture, printing, staining, etc.; building trade; engineering and machine making; coal and shale mining; manufacture of sanitary pipes, etc.

GROUPED OCCUPATIONS AT CENSUS, 1901.

Males aged 10 to 14 years	(Engaged in occupations	542
	(Proportion per cent. engaged in occupations to total	36.0
Females aged 10 to 14 years	(Engaged in occupations	604
	(Proportion per cent. engaged in occupations to total.....	37.6

	Males 10 years and upwards	Females 10 years and upwards
Total occupied and unoccupied	13.879	16.425
Retired or unoccupied.....	1.503	6.830
Engaged in occupations	12.376	unmarried 6.243
		married or widowed 3.352

MALES 10 YEARS AND UPWARDS.

Commercial or Business Clerks.	Conveyance of men Goods and Messages.	Coal and Shale Miners.	Iron and Steel Manufacture.	Engineering and Machine Making.	Building and Works of Construction.	Wood, Furniture Fittings and Decorations.	Brick, Cement, Pottery and Glass.	Chemicals, Oil, Grease, etc. Skins, Leather, Hair, Feathers.	Paper, Prints, Books, and Stationery.	Cotton Manufacture.	Other Textile Manufactures.	Bleaching, Printing, Dying, etc.	Dress.	Food, Tobacco, Drink and Lodging.	All other Occupations.
284	775	449	17	478	1040	71	427	61	1128	4698	53	19	249	599	2028

FEMALES 10 YEARS AND UPWARDS.

157	Teaching.
499	Domestic Indoor Servants (not in Hotels, etc.)
95	Charwomen.
59	Laundry and Washing Service.
4	Wood, Furniture, Fittings and Decorations.
85	Paper, Prints, Books, and Stationery.
7797	Cotton Manufacture.
184	Other Textile Manufactures.
298	Tailoresses, Milliners, Dressmakers Shirtmakers, Seamstresses.
241	Food, Tobacco, Drink and Lodging.
176	All other Occupations.

The receipt of the Census return will put us on a correct basis in this matter.



Deaths in Regard to Occupation.

DISEASES.	5 to 15		15 to 25		25 to 35		35 to 45		45 to 65		65 and upwards		Total.	
	M F		M F		M F		M F		M F		M F		M F	
Barman.														
Pneumonia					1								1	
Blacksmiths.														
Bronchitis								1					1	
Cancer of Bladder										1			1	
Heart Disease										1			1	
								1		2			3	
Block Cutter														
Senile Decay										1			1	
Book-Binder.														
Apoplexy							1						1	
Book-Keeper.														
Apoplexy										1			1	
Brass-Founder.														
Areterio Sclerosis								1					1	
Brewer.														
Phthisis										1			1	
Butcher.														
Alcoholism								1					1	

Deaths in Regard to Occupation.—(Continued).

DISEASES.	5 to 15		15 to 25		25 to 35		35 to 45		45 to 65		65 and upwards		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cabinet Maker.														
Paralysis Agitans											1		1	
Carters.														
Bronchitis									2				2	
Heart Disease									1				1	
Senile Decay											1		1	
									3		1		4	
Charwomen.														
Apoplexy											1		1	
Bright's Disease									1				1	
Bronchitis									1				1	
Pneumonia									1				1	
									3		1		4	
Chip Potato Dealer.														
Pneumonia									1				1	
Clerk.														
Pneumonia											1		1	
Cloggers.														
Bronchitis											1		1	
Erysipelas									1				1	
Senile Decay											1		1	
									1		2		3	
Coal Miners.														
Asthma											1		1	
Bronchitis									1		1		2	

Deaths in Regard to Occupation.—(Continued).

DISEASES.	5 to 15		15 to 25		25 to 35		35 to 45		45 to 65		65 and upwards		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Coal Miners—(Continued)														
Cancer of Stomach									1				1	
Influenza.....							1						1	
Injuries (Accidents)									1		1		2	
Phthisis					1								1	
Senile Decay											1		1	
					1		1		3		4		9	
Coal Yard Foreman.														
Pleurisy									1				1	
Colliery Manager.														
Cancer of Neck Glands.....											1		1	
Confectioner.														
Ovariectomy												1		1
Core Maker at Iron Foundry														
Phthisis									1				1	
Cotton Card-room Hands.														
Bright's Disease.....									1	1			1	1
Cancer of Stomach							1							1
Heart Disease											1			1
Senile Decay											2			2
							1	1	1			3	1	5
Cotton Grinders.														
Enlarged Prostate									1				1	
Pneumonia					1								1	
Senile Decay											1		1	
					1				1		1		3	

Deaths in Regard to Occupation.—Continued.

DISEASES.	5 to 15		15 to 25		25 to 35		35 to 45		45 to 65		65 and upwards		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cotton Manufacturers.														
Apoplexy											1		1	
Bronchitis											1		1	
											2		2	
Cotton Mill Cloth-Lookers.														
Apoplexy											1		1	
Bronchitis											1		1	
Injuries (Accident)					1								1	
					1						2		3	
Cotton Mill Managers.														
Apoplexy											1		1	
Cancer of Stomach									1				1	
									1		1		2	
Cotton Mill Overlookers.														
Bright's Disease.....									1				1	
Cirrhosis of Liver							1						1	
Suicide									2				2	
Typhoid Fever									1				1	
							1		4				5	
Cotton Ring Spinner.														
Phthisis									1					1
Cotton Spinners.														
Cancer of Cheek.....											1		1	
Cancer of Liver.....									1				1	
Chronic Rheumatism									1				1	
Heart Disease											1		1	
Prostatic Enlargement											1		1	
Senile Decay											1		1	
Suicide									1				1	
									3		4		7	

Deaths in Regard to Occupation.—Continued.

DISEASES.	5 to 15		15 to 25		25 to 35		35 to 45		45 to 65		65 and upwards		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cotton Spinning Master.														
Bright's Disease.....								1					1	
Cotton Twisters.														
Appendix Abscess					1								1	
Heart Disease			1					1					2	
Injuries (Accident)								1					1	
Inquest								1					1	
			1		1			3					5	
Cotton Warpers.														
Heart Disease								1					1	
Senile Gangrene.....										1			1	
								1		1			2	
Cotton Winders.														
Bright's Disease.....				1			1						2	
Bronchitis								2		1			3	
Cancer of Breast								1					1	
Cirrhosis of Liver								1					1	
Heart Disease				1						1			2	
Influenza.....				1									1	
Obstruction of Bowel							1						1	
Phthisis				1									1	
Pneumonia							1						1	
Uncertified										1			1	
				4			3	4		3			14	
Cotton Weavers.														
Abortion				1		1							2	
Acute Cholecystitis								1					1	
Angina Pectoris							1	1	4	2	3	3	9	
Apoplexy					1		1	1	4	2	3	3	9	
Appendicitis				2									2	

Deaths in Regard to Occupation.—Continued.

DISEASES.	5 to 15		15 to 25		25 to 35		35 to 45		45 to 65		65 and upwards		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cotton Weavers—(Continued).														
Arterio Sclerosis											1		1	
Biliary Fistula											1		1	
Bright's Disease.....					1		1	1	1		1	1	4	
Bronchitis							2	1	2	4	3	5	7	
Cancer of Bowel									1				1	
Cancer of Breast									3				3	
Cancer of Liver									1		1		2	
Cancer of Rectum									2				2	
Cancer of Stomach											1		1	
Cerebellar Cyst			1										1	
Cerebral Embolism				1					1					2
Cerebral Thrombosis.....						1							1	
Childbirth							1							1
Cystitis										1			1	
Diabetes Mellitus											1			1
Dilated Stomach									1					1
Erysipelas							1							1
Gangrene of Foot											1			1
Gastric Deficiency										1			1	
Gastritis										1	1	1	1	
Heart Disease			2	3	2		1	2	5	1	3	7	12	
Hyperæmesis Gravidarum				1										1
Injury (Accidents).....			1		1								2	
Inquest								1		1			2	
Lymphadenoma									1					1
Parturition					2		1							3
Perforated Gastric Ulcer						1							1	
Phthisis			1	3	1	1	3		1	2		1	6	7
Pneumonia				1		3	1	1		1			2	6
Puerperal Fever.....				1										1
Senile Decay									1	2	6	2	7	
Sloughing of Vagina						1								1
Strangulated Hernia									1					1
Tubercular Disease of Shoulder			1										1	
			6	13	4	10	6	9	8	28	14	24	38	84
Domestic Servant.														
Septicæmia								1						1

Deaths in Regard to Occupation.—(Continued).

DISEASES.	5 to 15		15 to 25		25 to 35		35 to 45		45 to 65		65 and upwards		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Drapers.														
Bronchitis											1		1	
Senile Decay											1		1	
											2		2	
Dressmakers.														
Bright's Disease						1								1
Pneumonia								1						1
						1		1						2
Electrical Engineer (Assistant)														
Pleurisy				1									1	
Electric Wireman.														
Heart Disease						1							1	
Engine Tenters														
Bronchitis									1				1	
Cancer of Neck									1				1	
Cancer of Rectum									1				1	
Locomotor-Ataxy										1			1	
									3		1		4	
Farmers														
Appendicitis									1				1	
Bronchitis									1				1	
Cancer of Parotid Gland										1			1	
Pneumonia										1			1	
									2		2		4	

Deaths in Regard to Occupation.—(Continued).

DISEASES.	5 to 15		15 to 25		25 to 35		35 to 45		45 to 65		65 and upwards		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Firebeaters														
Bronchitis											1		1	
Emphysema											1		1	
											2		2	
Furniture Broker														
Gastro Enteritis.....											1		1	
Gardener														
Pneumonia									1				1	
Game-keeper (retired)														
Pneumonia									1				1	
General Labourers														
Apoplexy									1				1	
Appendicitis			1										1	
Arterio Sclerosis									1		1		2	
Ataxia Paraplegia									1				1	
Bright's Disease.....									2				2	
Cancer of Liver							1						1	
Cancer of Pancreas									1				1	
Epilepsy					1								1	
Heart Disease									2		2		4	
Inquest					1				3				4	
Phthisis							1						1	
Senile Decay											3		3	
Uncertified											1		1	
			1		2		2		11		7		23	
Iron Dresser														
Typhoid Fever			1										1	

Deaths in Regard to Occupation.—(Continued)

DISEASES.	5 to 15		15 to 25		25 to 35		35 to 45		45 to 65		65 and upwards		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Iron Founders (retired)														
Cancer of Larynx											1		1	
Cancer of Stomach											1		1	
											2		2	
Ironworks Labourer														
Inquest							1		1				2	
Ironworks Stoker														
Influenza.....									1				1	
Insurance Agents														
Cancer of Tongue and Submaxillary Glands									1				1	
Injuries (Accident)									1				1	
									2				2	
Joiners														
Bright's Disease									1				1	
Cerebral Tumour					1								1	
Inflammation of Liver Ducts									1				1	
Senile Decay										1			1	
Suicide									1				1	
					1				3		1		5	
Land Steward														
Bronchitis										1			1	
Licensed Victuallers														
Bright's Disease.....							1						1	
Phthisis							1						1	
Senile Decay											1		1	
Uncertified											1		1	
							2				2		2	2

Deaths in Regard to Occupation.—(Continued).

DISEASES.	5 to 15		15 to 25		25 to 35		35 to 45		45 to 65		65 and upwards		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Lodging-house Keeper														
Heart Disease									1				1	
Marine Store Dealer														
Pneumonia									1				1	
Mechanic														
Injuries (Accident)									1				1	
Newspaper Journalist														
Phthisis					1								1	
Night Watchman														
Senile Decay										1			1	
Nurse														
Enteric Fever.....					1								1	
Painters														
Apoplexy									1				1	
Cerebral Embolism									1				1	
Phthisis							1						1	
							1		2				3	
Paper Mill Fireman														
Apoplexy									1				1	
Paper Mill Labourers														
Enlarged Prostate										1			1	
Influenza.....									1				1	
Tumour of Cerebrum					1								1	
Typhoid Fever			1										1	
			1		1				1		1		4	

Deaths in Regard to Occupation.—(Continued).

DISEASES.	5 to 15		15 to 25		25 to 35		35 to 45		45 to 65		65 and upwards		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Paper Mill Size Mixer														
Congestion of Lungs									1				1	
Paper Sorter														
Phthisis				1										1
Paper Stainer														
Cancer of Rectum									1				1	
Senile Decay									1				1	
									2				2	
Photographer.														
Diabetes Mellitus									1				1	
Plasterer.														
Bronchitis										1			1	
Postman.														
Heart Disease							1						1	
Printers.														
Bronchiectasis									1				1	
Inquest									1				1	
Ulcerative Appendicitis					1								1	
					1				2				3	
Property Repairer.														
Injuries (Accident)									1				1	

Deaths in Regard to Occupation.—Continued.

DISEASES.	5 to 15		15 to 25		25 to 35		35 to 45		45 to 65		65 and upwards		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Rag Sorter.														
Influenza.....											1		1	
Railway Signal Fitter.														
Empyema					1								1	
Reed Maker.														
Pneumonia			1										1	
Restaurant Keeper.														
Gangrenous Appendicitis					1								1	
Sanitary Clay Moulders.														
Inquest							1						1	
Tubercular Meningitis									1				1	
							1		1				2	
Scavenger.														
Gastritis									1				1	
School Master.														
Apoplexy										1			1	
School Teacher.														
Otitis Media				1										1
Shoemaker.														
Inquest										1			1	

Deaths in Regard to Occupation.—(Continued).

DISEASES.	5 to 15		15 to 25		25 to 35		35 to 45		45 to 65		65 and upwards		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Shopkeepers														
Pleuritis									1					1
Senile Decay										1			1	
									1	1			1	1
Sister of Order of Cross of Passion														
Gastritis									1					1
Smallwares Hawker														
Senile Decay										1			1	
Stone Quarriers														
Injuries (Accident)										1			1	
Inquest					1								1	
Pneumonia										1			1	
Senile Decay										1			1	
					1					3			4	
Time Keeper														
Senile Decay										1			1	
Tram Driver														
Heart Disease							1						1	
Tripe Dresser														
Uncertified										1			1	
Upholsterer's Assistant														
Typhoid Fever	1												1	
Woodsawyer														
Inquest									1				1	

HOUSE ACCOMMODATION.

At the end of the year the estimated number of houses was 10,159. 128 of these having been passed during the year.

There is practically no crowding together of dwellings, and the town is freely dotted with open spaces, due in some instances to the Mills and their water reservoirs. There are three large open spaces used as playgrounds which have been thrown open by the Council.

"Sect. 17," "The Housing and Town Planning Act, 1909," compels the investigation of the housing conditions in the town. The oldest and presumably the worst property was visited, and thoroughly investigated. All houses which were presumed to be unfit for habitation, were entered into the book provided for the purpose. The reports were duly presented to the Members of the Health Committee with certain recommendations relating thereto. After due consideration of the matter from every point of view the Health Committee appointed a Sub-Committee to go round with the officials, and make a complete and thorough examination, with a view to submitting the report of the Sub-Committee to the full Health Committee. This has not yet taken place.

On a great many occasions (and always when asked by one of them), I have gone with the Inspectors round to property in all conditions, and made extensive examinations thereof. Details of these visits have been submitted to the Committee, and as a result many improvements have been instituted. To give further details would only amplify this report.

As a result of our inspection a large number of dirty houses has come to light. These were reported to the Committee after certification by me.

Notices were served on the owners under Section 46 Public Health Act, 1875, In connection with this it is interesting to note the following letter :—

THE PAINTER AND PUBLIC HEALTH.

Mr. J. H. Ainsworth, Harwood Street, Secretary to the Darwen Master Painter's Association, met me in consultation some time ago, with a view to carrying out certain improvements suggested by the parent society, The National Association of Master House Painters and Decorators of England and Wales.

The lines upon which the Society is anxious to work will be seen in the following letter received by me :—

THE PAINTER AND THE PUBLIC HEALTH.

The National Association of Master House Painters and Decorators of England and Wales (Incorporated), desire, respectfully, to draw your attention to the grave prejudice to the public health which arises from the habit, now so prevalent of papering walls of dwelling houses on the top of existing papers.

The practice is more commonly found in cottage, tenement, and lower middle class houses than in those of higher rentals, where the tenant is in a position to insist on more wholesome conditions ; but even these latter are not exempt, as the practice exists in classes of houses in which one would have thought it would not have been tolerated for a moment by the occupier.

The former of these cases is the graver danger by reason of the lesser cubic space contained in the rooms, and consequent closer proximity of the occupiers to the walls and ceiling surfaces, and the generally crowded state of the community, but wherever the practice obtains the danger to public health is there.

The accretion of decaying and putrid matter arising from the habit of hanging paper upon paper sets up germs of disease which must of necessity lower the health of the occupiers, and if it does not actually engender disease, predisposes to it by lowering the general tone of healthy life.

The Association is of opinion that if our public authorities would take powers in their bye-laws to compel owners of property in all cases to strip off accumulated layers of paper, and cleanse the wall with a wash of some disinfectant before papering, it would be a tremendous step forward in the direction of public safety.

DISTEMPERING UPON DISTEMPER.

Equally dangerous, from a health point of view, is the practice of laying one coat of distemper upon another, without first washing off the old colouring matter.

The binding medium of all ordinary distemper is size made from animal or fish glue, and those, from their nature, are liable to rapid decay. If fresh when first laid on, under the alteration of the atmosphere of the dwelling, they absorb

the moisture of the atmosphere, and immediately a process of decomposition is set up, and foetid odours are given off, to the prejudice of all who come within their range.

There is, for small houses constantly inhabited, only one safe course. That is to insist that every time the walls are re-decorated by papering, or by distemper, the walls shall first be stripped clean to the surface prior to re-doing. Even if the obligation were imposed only when houses changed tenants, and before they were re-occupied, it would be an immense gain, and would limit the accretions of paper or coats of distemper to those of a single tenancy.

Unless kept wholesome in this way, the ceilings and walls of houses, and especially small houses, are permanent sources of danger to health, equally with defective drains and pipes, and not less so because more insidious and difficult to detect. The danger is in the inverse ratio of the tenants to protect themselves; the poorer the tenants, the less their power to exert any pressure over the property owner.

The health of the community is a paramount consideration and its conservation, by any practical means, a necessity. In submitting to you the suggestions set out above, the Association of Master Painters draws upon a large fund of experience and knowledge of the actual facts of the case.

W. G. SUTHERLAND, Secretary.

I quite agree with all that is said, in fact the accumulation of papers on the walls must in time make an appreciable difference in the cubic space of the room. In my own house when I first occupied it, the painters cleaned nine distinct papers from the walls. It is very necessary whenever a room is papered to remove all sources of infection before putting on a new paper. Especially is this the case now that we make a practice of fumigating after a death from consumption to complete the disinfection, the wall should be washed with a disinfectant and then re-papered.

I would recommend the adoption of the method used by some property owners of putting on the wall the date of the last renovation.

The Master Painters' Association wishes to impress upon you the desirability of registering all painters, as is done in the case of the plumbers.

I recommend the adoption of these principles in the bye-laws.

I remain,

Your obedient servant,

F. G. HAWORTH,

Medical Officer of Health.

There are three large beautiful parks, as follows :—

SUNNYHURST WOOD, covering 80 acres, situated at the north end of the town.

BOLD VENTURE PARK in the centre of the town, reaching from Belgrave-road right on to the moors, occupies $25\frac{3}{4}$ acres.

WHITEHALL PARK in the southern end, and abutting on the Cemetery, has $16\frac{1}{4}$ acres.

These with the moors comprise spaces invaluable to the inhabitants.

Houses are arranged generally in streets or rows, the front streets being usually 12 yards wide, the back streets are 4 yards wide. The back yards of new houses must have a free area of at least 150 square feet, it is only in a few of the old houses that this space obtains.

The usual accommodation is two rooms up and two or three rooms down. As the tendency for the better class people is to get " out of the town " so it is for the lower class to have more bedroom accommodation.

1463 of the houses contain baths, 97 of these having been put in during 1910.

All the front streets are paved with setts and have a footpath of flags 7ft. 6in. wide on each side ; the back streets are also paved with setts.

The cleansing of the streets is undertaken by the Council, and is carried out in a satisfactory manner.

WATER SUPPLY.

Water is supplied, on the Constant System, from the two Reservoirs, Sunnyhurst, situated at a high level, and Earnsdale Reservoir, situate at a lower level. The supply is distributed by gravitation, except in a small outlying district at Black-snape, where it is pumped from the main.

The Watershed area is partly moor-land and partly grazing land, situate in Darwen Borough and partly in the Parish of Tockholes, at an elevation extending from 1800 to 1260 feet above mean sea level. The farms on this area have been

bought by the Corporation, so that complete supervision can be exercised. Manure is not allowed on the land near the Reservoirs, the streams contributing to these are maintained in a pure condition. The water is filtered through sand and gravel, and has no action on lead.

The gathering ground covers 662 acres, about 2 miles from the centre of the town, and a considerable elevation above sea-level. The farm houses have, in each instance, been provided with waste water closets, which are connected with sewers, to which also are connected drains from liquid manure tanks. These sewers discharge their contents below the level of the reservoirs and gathering ground, the only manure allowed on the land except that collected from the farm yards.

The Reservoirs have a total combined capacity of $202\frac{1}{4}$ million gallons, and the filters in connection with Sunnyhurst Reservoir have an aggregate area of 1,970 square yards. The depth of water resting on the filtering area is usually 2 feet, the rate of filtration is 2-3rds. gallon per square foot per hour when both are working together. The Earnsdale filters have an aggregate area of 1,947 square yards, and the rate of filtration when both are working is 5-9ths of a gallon per square foot per hour. The capacity of the Earnsdale Service Reservoir is 570,700 gallons, and the Sunnyhurst Service Reservoir 554,000 gallons.

The surfaces of the filter beds are scraped when the water fails to pass through them sufficiently quickly, and the topmost layer of sand is removed. This is usually needed once every six weeks.

The filters are uncovered, as are also the clear water tanks, which serve as service reservoirs.

Previous to the Corporation taking over the water works in 1893, two very severe outbreaks of Enteric Fever occurred, which were attributed to pollution of the water, one in 1861, in which the mortality was very high, no fewer than 170 persons dying in three months. The second outbreak occurred in 1874, when from 1,500 to 2,000 persons were attacked.

The total amount of water consumed during the year was 251,365,000 gallons, or about 16 gallons per head per day for all purposes.

The total rainfall for the year at the Watersheds was 51.73 inches, and in Bold Venture Park it was 60.55 inches, showing a heavier rainfall in the latter place of 8.82 inches. This is probably due to the geographical and physical conformation

of the two places. Bold Venture Park is situated on the east side of an elevation on which stands the Tower. The prevailing winds are westerly and north-westerly. Striking the afore-mentioned elevated land causing the wind to take an upward direction to an altitude at which the moisture becomes condensed, and consequently it falls in the Park, and in the direction of the town.

The quality of the water is good and soft, being upland surface water. Some years ago there was a certain limited amount of lead poisoning. This led to the construction of sand filters and the admixture of carbonate of soda to neutralize the acidity due to the vegetable acids. Since then we have not had any case of lead poisoning. All lead pipe services are lined with tin

A few farms and outlying cottages draw their water supply from private springs. As there is always a danger of these becoming polluted with surface drainage, these supplies, wherever possible, are being done away with, and the town's water substituted.

The approximate number of houses not supplied from a pipe service from the Corporation mains is 50.

The average consumption is about 625,000 gallons per day, and the watershed is estimated to yield 680,000 gallons per day (average) of three dry years.

Two samples of water were taken from farms during the year, and submitted to the County Analyst for purposes of analysis. Both samples were free from pollution.

MILK SUPPLY.

The whole of the Farms, Dairies and Milk Shops have been visited during the year, and as a result many improvements have been effected in the direction of obtaining more light, more air and better paving, etc. The only complaint of any consequence received has been of dirt in the milk, in consequence the farms of which this was stated were specially visited, and full directions given for the better filtration of the milk.

There is certainly room for further improvement in personal cleanliness as well as cleaner milk floats and utensils. Some of the farmers show a lack of attention to details, and the suspicion must be aroused in regard to the milk when one sees the condition of the clothing and carts. I have more than once recommended the use of milk cans with taps, instead of dipping the measures into the milk each time a customer is served, the custom of holding the jug over the milk kit when measuring the fluid into it, allowing the excess to flow back into the supply, thus as it were, washing, what may, and sometimes is, a dirty jug, by the milk being measured for domestic supply.

On one of the inspector's and my visits to a farm, our attention was drawn to a boy in anything but a clean condition, and not free from a skin disease. He had the full range of the whole of the premises, and seeing that his presence was not conducive to perfect cleanliness, I recommended the parents to send him to a skin hospital, which they shortly did, to our satisfaction.

A case of Typhoid was notified in a farm house. The case was prolonged, and in the meantime the stools were being put into the liquid manure tank, with a view to spreading this on the land. A special visit was paid by us to this farm, and the whole of the surroundings carefully enquired into. Noting the land sloping in the direction of a well, from which water was drawn for drinking and cooking purposes, I gave instructions for the manure tank to be emptied into drags and conveyed to the sewage works. This was done, and a possible epidemic prevented.

The Air Space in Cowsheds must not be less than 600 cubic feet per beast. It is, in all cases, being gradually brought up to this standard.

The following notices to carry out the work, etc., at various farms have been served during the year :—

Provide Additional Ventilation in Farm Buildings.....	5
Repair of Defective Drainage.....	13
Repair or provide Easing Troughs and Downspouts.....	8
Repair Insanitary Yards.....	6
Repair Defective Flagging or Pavement in Shippon.....	5
Repair Shippon Roof.....	5
Provide or Re-construct Manure Tank.....	4
Provide Suitable Dairy.....	1
Limewash Shippon and Dairy.....	4
Repair Ventilators.....	1
Keeping Cattle in Unsuitable Buildings.....	2
Shippon Overcrowded.....	1
Protect Water Supply from Pollution.....	3
Provide Suitable Water Tank.....	1

FOOD INSPECTION.

The inspection of food is carried out by the Inspectors of Nuisances, who have not seized any food during the year. The Inspectors and I have kept a careful watch on the shops, vans, and Market, in particular for rabbits, fish and fruit of unwholesome aspect.

The Sanitary condition of premises where Foods are prepared, stored and sold, is good, and we have not had any complaints from any source whatever.

Meat Inspection is carried out by the Meat Inspector. The following unsound meat was seized during the year :—3 Beasts, 9 Sheep, 5 Swine, 3 Beasts' Internal Organs, and 2 Tons 9 cwt. of Offalling, and destroyed.

SLAUGHTER HOUSES.

There are two Registered Slaughter Houses within the district, one private, and a public one belonging to the Council. (See report).

The following was condemned for Tuberculosis :—3 Beasts, 3 Sheep, 2 Pigs, 1 Calf, and internal organs of 3 Beasts.

SEWERAGE AND DRAINAGE.

The configuration of the land on which the town is built, and on each side lends itself to perfect drainage. The gradients on both sides of the river, and especially on the west side are very heavy.

The town is largely on the pail system. These are emptied by men employed by the Council once a week, except in a few small congested districts where they are emptied more frequently. The pails are being rapidly converted to the water closet system, with a view to putting the town on the water carriage plan.

The excrement is dealt with at the sewage works at Oakenhurst, at the north end of the town. Here it is treated on the bacteria system.

There are 5908 pail closets in the district, 2003 water closets, and 2397 waste water closets.

During the year :—

- 109 Water Closets were fixed in new buildings.
- 47 Waste Water Closets were fixed in new buildings.
- 11 Pail Closets were converted to waste water closets.
- 55 Pail Closets were converted to water closets.

REFUGE DISPOSAL.

Nearly all the ashpits have been abolished during the year, and tubs with covers substituted. Now, these are emptied every 10 days. I am looking forward to shortly instituting a readier method of dealing with this particular refuse, by means of which a more frequent removal will be available.

The refuse is taken to the Destructor Works, where it is burnt in a Meldrum Destructor.

The Destructor is situated at the Electricity Works, so that the heat so obtained is utilized for the purpose of generating Electricity for Lighting purposes, and Power for the Electric Cars.

NUISANCES.

During the year 829 legal, and 1,304 preliminary notices, were served upon owners and occupiers of property to abate nuisances. Four of these had legal proceedings instituted against them to enforce the abatement of the nuisances, viz. :—Black Smoke Nuisances 3, with the following results :—

Order to Abate.....	1
10/- and Costs.....	2

In one of the above cases there were three offences against the firm, with the result that a fine of 10/- and costs was imposed in one case, and costs in the other two cases.

The two firms fined 10/- and costs had been previously fined for similar offences.

One occupier was proceeded against for not providing closet accommodation at his works.

RIVER POLLUTION.

The river Darwen runs right through the town from South to North. This is polluted by waste products from works on its banks. No action has been taken to prevent this. It has been going on from time immemorial, and does not appear to be on the increase. A great length of this stream is paved and arched over, thereby lessening any odour or nuisance which may arise. At certain places there

is an emission of steam which has a slight odour, but no complaints have been made. In time, no doubt, the whole length, or such as is necessary, will be arched over, completing a scheme which will benefit the town. There are a few small tributary streams, but these carry surface water, and consequently are not noxious.

LODGING HOUSES.

