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CITY OF BRADFORD.



# REPORT


ON THE

# Public Health of the City

For 1911.

Bradford :

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HEALTH COMMITTEE, 1911-12.

*(Meet every other Wednesday at 5 p.m.)*

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MR. ALDERMAN A. PRIESTMAN

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„ HOLDEN

„ D. WALKER

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VARLEY, D. WALKER and WILSON

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MOSER, PICKLES, and VARLEY

## STAFF OF THE HEALTH DEPARTMENT.

---

W. ARNOLD EVANS, M.D., B.Sc.,	Medical Officer of Health
JAS. T. KITCHIN, M.D.,	Superintendent of the City Hospital, Leeds Road
F. W. EURICH, M.D.,	Bacteriologist
F. W. RICHARDSON, F.I.C.,	Public Analyst
FRANK WHITE, M.R.San.I.,	Chief Inspector of Nuisances
H. DRAKE,	Assistant Inspector of Nuisances (Cert. Sanitary Inst.)
W. H. T. BENTLEY,	Meat Inspector (Cert. Sanitary Inst.)
H. RAISTRICK,	Assistant Meat Inspector (Cert. Sanitary Inst.)
G. DRIVER,	Fish Inspector
J. J. WARRINGTON,	Food and Drugs Inspector (Cert. Sanitary Inst.)
W. MARGERISON,	Inspector under the Shop Hours Act (Cert. Sanitary Inst.)
J. W. MARLTON,	Assistant Inspector under the Shop Hours Act
S. NICHOLSON,	Smoke Nuisance Inspector
C. PITTS, M.R.C.V.S.,	Veterinary Inspector of Dairy Cattle (Cert. Sanitary Inst.)
J. W. WILKINSON,	Lodging House Inspector (Cert. Sanitary Inst.)
H. SIMPSON,	Sub-Inspector of Nuisances
F. HILEY,	„ „ (Cert. Sanitary Inst.)
W. ACKREL,	„ „ (Cert. Sanitary Inst.)
L. CLAYTON,	„ „ (Cert. Sanitary Inst.)
A. GARNER,	„ „ (Cert. Sanitary Inst.)
F. GLEDSTONE,	„ „ (Cert. Sanitary Inst.)
J. HANSON,	„ „ (Cert. Sanitary Inst.)
E. G. HARDY,	„ „ (Cert. Sanitary Inst.)
J. HORSEFALL,	„ „ (Cert. Sanitary Inst.)
J. MACKEE,	„ „
T. SEWELL,	„ „ (Cert. Sanitary Inst.)
R. Y. WALTON	„ „ (Cert. Sanitary Inst.)
S. DAWSON	„ „ (Cert. Sanitary Inst.)
T. RIDLEY	„ „ (Cert. Sanitary Inst.)

STAFF OF THE HEALTH DEPARTMENT—*Continued.*

- J. W. ELLIOTT, Inspector under the Housing and Town Planning Act  
(Cert. Sanitary Inst.)
- J. A. RAISTRICK, „ „ „ (Cert. Sanitary Inst.)
- C. SUTCLIFFE, Disinfecting Officer
- L. J. BENTLEY, Assistant „
- C. LISLES, „ „
- A. HEMMS, Statistical Clerk
- J. E. SUTCLIFFE, Clerk (Cert. Sanitary Inst.)
- S. B. OATES, Clerk
- J. LAMBERT, Clerk
- J. FIRTH, P. DAY, S. S. WHITE, Junior Clerks
- J. ROBINSON, Storekeeper (Disinfectants)
- Miss E. H. JONES, Sanitary Inspector (Cert. of Sanitary Inspectors' Examination Board of London; National Health Diploma)
- Miss M. H. HARTLAND, Assistant Sanitary Inspector (Cert. of Sanitary Inspectors' Examination Board of London; Bedford College Hygiene Diploma)
- Miss L. JOWETT, Inspector of Midwives (C.M.B., Cert. Sanitary Inst.)
- Miss M. M. URQUHART (Cert. of Sanitary Inspectors' Examination Board of London; National Health Diploma)
- Miss C. A. BOWMAN (C.M.B., Cert. of Royal Sanitary Institute)
- Miss M. G. SEED (C.M.B., Cert. of Royal Sanitary Institute; Sanitary Inspectors' Cert. of Victoria University, Manchester)
- Miss B. KERR (Cert. Sanitary Inst.; L.G.B. Cert. Scotland)
- Miss G. H. CAMERON (Cert. of Sanitary Inspectors' Examination Board of London)

---

In addition to the above the Medical Officer of Health is assisted in the Inspection of New Buildings by the following officers under the Building Committee:—

- H. E. CRAVEN, Building Plans Inspector
- F. GLEDHILL, Assistant Building Inspector
- J. PETTS, „ „ „
- S. HARDY, „ „ „

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## APPENDICES

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I.—Report of Medical Officer of Health on Tuberculosis Dispensary.

II.—Annual Report of the City Analyst.

III.—Local Government Board Statistical Tables —

1. Birth and Death Rates.
2. Notification of Infectious Disease.
3. Causes of, and Ages at, Death.
4. Infant Mortality.

STATISTICAL SUMMARY.

Situation: Latitude 53'4 N.; Longitude 1'7 W.

Elevation: 251—1207 feet.

Area of City: 22,844 acres, or 35½ sq. miles.

Density of Population: 12'6 persons per acre,

Number of Inhabited Houses: 68,345.

Population: 288,505 (Census 1911).

288,723 (estimated to the middle of 1911).

Birth-rate: 19'00 per 1000.

Death-rate: Recorded, 15'07 per 1000.

Corrected (for age and sex), 15'50 per 1000.

Zymotic, 1'60 per 1000.

Phthisis, 1'15 per 1000.

Infantile Mortality, 140 per 1000 births.

Total Rainfall: 26'25 inches.

HEALTH DEPARTMENT,

TOWN HALL, BRADFORD,

*July 15th, 1912.*

*To the Chairman and Members of the Health Committee.*

GENTLEMEN,

In presenting my Annual Report on the health of the City for the year 1911, I beg to call your attention firstly to the vital and mortal statistics. If the sanitary progress of a community is to be measured by its death rate, the past year may be described as a fairly satisfactory one. The death rate per 1000 of the population from all causes was 15·07, in comparison with 15·1, the average for the previous five years; the death rate for the whole of England and Wales was 14·6, and in the 77 great towns, 15·5.

The prominent feature of the year in reference to diseases of the infective order was an unusual prevalence of Zymotic Diarrhœa, attributable almost entirely to the unusual hot dry summer. Typhoid Fever was a little more prevalent than in

the previous year, 196 cases having been notified. In the body of the report will be found a table showing the continuous diminution of this disease in Bradford, and that it is coincident with the conversion of privy middens into water closets and dry ashpits.

The infant mortality amounted to 140 per 1000 births as compared with 132, the average for the previous five years. A tabular statement in the report shows that there has been a continuous diminution in the infant mortality since the year 1891; this continuous improvement in the figures is shown by subtracting those diseases which are usually attributed to climatic conditions. When these figures have been deducted there is seen to be a continuous improvement, especially during the past five years. This result may, I think, be attributed chiefly to the increased attention that has lately been given to the causation and prevention of infant mortality.

The birth-rate for the city was 19.00 per 1000 of the population, about the same as for the preceding year. The rate for the whole of England and Wales was 24.4, and for the 77 great towns, 25.6 per 1000.

In regard to Pulmonary Tuberculosis all cases are required to be notified by medical practitioners in accordance with the

order of the Local Government Board which came into force on the first of January, 1912. Now that a Tuberculosis Dispensary has been established, and means provided for the institutional treatment of a certain number of cases, it is to be expected that in the future these active measures will result in a further diminution of Pulmonary Tuberculosis.

In regard to Housing of the Working Classes much useful work has been done by the two special inspectors appointed to carry out the regulations issued by the Local Government Board under the Housing, Town Planning, etc., Act, 1909. These inspectors made 2190 inspections, and discovered 2118 nuisances. Many insanitary houses were closed by orders under the Housing, Town Planning, etc., Act, and the Bradford Corporation, Gas, and Improvement Act.

I am, Gentlemen,

Your obedient Servant,

W. ARNOLD EVANS, B.Sc., M.D.



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STATISTICS  
OF  
BIRTHS, DEATHS, AND CAUSES OF DEATH.

---



POPULATION.

The estimate of the Registrar General of the population of Bradford on June 30th, 1911, was 288,723, an increase of only 884 over the corrected population for 1910. The various Ward populations and number of persons per acre are estimated to be as follows:—

WARDS.	Area in Acres.	Population.	Persons per Acre.
North ... ..	372	11,459	35·2
South ... ..	308	14,030	49·7
East ... ..	392	16,720	45·0
West ... ..	166	10,827	71·2
Listerhills ... ..	320	17,593	55·1
Great Horton ... ..	1283	22,666	16·8
Little Horton ... ..	428	15,705	36·9
East Bowling ... ..	557	18,362	33·5
West Bowling ... ..	1004	21,689	21·1
Exchange ... ..	117	3261	33·3
Bradford Moor ... ..	674	21,892	31·5
Manningham ... ..	457	23,911	53·1
Bolton ... ..	994	9119	9·2
Heaton ... ..	879	17,411	20·2
Allerton ... ..	2815	11,040	4·2
Eccleshill ... ..	1221	9915	7·6
Idle ... ..	1692	8084	4·6
North Bierley (East) ... ..	2406	11,644	5·1
North Bierley (West) ... ..	1850	10,486	5·9
Thornton ... ..	2250	5416	2·5
Tong ... ..	2659	7493	2·8
<b>TOTAL ... ..</b>	<b>22,844</b>	<b>288,723</b>	<b>12·9</b>

## BIRTHS.

The number of births registered during the year ending December 31st, 1911, was 5486, consisting of 2848 males and 2638 females. Calculated on the population as estimated by the Registrar General the birth-rate for the year was 19·00 per 1000 of the population, showing a decrease of ·06 per 1000 on the rate of 19·06 for the previous year. Locally the birth-rate varied between 13·71 in Bolton Ward to 23·77 in Little Horton. The birth-rate for the whole of England and Wales was 24·4, and for the seventy-seven great towns of the country 25·6 per 1000 of the population. In 136 smaller towns it was 23·4 per 1000.

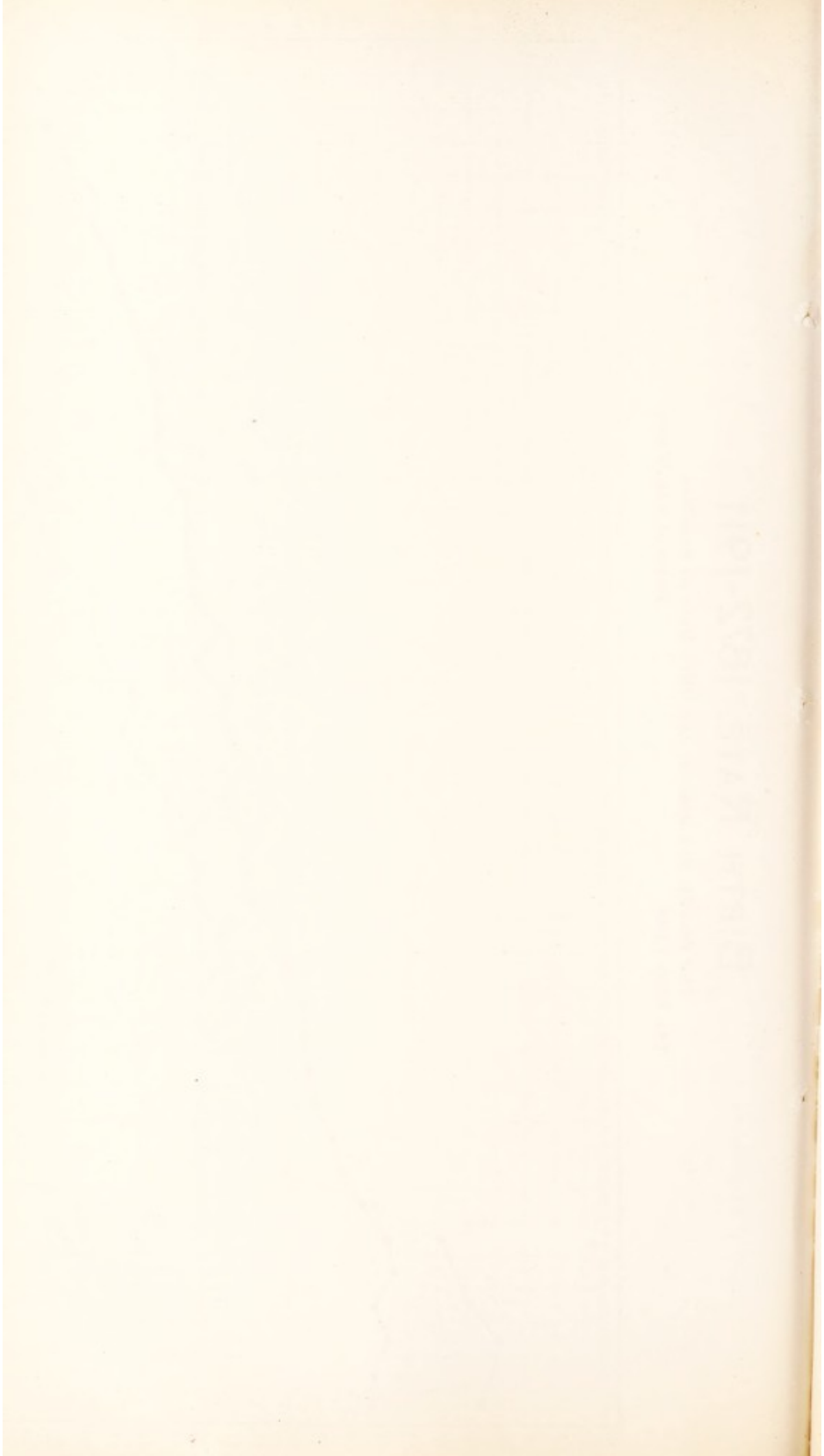
The birth-rate for Bradford, commencing with the year 1872, as contrasted with that of England and Wales, is shown on the diagram appended.

*Illegitimate Births.*—There were 260 births of illegitimate infants registered during 1911, being in the proportion of 47 per 1000 of the total births, the average proportion in the preceding ten years having been 49 per 1000.

The mean birth-rates in Bradford, calculated upon the total population at the last four Censuses, were as under, which shows a decrease in the birth-rate of 42 per cent. since 1881:—

	1881.	1891.	1901.	1911.
Bradford ... ..	33·0	28·7	23·0	19·02
England and Wales ... ..	34·0	30·7	28·6	24·4





*Table showing Total Births, Illegitimate Births and Infant Mortality Rates for Legitimate and Illegitimate Infants.*

YEAR.	BIRTHS.		PERCENTAGE OF ILLEGITIMATE TO TOTAL BIRTHS.	DEATHS UNDER 12 MONTHS.		PROPORTION OF DEATHS UNDER 12 MONTHS PER 1000 BIRTHS.		
	Total.	Illegitimate.		Total.	Illegitimate.	Total.	Legitimate.	Illegitimate.
1907	5736	249	4.3 %	713	61	124	119	245
1908	5998	289	4.8 %	860	62	143	140	215
1909	5507	278	5.0 %	637	68	116	109	245
1910	5490	300	5.5 %	695	59	127	122	197
1911	5486	260	4.7 %	765	55	140	136	212

Population, Births and Birth-rates in Bradford for a series of years,  
1883—1911.

BIRTHS.

YEAR.	Population.	No. of Births.	Rate per 1000.	Infantile death-rate per 1000 Births.
1883	199,214	5953	29·9	147
1884	201,347	6216	30·9	181
1885	203,504	6218	30·6	144
1886	205,684	6285	30·6	167
1887	207,887	6202	29·8	179
1888	210,113	6266	29·8	153
1889	212,364	6272	29·5	181
1890	214,634	6247	29·1	169
1891	216,808	6214	28·7	181
1892	217,805	5959	27·4	155
1893	219,008	6112	27·9	198
1894	220,218	5960	27·1	144
1895	221,435	5894	26·6	203
1896	222,658	5945	26·7	143
1897	223,895	5678	25·4	179
1898	225,133	5593	24·8	184
1899	226,373	5508	24·3	181
1900	*278,634	6720	24·1	141
1901	279,969	6461	23·08	168
†1902	280,833	6574	23·27	138
1903	281,799	6595	23·40	148
1904	282,568	6278	22·22	167
1905	283,441	6047	21·33	144
1906	284,314	5937	20·88	152
1907	285,189	5736	20·11	124
†1908	286,071	5998	20·97	143
1909	286,954	5507	19·19	116
1910	287,839	5490	19·08	127
1911	288,723	5486	19·00	140

\* City extended. † 53 weeks

BIRTHS.

The total number of births for each Ward in each quarter of the year is shown in the Table appended:—

WARDS.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1911.
North ... ..	63	68	50	62	243
South ... ..	90	75	81	79	325
East ... ..	82	93	86	72	333
West ... ..	55	69	51	49	224
Listerhills ... ..	69	73	67	68	277
Great Horton ... ..	101	114	100	96	411
Little Horton ... ..	104	94	101	90	389
East Bowling ... ..	106	103	105	80	394
West Bowling ... ..	93	98	109	98	398
Exchange ... ..	15	20	11	12	58
Bradford Moor ... ..	136	114	115	127	492
Manningham... ..	118	101	110	113	442
Bolton ... ..	40	27	27	31	125
Heaton ... ..	75	73	73	66	287
Allerton... ..	49	46	46	33	174
Eccleshill ... ..	44	45	33	56	178
Idle ... ..	22	32	32	35	121
North Bierley (East) ... ..	51	52	38	52	193
North Bierley (West) ... ..	47	31	45	47	170
Thornton ... ..	31	24	26	17	98
Tong ... ..	37	38	31	42	148
CITY ... ..	1428	1390	1337	1325	*5486

\* Six of these births were born outside the district, the home addresses not being obtainable.

The Table appended shows the excess of Births over Deaths in each of the Wards, or what is known as the *Natural Increase* in the population:—

WARDS.	Births.	Deaths.	Excess of Births over Deaths.	Excess of Deaths over Births.
North ... ..	243	236	7	...
South ... ..	325	260	65	...
East ... ..	333	239	94	...
West ... ..	224	217	7	...
Listerhills ... ..	277	277	...	...
Great Horton ... ..	411	242	169	...
Little Horton ... ..	389	259	130	...
East Bowling ... ..	394	315	79	...
West Bowling ... ..	398	295	103	...
Exchange ... ..	58	70	...	12
Bradford Moor ... ..	492	331	161	...
Manningham ... ..	442	331	111	...
Bolton ... ..	125	96	29	...
Heaton ... ..	287	238	49	...
Allerton ... ..	174	112	62	...
Eccleshill ... ..	178	126	52	...
Idle ... ..	121	87	34	...
North Bierley (East) ... ..	193	180	13	...
North Bierley (West) ... ..	170	169	1	...
Thornton ... ..	98	109	...	11
Tong ... ..	148	120	26	...
CITY ... ..	5486	4351	1135	...

In the West Riding Lunatic Asylums and other Institutions outside the district there were 153 deaths of persons ordinarily resident in Bradford, but in reference to 40 of them no address was returned, consequently it was impossible to refer them to any particular municipal ward.

## DEATHS.

The total number of deaths from all causes during 1911 was 4351, as compared with 4116 for the previous year. The annual death-rate per 1000 of the population was 15·07, that for England and Wales being 14·6 and for the seventy-seven great towns of the country 15·5 per 1000. The distribution of the deaths according to Municipal Wards is indicated on page 10.

The table following gives the chief statistics for the Urban and Rural parts of England and Wales.

### ENGLAND AND WALES, 1911.

*Annual Birth-rates, Death-rates and the Death-rates from the Seven Chief Epidemic Diseases.*

	Annual Rates per 1000 Living.			Infant Mortality— Annual Death- rate of Infants under 1 Year per 1000 Births.
	Births.	Deaths from all Causes.	Deaths from Seven Chief Epidemic Diseases.	
England and Wales ... ..	24·4	14·6	1·88	130
77 great towns ... ..	25·6	15·5	2·29	140
136 smaller towns... ..	23·4	13·8	1·98	133
England and Wales less the 213 towns ...	23·4	13·9	1·40	118

The number of deaths at various age periods in Bradford is shown below :

1911.	Under 1 Year.	1 to 2.	2 to 5.	5 to 15.	15 to 25.	25 to 45	45 to 65	65 and upwards.
Number of Deaths at Age Periods	765	161	153	145	185	630	1150	1162

Total 4351

The population of the Wards estimated to the middle of 1911 and the death-rates in Wards are given in the following table, viz. :—

WARDS.	Population.	Death-rate per 1000.
North ... ..	11,459	20·60
South ... ..	14,030	18·53
East ... ..	16,720	14·29
West ... ..	10,827	20·04
Listerhills ... ..	17,593	15·74
Great Horton ... ..	22,666	10·68
Little Horton ... ..	15,705	16·49
East Bowling ... ..	18,362	17·15
West Bowling ... ..	21,689	13·60
Exchange ... ..	3,261	21·47
Bradford Moor ... ..	21,892	15·12
Manningham ... ..	23,911	13·84
Bolton ... ..	9,119	10·53
Heaton ... ..	17,411	13·67
Allerton ... ..	11,040	10·14
Eccleshill ... ..	9,915	12·71
Idle ... ..	8,084	10·76
North Bierley East ... ..	11,644	15·46
North Bierley West ... ..	10,486	16·12
Thornton ... ..	5,416	20·10
Tong.. ... ..	7,493	16·28
CITY ... ..	288,723	15·07

The estimated death-rate varies between 10·14 in the Allerton Ward and 21·47 in the Exchange Ward.

CAUSES OF DEATH.

The diseases which caused the largest number of deaths are indicated in the following table:—

	1911.	1910.	Increase or Decrease.
Respiratory Diseases ... ..	665	619	+ 46
Scarlet Fever ... ..	9	14	- 5
Cancer ... ..	338	292	+ 46
Diarrhoea and Enteritis ... ..	249	101	+ 148
Atrophy and Debility ... ..	112	106	+ 6
Old Age ... ..	188	212	- 24
Phthisis, and other Tuberculous Diseases ... ..	426	435	- 9
Diphtheria and Croup ... ..	50	36	+ 14
Enteric Fever ... ..	45	31	+ 14
Measles ... ..	11	144	- 133
Diseases of Brain and Nervous System ... ..	333	334	- 1
Whooping Cough ... ..	99	46	+ 53
Premature Birth ... ..	133	127	+ 6
Heart Diseases ... ..	453	413	+ 40
Influenza ... ..	35	33	+ 2

The chief features are a large decrease in the mortality from Measles and an increase in the number of deaths due to Diarrhoea, Enteritis, and Whooping Cough.

DEATHS FROM ALL CAUSES IN BRADFORD.

Death Rate per 1000 since 1871.

1871	...	...	25.5	average	1891	...	...	22.1	average																																																																																																																																																																																	
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## DEATH RATES IN LARGE TOWNS.

	1906	1907	1908	1909	1910	1911	Five Years 1906-1910
London ... ..	15·1	14·6	13·8	14·0	12·7	15·0	14·0
Liverpool ... ..	20·6	19·0	19·2	19·0	19·0	19·5	19·3
Manchester ... ..	19·2	18·1	18·2	17·9	19·8	17·1	18·2
Birmingham ... ..	16·8	16·2	15·9	15·4	14·7	15·0	15·8
Sheffield ... ..	15·6	15·3	15·3	14·1	14·4	16·1	14·9
Leeds ... ..	16·4	17·1	15·8	15·1	14·9	16·6	15·8
Bristol ... ..	14·5	13·2	13·6	12·7	11·8	15·4	13·1
West Ham ... ..	15·7	14·6	13·9	14·0	12·5	15·7	14·1
<b>BRADFORD</b> ... ..	<b>16·0</b>	<b>14·4</b>	<b>15·3</b>	<b>14·3</b>	<b>14·3</b>	<b>15·0</b>	<b>14·0</b>
Newcastle ... ..	17·1	15·9	16·0	14·8	14·9	16·4	15·7
Hull ... ..	16·9	16·1	16·2	14·9	15·6	16·6	15·8
Nottingham ... ..	16·1	17·5	15·2	16·3	14·9	16·1	16·0
Leicester ... ..	14·3	12·7	13·0	12·9	12·0	13·4	13·0
Salford ... ..	18·3	17·7	17·8	18·0	16·7	17·4	17·7
Portsmouth ... ..	14·9	16·0	13·8	14·2	14·1	14·0	14·8
Cardiff ... ..	14·0	15·0	13·0	13·1	12·9	14·1	13·6
Bolton ... ..	15·2	16·8	15·4	15·1	15·1	16·3	15·5
Halifax ... ..	14·9	14·3	14·1	13·8	13·9	15·3	14·2
Huddersfield ... ..	17·3	16·9	17·0	16·3	17·8	15·1	17·0

Comparative figures are given in the following table showing the Mortality rate for five-yearly periods since 1871—

Bradford.					England and Wales.
1871 — 1875	...	...	...	25·9	22·0
1876 — 1880	...	...	...	22·3	20·8
1881 — 1885	...	...	...	19·9	19·4
1886 — 1890	...	...	...	20·9	18·9
1891 — 1895	...	...	...	19·7	18·7
1896 — 1900	...	...	...	17·9	17·7
1901 — 1905	...	...	...	16·3	16·0
1906 — 1910	...	...	...	15·1	14·5
1911	...	...	...	15·0	14·6

## DEATHS IN PUBLIC INSTITUTIONS.

The deaths which occurred in Public Institutions during the year 1911 are classified thus:—

	Males.	Females.	Total deaths.
Union Hospital ... ..	279	195	474
Royal Infirmary ... ..	135	102	237
Leeds Road Hospital for Infectious Diseases ... ..	26	27	53
The Children's Hospital ... ..	41	36	77
St. Catherine's Home ... ..	—	16	16
Bierley Hall Hospital for Infectious Diseases ... ..	—	—	—
Eye and Ear Infirmary... ..	7	1	8
Thornton Joint Hospital... ..	—	2	2
TOTAL ... ..	488	379	867

It will thus be seen that 20 per cent. of the total deaths in the City occurred in Public Institutions.

### INFANTILE MORTALITY.

The mortality amongst children under twelve months of age calculated on the number of births during the year was 140 per 1000.

In the whole of England and Wales the infantile mortality rate was 130 per 1000 births; in the seventy-seven large towns it was 140; in 136 smaller towns it was 133; and in England and Wales less 213 towns it was 118.

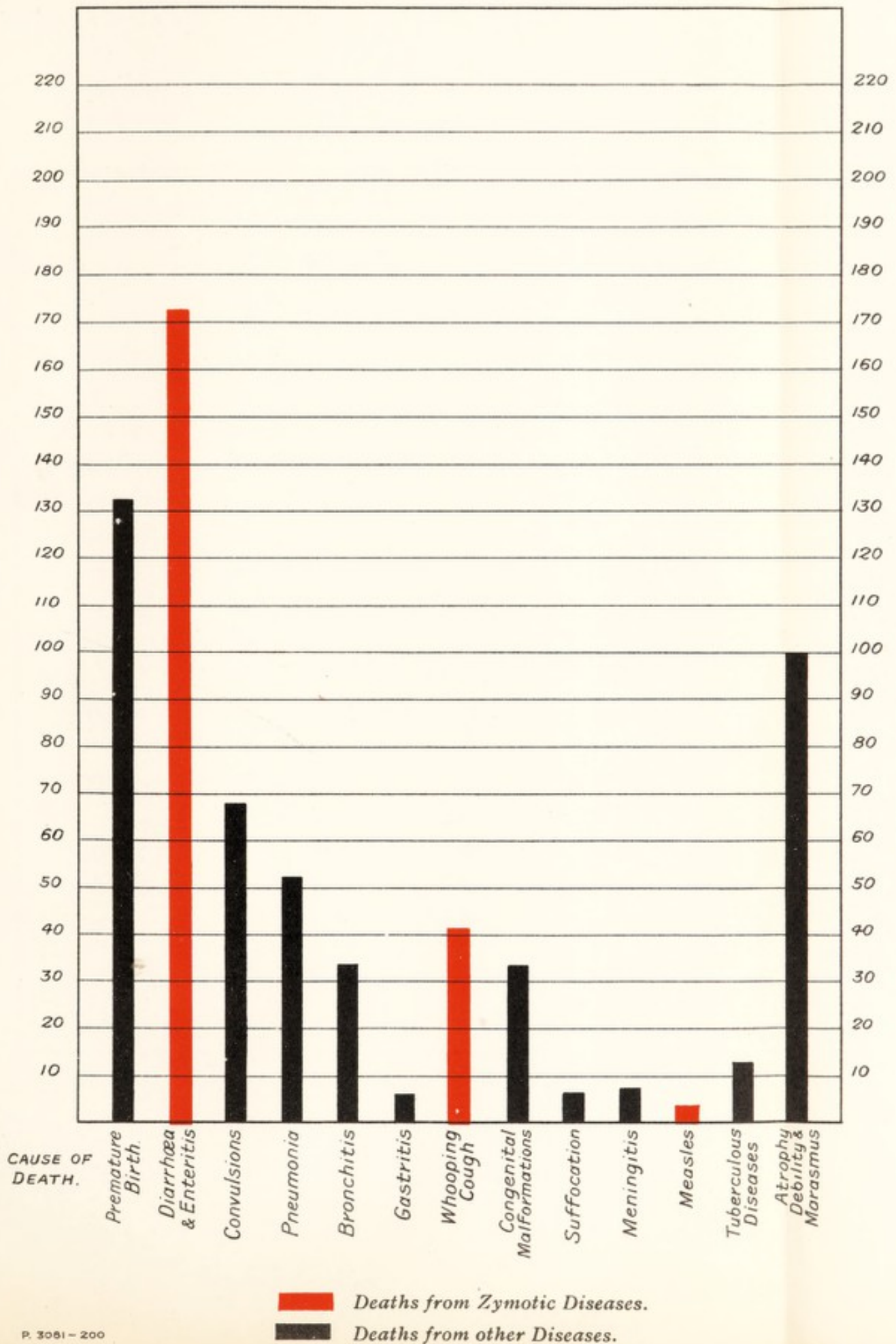
The affections most destructive to infant life during the past year were diarrhoea and premature birth.

*Rates of Mortality of Children under 1 year of age, from Chief Infantile Diseases, per 1000 Births occurring during the years 1907—1911.*

	1907.		1908.		1909.		1910.		1911.	
	Deaths.	Rate per 1000 Births.	Deaths.	Rate per 1000 Births.	Deaths.	Rate per 1000 Births.	Deaths.	Rate per 1000 Births.	Deaths.	Rate per 1000 Births.
From all Causes .	713	124	860	143	637	116	695	127	765	140
Lung Diseases ...	148	26	108	18	94	17	83	15	91	17
Convulsions ...	66	12	55	9	63	11	58	11	60	11
Atrophy and Debility ...	136	24	147	25	96	17	101	18	101	18
Premature Birth .	117	20	138	23	127	23	126	23	134	24
Congenital Malformations .	22	4	48	8	41	7	38	7	35	6
Diarrhoeal Diseases ...	51	10	162	27	22	4	96	17	173	32
Whooping Cough	33	6	24	4	20	4	25	5	43	8
Tuberculous Disease ...	26	5	38	6	28	5	23	4	14	3
Measles ... ..	14	2	19	3	5	1	45	8	3	1

# CITY OF BRADFORD.

Comparative view of thirteen of the principal causes of Infantile Mortality  
(below 1 year of age) during the year 1911.





*Infant Mortality Rate per 1000 Births, in Wards, for the Years*

1905 to 1911.

	1905.	1906.	1907.	1908.	1909.	1910.	1911.
North ... ..	216	222	176	236	100	166	230
South ... ..	148	187	127	208	165	131	194
East ... ..	123	120	114	161	93	92	156
West ... ..	219	317	176	169	106	161	210
Listerhills ...	152	172	168	173	163	147	195
Great Horton...	102	100	116	108	81	131	51
Little Horton ...	135	154	117	124	126	114	111
East Bowling ...	182	179	167	149	124	144	142
West Bowling ...	145	168	122	133	122	99	103
Exchange ...	265	239	152	312	207	230	293
Bradford Moor	126	114	141	135	132	131	152
Manningham ...	134	171	117	146	111	141	129
Bolton ... ..	126	112	103	95	119	63	72
Heaton ... ..	129	108	91	132	72	152	94
Allerton ...	127	113	82	132	92	64	98
Eccleshill ...	137	139	89	73	62	109	157
Idle ... ..	110	96	127	101	102	171	91
North Bierley (East)	152	183	94	126	131	108	161
North Bierley (West)	82	98	81	90	112	75	106
Thornton ...	116	121	113	96	140	122	204
Tong ... ..	202	82	55	126	140	114	135
CITY ...	144	152	124	143	116	127	140

*Table showing the number of Deaths of Infants under Twelve Months of age, in Wards, arranged according to the rateable value of the houses at which the deaths occurred:—*

Ward.	£6 and under.	£6 to £8.	£8 to £12.	Over £12.	Total.
North ... ..	21	7	5	3	36
South ... ..	30	10	10	2	52
East... ..	14	15	3	4	36
West ... ..	19	3	1	5	28
Listerhills ... ..	17	22	7	4	50
Great Horton ... ..	11	9	12	1	33
Little Horton ... ..	34	10	9	2	55
East Bowling ... ..	29	18	8	0	55
West Bowling ... ..	25	19	13	3	60
Exchange ... ..	7	1	2	1	11
Bradford Moor ... ..	33	17	15	3	69
Manningham ... ..	24	33	5	6	68
Bolton ... ..	8	6	5	1	20
Heaton ... ..	6	9	3	5	23
Allerton ... ..	11	2	2	4	19
Eccleshill ... ..	9	3	4	0	16
Idle... ..	13	3	1	2	19
North Bierley East ... ..	29	4	6	2	41
North Bierley West ... ..	25	5	2	0	32
Thornton ... ..	15	1	2	1	19
Tong ... ..	17	5	2	0	24
Total ... ..	397	202	117	49	765

*Infantile Mortality rate per 1000 births in Wards arranged in accordance with the rateable value of the houses in which the deaths occurred.*

Ward.	£6 and under.	£6 to £8	£8 to £12	Over £12	Total.
North ... ..	135	85	127	356	230
South ... ..	182	220	163	112	194
East... ..	184	105	51	98	156
West ... ..	142	290	249	172	210
Listerhills ... ..	198	206	156	90	195
Great Horton ... ..	99	40	120	15	51
Little Horton ... ..	165	75	122	70	111
East Bowling ... ..	176	133	118	0	142
West Bowling ... ..	92	130	163	94	103
Exchange ... ..	212	59	516	63	293
Bradford Moor ... ..	167	110	130	86	152
Manningham ... ..	220	133	63	87	129
Bolton ... ..	90	148	75	33	72
Heaton ... ..	95	120	56	45	94
Allerton ... ..	222	39	75	110	98
Eccleshill ... ..	110	221	156	0	157
Idle ... ..	142	56	50	140	91
North Bierley East ... ..	160	128	372	152	161
North Bierley West ... ..	158	116	120	0	106
Thornton ... ..	265	249	146	63	204
Tong ... ..	162	145	130	0	135
Total ... ..	163	128	123	88	140

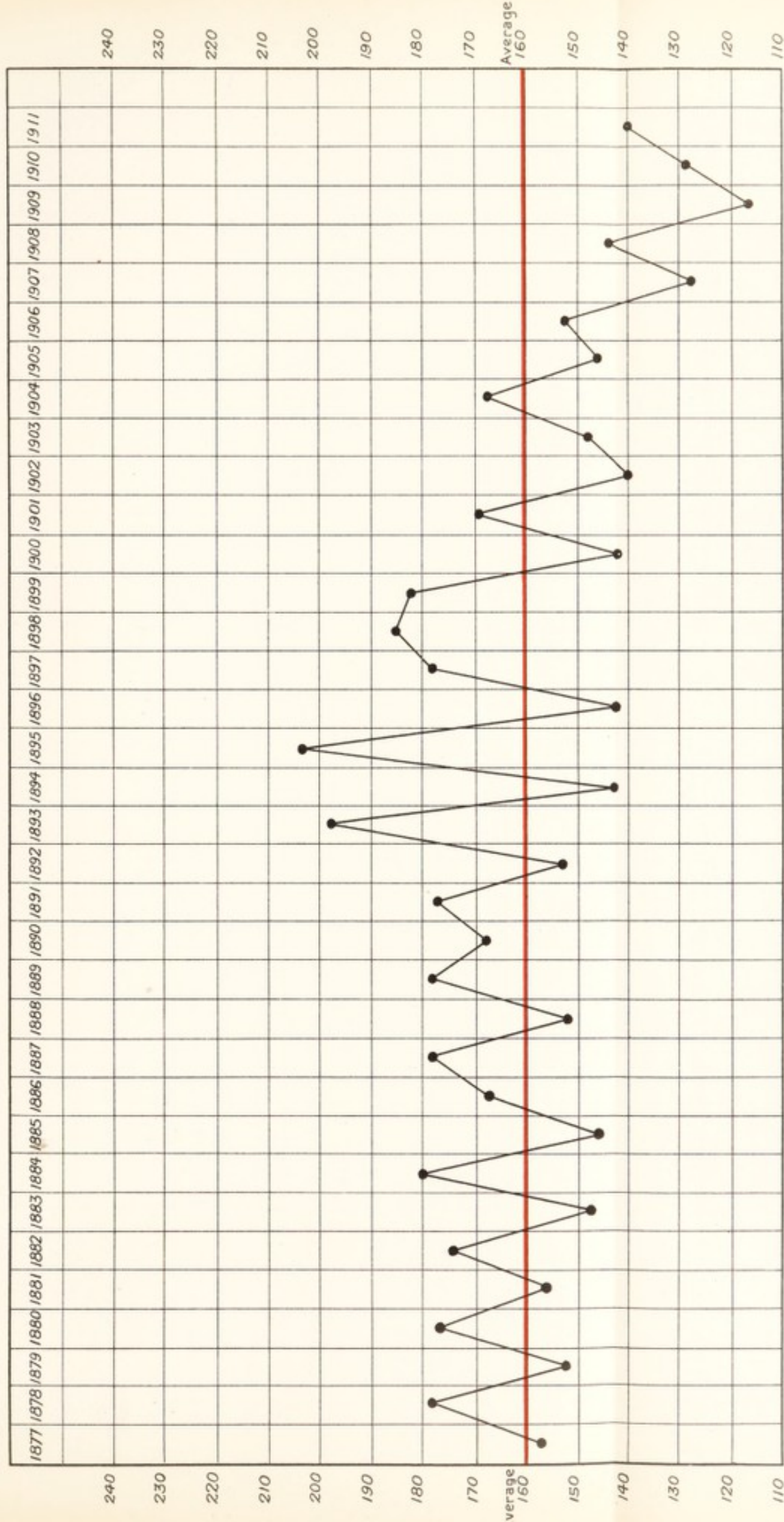
The above table shows the comparatively heavy infant mortality amongst children living in houses rated at £6 and under. If the infant mortality rate in this class of dwelling had been the same as in houses rated at £12 and over, 184 infant lives would have been saved during the year.

*Infant Mortality in Bradford and England and Wales  
for each year, and in groups of five years since 1871.*

BRADFORD.		ENGLAND AND WALES.	BRADFORD.		ENGLAND AND WALES.
	Average	Average		Average	Average
1871	220	158	1891	181	149
1872	200	150	1892	155	148
1873	205	149	1893	198	159
1874	189	151	1894	144	137
1875	202	158	1895	203	161
1876	176	146	1896	143	148
1877	157	136	1897	179	156
1878	178	152	1898	184	160
1879	152	135	1899	181	163
1880	176	153	1900	140	154
1881	154	130	1901	168	151
1882	174	141	1902	139	133
1883	147	137	1903	148	132
1884	181	147	1904	167	145
1885	144	138	1905	144	128
1886	168	149	1906	152	132
1887	179	145	1907	124	118
1888	153	136	1908	143	120
1889	181	144	1909	116	109
1890	169	151	1910	127	106
			1911	140	130

# CITY OF BRADFORD.

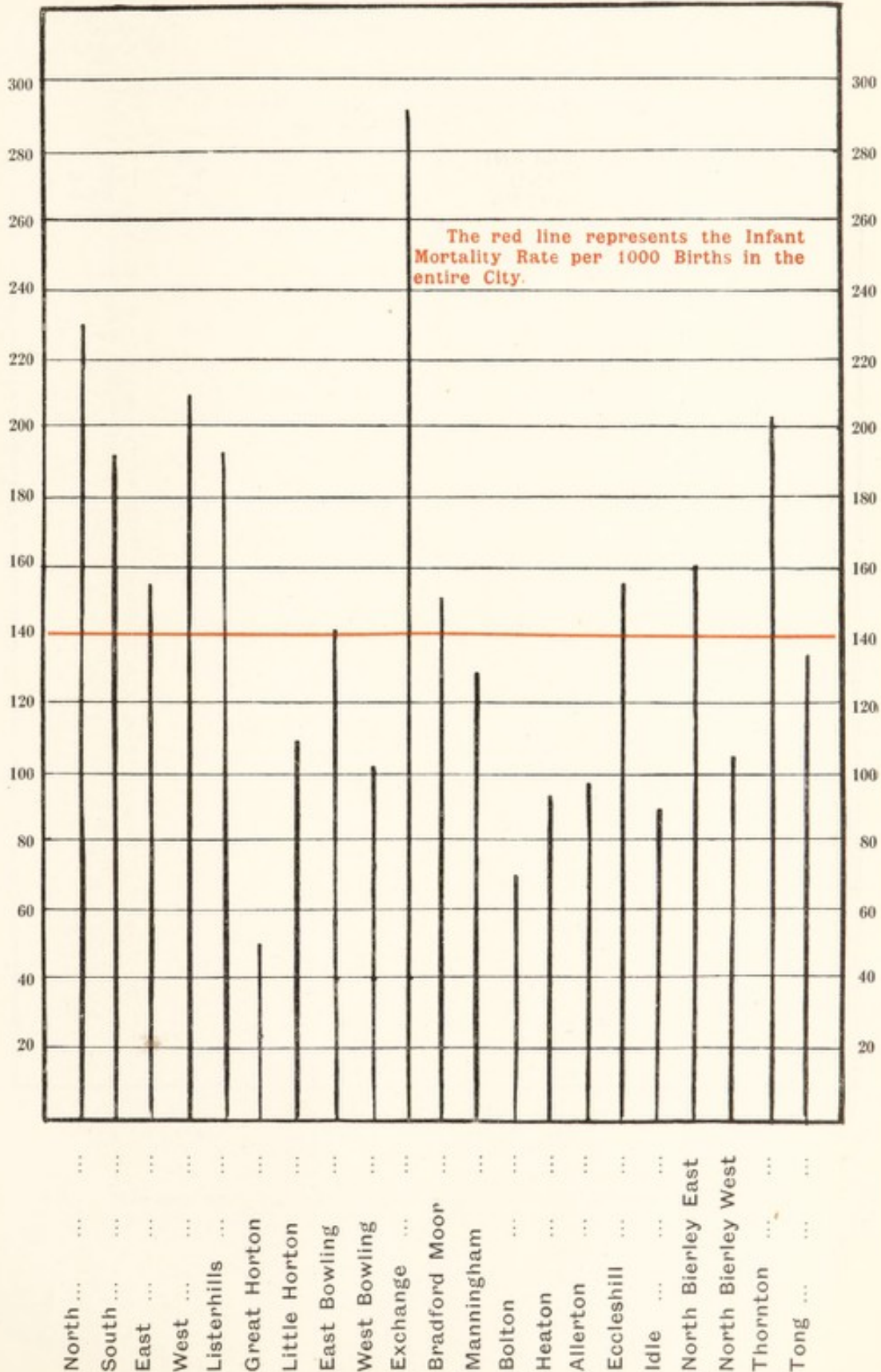
## Infant Mortality per 1000 Births, 1877-1911.