The Lodging House has been more than usually successful in securing occupants during the year. The place was painted and decorated, thus making the house more attractive and healthy. Our greatest trouble is from bugs, which occasionally secure an entrance on the bodies of the itinerant lodgers. When this happens Mr. Inspector Walsh and the Master, Mr. Walton, thoroughly stove and disinfect the house. As this fails to dislodge and kill the embryo this is done by means of a painter's blow-lamp. This is a most effective measure.

We have only one Common Lodging House in the Borough, which is owned and worked by the Corporation. The concentration of this class of people in one house eases our work considerably, and I have paid occasional visits to ensure the house being kept in a sanitary condition. I instructed the Sanitary Inspector for the district to disinfect the whole of the rooms during the year.

The house is situated in the West-Central Ward, near the centre of the town, and provides accommodation for 130 lodgers. On the ground floor are two lodgers' entrances on the front, male and female respectively. Here also is the entrance for the manager, or caretaker who occupies, on the right of the building, a complete suite of apartments, which includes Hall, Living Room, two Bedrooms, Scullery, Pantry, Water Closet, etc., and which are completely separated from the remainder of the house.

The two Lodgers' entrances lead past an office which is common to both, into their respective halls. Here also are provision and crockery stores, which serve both sexes with equal efficiency, and at the same time maintain their separation.

Behind the above-mentioned, and in immediate connection therewith, are the other departments relating to the Master of the establishment. These consist of a scullery, where all crockery is washed. In this apartment is also a lift connecting the whole of the upper stories. Adjoining is the linen and laundry store, containing washer, wringer, mangle, disinfecter, and drying frames, all the machinery being worked by steam power.

Under this part of the building, and approached by a flight of steps from the passage, are the cellars, which contain a steam boiler for motive power, and hot water supply throughout the house.

Coming to the lodgers portion we have, on the male side, a large day room, and adjoining it a dining room, with cooking kitchen, etc. This arrangement is repeated on the female side, with the difference that the day room and dining room are combined on account of the smaller number to be provided for. — A passage (also in each case) leads from the hall to an open yard, where are situate an ample number of conveniences, lodgers laundry, bath rooms, foot baths, lavatories, etc. This completes the ground floor.

Approach to the bedrooms is from the passage on the male side, and from the hall on the female side. Those on the first floor are arranged to meet varied circumstances.

In the left wing a very good plan of both lighting and ventilation is shown by having a large "Well-hole" in the floor of the room above, which in its turn is open to the roof, where a continuous skylight, with sides to open, runs the full length of the same. These two rooms accommodate thirty-six males each, the top floor of the right wing twenty-nine males, and the first floor of the same wing thirteen males and sixteen females (or twenty-nine females), thus giving a total accommodation for 130 persons.

Each bed is enclosed in a cubicle 6ft. 6in. by 4ft. 6in. of sheet steel, with door made to secure on the inside. Each cubicle has a separate window to open for complete aeration. On both floors are lavatories and water closet arrangements, with thorough ventilation, and in case of fire means of exit have been provided in the shape of iron fire escapes on the outside of the building from each room.

The average number of lodgers for 1910 was 75.4, including women, against 78.9 for 1909.

The average number of women for 1910 was 4.7, and 5.5 for 1909.

MANURE HEAPS.

During the warmer months I recommended the enforcement of the bye-laws in regard to the construction of the manure pits, also a weekly removal of the contents, with instructions to the Inspectors to go round and spray the manure with Kerosine. This destroys the flies, and prevents the development of the larvæ, and has brought about a very great diminution in the number of the flies, followed by a lessening of infection.

The following letter was addressed to the Committee :—

HEALTH OFFICE, DARWEN,

July 1st, 1910.

Manure Heaps and the Propagation of Flies.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

At the last meeting of your Committee, at which the above question was under discussion for some time, it was decided to undertake some experiments with a view to lessening the nuisance arising from the storage of horse manure within a short radius of inhabited houses, having regard more particularly to the influence of this manure in the propagation of the common house fly (*Musca domestica*), and the danger to life from infection by and through the medium of the fly.

As illustrating the axiom that "There is nothing new under the sun," the fact that oil was poisonous to insects was known to the ancients, thus Lusian of Samosata, a contemporary of Trajan, speaking of the fly, wrote "It is in man's company as long as it lives and takes the freedom to taste of all his food (oil only excepted) because it is poisonous to him. For him are goats milked, and the bees make honey for flies as well as for men. For him do the confectioners make sweetmeats, and he tastes them before the king himself, with whom he feasts, marching about the table, and eating with him in all things."

I do not need to labour this report with evidence that flies are the carriers of infection, suffice it that malaria, yellow fever, and filaria, are carried by special varieties of the Mosquito. The bed bug is responsible for the conveyance of the spirillum of Relapsing Fever. A tick will cause red water fever; the tsetse fly, sleeping sickness; the flea, plague; and more recently the owl midge, a variety of sand fly, has been found to give rise to Mediterranean fever.

Much evidence has accumulated against the common house fly, and other flies as carriers of Typhoid, infantile diarrhoea, bacillary dysentery, cholera, tubercle, diphtheria, erysipelas, contagious ophthalmia, cerebro-spinal meningitis, anthrax, and probably small-pox.

It is a fact that long after convalescence the typhoid bacillus is voided in the urine, according to some observers to an extent of a quarter of the ascs, and to an

extent of time undreamt of. In one instance recorded by Pro. Dean of Aberdeen, for 29 years after apparent recovery from the disease, so that typhoid is not, as it formerly was, looked upon as purely a water-borne complaint, nor yet is it proved to be air-borne, or due to pollution of the air, so that it is reasonable to suspect flies as the active carriers, carrying the poison not only on legs wings and bodies, but also on their heads—more especially on their mandibles. Each fly has six legs on which are two pads each carrying 1200 hairs, each one secretes a sticky fluid by means of which it attaches itself to whatever it walks upon.

Flies breed on decaying animal and vegetable matter, the eggs (long and white) hatch into maggots in 6 to 8 hours. They grow with enormous rapidity, cast their skins twice, and under suitable conditions reach full growth in 4 to 5 days. The outer skin becomes hard, swells, and turns brown, and within this is the true pupa. From the front end the adult fly issues in 5 days. A single generation comes to maturity in 10 days, and as many as 12 generations develop in one summer. One fly is said to lay 1,000 eggs in the season.

Suppose only one half of the eggs hatch out and live to raise families of their own, in 30 days the number of flies would be 216,000, and in 40 days over 12 millions. It is interesting to note that if we allow 1000 flies to the ounce, we find that the total produce of one fly at the end of 40 days would weigh 810 lbs., or more than five times the weight of a somewhat bulky man, supposing he weighed 160 lbs.

Dr. J. S. Purdy reports that in Auckland, in 1908, the ease with which typhoid fever is conveyed by flies, on the removal of one of the earliest cases to hospital the relatives left the infected house, a wooden box (the usual receptacle in that suburb at the time) contained the discharges of the patient. "Because it was not full," on the occasion of his fortnightly visit the contractor's man did not remove the contents. The flies immediately proceeded to do so. Some days later the Inspector found the box "swarming with maggots." Small wonder that in a small borough, with a population of a little over 2,000, there were 23 cases of Typhoid Fever in 2 months time. Around the first house affected the other cases occurred in such a way as to show a cluster of flags round this centre on a spot-map. Seeing that we have, as it were, typhoid fever always with us, or endemic as it is called, I have for some time looked upon the unsightly and mal-odorous pails as being largely responsible for the sporadic cases of enteric fever with which we have to deal, and in New Zealand the dry earth or pail closet system in towns is looked upon as absolutely reprehensible from a sanitary point of view, the difficulty in that colony being increased by the absence of labour and the delay in getting the pans periodically emptied.

The filthy feet of foecal feeding flies walking over meat, butter, bread, cake, sugar, jam, or any food, as well as the predilection of flies for milk, shows how easy

is the acquirement of typhoid, when one knows that one fly can carry 100,000 organisms. If any extra argument were needed in favour of the substitution of a water carriage system for the insanitary and expensive pails surely we have it in the above statement, and where this is not possible, every attempt should be made to prevent, in the first place, the admission of flies, and to remove the fœcal and waste matter as quickly as possible, all green vegetables should be burnt on the kitchen fire at the end of the day, all food should be screened, and all perishable foods should be kept secure from the flies.

Surgeon-General Hamilton reports that the incidence of flies, and consequently of enteric fever, was very much reduced in the Indian Cantonments by syringing the latrines with Kerosine, a method which it might be well to introduce during the very hot weather in our schools. In one of the largest butchering establishments it was found that rubbing a mirror with a cloth damped with Kerosine would keep the flies away for twelve hours, owing to its rapid evaporation it was necessary to apply the oil twice to get any continuous benefit. Petroleum for practical purposes has its limitations, it is nevertheless a good plan, where the pail system is in use, to pour petroleum over earth and scatter this on the contents of the pails. This acts perfectly in keeping away flies away from nightsoil pans.

The introduction of stringent regulations to protect meat, milk, butter, and other perishable foods, as well as the regular periodic cleansing and removal of stable manure, and the removal of fowl houses from towns, will go far to mitigate this pest of domestic life.

A point noted in Motuipi in New Zealand was that the encouragement of the breeding of fly-catchers, such as fan-tail, considerably lessened the number of flies. This is a matter for our farmers to consider, at any rate at present the weekly removal of stable manure, and the thorough cleansing of manure pits followed by limewashing the inside walls of these pits, for which it seems to me a machine for this purpose would be useful, and would result in preserving our meat supplies from a dangerous contamination.

I remain, Gentlemen,

Yours obediently,

F. G. HAWORTH,

Medical Officer of Health.

Copy of By -Laws sent to every occupier of a Stable in the Borough.

COPY OF SECTIONS 13 AND 14.

13. Every occupier of a building or premises wherein or whereon any horse, or other beast of draught or burden, or any cattle, or swine may be kept shall provide, in connection with such building or premises, a suitable receptacle for dung, manure, soil, filth, or other offensive or noxious matter, which may from time to time be produced in the keeping of any such animal in such building or upon such premises.

He shall cause such receptacle to be constructed so that the bottom or floor thereof shall not in any case be lower than the surface of the ground adjoining such receptacle.

He shall also cause such receptacle to be constructed in such a manner, and of such materials, and to be maintained at all times in such a condition as to prevent any escape of the contents thereof or any soakage therefrom into the ground, or into the wall of any building.

He shall cause such receptacle to be furnished with a suitable cover, and when not required to be open to be kept properly covered.

He shall likewise provide in connection with such building or premises a sufficient drain, constructed in such manner and of such materials, and maintained at all times in such a condition as effectively to convey all urine, or liquid filth, or refuse therefrom into a sewer, cesspool or other proper receptacle.

He shall once at least in every week remove or cause to be removed from the receptacle provided in accordance with the requirements of this bye-law all dung manure, soil, filth, or other offensive or noxious matter produced in or upon such building or premises, and deposited in such receptacle.

14. Every person who shall offend against any of the foregoing bye-laws shall be liable for every such offence to a penalty of five pounds, and in the case of a continuing offence to a further penalty of twenty shillings for each day after written notice of the offence from the Corporation.

Provided, nevertheless, that the Justices, or Court, before whom any complaint may be made, or any proceedings may be taken in respect of any such offence may, if they think fit, adjudge the payment as a penalty of any sum less than the full amount of the penalty imposed by this bye-law.

OFFENSIVE TRADES.

The only offensive trades carried on within the district are tripe boiling and gut scraping. These premises are kept under constant supervision by the Inspector and myself, no matter is allowed to remain about the premises longer than is necessary, and the premises are kept in a clean condition.

Notification of Infectious Diseases.

The following were reported to me during the year :—

Small Pox.....	0
Diphtheria.....	18
Erysipelas.....	32
Scarlet Fever.....	123
Typhoid Fever.....	12
Puerperal Fever.....	4
Pulmonary Tuberculosis.....	5
	194

CASES REPORTED IN—

	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Diphtheria.....	2	2	10	186	197	141	21	34	29	18	22	14	11	18
Croup.....	3	6	2	4	10	3	—	—	—	—	—	—	—	—
Erysipelas.....	56	35	31	27	34	15	17	35	49	17	14	14	7	32
Scarlet Fever.....	101	93	400	276	231	137	30	689	456	50	26	22	149	123
Typhoid Fever.....	41	43	55	33	21	34	15	20	28	17	21	23	15	12
Continued Fever.....	1	3	—	1	3	1	—	—	—	—	—	—	—	—
Puerperal Fever.....	12	10	7	4	1	3	2	5	5	4	—	4	3	4
Small Pox.....	—	—	—	—	—	3	27	2	—	—	1	—	—	—
Chicken Pox.....	—	—	—	—	—	—	32	—	—	—	—	—	—	—
Pulmonary Tuberculosis.....	—	—	—	—	—	—	—	—	—	—	—	—	11	5
	216	192	505	531	497	337	144	785	567	106	84	77	196	194

DIPHTHERIA AND CROUP.—Eighteen cases were notified as compared with eleven in the previous year, showing an increase of seven.

There is no accommodation in Hospital for this disease, we therefore rely on isolation in the homes of the patients, and the examinations of throat discharges at Owens College. The number of swabs sent up is given on another page.

SCARLET FEVER.—The number of cases notified were as follows :—63 males and 60 females, total 123, as compared with 149 in the previous year.

The distribution was as follows :—

	Central.	West-Central.	North-East.	North-West.	South-East.	South-West.
Population.....	7858	4079	10454	5706	7202	7701
Number.....	10	24	44	18	12	15
Deaths.....	1	2	0	0	0	1
Death Rate per 1,000.....	0.13	0.49	0.00	0.00	0.00	0.13

Table showing susceptible period :—

Under 1 year.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	Total.
0	49	61	9	4	123

As stated previously the same precautions are taken in regard to this disease in the schools as with Measles, further treatment is carried out in the Hospital at Bull Hill, which is situated at the South end of the Borough, 2 miles, 146 yards from the centre of the town, and about 900 feet above sea level. It stands in its own grounds, five acres in extent, which are laid out and planted with shrubs.

It is composed of two blocks running east and west, with a southerly aspect, In the larger block there are two wards, each capable of holding 8 beds and 2 cots, and the two smaller wards with 2 beds each.

The kitchen is in the middle, and is provided with two observation windows overlooking the larger wards. There is one bath room, a store closet, two water closets, and a sink.

The other block is used for administrative purposes.

All the rooms are heated with hot-water pipes as well as open fireplaces.

This Hospital was erected in 1890.

Bedding, etc., is disinfected at the hospital in a Washington Lyon's Disinfecting Apparatus.

Sixty-eight cases of Scarlet Fever were admitted into the Bull Hill Hospital during the year. Three Scarlet Fever patients died during the year in the Hospital.

The average number of days in Hospital was 51.

TYPHOID FEVER.—There were 12 cases notified as against 15 in the preceding year. Five of these were removed to the Bull Hill Hospital. One death from this dease occurred in the Hospital.

In most instances there was a history of mussels having been eaten. The mussels were eaten raw, or at most scalded, and not boiled for a definite period of time, so the evidence points to this being the source of infection. The bacilli require active boiling for 20 minutes to destroy them, and even that is not sufficient to kill the spores.

Since my last annual report the Council has provided a Special Hospital, built on most modern lines, with 8 beds. The administrative block is composed of kitchen, bed and bath rooms, is situated between the male and female blocks or wards. The special need of this provision was accentuated during an outbreak of fever, where, owing to the lack of accommodation, the complaint spread through one family owing to the above circumstances.

The Inspectors and I have kept a sharp look out in all cases of infection, or matters would probably have developed to more serious proportions.

ERYSIPELAS.—Thirty-two cases were reported as compared with seven in the previous year.

PUERPERAL FEVER.—Of which four cases were notified. In all cases the mid-wives were suspended until full disinfection of themselves, clothing, instruments, and bags had been effected. The bedding was also treated in a similar manner.

PULMONARY TUBERCULOSIS :—Five cases were notified under Board's Order of 18th December, 1908, against eleven in the previous year.

Return of the number of Infectious Diseases reported to the Medical Officer of Health during the year 1910, and the deaths from the diseases notified :—

	Cases Notified.	Deaths Registered.	Death-rate % of those attacked.
Scarlet Fever	123	4	3.25
Diphtheria and Membraneous Croup.....	18	5	27.78
Typhoid Fever.....	12	6	50.00
Puerperal Fever.....	4	2	50.00
Erysipelas.....	32	3	9.37
Small Pox.....	0	0	0.00

NOTIFICATION OF INFECTIOUS DISEASES IN EACH WARD, AND FOR
EACH MONTH OF THE YEAR, 1910.

MONTHS.	CENTRAL				WEST CENTRAL				NORTH-EAST				NORTH-WEST				SOUTH-EAST				SOUTH-WEST				BOROUGH						Total
	Scarlet Fever	Typhoid Fever	Erysipelas	Diphtheria	Puerperal Fever	Consumption	Scarlet Fever	Typhoid Fever	Erysipelas	Diphtheria	Puerperal Fever	Consumption	Scarlet Fever	Typhoid Fever	Erysipelas	Diphtheria	Puerperal Fever	Consumption	Scarlet Fever	Typhoid Fever	Erysipelas	Diphtheria	Puerperal Fever	Consumption	Scarlet Fever	Typhoid Fever	Erysipelas	Diphtheria	Puerperal Fever	Consumption	
JANUARY	1	1	1				1	1	1	3	1	1	1	1		1			1	5					12	3	3	1		19	
FEBRUARY	1									4			1						3						9		1			10	
MARCH	2							1	1	4	1	1	1	2	1		1								8	2	2	2		14	
APRIL	1	1					1	1	1	3	1		2	2											9	1	2	1	1	14	
MAY					1		4			2		1		1	2	2			3	1					10		3	3	1	1	18
JUNE	1						5		2				1	1											7		2		1	10	
JULY	1						1	1	1	3	1	1	3	3	1		1								11		2	2		15	
AUGUST					1		2		1	3	1		3	3			2	2							10		1	3	1	1	15
SEPTEMBER	1						1			7						1	1	1							10	1	1		1	13	
OCTOBER			1				2	1	1	1	1		2	1		1									5	2	3	2		12	
NOVEMBER	1	1	2				7	1	1	13	1		4	3	2										25	3	5	4		37	
DECEMBER	1	1							3	1								1	4						7		7	2	1	17	
TOTALS	10	1	4	3	2	24	3	4	3	44	2	12	2	1	18	4	7	2	2	21	2	4	5	1	2	15	1	3	1	23	12321845194

During the year the following Pathological Specimens have been sent for examination to Professor Delepine, Public Health Labatory, Victoria University Manchester :—

	No. of Specimens.	Result.		
		Negative.	Doubtful.	Positive.
Blood.....	7	2	1	4
Swabs.....	7	6	0	1
Sputum	11	8	0	3
Special Specimen.....	1	1	0	0
	26	17	1	8

ZYMOTIC DEATH RATE.

1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897
0.7	3.3	3.0	1.9	2.0	1.2	1.7	1.9	2.2	1.1	2.1	2.2	1.6
1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
2.08	2.34	2.90	2.14	1.03	0.76	2.70	1.00	1.14	0.69	0.76	1.10	0.51

TUBERCULOSIS.—The Table of cases of Pulmonary Consumption herewith shows the means whereby this complaint spreads. It is evident the houses occupied by these patients become the media of its propagation. There have been 99 houses in which two or more deaths have taken place. Of these 43 have been members of the same family, and 56 were not belonging to the same family, so it appears apparant that the germs are multiplied during the course of the disease they find suitable habitations in the rooms which have been occupied, and when another family moves in some member, or members, of it inspire the micro-organisms to become infected, and they die of the same complaint. Statistics therefore shows that it is not so much a question of heredity, unless to the extent of being thereby rendered more susceptible, as that the infection spreads rapidly to them during the long hours of occupancy of the bedrooms in which the previous patients spent their nights and days, causing the air to become impregnated with the poisonous germs.

The inspectors have instructions to secure the fumigation and disinfection of the rooms used by the infected persons as soon as possible. As our information comes through the local registrar in his monthly return of deaths, it is obvious that such information must inevitably be obtained several weeks after the death of the patient, and during this interval much danger may take place.

CONSUMPTION DEATHS 1874 to 1909.

1	2	3	4	5	6	7	8	9
Alma Street	B	May 1877	B	June 1877	B	Sept. 1877	...	.....
Anyon Street ...	W	Aug. 1887	W	Nov. 1889	...	.....	...	.....
Alexandra Ter.	W	Nov. 1890	K	Apl. 1901	...	.....	...	.....
Astley Street....	D	Nov. 1894	D	Apl. 1905	...	.....	...	.....
Argyle Street ..	T	June 1895	E	Feb. 1897	...	.....	...	.....
Astley Terrace .	H	Nov. 1899	W	Jan. 1904	...	.....	...	.....
Astley Street....	H	Sept. 1904	B	Jan. 1906	...	.....	...	.....
Blackburn Rd..	R	Apl. 1875	R	Feb. 1876	...	.....	...	.....
Bolton Road ...	Y	Jan. 1876	H	June 1902	...	.....	...	.....
Bk. Richard St	H	Mch. 1876	H	July 1876	...	.....	...	.....
Bentley Street .	D	Sep. 1876	H	Sep. 1877	...	.....	...	.....
Blackburn Rd..	C	May 1880	G	Nov. 1881	D	July 1885	F	Dec 1890
Bk. Spring St...	L	June 1880	B	June 1897	...	.....	...	.....
Bank Street	T	July 1884	T	Mch. 1888	...	.....	...	.....
Blackburn Rd..	G	July 1885	G	Feb. 1886	...	.....	...	.....
Blackburn Rd..	B	Aug. 1887	L	May 1892	...	.....	...	.....
Bridge Street ..	M	Oct. 1888	M	Dec. 1888	...	.....	...	.....
Bk. Astley St....	P	May 1890	E	Nov. 1907	...	.....	...	.....
Brook Street ...	B	Aug. 1890	N	Feb. 1892	...	.....	...	.....
Blackburn Rd..	W	Mch. 1891	Q	May 1901	...	.....	...	.....

Consumption Deaths 1874 to 1909.—Continued.

1	2	3	4	5	6	7	8	9
Blackburn Rd..	W	July 1897	W	Apl. 1898	W	Mch. 1901	W	Oct 1902
Bedford Street..	K	Sep. 1898	M	Dec. 1900	...	.....	...	.....
Bury Street	K	Oct. 1905	D	Dec. 1905	...	.....	...	.....
Baron Fold.....	B	Jan. 1906	B	July 1906	...	.....	...	.....
Britten Street .	W	Jan. 1907	W	Aug. 1907	W	Sep. 1908	...	.....
Cobden Street .	G	Sep. 1874	G	Apl. 1876	...	.....	...	.....
Crown Street...	M	Feb. 1881	W	May 1883	...	.....	...	.....
Cobden Street .	L	Apl. 1878	W	July 1908	...	.....	...	.....
Clifton Street ..	F	Sep. 1886	F	Feb. 1891	...	.....	...	.....
Cup Lane.....	C	Apl. 1895	B	Nov. 1900	...	.....	...	.....
Derwent Street	H	Aug. 1875	K	June 1876	...	.....	...	.....
Entwistle St.....	P	June 1877	E	Jan 1892	...	.....	...	.....
Exchange St. ..	F	Dec. 1881	F	Nov. 1896	...	.....	...	.....
Exchange St. ..	W	June 1891	C	Nov. 1908	...	.....	...	.....
Essex Street.....	W	Oct. 1900	C	Apl. 1901	...	.....	...	.....
Elizabeth St.....	W	Dec. 1905	K	Feb. 1906	...	.....	...	.....
Finch Street.....	H	Feb. 1882	D	June 1907	...	.....	...	.....
Franklin Street.	F	Jan. 1883	G	June 1889	...	.....	...	.....
Francis Street .	W	Nov. 1887	A	July 1895	...	.....	...	.....
Franklin Street.	F	Aug. 1888	M	Apl. 1900	F	July 1900	...	.....
Frederick St.....	L	May 1893	C	Mch. 1909	...	.....	...	.....
Fowler Street...	S	May 1898	S	July 1898	...	.....	...	.....
Greenfield St....	I	June 1881	R	Mch. 1891	...	.....	...	.....
George Street...	W	June 1892	C	July 1898	...	.....	...	.....

Consumption Deaths 1874 to 1909,—Continued.

1	2	3	4	5	6	7	8	9
Howarth Street	B	Aug. 1875	D	Dec. 1902	...	.....	...	.....
Howarth Street	T	Apl. 1876	D	Feb. 1909	...	.....	...	.....
Henry Street....	H	June 1876	B	Oct. 1880	...	.....	...	.....
Hindle Street ..	R	Jan. 1879	K	Apl. 1896	...	.....	...	.....
Hesse Street.....	Y	Apl. 1881	Y	Feb. 1883	...	.....	...	.....
Hill Street	L	Nov. 1885	J	Nov. 1889	...	.....	...	.....
Howarth Street	W	Apl. 1886	N	July 1901	...	.....	...	.....
Highfield St	P	July 1886	P	Jan. 1888	...	.....	...	.....
Hanover Street..	D	July 1892	D	Mch. 1893	B	Jan. 1897	...	.....
Hollins Grove Street	D	Feb. 1904	D	Jan. 1906	...	.....	...	.....
India Street	S	Aug. 1886	S	Dec. 1886	...	.....	...	.....
Intack Farm ...	S	Nov. 1892	S	Dec. 1892	...	.....	...	.....
Joseph Street...	E	May 1888	S	Nov. 1892	...	.....	...	.....
London Terr. ..	W	July 1908	W	Aug. 1909	...	.....	...	.....
Melita Street ...	D	Nov. 1905	G	July 1909	...	.....	...	.....
Northcote St....	B	May 1889	B	June 1893	...	.....	...	.....
Old Lane	K	Feb. 1882	J	May 1892	...	.....	...	.....
Olive Lane	N	Oct. 1897	S	Feb. 1909	...	.....	...	.....
Orchard Street..	B	Nov. 1904	B	Mch. 1907	...	.....	...	.....
Peel Street	C	Aug. 1884	M	Jan. 1909	...	.....	...	.....
Primrose Hill ..	R	Jan. 1891	S	Sep. 1895	S	Dec. 1901	...	.....
Park Road	B	Feb. 1891	B	July 1900	...	.....	...	.....
Powell Street ..	H	Feb. 1893	B	Apl. 1904	...	.....	...	.....

Consumption Deaths 1874 to 1909.—Continued.

1	2	3	4	5	6	7	8	9
Powell Street ..	P	Sep. 1894	W	May 1903	...	.....	...	.....
Pole Lane	H	Oct. 1898	H	Feb. 1901	...	.....	...	.....
Queen Street ...	M	Aug. 1881	H	Dec. 1895	...	.....	...	.....
Queen Street ...	W	Dec. 1881	W	Mch. 1886	...	.....	...	.....
Railway Road .	B	Aug. 1875	B	Mch. 1877	B	May 1879	...	.....
Radford Street	B	Jan. 1878	G	Dec. 1878	...	.....	...	.....
Richard Street..	S	July 1880	B	Aug. 1894	...	.....	...	.....
Radford Street	C	Sep. 1882	C	Nov. 1884	C	Jan. 1885	...	.....
Railway Road .	T	Nov. 1882	K	Apl. 1886	...	.....	...	.....
Radfield Road .	N	Oct. '1883	N	Dec. 1883	...	.....	...	.....
Redearth Road.	F	May 1885	W	Jan. 1892	...	.....	...	.....
Richard Street..	B	Oct. 1886	B	Aug. 1888	...	.....	...	.....
Robert Street...	H	Dec. 1888	H	Feb. 1892	H.	Aug. 1893	...	.....
Riley Street	H	June 1890	B	July 1904	...	.....	...	.....
Star Street	C	Aug. 1874	C	May 1875	...	.....	...	.....
Star Street	H	Dec. 1876	A	Mch. 1904	...	.....	...	.....
Scholes Street .	S	May 1878	E	Jan. 1905	...	.....	...	.....
Sudell Road ...	T	Aug. 1878	A	June 1880	...	.....	...	.....
Sarah Street ...	J	June 1889	J	Mch. 1898	...	.....	...	.....
Star Street	Y	Aug. 1893	Y	Mch. 1896	...	.....	...	.....
Sarah Street.....	H	Mch, 1898	R	July 1902	...	.....	...	.....
Sudell Road	W	Aug. 1898	W	Jan. 1905	...	.....	...	.....
St. Alban's Rd.	A	Oct. 1902	H	July 1904	...	.....	...	.....
Thompson St. .	H	May 1877	H	Dec. 1882	...	.....	...	.....

Consumption Deaths 1874 to 1909.—Continued.

1	2	3	4	5	6	7	8	9
Union Street ...	H	Jan. 1879	W	Aug. 1880	...	.....	...	.....
Vale Street	F	Feb. 1895	W	Oct. 1897	...	.....	...	.....
Victoria Street..	P	Dec. 1895	P	May 1902	...	.....	...	.....
Wood Street....	H	June 1877	H	Oct. 1880	...	.....	...	.....
William Street .	H	Nov. 1879	H	Feb. 1881	...	.....	...	.....
Wood Street....	C	Oct. 1887	A	Feb. 1908	...	.....	...	.....
William Street .	A	May 1888	C	May 1892	C	June 1895	...	.....
Wellington F'd	S	Sep. 1890	S	Mch. 1894	...	.....	...	.....