## CITY OF BRADFORD.

*Comparative Statement of the Infant Mortality per 1000 births in the Municipal Wards, 1911.*



*Infant Mortality in some Large Towns.*

	1911.	Average, 1906—1910.	Percentage above or below average.
London ... ..	126	114	+ 6
Liverpool ... ..	154	148	+ 4
Manchester ... ..	154	145	+ 6
Birmingham ... ..	163	144	+11
Sheffield ... ..	140	137	+ 2
Leeds ... ..	158	134	+15
Bristol ... ..	140	108	+23
West Ham ... ..	140	125	+10
Bradford ... ..	140	132	+ 5
Newcastle ... ..	135	130	+ 3
Hull ... ..	155	136	+12
Nottingham ... ..	161	143	+11
Leicester ... ..	131	136	- 4
Salford ... ..	154	144	+ 6
Portsmouth ... ..	126	110	+12
Cardiff ... ..	135	121	+10
Bolton ... ..	162	136	+16
Halifax ... ..	122	101	+17
Huddersfield... ..	131	107	+18

## CITY OF BRADFORD.

*Infant Mortality, 1891—1911.*

Year	Deaths under One Year of Age per 1000 Births.		
	Total.	Diarrhoeal Diseases.	Total less Diarrhoeal Diseases.
1891	181	14	167
1892	155	15	140
1893	198	12	186
1894	144	10	134
1895	203	52	151
1896	142	18	124
1897	179	23	156
1898	184	19	165
1899	181	22	159
1900	141	16	125
1901	168	35	133
1902	139	8	131
1903	148	19	129
1904	167	29	138
1905	144	21	123
1906	152	34	118
1907	124	11	113
1908	143	30	113
1909	116	6	110
1910	127	20	107
1911	140	32	108

The preceding table shows in parallel columns from 1891 the total annual infant mortality rate, the rate due to diarrhoeal diseases and the mortality minus that from diarrhoeal diseases. The diarrhoeal mortality occurs chiefly in infants, and, if as generally supposed, it is due to adverse climatic conditions, and not influenced to the same extent as other diseases by means taken for the preservation of infant life, a high diarrhoeal mortality may mark the diminution in mortality from other causes and create an impression that efforts made to diminish infant mortality were not meeting with success. For this reason I have in the above table deducted the diarrhoeal mortality from total, and given in the fourth column the mortality less the diarrhoeal mortality. The column shows a steady and continuous decrease in infant mortality since 1901, and I think such decrease may fairly be attributed to the special work that has recently been directed against those influences which adversely affect infant life.

## INFANT CONSULTATIONS.

In consequence of an application from the Committee of the Bradford Branch of the League of Physical Education and Improvement for the City Council to become responsible for and take over the management of the Babies' Welcomes, I made the following report to the Health Committee:—

### BABIES' WELCOMES.

TO THE MEMBERS OF THE HEALTH COMMITTEE.

GENTLEMEN,

At the present time there are in Bradford four Babies' Welcomes, namely, at the United College Settlement, College Road, attended by Dr. Macdonald; at the Municipal Milk Depot, Manchester Road, attended by Dr. Sharp; at the Caledonia Mission Room, attended by Drs. Goyder and Hall; and at Holy Trinity Schools, Mount Street, attended by Drs. Manknell and Shepherd. The Welcomes are open one day in each week from 2-30 to 4 p.m., and are also attended by Miss Grant, the Superintendent, and by one or other of the Women Health Inspectors. They have been established under the auspices of the National League for Physical Education and Improvement. The object of the Welcomes is to provide medical attention for weakly children, and to give advice to the mothers as to the children's treatment, clothing, etc. The management is very much after the style of a hospital out-patients' department, and each baby has a card upon which the observations and recommendations of the doctor are written. Although the attention given by the honorary medical officers has been extremely helpful to many poor families, it has frequently happened that, owing to pressure of private practice, the doctor has been unable to attend, with consequent disappointment to the parents. I have frequently visited the Welcomes myself, and have noticed the scanty attendance, and am of opinion that if the parents could implicitly rely upon receiving medical attention for the babies, the attendance at the Welcomes would be largely increased.

In connection with the Welcomes there is also a provident maternity club for expectant mothers, the object of the club being to receive from mothers such small sums of money as can be spared weekly from a penny upwards, which shall be disbursed for the following purposes, viz. :—

- (A). Nourishment for the mothers.
- (B). Babies' clothing, etc.
- (C). Doctor or Midwife's fee.

Expectant mothers are invited to join six months before the confinement is expected. In the event of 10s. being saved a bonus of 2d. in the shilling is added, and to every 15s. a bonus of 3d. in the shilling is added, the money being found by a generous supporter of the club.

Should the Committee decide to take over the Welcomes it would be necessary to very largely augment the amount of work carried out. The duties at present carried out by the Superintendent consist of visiting children and expectant mothers at their homes, and of attending the Welcomes and giving lectures and demonstrations on the feeding and clothing of children, etc. Some of these duties would be more appropriately carried out by a Medical Officer, but the would still remain abundance of work of the kind usually done by a nurse.

The transference of the Welcomes to the Health Committee would not involve the dissolution of the Babies Welcome Committees, for they would find sufficient work in managing the clubs for expectant mothers, and other subsidiary matters connected with the local Branch of the National Association for Physical Improvement.

In all probability some financial assistance might be obtained from the Board of Education, for the kind of work done by the staff of a babies' welcome is really technical in character ; in that the local Education Committee might also supplement any grant made by the Board.

It would, I think, be necessary to have a Welcome in as many districts as possible, and to provide for weekly consultations. It

would, therefore, be possible to have eleven centres, which would occupy morning and afternoon of  $5\frac{1}{2}$  days in the week.

My estimate of the cost would be as follows:—

Salary of Medical Officer	...	...	£250
„ Superintendent	...	...	100
Hire of Rooms at 5s.	...	...	140
Sundry Items	...	...	10
			<hr/>
			£500

The Centres (Caledonia Street, Holy Trinity and Wapping Road) have all been submitted for the approval of the Board of Education in order that a grant may be claimed upon the attendances made at the Centres by the mothers, and have now been approved by the Board. The amount of grant which will be earned cannot, at present, be given as it will depend entirely upon the attendances recorded.

In addition to any money which may be earned in this connection, it would, of course, be possible for the Education Committee to make a grant out of its funds towards the maintenance of the Centres.

Yours faithfully,

W. ARNOLD EVANS,

Dec. 20th, 1911.

Medical Officer of Health.

ZYMOTIC DISEASES.

The mortality from Infectious Diseases is set out in the following table and in table III. of Appendix II. The number of deaths due to zymotics was 564, in comparison with 455 for 1910, the principal increase being due to Zymotic Diarrhoea and Whooping Cough, though there was a large decrease in the deaths from Measles.

*Showing number of Deaths from Zymotic Diseases in Bradford during the years 1901-1911.*

DISEASES.	1901.	† 1902.	1903.	1904.	1905.	1906.	1907.	† 1908.	1909.	1910.	1911.
Smallpox ...	...	...	14	3	7	...	...	...	...	...	...
Measles ..	17	158	15	152	13	127	50	72	24	144	11
Scarlet Fever ...	33	45	28	33	43	41	13	14	24	14	9
Diphtheria & Croup ...	28	76	52	151	81	48	46	41	56	36	50
Whooping Cough ..	128	34	92	54	102	38	80	56	44	46	99
Anthrax... ..	...	...	...	...	...	...	...	...	...	...	4
Typhoid Fever ...	51	32	36	41	22	48	23	29	17	29	45
Other or doubtful Fevers ...	...	1	1	...	...	...	...	...	...	2	...
Epidemic Diarrhoea ...	263	50	139	260	149	267	51	227	35	101	249
Other Zymotic Diseases ) including Influenza )	115	81	105	78	85	89	100	108	137	83	97
Total Zymotic Diseases ) each year... .. )	635	477	482	772	502	658	363	547	337	455	564

† 53 weeks.

The incidence of mortality from Zymotic Disease in Bradford is compared with that of the seventy-seven great towns in the following table.

1911.	No. of Deaths.	Death-rates per 1000 living.	
		Bradford.	Seventy-seven Large Towns.
Smallpox ... ..	...	0'00	0'00
Measles ... ..	11	0'04	0'47
Scarlatina ... ..	9	0'03	0'06
Diphtheria and Memb. Croup... ..	50	0'18	0'15
Whooping Cough ... ..	99	0'35	0'24
"Fever" ... ..	45	0'16	0'06
Diarrhoea ... ..	249	0'86	1'31
Seven Zymotic Diseases ...	463	1'60	1'29

The mortality from the chief diseases of the infective order is seen in the tables following.

### SCARLET FEVER.

There were 595 cases of Scarlet Fever notified during 1911 as compared with 870 during 1910.

The sickness rate for Scarlet Fever was 2·06 per 1,000 of the population for the year.

As in previous years the sources of infection have been difficult, and in most cases impossible, to trace—that is to say, that upon investigation it has been possible only in a minority of the cases to find evidence of personal contact with previous sufferers or known contacts.

In all cases the milk supply to the houses invaded by Scarlet Fever has been ascertained, but there has been no evidence of any spread of the disease by milk.

The number of cases terminating fatally was 9, equivalent to a fatality rate of 1·5 per cent.; 5 of the deaths were of children under five years of age.

Of the cases notified 438 were removed to hospital, being in the proportion of 74 per cent. The numbers admitted to each of the Isolation Hospitals were as follows, viz. :—

To the City Hospital, Leeds Road	...	377	Cases.
„ North Bierley Conjoint Hospital		28	„
„ Thornton Conjoint Hospital	...	10	„
„ Calverley Conjoint Hospital	...	23	„

A comparison between those cases treated in the Leeds Road Hospital and others treated at home shows the fatality rate to be 1·33 per cent. amongst the former and 2·55 per cent. in the latter.

SCARLET FEVER.

Table showing the comparative fatality rate amongst cases treated in the Infectious Diseases Hospital, Leeds Road, and those receiving treatment at home.

YEAR.	Hospital treated.			Home treated.			Total.		
	Cases.	Deaths.	Per-centage Fatality	Cases.	Deaths.	Per-centage Fatality	Cases.	Deaths.	Per-centage Fatality
1892 ... ..	592	27	4·6	352	18	5·1	944	45	4·7
1893 ... ..	228	17	7·8	1217	54	4·4	1445	71	4·9
1894 ... ..	525	30	5·7	510	42	8·2	1035	72	6·9
1895 ... ..	250	16	6·4	129	9	6·9	379	25	6·9
1896 ... ..	248	14	5·6	149	10	6·7	397	24	6·0
1897 ... ..	226	5	2·2	105	4	3·8	331	9	2·7
1898 ... ..	556	7	1·2	240	5	2·0	796	12	1·5
1899 ... ..	1658	74	4·4	629	32	5·0	2287	106	4·2
1900 ... ..	821	42	5·1	544	26	4·8	1365	68	4·2
1901 ... ..	573	18	3·1	404	15	3·7	977	33	3·3
1902 ... ..	571	26	4·5	332	19	5·7	903	45	4·9
1903 ... ..	467	19	4·0	252	9	3·5	814	28	3·4
1904 ... ..	549	17	3·0	372	13	3·5	1240	33	2·7
1905 ... ..	572	30	5·2	234	13	5·5	950	44	4·6
1906 ... ..	674	28	4·2	290	11	3·8	1047	41	3·9
1907 ... ..	367	10	2·7	203	3	1·5	633	13	2·1
1908 ... ..	494	11	2·2	255	2	0·8	815	14	1·7
1909 ... ..	631	12	1·9	294	7	2·4	1238	24	1·9
1910 ... ..	512	10	1·9	225	3	1·3	870	14	1·6
1911 ... ..	377	5	1·3	157	4	2·5	595	9	1·5

The table following shows the prevalence of Scarlet Fever in Bradford since 1878.

YEAR.	No. of Deaths.	No. of Notifications.	Death-rate per 10,000 living.
1878	156	...	8.42
1879	184	...	9.45
1880	190	...	9.64
* 1881	118	(6 mos) 424	6.41
1882	66	408	3.29
1883	36	352	1.75
1884	33	493	1.54
1885	46	786	2.15
1886	89	1118	4.06
1887	98	1308	4.37
1888	33	407	1.43
1889	63	543	2.68
1890	46	546	1.91
1891	143	1163	6.60
1892	45	944	2.07
1893	71	1445	3.24
1894	72	1035	3.27
1895	25	379	1.13
1896	24	397	1.08
1897	9	331	0.40
1898	12	796	0.53
1899	106	2287	4.68
† 1900	68	1365	2.44
1901	33	977	1.38
‡ 1902	45	903	1.57
1903	28	814	0.99
1904	33	1240	1.16
1905	44	950	1.53
1906	41	1047	1.42
1907	13	633	0.45
‡ 1908	14	815	0.47
1909	24	1238	0.82
1910	14	870	0.47
1911	9	595	0.31

\* First year of Notification. † Extension of City area. ‡ 53 Weeks.



### DIPHTHERIA.

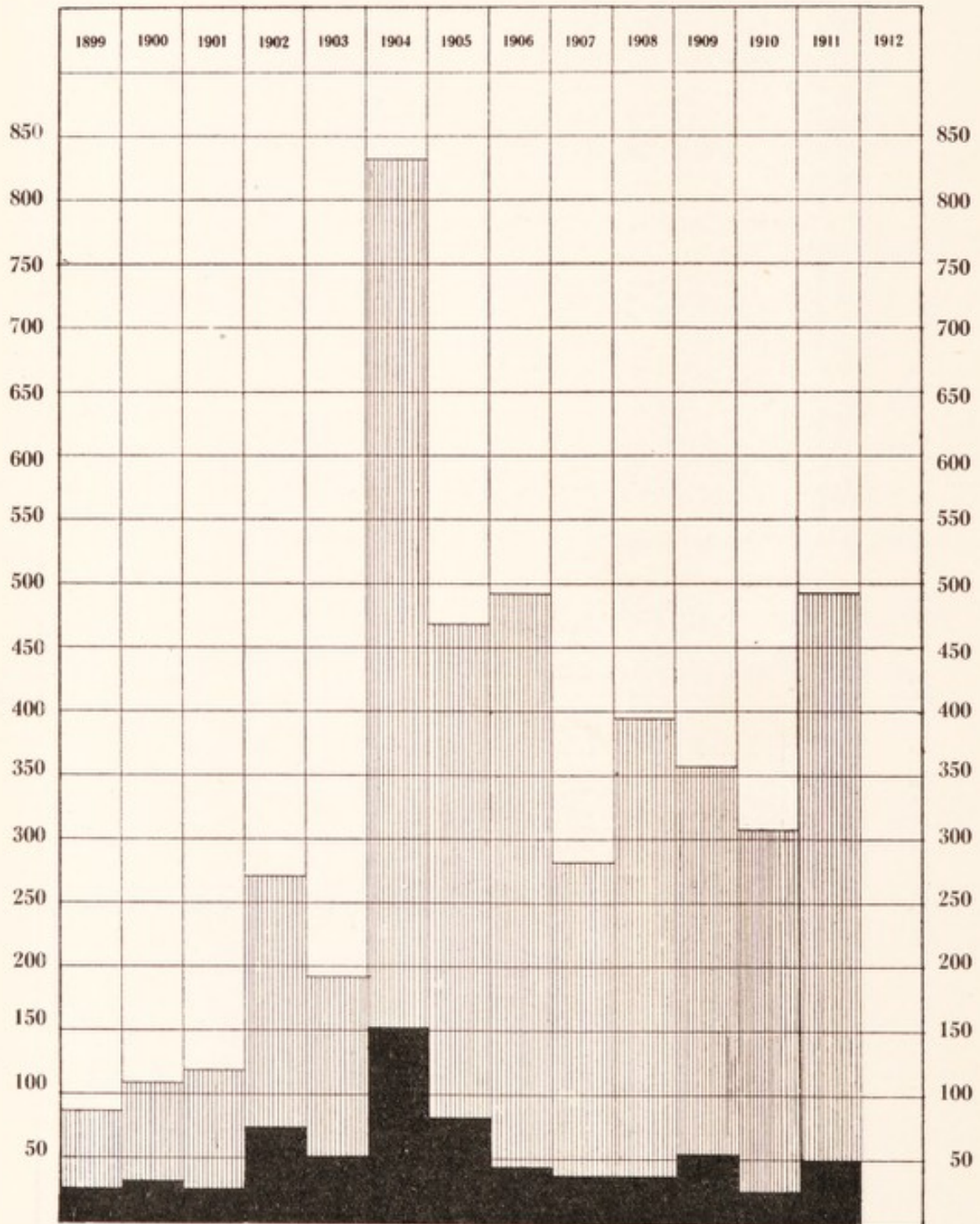
The number of cases notified during the year was 481 as compared with 337 for the year previous. The number of deaths was 50, equivalent to a death-rate of  $\cdot 17$  per 1,000 of the population, and a case fatality rate of 10·3 per cent. Isolation in the Leeds Road Infectious Diseases Hospital was effected in 259 cases; one case was sent to the North Bierley Conjoint Hospital, 15 to the Calverley Hospital, and none to the Thornton Hospital.

The figures for each year since 1892 are given in the following table :—

PREVALANCE OF DIPHTHERIA SINCE 1892.

Year.	Estimated Population.	Total No. of Cases Notified.	No. of Deaths Registered.	Fatality per cent.	No. of Cases treated in Hospital.	Attack Rate per 1000 Population.	Percentage Re-moved to Hospital.	Mortality per 1000 Population.
1892	217,805	48	10	21	18	0.22	37	0.05
1893	219,008	71	19	27	2	0.32	3	0.09
1894	220,218	49	13	26	4	0.22	8	0.06
1895	221,435	39	18	46	8	0.18	20	0.08
1896	222,658	41	12	29	7	0.18	17	0.05
1897	223,895	28	10	36	4	0.13	14	0.04
1898	225,133	35	16	46	9	0.16	26	0.07
1899	226,373	87	6	7	35	0.38	40	0.03
1900	278,634	109	30	28	30	0.32	28	0.10
1901	280,161	122	28	23	33	0.43	27	0.09
1902	281,770	271	76	28	114	0.96	42	0.27
1903	283,412	196	52	26	104	0.69	53	0.18
1904	285,089	832	151	18	429	2.91	52	0.53
1905	286,799	469	73	16	282	1.64	60	0.32
1906	288,544	480	45	9	249	1.66	52	0.16
1907	290,323	277	41	15	142	0.95	51	0.14
1908	292,136	397	41	10	190	1.36	48	0.14
1909	293,983	357	56	15.7	194	1.21	54	0.19
1910	295,865	337	36	10.7	214	1.10	64	0.12
1911	288,723	481	50	10.4	275	1.67	57	0.18

*Table Showing Yearly Number of Notifications and Deaths  
from Diphtheria since 1899.*



ENTERIC OR TYPHOID FEVER.

The number of cases of typhoid fever notified during 1911 was 196, equivalent to a sickness rate of '67 per 1,000 of the population. The number of deaths was 45, equivalent to a typhoid death rate of '14 per 1,000, and a case fatality rate of 22·9 per cent.

Isolation in hospital was effected in 121 cases.

To Leeds Road Hospital there were removed 101 cases.

„ North Bierley	„	„	„	15	„
„ Thornton Conjoint	„	„	„	5	„

The following table gives the sickness rate and death-rate due to typhoid fever since 1890:—

		Cases notified.		Sickness-rate per 1,000 of population.		Death-rate per 1,000.		Fatality case-rate per cent.
1890	...	144	...	'67	...	0'12	...	21'5
1891	...	157	...	'72	...	0'12	...	17'2
1892	...	80	...	'36	...	0'08	...	22'5
1893	...	215	...	'98	...	0'21	...	22'3
1894	...	141	...	'64	...	0'13	...	22'0
1895	...	177	...	'79	...	0'17	...	22'0
1896	...	152	...	'68	...	0'12	...	19'0
1897	...	149	...	'66	...	0'13	...	20'1
1898	...	288	...	1'27	...	0'21	...	16'3
1899	...	256	...	1'13	...	0'18	...	16'8
1900	...	318	...	1'14	...	0'24	...	20'1
1901	...	314	...	1'12	...	0'18	...	16'2
1902	...	189	...	'67	...	0'11	...	16'9
1903	...	275	...	'97	...	0'13	...	13'1
1904	...	193	...	'68	...	0'14	...	21'2
1905	...	187	...	'65	...	0'09	...	13'4
1906	...	236	...	'83	...	0'17	...	20'8
1907	...	110	...	'37	...	0'08	...	20'9
1908	...	148	...	'51	...	0'10	...	19'6
1909	...	81	...	'28	...	0'06	...	21'0
1910	...	110	...	'37	...	0'10	...	26'4
1911	...	196	...	'67	...	0'14	...	22'9

The following table shows, that coincident with the number of conversions of Privy Middens into Water-closets and Dry Ashpits, there has been a corresponding fall in the number of typhoid fever cases notified. There can be no doubt that the accumulations of filth in Privy Middens is a breeding ground for filth diseases, and that the infection is often carried into dwelling houses by means of flies.

				No. of Privy Middens converted into Water-closets and Dry Ashpits.	No. of cases of Typhoid Fever notified.
1898	...	...	...	305	288
1899	...	...	...	405	256
1900	...	...	...	827	318
1901	...	...	...	1371	314
1902	...	...	...	1456	189
1903	...	...	...	1358	275
1904	...	...	...	1375	193
1905	...	...	...	1413	187
1906	...	...	...	983	236
1907	...	...	...	823	110
1908	...	...	...	2186	148
1909	...	...	..	2191	81
1910	...	...	...	2162	110
1911	...	...	...	2365	196

The Medical Practitioners of Bradford sent 168 specimens of blood to the Municipal Laboratory for examination for the typhoid fever reaction at the expense of the Health Committee; 65 gave a positive and 103 a negative reaction.

### ZYMOTIC DIARRHŒA.

The number of deaths attributed to this disorder was 249, as compared with 101 for the previous year. Of the total number 173 occurred in children under twelve months of age.

The table following gives the districts in which the deaths occurred and the ages of the patients. It will be seen that the greatest fatality was amongst infants under twelve months of age.

ZYMOTIC DIARRHŒA.

WARDS.	QUARTERS.								Year 1911.		
	March.		June.		Sept.		Dec.		M.	F.	Total.
	M.	F.	M.	F.	M.	F.	M.	F.			
North ... ..	...	1	...	1	10	5	...	2	10	9	19
South ... ..	...	...	...	1	8	13	1	1	9	15	24
East ... ..	...	...	...	...	6	5	...	...	6	5	11
West ... ..	...	...	...	...	8	6	3	...	11	6	17
Listerhills ... ..	...	...	...	...	11	5	1	1	12	6	18
Great Horton ... ..	...	...	...	1	2	1	...	...	2	2	4
Little Horton ... ..	...	...	1	...	3	5	...	...	4	5	9
East Bowling ... ..	...	1	...	...	10	7	1	...	11	8	19
West Bowling ... ..	...	...	...	...	9	5	1	1	10	6	16
Exchange ... ..	...	...	...	...	3	3	...	...	3	3	6
Bradford Moor... ..	...	2	...	...	9	12	...	...	9	14	23
Manningham ... ..	...	...	1	...	5	6	...	1	6	7	13
Bolton ... ..	1	...	...	...	1	...	...	1	2	1	3
Heaton ... ..	2	...	...	...	4	5	...	1	6	6	12
Allerton ... ..	...	...	1	1	2	...	...	1	3	2	5
Eccleshill ... ..	...	...	1	...	1	1	...	2	2	3	5
Idle ... ..	...	...	...	1	4	2	...	...	4	3	7
North Bierley (East) ... ..	...	...	...	...	7	4	...	...	7	4	11
North Bierley (West) ... ..	...	...	...	...	5	4	...	...	5	4	9
Thornton ... ..	...	...	3	...	4	...	...	2	7	2	9
Tong ... ..	...	...	...	...	2	4	...	1	2	5	7
<b>CITY TOTALS</b> ... ..	3	4	7	5	114	93	7	14	133	116	*249

AGES AT DEATH.								
Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	All ages.
173	23	10	2	...	2	18	21	249

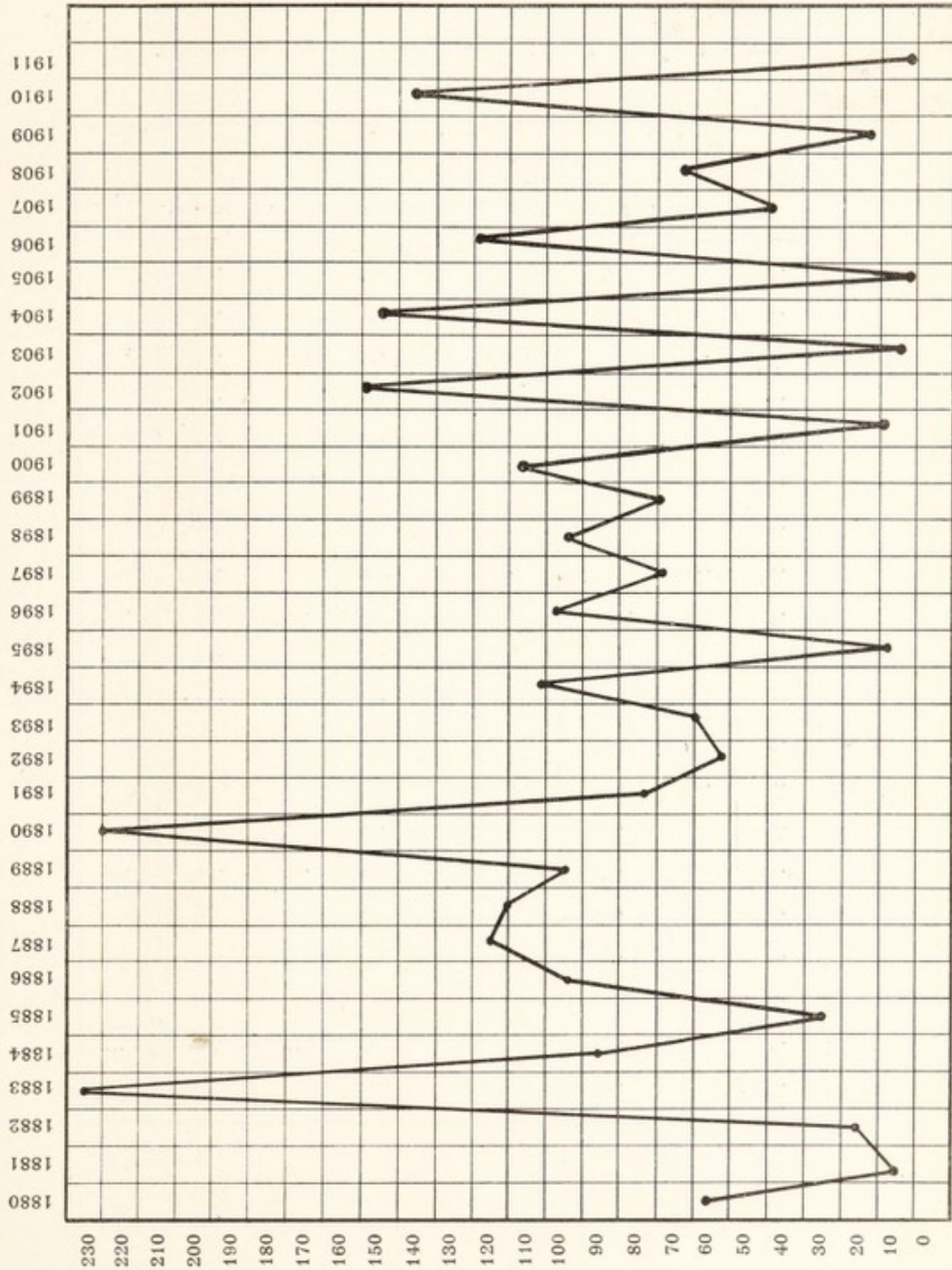
\* Four of these deaths occurred in Public Institutions outside the district, the home addresses of two being unobtainable.

### MEASLES.

As will be seen from the table following, the year 1911 was one of low prevalence and mortality from measles. The number of deaths caused by measles was only 11, in comparison with 144 during the previous year. All the deaths, except one, were of children under five years of age. The figures following show that both in Bradford and in England and Wales, as shown by five yearly averages, there has been very little diminution in the mortality from measles during the past 35 years. The mortality in Bradford has fallen from '39 per 1,000 in 1876-80 to '28 per 1,000 in 1906-10, and in England and Wales from '38 per 1,000 to '30 per 1,000 of the population.

The diagram shows that in Bradford the mortality from measles varies immensely from year to year, and that there is an epidemic about every two or three years.



MEASLES.*Mortality since 1880.*

*Death-rate from Measles per 1,000 of the Population.*

Year.	ENGLAND AND WALES.		BRADFORD.		Year.	ENGLAND AND WALES.		BRADFORD.		
	Annual	Five-Yearly.	Annual	Five-Yearly.		Annual	Five-Yearly.	Annual.	Five-Yearly.	
1876	'41	} '38	'77	} '39	1896	'57	} '42	'45	} '39	
1877	'37		'09		'41	'33				
1878	'31		'28		'42	'44				
1879	'36		'48		'31	'31				
1880	'48		'37		'39	'42				
1881	'28	} '41	'07	} '38	1901	'28	} '33	'06	} '25	
1882	'48		1'11		'39	'55				
1883	'35		'10		'27	'05				
1884	'42		'46		'36	'53				
1885	'53		'16		'36	'04				
1886	'44	} '47	'50	} '59	1905	'32	} '30	'44	} '28	
1887	'60		'59		'27	'17				
1888	'35		'52		'36	'25				
1889	'52		'48		'22	'08				
1890	'44		'86		'35	'49				
1891	'44	} '41	'37	} '44	1909	'35	} ...	'04	} ...	
1892	'46		'28		'31	'49				
1893	'37		'30							
1894	'39		'49		1911	'36		'04		...
1895	'38		'75							



### WHOOPIING COUGH.

The mortality rate due to Whooping Cough, in comparison with previous years, is shown in the tables following. There were 99 deaths attributed to this disease as compared with 46 in 1910. All the deaths except four were of children under twelve months of age.

The statistical abstract following shows that there has been—since the year 1876—a continuous decline in the mortality from Whooping, not only in Bradford, but in the whole of England and Wales. In view of the fact that the vast majority of deaths are due to complications such as Bronchitis and Broncho-Pneumonia, the diminution of the mortality is probably due to the greater attention given to the preservation of infant life. At all events it is significant that the mortality rate in Bradford has fallen from '61 per 1000 during the five-yearly period, 1876-80, to '18 during the five-yearly period, 1906-1910.

*Death-rate from Whooping Cough per 1,000 of  
the population.*

Year.	ENGLAND AND WALES.		BRADFORD.		Year.	ENGLAND AND WALES.		BRADFORD.	
	Annual.	Five Yearly.	Annual.	Five Yearly.		Annual.	Five Yearly.	Annual.	Five Yearly.
1876	'43	} '52	'39	} '61	1896	'42	} '35	'45	} '25
1877	'46		'73		'18				
1878	'71		'88		'28				
1879	'50		'39		'27				
1880	'53		'66		'08				
1881	'41	} '45	'57	} '43	1901	'31	} '29	'45	} '29
1882	'57		'47		'12				
1883	'39		'34		'32				
1884	'42		'25		'19				
1885	'48		'53		'36				
1886	'47	} '44	'06	} '38	1905	'25	} '25	'13	} '18
1887	'40		'72		'28				
1888	'43		'16		'19				
1889	'43		'76		'15				
1890	'47		'20		'16				
1891	'46	} '39	'61	} '43	1908	'27	} '25	'19	} '18
1892	'45		'41		'20				
1893	'34		'43		'29				
1894	'41		'28		'29				
1895	'31		'43		'21				
				1910	'29		'16		
				1911	'21	...	'34	...	

### SMALL-POX.

There was no outbreak of Small-pox in 1911, although persons known to have been in contact with Small-pox on board ship arrived in Bradford on the following dates, viz. :—February 25th, April 3rd and 11th, May 10th and 12th, August 22nd, and October 4th.

The Table on the opposite page, kindly supplied by Mr. Crowther, the Superintendent Vaccination Officer of the Bradford Union, shows that in respect to the Vaccination of Children whose births were registered during the year 1910, only 2391 out of 4508, or 53 per cent., were successfully Vaccinated, and that in 1317 cases, or 29 per cent., the Vaccination was not performed in consequence of the parent having a “conscientious objection” to vaccination.

That advantage is more frequently taken of the easy method of obtaining an Exemption Order on account of “conscientious objection,” is seen from the following figures, which refer to the whole of England and Wales.

Year.	Births.	Vaccinations.	Exemptions.
1903 ... ..	948,271	714,637	37,675
1904 ... ..	945,389	711,504	40,461
1905 ... ..	929,293	705,040	44,369
1906 ... ..	935,081	686,992	53,828
1907 ... ..	918,042	651,050	76,709
1908 ... ..	940,383	594,792	160,350
1909 ... ..	914,472	547,251	197,326

## BRADFORD UNION.—VACCINATION REPORT FOR THE YEAR 1910.

ABSTRACT OF RETURNS made on the 8th day of February, 1912, by the Vaccination Officers of the Bradford Union respecting the Vaccination of Children whose Births have been Registered from 1st January, 1910, to 31st December, 1910, inclusive.

Registration—Sub-Districts.	Number of Births registered from 1st Jan., 1910, to 31st Dec., 1910.	Number of these Births duly entered by 31st January, 1912, in "Vaccination Register."					Per centage of cases finally accounted for to Total Births.	Number of these Births which on 31st Jan., 1912, remained unentered in the "Vaccination Register" on account (as shown by Report Book) of		All cases not accounted for in preceding columns.	Total Number of successful Primary Vaccination at all ages for the year 1910.	
		Col. I. "Successfully Vaccinated."	Col. II.		Col. IV. Conscientious Objectors.	Col. V. "Dead Unvaccinated."		Total duly entered in the Register as finally accounted for.	Postponement by Medical Certificate.			Removals and Cases not found.
			"In susceptible of Vaccination."	Had Small Pox.								
1. Bowling ...	1241	571	1	...	415	114	1101	36	92	12	537	
2. Bradford (East)...	1219	681	2	...	259	115	1057	28	105	29	617	
3. Bradford (West)	1050	632	1	...	305	79	1017	8	23	2	664	
4. Horton ...	908	507	1	...	338	101	947	1	50	...	469	
TOTAL ...	4508	2391	5	...	1317	409	4122	73	270	43	2287	

CHICKEN-POX.

In view of possibility of an invasion by smallpox, and of the fact that sometimes the one may be mistaken for the other, an application was made to the Local Government Board to have this disease scheduled as a notifiable disease under the Infectious Disease (Notification) Act, 1889.

The permission of the Central Authority was given for its inclusion in the Schedule of the Act for a period of one year, commencing May 12th, 1911.

The following notice was issued:—

CITY OF BRADFORD.

INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

*Chicken-pox to be notified as an Infectious Disease.*

NOTICE IS HEREBY GIVEN, that at the meeting of the City Council, held on the 11th day of April, 1911, the following resolution was passed:—

“THAT this Council, acting as the Urban Sanitary Authority in and for the City of Bradford, DO HEREBY ORDER that for the period of Twelve Months, commencing on the 12th day of May, 1911, the Infectious Diseases (Notification) Act, 1889, shall apply throughout the City to the Disease known as ‘Chicken-pox,’ in all respects as if such Disease had been mentioned and included in the said Act as an Infectious Disease to which the Act applies.”

AND FURTHER TAKE NOTICE that the above-mentioned Order was duly approved by the Local Government Board on the 27th day of April, 1911, and that the Order comes into operation within the City on the 12th day of May next.

FREDERICK STEVENS,

Town Clerk.

Town Hall, Bradford,  
29th April, 1911.

DEATHS FROM OTHER ZYMOTIC DISEASES.

WARDS.	Erysipelas.		Influenza.		Syphilis.		Rheumatic Fever.		Puerperal Fever.		1911.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	TOTAL.	
North ... ..		1		1	1	2						5
South ... ..			1		1	1		2		1		6
East ... ..			1	1	1	1					1	5
West ... ..		1	1		2							4
Listerhills ... ..				1	1	1	1					4
Great Horton ... ..								1				1
Little Horton ... ..	2		1			1	1			2		7
East Bowling ... ..			1	1	2		1	3		1		9
West Bowling ... ..		2					1					3
Exchange ... ..					1	1						2
Bradford Moor ... ..	3			4	3		2			1		13
Manningham ... ..	1			3		1						5
Bolton ... ..												
Heaton ... ..			2		1			1				4
Allerton ... ..		1		2							1	4
Eccleshill ... ..	2		1	1								4
Idle ... ..			2				1	1				4
North Bierley (East) ... ..			2	3	1							6
North Bierley (West) ... ..	1		1		1		1	1				5
Thornton ... ..			3	1							1	5
Tong ... ..				1								1
CITY TOTAL ... ..	9	5	16	19	15	8	8	9		8		97

## TUBERCULOSIS.

Until the end of the year 1911 the notification of Pulmonary Tuberculosis was provided for in Bradford by a system of voluntary notification on the part of Medical Practitioners; by the Public Health (Tuberculosis) Regulations of 1908, which provided for notification of cases under the care of the Poor Law Medical Officers, and the Public Health (Tuberculosis in Hospitals) Regulations, which came into force on May 1st, 1911, and provided for the notification of cases occurring amongst the in-patients or out-patients at hospitals, or other similar institutions for the treatment of the sick which are supported wholly, or partially, otherwise than by the contributions of the patients (or of their relatives or guardians), and otherwise than from rates and taxes. Immediately on the issue of this order I reported as follows :

### REGULATIONS AS TO TUBERCULOSIS (HOSPITALS).

This Order provides for the notification to the Medical Officer of Health of cases of Pulmonary Tuberculosis occurring in hospital, dispensaries, or similar institution, for the treatment for the sick which is partially or wholly supported otherwise than by the contributions of the persons treated, or of their relatives or guardians, and supported otherwise than from rates and taxes.

Article III. imposes on the Council the responsibility of providing printed notification forms in the manner set forth in the Schedule to the Act, and to supply them to the governing bodies of hospitals for use by their Medical Officer.

Article IV. provides that a Medical Officer of any Hospital shall within 48 hours, after his first recognition of a case of Pulmonary Tuberculosis, notify the Medical Officer of Health on the form shown in the schedule. If the residence of the patient as described in the notification is not within the area for which the Medical Officer of

Health is appointed, it is incumbent upon the Medical Officer of Health to transmit the notification to the Medical Officer of Health for the area in which the patient's residence is situated, and at the same time notify the Medical Officer at the hospital who has reported the case.

Article VI. provides for the remuneration of Medical Officers of hospitals. They are to receive a fee of one shilling in respect of each notification relating to a person resident within the area of the council.

Article VII. specifically states that nothing in these regulations shall have effect so as to apply, or so as to authorise a Medical Officer of Health or a Council to put in force any enactment which renders the patient or any other person liable to a penalty, or subjects the patient to any restriction or disability which would prevent him following his occupation, or interfering with his means of livelihood.

This Article authorises to :

- (i) take any necessary measures to secure the disinfection of clothing or premises ;
- (ii) to take necessary measures for the safe disposal and destruction of infectious discharges of the patient.
- (iii) supply all such reasonable assistance and articles as will tend to diminish the risk of infection arising from the conditions affecting the use or occupation of any room.
- (iv) furnish, for the use of the patient, on loan, or otherwise, any appliance, apparatus, or utensil which may be of assistance in preventing the spread of infection ;
- (v) appoint any officers they may think necessary for giving advice and for carrying out the provisions of these regulations.

Art. VIII. The power conferred by these Regulations is in addition to and not in derogation of any power conferred by any Local Act.

These Regulations came into operation on the first day of May, 1911.

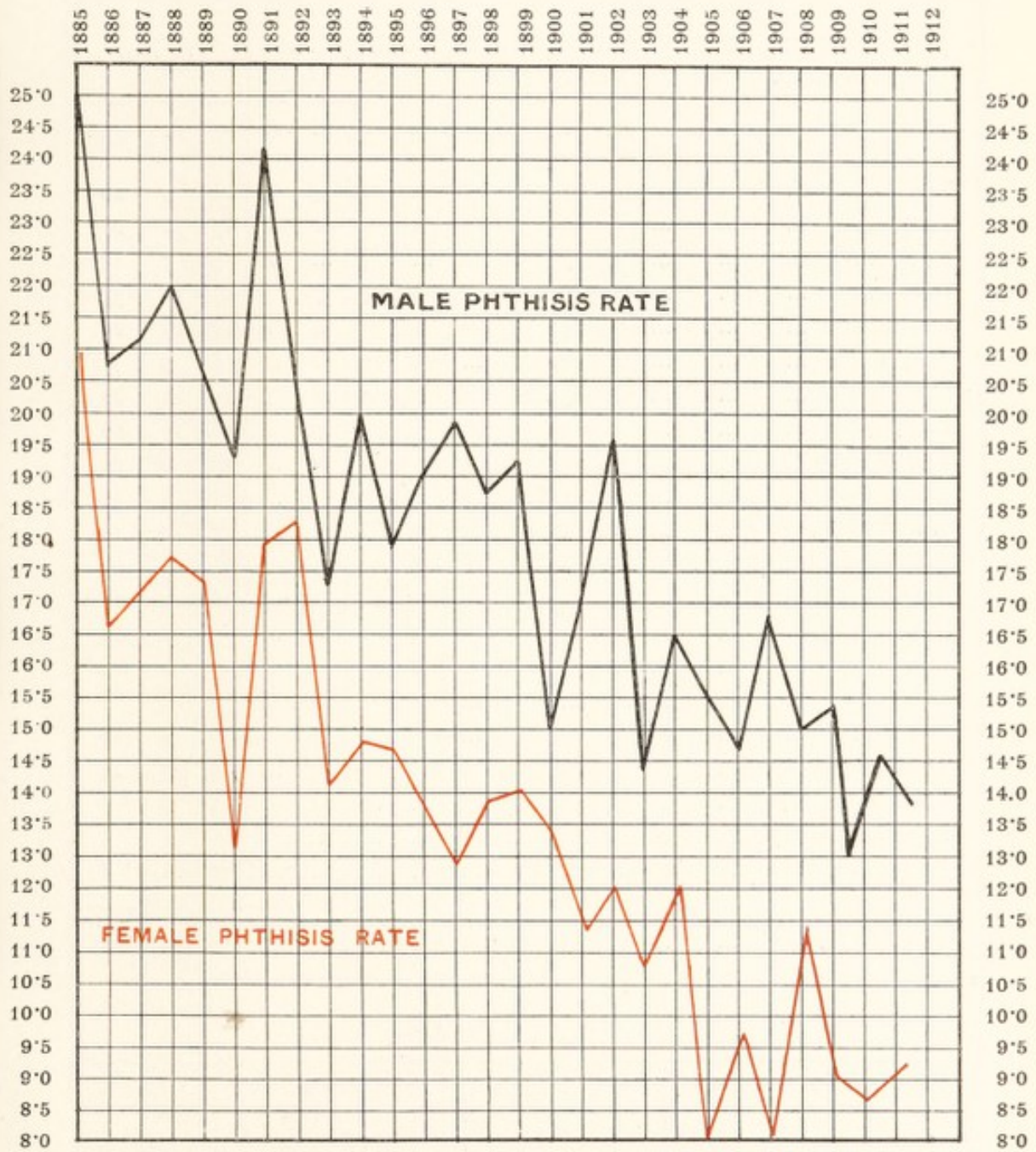
Other Regulations were subsequently issued, and came into operation on January 1st, 1912. They provide for the compulsory notification of all cases of Pulmonary Tuberculosis, attended by medical practitioners in their private practice. During the year the total number of cases of Phthisis notified was 634, 353 under the Tuberculosis Regulations, 1908, 77 under the Tuberculosis Regulations, 1911, and 204 voluntarily by medical practitioners.