Deaths.

The total number of deaths during the year was 573 ; males 283, females 290, being a decrease of 43 on the previous year.

The Death-Rate for the year is 13.33, or a decrease of 1.11 on the previous year.

The number of deaths of residents in Institutions outside the district was 54, which have been added to the 519 deaths registered within the district, making a total of 573.

The number of deaths in the Union Workhouse, Blackburn was.....	22
„ „ „ „ Infirmary, Blackburn.....	25
„ „ „ „ other Institutions.....	7

INQUESTS.—There were 42 Inquests held during the year, with the following verdicts :—

Accidental Death.....	18
Natural Causes.....	19
Suicide.....	5
	—
	42
	—

Death-rates per 1,000 of the Population in the various Wards of the Borough.

WARDS. Population	Central 7858	West- Central 4079	North- East 10454	North- West 5706	South- East 7202	South- West 7701	Death- Rate per month
1910							
January	18.33	14.71	6.89	18.93	11.66	24.93	15.35
February.....	15.27	20.59	8.04	14.72	11.66	14.02	13.12
March	13.74	17.65	17.22	21.03	10.00	14.02	15.35
April	9.16	17.65	12.63	8.41	16.66	14.02	12.84
May	16.80	11.77	13.77	12.62	15.00	14.02	14.23
June	6.11	8.83	9.18	12.62	4.82	10.91	8.65
July	19.85	23.54	10.33	10.52	10.00	7.79	12.84
August	10.69	11.77	10.33	14.72	11.66	9.35	11.16
September	6.11	2.94	11.48	12.62	6.66	1.55	7.26
October	15.27	8.82	3.44	6.31	6.66	10.91	8.37
November	12.22	23.54	11.48	10.52	16.66	10.91	13.40
December	36.65	32.36	25.25	29.44	16.66	26.49	27.35
Average.....	15.02	16.18	11.67	14.37	11.51	13.24	13.33

It will be noticed that the Death Rates for December in the different Wards are much higher than in the preceding months. This increase is due to the addition of Deaths of Darwen residents in other towns.

Population as per Census enumerated	Estimated Population to middle of year	Births.	Deaths from all causes	Deaths under 1 year	Deaths 1 to 5	Deaths 5 to 15	Deaths 15 to 25	Deaths 25 to 60	Deaths 60 years and upwards
1881 29,747	1886 32,185	965	641	187	154	28	29	135	108
	1887 32,491	1000	716	188	139	60	35	174	120
	1888 33,500	994	600	154	113	32	33	145	118
	1889 34,500	972	544	149	90	16	31	161	107
	1890 36,500	1075	673	184	68	28	30	196	167
	1891 34,192	1115	660	168	115	32	26	193	126
	1892 35,000	1057	641	177	85	35	64	175	105
	1893 35,500	955	677	184	101	40	44	167	141
	1894 36,000	1039	542	130	67	17	46	174	108
	1895 36,000	1128	640	179	92	16	43	186	124
1891 34,192	1896 36,652	1032	627	187	102	17	26	163	132
	1897 37,500	1114	651	182	87	19	33	195	135
	1898 37,500	1131	632	199	79	22	27	174	131
	1899 37,900	1062	647	200	90	23	26	189	119
	1900 38,600	980	789	188	144	45	33	196	183
	1901 38,212	858	620	145	100	33	20	166	156
	1902 38,712	891	569	135	58	32	27	174	143
	1903 39,114	941	501	117	51	17	18	151	147
	1904 39,516	820	606	123	110	35	29	160	149
	1905 39,918	818	562	118	61	31	30	25 to 65 216	65 and upwards 106
1901 38,212	1906 41,164	811	540	111	65	19	18	202	125
	1907 41,864	876	527	104	49	21	26	217	110
	1908 42,266	895	550	107	33	20	19	240	131
	1909 42,668	816	616	104	63	28	31	250	140
	1910 43,000	776	573	95	36	25	35	229	153

BRONCHITIS.

Deaths at the different age periods during the last eighteen years.

Year.	Under 1 year.	1 to 5.	5 to 15	15 to 25	25 to 60	60 and upwards	Total.
1893.....	41	24	3	...	12	29	109
1894.....	27	20	...	...	7	17	71
1895.....	24	13	...	...	21	26	84
1896.....	36	28	...	...	10	20	94
1897.....	25	13	...	...	22	26	86
1898.....	22	12	...	...	10	21	65
1899.....	29	12	...	...	16	16	73
1900.....	18	7	...	...	20	36	81
1901.....	16	10	...	...	11	30	67
1902.....	19	8	1	...	7	22	57
1903.....	17	8	...	...	4	20	49
1904.....	8	10	...	...	11	19	48
						65 and upwards.	
1905.....	15	5	...	...	12	19	51
1906.....	16	5	...	...	11	23	55
1907.....	16	9	...	1	10	12	48
1908.....	8	7	...	...	9	18	42
1909.....	22	8	...	...	25	26	81
1910.....	7	3	...	...	16	23	49
Total ...	366	202	4	1	234	403	1210

PNEUMONIA.

Deaths at the different age periods during the last eighteen years.

Year.	Under 1 year.	1 to 5.	5 to 15.	15 to 25	25 to 60	60 and upwards.	Total.
1903.....	8	8	1	1	24	8	50
1894.....	5	4	1	...	19	4	33
1895.....	9	4	1	1	15	4	34
1896.....	9	9	2	...	17	3	40
1897.....	14	12	2	2	31	10	71
1898.....	11	13	3	...	18	8	53
1899.....	12	14	2	...	21	8	57
1900.....	20	28	3	1	25	11	88
1901.....	19	14	1	...	15	11	60
1902.....	16	12	2	2	28	4	64
1903.....	8	8	1	...	18	6	41
1904.....	13	19	1	...	15	5	53
						65 and upwards.	
1905.....	12	12	6	...	13	4	47
1906.....	11	19	5	5	20	6	66
1907.....	18	16	3	2	17	6	62
1908.....	4	4	...	2	12	1	23
1909.....	12	10	6	2	14	3	47
1910.....	10	12	2	2	19	6	51
Total ...	211	218	42	20	341	108	940

PHTHISIS.

Deaths at the different age periods during the last eighteen years.

Year.	Under 1 year.	1 to 5.	5 to 15	15 to 25	25 to 60	60 and upwards.	Total.
1893.....	...	...	...	...	35	4	39
1894.....	...	1	1	1	42	...	45
1895.....	...	...	...	...	34	4	38
1896.....	1	1	...	...	25	2	29
1897.....	...	...	...	...	26	1	27
1898.....	...	...	...	...	26	2	28
1899.....	...	...	1	2	26	2	31
1900.....	1	...	1	1	25	2	30
1901.....	...	...	1	2	23	3	29
1902.....	...	2	...	...	27	2	31
1903.....	...	...	1	1	18	2	22
1904.....	1	3	3	...	28	3	38
						65 and 25 to 65 upwards.	
1905.....	...	1	...	8	24	3	36
1906.....	...	...	1	2	16	...	19
1907.....	...	1	1	5	28	...	35
1908.....	...	...	3	3	19	...	25
1909.....	...	...	2	7	26	...	35
1910.....	...	...	...	6	16	2	24
Total...	3	9	15	38	464	32	561

DEATHS OF PERSONS 65 YEARS AND UPWARDS.

Senile Decay.....	42
Bronchitis and Pneumonia.....	29
Heart Disease.....	15
Apoplexy.....	15
Injuries.....	2
Phthisis.....	2
All other causes.....	48
	153

DEATHS FROM CONSUMPTION.

Tuberculosis of Bowels.....	1
Tubercular Meningitis.....	5
Tubercular Peritonitis.....	2
Tubercular Disease of Shoulder.....	1
Phthisis Pulmonalis.....	24
General Tuberculosis.....	1
	<hr/>
	34

DISINFECTION.

During the year infected bedding was removed from 158 houses for disinfection, and 166 rooms were fumigated.

LIST OF BEDDING DISINFECTED DURING 1910.

Beds.	Mattresses	Bolsters.	Pillows.	Quilts.	Blankets.	Sheets.	Suits of Clothes.	Carpets.	Rugs.	Curtains.	Cushions.	Shawls.	Sundries.
195	69	150	207	223	284	97	10	30	14	4	33	18	449

INFANTILE MORTALITY.

Table V. gives the number of deaths weekly during the first months, and afterwards for each month up to twelve months. From this it is seen a large number of fatal cases occur during the first four weeks, viz.; 44 during the first four weeks as against 51 afterwards. This shows the need for great care to be exercised in the early days of an infant's life. The heaviest growth takes place during the second month, and the least growth in the ninth month. When we consider that taking the average weight at birth as 6½lbs., and that this is practically doubled during the first year, twelve pounds being added, bringing the infant up to 18½ pounds. The second year adds 14 pounds, making the baby weigh 32½ pounds, whilst the 3rd year is responsible for only 1½ pounds. It is evident that the greatest care is needed during the first two years, when the most increase takes place.

The most deaths took place from premature birth. Here a difficulty arises in getting at the cause of this. It does not seem to me that occupation plays a large part, as the women prefer to go out to work rather than stay at home to do household duties. In many instances the reason given being that there is more going on in the mill than obtains at home. The desire for small families plays a significant part. Digestive troubles and wrong methods of feeding are responsible for many, if not all the deaths. With the propagation of greater knowledge on these matters we must look to a lowering of this death rate.

GOVERNMENT TABLE V.

NAME OF DISTRICT—DARWEN.

INFANTILE MORTALITY DURING THE YEAR 1910.

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	25	5	6	7	43	8	4	3	7	3	5	5	1	6	2	5	92
Uncertified	1				1			1			1						3
Common Infectious Diseases—																	
Small Pox																	
Chicken Pox																	
Measles																	
Scarlet Fever																	
Diphtheria (including Memb. Croup)																	
Whooping Cough								1		1		1					3
Diarrhoeal Diseases																	
Diarrhoea, all forms						1			1								2
Enteritis, Muco-enteritis																	
Gastro-enteritis		1			1	1		1			1			1			5
Gastritis, Gastro-intestinal Catarrh	1	2		1	4				1								5
Wasting Diseases—																	
Premature Birth	15	1	2	1	19												19
Congenital Defects	2			1	3												3
Injury at Birth	2				2												2
Want of Breast-milk, Starvation																	
Atrophy, Debility, Marasmus	2			1	3	1								1			5
Tuberculous Diseases—																	
Tuberculous Meningitis										1							1
Tuberculous peritonitis																	
Mesenterica																	
Other Tuberculous Diseases																	
Other Causes—																	
Erysipelas																	
Syphilis																	
Rickets																	
Meningitis (not Tuberculous)																	
Convulsions	1	1		1	3		1		1			2		1	1	2	11
Bronchitis				1	1	1			2		1				1	1	7
Laryngitis																	
Pneumonia						1			2	1	2	2	1			1	10
Suffocation, overlying	1				1		1	1									3
Other Causes	2		4	1	7	3	2	1			2			3		1	19
	26	5	6	7	44	8	4	4	7	3	6	5	1	6	2	5	95

Population estimated to middle of 1910.....43,000

Deaths in the year of—

Births in the year—

Legitimate Infants..... 90 Legitimate..... 760

Illegitimate Infants..... 5 Illegitimate..... 16

Deaths from all Causes at all ages.....573

TABLE showing Infantile Mortality in the various Wards.

Year.	C.	W.C.	N.E.	N.W.	S.E.	S.W.	Boro'
1898	195	193	219	125	122	164	175
1899	215	147	189	154	212	161	188
1900	225	183	238	170	158	163	191
1901	182	169	160	208	157	162	169
1902	138	135	146	121	174	174	151
1903	156	157	117	160	94	91	124
1904	152	96	126	172	194	152	150
1905	171	144	153	107	138	139	144
1906	117	179	160	62	158	140	136
1907	153	156	158	82	35	122	118
1908	102	131	133	105	103	140	120
1909	144	180	108	116	114	128	127
Average	162	156	159	132	138	145	149
1910	155	169	93	101	109	152	122

DEATHS UNDER ONE YEAR OF AGE.

Year.	Premature Birth.	Convulsions.	Bronchitis and Pneumonia.	Diarrhoeal Diseases.	Whooping Cough.	Measles.	Inanition.	Congenital Defects.	Other Causes.	Total.	Rate per 1,000 Births
1886	...	...	...	...	...	...	...	...	...	187	193
1887	19	42	31	16	8	2	13	...	57	188	188
1888	...	...	...	...	...	...	...	...	...	154	155
1889	27	28	24	14	11	2	17	...	26	149	153
1890	...	...	...	...	...	...	...	...	...	184	171
1891	20	39	33	8	...	10	12	...	46	168	151
1892	15	36	37	5	11	...	13	...	60	177	167
1893	24	22	49	16	2	9	12	...	50	184	193
1894	21	17	30	6	10	...	8	...	38	130	125
1895	16	17	33	41	3	13	27	6	36	179	158
1896	25	14	44	35	15	3	18	6	30	187	181
1897	27	11	39	35	4	13	22	8	36	182	163
1898	33	6	33	58	...	11	12	9	48	199	175
1899	22	18	41	43	7	1	9	12	48	200	188
1900	36	16	38	27	4	9	18	5	44	188	191
1901	20	8	35	24	6	3	15	7	30	145	169
1902	23	6	35	16	6	1	7	7	35	135	151
1903	21	2	25	16	7	2	17	4	5	117	124
1904	15	2	21	29	13	8	13	5	25	123	150
1905	31	5	27	11	...	1	17	3	24	118	144
1906	18	5	27	19	...	4	9	3	30	111	136
1907	18	9	34	11	4	...	7	4	17	104	118
1908	27	3	12	26	1	...	10	4	24	107	120
1909	21	1	34	10	8	7	6	5	12	104	127
1910	19	11	17	12	3	...	5	3	25	95	122

	Males	.....	Females	.....	Total
Diseases of the Respiratory System.....	10	.....	7	.....	17
Diseases of the Digestive System.....	12	.....	10	.....	22
Developmental Diseases.....	4	.....	0	.....	4
Diseases of the Nervous System.....	8	.....	5	.....	13
Principal Zymotic Diseases	4	.....	1	.....	5
General Diseases	1	.....	1	.....	2
Affections connected with Parturition.....	11	.....	9	.....	20
Inquests	2	.....	6	.....	8
Uncertified	3	.....	0	.....	3
Diseases of the Ear	1	.....	0	.....	1
	<u>56</u>		<u>39</u>		<u>95</u>

NOTIFICATION OF BIRTHS ACT, 1907.

Table showing the number of Births Notified during 1910—

	Male	Female	Total	Stillborn '
JANUARY.....	36	29	65	10
FEBRUARY.....	35	40	75	2
MARCH.....	45	32	77	6
APRIL.....	26	40	66	3
MAY.....	31	31	62	3
JUNE.....	28	44	72	4
JULY.....	42	24	66	1
AUGUST.....	29	31	60	6
SEPTEMBER.....	47	37	84	6
OCTOBER.....	35	26	61	4
NOVEMBER.....	26	36	62	3
DECEMBER.....	49	26	75	4
	<u>429</u>	<u>396</u>	<u>825</u>	<u>52</u>

Births Notified by Midwives	637
" " " Medical Men.....	78
" " " Parents.....	48
" " " Midwife and Medical Men.....	34
" " " Parents and Medical Men.....	11
" " " Parents and Midwife.....	13
" " " Other Persons	4
Total.....	<u>825</u>

All the births were notified with the exception of 7 or 0.8% of the total.

Legal proceedings were instituted in 2 cases against the offenders, a fine of 7s. 6d. (including costs), being imposed in each case.

INFANT FEEDING.—The table showing the causes of death, the method of feeding, with the occupation of the mothers, and the period when she gave up work, is a very instructive one. If we eliminate those cases where deaths took place from chest affections, and take only gastric complaints, we find that breast and bottle fed infants are pretty well mixed up, at least all the deaths do not occur among the latter class. To my mind too much stress is laid on the value of breast-fed infants. Taking into account the occupation in mills of these mothers, and the difficulty, if not impossibility, of feeding their babies at proper periods, with the fact that irregular lactation influences adversely the quality of mothers milk. It seems to me we do not advise our mothers wisely, in fact it seems to me we can secure a more regular quality of milk, and one not subjected to the emotional influences of neurotic mothers, and therefore more suited to the growing infant than even the much vaunted breast milk.



Deaths of Infants during 1910, with

No.	Date of Death	Age	Cause of Death	How fed	Kind of food given
1	Nov. 30th	25 days	Pertussis Convulsions	Breast	Milk and Water for 3 months, 4th and 5th month Moseley's Food, then Milk only.
2	Dec. 4th	8 months	Lobar Pneumonia Cardiac Failure	Bottle (boat shaped)	
3	Dec. 8th	1 month	Acute Bronchitis	Breast	All milk Milk & Water with Brandy Milk and Water. After 7 months, Bread and Butter, Tea, etc.
4	" 16th	7 months	Broncho Pneumonia	Bottle	
5	" 22nd	20 days	Premature Birth	Spoon	
6	" 25th	3 days	Premature Birth	Bottle	
7	" 29th	10 months	Acute Bronchitis	Breast	
8	" 31st	1 day	Prematurity	Bottle (long tube)	Milk and water
9	Jan. 2nd	4 months	Gastritis		
10	" 4th	4 hours	Prematurity	Bottle (long tube)	Milk and Water.
11	" 4th	11 months	Convulsions, Epileptic 2 months		
12	" 6th	9 months	Acute Bronchitis	Bottle	Milk and Water
13	" 14th	10 days	Enteritis Convulsions	Breast	Equal parts—Milk and Water
14	" 18th	3 months	Whooping Cough, Bronchitis	Breast and Bottle	
15	" 20th	1 month	Vomiting and Diarrhoea	Bottle (boat shape)	Milk and Water
16	" 22nd	6 days	Premature Birth	Breast and Spoon	Milk and Water
17	" 31st	3 hours	Premature Birth	Bottle (boat shape)	All milk
18	Feb 6th	5 months	Pertussis, Convulsions		
19	" 9th	10 days	Gastritis, Jaundice	Breast	Milk 1 part, Barley Water 3 parts
20	" 12th	6 months	Convulsions	Bottle (boat shape)	
21	" 28th	12 days	Gastritis	Bottle (boat shape)	Milk and water. 2nd month, Milk & Barley Water
22	Mar. 2nd	2 months	Convulsions	Breast, 1 month	
23	" 15th	60 hours	Accidentally suffocated	Breast	Milk and Water
24	" 26th	9 months	Gastro Enteritis Convulsions	Bottle (long tube)	
25	" 2nd	1 month	Diarrhoea	Bottle (boat shape)	Milk and Water.
26	" 16th	20 min.	Premature Birth	Breast	At 8 months, Milk and Barley Water, then all milk
27	" 19th	11 mths	Bronchitis, Convulsions		
28	" 31th	5 months	Hydrocephalic Convulsions	Breast	Milk and Water
29	April 5th	3 days	Congenital Debility		
30	" 4th	4 months	Diarrhoea, Convulsions	Bottle (long tube)	Milk and Water. Cream, Milk and Water
31	" 6th	1 month	Broncho Pnuemonia	Bottle (boat shaped)	
32	" 15th	17 days	Apthons Stomatitis 4 days exhaustion	Bottle	Milk and Water, later Mellin's Food made with water
33	" 12th	7 months	Convulsions	Bottle (boat shape)	
34	" 22nd	11 months	Convulsions	Bottle (boat shape)	Milk and Water Savoury & More's Food with condensed milk
35	May 8th	7 months	Convulsions	Bottle (boat shape)	
36	" 3rd	4 months	Acute Capillary Bronchitis	Bottle (boat shaped)	Sterilised Milk and Water Neaves Food, for a short time

Cause of Death, Method of Feeding, &c.

Mother's work	Ceased working	Commenced working	Remarks
Housewife Housewife			
Housewife Charwoman Housewife Weaver	1 month before	After Baby died	
Housewife	1 month before	7 months after	
Weaver	4 months before	1 month after	
Washerwoman Weaver Weaver	2 months before Day before	After Baby died 6 weeks after	
Housewife Weaver	A week before	Not since	Had three previous premature births, all died
Weaver Housewife Housewife	Two weeks before	After Baby died	Mother has only one arm, goes out cleaning sometimes Mother had a fit during labour
Housewife Weaver	1 month before	After baby died	
Weaver Weaver	4 months before Day before	After Baby died 1 month after	
Housewife			Mother untidy and dirty, house dirty Illegitimate
Weaver	3 months before	8 months after	Baby began to be ill soon after being put out to nurse
Weaver	1 month after	After Baby died	
Mill-hand	1 month before	3 months after	Baby became ill soon after mother went to mill
Weaver Weaver	3 months before Not working	After Baby died After Baby died	
Housewife			4th child, only one living
Weaver Weaver	3 months before Day before	4 months after 2 months after	
Housewife			

Deaths of Infants during 1910, with Cause

No.	Date of Death	Age	Cause of Death	How fed	Kind of food given
37	„ 8th	4 months	Broncho Pneumonia	Bottle (boat shaped)	Milk and Water
38	„ 9th	2 days	Prematurity		
39	„ 14th	19 days	Septic Hæmatoma of Scalp		
40	„ 15th	6 months	Pneumonia	Bottle (long tube)	Milk and Water
41	„ 19th	7 months	Broncho Pneumonia	Breast, 4 months Bottle	Fairechild's Peptagenie Milk Powder
42	„ 27th	21 hours	Premature Birth		
43	„ 29th	5 hours	Immaturity (7 months)		
44	„ 22nd	1 hour	Immaturity (6½ months)		
45	June 2nd	11 days	Prematurity		
46	„ 4th	6 months	Broncho Pneumonia		
			Meningitis		
47	„ 13th	3 months	Enteritis, Convulsions	Bottle (boat shape)	Savourey and Moore's Food for short time, then Allenbury's Milk and Barley Water.
48	„ 19th	7 months	Whooping Cough, Broncho-Pneumonia, Convulsions	Bottle	
49	June 16th	1 month	Inanition	Breast	
50	„ 25th	6 hours	Prematurity		
51	„ 31st	20 days	Colitis	Spoon	Milk, Lime Water and Brown Sugar
52	„ 1st	10 months	Convulsions	Breast	After 7 months, bread and butter, lightly boiled egg, etc., as well
53	July 5th	2 days	Premature Birth		
54	„ 10th	4 days	Gastritis		
55	„ 13th	11 hours	Premature Birth		
56	„ 12th	6 months	Gastro-Enteritis, Convulsions	Bottle (long tube)	Milk and Barley Water
57	„ 10th	3 months	Accidentally suffocated	Breast and Bottle	Milk and Water
58	„ 10th	3 weeks	Natural cause, namely—congestion of stomach from undigested food	Bottle (boat shape)	All Milk (cold).
59	„ 14th	4 days	Premature Birth		
60	„ 18th	1 day	Premature birth		
61	„ 18th	6 months	Acute Bronchitis	Breast Bottle	till 4 months Milk
62	„ 21st	26 days	Gastritis	Bottle (glass tubing)	Milk and Barley water
63	„ 23rd	4 months	Acute Bronchitis	Bottle	Milk and Water
64	„ 25th	19 hours	Congenital Debility		
65	„ 28th	4 months	Convulsions	Breast	
66	Aug. 1st	23 days	Convulsions, Syncope	Bottle	Milk and Water
67	„ 1st	8 months	Broncho-Pneumonia	Bottle (boat shape)	Milk and Water
			Convulsions		
68	„ 11th	2 months	Vomiting and Diarrhœa	Breast Bottle (long tube)	for 6 weeks. Sterylised Milk and Lime water. Milk and Water
69	Sept. 11th	16 days	Difficult Labour	Bottle	
70	„ 11th	1 day	Prematurity		
71	„ 19th	29 days	Internal Hemorrhage	Breast	

of Death, Method of Feeding, etc.—continued.

Mother's Week.	Ceased Working.	Commenced Working.	Remarks.
Housewife			
Weaver	3 weeks before	1 month after	Baby well nourished, died suddenly
Housewife			
Housewife			Doctor in attendance every day from birth
Weaver	Day before confinement	1 month after	
Housewife			Mother ill with Acute Bronchitis shortly before confinement
Housewife			
Housewife			Other children fed the same, out of 11 only one other died. The rest well and strong
Weaver	Week before confinement	3 months after	Illegitimate. Mother very poor
Weaver			Breast fed 4 times a day, and bottle 3 times a day
Weaver	1 week before confinement	Not since	Mother has Chronic Bronchitis, had 7 children, only one living, all fed at breast
Weaver	4 months before confinement	Not since	
Housewife			
Weaver	1 month before confinement	After Baby died	Baby started convulsions soon after vaccination, and had them more or less till death
Weaver	2 weeks before confinement	After Baby died	
Housewife			Mother says baby never cried properly
Weaver		6th week after	
Mill-hand			
Housewife			

Deaths of Infants during 1910, with Cause

No.	Date of Death	Age	Cause of Death	How fed	Kind of food given
72	Oct. 2nd	18 days	Premature Birth	Breast	Taylor's Malted Milk.
73	" 1st	7 days	Convulsions		
74	" 7th	22 days	Spina Bifidia, Convulsions		
75	" 22nd	2 months	Broncho Pneumonia	Bottle (long tube)	1 part milk (boiled),
76	" 27th	9 months	Dentition, Convulsions	Bottle (long tube)	Milk and Barley water
77	" 31st	5 months	Broncho Pneumonia	Bottle (boat shape)	
78	Nov. 9th	11 months	Acute Broncho Pneumonia	Breast	Milk and Barley Water.
79	Oct. 26th	11 months	Dentition, Acute Bronchitis	Breast for 6 weeks	
80	Nov. 14th	1 month	General Catarrh, Strangulated Hernia	Bottle	Milk and Water at 5 months Neaves food
81	" 21st	2 days	Prematurity, Abnormal Labour		
82	" 20th	8 weeks	Found dead in bed, convulsions brought on by overloaded stomach and want of air	Bottle (long tube)	Milk and Water.
83	" 22nd	26 days	Bronchitis	Breast	



of the Death, Method of Feeding, etc.—continued.

Mother's Work.	Ceased Working.	Commenced Working.	Remarks.
Housewife			Weighed 20lbs. at 5 months, seldom cried
Housewife			
Weaver	3 months before	Working occasionally	
Weaver	3 weeks before	1 month after	
Housewife			
Weaver		6 weeks after	
	1 month before	1 month after	
Mill-hand		Not since	



FACTORIES AND WORKSHOPS.

Have all been regularly inspected by the Inspectors. I have paid many surprise visits to these places with good results. One Bakehouse has been closed as unsuitable, and a new one provided in its place. A point to be mentioned in this place is as follows :—Unless constantly supervised these places are apt to be neglected and to become insanitary. This should not be where the principal food of the nation is prepared. We have noticed several times the men smoking during working hours. This should not be allowed.

These wholesale bakers take the bread round to the shops in carts, luries, and vans. Some are covered (they should all be), some take the bread out on luries in open baskets, exposed to the dust and winds of the heavens. More care is needed in both its production and its distribution.

Many improvements in Closet Accommodation have been effected.

The Factories have all been seen, and proper closet and urinal accommodation provided, according to Sec. 22, Public Health Acts (Amendment) Act, 1890.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1910, FOR THE BOROUGH OF DARWEN.

On the Administration of the Factory and Workshop Act, 1901, in connection with—

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES AND HOMEWORK.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors
of Nuisances.

Premises.	Number of Inspections.	Number of Written Notices.	Prosecutions.
Factories (Including Factory Laundries) ...	130	14	1
Workshops (Including Workshop Laundries.	738	42	.....
Workplaces (Other than Outworkers' premises included in Part 3 of this Report)	1	0	.....
Total.....	869	56	1

II.—DEFECTS FOUND.

Particulars.	Number of Defects.		
	Found.	Remedied.	Prosecutions.
NUISANCES UNDER PUBLIC HEALTH ACTS :—			
Want of Cleanliness.....	20	20	.....
Want of Ventilation.....	5	5	.....
Overcrowding.....	0	0	.....
Want of Drainage of floors.....	12	12	.....
Other Nuisances.....	15	15	.....
SANITARY ACCOMMODATION :—			
Insufficient.....	5	5	1
Unsuitable or Defective.....	16	15	.....
Not Separate for Sexes.....	3	3	.....
Total.....	76	75	1

III.—HOME WORK.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107											Inspections of Outworkers' premises	OUTWORK IN UN- WHOLESOME PREM- ISES, SECTION 108			OUTWORK IN IN- FECTED PREMISES SECTIONS 109, 110		
	Lists received from Employers						Addresses of Outworkers		Notices served on Occupiers as to keeping or sending lists	Prose- cutions			Instances	Notices served	Prosecutions	Instances	Orders made (S, 110)	Prosecutions (Sections 109, 110)
	Sending twice in the year			Sending once in the year			Received from other Councils	Forwarded to other Councils		Failing to keep or permit inspection of lists	Failing to send lists							
	Lists	Out- work'rs		Lists	Out- work'rs													
		Contractors	Workmen		Contractors	Workmen												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Wearing Apparel-- (1) making, &c.....	4	...	4	...	...	...	.....	1	...	.....	.....	8	.....	1	.....	.....	.....	.....