Voluntary notification of Phthisis came into operation in 1907, during that and subsequent years the following notifications have been made.

Year.	CASES NOTIFIED.				DEATHS.
	1908 Regulations.		1911 Regulations.	Voluntary.	
	Total Cases Notified.	New Cases.			
1907 ...	—	—	—	171	330
1908 ...	—	—	—	205	395
1909 ...	932	515	—	174	319
1910 ...	707	371	—	150	329
1911 ...	802	411	78 (8 Mos.)	205	327

Bacteriological examinations of sputum, for the purposes of verification of diagnosis, are made gratuitously at the Municipal Bacteriological Laboratory for any medical practitioner. During the year 440 specimens were examined, of which 149 gave a positive and 291 a negative result.

## CITY OF BRADFORD.

*Death Rate from Phthisis per 10,000 of the Population.*

DEATHS FROM PHTHISIS.

WARDS.	QUARTERS.								Year 1911.		
	March.		June.		Sept.		Dec.		M.	F.	Total.
	M.	F.	M.	F.	M.	F.	M.	F.			
North ... ..	2	3	4	1	2	2	3	3	11	9	20
South ... ..	4	2	6	3	1	1	2	2	13	8	21
East ... ..	1	3	2	1	...	3	...	...	3	7	10
West ... ..	7	2	4	2	7	3	7	3	25	10	35
Listerhills ... ..	4	4	4	2	1	3	4	4	13	13	26
Great Horton ... ..	2	2	1	...	1	6	2	1	6	9	15
Little Horton ... ..	1	3	4	3	3	3	2	3	10	12	22
East Bowling ... ..	4	3	3	1	6	5	3	1	16	10	26
West Bowling ... ..	9	4	4	4	...	1	2	...	15	9	24
Exchange ... ..	2	1	...	2	2	2	1	...	5	5	10
Bradford Moor ... ..	2	4	1	3	1	2	2	1	6	10	16
Manningham ... ..	1	2	3	2	6	3	3	4	13	11	24
Bolton ... ..	2	1	2	1	1	...	1	2	6	4	10
Heaton ... ..	2	2	3	2	3	1	1	...	9	5	14
Allerton ... ..	2	2	1	1	1	...	2	2	6	5	11
Eccleshill ... ..	...	...	1	...	1	1	2	2	4	3	7
Idle ... ..	4	1	1	...	...	1	1	2	6	4	10
North Bierley (East) ... ..	4	2	2	1	1	2	2	...	9	5	14
North Bierley (West) ... ..	1	1	1	1	...	...	1	1	3	3	6
Thornton ... ..	3	2	2	1	...	...	...	1	5	4	9
Tong ... ..	...	...	1	...	...	...	...	...	1	...	1
<b>CITY TOTALS ... ..</b>	<b>57</b>	<b>44</b>	<b>51</b>	<b>31</b>	<b>37</b>	<b>39</b>	<b>41</b>	<b>32</b>	<b>186</b>	<b>146</b>	<b>*332</b>

AGES AT DEATH.												
Under 1 Year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	All Ages.
3	...	3	2	4	1	7	28	80	73	65	66	332

\*Seven of these deaths occurred in Public Institutions outside the district, the home address of one being unobtainable.

## DEATHS FROM OTHER TUBERCULOUS DISEASES.

WARDS.	Tabes Mesenterica.		Tuberculosis.		Tuberculous Meningitis.		Other Tuberculous Disease.		Year 1911.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
North ... ..	2	...	...	1	...	2	...	...	2	3	5
South ... ..	...	...	...	...	1	2	...	1	1	3	4
East ... ..	...	...	1	...	...	...	1	...	2	...	2
West ... ..	1	...	1	...	1	1	...	...	3	1	4
Listerhills ... ..	2	...	1	1	2	2	1	...	6	3	9
Great Horton ... ..	1	...	...	1	1	2	1	1	3	4	7
Little Horton ... ..	...	...	...	1	1	2	...	...	1	3	4
East Bowling ... ..	...	1	...	1	3	2	1	...	4	4	8
West Bowling ... ..	...	...	1	...	1	3	...	1	2	4	6
Exchange ... ..	...	...	...	...	...	...	...	...	...	...	...
Bradford Moor ... ..	3	2	2	...	...	1	...	2	5	5	10
Manningham ... ..	...	...	...	1	1	1	...	...	1	2	3
Bolton ... ..	...	...	...	...	...	1	...	1	...	2	2
Heaton ... ..	...	1	...	...	...	...	2	1	2	2	4
Allerton ... ..	1	...	...	...	1	3	1	...	3	3	6
Eccleshill ... ..	...	...	...	...	...	...	...	...	...	...	...
Idle ... ..	...	...	1	1	3	...	...	...	4	1	5
North Bierley (East) ... ..	...	...	1	2	1	1	...	...	2	3	5
North Bierley (West) ... ..	1	...	1	...	...	...	...	...	2	...	2
Thornton ... ..	...	1	1	1	...	1	...	1	1	4	5
Tong ... ..	1	...	...	2	...	...	...	...	1	2	3
CITY TOTALS ... ..	12	5	10	12	16	24	7	8	45	49	94

BRONCHITIS, PNEUMONIA, AND PLEURISY.—These three chief diseases of the respiratory organs accounted for 647 deaths, 164 of which were those of children under 5 years of age. The respiratory death-rate was equal to 2·18 per 1000 of the population.

ANTHRAX.

This disease, also known in Bradford as woollsorters' disease, because it was formerly common in persons engaged in sorting wool, caused the death of four persons, and the total number of cases coming to my knowledge, either by the channels of voluntary notification by medical practitioners, or intimation from the Home Office, was seven. All infected persons except one were employed in the manipulation of wools known to be "dangerous."

The number of cases notified since 1896 is shown below.

	No. o Cases.	No. of Deaths.		No. of Cases.	No. of Deaths.
1896	4	1	1904	5	1
1897	8	1	1905	20	10
1898	8	5	1906	11	4
1899	10	4	1907	9	3
1900	3	2	1908	8	3
1901	3	3	1909	7	1
1902	3	1	1910	5	1
1903	15	2	1911	7	4

CANCER.

The mortality from diseases of a malignant nature amounted to 338, as compared with 292 for the previous year. These deaths are classified as follows :—

	1910.			1911.		
	Males.	Females.	Total.	Males.	Females.	Total.
Cancer of Stomach and Bowels ... ..	53	54	107	62	61	123
„ Liver ... ..	9	24	33	16	23	39
„ Urinary and Generative Organs	10	62	72	9	57	66
„ Breast ... ..	...	25	25	...	31	31
„ Head and Face ... ..	5	4	9	8	4	12
„ Throat and Tongue ... ..	14	3	17	18	5	23
„ Other parts of the body ... ..	19	10	29	24	20	44
Total ... ..	110	182	292	137	201	338

The distribution as to age is as follows :—

Years.	1910.	1911.
1 — 5	1	...
5 — 15	1	...
15 — 25	1	3
25 — 45	37	43
45 — 65	159	182
65 and over	93	110
All Ages	292	338

### INQUESTS.

The City Coroner held 388 inquests during the year, 71 of which were on children under five years of age.

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### UNCERTIFIED DEATHS.

The deaths of 2 persons were registered without certification by a Medical Practitioner or Coroner, being 0·05 per cent. of the total deaths, the average percentage of uncertified deaths in the seventy-seven great towns being 0·8.

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ADMINISTRATION.

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### SANITARY STAFF.

The Sanitary Staff appointed to carry out the work of the Health Committee is constituted as follows :—

- Medical Officer of Health.
- Bacteriologist.
- Public Analyst.
- Chief Inspector of Nuisances.
- Assistant Inspector of Nuisances.
- 14 Sub-inspectors of Nuisances.
- 8 Women Sanitary Inspectors.
- 2 Meat Inspectors.
- 1 Food and Drugs Inspector.
- 1 Fish Inspector.
- 2 Inspectors working under the Shop Hours Acts, Employment of Children Act, Prevention of Cruelty to Children Act, and the sanitary provisions of the Factory and Workshop Act.
- 1 Lodging-house and Canal Boats Inspector.
- 1 Smoke Inspector.
- 1 Veterinary Inspector of Dairy Cattle.
- 2 Inspectors working under the Housing and Town Planning Act.
- 3 Disinfecting Officers.
- 1 Storekeeper (Disinfectants).
- 7 Clerks.

For the execution of Section 27 of the Bradford Waterworks and Improvement Act, 1875, the Medical Officer of Health is assisted by 4 Building Inspectors. The provision here referred to is that no new building shall be occupied as a dwelling-house unless certified by the Medical Officer of Health as fit for habitation.

There was no offence committed against this provision during the year.

## NOTIFICATION OF INFECTIOUS DISEASE.

Under the provisions of the Infectious Diseases Notification Act the following cases were notified during the past year and years preceding.

MONTH.	1906.	1907.	*1908.	1909.	1910.	1911.
January ... ..	200	106	142	161	193	151
February ... ..	190	74	143	127	162	117
March ... ..	238	103	149	164	174	130
April ... ..	223	87	142	154	148	133
May ... ..	155	142	165	176	140	186
June ... ..	122	93	150	205	150	162
July ... ..	127	118	132	181	120	173
August ... ..	116	125	115	160	96	96
September ... ..	152	124	193	178	90	160
October ... ..	205	183	149	201	125	202
November ... ..	167	149	140	168	115	250
December ... ..	118	118	166	216	147	234
TOTAL ... ..	2013	1422	1786	2091	1660	1994

*The number of each disease notified was as under :*

	1906.	1907.	*1908.	1909.	1910.	1911.
Scarlet Fever ... ..	1047	633	815	1238	870	595
Typhoid Fever ... ..	236	110	148	81	110	196
Typhus Fever ... ..	...	...	...	...	...	...
Smallpox ... ..	2	...	...	...	...	...
Continued Fever ... ..	1	...	...	...	2	1
Relapsing Fever ... ..	...	...	...	...	...	...
Cerebro Spinal Fever ... ..	...	2	2	1	...	...
Puerperal Fever ... ..	12	20	18	18	16	26
Diphtheria and Croup... ..	482	295	397	357	337	481
Erysipelas ... ..	224	192	195	215	170	293
English Cholera ... ..	...	...	...	...	...	...
Anthrax ... ..	9	9	6	7	5	7
†Chickenpox ... ..	...	...	...	...	...	191
†Phthisis ... ..	...	171	205	174	150	204
TOTAL ... ..	2013	1422	1786	2091	1660	1994

\* 53 weeks

† Voluntary notification commenced May 9th, 1907.

‡ 34 weeks.

### AMBULANCE STAFF.

The Ambulance equipment consists of two men, two horses, and two ambulances, and is located at the Leeds Road Hospital.

This staff has during the year removed 745 cases of infectious disease from their homes, either to the Hospital at Leeds Road or to Bierley Hall.

The number of cases of Infectious Disease isolated in the Hospitals for infectious diseases is shown in the table. The Leeds Road Hospital is used for the great bulk of the cases.

	CASES NOTIFIED.	CASES REMOVED TO				
		Leeds Road (City) Hospital.	North Bierley Joint Hospital.	Thornton Joint Hospital.	Calverley Moor Hospital.	Bierley Hall Hospital (Smallpox).
Smallpox... ..	...	...	...	...	...	...
Scarlet Fever ...	595	377	28	10	23	...
Diphtheria and } Croup }	481	259	1	...	15	...
Enteric Fever ...	196	101	15	5	...	...
Continued Fever...	1	...	...	...	...	...
Cerebro Spinal } Fever }	...	...	...	...	...	...
Puerperal Fever ...	26	...	...	...	...	...
Erysipelas ...	293	8	...	...	...	...
Anthrax ... ..	7	...	...	...	...	...
Phthisis ... ..	204	...	...	...	...	...
Chicken Pox ...	191	...	...	...	...	...
<b>TOTAL</b> ... ..	<b>1994</b>	<b>745</b>	<b>44</b>	<b>15</b>	<b>38</b>	...

### DISINFECTION.

At the new Disinfecting Station in Canal Road, the below-mentioned articles of bedding and clothing were disinfected. The number of infected houses disinfected with Formic Aldehyde or Sulphurous Acid was 1179.

#### ARTICLES DISINFECTED :—

Beds ... .. 660	Drawers... .. 24
Mattresses ... .. 272	Flannel Vests ... .. 17
Pillows ... .. 860	Dresses ... .. 45
Bolsters... .. 557	Petticoats ... .. 46
Blankets ... .. 1299	Hose ... .. 67
Counterpanes ... .. 724	Dressing Gowns ... .. 14
Curtains... .. 2	Shawls ... .. 71
Carpets ... .. 40	Cushions ... .. 87
Rugs ... .. 20	Mats and Sundries ... .. 2073
Coats ... .. 96	
Waistcoats ... .. 35	TOTAL ... .. 7062
Trousers ... .. 53	

NOTICES TO SCHOOL TEACHERS, LIBRARIANS,  
AND PARENTS.

In all cases of notifiable infectious diseases inquiry is made as to the School attendance (both Sunday and Day Schools), and a notice sent to the Head Teacher advising that no children should be received at School from such infected house until after cleansing and disinfection have been done and a certificate given from my office.

At the same time a notice is also sent to the parents of the sufferer.

In this service 1735 notices were sent out during the year.

The Chief Librarian is also supplied daily with a list of infected houses, and if any house is found to contain a book on loan from a Free Library information is sent to me, the book called for, and if filthy destroyed; books in a clean condition are sent to the City Hospital for the use of patients.

The number of books taken from infected houses was 199, for which a sum of £14 os. 7d. was paid by the Health Department to the Free Library.

WORK OF THE WOMEN HEALTH INSPECTORS.

1911.

The following is an analysis of the year's work :

## INFANTS.

First Visits.	Revisits.	Out Districts.	Illegitimate.	Deaths.	Un-Notified Births.
2469	12,612	475	182	339	255

## WORKROOMS.

Total Inspections.	Over-crowded.	Notices sent.	Abated.	Filthy Premises.	Abated.	Defective Ventilation Adjusted.	Other Sanitary Defects.
684	2	—	2	13	13	3	6

## HOUSE INSPECTIONS.

First Inspections.	Reinspections.	Over-crowded.	Abated.	Filthy Premises.	Abated.	Lime-washing.	Structural Defects.
304	1540	69	37	103	81	58	334

In 70 cases advice given on Infants (other than those regularly visited) 552 visits were paid to cases of phthisis.

64 to children reported as "wasting" from the Children's Hospital.

15 under the Infant Life Protection Act.

MIDWIVES ACT, 1902.

The number of midwives on the register in the year 1911 was as follows :—

In virtue of being in <i>bona-fide</i> practice at the passing of the Act ... ..	51
In virtue of certificate under Section 2 ... ..	3
Holding C.M.B. certificate ... ..	11
Total number of midwives practising ... ..	<hr style="width: 100%;"/> <u>65</u>

The number of births notified was 5307, and of these 2423 were attended by doctors and 2468 by midwives. In 416 cases the attendant was not specified.

The number of still births was 220, of which 84 were attended by midwives, 32 being full term and 41 premature; 11 were cases of abortion.

The number of inspections and visits was 575. Number of special visits to mothers and infants for the purpose of investigation, 116. Visits in cases of still birth 90. Medical aid was sent for in 36 cases. There were 26 cases of ophthalmia.

There were 13 cases of *Puerperal Fever* notified, 6 being attended by medical practitioners and 7 by midwives. Of these thirteen, 6 proved fatal.

All cases are investigated and disinfection arranged for. The sterilisation of midwives' appliances is now in every case carried out by the Inspector of Midwives at the Town Hall.

The following offences against the Regulations were recorded :—

Four midwives were reported for neglect of the child's eyes.

One midwife was reported for refusing to attend to her patient until medical aid could be obtained, and for not giving a form to send for aid.

Several midwives were warned in regard to neglect of notifications.

Proceedings were taken against one uncertified woman who was practising as a midwife.

The revised rules of the Central Midwives' Board came into force July, 1911. The Board draws special attention to the necessity for care in regard to the infants' eyes, and has issued further instructions dealing with the matter. In one rule which requires a midwife to obtain medical aid, the words "or discharge from" have been added between the words "any inflammation of the eyes," and the words "however slight."

It is almost impossible to make the more ignorant midwives understand that aid should be sought before the eyes are swollen and discharging pus.

The Notification of Births' Act has been found of great value in enabling the Health Inspector to visit the infants earlier than was formerly the case, and if she finds the slightest discharge from the eyes she gives instructions to the mother and informs the Inspector of Midwives, who visits at once and sees that medical aid is obtained and the doctor's instructions carried out. In many cases the child is sent to the Royal Eye and Ear Hospital. In this way cases are sometimes dealt with before they have been notified by the midwife. The Medical Officer of Health some time ago drew up a leaflet of instructions on the care of infants' eyes, and these have been distributed to the midwives and mothers.

The work of the midwives on the whole is satisfactory; most of them show a desire to learn and carry out the regulations to the best of their ability. There are a few, however, who have a great fear of calling in medical aid in case the patient should lose faith in them.

A course of lectures, extending over three months, for pupils preparing for the C.M.B. examination was given by the arrangement of the M.O.H. and the Education Committee, and many of the midwives were glad to avail themselves of the opportunity to attend at a small fee.

The number of medical aid notifications received was 233, as follows:—

MEDICAL AID NOTIFICATIONS, 1911.

Debility of Child ... ..	12
Premature Birth ... ..	27
Contracted Pelvis ... ..	4
Delayed Labour ... ..	29
Instrumental labour ... ..	39
Rupture of Perinæum ... ..	9
Malpresentation ... ..	13
Hydrocephalus ... ..	3
Abortion ... ..	3
Postpartum Hæmorrhage ... ..	5
Uterine Inertia ... ..	11
Convulsions ... ..	2
Adherent Placenta ... ..	10
Child's Eyes ... ..	19
Malformation ... ..	2
Eclampsia ... ..	2
High Temperature ... ..	11
Exhaustion ... ..	6
Placenta Prævia ... ..	5
Ante-partum Hæmorrhage ... ..	6
Jaundice of the Mother ... ..	1
"    "    Child ... ..	1
Varicose Veins ... ..	1
White Leg ... ..	1
Tumour ... ..	2
Prolapse of Uterus ... ..	1
Bright's Disease ... ..	2
Threatened Abortion ... ..	3
Circumcision ... ..	1
Rash on Infant ... ..	2

That a large proportion of women practising Midwifery are without any training is shown by the following extract from the Report on the work of the Central Midwives' Board for the year ended March 31st, 1911:—"On March 31st, 1911, the names on the Midwives' Roll amounted to 31,673, an increase for the year of 2464. Of the total 10,412 have passed the Board's examination, and 9655 have been admitted to the Roll in virtue of prior certification under Section 2 of the Midwives' Act. The total number of trained midwives is therefore 20,067, as against 11,606 untrained, the percentages being 63·4 and 36·6. The corresponding percentages for last year were 61 and 39. A large portion, however, of the trained women do not practise as midwives, and if the number of practising midwives only be considered, the untrained women would be found to be in a considerable majority.

NOTIFICATION OF BIRTHS ACT, 1907.

During the year the total number of births notified was 5307, including 220 still-births, in comparison with 5480 live-births registered by the Registrars of Births and Deaths. I am of opinion that about 93 per cent. of the births were notified in accordance with the Act. The number of births attended by medical men was 2423, by midwives alone 2468, and in 416 cases the accoucheur was not stated.

	1910.	1911.
Births registered ... ..	5490	5480
Do. notified ... ..	5035	5307

CREMATORIUM.

The remains of 13 persons were cremated during 1911 at the Scholemoor Crematorium, in comparison with 14 during the previous year.

The following table, prepared by the Cremation Society of Great Britain, shows the number of Cremations carried out in Great Britain since the year 1885.

Table of Cremations carried out in Great Britain since the opening of Woking Crematorium in 1885.

	1885-7.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	Total.	
Woking ...	26	28	46	54	99	104	101	125	150	137	173	240	240	301	273	275	143	138	95	140	108	119	105	106	114	114	3,440
Manchester ...	...	...	...	...	...	3	30	47	58	52	51	62	88	83	96	81	92	98	97	90	98	116	106	114	124	1,586	
Glasgow ...	...	...	...	...	...	...	...	...	1	10	16	12	16	20	18	20	24	19	35	44	30	28	30	28	39	390	
*Liverpool ...	...	...	...	...	...	...	...	...	...	2	10	27	23	40	40	54	35	40	35	46	34	32	46	37	50	551	
*Hull... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	13	18	20	15	17	29	37	15	21	25	227	
Darlington ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	7	4	13	8	6	9	9	12	72	
Golders Green...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	158	220	252	298	290	304	421	415	542	2,965	
*Leicester... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	8	16	12	12	14	19	16	13	116	
Birmingham ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	19	22	25	33	18	30	38	44	230	
*Leeds ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	15	16	24	19	12	17	119	
*Ilford... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	23	18	19	24	22	20	135	
*Bradford ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	14	13	6	13	14	13	74	
*Sheffield ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	6	18	12	18	8	10	79	
Total ... ..	26	28	46	54	99	107	131	172	209	201	250	341	367	444	445	451	477	567	604	743	707	795	855	840	1,023	9,984	

\*Municipally controlled.

### PATHOLOGICAL LABORATORY.

During the year 1911, 1496 specimens were sent to the City Laboratory for examination, viz. :—

- i. For Diphtheria 841 (260 positive, 581 negative).
- ii. For Enteric Fever 168 (65 positive, 103 negative).
- iii. For Tuberculosis 440 (149 positive, 291 negative).
- iv. For Anthrax 2 (0 positive, 2 negative).
- v. Miscellaneous 45.

### PUBLIC MORTUARY.

The new mortuary in Wilton Street was opened October 11th, 1910. During the past year 108 bodies have been deposited and 19 post mortem examinations made.

MUNICIPAL MILK DEPÔT AND DAIRY.