IV.—REGISTERED WORKSHOPS.

Total number of Workshops on Register..... 348

V.—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspector of Factories.....	8
Failure to Affix Abstract of the Factory and Workshop Acts (s. 133).....	2
Action taken in matters referred by H.M. Inspector as remedi- able under the Public Health Acts, but not under the Factory and Workshop Act (s. 5).....	15
Reports (of action taken) sent to H.M. Inspector.....	14
Other.....	10
Underground Bakehouses (s. 101) :—	
Certificates granted during the year.....	0
In use at the end of the year.....	7



GOVERNMENT TABLE I.

Vital Statistics of whole District during 1910 and previous years.
NAME OF DISTRICT—DARWEN.

YEAR.	Population estimated to Middle of Year.	Births.		Total Deaths Registered in the District.				Total. Deaths. in Public Institu- tions in the District	Deaths of Non- residents registered in Public Institu- tions in the District	Deaths of Residents in Public Institu- tions beyond the District	Net Deaths at all Ages belonging to the District	
		Number.	Rate*	Under 1 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
1900	38,600	980	25.38	188	191	789	20.44	Nil.	Nil.	...	789	20.44
1901	38,212	858	22.45	145	168	620	16.22	Nil.	Nil.	...	620	16.22
1902	38,712	891	23.01	135	151	569	14.69	Nil.	Nil.	...	569	14.69
1903	39,114	941	24.05	117	124	496	12.68	Nil.	Nil.	5	501	12.80
1904	39,516	820	20.75	123	150	597	15.10	Nil.	Nil.	9	606	15.33
1905	39,918	818	20.49	118	144	549	13.75	Nil.	Nil.	13	562	14.07
1906	41,164	811	19.70	111	136	513	12.46	Nil.	Nil.	27	540	13.11
1907	41,864	876	20.92	101	115	506	12.08	Nil.	Nil.	21	527	12.58
1908	42,266	895	21.17	105	117	503	11.90	Nil.	Nil.	47	550	13.01
1909	42,668	816	19.12	102	125	564	13.22	Nil.	Nil.	52	616	14.44
Averages. for years 1900-1909	40,203	871	21.70	125	142	571	14.25	Nil.	Nil.	25	588	14.67
1910	43,000	776	18.05	95	122	519	12.07	Nil.	Nil.	54	573	13.33

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

Area of District in acres (inclusive of area covered by water 5,919

Total Population at all ages 38,212

Number of Inhabited Houses 8,432

Average number of Persons per House 4.5

54 Residents died in public institutions beyond the District.

Institutions outside the District receiving Sick and Infirm persons from this District :—

Blackburn Infirmary and Workhouse.

Lancaster County Lunatic Asylum.

Children's Hospital, Manchester.

Royal Infirmary, Manchester.

Royal Infirmary, Preston.

Union Workhouse, Leigh.

Vital Statistics of Separate Localities in 1910 and previous years.

NAME OF DISTRICT--DARWEN.

Names of Localities.	1 Central Ward.				2 West Central. Ward.				3 North-East. Ward.				4 North-West Ward.				5 South-East Ward.				6 South-West Ward.				7 Borough.			
	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all Ages	Deaths under 1 Year.	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all Ages	Deaths under 1 Year.	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all Ages	Deaths under 1 Year.	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all Ages	Deaths under 1 Year.	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all Ages	Deaths under 1 Year.	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all Ages	Deaths under 1 Year.	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all Ages	Deaths under 1 Year.
YEAR.																												
1900...	7168	160	149	36	3992	109	69	20	9017	223	193	53	5357	141	113	24	6239	158	125	25	6827	184	140	30	38600	980	789	188
1901...	6919	154	124	28	3860	77	67	13	9079	225	129	36	4984	101	85	21	6500	153	120	23	6870	148	95	24	38212	858	620	145
1902...	7006	174	92	24	3866	74	61	10	9273	226	131	33	4999	107	68	13	6591	138	93	24	6977	172	121	30	38712	891	569	135
1903...	7076	186	100	29	3872	83	54	13	9428	248	110	29	5011	100	65	16	6664	159	79	15	7063	165	93	15	39114	941	501	117
1904...	7145	138	102	21	3878	73	59	7	9583	215	139	27	5023	128	103	22	6737	134	97	26	7150	132	103	20	39516	820	606	123
1905...	7214	129	96	22	3884	90	55	13	9738	229	129	35	5035	103	84	11	6810	123	105	17	7237	144	93	20	39918	818	562	118
1906...	7539	145	86	17	4050	78	52	14	9754	206	143	33	5640	112	66	7	6868	120	86	19	7304	150	107	21	41164	811	540	111
1907...	7660	124	98	19	4061	96	51	15	10024	222	123	35	5670	134	89	11	6995	144	76	5	7454	156	90	19	41864	876	527	104
1908...	7730	137	91	14	4067	84	54	11	10179	233	137	31	5682	133	87	14	7068	165	80	17	7540	143	101	20	42266	895	550	107
1909...	7800	139	98	20	4073	89	74	16	10334	194	116	21	5694	121	101	14	7141	140	109	16	7626	133	118	17	42668	816	616	104
Averages of years 1900 to 1909.	7326	149	104	23	3960	85	60	13	9641	222	135	33	5310	118	86	15	6761	143	97	19	7205	153	106	22	40203	871	588	125
1910...	7858	116	118	18	4079	83	66	14	10454	215	122	20	5706	129	82	13	7202	128	83	14	7701	105	102	16	43000	776	573	95

GOVERNMENT TABLE III.

Cases of Infectious Diseases notified during the year 1910.

NAME OF DISTRICT—DARWEN.

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	Deaths in Hospital of Patients removed from this District
	At all Ages.	At Ages—Years.					1 Cent'l Ward.	2 West. Cent'l	3 No'th- East	4 No'th- West	5 So'th- East	6 So'th- West	1 Cent'l Ward.	2 West- Cent'l	3 No'th- East	4 No'th- West	5 So'th- East	6 So'th- West (H)		
		Un- der 1	1 to 5	5 to 15	15 to 25	25 to 65 and up's														
Small Pox.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup.	18	3	11	2	2	3	3	2	2	5	3	...	...	...	...	...	...	...	...	...
Erysipelas.....	32	...	2	28	2	4	4	12	7	4	1	...	...	...	...	...	...	...	...	...
Scarlet Fever	123	49	61	9	4	10	24	44	18	12	15	5	17	28	8	7	3	68	2	...
Typhus Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever.....	12	...	3	2	7	1	3	2	4	2	...	...	2	...	2	1	...	5	1	...
Relapsing Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	4	...	...	2	2	2	...	1	...	1	...	...	...	...	...	...	...	...	...	...
Plague.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis	5	...	...	...	5	...	...	...	2	2	1	...	...	...	...	...	...	...	...	...
Totals.....	194	52	77	15	48	2	20	34	61	33	26	20	5	19	28	10	8	3	73	3

ISOLATION HOSPITAL—BULL HILL, DARWEN.

Total Available Beds—20 and 4 Cots for Scarlet Fever; 8 for Typhoid Fever; 2 for Small Pox.

Number of Diseases that can be concurrently treated—Scarlet Fever, Typhoid Fever, and Small Pox.

GOVERNMENT TABLE IV.

Causes of, and Ages at, Death during year 1910.

NAME OF DISTRICT—DARWEN.

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Deaths at all ages of "Resi- dents" belonging to Local- ities whether occurring in or beyond the District.					
	All Ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Central Ward	West-Central Ward	North-East Ward	North West Ward	South-East Ward	South-West Ward
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Small Pox.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever.....	4	...	3	1	...	...	...	1	2	...	...	...	1
Whooping-Cough.....	4	3	1	...	...	...	...	...	...	1	1	1	1
Diphtheria (including Membranous Croup.....	5	...	1	4	...	...	...	1	...	...	...	3	1
Croup.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever { Typhus.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric.....	6	...	...	1	2	3	...	1	1	3	1	...	...
Other continued.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza.....	6	...	...	...	1	4	1	3	...	1	1	...	1
Cholera.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea.....	3	2	...	...	...	1	...	...	...	1	...	1	1
Enteritis.....	8	5	1	...	...	1	1	...	...	2	3	1	2
Gastritis.....	12	5	1	...	...	3	3	4	1	1	3	1	2
Puerperal Fever.....	2	...	...	...	2	...	...	...	...	...	...	1	1
Erysipelas.....	3	...	...	...	...	3	...	...	...	2	1	...	...
Phthisis (Pulmonary Tuberculosis)	24	...	...	...	6	16	2	5	3	2	6	2	6
Other Tuberculous Diseases.....	10	1	4	3	1	1	...	2	...	3	1	2	2
Cancer, Malignant Disease.....	39	...	...	...	...	25	14	6	4	9	9	6	5
Bronchitis.....	49	7	3	...	...	16	23	7	8	10	8	8	8
Pneumonia.....	51	10	12	2	2	19	6	11	6	12	5	9	8
Pleurisy.....	6	...	...	...	1	4	1	...	...	3	1	...	2
Other Diseases of Respiratory Organs.....	9	...	1	1	...	4	3	3	...	2	2	...	2
Alcoholism—Cirrhosis of Liver ...	3	...	...	...	...	3	...	...	2	...	...	1	...
Veneral Diseases.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Premature Birth.....	19	19	...	...	...	...	...	6	2	5	3	1	2
Diseases and accidents of Parturition.....	8	1	...	...	1	6	...	1	3	1	1	1	1
Heart Diseases.....	48	...	...	4	8	21	15	11	7	10	5	5	10
Accidents.....	14	...	1	...	1	10	2	3	...	4	3	3	1
Suicides.....	5	...	...	...	...	5	...	1	...	1	2	...	1
All Other Causes.....	235	42	8	9	10	84	82	52	27	49	26	37	44
All Causes.....	573	95	36	25	35	229	153	118	66	122	82	83	102

Deaths of Children at School, Ages for the last thirteen years.

	3 to 4		4 to 5		5 to 6		6 to 7		7 to 8		8 to 9		9 to 10		10 to 11		11 to 12		12 to 13		Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1898	2	5	6	4	7	...	1	...	1	2	...	1	...	...	1	1	1	1	1	1	20	15
1899	3	2	7	5	3	4	1	3	1	1	4	1	...	2	1	1	...	1	...	...	17	23
1900	9	14	12	2	3	9	4	3	1	6	2	2	...	3	...	1	1	1	4	1	36	44
1901	10	7	7	6	2	4	2	3	3	2	2	2	1	5	1	3	1	1	1	...	30	33
1902	6	5	3	4	2	1	3	...	...	4	1	1	5	...	1	1	1	1	2	...	24	17
1903	1	1	1	4	1	1	3	...	1	...	1	2	...	2	...	3	...	...	...	...	8	13
1904	13	8	7	2	3	1	1	6	1	3	2	3	2	4	...	...	2	...	1	1	32	28
1905	7	2	2	2	1	4	1	6	...	1	6	...	2	...	1	...	2	1	...	...	22	16
1906	1	3	4	5	...	...	1	1	1	2	...	...	1	...	...	...	2	2	...	2	13	15
1907	5	2	1	1	1	3	...	...	...	...	1	1	3	1	1	...	...	3	3	...	14	11
1908	4	2	...	1	...	...	1	1	1	3	1	1	3	...	...	...	...	1	2	...	12	9
1909	4	5	...	1	3	3	1	3	2	1	2	1	...	1	2	...	...	2	1	1	15	18
1910	1	4	2	2	1	1	2	6	1	3	...	...	...	2	...	...	2	2	2	...	11	20

Estimated Population, Number of Deaths, and Death-rates from all Causes,
from Zymotic Diseases, of Children under 1 Year, and Persons
of 60 years and upwards, during the last 20 years.

YEAR.	Estimated Population at Middle of Year.	Total Deaths from all causes	Death Rate per 1,000 of Population.	Total Deaths from Seven Principal Zymotic Diseases	Death Rate from Zymotic Diseases per 1,000 of Population.	Total Deaths under 1 Year of Age.	Percentage of Deaths under 1 Year to Total Deaths.	Total Deaths of Persons 60 Years and Upwards.	Percentage of Deaths of Persons Aged. Persons to Total Deaths.
1891	34,192	660	19.30	60	1.75	168	25.4	126	19.0
1892	35,000	641	18.31	67	1.91	177	27.6	105	16.3
1893	35,500	677	19.07	79	2.22	184	27.1	141	20.8
1894	36,000	542	15.05	40	1.11	130	23.9	107	19.7
1895	36,000	640	17.77	77	2.13	179	27.9	124	19.3
1896	36,652	627	17.10	81	2.20	187	29.8	132	21.0
1897	37,500	651	17.36	63	1.68	182	27.9	135	20.7
1898	37,500	632	16.85	78	2.08	199	31.4	131	20.7
1899	37,900	647	17.07	89	2.34	200	30.9	119	18.3
1900	38,600	789	20.44	112	2.90	188	23.8	183	23.1
1901	38,212	620	16.22	82	2.14	145	23.3	156	25.1
1902	38,712	569	14.69	40	1.03	134	23.7	143	25.1
1903	39,114	501	12.80	30	0.76	117	23.3	147	29.3
1904	39,516	606	15.33	107	2.70	123	20.2	149	24.5
1905	39,918	562	14.07	40	1.00	118	20.9	65 and up'ds 106	18.8
1906	41,164	540	13.11	47	1.14	111	20.5	125	23.1
1907	41,864	527	12.58	29	0.69	104	19.7	110	20.8
1908	42,266	550	13.01	32	0.76	107	19.5	131	23.8
1909	42,668	616	14.44	47	1.10	104	16.8	140	22.7
1910	43,000	573	13.33	22	0.51	95	16.6	153	26.7

Deaths during the Twenty Years, 1891 to 1910 inclusive, of Children under 5 years.

UNDER 5 YEARS OF AGE.																				
	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Smallpox.....	21	...	25	...	41	14	28	25	8	42	7	3	12	27	3	17	1	...	22	...
Measles.....	2	13	7	2	2	5	2	1	15	7	8	5	...	10	14	3	...	1	1	3
Scarlet Fever.....	1	...	4	2	...	2	1	1	4	18	19	12	4	6	1	...	2	2	...	1
Diphtheria.....	2	26	2	17	3	26	9	...	15	8	11	...	8	28	...	1	11	4	14	4
Whooping Cough.....	17	17	13	1	10	2	1	3	2	10	5	1	...	...	...	...	...	...	...	...
Croup.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fevers :—																				
Typhus.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhoid.....	2	2	...	...	...	...	...	...	...	...	1	...	1	2	...	...	...	...	...	...
Others.....	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea and Dysentery.....	10	5	20	6	18	17	11	42	25	11	14	4	1	9	3	21	4	15	2	2
Cholera.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rheumatic Fever.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas.....	1	1	1	...	2	2	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Pyæmia.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ague.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis.....	...	...	1	...	...	1	...	...	...	3	...	...	...	4	1	...	1	...	...	...
Bronchitis, Pneumonia, and Pleurisy.....	68	63	84	49	51	82	64	58	67	73	59	52	41	50	44	51	59	23	52	32
Heart Disease.....	1	...	...	...	1	...	...	1	4	1	3	1	1	1	2	1	1	...	2	...
Injuries.....	4	3	1	...	5	2	3	4	4	6	4	...	3	...	5	1	1	1	2	1
All other Diseases.....	153	133	126	118	138	153	150	143	145	163	114	106	97	96	106	81	74	94	72	88

Deaths during the Twenty Years, 1891 to 1910 inclusive, of Persons 5 years and upwards.

	5 YEARS AND UPWARDS.																			
	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Smallpox.....	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...
Measles.....	3	...	2	...	...	...	...	2	...	2	...	2	1	2	1	...	...	...	...	...
Scarlet Fever.....	...	5	3	2	...	...	2	...	7	4	6	4	...	12	7	...	...	1	1	...
Diphtheria.....	...	...	1	...	...	...	1	...	1	14	10	7	...	1	2	1	3	...	1	4
Whooping Cough.....	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	2	...	...	...
Croup.....	3	4	10	2	1	2	1	3	1	3	2	1	...	...	...	...	...	...	...	...
Continued Fevers:—																				
Typhus.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhoid.....	10	8	7	...	10	8	7	6	12	4	3	8	...	6	3	4	4	8	5	6
Others.....	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Diarrhea and Dysentery.....	2	3	7	...	3	...	...	2	2	2	3	1	...	...	8	...	1	1	1	1
Cholera.....	1	...	...	...	...	...	5	7	2	2	1	...	3	...	...	3	3	...	...	...
Rheumatic Fever.....	...	1	...	...	3	2	2	...	1	2	...	...	...	...	...	1	...	...	1	3
Erysipelas.....	2	1	...	1	...	1	2	...	1	2	...	...	...	...	1	1	...	...	...	3
Pyæmia.....	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal.....	...	...	1	3	5	5	3	5	1	1	...	1	1	3	3	2	...	1	3	2
Ague.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis.....	22	40	44	44	38	28	27	28	31	27	29	...	22	34	35	19	34	25	35	24
Bronchitis, Pneumonia, and Pleurisy.....	119	93	82	52	72	53	93	60	65	89	72	70	53	53	56	75	51	44	76	74
Heart Disease.....	27	35	57	47	43	37	35	47	55	53	55	...	57	53	56	63	53	52	56	48
Injuries.....	15	15	13	5	20	15	9	4	6	4	7	1	4	...	6	4	6	7	14	13
All other Diseases.....	171	170	168	180	163	184	197	189	172	250	157	281	192	208	200	192	216	268	256	263

INFECTIOUS DISEASES NOTIFIED.

TOWNS.	Small Pox.		Scarlet Fever.		Diphtheria.		FEVERS.										Cholera.		Erysipelas.	
							Typhus.		Typhoid.		Continued.		Relapsing.		Puerperal.					
	Num-ber.	Rate per 1000	Num-ber.	Rate per 1000	Num-ber.	Rate per 1000	Num-ber.	Rate per 1000	Num-ber.	Rate per 1000	Num-ber.	Rate per 1000	Num-ber.	Rate per 1000	Num-ber.	Rate per 1000	Num-ber.	Rate per 1000	Num-ber.	Rate per 1000
1. Hyde .....	...	...	32	0.98	7	0.21	...	...	12	0.37	...	...	...	...	3	0.09	...	...	37	1.13
2. Stockport .....	...	...	198	2.13	49	0.52	...	...	19	0.20	...	...	...	...	5	0.05	...	...	58	0.62
3. Macclesfield .....	...	...	283	3.17	16	0.46	...	...	15	0.43	...	...	...	...	4	0.11	...	...	16	0.46
4. Crewe .....	...	...	154	3.66	288	6.84	...	...	11	0.26	...	...	...	...	2	0.05	...	...	20	0.48
5. Chester .....	...	...	183	4.78	63	1.64	...	...	3	0.08	...	...	...	...	5	0.13	...	...	14	0.37
6. Birkenhead	7	0.06	292	2.63	139	1.25	...	...	31	0.28	...	...	1	0.01	5	0.04	...	...	89	0.80
7. Wallasey	6	0.11	331	6.18	45	0.84	...	...	15	0.28	...	...	...	...	4	0.07	...	...	31	0.58
8. Bootle .....	...	...	288	4.78	55	0.91	...	...	12	0.20	...	...	...	...	2	0.03	...	...	26	0.43
9. Liverpool	8	0.01	4182	5.94	1017	1.44	10	0.01	292	0.29	1	0.00	...	...	44	0.06	...	...	796	1.13
10. Waterloo-with-Seaforth .....	...	...	103	4.46	28	1.21	...	...	11	0.48	...	...	...	...	...	...	...	...	23	0.99
11. St. Helens	1	0.01	717	8.49	121	1.43	...	...	74	0.88	...	...	...	...	4	0.05	...	...	100	1.18
12. Widnes .....	...	...	169	5.91	9	0.31	...	...	34	1.19	...	...	...	...	...	...	...	...	5	0.17
13. Southport .....	...	...	89	1.85	22	0.45	...	...	7	0.15	...	...	...	...	3	0.06	...	...	22	0.45
14. Hindley .....	...	...	93	3.96	25	1.06	...	...	14	0.59	...	...	...	...	2	0.08	...	...	14	0.59
15. Ince-in-Makerfield .....	...	...	86	4.04	22	1.03	...	...	10	0.47	...	...	...	...	...	...	...	...	22	1.03
16. Wigan .....	...	...	395	4.79	38	0.46	...	...	129	1.56	...	...	...	...	3	0.04	...	...	69	0.84
17. Warrington .....	...	...	140	2.18	107	1.67	...	...	41	0.64	...	...	...	...	18	0.28	...	...	49	0.76
18. Leigh .....	...	...	246	6.15	40	1.00	...	...	18	0.45	...	...	...	...	4	0.10	...	...	45	1.12
19. Bolton .....	...	...	906	5.39	106	0.63	...	...	70	0.42	1	0.01	...	...	8	0.05	...	...	91	0.54
20. Farnworth .....	...	...	168	6.48	6	0.23	...	...	24	0.93	...	...	...	...	1	0.04	...	...	20	0.77
21. Bury .....	...	...	569	9.81	44	0.76	...	...	17	0.29	...	...	...	...	4	0.07	...	...	39	0.67
22. Heywood	7	0.27	119	4.67	4	0.16	...	...	2	0.08	...	...	...	...	4	0.16	...	...	14	0.55
23. Radcliffe .....	...	...	140	5.52	14	0.55	...	...	13	0.51	...	...	...	...	2	0.08	...	...	28	1.10
24. Eccles .....	...	...	64	1.86	27	0.79	...	...	180	5.24	...	...	...	...	2	0.06	...	...	22	0.64
25. Stretford .....	...	...	227	7.45	95	3.12	...	...	16	0.52	...	...	...	...	2	0.07	...	...	12	0.39
26. Swinton and Pendlebury .....	...	...	111	4.11	24	0.89	...	...	30	1.11	1	0.04	...	...	...	...	...	...	45	1.67
27. Manchester .....	...	...	2581	4.25	584	0.96	2	0.00	379	0.52	1	0.00	...	...	133	0.22	...	...	421	0.69
28. Salford .....	...	...	909	4.11	333	1.51	...	...	112	0.50	...	...	...	...	25	0.11	...	...	129	0.58
29. Ashton-under-Lyne .....	...	...	141	3.21	9	0.21	...	...	35	0.80	...	...	...	...	1	0.02	...	...	30	0.68
30. Stalybridge .....	...	...	76	2.75	9	0.33	...	...	17	0.61	...	...	...	...	...	...	...	...	10	0.36
31. Chadderton	5	0.20	147	5.91	11	0.44	...	...	9	0.36	...	...	...	...	...	...	...	...	5	0.20
32. Middleton .....	...	...	102	4.05	10	0.39	...	...	6	0.23	...	...	...	...	...	...	...	...	20	0.79
33. Oldham	2	0.01	217	1.58	50	0.36	...	...	23	0.17	...	...	...	...	14	0.10	...	...	83	0.60
34. Rochdale .....	...	...	306	3.68	27	0.32	...	...	17	0.20	...	...	...	...	5	0.06	...	...	47	0.57
35. Accrington .....	...	...	82	1.90	14	0.32	...	...	22	0.51	...	...	...	...	2	0.04	...	...	34	0.79
36. Bacup .....	...	...	89	3.95	17	0.76	...	...	3	0.13	...	...	...	...	1	0.04	...	...	21	0.93
37. Haslingden .....	...	...	105	5.66	7	0.38	...	...	14	0.76	...	...	...	...	2	0.11	...	...	20	1.08
38. Rawtenstall .....	...	...	133	4.28	22	0.71	...	...	1	0.03	...	...	...	...	2	0.06	...	...	31	1.00
39. Burnley	1	0.01	413	4.26	91	0.94	...	...	32	0.33	...	...	...	...	15	0.15	...	...	107	1.10
40. Colne	9	0.39	103	4.48	11	0.47	...	...	7	0.34	...	...	...	...	4	0.17	...	...	17	0.74
41. Nelson .....	...	...	94	2.86	12	0.36	...	...	10	0.30	...	...	...	...	...	...	...	...	16	0.49
42. Blackburn	1	0.00	795	6.15	96	0.74	...	...	46	0.35	...	...	...	...	10	0.07	...	...	89	0.69
43. Chorley .....	...	...	83	3.09	17	0.63	...	...	8	0.29	...	...	...	...	2	0.08	...	...	11	0.49
44. Preston .....	...	...	336	3.24	117	1.04	...	...	118	1.04	1	0.01	...	...	7	0.06	...	...	85	0.75
45. Blackpool .....	...	...	182	3.84	44	0.93	...	...	12	0.25	...	...	...	...	7	0.15	...	...	21	0.44
46. Fleetwood .....	...	...	43	3.56	23	1.89	...	...	2	0.17	...	...	...	...	...	...	...	...	2	0.17
47. Lancaster	1	0.02	177	4.39	31	0.76	...	...	26	0.64	...	...	...	...	6	0.15	...	...	32	0.79
48. Barrow-in-Furness .....	...	...	316	5.49	121	2.10	...	...	14	0.24	...	...	...	...	5	0.09	...	...	57	0.99
49. Darwen .....	...	...	123	3.22	18	0.47	...	...	12	0.31	...	...	...	...	4	0.10	...	...	32	0.84

STATISTICS FROM LANCASHIRE LARGE TOWNS.

TOWN.	Estimated Population 1910.	Birth Rate (per 1,000).	Death Rate (Corrected).	Zymotic Death Rate.	Respiratory Death Rate.	Phthisis. Death Rate.	Death Rate from other Tubercular Diseases,	Infantile Death Rate per 1,000 births.	Cancer Death Rate.
Accrington	46,850	19.76	12.80	0.79	1.75	0.79	0.36	109	0.94
Ashton-under-Lyne	46,514	23.4	15.8	1.7	...	1.4	...	148	0.9
Blackburn	136,996	21.5	14.2	1.4	2.6	0.8	0.4	136	0.9
Blackpool	63,216	15.90	10.83	0.73	1.64	0.60	0.28	104	0.73
Bolton	190,315	23.0	13.4	1.02	2.79	1.02	0.31	116	0.78
Bootle	72,000	28.0	14.1	1.8	2.9	1.1	0.43	123	0.73
Burnley	107,448	24.9	16.2	2.54	3.13	1.01	0.52	168	0.82
Bury	59,409	20.79	14.61	1.06	2.27	1.23	0.33	124	0.71
Lancaster	44,270	20.63	12.53	0.76	2.00	0.88	0.42	137	0.56
Liverpool	767,606	30.0	17.4	2.2	3.8	1.3	0.4	139	0.9
Oldham	144,111	26.0	17.2	1.8	3.3	1.2	...	127	...
Rochdale	90,497	21.89	15.04	0.76	2.76	1.05	0.54	103	0.94
St. Helens	96,523	32.52	14.56	1.26	2.65	0.94	0.63	122	0.65
Southport	54,828	15.79	13.04	0.36	1.66	1.15	0.27	104	1.07
Warrington	73,580	30.2	14.5	1.2	2.1	1.07	0.65	113	0.78
Wigan	94,654	29.26	14.55	1.39	3.33	0.69	0.35	133	0.40
DARWEN	43,000	18.05	13.33	0.51	2.56	0.56	0.23	122	0.91

Table showing the Diseases and Age Periods at which Persons have Died.

DISEASES	Un- der 1 yr	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 65	65 and upwards		Total.	
	M F	M F	M F	M F	M F	M F	M F	M F		M F	
DIGESTIVE DISEASES.—											
Appendicitis.....				1 2			1	...	...	2	2
Appendix Abscess					1			...	...	1	...
Biliary Fistula.....								1	...	1	...
Cholecystitis.....							2	...	...	2	...
Cirrhosis of Liver						1	1	...	...	1	1
Colitis	1							...	...	1	...
Dentition	1 1							...	...	1	1
Dilated Stomach							1	...	...	1	...
Enteritis	3							...	...	3	...
Enteritis and Colitis							1	...	...	1	...
Gangrenous Appendicitis.....					1			...	...	1	...
Gastric Deficiency								1	...	1	...
Gastric Tetany							1	...	...	1	...
Gastric Ulcer						1	1	...	...	1	1
Gastritis	1 4	1					1 2	1 2	3	9	
Gastro Enteritis	1 1	1						1	...	3	1
Hepatic Congestion.....							1	...	...	1	...
Hyperemesis Gravidarum.....				1				...	...	1	...
Inanition	2 3	2						...	...	4	3
Inflammation of Liver Ducts							1	...	...	1	...
Intestinal Obstruction						1		1	...	2	...
Intussusception	1							...	...	1	...
Strangulated Hernia							1	...	...	1	...
Stomatitis.....	1							...	...	1	...
Ulcerative Appendicitis					1			...	...	1	...
Vomiting	1							...	...	1	...
Vomiting and Diarrhoea.....	1							...	...	1	...
	12 10	3 1	...	1 3	3	2 1	3 11	3	4	27	30
NEW GROWTHS.—											
Cancer of Bile Ducts								1	...	1	...
Cancer of Bladder								1	...	1	...
Cancer of Bowel							1	...	...	1	...
Cancer of Breast							5	...	...	5	...
Cancer of Cheek							1	...	...	1	...
Cancer of Gall Bladder.....							1	...	...	1	...
Cancer of Larynx							1	...	...	1	...
Cancer of Liver						1	1 1	1	2	2	...
Cancer of Neck							1	...	2	...	...
Cancer of Pancreas						1	1	...	1	1	...
Cancer of Parotid Gland							1	...	1	...	...
Cancer of Peritoneum								1	...	1	...
Cancer of Rectum							2 2	...	2	2	...
Cancer of Stomach						1	2	1 3	3	4	...
Cancer of Tongue and Submaxillary Glands.....							1	...	1	...	...
Cancer of Uteri						2	2	1	...	5	...
Ovariectomy								1	...	1	...
						1 4	8 12	6	8	15	24

Diseases and Age Periods at which Persons have Died.—Continued.