The business done at the Milk Depôt is shown in the following tabular statement :—

	1909-10	1910-11	1911-12
Humanized Milk sold (bottles) ... ..	242,495	185,096	312,351
Sterilized Milk sold, wholesale and retail (pints) ... ..	127,681	90,736	83,890
Raw Milk sold, wholesale and retail (galls.)	71,026	49,996	56,394
Sterilized Milk supplied to Hospitals (pints)	9,168	8,842	8,226
Raw Milk do. (galls.)	8,940	7,920	8,406

The Balance Sheet for the year ending March 31st, 1912, is appended.

## COMPARATIVE STATEMENT OF REVENUE

EXPENDITURE.	1910-11.		1911-12.		Increase.	Decrease.
	Amount.	Per-centage of Total Income.	Amount.	Per-centage of Total Income.		
	£ s. d.		£ s. d.		£ s. d.	£ s. d.
Wages ... ..	517 1 1	17·08	608 8 1	18·33	91 7 0	
Rents, Rates, and Taxes	66 11 1	2·21	65 8 11	1·97		1 2 2
General Repairs ... ..	47 5 3	1·55	137 5 11	4·14	90 0 9	
Bottles, Teats, Washers, } &c. ... .. }	88 17 3	2·94	119 8 2	3·59	30 10 11	
Coal, Coke, Gas, and } Water ... .. }	47 3 1	1·55	49 6 9	1·49	2 3 8	
Milk and Cream ... ..	2255 16 6	74·55	2635 3 2	79·39	379 6 8	
Sugar and Honey ... ..	13 1 8	0·42	14 8 2	0·43	1 6 6	
Eggs ... ..	160 13 8	5·32	77 19 6	2·35		82 14 2
Printing, &c. ... ..	13 8 6	0·42	33 17 2	1·02	20 8 8	
Provender and Straw ... ..	77 18 1	2·57	85 7 3	2·57	7 9 2	
Saddlery and Farriery ... ..	16 1 1	0·52	26 3 8	0·79	10 2 7	
Disbursements and Sun- } dries ... .. }	88 5 0	2·90	88 15 4	2·67	0 10 4	
Depreciation ... ..	98 18 1	3·27	114 7 0	3·45	15 8 11	
Interest upon amount } expended upon Invest- } ments ... .. }	35 17 9	1·18	35 1 2	1·06		0 16 7
					648 15 2	84 12 11
					84 12 11	
	3526 18 0	116·48	4091 0 3	123·25		
INCREASED EXPENDITURE ... ..	£				564 2 3	

F. OGDEN WHITELEY, A.S.A.A.,

*City Treasurer and Accountant.*

## MILK DEPÔT.

ACCOUNTS FOR THE YEARS 1910-11 AND 1911-12.

INCOME.	1910-11.		1911-12.		Increase.	Decrease.
	Amount.	Per-centage of Total Expend-iture.	Amount.	Per-centage of Total Expend-iture.		
	£ s. d.		£ s. d.			£ s. d.
Milk—Humanized ...	273 3 6	7.74	71 19 4	1.76		201 4 2
„ Sterilized ...	575 1 1	16.30	307 11 1	7.52		267 10 0
„ Wholesale ...	1968 9 1	55.79	2009 2 6	49.11	40 13 5	
Cream ... ..	27 10 2	0.79	58 5 7	1.42	30 15 5	
Eggs ... ..	170 1 10	4.82	96 17 5	2.37		73 4 5
Honey ... ..	2 13 11	0.08	0 13 4	0.02		2 0 7
Bottles, Teats, &c. ...	8 3 8	0.22	7 18 1	0.20		0 5 7
Sundries ... ..	0 15 0	0.03	3 0 11	0.07	2 5 11	
Rent—Wilton Street ...			2 11 2	0.06	2 11 2	
Health Committee— Free Supply of Milk }			*761 2 10	18.60	761 2 10	
	3025 18 3	85.77	3319 2 3	81.14	837 8 9	544 4 9
					544 4 9	
					293 4 0	
Expenditure in excess of Income ... ..	500 19 9	...	771 18 0	...		
*Calculated at the rate of 2/3 per child per week.						
	3526 18 0	...	4091 0 3	...		
INCREASED INCOME ... ..					£ 293 4 0	

MEM.—	£ s. d.
Deficit, 1910-11 .....	500 19 9
Increased Expenditure, 1911-12.....	564 2 3
„ Income, 1911-12 .....	293 4 0
	<u>270 18 3</u>
	£771 18 0

PUBLIC BATHS.

The Statement appended supplied by the Engineer and Superintendent of Baths, indicates the use made of the various kinds of Public Baths.

TOTAL NUMBER OF BATHERS FROM APRIL 1ST, 1911, TO MARCH 31ST, 1912.

DESCRIPTION.	Central	West Bowling	Manningham	Bowling	Leeds Road	Undercliffe	Wyke	Grange Road	Lapage Street	Whitsey	Feversham Street	Green Lane	Wapping	Low Moor	Dyson Street	Broomfields	Prince Street	Bolton Road	Layingsstone Road	Heaton	TOTALS	
Swimming—Males ...	12,316	24,400	29,626	18,073	8,522	24,799	13,738	1,741	7,862	3,528	...	...	...	...	...	...	...	...	...	...	154,605	
" Females ...	2,874	1,857	4,708	1,214	584	3,484	1,223	4,028	2,196	579	...	...	...	...	...	...	...	...	...	...	22,747	
" Males, Free ...	...	6,831	2,133	4,002	2,888	6,135	1,965	9,122	9,310	2,113	10,541	10,146	8,778	...	...	...	...	...	...	...	73,964	
" Females " ...	...	1,260	1,237	909	1,142	958	982	2,856	2,388	419	9,547	4,301	6,379	...	...	...	...	...	...	...	32,378	
Swimming Club—Males ...	3,513	2,498	5,985	2,493	692	5,802	1,694	6,153	3,971	275	...	...	...	...	...	...	...	...	...	...	33,076	
" Females ...	...	...	1,339	225	250	1,499	349	1,094	1,527	...	...	...	...	...	...	...	...	...	...	...	6,283	
" Instruction ...	158	20	116	7	11	13	29	52	6	3	...	...	...	...	...	...	...	...	...	...	415	
" Season Tickets ...	...	75	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	75	
TOTAL SWIMMERS ...	18,861	36,941	45,144	26,923	14,089	42,690	19,980	35,046	27,260	6,917	20,088	14,447	15,157	...	...	...	...	...	...	...	323,543	
Slipper and Shower—Males ...	13,265	19,436	11,444	7,244	9,186	7,914	3,136	2,466	1,613	1,590	...	...	...	2,131	...	...	...	...	955	212	80,592	
" Females ...	1,446	6,016	4,999	4,593	4,705	5,090	917	607	312	1,154	...	...	...	2,863	7,997	6,861	8,112	4,965	773	276	61,686	
Douche—Males ...	...	...	8,159	5,471	3,402	5,978	...	922	794	540	...	...	...	676	...	...	...	...	107	198	26,247	
" Females ...	...	...	1,782	835	1,301	1,111	...	87	44	92	...	...	...	...	7,737	5,067	6,319	8,761	...	...	5,252	
Slipper, Free ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,392	738	30,014	
Children's Table Baths ...	...	...	...	...	...	...	...	...	...	...	...	...	...	472	...	...	...	...	...	...	472	
TOTAL ABLUTIONARY ...	14,711	25,452	26,384	18,143	18,594	20,093	4,053	4,082	2,763	3,376	...	...	...	6,142	15,734	11,928	14,431	13,726	3,227	1,424	204,263	
Gymnasium—Males ...	...	...	...	...	1,567	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,567
" Females ...	...	...	...	...	97	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	97
" Club, Males ...	...	...	...	...	175	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	175
" Females ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" Free, Males ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" Females ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

## TOTAL NUMBER OF BATHERS FROM APRIL 1ST, 1911, TO MARCH 31ST, 1912—continued.

DESCRIPTION.	Central	West Bowling	Manningham	Bowling	Leeds Road	Undercliffe	Wyke	Grange Road	Lapage Street	Wibsey	Feverham Street	Green Lane	Wapping	Low Moor	Dyson Street	Broomfields	Prince Street	Bolton Road	Livingstone Road	Heaton	TOTALS
Turkish—Males	12,631	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12,631
Females	1,148	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,148
Vapour—Males	143	684	...	...	...	288	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,115
Females	40	233	...	...	...	70	...	...	...	...	...	...	...	...	...	...	...	...	...	...	343
Electric Bath—Males	380	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	380
Females	285	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	285
Reduced	437	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	437
Males, Free	378	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	378
Females, Free	303	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	303
Medicated—Males	22	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	22
Females	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20
Reduced...	530	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	530
Males, Free	512	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	512
Females, Free	163	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	163
Special—Males	204	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	204
Females	36	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36
TOTAL	17,292	917	...	...	...	358	...	...	...	...	...	...	...	...	...	...	...	...	...	...	18,567
Grand Total	50,864	63,310	71,528	45,066	34,522	63,141	24,933	39,128	30,023	10,293	20,088	14,447	15,157	6,142	15,734	11,928	14,431	13,726	3,227	1,424	548,212

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES  
AND HOMEWORK.

I.—INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR  
INSPECTORS OF NUISANCES.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
FACTORIES ... .. (Including Factory Laundries)	613	185	—
WORKSHOPS ... .. (Including Workshop Laundries)	4521	244	—
WORKPLACES ... .. (Other than Outworkers' premises in- cluded in part 3 of this Report)			
TOTAL ... ..	5134	429	—

## II.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts—</i>				
Want of cleanliness .. .. .	337	337	...	...
Want of ventilation ... .. .	57	57	...	...
Overcrowding ... .. .	7	7	...	...
Want of drainage of floors ... .. .	3	3	...	...
Other nuisances ... .. .	429	429	...	...
* Sanitary accommodation { insufficient .. .. .	62	60	...	...
{ unsuitable or defective	207	204	...	...
{ not separate for sexes	24	23	...	...
<i>Offences under the Factory and Workshop Act—</i>				
Illegal occupation of underground bakehouse (S. 101) ... .. .	3	3	...	...
Breach of special sanitary requirements for bakehouses (SS. 97 to 100) ...	131	131	...	...
Other offences ... .. . (Excluding offences relating to out-work which are included in part 3 of this Report).	1	1	...	...
<b>TOTAL</b> ... .. .	<b>1261</b>	<b>1255</b>	...	...

\* Sec. 22 of the Public Health Acts Amendment Act, 1890, adopted, 1 W.C. for every 20 persons.



## IV.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.		Number.
Important classes of workshops, such as workshop bakehouses, may be enumerated here.	Workshops ... ..	2359
	Bakehouses ... ..	471
	Total number of workshops on Register ...	2830

## V.—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (S. 133) ... ..	82
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (S. 5) ... ..	60
Notified by H.M. Inspector ... ..	76
Reports (of action taken) sent to H.M. Inspector.	2
Other ... ..	2
Underground Bakehouses (S. 101) :—	
Certificates granted during the year ... ..	0
In use at the end of the year ... ..	58



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NEW BUILDINGS  
AND  
INSANITARY PROPERTY.

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NEW BUILDINGS.

Table A shows that 396 new houses have been built during the year and certified as fit for habitation in accordance with the Bradford Waterworks and Improvement Act, 1875.

TABLE A.

*Showing number of New Buildings certified as fit for habitation in each of the Wards, and in the whole City, during the years 1902-1911.*

WARDS.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
North ... ..	68	7	8	23	21	8	9	18	3	20
South ... ..	67	68	58	8	28	23	...	15	...	...
East ... ..	39	60	37	30	7	21	...	21	1	14
West .. ...	1	...	2	...	...	...	...	1	114	...
Listerhills ... ..	25	15	32	2	...	5	...	...	...	...
Great Horton ... ..	282	290	224	110	48	48	45	30	42	37
Little Horton ... ..	4	35	161	63	83	15	22	42	16	4
East Bowling ... ..	61	66	150	50	14	57	38	10	3	12
West Bowling ... ..	43	153	128	157	81	80	94	51	35	25
Exchange ... ..	...	...	...	...	...	...	...	...	...	...
Bradford Moor... ..	136	123	222	190	117	130	103	84	50	31
Manningham ... ..	33	9	14	52	13	7	...	52	88	68
Bolton ... ..	12	13	1	33	5	14	7	32	55	15
Heaton ... ..	92	97	104	77	102	88	62	29	23	11
Allerton ... ..	65	72	35	41	14	43	35	29	62	40
Eccleshill ... ..	41	80	104	53	59	33	33	17	46	23
Idle ... ..	13	11	41	40	19	9	12	6	13	21
North Bierley East ... ..	21	32	65	71	21	41	19	17	4	8
North Bierley West ... ..	10	15	8	7	1	6	...	5	44	29
Thornton ... ..	1	36	43	3	3	...	1	...	1	3
Tong ... ..	9	56	21	47	19	9	6	17	26	35
CITY TOTAL ... ..	1023	1238	1458	1057	655	637	486	476	626	396

HOUSING, TOWN PLANNING, &c., ACT, 1909.

During the year I made representations under Sec. 17 of the above Act to the effect that the below-mentioned houses were unfit for habitation, and Closing Orders were subsequently made in regard to all of them.

EBENEZER STREET—9, 11, 13, 15, 17, 19, 20, 21, 22, 23, 25, 27.

BACK EBENEZER STREET—16, 20, 28, 32, 36, 40, 48, 52.

SLACK TOP, WIBSEY—60, 62, 64, 66.

BIRK STREET—44, 44A, 44B.

CAPTAIN STREET—42, 44, 46, 48, 50, 52, 54, 56.

CROSS SUN STREET—54, 56, 58.

JURY STREET—17, 19, 21, 23, 25, 27, 29, 31.

FILBERT STREET—65, 67, 69, 71.

CHAPEL STREET, LEEDS ROAD—20, 20A, 22, 22A.

BRADFORD CORPORATION GAS AND IMPROVEMENTACT, 1871.

Under this Act I have certified the undermentioned dwellings as unfit for habitation. They were closed by order of the City Council.

## HOUSES.

Sun Street—8.

Nathan Street—19.

William Court—15, 17, 19, 21, 23, 25, 35, 37, 49, 59, 63, 65, 75, 77.

Sargent Street, Low Moor—14.

## BASEMENTS.

Myrtle Street—79, 81.

Bolton Road—272.

## CELLAR DWELLINGS.

Back Tamworth Street—45A.

Cross Wellington Street—8, 14.

Garnett Street—64, 66.

Hannah Gate—12, 16, 20, 28, 32, 36, 40, 44.

Manchester Road—699, 703.

Paper Hall Court—7, 8, 9, 10, 15, 18.

Pollard Street—40, 54.

Sterling Street—13, 19, 29, 35, 45, 51.

Whetley Terrace—13A, 14A.

William Court—5A.

Acre Street—45, 49.

Arkwright Street—42.

Ashley Street—21.

Battye Street—7.

Cooke Street—10.

Fullerton Street—25.

Grape Street, Allerton—12A, 14A, 16A, 18A.

Hodgson Square—3, 4.

Kimber Street—5.

Laisterdyke—48A,

Tumbling Hill Street—123, 125.

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

The two Inspectors appointed under the provisions of the Housing, Town Planning, Etc., Act, 1909, commenced their duties on the 1st of April, 1911. It will therefore be observed that the following particulars relate to only nine months of the year.

House inspection has been carried out in the following streets and Wards of the City :—

<p style="text-align: center;">BOLTON WARD.</p> <p>Hopwood Street Valley Place Valley Row Valley Road Valley Street</p>	<p style="text-align: center;">MANNINGHAM WARD.</p> <p>Back Primrose Street Back Primrose Terrace Back Spring Row Back Wood Street Golden Square Primrose Street Regent Square Regent Street Springfield Street Waile Street Wood Street</p>	<p>Cambridge Place Captain Street Cavalier Street Cavalier Court Carver's Court Clarenton Lane Coleman Street Craven Street Cross Sun Street Cross Wapping Street Cross Wellington Street Dixon Street Fearnley Street Filbert Street Gaunt Street Geranium Terrace Golden Cock Yard Greengrove Terrace Irving Street Jermyn Street Jermyn Street Place Johnson Fold Jury Street Kimber Street King Charles Court</p>
<p style="text-align: center;">EXCHANGE WARD.</p> <p>Bonwell Court Brooklyn Street Cross Frederick street Diamond Street Diamond Court Dryden Street East Street Eastbrook Lane Ebenezer Street Frederick Street George Street Great Cross Street Otley Road Peel Street Tanhouse Yard Vicar Lane</p>	<p style="text-align: center;">NORTH WARD.</p> <p>Airedale Place Airedale Square Albert Court Arthur Street Ash Street Back Spinkwell Terrace Back Victoria Terrace Barker Court Bolton Road</p>	

NORTH WARD—	Ranter Court	Hammerton Street
<i>continued.</i>	Richmond Street	Lower Ernest Street
King Charles Street	Shaw Street	Mount Street
King Charles Square	Southampton Street	
Lawson Street	Stanacre Place	WEST WARD.
Lingard Street	Stanacre Square	Abbey Street
Loom Street	Stott Hill Place	Black Abbey Fold
Mab Street	Sun Street	Burnley Fold
Mab Court	Sidney Street	City Road
Mulberry Street	Temperance Street	Gracechurch Street
Nathan Street	Wapping Road	Hardaker Street
North Court	Wapping Street	Hayworth Street
North Street	Watson Fold	Hind Street
North Street Court	Wellington Street	Hudson Square
North Wing	Wellesley Street	King Street
Northampton Street	Wellesley Court	Low Street
Northbrook Street	Wharf Street	Ludlow Street
Northbrook Court	Wild Boar Street	Queen Street
North Holme Street	Wright Street	Salt Pie Street
Oxford Place		Sedgwick Street
Paperhall Street		Sedgwick Court
Paperhall Court	SOUTH WARD.	Spink Place
Paperhall Square	Acre Street	Spink Street
Philadelphia Street	Adolphus Street	Summer Street
Pine Street	Egbert Street	White Abbey Road
Priestley Street	Fullerton Street	Woodhouse Buildings
Ranter Street		

The number of house inspections carried out under the provisions of this Act was 2190.

The number of nuisances reported was 2118. Of these 1403 have been abated, leaving 489 actually in arrears at the end of the year, and 226 in which the time allowed for the abatement of the nuisance had not expired. A large number of those cases in arrear were for the provision of water closets and dry ashes places in lieu of the existing privy middens. This work was considerably retarded owing to the rough and the restrictions imposed on the water supply by the Water Committee.

The following tabulated statement shows the nature and amount of work done by the Housing Inspectors in the way of property repairs and sanitary improvements :—

Nature of Work Done.	No. of Cases.
<b>DRAINAGE AND SANITARY ARRANGEMENTS.</b>	
Choked drains cleansed .. .. .	53
Drains amended .. .. .	31
Drains reconstructed .. .. .	1
Extra drains provided .. .. .	15
Cellars drained .. .. .	1
Drains underneath houses abolished .. .. .	1
Waste pipes trapped .. .. .	5
Waste pipes disconnected .. .. .	3
Rain water pipes disconnected .. .. .	3
Rain water conductors repaired or renewed .. .. .	146
Slop sinks repaired or renewed .. .. .	82
New slop sinks provided .. .. .	31
Water closet pedestals renewed .. .. .	4
Water closets and flushing apparatus repaired .. .. .	31
Water closets cleansed .. .. .	37
Water closet apartments cleansed and limewashed .. .. .	63
Soil pipes repaired or renewed .. .. .	4
<b>PRIVIES AND ASHPITS.</b>	
Deposit of slops in ashpit prohibited .. .. .	3
General repairs executed .. .. .	38
Privy apartments cleansed and limewashed .. .. .	42
Dust bins repaired or renewed .. .. .	1
<b>DWELLING HOUSES, ETC.</b>	
Dampness excluded .. .. .	31
Roofs repaired .. .. .	137
Ventilation improved .. .. .	122
General repairs executed .. .. .	203
Houses or parts thereof cleansed and limewashed .. .. .	231
Cellar areas cleansed .. .. .	13
Caravans removed .. .. .	1
<b>COURTS, BACK YARDS, STABLE YARDS, ETC.</b>	
Yards and passage paving repaired .. .. .	6
Yards cleansed .. .. .	1
Passages cleansed and limewashed .. .. .	5
Accumulations of offensive matter removed .. .. .	1
Gas escapes .. .. .	3
Dangerous places made secure .. .. .	46
Other unclassified nuisances abated .. .. .	17

## INSANITARY PROPERTY.

The following dwelling houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation were referred to the Medical Officer of Health with a view to closing the same :—

Gracechurch Street, 55.  
 Pine Street, 4.  
 Regent Street, 5, 7.  
 Salt Pie Street, 19.  
 Sun Street, 12, 14, 16, 24, 26.  
 White Abbey Road, 56 (58, 68), 70.  
 Captain Street, 6, 8, 10.

The Medical Officer of Health made representations to the Local Authority, and Closing Orders were made for the whole of the houses. The Orders were duly served and the premises subsequently vacated.

## DEFECTIVE DRAINAGE.

Five blocks of property comprising 38 dwelling houses have been referred to the City Surveyor under the provisions of Section 41, Public Health Act, 1875, owing to the drains being in a defective condition. Particulars of these cases are included in those under the main heading "Defective Drainage."

## DRAIN TESTING.

The drains in connection with 165 dwelling houses have been tested by the Housing, Town Planning Inspectors with the following results :—

Nature of Test.	No. of Tests.	Result.	
		Positive.	Negative.
Volatile Tests .. .. .	116	42	74
Coloured water Tests .. .. .	46	17	29
Smoke Tests .. .. .	3	1	2
Totals .. .. .	165	60	105



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CITY HOSPITALS.

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CITY HOSPITAL, LEEDS ROAD.

The following report by Dr. Kitchin shows the work done at the Leeds Road Hospital for Infectious Diseases during the year 1911.

*TABLE A.—GENERAL ABSTRACT.*

Remaining in Hospital, 31st December, 1910	.. .. .	92
Admitted during the year	... ..	760
	TOTAL	852
Discharged, relieved, or cured	... ..	671
Died	... ..	54
Remaining in Hospital, 31st December, 1911	.. .. .	127
	TOTAL	852

TABLE B.—SCARLET FEVER.