DISEASES	Under 1 yr		1 to 5		5 to 15		15 to 25		25 to 35		35 to 45		45 to 65		65 and upwards		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
RESPIRATORY DISEASES.—																		
Asthma													1	1	...		1	1
Bronchiectasis												1	...	...	1	1	1	1
Bronchitis	3	4	2	1							2	7	7	12	11	24	25	25
Broncho Pneumonia	7	3	8	3							1	...	...	...	...	15	7	7
Congestion of Lungs												1	...	...	...	1	...	...
Emphysema													1	...	...	1	...	...
Empyema								1	...	...	...	...	...	...	...	1	...	...
Laryngitis				1	...	1							...	...	...	...	2	2
Phthisis						1	5	4	1	5	1	2	3	1	1	13	11	11
Pleurisy						1	...	1	...	1	2	...	...	1	1	2	4	4
	10	7	10	5	...	1	2	5	5	2	5	4	12	13	15	14	59	51
GENERAL DISEASES.—																		
Alcoholism												1	...	...	...	1	...	...
Diabetes												1	2	...	3	1	5	5
General Catarrh	1	...	...	...									...	...	...	1	...	...
Lymphadenoma												1	...	...	...	...	1	...
Purpura .....													...	...	1	...	1	1
Rickets				1	...	...							...	...	...	...	1	1
Senile Decay												2	1	18	24	20	25	25
Septic Hæmatoma of Scalp		1	...	...								...	...	...	...	...	1	1
	1	1	...	1	...							4	4	18	28	23	34	34
NERVOUS DISEASES.—																		
Acute Meningitis				1	...	...							...	...	...	...	1	1
Apoplexy									1	1	2	5	7	7	8	13	18	18
Ataxia Paraplegia											1	...	...	...	...	1	...	...
Cerebellar Cyst						1	...	...					...	...	...	1	...	...
Cerebral Embolism							1	...		1	...	1	2	...	...	2	3	3
Convulsions	7	4	2	...									...	...	...	9	4	4
Dementia											1	...	...	...	...	...	1	1
Depressed Frontal Bone		1	...	...									...	...	...	...	1	1
Epilepsy			1	...					1	...			...	...	...	2	...	...
Hydrocephalus	1	...											...	...	...	1	...	...
Jacksonian Epilepsy					1	...							...	...	...	1	...	...
Locomotor Ataxia													1	...	...	1	...	...
Paralysis												1	1	...	...	1	1	1
Tumour of Cerebrum								2	...	...			...	...	...	2	...	...
	8	5	3	1	1	...	1	1	3	1	2	3	7	10	9	8	34	29
PRINCIPAL ZYMOTIC DISEASES.																		
Diarrhœa	2	...									1	...	...	...	...	2	1	1
Diphtheria				1	1	3	...	...					...	...	...	1	4	4
Scarlet Fever			1	2	...	1	...	...					...	...	...	1	3	3
Typhoid Fever					1	...	2	...	1	...	1	1	...	...	...	4	2	2
Whooping Cough	2	1	...	1	...								...	...	...	2	2	2
	4	1	1	4	2	4	2	...	1	...	2	1	...	...	...	10	12	12

Diseases and Age Periods at which Persons have Died.—Continued.

DISEASES	Un- der 1 yr	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 65	65 and upwards		Total.	
	M F	M F	M F	M F	M F	M F	M F	M	F	M	F
INFECTIOUS DISEASES.—											
Erysipelas						1	1	1	...	1	2
Influenza				1	...	1	2	1	...	3	3
Pneumonia		1	1	1	1	2	3	1	4	4	4
Rheumatic Fever			1	1	...	...	1	...	...	2	1
Septicæmia						1	...	...	...	...	1
Tabes Mesenterica.....		1	...	...	...	...	...	...	...	1	...
Tubercular Disease of Shoulder				1	...	...	...	...	...	1	...
Tubercular Meningitis		1	1	1	...	...	1	...	...	3	1
Tubercular Peritonitis				2	...	...	...	...	...	...	2
Tuberculosis			1	...	...	...	...	...	...	...	1
	...	2	3	3	4	2	2	2	3	2	6
								9	6	4	3
										24	27
CIRCULATORY DISEASES.—											
Angini Pectoris							1	...	...	1	...
Arterio Sclerosis							2	...	1	2	3
Calcification of Cardiac Vessels.....							...	...	1	...	1
Heart Disease			1	3	3	5	3	2	1	6	9
								5	10	20	28
			1	3	3	5	3	2	1	9	9
								6	13	24	31
DISEASES OF THE URINARY SYSTEM.—											
Bright's Disease			1	1	...	1	2	1	4	7	5
Cystitis .....								...	1	...	1
			1	1	...	1	2	1	4	7	5
								1	1	10	14
AFFECTIONS CONSEQUENT ON PARTURITION.—											
Puerperal Fever					2	...	...	...	...	...	2
Sloughing of Vagina						1	...	...	...	...	1
					2	1	...	...	...	...	3
AFFECTIONS CONNECTED WITH PARTURITION.—											
Difficult Labour	1	...	...	...	...	...	...	...	...	...	1
Childbirth						1	1	...	...	...	2
Parturition						2	1	...	...	...	3
Premature Birth	11	8	...	...	...	...	...	...	...	11	8
Septic Infection, Parturition				1	...	...	...	...	...	...	1
	11	9	...	...	1	3	2	...	...	11	15

Diseases and Age Periods at which Persons have Died.—Continued.

DISEASES	Un- der 1 yr	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 65	65 and upwards		Total.	
	M F	M F	M F	M F	M F	M F	M F	M	F	M	F
DISEASES OF THE EAR.—											
Middle Ear Disease	1		1	1	1					2	2
DEVELOPMENT DISEASES.—											
Congenital Debility	2									2	
Patent Foramen Ovale	1									1	
Spina Bifida	1									1	
...	4									4	
DISEASES OF THE ORGANS OF LOCOMOTION.—											
Gangrene of Foot									1		1
DISEASES OF THE GENERATIVE SYSTEM.—											
Enlarged Prostate							1	2		3	
AFFECTIONS CONNECTED WITH PREGNANCY.—											
Abortion				1	1						2
INQUESTS.	2	6	1	1	2	2	7	2		16	8
INJURIES		1		1	2		6	2	2	12	2
UNCERTIFIED.	3		1					2	3	5	4
SUICIDE							4	1		4	1
Totals	56	39	20	16	10	15	12	23	20	14	17
	27	78	73	70	83	283	290				
	95	36	25	35	34	44	151	153		573	

METEOROLOGY.

The Meteorological Observatory is at Bold Venture Park, in Lat. $53^{\circ} 41' 25''$ N. and Lon. $2^{\circ} 28' 32''$ W., and is at an altitude of 728 feet above mean sea level.

Observations are taken twice daily, at 9 a.m. and 9 p.m.

This station is connected with the Meteorological Office, and is called a Normal Climatological Station. Readings are sent daily, and a report giving all details is sent each month to the Meteorological Office, London.

The total rainfall for the year is 60.55 inches being recorded on 232 days. The average for the last four years being 55.10 inches. The greatest monthly fall was in August, 8.22 inches, and the lowest in September, 0.85 inches. The greatest daily fall was 1.80 inches, on January 15th.

The total sunshine registered on 277 days during the year was 1158.8 hours. The average for the last four years being 1144.3 hours. May registered the highest monthly total 185.7 hours, and December the lowest, 10.7 hours. The highest daily reading was 14.5 hours, on July 14th.

The mean maximum temperature in shade was 52.3° , the average for the last four years being 51.6° . The highest monthly mean was in June 64.8° , and the highest reading for the year was 78.0° on July 13th.

The mean minimum temperature in the shade was 40.1° , the average for the last four years being 39.6° . The lowest monthly mean was in January, 30.70° , and the lowest reading for the year, 12.6° , on January 26th.

The mean maximum temperature in the sun was 78.7° , the highest monthly mean being 97.7° in June, and the highest reading for the year was 110.6° on August 14th.

The mean minimum temperature on grass was 37.5° , the average for the last three years being 36.9° . The lowest monthly mean was 28.3° in January, and the lowest reading for the year was 9.1° on January 26th.

The maximum wind velocity was on February 17th, when a southerly wind was blowing at the rate of 80 miles per hour.

14 Observations of gale were recorded, 3 observations of calm, 16 observations of thunderstorm, 4 observations of fog, 29 observations of snow, and 23 observations of hail.

JANUARY.

Barometer, Mean Reading	28,963	inches					
" Highest Reading on the 6th	29,734	"					
" Lowest Reading on the 28th	27,898	"					
Dry Bulb Thermometer, Mean Temperature	30.0	degrees					
Wet Bulb Thermometer, Mean Temperature	35.3	"					
Maximum Thermometer, Mean Temperature	40.2	"					
" " Highest Temperature recorded on the 2nd	51.9	"					
Minimum Thermometer, Mean Temperature	30.7	"					
" " Lowest Temperature recorded on the 26th	12.6	"					
Water Thermometer, Mean Temperature	40.2	"					
" " Highest Temperature recorded on the 3rd	44.6	"					
" " Lowest Temperature recorded on the 27th	35.0	"					
Grass Minimum Thermometer, Mean Temperature	28.3	"					
Earth Thermometer, Mean Temperature 1ft.....	37.8	"					
" " " " 4ft.....	41.3	"					
" " " " 10ft.	44.8	"					
Humidity, Mean	93	%					
" Highest on the 7th, 8th, 13th, 15th, and 31st.....	99	%					
" Lowest on the 26th and 27th	68	%					
Rainfall, Total Fall	6.75	inches					
" Daily Average	0.22	"					
" Greatest Fall on the 15th	1.80	"					
" Recorded on	22	days					
Sunshine, Total Duration	38.2	hours					
" Daily Average	1.2	"					
" Highest on the 22nd	6.4	"					
" Recorded on	18	days.					
Wind, Mean Velocity in miles per hour.....	18						
" Maximum Velocity in Miles per hour on the 11th, dir. S.	49						
Summary of Observations of Directions :—							
N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
3	0	0	2	18	15	14	10
Cloud, Mean Amount (overcast sky indicated by 10).....	7.8						
Days of Clear Sky—1							
Days of Overcast Sky—17							
Observations of Calm—0							
Observations of Wind Forces 4 to 7—37							
Observations of Gale—2							
Hail on 5 days							
Snow on 7 days							
Ground Frost on 19 days							
Hoar Frost on 3 days							
Fog on 2 days							
Thunderstorm on 2 days .							
Thunder heard (Lightning not seen) on 1 day							

FEBRUARY.

Barometer, Mean Reading	28.714 inches						
" Highest Reading on the 9th	29.503 "						
" Lowest Reading on the 20th	27.883 "						
Dry Bulb Thermometer, Mean Temperature	38.3 degrees						
Wet Bulb Thermometer, Mean Temperature	37.3 "						
Maximum Thermometer, Mean Temperature	43.2 "						
" " Highest Temperature recorded on the 6th	51.1 "						
Minimum Thermometer, Mean Temperature	32.7 "						
" " Lowest Temperature recorded on the 9th	26.0 "						
Water Thermometer, Mean Temperature	40.1 "						
" " Highest Temperature recorded on the 7th	46.0 "						
" " Lowest Temperature recorded on the 1st	35.8 "						
Grass Minimum Thermometer, Mean Temperature	29.2 "						
Earth Thermometer, Mean Temperature 1ft.....	37.1 "						
" " " " 4ft.....	39.6 "						
" " " " 10ft.	43.3 "						
Humidity, Mean	91 %						
" Highest on the 2nd, 5th, 6th, 7th, 12th and 18th	99 %						
" Lowest on the 9th.....	68 %						
Rainfall, Total Fall	6.10 inches						
" Daily Average	0.22 "						
" Greatest Fall on the 6th	1.05 "						
" Recorded on	28 days						
Sunshine, Total Duration	55.1 hours						
" Daily Average	2.0 "						
" Highest on the 27th	8.4 "						
" Recorded on	20 days.						
Wind, Mean Velocity in miles per hour.....	21						
" Maximum Velocity in Miles per hour on the 17th, dir. S.	80						
Summary of Observations of Directions :—							
N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
1	1	1	2	20	21	9	1
Cloud, Mean Amount (overcast sky indicated by 10)	7.7						
Days of Clear Sky—0							
Days of Overcast Sky—15							
Observations of Calm—0							
Observations of Wind Forces 4 to 7—37							
Observations of Gale—5							
Hail on 4 days,							
Snow on 7 days							
Ground Frost on 18 days							

MARCH.

Barometer,	Mean Reading	2.9334	inches
"	Highest Reading on the 31st.....	2.9812	"
"	Lowest Reading on the 9th	2.8687	"
Dry Bulb Thermometer,	Mean Temperature	41.6	degrees
Wet Bulb Thermometer,	Mean Temperature	39.4	"
Maximum Thermometer,	Mean Temperature	47.4	"
"	" Highest Temperature recorded on the 10th	57.8	"
Minimum Thermometer,	Mean Temperature	35.3	"
"	" Lowest Temperature recorded on the 13th	29.1	"
Water Thermometer,	Mean Temperature	42.3	"
"	" Highest Temperature recorded on the 29th	44.2	"
"	" Lowest Temperature recorded on the 1st	39.5	"
Grass Minimum Thermometer,	Mean Temperature	30.1	"
Earth Thermometer,	Mean Temperature 1ft.....	41.3	"
"	" " " 4ft.....	40.9	"
"	" " " 10ft.	42.9	"
Humidity,	Mean	83	%
"	Highest on the 8th	98	%
"	Lowest on the 29th	58	%
Rainfall,	Total Fall	1.35	inches
"	Daily Average	0.04	"
"	Greatest Fall on the 8th	0.40	"
"	Recorded on	12	days
Sunshine,	Total Duration	117.6	hours
"	Daily Average	3.8	"
"	Highest on the 29th	9.9	"
"	Recorded on	25	days.
Wind,	Mean Velocity in miles per hour.....	15	
"	Maximum Velocity in Miles per hour on the 17th, dir. W.	45	

Summary of Observations of Directions :—

N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
1	3	3	4	19	6	12	13

Cloud, Mean Amount (overcast sky indicated by 10) 6.7

Days of Clear Sky—0

Days of Overcast Sky—10

Observations of Calm—1

Observations of Wind Forces—4 to 7—19

Observations of Gale—0

Snow on 1 day

Ground Frost on 15 days

APRIL.

Barometer, Mean Reading	29.007	inches					
„ Highest Reading on the 1st	29.715	„					
„ Lowest Reading on the 13th	28.145	„					
Dry Bulb Thermometer, Mean Temperature	42.3	degrees					
Wet Bulb Thermometer, Mean Temperature	40.4	„					
Maximum Thermometer, Mean Temperature	48.9	„					
„ „ Highest Temperature recorded on the 18th	57.0	„					
Minimum Thermometer, Mean Temperature	35.1	„					
„ „ Lowest Temperature recorded on the 1st	25.5	„					
Water Thermometer, Mean Temperature	45.7	„					
„ „ Highest Temperature recorded on the 21st and 22nd	48.6	„					
„ „ Lowest Temperature recorded on the 4th	43.2	„					
Grass Minimum Thermometer, Mean Temperature	32.4	„					
Earth Thermometer, Mean Temperature 1ft.....	44.9	„					
„ „ „ „ 4ft.....	43.2	„					
„ „ „ „ 10ft.	43.3	„					
Humidity, Mean	85	%					
„ Highest on the 19th, and 20th.	100	%					
„ Lowest on the 14th	58	%					
Rainfall, Total Fall	4.51	inches					
„ Daily Average	0.15	„					
„ Greatest Fall on the 20th	0.68	„					
„ Recorded on	22	days					
Sunshine, Total Duration	95.6	hours					
„ Daily Average	3.2	„					
„ Highest on the 14th	10.8	„					
„ Recorded on	23	days.					
Wind, Mean Velocity in miles per hour.....	18						
„ Maximum Velocity in Miles per hour on the 24th, dir. S.W.	44						
Summary of Observations of Directions :—							
N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
3.	6	3	4	12	6	16	10
Cloud, Mean Amount (overcast sky indicated by 10)			8.5				
Days of Clear Sky—0							
Days of Overcast Sky—17							
Observations of Calm—0							
Observations of Wind Forces 4 to 7—30							
Observations of Gale—0							
Snow on 2 days							
Hail on 5 days							
Ground Frost on 8 days							
Thunderstorm on 2 days							

MAY.

Barometer,	Mean Reading	29,107 inches						
„	Highest Reading on the 25th	29,630 „						
„	Lowest Reading on the 31st	28,527 „						
Dry Bulb Thermometer,	Mean Temperature	50.2 degrees						
Wet Bulb Thermometer,	Mean Temperature	47.3 „						
Maximum Thermometer,	Mean Temperature	58.1 „						
„	„ Highest Temperature recorded on the 22nd	74.0 „						
Minimum Thermometer,	Mean Temperature	41.8 „						
„	„ Lowest Temperature recorded on the 9th.	31.0 „						
Water Thermometer,	Mean Temperature	50.3 „						
„	„ Highest Temperature recorded on the 23rd	55.0 „						
„	„ Lowest Temperature recorded on the 8th.	45.6 „						
Grass Minimum Thermometer,	Mean Temperature	38.2 „						
Earth Thermometer,	Mean Temperature 1ft.....	51.8 „						
„	„ „ „ 4ft.....	46.7 „						
„	„ „ „ 10ft.	44.6 „						
Humidity,	Mean	83 %						
„	Highest on the 21st and 28th	100 %						
„	Lowest on the 11th	50 %						
Rainfall,	Total Fall	4.90 inches						
„	Daily Average	0.16 „						
„	Greatest Fall on the 5th	0.76 „						
„	Recorded on	20 days						
Sunshine,	Total Duration	185.7 hours						
„	Daily Average	6.0 „						
„	Highest on the 23rd	14.0 „						
„	Recorded on	29 days.						
Wind,	Mean Velocity in miles per hour.....	17						
„	Maximum Velocity in Miles per hour on the 6th, dir. W.N.W	49						
Summary of Observations of Directions :—								
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
	2	12	9	5	4	8	16	6
Cloud,	Mean Amount (overcast sky indicated by 10)							7.3
Days of Clear Sky—0								
Days of Overcast Sky—14								
Observations of Calm—0								
Observations of Wind Forces 4 to 7—21								
Dew on 6 days								
Snow on 4 days								
Hail on 6 days								
Ground Frost on 2 days.								
Thunderstorm on 3 days.								

JUNE.

Barometer,	Mean Reading	29.106	inches				
„	Highest Reading on the 16th	29.624	„				
„	Lowest Reading on the 30th	28.662	„				
Dry Bulb Thermometer,	Mean Temperature	56.6	degrees				
Wet Bulb Thermometer,	Mean Temperature	53.6	„				
Maximum Thermometer,	Mean Temperature	64.8	„				
„	„ Highest Temperature recorded on the 9th	75.6	„				
Minimum Thermometer,	Mean Temperature	48.1	„				
„	„ Lowest Temperature recorded on the 26th	41.0	„				
Water Thermometer,	Mean Temperature	54.4	„				
„	„ Highest Temperature recorded on the 12th						
	and 21st	59.0	„				
„	„ Lowest Temperature recorded on the 1st.. ..	50.0	„				
Grass Minimum Thermometer,	Mean Temperature	44.3	„				
Earth Thermometer,	Mean Temperature 1ft.....	58.9	„				
„	„ „ „ 4ft.....	52.4	„				
„	„ „ „ 10ft.	47.4	„				
Humidity,	Mean	82	%				
„	Highest on the 1st.	99	%				
„	Lowest on the 19th.....	63	%				
Rainfall,	Total Fall	3.48	inches				
„	Daily Average	0.12	„				
„	Greatest Fall on the 24th	0.61	„				
„	Recorded on	16	days				
Sunshine,	Total Duration	155.5	hours				
„	Daily Average	5.2	„				
„	Highest on the 7th	14.1	„				
„	Recorded on	30	days.				
Wind,	Mean Velocity in miles per hour.....	19					
„	Maximum Velocity in Miles per hour on the 5th, dir. N.E..	56					
Summary of Observations of Directions :—							
N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
0	12	1	8	9	3	15	12
Cloud,	Mean Amount (overcast sky indicated by 10)	7.3					
Days of Clear Sky. 0							
Days of Overcast Sky—11.							
Observations of Calm—0.							
Observations of Wind Forces 4 to 7-18.							
Dew on 7 days.							
Gale on 2 days.							
Thunder heard (Lightning not seen) on 2 days.							
Thunderstorm on 4 days.							

JULY.

Barometer, Mean Reading	29.076	inches					
" Highest Reading on the 13th	29.402	"					
" Lowest Reading on the 25th	28.573	"					
Dry Bulb Thermometer, Mean Temperature	56.1	degrees					
Wet Bulb Thermometer, Mean Temperature	52.8	"					
Maximum Thermometer, Mean Temperature	63.0	"					
" " Highest Temperature recorded on the 13th	78.0	"					
Minimum Thermometer, Mean Temperature	48.5	"					
" " Lowest Temperature recorded on the 10th	42.8	"					
Water Thermometer, Mean Temperature	53.7	"					
" " Highest Temperature recorded on the 14th	57.2	"					
" " Lowest Temperature recorded on the 1st.	51.0	"					
Grass Minimum Thermometer, Mean Temperature	47.4	"					
Earth Thermometer, Mean Temperature 1ft.....	59.1	"					
" " " " 4ft.....	54.7	"					
" " " " 10ft.	50.2	"					
Humidity, Mean	80	%					
" Highest on the 5th, 6th, and 25th.....	99	%					
" Lowest on the 13th	39	%					
Rainfall, Total Fall	6.57	inches					
" Daily Average	0.21	"					
" Greatest Fall on the 5th	1.36	"					
" Recorded on	13	days					
Sunshine, Total Duration	152.6	hours					
" Daily Average	4.9	"					
" Highest on the 14th	14.5	"					
" Recorded on	29	days.					
Wind, Mean Velocity in miles per hour	13						
" Maximum Velocity in Miles per hour on the 21st, dir. W....	34						
Summary of Observations of Directions :—							
N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
4	9	5	3	9	6	20	6
Cloud, Mean Amount (overcast sky indicated by 10)	6.9						
Days of Clear Sky—2.							
Days of Overcast Sky—15.							
Observations of Calm—1.							
Observations of Wind Forces 4 to 7—17.							
Dew on 5 days.							
Thunder heard (Lightning not seen) on 1 day.							

AUGUST.

Barometer,	Mean Reading	29.057	inches
"	Highest Reading on the 31st.....	29.442	"
"	Lowest Reading on the 26th	28.661	"
Dry Bulb Thermometer,	Mean Temperature	57.0	degrees
Wet Bulb Thermometer,	Mean Temperature	54.6	"
Maximum Thermometer,	Mean Temperature	62.9	"
"	" Highest Temperature recorded on the 11th	73.0	"
Minimum Thermometer,	Mean Temperature	50.3	"
"	" Lowest Temperature recorded on the 23rd	45.2	"
Water Thermometer,	Mean Temperature	53.7	"
"	" Highest Temperature recorded on the 18th	55.6	"
"	" Lowest Temperature recorded on the 27th and 31st.....	51.0	"
Grass Minimum Thermometer,	Mean Temperature	49.3	"
Earth Thermometer,	Mean Temperature 1ft.....	59.0	"
"	" " " 4ft.....	56.0	"
"	" " " 10ft.	51.9	"
Humidity,	Mean	86	%
"	Highest on the 7th and 28th	100	%
"	Lowest on the 11th	56	%
Rainfall,	Total Fall	8.22	inches
"	Daily Average	0.26	"
"	Greatest Fall on the 26th	1.74	"
"	Recorded on	24	days
Sunshine,	Total Duration	103.8	hours
"	Daily Average	3.3	"
"	Highest on the 5th	12.0	"
"	Recorded on	28	days.
Wind,	Mean Velocity in miles per hour.....	15	
"	Maximum Velocity in Miles per hour on the 27th, dir. S.W.	56	

Summary of Observations of Directions :—

N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
1	1	2	13	18	12	11	4

Cloud, Mean Amount (overcast sky indicated by 10) 8.6

Days of Clear Sky—0.

Days of Overcast Sky—18.

Observations of Calm—0.

Observations of Wind Forces 4 to 7-16

Dew on 5 days.

Gale on 1 day.

Thunderstorm on 2 days.

SEPTEMBER.

Barometer,	Mean Reading	29.451	inches
"	Highest Reading on the 17th	29.736	"
"	Lowest Reading on the 29th	29.060	"
Dry Bulb Thermometer,	Mean Temperature	52.7	degrees
Wet Bulb Thermometer,	Mean Temperature	50.4	"
Maximum Thermometer,	Mean Temperature	59.5	"
"	" Highest Temperature recorded on the 28th	66.9	"
Minimum Thermometer,	Mean Temperature	46.3	"
"	" Lowest Temperature recorded on the 20th	37.0	"
Water Thermometer,	Mean Temperature	51.5	"
"	" Highest Temperature recorded on the 11th	53.7	"
"	" Lowest Temperature recorded on the 7th, 20th and 24th	50.0	"
Grass Minimum Thermometer,	Mean Temperature	44.9	"
Earth Thermometer,	Mean Temperature 1ft.....	55.1	"
"	" " " 4ft.....	54.5	"
"	" " " 10ft.	52.7	"
Humidity,	Mean	85	%
"	Highest on the 29th.....	98	%
"	Lowest on the 20th.....	68	%
Rainfall,	Total Fall	0.85	inches
"	Daily Average	0.03	"
"	Greatest Fall on the 2nd	0.24	"
"	Recorded on	8	days
Sunshine,	Total Duration	109.7	hours
"	Daily Average	3.7	"
"	Highest on the 5th	8.5	"
"	Recorded on	25	days.
Wind,	Mean Velocity in miles per hour	13	
"	Maximum Velocity in Miles per hour on 23rd, dir. W.N.W.	38	

Summary of Observations of Directions :—

N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
1	12	1	4	8	2	16	14

Cloud, Mean Amount (overcast sky indicated by 10) 7.0

Days of Clear Sky—0.

Days of Overcast Sky—9.

Observations of Calm—1.

Observations of Wind Forces 4 to 7—10.

Dew on 4 days.

OCTOBER.

Barometer,	Mean Reading	29.245	inches
"	Highest Reading on the 14th	29.816	"
"	Lowest Reading on the 31st	28.512	"
Dry Bulb Thermometer,	Mean Temperature	49.6	degrees
Wet Bulb Thermometer,	Mean Temperature	47.8	"
Maximum Thermometer,	Mean Temperature	54.0	"
"	" Highest Temperature recorded on the 1st	66.2	"
Minimum Thermometer,	Mean Temperature	44.1	"
"	" Lowest Temperature recorded on the 20th	33.7	"
Water Thermometer,	Mean Temperature	49.6	"
"	" Highest Temperature recorded on the 11th	51.9	"
"	" Lowest Temperature recorded on the 20th	46.0	"
Grass Minimum Thermometer,	Mean Temperature	41.3	"
Earth Thermometer,	Mean Temperature 1ft.....	51.0	"
"	" " " " 4ft.....	52.5	"
"	" " " " 10ft.	52.1	"
Humidity,	Mean	87	%
"	Highest on the 11th, 17th, and 18th.....	100	%
"	Lowest on the 14th	65	%
Rainfall,	Total Fall	4.43	inches
"	Daily Average	0.14	"
"	Greatest Fall on the 18th	1.41	"
"	Recorded on	16	days
Sunshine,	Total Duration	75.9	hours
"	Daily Average	2.4	"
"	Highest on the 1st	8.6	"
"	Recorded on	22	days.
Wind,	Mean Velocity in miles per hour.....	17	
"	Maximum Velocity in Miles per hour on the 13th, dir. N.E.	58	

Summary of Observations of Directions :—

N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
1	12	11	9	11	3	9	6

Cloud, Mean Amount (overcast sky indicated by 10) 8.4

Days of Clear Sky—0.

Days of Overcast sky—19.

Days of Ground Frost—2.

Observations of Wind Forces 4 to 7-29.

Dew on 2 days.

Gale on 1 day.

Fog on 1 day.

NOVEMBER.

Barometer, Mean Reading	28.815 inches
" Highest Reading on the 19th	29.369 "
" Lowest Reading on the 7th	27.794 "
Dry Bulb Thermometer, Mean Temperature	36.1 degrees
Wet Bulb Thermometer, Mean Temperature	35.0 "
Maximum Thermometer, Mean Temperature	40.5 "
" Highest Temperature recorded on 13th	48.7 "
Minimum Thermometer, Mean Temperature	31.0 "
" Lowest Temperature recorded on the 21st and 22nd	27.0 "
Water Thermometer, Mean Temperature	41.4 "
" Highest Temperature recorded on the 1st.	47.2 "
" Lowest Temperature recorded on the 23rd	38.0 "
Grass Minimum Thermometer, Mean Temperature	29.1 "
Earth Thermometer, Mean Temperature 1ft.....	38.9 "
" " " " 4ft.....	45.9 "
" " " " 10ft.	49.9 "
Humidity, Mean	90 %
" Highest on the 24th.....	99 %
" Lowest on the 19th	71 %
Rainfall, Total Fall	6.96 inches
" Daily Average	0.23 "
" Greatest Fall on the 10th	1.40 "
" Recorded on	23 days
Sunshine, Total Duration	58.4 hours
" Daily Average	1.9 "
" Highest on the 20th	6.0 "
" Recorded on	20 days.
Wind, Mean Velocity in miles per hour	15
" Maximum Velocity in Miles per hour on 1st, dir. W.N.W..	72

Summary of Observations of Directions :—

N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
3	1	0	4	16	6	12	18

Cloud, Mean Amount (overcast sky indicated by 10)..... 7.9

Days of Clear Sky—0.

Days of Overcast Sky—16.

Days of Ground Frost—15.

Observations of Wind Forces 4 to 7—23.

Snow on 7 days.

Hail on 3 days.

Gale on 1 day.

Fog on 1 day.

Thunderstorm on 3 days.

DECEMBER.

Barometer,	Mean Reading	28.845	inches
"	Highest Reading on the 31st.....	29.632	"
"	Lowest Reading on the 16th	28.098	"
Dry Bulb Thermometer,	Mean Temperature	42.0	degrees
Wet Bulb Thermometer,	Mean Temperature	41.3	"
Maximum Thermometer,	Mean Temperature	44.7	"
"	Highest Temperature recorded on the 24th	52.9	"
Minimum Thermometer,	Mean Temperature	37.2	"
"	Lowest Temperature recorded on the 28th	27.0	"
Water Thermometer,	Mean Temperature	42.3	"
"	Highest Temperature recorded on the 24th	48.0	"
"	Lowest Temperature recorded on the 1st.	39.0	"
Grass Minimum Thermometer,	Mean Temperature	35.8	"
Earth Thermometer,	Mean Temperature 1ft.....	40.7	"
"	" " " " 4ft.....	43.0	"
"	" " " " 10ft.	46.9	"
Humidity,	Mean	95	%
"	Highest on the 16th, 23rd and 24th	100	%
"	Lowest on the 27th	83	%
Rainfall,	Total Fall	6.43	inches
"	Daily Average	0.21	"
"	Greatest Fall on the 16th	0.78	"
"	Recorded on	28	days
Sunshine,	Total Duration	10.7	hours
"	Daily Average	0.3	"
"	Highest on the 27th	5.0	"
"	Recorded on	8	days.
Wind,	Mean Velocity in miles per hour	20	
"	Maximum Velocity in Miles per hour on the 2nd and 24th, dir. E. and W.N.W.....	55	

Summary of Observations of Directions :—

N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
0	4	3	10	18	5	15	7

Cloud, Mean Amount (overcast sky indicated by 10) 9.4

Days of Clear Sky—0.

Days of Overcast Sky—26.

Days of Ground Frost—2.

Observations of Wind Forces 4 to 7—40

Snow on 1 day

Gale on 2 days.

MEAN METEOROLOGICAL READINGS FOR 1909 AND 1910.

MONTH	Barometer.		Thermometers.																Sunshine (hours).				Rain (inches).				Wind Velocity				Wind Direction 1910.											
			Maxi- mum		Mini- mum		Mean.		Earth.						Water.		Hu- midity																									
									1 Foot			4 Feet																														
	1910 ins.	1909 ins.	1910	1909	1910	1909	1910	1909	1910	1909	1910	1909	1910	1909	1910	1909	1910	1909	1910	1909	1910	1909	1910	1909	1910	1909	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.								
January ...	28.963	29.288	40.2	41.4	30.7	32.2	35.5	36.8	37.8	37.6	41.3	41.9	44.8	46.1	40.2	39.3	93	90	38.2	40.1	6.75	3.08	18	18	3	0	0	2	18	15	14	10										
February ...	28.714	29.329	43.2	41.0	32.7	31.0	38.0	36.0	37.1	35.6	39.6	39.5	43.3	44.2	40.1	39.7	91	87	55.1	63.6	6.10	2.90	21	16	1	1	1	2	20	21	9	1										
March	29.334	28.720	47.7	41.7	35.3	31.1	41.5	36.4	41.3	37.0	40.9	38.6	42.9	42.6	42.3	40.1	83	92	117.6	58.2	1.35	4.14	15	14	1	3	3	4	19	6	12	13										
April	29.007	29.139	48.9	53.6	35.1	37.2	42.0	45.4	44.9	45.8	43.2	42.8	43.3	42.7	45.7	45.2	85	77	95.6	176.1	4.51	4.77	18	17	3	6	3	4	12	6	16	10										
May	29.107	29.302	58.1	58.2	41.8	39.9	50.0	49.1	51.8	51.9	46.7	47.0	44.6	44.6	50.3	49.4	83	72	185.7	218.6	4.90	3.38	17	14	2	12	9	5	4	8	16	6										
June	29.106	29.202	64.8	59.0	48.1	43.7	56.5	51.4	58.9	55.2	52.4	50.8	47.4	47.1	54.4	53.1	82	82	155.5	128.6	3.48	3.94	19	14	0	12	1	8	9	3	15	12										
July	29.076	29.099	63.0	61.6	48.5	49.5	55.8	55.6	59.1	58.6	54.7	53.8	50.2	49.5	53.7	54.0	80	87	152.6	116.0	6.57	7.80	13	16	4	9	5	3	9	6	20	6										
August ...	29.057	29.261	62.9	65.0	50.3	50.0	56.6	57.5	59.0	60.2	56.0	56.0	51.9	51.7	53.7	54.8	86	84	103.8	148.4	8.22	4.05	15	13	1	1	2	13	18	12	11	4										
September	29.451	29.261	59.5	57.6	46.3	44.8	52.9	51.2	55.1	54.4	54.5	54.1	52.7	52.4	51.5	51.1	85	88	109.7	73.5	0.85	3.64	13	12	1	12	1	4	8	2	16	14										
October ...	29.245	28.946	54.0	53.3	44.1	42.0	49.1	47.7	51.0	52.1	52.5	50.2	52.1	51.9	49.6	49.0	87	88	75.9	83.7	4.43	8.22	17	21	1	12	11	9	11	3	9	6										
November.	28.815	29.219	40.5	44.2	31.0	34.2	35.8	39.2	38.9	40.9	48.9	46.3	49.9	50.0	41.4	39.8	90	90	58.4	46.9	6.96	2.65	15	13	3	1	0	4	16	6	12	18										
December	28.845	28.881	44.7	39.1	37.2	32.1	40.1	35.6	40.7	38.1	43.0	42.2	46.9	43.5	42.3	40.1	95	93	10.7	22.6	6.43	8.05	20	20	0	4	3	10	18	5	15	7										
Totals .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1158.8	1176.3	60.55	56.62	...	...	20	73	39	68	162	93	165	107
Mean ...	29.060	29.132	52.3	51.3	40.1	39.0	46.2	45.2	48.0	47.3	47.6	46.9	47.5	47.2	47.1	46.3	87	86	96.6	98.0	5.05	4.72	17	16	1.7	6.1	3.2	5.7	13.5	7.7	13.7	8.9										

TABLE C.

COUNTY OF LANCASHIRE.

SUMMARY OF
Medical Officer's Report for 1910.

URBAN SANITARY DISTRICT OF DARWEN.

Area in Statute Acres.....	5,919
Population (Census) 1901.....	38,212
Population (Estimated) 1910.....	43,000

Name of Medical Officer of Health—FRED GEORGE HAWORTH,
M.B.C.M., D.P.H. Salary, £250.

	Males	.....	Females.	.....	Total.
Births Registered.....	394	.....	282	.....	776
Deaths Registered (Nett Deaths belonging to the District).....	283	.....	290	.....	573

Number of Illegitimate Births Registered, 16. Deaths of Illegitimates under one year of age, 5.

Birth Rate, 18.05. Death Rate, 13.33. Rate of Infant Deaths, under one year, to 1,000 Births, 122.

Death Rate from the Seven Principal Epidemic Diseases per 1,000 of population 0.51.

Disease specially prevalent ?—Scarlet Fever slightly. Period ?—Whole year. Any schools closed ?—No.

No of Special Reports made under Art. 18 ?—Report on Typhoid Cases, June 29th.

What is the character of the Hospital Accommodation ?—Isolation.

Is it Joint or otherwise ?—No.

Number of Beds available for your District ?—For Small-Pox, 2. For other Infectious Diseases, 20, and 4 Cots for Scarlet Fever, and 8 for Typhoid Fever.

Number of cases removed to Hospital?—Enteric Fever, 5 ; Scarlet Fever, 68.
Total, 73.

Deaths in Hospital?—Scarlet Fever, 2 ; Typhoid Fever, 1.

How is Disinfection carried out?—Houses Sulphur and Formalin. No. of Houses
Disinfected ? 166. Apparatus used?—Washington Lyon's. Superheated
Steam. Where situated?—Bull Hill Hospital (used for all purposes).

Number of cases of Infectious Diseases Notified?—189.

Are any Diseases now specially mentioned in the Act notifiable (for instance, Measles,
Whooping Cough, Diarrhoea, Chicken Pox, etc.) ? If so, what are they?—
No.

Bacteriological Examinations. No. and nature of specimens examined ? Blood 7,
Swabs 7, Sputum 11, Special 1.

Has any arrangements been made for the "voluntary" notification of Pulmonary
Tuberculosis?—No.

Number of cases of Pulmonary Tuberculosis reported under the Public Health
(Tuberculosis) Regulations, 1908?—5.

Has any arrangements been made under the Diphtheria Anti-Toxin Order, 1910?
No, Anti-Toxin is supplied at cost price.

Action taken under "The Housing of the Working Classes Acts." (1890-1909).—

Number of Houses Inspected?—175.

Number of Closing Orders made?—None.

Dwelling-houses in which defects were remedied without the making of
Closing Orders?—Under consideration of Committee.

Number of Dwelling-houses put into a fit state of habitation after the
making of Closing Orders?—None.

Number of Dwelling-houses demolished?—None.

General character of defects found to exist?—Dark, damp, poor ventila-
tion, light and drainage.

From where is the Water Supply obtained?—Upland surface.

What is its condition?—Good.

Is it subject to your inspection?—Yes.

Is Scavenging and Removal of House Refuse carried out satisfactorily —Yes.

How performed (by Sanitary Authority, Contract, or Occupiers of Houses)?—
Sanitary Authority.

How is the Refuse disposed of ?—Burnt in Destructor (Meldrum's). Has a Destructor been provided ?—Yes.

Sewage Disposal Works, method of treatment ?—Bacteriological Treatment.

What is the character of the Drainage System ?—Combined System.

Drain Testing, Flushing, etc. ?—Water and Smoke, Flushing Periodic, Heavy Gradients.

Action taken with regard to the Pollution of Streams ?—Sewage from 17 houses diverted from River Darwen to the Sewers.

Canal Boats :—Number Inspected ?—None. Number of Infringement of Acts ?—None.

What is the condition of the Bakehouses ?—Improving.

What is the condition of the Slaughter Houses ?—Good. Has a Public Abattoir been provided ?—Yes.

What is the condition of the Lodging Houses ?—One Lodging House only—Municipal.

What is the sanitary condition of the Schools ?—Very much improved. One New Council School opened—Central Hall Type.

Dairies, Cowsheds, and Milkshops—Are they periodically inspected ?—Yes. What is their condition ?—Slowly improving.

Have Regulations been made under the order of the L.G.B. ?—Yes. Are they enforced ?—Yes.

Amount of Air Space in cubic feet required for each cow ?—600.

Number of Cowkeepers ?—103. Number on Register ?—103

Number of Dairymen or Purveyors of Milk (other than Cowkeepers) ?—6. Number on Register ?—5.

Food unfit for Human Consumption : Amount seized ?—3 Beasts, 9 Sheep, 5 Swine, 3 Beasts, internal organs, 2 tons, 9 cwt. Offal.

Number of Legal Proceedings, and result ?—None.

DEPARTMENT OF INSPECTOR OF NUISANCES.

Number of Notices served ?—Preliminary, 1304 ; Legal, 829. Nuisances remedied ?—1876.

Number of Legal Proceedings taken and result ?—One. Adjournment of 6 weeks.
Nuisance abated in the meantime.

Number of Privy Middens ?—None.

Number of Pail Closets ? 5908.

Number of Fresh Water Closets ? 2003.

Number of Waste Water Closets ? 2397.

Number of Privy Middens converted during 1910 ?—

To W.C.'s—None.

To Pails, etc. ?—None.

Number of Pail Closets converted to W.C.'s, 55 ; To W.W.C.'s, 11.

SMOKE.

Number of Observations ?—262

Number of Legal Proceedings taken and result ?—Three. Order to abate in one case, and 10s. and costs in two cases.

What is the time limit allowed for the emission of black smoke per hour ?—One, two, or three boilers, 5 minutes per hour ; Four or more boilers 7 minutes per hour.

Has the Authority adopted—

- (a) "The Infectious Disease (Prevention) Act, 1890 ?"—Yes, except Sections 5 to 11 inclusive and 15
- (b) "The Public Health Acts Amendment Act, 1907 ?"—Certain Sections.
- (c) "The Public Health Acts Amentment Act, 1890 ?"—Yes, except that relating to Music and Dancing.
- (d) "The Notification of Births Act, 1907 ?"—Yes.

Has a Health Visitor been appointed ?—Yes.

Notable sanitary improvements during 1910 ?—Conversion of Pail Closets to Water Carriage System. Provision of Typhoid Hospital.

Chief Sanitary Requirements of District ?—Improvements in Old Cottage Property To Convert Pails to Water Closets.

Medical Inspection of Schools.

There are 21 Elementary Schools in the Borough, all of which have been periodically inspected during the year.

Notices were sent out at Easter, Summer, and Christmas holidays for the schools, desks, and all apparatus to be washed down, scrubbed, etc.

The water at each school is supplied from the town's mains.

All scholars are stopped from attending school from a house in which any of the following diseases are prevalent, viz. :—Scarlet Fever, Typhoid Fever, Diphtheria. Notices are sent to the Master, Mistress, and Secretary of Education, that the children must not return to school until a notice is received from me.

The Class is inspected in which the infectious scholar has attended.

Many improvements have been carried out at the Schools during the year.

SCHOOLS.

A most careful watch on the schools has been kept in regard to infectious diseases. When any children are reported absent through any of these complaints, or any suspicious signs noted by the teachers, the school nurse and I go to the particular school and examine all the children in the class affected. In the event of my suspicions in regard to Scarlet Fever being aroused, I take the temperature of the scholars, examine their tongues, throats, and bodies, and all suspects are sent home for three days. Should no further developments take place they return to school, so that no more time is lost. When, as often happens, an infectious disease develops, these centres of infection are removed from doing further mischief.

When Measles is the suspected disease the same course of procedure is taken, with the exception that catarrhal symptoms and the sign known as kopliks spots, are investigated, and then the same steps as in Scarlet Fever are followed.

On one occasion 40 children were sent home on these grounds, and in the course of a few days 20 of these showed unmistakable signs of Measles, with the result that these 20 centres were removed from the school precincts from doing further harm.

For some time we have not had occasion to close any schools, thus proving the efficacy of our present methods in stamping out disease over those in use previous to the appointment of School Medical Officers.

It is interesting to note the diseases which one comes across among the school children.

DISEASE OF THE EYES.

BLEPHARITIS is the formation of minute sores filled with matter on the edges of the eyelids. The danger in these cases is loss of eyelashes and inflammation of the eyes. More care is needed on the part of parents in combating this complaint.

STABISMUS or **SQUINT** is very often due to a want of uniformity of vision in both eyes. This causes a strain of one eye over the other, resulting in obliquity of vision. The best remedy for this complaint is to provide spectacles for the children, and this appears to have been done according to the figures returned.

DISEASES OF THE EARS.

DEAF, DEAF MUTES show very low figures. It does not appear as if it would be necessary to make further provision for these.

DISCHARGING EARS. Though the number of these is small they should have more careful attention at home. The danger of this complaint affecting the brain or the covering of the brain is great.

SPEECH DEFECTS.

Is small in comparison with the large number of children thus affected when Mr. Yearsley undertook the treatment, and points to his methods being followed, with good results.

DEFECTS OF DIGESTIVE SYSTEM.

ENLARGED TONSILS and **Adenoids** should be coupled together, as the latter complaint is the enlargement of the third or nasal tonsil. The results are very much the same in both cases. Nasal Accent, slight Deafness, tendency to Catarrh of Pulmonary Organs, and an expression best explained as "gawmless."

Enlarged Tonsils number 132, Adenoids 105, total 237.

This is a serious matter as affecting the future efficacy of the rising generation. In all cases notes are sent to the parents, drawing their attention to the defect, and to the need of medical advice and treatment. A great deal has been done in this direction, still much remains undone. Some of the cards returned indicate that medical advice has been sought, and the doctor has not considered any interference necessary. I cannot think I have been wrong in my diagnosis, as I have exercised great care, and only in urgent cases have I suggested operative procedure.

EPILEPSY.

Claims one only. This I recommended to be kept at home on account of the dangerous influence, such a disease has on the other children becoming affected by means of imitation.

HYDROCEPHALUS.

Or enlargement of the brain through accumulation of water therein. We might couple this with the **MENTALLY SLOW**, of which there are 5. These should be aggregated in one school where a class might be formed for their separate education.

SKIN DISEASES

Of which there were 7, is remarkably low, especially when we include Ringworm. Of this latter complaint I came across a dozen in one school some years ago. These of course have been cured, or not recognised.

HEART DISEASE.

Numbers 18. Nothing can be done for these except a careful regulation of their gymnastic exercises, and notes to this effect were sent out.

OTHER DISEASES.

Are mostly of a tuberculous nature, requiring careful home management under their doctor's supervision.

The following table shows the number of children visited in their own homes :—

Verminous Heads		
Sores, etc.	Defects	Ringworm
179	105	5

The following table shows the result of the enquiries regarding previous illnesses of children who have not been examined previously :—

Measles	Scarlet Fever	Whooping Cough	Chicken-pox	Diphtheria
604	95	342	246	5

Table showing the Number of Scholars Examined.

SCHOOL.	3 to 4 years		4 to 5 years		5 to 6 years		6 to 7 years		7 to 8 years		8 to 9 years		9 to 10 years		10 to 11 years		11 to 12 years		12 to 13 years		13 to 14 years		Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Belgrave .....	...	7	...	7	...	21	...	24	...	23	...	20	...	17	...	23	...	25	...	1	3	1	4	
Blackburn road	5	...	10	...	13	...	26	...	23	...	16	...	...	...	...	...	14	...	...	22	11	170	212	
Blacksnap .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bolton Road .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	6	9	13	12	19
Central Council	1	...	8	10	13	19	16	16	15	32	16	9	5	...	...	...	...	...	1	...	...	77	87	
Duckworth Street	2	...	13	12	11	16	6	20	15	20	12	10	13	12	14	14	21	17	15	...	...	137	117	
Earcroft .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	3	
Highfield.....	2	1	9	3	21	19	25	30	12	9	2	1	...	...	...	...	...	...	...	...	...	71	64	
Hollins Grove .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1	2	3	3
Holy Trinity .....	...	4	12	11	15	22	23	18	20	33	23	21	27	33	30	27	21	40	25	40	5	9	216	243
Lower Chapel.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	1	7	8	12	9
St. Cuthbert's .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	4	4	6	11	10
St. George's	1	3	9	9	12	13	21	16	10	15	...	...	...	...	...	...	...	...	2	10	6	5	61	71
St. Edward's	3	3	3	3	7	8	11	4	10	13	7	12	14	13	16	13	14	11	13	10	10	108	100	
St. James's .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	1	1	2	6	3
St. John's Central	3	2	7	2	11	18	8	14	11	17	10	10	9	10	...	12	...	13	7	17	9	6	75	121
St. John's Culvert .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	5	6	9	10	14
St. Joseph's .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	4	6	6	8	10
St. Pauls .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sandhills .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3	3	
Sudell Road .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...
Totals.....	17	20	71	57	103	136	147	128	121	161	86	83	85	94	86	89	70	106	126	125	78	94	990	1093
	37		128		239		275		282		169		179		175		176		251		172		2083	

Table showing result of Inspection—MALES.

Average Age		Clothing Footgear			Average Height		Average Weight		Nu- trition			Cleanliness and condition of skin							Teeth-Number Decayed											
		Good	Fair	Bad					Good	Fair	Bad	Head				Body			Good	1	2	3	4	5	6	7	8	9	10	G'n'r'lly bad
Yrs	Mhs				Ft.	Ins.	St.	Lbs.				Good	Fair	Bad	Nits	Good	Fair	Bad													Sores
3	8	9	...	...	3	1.73	2	6.50	9	...	...	9	...	...	...	9	...	...	...	7	2	...	...	...	...	...	...	...	...	...
4	6	35	7	1	3	3.07	2	8.52	43	...	...	38	1	...	...	35	4	...	...	24	3	6	2	3	...	...	...	...	...	...
5	5	119	19	...	3	4.69	2	11.13	125	13	...	125	5	...	2	117	16	...	...	62	9	22	10	7	4	5	...	...	...	...
6	5	122	24	1	3	7.00	3	1.49	137	9	...	137	10	...	...	132	15	...	...	58	20	30	12	11	3	3	...	2	...	1
7	5	108	12	...	3	8.90	3	4.87	115	4	...	113	5	...	1	112	8	...	...	44	13	25	10	9	6	5	...	1	...	1
8	4	75	10	1	3	10.31	3	8.85	81	5	...	84	...	...	1	78	7	...	...	35	3	18	7	15	2	3	...	...	...	...
9	6	67	15	2	3	11.82	3	11.17	75	9	...	74	6	...	...	71	9	...	1	20	12	21	10	11	3	3	...	...	1	...
10	6	92	6	...	4	2.36	4	5.03	94	4	...	92	3	...	2	93	4	...	...	30	16	24	6	10	2	3	1	1	...	1
11	5	63	6	1	4	4.15	4	10.87	66	4	...	70	...	...	...	65	5	...	...	11	11	19	10	9	6	1	...	...	...	...
12	9	111	11	1	4	6.76	5	1.91	120	3	...	119	4	...	...	115	8	...	...	38	27	29	11	10	3	2	...	...	...	1
13	1	75	5	1	4	7.61	5	3.26	77	4	...	78	3	...	...	78	3	...	...	34	18	8	11	9	...	...	...	...	...	...

Table showing result of Inspection—FEMALES.

Average Age		Clothing Footgear			Average Height		Average Weight		Nu- trition			Cleanliness and condition of skin							Teeth-Number Decayed												
												Head				Body														G'n'r'lly bad	
Yrs	Mhs	Good	Fair	Bad	Ft.	Ins.	St.	Lbs.	Good	Fair	Bad	Good	Fair	Bad	Nits	Good	Fair	Bad	Sores	Good	1	2	3	4	5	6	7	8	9		10
3	7	9	2...	3	0.07	2	3.83	11	...	...	7	...	...	4	9	1	...	...	7	...	...	...	...	...	1	...	...	...	...	...	...
4	5	34	2...	3	2.37	2	6.68	36	...	...	28	1	...	6	34	...	...	...	17	7	3	1	4	2	...	...	...	...	...	...	...
5	6	156	9...	3	4.16	2	9.83	157	8	...	132	1	...	30	151	7	...	1	74	19	21	8	7	3	2	...	1	...	...	...	...
6	6	117	10...	3	6.48	2	13.00	120	6	...	97	1	...	30	124	4	...	...	40	17	24	16	11	5	4	...	...	...	...	...	...
7	6	143	15	1	3	8.71	3	3.43	152	9	...	112	1	...	45	147	11	...	41	26	48	17	13	3	6	...	1	...	...	1	...
8	5	75	8...	3	9.87	3	5.90	79	4	...	54	1	...	27	77	4	...	...	23	12	18	10	6	7	2	1	...	1	...	1	...
9	7	88	5	1	4	0.85	3	13.35	87	7	...	55	3	...	36	90	3	...	36	12	21	10	7	3	...	1	2	...	...	...	...
10	6	69	8...	4	1.73	4	1.51	70	6	...	55	...	...	21	74	2	...	...	20	10	17	10	9	3	1	1	1	...	1	...	...
11	6	98	7...	4	4.63	4	10.13	104	2	...	73	...	...	32	99	4	...	...	38	20	15	12	4	4	4	1	1	...	...	...	...
12	9	125	6...	4	7.24	5	3.47	127	3	...	90	1	...	39	127	3	...	...	35	37	32	8	16	2	...	...	1	...	...	...	...
13	1	91	...	...	4	8.07	5	3.72	88	4	...	63	...	...	28	92	...	...	29	16	21	11	11	1	1	...	...	...	...	...	...

Table Showing Average Height of Scholars.

	3 to 4 yrs		4 to 5 yrs		5 to 6 yrs		6 to 7 yrs		7 to 8 yrs		8 to 9 yrs		9 to 10 yrs		10 to 11 yrs		11 to 12 yrs		12 to 13 yrs		13 to 14 yrs	
	Ft.	ins.	Ft.	ins.	Ft.	ins.	Ft.	ins.	Ft.	ins.	Ft.	ins.	Ft.	ins.	Ft.	ins.	Ft.	ins.	Ft.	ins.	Ft.	ins.
Males	3	1.73	3	3.07	3	4.69	3	7.00	3	8.90	3	10.31	3	11.82	4	2.36	4	4.15	4	6.76	4	7.61
Females ...	3	0.07	3	2.37	3	4.16	3	6.48	3	8.71	8	9.87	4	0.85	4	1.73	4	4.63	4	7.24	4	8.07

Table Showing Average Weight of Scholars.

	3 to 4 yrs		4 to 5 yrs		5 to 6 yrs		6 to 7 yrs		7 to 8 yrs		8 to 9 yrs		9 to 10 yrs		10 to 11 yrs		11 to 12 yrs		12 to 13 yrs		13 to 14 yrs	
	St.	lbs.	St.	lbs.	St.	lbs.	St.	lbs.	St.	lbs.	St.	lbs.	St.	lbs.	St.	lbs.	St.	lbs.	St.	lbs.	St.	lbs.
Males	2	6.50	2	8.52	2	11.13	3	1.49	3	4.87	3	8.85	3	11.17	4	5.03	4	10.87	5	1.91	5	3.26
Females ...	2	3.83	2	6.68	2	9.83	2	13.00	3	3.43	3	5.90	3	13.35	4	1.51	4	10.13	5	3.47	5	3.72

Table showing condition of Male scholars compared with the two preceding years.

Clothing and Footgear			Nutrition						Cleanliness and condition of skin						Teeth—Number Decayed											
Good Fair Bad % % %			Good Fair Bad % % %			Good Fair Bad % % %			Head			Body			G'n'rlyly bad.											
									Good	Fair	Bad	Nits	Good	Fair	Bad	Sor's	Good	1	2	3	4	5	6	7	8	9	10	%
1908	85.7	7.5	6.8	93.7	6.1	0.2	91.6	6.5	1.8	0.1	90.0	7.2	1.7	1.1	22.2	15.1	22.7	16.1	12.9	4.9	3.4	0.7	0.4	0.1	0.1	1.4
1909	89.6	6.1	4.3	97.0	2.5	0.5	93.9	5.7	0.0	0.4	93.7	6.0	0.0	0.3	38.9	12.3	16.2	13.6	7.5	5.4	3.2	1.6	0.8	0.3	0.0	0.2
1910	87.7	11.6	0.8	94.5	5.5	0.0	95.6	3.8	0.0	0.6	96.2	3.7	0.0	0.1	35.4	17.3	21.7	10.0	8.7	3.1	2.6	0.4	0.7	0.1	0.1	0.2

Table showing condition of Female scholars compared with the two preceding years.

	Clothing and Footgear			Nutrition			Cleanliness and condition of skin						Teeth—Number Decayed													
							Head			Body			G'n'rlyly bad													
	Good	Fair	Bad	Good	Fair	Bad	Nits	Good	Fair	Bad	Sor's	Good	1	2	3	4	5	6	7	8	9	10	%			
%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%		
1908	91.2	4.9	3.9	93.2	6.6	0.2	52.4	1.7	0.2	45.7	92.8	5.3	0.7	1.2	27.6	14.7	20.4	14.4	13.1	3.9	2.3	1.1	0.8	0.0	0.1	1.6
1909	93.9	4.7	1.4	97.6	2.0	0.4	39.9	0.5	0.0	59.6	97.6	2.1	0.0	0.3	37.4	11.8	16.4	12.2	10.6	6.1	2.7	1.1	0.8	0.4	0.0	0.5
1910	93.1	6.7	0.2	95.5	4.5	0.0	71.4	0.8	0.0	27.8	96.2	3.7	0.0	0.1	35.5	17.4	21.7	10.1	8.6	3.2	2.0	0.4	0.7	0.1	0.1	0.2

TABLE SHOWING DEFECTS.