AGE.	MALES.		FEMALES.		TOTALS.		Death- Rate per Cent.
	No. Admitted.	No. Died.	No. Admitted.	No. Died.	No. Admitted.	No. Died.	
Under 1	...	...	...	...	...	...	...
1—2	2	...	4	...	6	...	...
2—3	6	1	5	...	11	1	9'09
3—4	13	...	11	1	24	1	4'16
4—5	10	1	20	1	30	2	6'6
Total under 5	31	2	40	2	71	4	5'6
5—10	81	...	78	...	159	...	...
10—15	39	...	52	...	91	...	...
15—20	6	...	17	...	23	...	...
20—25	2	...	9	...	11	...	...
25—30	2	...	3	...	5	...	...
30—35	2	...	...	...	2	...	...
35—40	2	...	3	...	5	...	...
TOTAL ...	165	2	202	2	367	4	1'08

TABLE C.—ENTERIC FEVER.

AGE.	MALES.		FEMALES.		TOTALS.		
	No. Admitted.	No. Died.	No. Admitted.	No. Died.	No. Admitted.	No. Died.	Death-Rate Per Cent.
Under 5	4	...	...	...	4	...	...
5—10	6	...	3	...	9	...	...
10—15	4	...	4	1	8	1	12·5
15—20	6	...	5	1	11	1	9·09
20—25	7	3	9	2	16	5	31·2
25—30	6	3	2	...	8	3	37·5
30—35	7	1	5	...	12	1	8·3
35—40	4	2	3	...	7	2	28·5
40—45	4	1	2	...	6	1	16·6
45—50	1	...	1	...	2	...	...
50—55	2	...	2	2	4	2	50·0
55—60	2	1	2	1	4	2	50·0
60—65	...	...	1	1	1	1	100·0
65—70	...	...	1	...	1	...	...
TOTAL ...	53	11	40	8	93	19	20·4

TABLE D.—DIPHTHERIA.

AGE.	MALES.		FEMALES.		TOTALS.		
	No. Admitted.	No. Died.	No. Admitted.	No. Died.	No. Admitted.	No. Died.	Death-Rate. Per Cent.
Under 1	2	2	4	1	6	3	50
1—2	5	2	3	2	8	4	50
2—3	7	2	6	...	13	2	15'3
3—4	8	...	7	2	15	2	13'3
4—5	15	...	13	2	28	2	7'1
Total under 5	37	6	33	7	70	13	18'5
5—10	49	2	64	2	113	4	3'5
10—15	28	1	27	2	55	3	5'4
15—20	1	...	6	...	7	...	...
20—25	2	...	6	2	8	2	25
25—30	4	...	3	...	7	...	...
30—35	1	...	1	...	2	...	...
35—40	1	...	4	...	5	...	...
40—45	...	...	2	...	2	...	...
45—50	...	...	...	...	...	...	...
50—55	...	...	...	...	...	...	...
55—60	...	...	2	1	2	1	50
TOTAL ...	123	9	148	14	271	23	8'4

TABLE E.

Showing Number of Cases admitted during each month of 1911.

1911.	Scarlet Fever.			Enteric Fever.			Diphtheria.			Other Diseases.			Total Admissions.		
	Month.	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.
January ...	10	20	30	1	3	4	12	12	24	...	2	2	23	37	60
February ...	13	11	24	2	1	3	7	13	20	...	...	...	22	25	47
March ...	12	17	29	3	4	7	10	12	22	1	1	2	26	34	60
April ...	19	16	35	1	2	3	8	9	17	1	2	3	29	29	58
May ...	10	12	22	4	...	4	6	6	12	3	...	3	23	18	41
June ...	5	5	10	1	...	1	7	9	16	...	2	2	13	16	29
July ...	11	12	23	1	4	5	13	10	23	1	3	4	26	29	55
August ...	3	11	14	3	3	6	5	6	11	1	1	2	12	21	33
September	10	7	17	17	8	25	10	12	22	1	2	3	38	29	67
October ...	16	28	44	11	11	22	7	19	26	3	2	5	37	60	97
November	37	30	67	4	2	6	12	13	25	1	1	2	54	46	100
December	19	33	52	5	2	7	26	27	53	...	1	1	50	63	113
TOTAL ...	165	202	367	53	40	93	123	148	271	12	17	29	353	407	760

#### OTHER DISEASES.

Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7
Pneumonia ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8
Meningitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Tonsilitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Malaria ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Ulcerative Endocarditis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Septicaemia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Leukaemia ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Colitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Mania	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
TOTAL ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	<u>29</u>

Of these patients eight died — one from erysipelas, three from pneumonia, two from meningitis, one from ulcerative endocarditis, and one from leukaemia.

## SUMMARY.

YEAR.	SMALL-POX.			ENTERIC FEVER.			SCARLET FEVER.			DIPHTHERIA.			OTHER DISEASES.			TOTALS.			From 1877 to 1910.	
	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Aggregate No. of days spent in Hospital.	Average No. of days for each Patient.
1877	19	4	21.05	65	13	20.0	72	9	12.5	...	...	...	27	8	29.6	183	34	18.5	5,579	31½
1878	5	1	20.0	55	13	23.6	148	17	11.5	...	...	...	27	3	11.1	237	34	14.3	9,263	39
1879	8	...	...	24	3	12.5	159	14	8.8	...	...	...	23	4	17.39	214	21	9.8	8,414	39
1880	2	1	50.0	60	8	13.3	248	38	15.3	...	...	...	54	7	12.9	364	54	14.8	13,192	36½
1881	21	2	9.5	61	7	11.5	317	42	13.2	...	...	...	27	...	...	426	51	11.97	16,073	37½
1882	26	3	8.8	88	17	19.3	213	31	14.5	...	...	...	39	5	12.8	366	56	15.32	14,766	40
1883	5	...	...	119	17	14.2	233	17	7.2	...	...	...	23	2	8.6	375	36	9.6	15,949	42½
1884	3	...	...	93	17	18.2	237	11	4.6	...	...	...	29	4	13.7	362	32	8.8	14,215	39½
1885	28	2	7.14	89	6	6.74	456	19	4.16	...	...	...	23	8	34.7	596	35	5.89	21,391	36
1886	4	...	...	83	8	9.63	625	29	4.64	...	...	...	14	2	14.3	726	39	5.37	29,305	40½
1887	3	...	...	79	7	8.86	830	21	2.27	...	...	...	9	5	55.5	921	33	3.58	38,609	42½
1888	16	2	12.5	57	6	10.53	283	12	4.24	...	...	...	11	1	9.9	367	21	5.72	16,479	46
1889	9	1	11.11	90	26	28.89	355	40	11.27	...	...	...	36	6	16.67	490	73	14.90	21,315	43½
1890	...	...	...	59	11	18.64	380	22	5.78	...	...	...	43	12	27.90	484	45	9.30	19,940	41½

1891	...	...	...	76	15	19'6	780	83	10'6	...	...	...	39	10	25'6	897	108	12'04	39,838	44
1892	25	4	16'6	41	11	26'8	587	27	4'6	...	...	...	32	7	21'8	685	49	7'2	29,191	42½
1893	935	100	10'6	11	4	36'3	228	17	7'8	...	...	...	12	1	8'3	1186	122	10'2	34,203	28'8
1894	...	...	...	42	8	19'0	525	30	5'7	...	...	...	16	...	...	583	38	6'5	27,124	46'5
1895	...	...	...	97	20	20'6	250	16	6'4	...	...	...	28	9	32'14	375	45	12'0	17,331	46'21
1896	...	...	...	77	15	19'4	248	14	5'6	...	...	...	21	6	28'5	346	35	10'1	17,368	50'1
1897	...	...	...	74	11	14'8	226	5	2'21	...	...	...	17	8	47'05	317	24	7'5	14,549	45'8
1898	...	...	...	162	21	12'9	556	7	1'2	...	...	...	42	16	38'09	760	44	5'8	35,112	46'2
1899	...	...	...	131	16	12'2	1658	74	4'4	...	...	...	24	11	45'8	1813	101	5'5	87,024	48
1900	...	...	...	175	38	21'7	821	42	5'1	...	...	...	34	6	17'6	1030	86	8'3	47,998	46'6
1901	...	...	...	137	18	13'1	573	18	3'1	...	...	...	36	12	33'3	746	48	6'4	33,868	45'3
1902	...	...	...	79	14	17'7	571	26	4'5	111	23	20'7	28	6	21'8	789	69	8'7	35,347	44'8
1903	...	...	...	80	13	16'25	467	19	4'06	96	22	22'9	25	6	24'0	668	60	8'9	30,193	45'1
1904	...	...	...	64	17	26'5	550	17	3'09	437	85	19'4	28	5	17'8	1079	124	11'4	44,454	41'2
1905	...	...	...	85	11	12'9	570	32	5'6	275	37	13'4	24	4	16'6	954	84	8'8	41,403	43'4
1906	...	...	...	121	20	16'52	694	22	3'17	183	14	7'65	15	6	40'0	1013	62	6'12	42,850	42'3
1907	...	...	...	50	10	20'0	374	12	3'2	141	16	11'34	13	2	15'3	578	40	6'9	23,871	41'3
1908	...	...	...	88	18	20'0	493	9	1'82	177	15	8'47	10	3	30'0	768	45	5'8	32,640	42'5
1909	...	...	...	32	5	15'62	622	13	2'09	175	24	13'71	32	8	25'0	861	50	5'8	35,559	41'3
1910	...	...	...	67	13	19'4	457	9	1'9	209	14	6'6	18	4	22'2	751	40	5'3	30,190	40'2
1911	...	...	...	93	19	20'4	367	4	1'08	271	23	8'4	29	8	27'5	760	54	7'1	33,668	44'3

### THE CITY HOSPITAL—BIERLEY HALL.

The Table shows the number of cases of Small-pox and other diseases isolated and treated at Bierley Hall:—

	1909.	1910.	1911.	Total No. of days in Hospital. 1911.	Average No. of days in Hospital.
Small-pox ... ..	...	...	...	...	...
Convalescent Scarlatina ... ..	267	215	133	4225	32
Others ... ..	...	...	...	...	...
	267	215	133	4225	32

### HOSPITALS FOR INFECTIOUS DISEASES.

Cost of Maintenance and Establishment Charges for the Year ended 31st March, 1912.

#### MAINTENANCE.

	Leeds Road. £ s. d.	Bierley Hall. £ s. d.
Cost of articles (food and drink), including stimulants and aerated waters ... ..	1648 16 4	319 1 8
Cost of stimulants and aerated waters only ... ..	64 19 5	3 15 4
Cost per head of household and patients (all ages) per day, including stimulants and aerated waters ...	7·2d.	8·8d.
Cost per head of household and patients (all ages) per day of stimulants and aerated waters only ... ..	0·29d.	0·10d.

	Leeds Road.	Bierley Hall
Number of patients under 12 years of age ...	535	107
Number of patients over 12 years of age ...	225	26
Total number of patients ... ..	<u>760</u>	<u>133</u>

For the year ended March 31st, 1912, the cost of maintenance of patients admitted from Bradford to the conjoint Hospitals is as follows:—

	Half-year ended 31st March, 1912.			Half-year ended 30th Sept., 1911.		
	£	s.	d.	£	s.	d.
North Bierley Joint Hospital...	0	11	6½	...	1	15 2 per week.
Calverley Joint Hospital ...	0	17	4	...	0	18 6 ,,
Thornton Joint Hospital ...	0	18	1½	...	1	9 3 ,,

The following sums were paid during the year under the head of "Establishment Charges":—

North Bierley Joint Hospital ...	£883	17	11
Calverley Joint Hospital ...	537	12	0
Thornton Joint Hospital ...	415	19	6

#### NUMBER OF PATIENTS ADMITTED.

North Bierley Joint Hospital	{	Number of patients under 12 years ...	26
		Number of patients over 12 years ...	18
		Total number of patients ...	44
Calverley Joint Hospital ...	{	Number of patients under 12 years ...	29
		Number of patients over 12 years ...	9
		Total number of patients ...	38
Thornton Joint Hospital ...	{	Number of patients under 12 years ...	9
		Number of patients over 12 years ...	6
		Total number of patients ...	15



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APPENDICES.

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*APPENDIX I.*

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REPORT OF THE MEDICAL OFFICER OF HEALTH  
ON THE TUBERCULOSIS DISPENSARY.

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MR. CHAIRMAN AND GENTLEMEN,

In accordance with the following resolution of the Health Committee of June 14th, 1911, viz. :—

“That the Medical Officer of Health be requested to report to the Committee on the following matters, viz. :

“(1) The Dispensary System for Treatment of Tuberculosis ;  
“and (2) The advisability of converting one of the wards at  
“the Bierley Hall Hospital into an educational block where  
“persons suffering from consumption may be trained in  
“methods of living calculated to prevent risk of infection  
“to members of their families or others with whom they may  
“be brought into contact.”

I beg to report as follows :—

(1) As to the Tuberculosis Dispensary.

During the year 1910 there were in Bradford 324 deaths from Pulmonary Tuberculosis. In view, however, of the insidious onset, long duration, and periods of latency characteristic of Pulmonary Tuberculosis, one is justified in assuming that for every case reported

as fatal or under treatment at some public institution there are ten others which are not suspected but which will eventually appear for treatment either by the private Medical practitioner or at some public institution. It is only on presentation of such cases for treatment that the public Health Officer becomes cognisant of their existence, and then only of those which are attended by the Medical Officers of hospitals, or other public institutions, for it is only in reference to such cases that notification is compulsory.

The mortality from Pulmonary Tuberculosis during the past thirty years in Bradford has been as follows, stated at the rate per 100,000 of the population in six five-yearly periods:—

Periods.					Death-rate per 100,000.
1881-1885	..	..	..	..	217.4
1886-1890	..	..	..	..	206.3
1891-1895	..	..	..	..	169.9
1896-1900	..	..	..	..	157.5
1901-1905	..	..	..	..	126.8
1906-1910	..	..	..	..	119.8

Although these figures show a considerable and continuous decline in the prevalence of Pulmonary Tuberculosis, there is still much work to be done before the disease is practically eradicated, and in view of the fact that most of the victims are the bread winners of the family, any expense incurred in the process of eradication will in the long run be an economic gain. It is, therefore, in my opinion, essential that there should be some organisation which can cope with the cases of Pulmonary Tuberculosis which come to the notice of the Health Department, either by formal notification, or otherwise.

The only such organisation of which I am aware is the Edinburgh system, the principal part of which consists of what for want of a

better term is known as the "Dispensary," but which I should prefer to call a "Tuberculosis Clinic." This institution would work in the closest relationship to the homes of the people; to it most of the tuberculosis poor of the district would come and be sorted out for appropriate treatment.

At such a Clinic facilities for the examination, diagnosis, and treatment of all classes of cases would be provided, and its doors would be open to all without letters of recommendation. As it exists in Edinburgh the Dispensary does not content itself with giving medicine or other treatment, but the patient's home is visited, first by a nurse, and afterwards by a qualified clinical assistant. Any other suspected cases in the family are then examined, and brought if possible under the influence of the Dispensary; should there be any early cases amongst the other members of the family appropriate treatment in a sanatorium would be recommended, and if any other advanced cases were met with the necessary advice and educational influence would be brought to bear. The various occupations of the family would be inquired into, and if found to be unsuitable efforts would be made to give such assistance as would provide, if possible, other employment of a more suitable character. The examination of the family is what Dr. Philip describes as a "March past," and by this medical examination many cases have been discovered which otherwise might have existed for months or years without any treatment or advice.

The Dispensary may therefore be described as a clearing house of the whole of the tuberculosis material of the district, and through its agency some cases would be sent for treatment at a sanatorium, others to a hospital for advanced cases, and some others brought under the influence of other agencies assisting in the work.

The Dispensary, in addition, would gather valuable statistical information in regard to the distribution of disease in the various

localities of the City, and would become in time a valuable bureau of information.

This is essentially what is now known as the Edinburgh system and has been adopted by the Local Government Board of Scotland as a national scheme for that country; it has been described by Dr. Herman Biggs, Medical Officer of Health for New York, as a perfect organisation, and the one on which he has based the whole of his anti-tuberculous measures of that city.

Tuberculosis Dispensaries have already been established outside Edinburgh in Dundee, Paddington, and Stepney; there are also several in New York known as Tuberculous clinics.

To work the Dispensary there would, of course have to be a paid staff, consisting of Medical Officers and nurses, but the voluntary worker would also have an opportunity for working under the direction of the Dispensary Medical Officer, he or she devoting himself or herself to the most useful kind of work to be found. Successful social work depends to some extent upon voluntary work, and suitable employment could easily be found in connection with a Dispensary for much voluntary assistance.

Its special aims would be :—

- (1) The care and nourishment of infants and children.
- (2) The choice and preparation of food.
- (3) The finding of suitable employment for consumptive men and women.

Some cases referred to will be sent to the Sanatorium, others despatched to a hospital for educational purposes, others for suitable

work on a farm colony, and others will be provided with treatment at home.

In my opinion the so-called dispensary is absolutely essential for making the best use of those few means of fighting the disease that we at present possess.

(2) Conversion of Bierley Hall Hospital.

For the treatment and education of cases too advanced to be treated in a sanatorium, one of the wards at Bierley Hall Hospital may, with very slight alteration, be converted into an institution for this purpose.

There can be no doubt that persons suffering from Pulmonary Tuberculosis in private dwelling houses generally require some advice as to the necessity of preventing the spread of the disease to their friends and relations. Dirty habits and careless disposal of tuberculous expectoration are the chief means by which others in the house receive infection.

I think one of the wards at the Bierley Hall Hospital might easily be used for educating such patients to lead such a life as will conduce to their own comfort and diminish the danger of infecting others. Few alterations of the building would be required beyond a reconstruction of the windows in such a way that they could be thrown entirely open. Some additional furniture and apparatus, such as spit cups, etc., would be required.

It has been suggested that the Bierley Hall Hospital should also be used for patients in a hopeless condition; however, in my opinion, discretion must be used in classifying cases, and I think no absolute and complete demarcation between its various stages is desirable.

I can easily imagine that if part of the hospital was distinctly set apart for cases which in the near future could only have a fatal termination, it would be impossible to induce many to make use of the advantages offered. If, on the other hand, the system of isolating very advanced cases with those of a more hopeful character were adopted, the sight and sound of such cases could not fail to have a depressing and injurious influence upon many of the others.

I am,

Mr. Chairman and Gentlemen,

Yours faithfully,

W. ARNOLD EVANS.

TOWN HALL,

BRADFORD,

July 19th, 1911.

## APPENDIX II.

PUBLIC ANALYST'S LABORATORIES,

BRADFORD.

## ANNUAL REPORT FOR 1911.

Samples analysed by the Analyst to the Corporation of Bradford for year 1911.

1 sample of Junora.	1 sample of Pearl Barley.
4 samples of Fat.	1 " " Yeast.
474 " " Milk.	1 " " Sugar.
65 " " Butter.	5 samples " Pepper.
44 " " Bread and Butter.	2 " " Bread.
12 " " Sausage.	1 sample " Pressed Beef.
1 sample " Ground Almonds.	1 " " Blackberry Jam.
5 samples " Margarine.	1 " " Marmalade.
2 " " Cocoa Essence.	1 " " Raisin Wine.
23 " " Lard.	3 samples " Whisky.
9 " " Cheese.	5 " " Beer.
7 " " Potted Meat.	1 sample " Baking Powder.
1 sample " Tinned Peas.	4 samples " Laudanum.
12 samples " Cream.	4 " " Chloride of Lime.
29 " " Flour.	1 sample " Seidlitz Powder.
10 " " Vinegar.	2 samples " Ground Ginger.
8 " " Cocoa.	1 sample " Glycerine.
1 sample " Lime Juice.	2 samples " Flowers of Sulphur.
1 " " Mustard.	1 sample " Paregoric.
7 samples " Jam.	3 samples " Castor Oil.
79 " " Rice.	3 " " Cod liver Oil.
1 sample " Oatmeal.	

4 samples of Camphorated Oil.	1 sample of Cream of Tartar.
4 " " Olive Oil.	1 " " Milk of Sulphur.
1 sample " Formaline Throat Lozenges.	1 " " Iron and Quinine Citrate.
4 samples " Soap Liniment.	2 samples " Tartaric Acid.
1 sample " Lime Water.	2 " " Boracic Acid.
3 samples " Sal Volatile.	6 " " Turpentine.
2 " " Borax.	1 sample " Zinc Ointment.
1 sample " Ammoniated Tinc- ture of Quinine.	3 samples " Compound Liquorice Pow- der.
2 samples " Tincture of Iodine	5 " " Resin Ointment.
1 sample " Cream of Tartar.	—
3 samples " Citric Acid.	894 Total Number of Samples.
2 " " Glycerine.	Foods and Drugs, etc.
4 " " Gregory Powder.	

Samples analysed under the Special Arrangement with the Trade and Public. (Included in the foregoing list.)

35 samples of Rice.....	Genuine.
24 " " " .....	Adulterated.
4 " " Pepper .....	Genuine.
1 " " " .....	"
1 " " Oatmeal .....	"
3 " " Milk .....	"
2 " " Cheese .....	"
1 " " Yeast.....	"
4 " " Cocoa.....	"
7 " " Jam .....	"
1 " " Flour .....	"
1 " " Pearl Barley .....	"
1 " " Ground Ginger .....	"
2 " " Butter .....	"
1 " " Cocoa Essence .....	"
1 " " Tinned Peas.....	"

1	sample of Lard .....	Genuine
1	„ „ Vinegar .....	„
1	„ „ Ground Almonds .....	„

TOTAL NUMBER .. 92

#### MILK.

474 samples of Milk were submitted :—

12 samples of Milk contained 96, 96, 95, 3, 94, 93, 92, 91·3, 90, 86·7, 85·3, 85 and 80 per cent. of the minimum amount of fat.

The Milks containing 96 and 94 per cent. of fat also contained 6·8 and 9·4 per cent. of added water.