	3 to 4		4 to 5		5 to 6		6 to 7		7 to 8		8 to 9		9 to 10		10 to 11		11 to 12		12 to 13		13 to 14		Total.	Per Cent.			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Eye Defects.																											
Blepharitis		1					1						3	1	1	1		1		1	1	9	0.10	0.82			
Glasses					1		1						1	3	1	1	2	4	5			10	9	1.01	0.82		
Nystagmus						1																1			0.09		
Strabismus				2		1	1		4	4	1	1	2		1			1	2				11	8	1.11	0.73	
		1		2	1	2	2	1	4	4	1	1	2	4	4	2	2	4	6	6		1	22	27			
Ear Defects.																											
Deaf					1				1						1	1	1				1	2	4	0.20	0.37		
Deaf and Dumb							1		1												1	1	0.10	0.09			
Discharging Ear						1		2	1						1		2		2				9		0.82		
					1	1	1	2		3					2	1	3		2		1	3	14				
Speech Defects.																											
Lisp in Speech						1																1		0.09			
Stammers					1				1		1		1	1								4	1	0.40	0.09		
					1	1			1		1		1	1								4	2				
Defects of Digestive System.																											
Enlarged Tonsils ...			1	2	1	3	10	9	13	3	13	7	5	3	7	1	8	3	13	10	12	5	3	46	86	4.65	7.87
Defects of Nervous System.																											
Epilepsy																1						1		0.10			
Hydrocephalus							1															1		0.10			
Mentally Slow							1			2	1			1								4	1	0.40	0.09		
							2			2	1			1		1						6	1				

Table showing Defects.—Continued.

	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	To- tal	Per Cent.										
	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F	M	F									
Defects of Respiratory System.																							
Bronchial Catarrh	1			1								1	1	0.10									
Catarrh							2					2		0.18									
	1			1			2					1	3										
Defects of Nose.																							
Adenoids.....		2	1	2	4	9	9	5	1	5	9	5	11	10	12	5	9	3	3	47	58	4.75	5.31
Defects of Skin.																							
Eczema					1		1					1	1	0.10	0.09								
Herpes										1		1		0.10									
Impetigo				2								2			0.18								
Ringworm		1										1		0.10									
Warts										1		1			0.09								
		1		2	1		1			1	1	3	4										
Defects of Circulatory System.																							
Aortic Regurgita- tion		1	1	2		1		1	1	1	1	2	7	0.20	0.64								
Heart Disease					1							1		0.10									
Mitral Incompetence				1	1		1			1		1	3	0.10	0.27								
„ Insufficiency					1				1			2		0.20									
„ Stenosis.....					1							1	2		0.18								
		1	1	2	1	2	2	1		1	1	1	1	2		1	6	12					
Other Defects.																							
Anæmia					1						1	1	1	0.10	0.09								
Bow-legged.....		1		1								1	1	0.10	0.09								
Dislocated Hip (con- genital)					1							1			0.09								
Enlarged Glands			1								1	2		0.20									
Pot-bellied										1		1			0.09								
Rickets				1	1	2	1					2	3	0.20	0.27								
Tuberculous Bone									1			1			0.09								
Ulcer on Neck								1				1		0.10									
		1	1	1	2	1	2	1		1	1	2	1		7	8							



I take this opportunity in presenting my Report to acknowledge the very great kindness, consideration, and help which I have at all times received from the Members of the Health Committee, and from all the Officials of the Corporation.

And beg to remain, Gentlemen,

Your very obedient servant,

F. G. HAWORTH.





REPORTS

OF THE

INSPECTORS OF NUISANCES,

FOR THE

Year ending December 31st, 1910.



PUBLIC HEALTH OFFICE.

DARWEN,

FEBRUARY, 1911.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

GENTLEMEN,

I have pleasure in submitting my twentieth annual report of the work carried out in the Health Department under my supervision during the year 1910.

REGISTER OF WORK DONE.

	Central.	South-East.	South-West.	Total.
Complaints attended to.....	55	20	21	96
Premises inspected.....	2116	2520	2664	7300
Drains tested.....	27	31	46	104
Workshop inspections.....	123	119	145	387
Bakehouses inspected.....	40	41	50	131
Caravans inspected.....	88	0	3	91
Rooms fumigated.....	36	32	45	123
Preliminary Notices served.....	231	259	291	781
Legal Notices served.....	122	189	186	497
Re-Inspections.....	704	822	787	2313

SUMMARY OF NUISANCES DEALT WITH.

	Central Ward.	South-East Ward.	South-West Ward.	Total.
Defective Drains.....	14	17	23	54
do. Gullies.....	38	47	54	139
do. Water W.C.'s etc.	9	14	18	41
do. Easing Troughs and Down-Spouts.....	30	41	36	107
Insanitary Yards.....	6	9	8	23
Dirty Houses, etc.....	64	87	114	265
Accumulation of Refuse.....	20	15	19	54
Nuisance from Animals.....	6	3	4	13
Insanitary Ashpits.....	9	21	37	67

Ashtubs without Covers.....	34	37	41	112
Broken Slop Pipes.....	48	56	47	151
Choked Waste Water Closets.....	19	31	24	74
Broken Ashtubs.....	14	21	16	51
Broken Closet Receptacle Doors.....	36	32	53	121
Conversion of Pail Closets.....	6	9	11	26
Provision of Additional Closet Accommodation.....	2	1	1	4
To Construct Drains.....	21	15	14	50
To Provide Ashes Accommodation.....	8	19	16	43
Overcrowding.....	...	2	3	5
Miscellaneous.....	2	3	6	9

During the year 1910 I received 96 complaints from householders, etc, choked drains and waste water closets being the chief causes of complaint. Many of the waste water closets were choked with stones, brushes, pieces of coal, etc., and in some cases the traps at the bottom of the closets were broken, necessitating the provision of a new closet. In some districts the tenants are very careless, and allow their children to play in these places, and they are the cause of them becoming choked.

DEFECTIVE DRAINS.

I came across very many cases where the drains were in a very bad state, the pipes being laid in a very improper manner and causing the sewage to saturate the yards and foundations of the houses.

In Stoney Flats I found the whole of the drainage, from Nos. 30 to 41, was discharging into the river, and also the drainage from King's Arms and 3 shops adjoining were also discharging into the river. I had all the drains relaid, properly trapped and discharged at the sewer.

DIRTY AND OVERCROWDED HOUSES.

I have paid particular attention to dirty and overcrowded houses in the poorer districts, and with the co-operation of the various owners I have been able to keep the houses, etc., in a much cleaner condition than formerly.

HOUSING AND TOWN PLANNING.

During the latter part of the year I made a house to house inspection of about 150 houses in Brigg's Court, Old Lane, Astley Street and Riley Street, and have submitted a report dealing with the sanitary condition, etc., of each house, which

I hope will be dealt with by the Health Committee as early as possible. No one is more anxious than myself that properties should be improved where improvement is possible, but some of the houses possess no features entitling them to a longer existence. Many houses are back to back or without back doors, etc., and give rise to the great fault that no thorough ventilation is possible. The atmosphere of such dwellings is invariable foul and offensive. The plastering and woodwork are saturated with organic matter. There is an absence of proper domestic conveniences and places for keeping food, coal, etc. The unwillingness of owners to spend money in keeping property of this description in repair is probably owing to the hopeless aspect of the task. The habits of life of the occupiers of many houses contribute largely to their miserable condition, but the fact remains that when these people are removed and put into better surroundings their habits and sanitary condition will improve.

INFECTIOUS DISEASES.

During the year 1910 I received 64 notifications of Diseases, as compared with 115 in 1909.

The following table gives the nature and number of diseases and notifications in each Ward for 1909-10.

WARD.	Scarlet Fever.		Typhoid Fever.		Diph- theria.		Erysi- pelas.		Puerperal Fever.		Total.	
	1909	1910	1909	1910	1909	1910	1909	1910	1909	1910	1909	1910
Central.....	15	10	2	1	0	4	2	4	1	2	20	21
South-East	25	12	1	1	0	5	1	4	0	1	27	23
South-West.....	60	15	2	1	5	3	1	1	0	0	68	20
Total.....	100	37	5	3	5	12	4	9	1	3	115	64

It will be seen from the above Table that there is a decrease of infectious Diseases of 51, as compared with 1909.

Of the cases notified there were 16 removed to the Bull Hill Hospital.—15 Scarlet Fever and 1 Typhoid.

After receipt of a notification of Disease I have immediately visited the premises, made the usual inquiries, and if suitable isolation could not be provided at home I have recommended removal to Hospital, and where consent has been obtained I have removed the case as early as possible, and afterwards taken precautionary measures to prevent spreading, and only in a few cases has there been any further outbreak.

The following is a list of bedding sent to Hospital for disinfection :—

Beds	Mattresses	Bolsters	Pillows	Quilts	Blankets	Sheets	Suits of Clothes	Carpets	Rugs	Cushions	Shawls	Sundries
66	29	51	70	70	84	31	7	17	1	13	5	136

FACTORIES AND WORKSHOPS.

During the year systematic inspection of the Factories and Workshops has been carried out, and the condition of the premises has been found generally good.

Bakehouses and premises where wearing apparel was made received special attention, and were found to be kept in conformity with the Acts.

Complaints were received from His Majesty's Lady Inspector of Factories respecting several mills relating to the sanitary condition of convenience for women and girls, and as to conveniences being unscreened. Notices were served on the owners and occupiers of the mills, and in every case the work was carried out.

The following gives the particulars of inspections, etc. :—

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, AND HOME- WORKERS PREMISES.

I.—INSPECTION.

Premises.	Inspections.	Number of Written Notices.
Factories (including Factory Laundries).....	36	5
Workshops (Including Workshop Laundries).....	387	24
Workplaces, Homeworkers Premises.....	1	0
Total.....	404	29

NUISANCES UNDER PUBLIC HEALTH ACTS.

2.—DEFECTS FOUND.

	Number of Defects.	
	Found.	Remedied.
Want of Cleanliness.....	8	8
Want of Ventilation.....	3	3
Overcrowding.....	0	0
Want of Drainage of Floors.....	4	4
Other Nuisances.....	6	6
Sanitary Accommodation Insufficient, unsuitable or Defective (not separate for Sexes).....	13	12
Total.....	34	33

3.—OTHER MATTERS.

Class.	Number.
Matters Notified to H.M. Inspector of Factories.....	9

FAILURE TO AFFIX ABSTRACT OF THE FACTORY AND WORKSHOP ACT (S. 133).

Action taken in matters remediable under the Public Health Acts but not under the Factory Act (S. 5)—Reports of Action taken sent to H.M. Inspectors.....	6
Action taken in matters remediable under the Public Health Acts but not under the Factory Act (S. 5)—Notified to H.M. Inspector	5
Underground Bakehouses S. 101).....	4

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131).....	189
Workshop Laundries.....	3
Workshop Bakehouses.....	4
Other Workshops.....	12
Total Number of Workshops on Register.....	193

DAIRIES AND COWSHEDS.

During the year 187 visits were paid to the Dairies and Cowsheds which are registered under the Regulations made by the Local Authority, and reports have been submitted to you monthly as to the condition of the farms and the various matters requiring attention.

I have again to bring before the notice of the Council the question of the condition of some of the farms which can only be described as being in a very insanitary condition, the shippens, dairies and living places of many farms being in a very delapidated condition, whilst the drainage in many cases require thoroughly reconstructing to make it sanitary. The lighting and ventilation, although much improved in recent years, is in some cases unsatisfactory, and where improvements have been made to provide fresh air and light, the openings have been stuffed with hay and other materials.

At many farms the drinking water for the cattle is filthy, and in many instances the pool containing it might be described as an open cesspit. If this foully polluted water is used as it is in many cases to wash out the cans, we have a means of producing contamination of milk to an alarming extent.

Curious ideas exist amongst farmers as to what constitutes cleanliness, many cases having arisen where it was objected that it was unnecessary, and not customary to wash floors of shippens.

The regulation dealing with overcrowding is very difficult to enforce, as the number of cattle kept in shippens vary at each inspection, and the cubic feet per head ranges from about 180 to 500 feet.

There is nothing unreasonable in demanding that cowsheds should be well ventilated, that cows be properly groomed, a pure water supply provided, that the attendants and all utensils used should be kept at all times scrupulously clean.

The whole question of cleanliness concerning the milk supply is admittedly of very grave importance from a public point of view, but up to the present time the ideal standard has not been reached, and it appears questionable whether the desired degree of cleanliness will ever be attained without the assistance of more drastic legislative measures.

The following work was carried out after notices had been served :—

Number of Farms and Milkshops.....	76	
	Defects.	
	Found.	Remedied.
To Repair Drains.....	10	9
„ Flag or Pave Yard.....	6	4
„ Provide Manure Pits.....	3	1
„ Provide Ventilation.....	8	7
„ Limewash and Cleanse.....	4	4
„ Remove Gullies from Shippon.....	7	7
„ Provide Proper Slop Pipes.....	4	4
„ Repair Easing Troughs and Down Spouts.....	9	8
„ Provide Tank for Drainage.....	2	1
„ Provide Sliding Sash Windows.....	6	6
„ To Provide Dairy.....	2	2
„ To Abate Overcrowding Nuisance.....	1	1

During the year I personally distributed several hundred leaflets to Farmers, dealing with the following subjects :—Cleanliness in the Dairy, Farm Butter Making, Selection and Milking of Dairy Cattle, Calf Rearing, etc., ; Ringworm in Cattle, Milk Fever, Abortion in Cattle, Mange in Cattle, etc., etc.

The leaflets were issued free by the Board of Agriculture and Fisheries.

BLACK SMOKE.

I have, during 1910, taken 119 observations each of 60 minutes duration against 138 taken in 1909, the average for 1910 being 4 and that for 1909 was 3 mins. 41 secs., or a slight increase against the past year. These figures do not of course go to show that there was an increase of Black Smoke in the town, as the average will vary with the number of observations taken and whether a larger number of hand-fired boilers are taken.

I am of opinion that very little improvement has been made in the smoke nuisance, as the figures in the table will show. Out of 44 chimneys in my district 21 are hand-fired.

The chief causes of the Smoke Nuisance are—

SHORTNESS OF BOILER ROOM, which necessitates the unduly forcing of the fires.

DEFECTIVE DRAUGHT—The result of small flues and a low chimney.

COMMON DIRTY COAL, which makes smoke instead of steam.

SENSELESS STOKING. The stokers putting on many times as much coal as they ought. Some do it because they know no better, others to make it last, and others because they are compelled through having other work to do.

A little common sense in stoking, as in other matters, is very valuable. In hand-firing, in my opinion, the most sensible scientific and profitable system in firing is side firing, feeding one side of the furnace, allowing time for the incandescent fire on the other side to consume the gases before it is fired. The firing must be light and frequent, then there will be no preventable smoke emitted, less coal burnt, and more work got out of the boilers. Good stoking, without question, requires dexterity in practice, and expertness in execution.

In the following table I give you a complete list of—

SMOKE OBSERVATIONS, AVERAGES, &c., for 1910.

MILL.	No. of Observa- tions.	Average Minutes.						Boilers.	Apparatus.
		Black.		Moderate.		None.			
		M.	S.	M.	S.	M.	S.		
Primrose	3	1	41	15	17	43	2	1	Proctor's Stoker
Hanover Street	2	2	2	13	58	44	0	2	1 Hand, 1 Bennis's 2 separate works to this Chimney.
Progress	3	2	15	16	23	41	22	1	Whittaker's.
Culvert	4	2	15	13	20	44	25	1	Hand.
Holme	5	2	32	15	32	41	56	1	Proctor's.
Whitehall	2	2	40	16	10	41	10	1	Bennis's
Rose	3	2	45	15	8	42	7	1	Proctor's.
Springfield	3	2	46	15	22	41	52	1	Hand.
New Bridge	5	3	12	14	59	41	49	1	Whittaker's.
Marsh House	2	3	20	15	55	40	45	1	Hand.
Albert	5	3	21	16	8	40	31	2	Hand.
Spinning Mill (Balle Street) ...	5	3	23	19	0	37	37	2	Hand. Courts Turner patent bars.
Ellenshaw	4	3	25	16	10	40	25	1	Hand Fired. Patent bars.
South Street	4	3	38	17	29	38	53	1	Hand.
Tackfield	2	3	40	17	47	38	33	1	Hand.
Two Gates	2	3	45	15	57	40	18	1	Proctor's.
New Mill	3	3	45	16	2	40	13	2	1 Hand, 1 Bennis's.
Greenfield (old)	1	3	50	17	25	38	45	1	Proctor's.
Greenfield (new)	3	3	51	16	51	39	18	1	Proctor's.
Highfield	4	3	52	17	23	38	45	1	Hand.
Waterfield	4	3	53	17	19	38	48	1	Grimshaws
No. 1 Spinning Co.	7	4	14	18	3	37	43	2	Whittaker's.
Britannia	2	4	15	18	7	37	38	2	1 Bennis's, 1 Hand.
Hope	5	4	22	17	46	37	52	2	Hand.
India	3	4	38	22	3	33	19	5	Hand.
Hampden	5	4	46	22	44	32	30	1	Proctor's.
Starkie Street	3	5	17	13	32	41	8	1	Hand.
Sudell Side Street	3	5	40	17	35	36	45	1	Proctor's.
Vale Brook	6	5	47	19	50	34	23	1	Hand.
Spring Vale (low chimney) ...	5	5	52	19	6	35	2	4	Hand. Patent Air inlet
Bowling Green	5	6	38	16	54	36	28	3	Hand.
Spring Vale Paper (tall chim.)	4	6	51	21	59	31	10	4	Hand. Patent Air inlet
Darwen Paper Mill	2	7	35	13	57	38	28	6	Hodgkinson.

Notices to abate have been served in all cases where the limit has been exceeded, and proceedings were taken in two cases for non-abatement of nuisance, viz., Bowling Green Mill and Vale Brook Mill.

The following table gives the number of observations in previous years:—

Year.	Observa- tions.	Average No. of Mins. black
1900	41	10½
1901	129	8
1902	14	6
1903	15	6½
1904	4	9½
1905	30	6½
1906	164	6½
1907	159	6½
1908	137	3½
1909	138	3½
1910	119	4

INSPECTION OF FOOD.

The systematic examination of meat or other food supplies is one of the most important duties devolving on a Sanitary Authority, and I have spent considerable time in the inspection of the markets and other places. At present there is large quantities of meat, etc., entering the borough, both by road and rail, and this may be delivered to unknown places without being inspected. The only effectual method of controlling this traffic is a regulation requiring that all meat sent by road or rail should be consigned or taken to a central place for inspection before being delivered to any private persons. Until this is done frequent inspection will have to be made to the railway station and other places.

I have visited Darwen and Springvale Stations on many occasions and inspected meat, etc., which has arrived from various places.

I have also inspected hawkers' carts, containing fish, truit, vegetables, butchers meat, etc.

I have not had occasion to condemn any food on the markets during the year.

MANURE PITS.

In June 1910, the Medical Officer issued a report to the Committee on Manure Pits as the means of the propagation of large numbers of house flies, and I was instructed to submit a report on the Manure Pits.

In August I submitted a report as to the size and condition of 40 Manure Pits, and received instructions to spray the whole of the Pits in the centre of the town during the warm weather with Kerosine Oil. The whole of the owners and occupiers were circularised asking them to empty their pits as often as possible, and in nearly every case my request was carried out.

In the case of the large Manure Pit at Nalls stable, Railway Road, notice was served to carry out various alterations, with the result that the Manure Pit has now been reduced to one half the size, and will only contain about 7 days stock of manure.

DAY SCHOOLS.

During the year I made several reports to the Health Committee and to the Education Offices, but very few of my recommendations have been carried out, more particular in respect to the condition of the school yards, the closets and

urinals. Some of the school yards are in a very insanitary condition. The surface of all playgrounds should be smooth without being slippery, and formed of materials which do not work up into dust and dirt. The surface should also be compact, so that nothing should adhere to the boots and clogs, and be carried into the school, durable and not liable to be kicked up or worn into holes, and well drained. Gravel, cinders, or loose material are unsuitable.

In most cases one has to be content with the type of closet already in existence unless actual nuisance has arisen. Children should be taught to use the conveniences properly. Urinals should always have a sufficient water supply.

The condition of the inside of the schools is much better than in previous years.

HACKNEY CARRIAGES.

As Hackney Carriage Inspector for the Borough I have issued the following Licenses :—

Licenses for Tramcars.....	8
Licenses for Hackney Carriages.....	4
Licenses for Tramway Drivers.....	23
Licenses for Tramway Conductors.....	24
Licenses for Hackney Drivers.....	4

CARAVANS AS DWELLINGS.

The Caravans which have settled on the Market Ground have been inspected and generally found in a clean condition. I beg again to point out that the Market Square is unsuitable for Caravans to be allowed to stay on for any long period. There is no proper sanitary conveniences, and my attention has recently been drawn to several nuisances which have been caused by the occupiers of the vans.

During the year I have submitted supplementary reports to the Committee at each monthly meeting on Insanitary Property, Farm Dairies, etc., Overcrowding, and Infectious Diseases.

I am, Gentlemen,

Your obedient servant,

WILLIAM E. MARSDEN,

Assoc. Roy. San. Inst.

SANITARY OFFICES,

February, 1911.

Northern District.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

GENTLEMEN,

I beg to submit a Report to you of the work carried out in the District during the year ending December 31st, 1910.

The District is comprised of North-East, North-West and West-Central Wards.

The following Table gives the number of houses in each Ward at the last Census, and also shows the increase up to January, 1911.

Ward.	Houses in occupation Census, 1901	Uninhabited Census 1901	Building Census 1901	Total No. Census	Total No. Jan. 1910 not including lock-up shops, etc.	Increase from Census to Jan., 1911.
W.C.	803	97	6	906	951	45
N.E.	1953	56	21	2030	2233	203
N.W.	1153	21	7	1181	1805	624
Total	3909	174	34	4117	4989	872

During the last year 93 New Houses have been certified by the Surveyor's Department, 76 of these being in North-West Ward. Several old houses in West-Central Ward are now being used as business premises and store rooms.

One lock-up shop has been converted into a dwelling house.

INFECTIOUS DISEASES.

There were 128 cases reported as against 77 during 1909, as follows :—

Ward.	Scarlet Fever.		Typhoid Fever.		Diph- theria.		Erysi- pelas.		Puerperal Fever.		Con- sumption		Total.	
	1910	1909	1910	1909	1910	1909	1910	1909	1910	1909	1910	1909	1910	1909
West-Central ...	24	16	3	1	3	3	4	0	0	0	0	1	34	21
North-East.....	44	17	2	8	2	0	12	1	1	0	0	6	61	32
North-West	18	16	4	1	2	3	7	2	0	2	2	0	33	24
Total	86	49	9	10	7	6	23	3	1	2	2	7	128	77

Immediately upon the receipt of notification of Infectious Diseases I visited the houses, and ascertained if the patients were properly isolated. I also made a thorough examination of the premises, any defects discovered in the drainage or sanitary arrangements I caused to be remedied as quickly as possible.

SCARLET FEVER.

Eighty-six cases were reported as against 49 in the previous year. In 41 of the infected houses I found the patients were not properly isolated or were not receiving the necessary attention. I at once reported this to the Medical Officer and received instructions to remove the sufferers to the hospital, this I did as quickly as possible, thus reducing the number of centres of infection, preventing the disease assuming epidemic proportions, and safeguarding the public health.

I removed 52 persons to the hospital, or 60 per cent. of those reported to be suffering from the disease.

The 86 cases were distributed in the houses as follows :—

- 40 houses had 1 case each.
- 12 houses had 2 cases each
- 4 houses had 3 cases each.
- 1 house had 4 cases.
- 1 house had 6 cases.

In the last 18 houses the parents called the doctor in rather late, with the result that other members of the family contracted the disease before there was any attempt to isolate the patient.

In two instances the patients contracted the disease whilst away on holidays at a popular seaside resort.

HOW SCARLET FEVER IS SPREAD.

On February 26th, 1910, a child was reported to be suffering from Scarlet Fever. I visited the house at once and found the child had been put out to nurse during the day at another house in the immediate neighbourhood. I therefore proceeded to the latter house and found three children, aged 3, $2\frac{1}{2}$, and $1\frac{1}{4}$ years respectively, desquamating and running about the house, the parents who were both present appeared to be ignorant of the fact, and said the children had been suffering from colds. I instructed them to call in the family doctor without delay. The medical man certified the three children to be suffering from Scarlet Fever.

TYPHOID FEVER.

Nine cases were reported to have occurred in the district, viz. :—2 in North-East Ward, 4 in North-West Ward, and 3 in West-Central Ward.

During December, 1909, and January, 1910, 6 persons were reported to be suffering from Typhoid Fever in two houses in a street in North-East Ward. The two families were related. I found the first two children affected had eaten a few uncooked, unwashed mussels a few days before they were taken ill. One of the houses was in a dirty condition, and there is no doubt the complaint was spread to the other members of the family through carelessness, particularly on the mothers part, whilst preparing food. I removed the whole of the patients to the Blackburn Workhouse Hospital, where three of them died. The premises were thoroughly disinfected and limewashed.

In all cases of Typhoid Fever the excreta is collected in a galvanized pail with a tight-fitting lid, taken each evening to the destructor and cremated. A clean pail is left in the place of the one removed.

At the termination of each case of infectious disease (including Phthisis) the rooms were thoroughly cleansed and disinfected, and the bedding, etc., conveyed to Bull Hill Hospital, and disinfected in the Super-Heated Steam Disinfector.

During the year 97 loads of Bedding, etc., were disinfected, as compared with 77 loads in 1909. The following List gives the number and kind of articles treated :—

	Beds	Mattresses	Bolsters	Pillows	Quilts	Blankets	Sheets	Suits of Clothes	Carpets	Rugs	Curtains	Cushions	Shawls	Sundries	TOTAL
1909	87	38	67	106	72	95	37	3	8	4	10	11	13	315	866
1910	130	40	99	137	164	198	67	3	13	13	4	9	17	334	1228

In accordance with your instructions and the general order of the Local Government Board I have endeavoured, by systematic inspection, to keep myself informed in respect of any Nuisances existing in the District, as the following summary will show :—

SUMMARY OF NUISANCES DEALT WITH IN THE DISTRICT.

New Drains Constructed.....	30
Defective Drains Repaired or Relaid.....	57
Waste Pipes Trapped and Disconnected from Drains.....	3
Defective Soil Pipes Repaired.....	7
Defective Water Closets Repaired.....	7
Defective Roofage, Downspouts and Easing Troughs Repaired.....	121
Insanitary Yards Flagged.....	46
Dirty Houses and Premises Limewashed.....	167

Houses Insufficiently Ventilated and Overcrowded.....	18
Filthy Closets Limewashed and Cleansed.....	36
Insufficient or Insanitary Closet Accommodation.....	75
Accumulations of Refuse Removed.....	40
Nuisances arising from the Keeping of Animals.....	6
Choked Waste Water Closets Cleansed and Repaired.....	29
Insanitary Ashpits Abolished and Tubs or Bins provided.....	42
Insanitary Manure Pits.....	38
Ashtubs provided with Covers.....	32
Street Pavement in Defective Condition.....	3
Broken Slop Pipes Repaired.....	56
Dangerous Buildings Repaired or Rebuilt.....	31
Broken Ashtubs Repaired.....	8
Broken Closet Receptacle Doors Repaired.....	20
Factory Chimneys Emitting Black Smoke beyond the Time Limit	5
Nuisances of a Miscellaneous Character.....	5

SUMMARY OF WORK DONE IN DISTRICT.

Total Number of Nuisances Discovered in District.....	811
Letters Written Respecting Nuisances, etc.....	151
Preliminary Notices Served Respecting Nuisances.....	523
Legal Notices Served Respecting Nuisances.....	332
Number of Re-Inspections.....	4607
Number of Nuisances Abated (including outstanding Nuisances Discovered in 1909)	881
Number of Houses and Premises Inspected.....	7873
Number of Inspections of Refuse Tips.....	177
Number of Inspections of Schools and Public Buildings.....	116
Complaints Received and Investigated.....	113
Number of Drains, Water Closets, etc., Tested.....	40
Number of Smoke Observations Taken.....	151

COMPLAINTS.

During the year 113 complaints (written and verbal) were received and inquired into, as against 93 in 1909. In many instances I found the nature of the complaints did not admit of my interference, as they did not come within the scope of Sanitary Law. Again defective drainage was the cause of not a few complaints, and many old pervious rubble drains were found to exist, allowing the sewage to soak into the ground, causing damp walls, and giving rise to very serious nuisances. I also found choked waste water closets were responsible for several of the complaints received. Leaky gas mains and branch pipes were also discovered, these were immediately repaired by the Gas Department. In a few instances leaky service water pipes were found to be the source of the trouble.

During the month of June several persons complained of an offensive odour being emitted from a tip. I at once paid a visit to the district, and found several heaps of old shoddy waste had been deposited and not covered with earth, fermentation had set in, and the smell was perceptible some distance away. I caused the waste to be covered with soil, and the nuisance was abated.

In another instance (after testing) I found two large drains running under a mill warehouse. These were directly connected to the sewer, the foul air found its way through the imperfect joints of the drain pipes and into the warehouse, particularly so when the latrine closets at a neighbouring school were flushed. The drains were disconnected from the sewer, and the cause of the complaint removed.

DIRTY AND OVERCROWDED HOUSES.

The whole of the dwelling-houses, particularly in the poorer parts of my district were kept under constant supervision. During the year I discovered 167 houses which required whitewashing and cleansing. Notices were served upon the owners, and the work was done with as little delay as possible.

During the month of May, I had the occupiers of a house in Back Duckworth Street under observation. There were two living rooms and two sleeping rooms, but the family persisted in using one room only for all purposes. The family consisted of man, wife and five children, and the occupied room had a capacity of 1369 cubic feet, and was therefore overcrowded. I served a legal notice upon the occupier, and the family moved out of the district before the notice expired.

During the month of July I found a house in Richard Street overcrowded. There were two living rooms and two sleeping rooms, and the house was occupied by man, wife, five children, grandmother, also woman and three children lodgers. I served a legal notice, and the lodgers moved immediately.

During the month of June (the harvest season) I made an inspection of those parts of my district most frequented by Irish harvesters who come over for the season to work on the farms, but none of the houses were found to be overcrowded.

Whilst inspecting the property in Greggs Gardens, during the month of November, I found a house overcrowded, there was only one sleeping and one living room, and the house was occupied by three men, two women and one boy. The bedroom had a capacity of 1526 cubic feet. I served a legal notice upon the occupier after reporting the matter to you, and the lodgers removed at once.

During the year I have discovered many houses in a dirty condition which have not been reported to the Committee, a warning proving sufficient to secure the abatement of the nuisance.

HOUSING AND TOWN PLANNING, ETC., ACT, 1909.

During December, 1910, and January, 1911, at the meetings of the Health Committee I submitted detailed reports of inspections of houses in accordance with the regulations issued by the Local Government Board, under Section 17 of the above Act.

The Medical Officer of Health also inspected the property reported upon.

The Reports were referred to the Health Sub-Committee, and pending the report of this Committee I refrain from making any comments.

DAIRIES, COWSHEDS AND MILKSHOPS.

The whole of the Farms, etc., in the Northern District were kept under constant supervision during the year. The Dairies, Cowsheds, and Milkshops Regulations have been strictly enforced, resulting in the following improvements having been effected :—

Lighting and Ventilation of Shippons Improved.....	3
Shippon Pavement Re-Laid and Repaired.....	5
Drains Re-Constructed.....	2
Farm Yard Pavement Re-Laid.....	3
Defective Drains Repaired.....	4
Drains Removed from Dairies and Shippons.....	2
New Middensteads Constructed.....	1
Dirty Shippons and Dairies Limewashed.....	8
Repairs to Roofage of Shippons.....	4
Easing Troughs and Downspouts Repaired or Fixed.....	3
Settling Tanks Provided.....	1

It will be seen from the foregoing statement that a great deal of work was done, and the farms, etc., consequently very much improved. Two Shippons were thoroughly overhauled and more efficiently ventilated and lighted.

I found two dairy cows were being stalled in a small shippon, the cubic capacity of which was only 883 cubic feet. According to the regulations in force in the Borough there should be 600 cubic feet of space for each cow. A legal notice was ultimately served upon the cow keeper, and one cow was removed at once from the shippon. Additional ventilators were fixed and additional window space provided in three shippons. Two shippons were remodelled, and rendered much more sanitary. The pavement of the five shippons was relaid. I have still some difficulty in persuading the farmers to wash the shippon windows, and on many occasions I found the ventilators stuffed up with old sacks or hay. Again, I say, many of the cow-keepers do not as yet realize the importance of fresh air and sunlight, nature's disinfectants and preventers of disease, whilst darkness, disease, and dirt, go hand in hand. I often visited shippons whilst the milking of the cows was in progress, in order to ascertain if the bye-laws were being complied with, respecting the cleanliness of the cows' udders, the utensils, and the milkers' hands and clothing. In very

few instances is an apron or smock worn, and the clothing of the male milkers particularly is in many cases anything but clean. Some of the milkers simply rub the cows udder with the hand to remove any loose material before milking, instead of using a damp clean cloth. However, there has been a slight improvement in this respect. At one farm I found the milk was being passed through a seive, the meshes of which were too coarse, with the result that suspended matters were finding their way into the milk, giving rise to complaints. This defect was remedied forthwith.

Again, I say, it is very necessary that in each cowshed a wash basin should be provided for the washing of the milkers' hands. In no case does it obtain.

Some of the cowkeepers were again very dilatory in regard to the limewashing of the shippens, and it was necessary to serve statutory notices in five instances before the work was done.

A case of Typhoid Fever occurred at one dairy farm in the district. I removed the patient to the Hospital and superintended the removal of the whole of the liquid manure to the sewage works, owing to the excreta from the patient having been deposited in the tank. This was considered necessary on account of the close proximity of a public water supply.

I also submitted samples of the water to the public Analyst. The results of the analysis were considered satisfactory.

For further particulars see Medical Officer's Report.

I have continued the examination of the various sources of water supply, and in my monthly reports the results of my investigations have been stated in detail.

When making my inspections I have delivered at each Farm copies of the Regulations under the Dairies, Cowsheds, and Milkshops Orders, also Leaflets respecting the Disease of Cattle, etc., published by the Board of Agriculture.

BLACK SMOKE NUISANCE.

The Nuisance arising from the Emission of Black Smoke from Factory Chimneys has received my special attention. During the year I have submitted reports of 151 Observations, each of one hour's duration. The following is the time limit :—

One, Two, or Three Boilers, 5 Minutes per hour.

Four, or more Boilers, 7 Minutes per hour.

From the following particulars you will observe that Black Smoke was emitted, in excess of the time limit from the Chimneys of 5 factories as against 9 last year and 5 in the previous year. Statutory Notices were served, calling for the abatement of the nuisance, and in three instances legal proceedings were instituted under the direction of the Council for non-compliance with the notices, the Magistrates imposing a fine of 10s. and costs in one case and costs in the remaining two. The same firm had previously been prosecuted.

Mechanical Stokers have been fixed to three boilers during the year.

The Analysis of the Observations show an average Emission of Black Smoke of 2.12 minutes per hour. The average for 1909 was 2.43 minutes, and for 1908 2.18, and for 1907 2.15.

Particulars of Observations taken during the year.

Mill.	Black Smoke.	Moderate Smoke.	Slight Smoke.	Not Smoking.	Date reported to Committee	Legal Notices served.	No. of Boilers.	Particulars of Stoking and other Apparatus.
Anaglypta	4	20	11½	24½	Feb. 24...	—	1...	Hand Fired
"	3	6½	11	39½	June 23...	—	...	
"	3	12	13½	31½	July 28...	—	...	
"	2	6½	12½	39	Aug. 25...	—	...	
"	3½	11	8	37½	Oct. 20...	—	...	
Anchor.....	0	0	34	26	Aug. 25...	—	1...	Bennis's Self Feeding Stoker, with movable bars.
"	3½	15½	20	21	Oct. 20...	—	...	
Barley Bank ..	1	5	13	41	March 17...	—	...	Hand Fired " Ball's Crescent Grate."
"	1½	1½	6	51	April 21...	—	...	
"	1	3½	14	41½	May 26...	—	...	
"	1	7	6½	45½	Sept. 22...	—	...	
"	3	8	12	37	Dec. 19...	—	...	
Bank Top	1½	10½	15½	32½	Jan. 27...	—	1 ...	Proctor's Self Feeding Stoker, movable bars
"	2½	15½	23	19	Feb. 24...	—	...	
"	1½	6	24½	29	April 21...	—	...	
"	1½	14	24½	20	June 23...	—	...	
"	1½	26½	19	13	Aug. 25...	—	...	
"	1½	8½	10½	39½	Nov. 24...	—	...	
"	1	6	13	40	Dec. 19...	—	...	
Belgrave	3	10	18	29	Jan. 27...	—	3...	Bennis's Stoker with movable bars, fixed to one boiler only
"	3	9	25½	22½	Feb. 24...	—	...	
"	2	7½	16½	34	Nov. 24...	—	...	
"	0	3	13½	43½	Dec. 19...	—	...	
Belgrave South	1½	21	25	12½	Jan. 27...	—	3...	Proctor's Stokers, Sprinklers only
"	2	11	43	4	Feb. 24...	—	...	
"	1½	10	29	19½	April 21...	—	...	
"	4½	12½	25½	17½	May 26...	—	...	
"	2	21½	24	12½	June 23...	—	...	
"	2½	15	24	18½	Aug. 25...	—	...	
"	1½	10	26	22½	Nov. 24...	—	...	
Bottom Croft ..	3½	14½	12½	29½	Feb. 24...	—	2...	Hand Fired, " Court Turner " Fire Grate
"	3½	13½	7½	35½	March 17...	—	...	
"	2½	7	18	32½	April 21...	—	...	
"	5	21½	9½	24	May 26...	—	...	
"	3	10	21	26	June 23...	—	...	
"	2½	15½	10	32	July 28...	—	...	
"	3½	16½	9	31	Sept. 22...	—	...	
"	3½	18	14½	24	Oct. 20...	—	...	
"	9½	19	12	19½	Dec. 19...	—	...	One Boiler out of order.
Brookside	½	13½	18½	27½	June 23...	—	1 ...	Bennis's Self-Feeding Coking Stoker
"	½	4½	13	42	Aug. 25...	—	...	
Carr's	1½	11	47½	0	Feb. 26...	—	2...	Bennis's Stokers, with movable bars
"	0	20	38	2	Nov. 24...	—	...	
Cobden	½	11	34½	14	Jan. 27...	—	1...	Proctor's
"	0	4	23	33	Aug. 25...	—	...	
"	0	1	22	37	Oct. 20...	—	...	
Cotton Hall								
Spinning	0	3	26	31	March 17...	—	2...	Bennis's
"	1	23	20	16	May 26...	—	...	

Particulars of Observations taken during the Year.—Continued.

Mill.	Black Smoke.	Moderate Smoke.	Slight Smoke.	Not Smoking.	Date reported to Committee	Legal Notices served.	No. of Boilers.	Particulars of Stdking and other Apparatus.
Cotton Hall								
Weaving ...	3 ... 9 ... 17 ... 31	Jan. 27...	—	...	1... Proctor's			
" ...	2 ... 12 ... 27 ... 18	June 23...	—	...				
" ...	3 ... 9 ... 19 ... 27	Nov. 24...	—	...				
" ...	0 ... 1 ... 31 ... 27	Dec. 19...	—	...				
Dove ...	4 ... 9 ... 4 ... 42	March 17...	—	...	1 Hand Fired			
" ...	1 ... 10 ... 16 ... 32	May 26...	—	...				
" ...	3 ... 4 ... 2 ... 50	July 28...	—	...				
" ...	2 ... 15 ... 5 ... 36	Sept. 22...	—	...				
" ...	2 ... 6 ... 9 ... 42	Dec. 19...	—	...				
Eccleshill (Iron Chimney)	1 ... 6 ... 9 ... 44	Jan. 27...	—	...	2... Hand Fired			
" ...	2 ... 11 ... 13 ... 33	March 17...	—	...				
" ...	3 ... 4 ... 4 ... 48	April 21...	—	...				
" ...	1 ... 7 ... 11 ... 40	May 26...	—	...				
Gas Works ...	1 ... 8 ... 3 ... 47	July 28...	—	...	2... Meldrums forced draught			
" ...	0 ... 5 ... 11 ... 44	Aug. 25...	—	...				
George Street ...	1 ... 12 ... 34 ... 12	Jan. 27...	—	...	2... Proctor's Stoker fixed to 1 boiler, and Whittaker's Stoker fixed to one boiler.			
" ...	1 ... 18 ... 30 ... 10	June 23...	—	...				
" ...	3 ... 5 ... 34 ... 17	July 28...	—	...				
" ...	1 ... 15 ... 28 ... 16	Aug. 25...	—	...				
" ...	2 ... 24 ... 19 ... 14	Sept. 22...	—	...				
" ...	1 ... 6 ... 36 ... 14	Oct. 20...	—	...				
" ...	1 ... 19 ... 30 ... 9	Nov. 24...	—	...				
" ...	3 ... 16 ... 32 ... 8	Dec. 19...	—	...				
Hey Fold ...	1 ... 12 ... 22 ... 24	March 17...	Oct. 6-09	2... Hand Fired				
" ...	1 ... 3 ... 19 ... 36	May 26...	—	...				
" ...	3 ... 18 ... 13 ... 25	July 28...	—	...				
" ...	2 ... 11 ... 24 ... 21	Dec. 19...	—	...				
Hill Side ...	1 ... 6 ... 25 ... 28	Jan. 27...	—	...	1... Whittaker's Sprinklers only			
" ...	0 ... 3 ... 35 ... 22	Feb. 24...	—	...				
" ...	1 ... 6 ... 23 ... 29	April 21...	—	...				
" ...	0 ... 5 ... 37 ... 18	May 26...	—	...				
" ...	0 ... 11 ... 20 ... 29	Aug. 25...	—	...				
" ...	3 ... 19 ... 25 ... 12	Sept. 22...	—	...				
" ...	1 ... 4 ... 9 ... 45	Nov. 24...	—	...				
Hindle Street ...	2 ... 26 ... 28 ... 4	March 17...	Jan. 11-10	1... Whitaker's Sprinkler only.				
" ...	1 ... 17 ... 29 ... 12	April 21...	—	...				
" ...	2 ... 6 ... 41 ... 11	June 23...	—	...				
" ...	0 ... 1 ... 14 ... 45	Dec. 19...	—	...				
Hollins (Tall Chimney)	27 ... 16 ... 6 ... 10	May 26...	—	...	5... Hand Fired. Prosecuted April 29th, 1909, "Order to Abate." Oct. 7th, 1909—Fined 10s and costs.			
" ...	9 ... 20 ... 9 ... 22	May 26...	—	...	Prosecuted June 30th, 1910—Fined 10s. and costs.			
" ...	12 ... 10 ... 8 ... 28	May 26...	—	...				
Hollins (Low Chimney)	7 ... 25 ... 12 ... 15	Jan. 27...	Feb. 11-10	4...				
" ...	2 ... 8 ... 9 ... 39	April 21...	—	...				
" ...	3 ... 6 ... 21 ... 29	May 26...	—	...	Eriths Grateless Coking Stoker fixed in April			
" ...	2 ... 8 ... 14 ... 34	June 23...	—	...				
" ...	0 ... 1 ... 12 ... 47	Oct. 20...	—	...				
Hollins Grove ...	1 ... 53 ... 5 ... 0	Jan. 27...	—	...	2... Bennis's Stoker, movable bars			
" ...	0 ... 2 ... 47 ... 11	Feb. 24...	—	...				
" ...	3 ... 23 ... 26 ... 7	May 26...	—	...				

Particulars of Observations taken during the Year.—Continued.

Mill	Black Smoke.	Moderate Smoke.	Slight Smoke.	Not Smoking.	Date reported to Committee	Legal Notices served.	No. of Boilers.	Particulars of Stoking and other Apparatus.
Hollins Grove .	1 1/2	29 1/2	25	5	July 28	—	...	
"	4	44	10	2	Oct. 22	—	...	
Lloyd and Millwards...	1 1/2	1 1/2	4 1/2	53 1/2	July 28	—	...	1... Hand Fired
Lorne Street ...	1 1/2	3	8 1/2	47	Feb. 24	—	...	1... Hand Fired
"	3 1/2	11	5	40 1/2	March 17	—	...	
"	2	4	16 1/2	37 1/2	April 21	—	...	
"	2	7 1/2	8 1/2	42	May 26	—	...	
"	4	11 1/2	10	34 1/2	June 23	—	...	
"	2 1/2	10	6 1/2	41	July 28	—	...	
"	3	17	15 1/2	24 1/2	Sept. 22	—	...	
"	1	5 1/2	16	37 1/2	Oct. 20	—	...	
"	1 1/2	10	12 1/2	36	Dec. 19	—	...	
Lower Wood ...	0	5	26	29	March 17	—	...	1... Proctor's Stoker, movable bars.
"	2	27	17	14	Sept. 22	—	...	
Orchard Mill ...	4	13 1/2	27 1/2	15	March 17	—	...	3... Proctor's Stoker with movable bars, fixed to one boiler only
"	2 1/2	6 1/2	25	26	April 21	—	...	
"	2	17 1/2	32	8 1/2	May 26	—	...	
"	1 1/2	13	28 1/2	18	June 23	—	...	
"	3 1/2	21	27 1/2	8	July 28	—	...	
"	4	19	29	8	Aug. 25	—	...	
"	2	9 1/2	36	12 1/2	Sept. 22	—	...	
"	5	16 1/2	17 1/2	21	Oct. 20	—	...	
"	4	13 1/2	20	22 1/2	Nov. 24	—	...	
"	2 1/2	10 1/2	29	18	Dec. 19	—	...	
Provident	1 1/2	6 1/2	21	32	March 17	—	...	1... Bennis's Stoker with movable bars
"	0	1	12	47	June 23	—	...	
Peel	2	7	11 1/2	39 1/2	Jan. 27	—	...	1... Leach's Stoker, Sprinkler only.
"	3 1/2	4 1/2	7 1/2	44 1/2	April 21	—	...	
"	2	6	15	37	Aug. 25	—	...	
"	2	6 1/2	7 1/2	44	Oct. 20	—	...	
Prospect	1 1/2	3 1/2	11	45	...	—	...	1... Hand Fired
Queen Street....	5 1/2	23	18	13 1/2	Sept. 22	Aug. 5/09 Oct. 6/10	...	1... Leach's Stoker, Sprinkler only
Radford	0	3	20	37	Nov. 24	—	...	
Springfield.....	4	39 1/2	9 1/2	7	Feb. 24	—	...	1... Proctor's Stoker with movable bars.
"	0	17 1/2	26 1/2	16	Nov. 24	—	...	
Triperies	1 1/2	1 1/2	2	56	Jan. 27	—	...	1... Hand Fired
"	1 1/2	6 1/2	7	46	April 21	—	...	
"	1	8	6	45	Nov. 24	—	...	
Model Lodging House ...	1	5	16	38	July 28	—	...	1... Hand Fired
Union Street Saw Mills....	0	7	7	46	Aug. 25	—	...	1 Hand Fired
"	2 1/2	6 1/2	2	49	Dec. 19	—	...	
Vale Street	0	6	28	26	Sept. 22	—	...	1... Bennis's Stoker movable bars.
"	0	1 1/2	57 1/2	1	Oct. 20	—	...	
"	0	5	40	15	Nov. 24	—	...	
"	0	4	36	20	Dec. 19	—	...	
Woodfold	0	4	34	21 1/2	Feb. 24	—	...	1... Proctor's Stoker, movable bars.
"	1	12	35	12	March 17	—	...	
"	0	2	17	41	April 21	—	...	
"	1	2	20 1/2	36 1/2	June 23	—	...	
"	1 1/2	7 1/2	25	27	Sept. 22	—	...	
"	1 1/2	6	18 1/2	35	Dec. 19	—	...	
Woodside	0	11	33	16	July 28	—	...	2... Bennis's, with movable bars.
"	1 1/2	9 1/2	18	32	Sept. 22	—	...	
"	0	2	45	13	Oct. 20	—	...	

SCHOOLS.

During the year I have paid many visits to the 13 schools situated in the Northern District, particularly during each vacation, to ascertain if the cleansing was being carried out in accordance with your requirements as issued to the various school correspondents, by Mr. W. Bretherick, Secretary of Education. The Schools were thoroughly cleansed, the walls swept down, all woodwork washed, and the floors scrubbed with hot water and soap. Several schools have been renovated and painted etc., during the year. New floors have been laid in two schools, and the floors repaired in several others.

As pointed out to the Committee in my monthly reports several of the playgrounds are unpaved, or partially paved, resulting in the children carrying quantities of dirt in the schools on their clogs, particularly during wet weather, rendering the school floors very dirty and dusty. The yards should be paved or covered with some impervious material.

One would like to see the school windows cleansed much more frequently. Really, schools should be models of cleanliness in every respect.

TRIPERIES.

I have visited these works regularly during the year, I found the work being carried out in a satisfactory manner.

FACTORIES, WORKSHOPS AND BAKEHOUSES.

Systematic inspection of these places of employment has been carried out and the usual Register kept. 289 visits have been paid to them. As previously stated in the Medical Officers Report, this constant supervision has resulted in a general improvement.

Forty-two Defects were discovered and dealt with as shown in the Government Table included in the Medical Officer's Report.

Closets without Doors	3
Sanitary Conveniences in foul condition.....	3
Closets not Labelled for Sexes.....	3
Want of Cleanliness.....	12
Want of Ventilation.....	2
Defective Drainage.....	4
To Construct Drains.....	4
Defective or Insufficient Sanitary Accommodation.....	5
Accumulations of Refuse.....	4
Other Nuisances.....	5

Magisterial proceedings were necessary in one case to enforce the provision of Sanitary Conveniences for the workmen.

The Bakehouses have received attention, 156 visits having been paid to them. All reasonable precautions are taken in order that wholesome articles of food may be produced. There are three certified Underground Bakehouses in the Northern District. The insanitary bakehouse mentioned in my last annual report has been closed. A new bakehouse has been erected on another site.

The Limewashing, etc., was carried out in accordance with the provisions of the Factory and Workshop Act.

The following is a list of the Workshops on the Register :—

Dressmakers and Milliners.....	33	Plumbers	8
Stocking Knitters	2	Loom Slay Makers	1
Cycle Repairers	4	Tailoress	1
Tin Plate Workers	4	Cabinet Makers	2
Saddlers	3	Joiners	4
Tailors.....	1	Tripe Dressers	3
Furniture Polish Manufacturers	1	Blacksmiths	3
Upholsterers.....	2	Picture Framers	3
Wheelwrights	4	Weighing Machine Repairer	1
Boot, Shoe and Clog Makers ...	28	Waste Sorting	2
Confectioners and Bakers	32	Herb Beer Manufacturers and Bottlers	2
Gutscraper	1	Watch Makers & Jewellers	6
Marine Stores.....	3	Patent Medicines.....	1

FOOD INSPECTION.

I have kept a sharp look out during the year over the various articles of food offered for sale for human consumption in the district, and have had no cause for complaint.

MODEL LODGING HOUSE.

I have kept this house under constant supervision, and have always found it in a satisfactory condition. The whole of the house was thoroughly disinfected under my supervision. I have also paid visits about midnight and checked the books on each occasion. I found everything in order.

The following Table shows the average number of occupants for each month during the last six years :—

	1905	1906	1907	1908	1909	1910
January	62.8 ...	75.1 ...	80.5 ...	77.2 ...	76.0 ...	70.2
February.....	65.2 ...	77.2 ...	81.2 ...	87.9 ...	74.9 ...	76.2
March	70.1 ...	73.8 ...	93.2 ...	87.2 ...	73.2 ...	70.2

April	80.2	...	81.1	...	95.1	...	88.2	...	79.5	...	79.2
May	79.2	...	84.2	...	86.1	...	90.2	...	83.2	...	79.2
June	75.1	...	96.2	...	82.2	...	93.2	...	79.2	...	78.1
July	64.4	...	80.3	...	84.3	...	85.9	...	84.1	...	78.7
August	70.2	...	60.2	...	86.1	...	80.5	...	81.9	...	72.1
September	69.1	...	72.1	...	97.2	...	74.7	...	87.0	...	70.2
October	69.1	...	81.1	...	90.2	...	76.9	...	74.2	...	72.6
November.....	87.1	...	81.4	...	92.2	...	72.1	...	74.1	...	79.6
December	74.0	...	75.3	...	78.3	...	69.1	...	80.1	...	78.2
Average.....	72.2	...	78.1	...	87.2	...	81.9	...	78.9	...	75.3

There is no other common lodging house in the district, a distinct advantage from a health point of view, as the lodgers are brought together under one roof, and therefore more directly under our supervision.

SANITARY IMPROVEMENTS.

During the year considerable progress has been made in the direction of sanitary reform, the water carriage system has been installed in lieu of the pail system in at least 75 instances.

MANURE PITS.

According to your instructions I made an inspection of the Horse Manure Midden Sheds in use in the Northern district, and submitted a detailed report at the August meeting of the Health Committee. Particulars of the size, condition, and the distance from other buildings, were given along with other information. I issued the following circular to the various stable occupiers:—

Dear Sir or Sirs,

Copies of the circular letter and Bye Laws issued by the Medical Officer of Health at the instigation of the Health Committee, were served upon you on or about July 11th. I have to inform you that the Bye Laws must be adhered to respecting the construction of the midden stand and the weekly removal of the manure. I have received instructions to send a man to spray each pit when emptied with a disinfecting fluid. I shall therefore be glad if you will inform me each time the manure is moved.

I am,

Yours respectfully,

C. R. WALSH,

Inspector of Nuisances.

There was a ready response to the letters issued, and fewer complaints were received from occupiers of houses near the stables.

ERECTION OF WOOD BUILDINGS IN BACK YARDS.

During the year I found the occupiers of several houses had erected wooden structures, such as pigeon cotes, rabbit hutches, etc., in the back yards, thus diminishing the yard space, and impeding light and ventilation. I was able however to persuade the occupiers to remove the buildings, and in no case was it necessary to report to the Health Committee.

HEN PENS.

I submitted a report on the condition of the hen pens in a part of my district during the latter part of the year.

At each monthly meeting of the Health Committee I have submitted a detailed Report of the work carried out in my District.

During the year I have had to report various owners of property to the Committee for non-observance of legal notices which have been served upon them. Warning letters were sent in each case by the Town Clerk.

I am pleased to say the letters were generally effectual in securing the abatement of the nuisances. In only one case was it necessary to resort to Magisterial proceedings to secure abatement.

65 Agreement Forms have been signed by Owners of Property in the Northern District for the Corporation workmen to carry out repairs, etc., to Back Yards, Drains, Waste Water Closets, etc. This work has been done under my supervision.

I am, Gentlemen,

Yours obediently,

C. R. WALSH, M.R. San. Inst., etc.,

Inspector of Nuisances.

SUPERINTENDENT'S OFFICE,

CLEANSING DEPARTMENT.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I beg to submit to you my Annual Report for the year ending December 31st, 1910.

The following is a summary of the Work done from January 1st to December 31st, 1910.

	Tons.	Cwts.	Qrs.
House Refuse to Destructor.....	11322	5	0
Market Garbage to Destructor.....	282	9	2
Slaughter Garbage to Destructor.....	45	18	0
	<hr/>	<hr/>	<hr/>
	11650	12	2
<hr/>			
Mattresses, Beds, etc., to Destructor.....	1,400		
Dogs, Cats, Fowl, etc., to Destructor.....	67		
Clinkers removed from Destructor.....	3,948	Loads.	
Excreta to Sewage Works.....	6,624		„
Sweepings to various Tips.....	2,644		„
Sweepings Deposited by Handcarts at Destructor	2,534		„
Gully Wreck to various Tips.....	1,257		„
Water Deposited on Streets.....	1,816		„
Length of Streets Swept by Machine.....	213 $\frac{3}{4}$	Miles	
Length of Streets Swept by Hand.....	2,405 $\frac{3}{4}$		„
Street Gullies Emptied.....	34,853		
Back Yard Gullies Emptied.....	31,744		
Excreta Pails Emptied.....	363,220		
Ashtubs Emptied.....	329,261		
Ashpits Emptied	2,260		
Ashtubs Added during the Year.....	223		
Snow Removed from Streets.....	613		
Pails brought in from Closet Alterations.....	56		

Yours obediently,

JOSEPH NICCOLL,

Cleansing Superintendent.

SLAUGHTER HOUSES—YEARLY REPORT, ENDING December, 1910.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I beg to lay before you my Report for the Year ending 1910.

CATTLE SLAUGHTERED AT THE PUBLIC ABATTOIRS.

Beasts.....	1479	Against.....	1435	Increase.....	44
Sheep.....	7754	Against.....	7414	Increase.....	340
Calves.....	146	Against.....	152	Decrease.....	6
Swine.....	384	Against.....	528	Decrease.....	144
	<hr/>		<hr/>		
	9763	Against.....	9529	Increase.....	234
	<hr/>		<hr/>		<hr/>

The falling off in the number of Swine is owing to the high prices, on account of Swine Fever.

PRIVATE PREMISES.

Beasts.....	952	Against.....	964	Decrease.....	12
Sheep.....	5988	Against.....	5670	Increase.....	318
Calves.....	194	Against.....	174	Increase.....	20
	<hr/>		<hr/>		
	7134	Against.....	6808	Increase.....	326
	<hr/>		<hr/>		<hr/>

TRIPERIES.

This class of Food imported was of the usual average quality.

BUTCHERS VANS.

Are regularly examined. They are clean and the meat fit for food.

LICENSES ISSUED.

I have issued Licenses to Farmers and others for the Slaughtering of 3 Beasts and 12 Pigs. This number was below the average. Only parts of the carcasses were fit for food.

MEAT UNFIT FOR FOOD.

The following were destroyed :—3 Beasts, 9 Sheep, 5 Swine, 3 Beasts Insides, and 2 tons 9 cwt. of Offaling.

Gentlemen, I remain,

Your humble servant,

WM. BICKERSTAFFE,

Meat Inspector.

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