10 samples contained ·5, ·9, 2·7, 2·8, 3, 5·1, 5·4, 11·2, 13·88 and 18·3 per cent. of added water.

The Milks containing ·5, ·9, 2·8, and 13·88 per cent. of added water also contained 97, 99·3, 99·3, and 76·6 per cent. of the minimum amount of fat.

#### BUTTER.

1 sample consisted entirely of Margarine.

1 sample consisted of  $\frac{2}{3}$  of Margarine with  $\frac{1}{3}$  of Butter.

#### BREAD AND BUTTER.

The Butter on 7 samples consisted entirely of Margarine.

2 samples consisted of  $\frac{1}{3}$  Butter with  $\frac{2}{3}$  Margarine.

3 samples contained 70, 50 and 34 per cent. of Margarine.

#### RICE.

26 samples contained ·3, ·3, ·28, ·26, ·38, ·34, ·30, ·26, ·16, ·16, ·14, ·13, ·12, ·12, ·12, ·18, ·10, ·10, ·08, ·08, ·06, ·06, ·06,

'04, '04, and '02 per cent. of extraneous mineral matter in excess.

#### WHITE PEPPER.

1 sample contained a large excess of Pepper Husks.

#### CREAM.

5 samples contained '25, '25, '20, '044, and '025 per cent. of Boric Acid.

The 2 samples with '044 and '25 per cent. were of doubtful quality.

#### SAUSAGE.

2 samples contained '64 and '70 per cent. of Boric Acid.

#### BREAD.

1 sample was classified as doubtful. It was badly made, dark coloured, and hard.

#### GREGORY POWDER.

2 samples contained rather less than half the proper proportion of the more expensive constituents, Rhubarb and Ginger, with a corresponding excess of the cheaper component, light Magnesia.

#### SOAP LINIMENT.

2 samples contained  $\frac{3}{4}$  per cent. instead of  $9\frac{3}{8}$  of soft soap and were free from camphor.

#### SAL VOLATILE.

2 samples contained 52 per cent. of the proper amount of the strong solution of Ammonia.

## CHLORIDE OF LIME.

4 samples contained 38.6, 58.2, 66.6, and 74.2 per cent. of the full amount of available chlorine.

## BEER.

1 sample contained an excess of Common Salt.

This sample was classified as "doubtful."

## FLOUR.

1 sample contained over 12 per cent. of matters soluble in water. This sample was classified as "doubtful."

## JUNORA.

1 sample did not contain Lecithin Ovo and was deficient in nitrogen and phosphorus and did not conform to the description on the label.

Signed,

F. W. RICHARDSON.

*APPENDIX III.*  
TABLES REQUIRED BY THE LOCAL GOVERNMENT BOARD.

TABLE I.  
VITAL STATISTICS OF WHOLE DISTRICT DURING 1911 AND PREVIOUS YEARS.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.				
		Un-correctd Number.	NETT. Number.	Rate.	Number.	Rate.	of Non-registered residents in the District.	of Residents not registered in the District.	Under 1 Year of Age. Number.	Rate per 1,000 Nett Births.	At all Ages. Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1906	288,544	5937	...	20'58	4617	16'00	54	96	903	152	4659	16'15
1907	290,323	5736	...	19'76	4202	14'47	63	75	713	124	4214	14'51
1908	292,136	5998	...	20'14	4577	15'37	74	76	860	143	4579	15'38
1909	293,983	5507	...	18'73	4208	14'31	66	68	637	116	4210	14'32
1910	295,865	5490	...	18'56	4102	13'86	63	77	695	127	4116	13'91
1911	288,723	5480	5486	19'00	4269	14'79	71	153	765	140	4351	15'07

TABLE I.—*continued.*

NOTES.—This Table is arranged to show the gross births and deaths in the district, and the births and deaths properly belonging to it with the corresponding rates. For years before 1911 some of the corrected rates probably will not be available. The rates should be calculated per 1,000 of the estimated gross population. In a district in which large Public Institutions for the sick or infirm seriously affect the statistics, the rates in Columns 5 and 13 may be calculated on a nett population, obtained by deducting from the estimated gross population the average number of inmates not belonging to the district in such institutions.

\* In Column 6 are to be included the whole of the deaths registered during the year as having actually occurred within the district.

In Column 12 is to be entered the number in Column 6, corrected by subtraction of the number in Column 8 and by addition of the number in Column 9. Deaths in Column 10 are to be similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under 1 included in the number given in Column 9.

Area of District in acres (exclusive of area covered by water)	.. .. . 22,841	Total population at all ages .. .. .	288,505	} At Census of 1911.
		Number of inhabited houses .. .. .	71,504	
		Average number of persons per house .. .. .	4.03	



TABLE III.

CAUSES OF, AND AGES AT DEATH DURING THE YEAR 1911.

CAUSES OF DEATH.	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.										TOTAL DEATHS WHETHER OF "RESIDENTS" OR "NON-RESIDENTS" IN INSTITUTIONS IN THE DISTRICT.
	All ages.	Under 1.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.		
I	2	3	4	5	6	7	8	9	10	11	
All causes { Certified ...	4349	764	161	153	145	185	630	1150	1161	867	
		1	...	...	...	...	...	...	1	1	
Enteric fever ...	45	...	...	...	6	9	22	7	1	32	
Smallpox ...	...	...	...	...	...	...	...	...	...	...	
Measles ...	11	3	3	4	1	...	...	...	...	...	
Scarlet fever ...	9	...	...	5	3	1	...	...	...	5	
Whooping-cough ...	99	43	31	21	4	...	...	...	...	7	
Diphtheria and croup	50	2	7	18	18	3	1	1	...	24	
Influenza ...	35	1	1	...	2	2	4	12	13	...	
Erysipelas ...	14	2	...	...	...	...	4	3	5	5	
Cerebro-Spinal fever	...	...	...	...	...	...	...	...	...	...	
Anthrax ...	4	...	...	...	...	1	2	1	...	...	
Phthisis (Pulmonary Tuberculosis) ...	332	3	...	9	8	67	152	83	10	112	
Tuberculous Meningitis ...	40	7	7	12	7	4	1	2	...	6	
Other tuberculous diseases ...	54	4	8	3	9	9	13	5	3	17	
Rheumatic fever ...	17	...	...	1	2	5	6	2	1	4	
Cancer, malignant disease ...	338	...	...	...	...	3	43	182	110	102	
Bronchitis ...	322	36	7	6	1	3	12	77	180	29	
Broncho-Pneumonia	120	42	27	19	5	1	3	13	10	17	
Pneumonia (all other forms) ...	189	12	6	8	11	9	47	61	35	23	
Other diseases of Respiratory organs ...	34	1	...	1	3	1	9	12	7	8	
Diarrhœa and Enteritis ...	249	173	23	10	2	...	2	18	21	25	
Appendicitis and Typhlitis ...	28	...	...	...	8	5	7	6	2	16	
Alcoholism ...	20	...	...	...	...	...	4	15	1	3	
Cirrhosis of liver ...	27	...	...	...	...	...	6	16	5	6	
Nephritis and Bright's Disease ...	119	...	...	1	3	6	22	59	28	22	
Puerperal fever ...	8	...	...	...	...	2	6	...	...	3	
Other accidents and Diseases of pregnancy & parturition	19	...	...	...	...	2	17	...	...	5	
Congenital debility and Malformation, including premature birth ...	279	270	8	1	...	...	...	...	...	27	
Violent deaths, excluding Suicide ...	98	10	5	6	8	11	19	19	20	40	
Suicides ...	38	...	...	...	1	5	12	17	3	7	
Other defined diseases ...	1680	156	28	28	43	35	205	504	681	320	
Diseases ill-defined or unknown ...	73	...	...	...	...	1	11	35	26	2	
	4351	765	161	153	145	185	630	1150	1162	867	







City of Bradford.

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ANNUAL REPORT  
ON THE  
OPERATIONS OF THE  
MALE INSPECTORIAL STAFF OF THE  
HEALTH DEPARTMENT

OF THE  
CITY OF BRADFORD,  
*FOR THE YEAR ENDING 31st DECEMBER, 1911,*

BY  
FRANK WHITE, M.R.S.I.,

*Superintendent and Chief Inspector.*



SANITARY DEPARTMENT,

TOWN HALL,

BRADFORD.

ANNUAL REPORT, 1911.

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*To the Right Honourable the Lord Mayor and Members of the Corporation.*

MY LORD MAYOR AND GENTLEMEN,

I have the honour to submit my Fifth Annual Report on the operations of the Male Inspectorial Staff of the Health Department for the year ending 31st December, 1911.

I am, My Lord Mayor and Gentlemen,

Your obedient servant,

FRANK WHITE,

*Superintendent and Chief Inspector of Nuisances.*

OPERATIONS  
OF THE  
MALE INSPECTORIAL STAFF  
OF THE  
HEALTH DEPARTMENT.

---

ADMINISTRATION.

In giving an account of the work carried out in the Health Department under my supervision, during the past year, it will be observed from the summarised statements of the operations definitely disposed of that the officials were diligently employed in the eradication of insanitariness and in restricting the dissemination of infectious disease; in the maintenance of a wholesome food supply, and in the work necessary to ensure the same being free from adulteration.

The results obtained will compare favourably with those of preceding years.

REORGANISATION OF STAFF.

The staff of the Health Department has been partly reorganized.

A favourable opportunity presented itself for the purpose in the second month of the year and led to my making a representation to the Health Committee, which was approved of and adopted by the City Council on the recommendation of the Committee.

The recommendation included the abolition of the position of Divisional Inspector (three in number); deputing two Inspectors to devote their time to the work of superintending privy conversions to water-closets; Inspector C. Pitts to relinquish the inspection of cowsheds and the supervision of sanitary amendments thereto and to devote his time to Veterinary Inspection of dairy cows; and District Sub-Inspector Ridley to be Inspector of Cowsheds.

The adoption of the recommendation for reorganization rendered it unnecessary to fill the vacancy created by the resignation of Divisional Inspector H. Spencer.

I might mention here that the City was formerly divided into twelve districts and was worked by twelve Sub-Inspectors and three Divisional Inspectors, but three years ago the boundaries of the Districts were widened out to absorb one District. Thus, the decentralized staff performing Sanitary Inspector's work has been reduced by one Divisional and one Sub-Inspector during the past three years.

It may be said, however, that administrative efficiency has not suffered thereby owing to benefits derived from reorganizations.

The eleven District Sub-Inspectors are now made responsible—without the aid of Divisional Inspectors—to the Chief Inspector for the detection and suppression of nuisances, and for the performance of other duties devolving upon a District Inspector of Nuisances.

This innovation widens out the sphere of their routine work and will have a tendency to educate them to a higher standard of proficiency.

They have performed these duties for the past ten months and I am pleased to say with satisfactory results.

PERSONNEL.—CHANGE AND ADDITION.

Mr. S. Dawson was appointed Sub-Inspector of Nuisances, succeeding Sub-Inspector T. Ridley who was promoted to Cowshed Inspector. Mr. J. W. Marlton, Senior Clerk, was appointed Workshop Inspector in succession to Inspector W. Hardy (deceased). Mr. J. Lambert, Enquiry Office Attendant, and Storekeeper rejoined the Clerical Staff and was succeeded by Mr. J. Robinson.

Mr. J. P. Greenwood, Chief Assistant Inspector of Nuisances, passed away after long suffering with a malignant form of disease. He had been an Inspector in the Department for close upon thirty years and was a capable and efficient officer who performed his duties to my entire satisfaction. To say the least the Department sustained a loss not easily replaced.

Messrs. J. W. Elliott and J. A. Raistrick were appointed Sub-Inspectors of Nuisances to make House to House Inspection in conformity with the Housing, Town Planning, etc., Act, 1909.

J. C. Firth was appointed Clerk to keep the records required under the Act and Regulations.

INJUNCTION CLAIMED.

An interim injunction was granted the Corporation on the application of the Attorney General to restrain a Manufacturer of Artificial Manure from continuing a public nuisance in the neighbourhood around his works. The nuisance was caused by noxious and offensive smells escaping into the atmosphere from the works during the process of manufacture, and from raw material such as putrid fish, fish offal, and the refuse from wool washing, awaiting treatment. The defendant agreed to the injunction being made permanent, and judgment was entered accordingly in favour of the Corporation with costs.

BRADFORD CORPORATION ACT, 1910.

The Sections in part 13 of the Act were put into operation during the year under review.

SANITARY WORK.CONVERSION OF PRIVY MIDDENS  
TO WATER CLOSETS.

The Inspectors deputed to work in conjunction with the District Inspectors to hasten on the work of conversion of privy middens into water-closets and dry ashes receptacles, have done very good work. Evidence of this may be seen by the figures recorded under the above heading on page 33. It would have been impossible to have accomplished the amount of work prior to the reorganisation without neglecting other branches of important sanitary work, and but for the stoppage of "Conversions" for a time, by resolution of the City Council owing to the scarcity of water, there would have been at least four hundred more conversions made.

I have no hesitation in saying that the vigorous crusade for the abolition of privy middens which is being carried on in this City would compare favourably with that being done elsewhere, and yet having regard to the appalling number existing in the City—upwards of 22,000—a progressive Authority studying the welfare of the people from a public health point of view would be well advised to adopt much more drastic measures with a view to an early extermination of these foul and stinking conveniences, which are a menace to the health of the community.

The adoption of such a measure would necessarily involve the temporary appointment of additional Inspectors.

RAINWATER DOWN SPOUTS TO CEASE TO ACT  
AS DRAIN AND SEWER VENTILATORS.

The provisions of Section 37 of the Public Health Amendment Act, 1907, were put into operation towards the close of the year, by the City Council passing a resolution authorising me on their behalf to pay one-half of the cost incurred of all necessary work executed in the disconnection of down spouts from the drains of houses where infectious disease had occurred.

It will be remembered that the Corporation adopted this section with many others in the Act. It reads as follows:—

No water pipe, stack-pipe, or down spout in existence at the commencement of this section, used for conveying surface water from any premises, shall be used or be permitted to serve or to act as a ventilating shaft to any drain. Any person who shall offend against this section after fourteen days from the service upon him by the local authority of notice of such offence, shall be liable to a penalty not exceeding forty shillings and to a daily penalty not exceeding twenty shillings.

The Local Government Board in consenting to the Corporation adopting the section, imposed the following provisions:—

“Nothing in this section shall render a person liable to a penalty in any case in which any such use of a water pipe, stack-pipe, or down spout has at any time been authorised by any regulation in force in the district, unless the local authority can shew that he has received and rejected their offer to bear one-half of the expenses of all necessary work of alteration or new construction.”

It was evident the Board was cognizant of the fact that the Corporation had approved the connection of rain water pipes direct with the public sewers in the City as a general principle.

It may be said without much fear of contradiction that 80% are so connected. This means that sooner or later purchasers of these properties will be called upon by the Health Committee to disconnect the rainwater pipes from the sewer by causing the down spout to discharge over a gully trap at the ground level.

The Corporation is thus faced with the inevitable expenditure of many thousands of pounds in contributing its quota towards the cost incurred in the disconnection of down spouts.

It is not for me to question or criticise the policy adopted in the City, although of ancient origin, which had for its object the ventilation of public sewers by using the down spouts of all private premises for the purpose.

However, anyone taking a keen interest in house sanitation will welcome the innovation, and whatever the cost is, I think it is money well spent from a public health point of view.

Admitted there is very little risk where the down spout is intact between the eaves gutter and the drain underground, but it must not be forgotten that downspouts are generally jointed with a perishable material which sooner or later decays and falls into the pipe and allows sewer gas to escape from the joints. Moreover, atmospheric conditions being favourable, sewer gas can find its way into the bedroom from the outlet of the eaves spouting when the window is open to admit fresh air.

In addition to this there is a much more serious aspect. Any principle adopted contrary to the rudiments of sanitation and the laws of hygiene must militate against public health, and that remark applies to this subject in thousands of instances. I refer to those cases where small pipes from the spouting of verandahs and bay windows are in direct communication with the public sewer by being connected to down spouts, and where dormer windows on the roof are directly over such spoutings.

The unsuspecting housewife opens the bedroom windows to admit fresh air, and as these pipes—which are sewer ventilators—terminate immediately underneath the windows, sewer gas must enter the bedrooms when the wind is in a favourable direction.

I have had an inspection made in the City to ascertain the number existing under like conditions and according to the District Inspectors' reports the total number is 3484. This number is made up as follows :—

Down spouts attached to verandahs with inlets under windows .. .. .	2040
Down spouts under dormer windows .. ..	900
Down spouts in connection with verandahs and dormers with inlets under windows .. ..	544
	—
Total .. ..	3484

For reasons already given the resolution affecting down spouts on houses where infectious disease is reported to exist should be extended to include the whole of these 3484.

Anything approaching indifference in the observance of precautionary measures of this important character is bound to be disastrous to those readily susceptible to harmful influences such as those in question. This is a misfortune which sanitary reforms are designed to avert if possible.

Since my appointment in the City I have strongly advocated the disconnection of down spouts from the public sewer, and at the commencement of 1908 I gave instructions for the service of notices requiring "disconnection" on premises where Typhoid Fever or Diphtheria was notified to exist. Prevailing circumstances were not however, favourable to my department insisting upon the work being done until recently.

The opportunity is now afforded me of making comment on the method adopted in thousands of cases in the City in the disconnection of down spouts affixed to walls of premises forming the building line of the street.

The practice to-day is to recess a gully trap in the front wall slightly above the level of the street paving to receive rain-water from the down spout. The gully is out of sight and out of mind, and in consequence it is never, or rarely, cleaned or examined. Moreover, in long spells of dry weather the water seal is likely to evaporate or become so charged with sewer gas as to enable the gas to pass through the trap, perchance to find its way into the house. I do not consider this method of secreting gully traps a commendable one from a public health standpoint.

Before departing from this very important subject I ought to point out a fallacy that at present exists as to disconnection of down spouts. When circumstances require the intervention of another department in the relaying of defective sewers on private property, iron pipes four inches in diameter are fixed to the walls of back houses and made to terminate slightly above the eaves spouting so as to act as drain (and sewer) ventilators. Now if there is any virtue in the "disconnection" of down spouts, the size of which is generally two and a half inches in diameter, it is being checkmated with interest by the four inch pipe. It may be argued that the four inch pipe is fixed to ventilate the house drains, but it must not be forgotten that in the principles of drainage construction generally adopted in the City, it is impossible to ventilate house drains without ventilating the public sewer at the same time.

The "disconnection" of down spouts in such circumstances may be regarded largely as a farce and a waste of public and private expenditure, instead of being that benefit to public health which would otherwise be the case.

I seriously commend these important matters to your notice.

#### SEWERS.

Foul smelling sewers being atmospheric contaminations are unquestionably nuisances, and are conditions that must be regarded as being more or less unhealthy.

The officials of the Sanitary Department are constantly receiving complaints—generally speaking, well founded—of this description of public nuisance. This type of nuisance is not peculiar to Bradford, but one which has to be contended with in many large manufacturing centres, if not indeed in most of the sewered towns with drainage systems on similar principles to our own. It appears to me, however, that more active measures should be taken for the prevention of this widespread nuisance than have up to the present been resorted to. In many parts of the City, especially during warm and dry weather, the foulness of the sewers is intolerable.

If any alterations can be suggested and carried out for successfully dealing with "sewer nuisances" it will be a public benefit and I feel confident will be duly appreciated.

In this critical problem of sewerage reform the necessity is to devise and adopt some efficient mode of ventilation, by which the gaseous products of decomposition of sewage may be destroyed or rendered harmless.

Open gratings on the sewers in the streets of a populous district are not simply nuisances, they may be regarded as traps for the unwary.

Those having executive control of sewers recognise the open grating system as a simple way of ventilation, or rather for getting rid of sewer gas, and they appear to cling tenaciously to it. Perhaps because ingenuity has devised no simpler or gainer method.

But those in Public Health Service whose duty it is to combat evil influences in propagating disease know that such a system militates against their efforts, it being contrary to the rudiments of sanitation to breathe sewer gas with impunity.

OFFENSIVE TRADES.

The year has been an epoch-making one in the introduction of preliminary measures to sanitary reforms for the control of certain trades that are carried on in the City to the discomfiture of inhabitants who have the misfortune to dwell in the vicinity of premises in which such trades are conducted.

When a populace is aggrieved beyond physical endurance by stench emitted from some particular process of manufacture, and also when their patience is exhausted, there is ample cause for complaint and a serious responsibility is cast on the local authority.

Being inundated with complaints made by the public of nuisances arising from nauseating smells—which were invariably confirmed by the Inspectors of the Department—and in addition being in receipt of reports made by the same Inspectors on the disquieting features prevailing in the preparation of food stuffs by many traders in the City, the Committee decided—subject to the approval of the Council—to apply to the Local Government Board for powers to deal with the matter. The trades proposed to be scheduled as Offensive Trades were :

1. Grease Extraction from Woolcomber's Suds.
2. Oil Distiller.
3. Gut Scraper. (Sausage Skin Manufacturer).
4. Fish Fryer.
5. Iron Galvanising.
6. Gas Making.
7. Chemical Works.
8. Fat Melter.
9. Size Manufacturer.
10. Artificial Manure Manufacturer.
11. Hide and Skin Dealer.
12. Rabbit Skin Dryer.
13. India Rubber Maker.

After referring the subject back to the Committee on several occasions, the Council agreed to the recommendations of the Committee after deleting from the list the trade of Grease Extraction.

The exception formed a subject for consideration by a joint Committee, consisting of members of the Health, Street Drainage and Works, and Sewage Committees, whose deliberations terminated in the majority of the Committee deciding against Grease Extraction being scheduled as an Offensive Trade.

I have no right, neither have I any wish or intention, of questioning the result of their deliberations, but I say with all due deference that, in my opinion, from past experiences, the chief offenders contributing to the production of stench emitted from the sewers—without reference to the works—have escaped the ban the trade merited.

I dealt fully with the causation of manufactural effluvia nuisances in a special report presented to the Health Committee during 1907. A printed copy of which was subsequently distributed to each member of the Council. The same remark applies to the trades proposed to be scheduled as Offensive Trades. I do not purpose on this occasion to make any further comments thereon.

#### INSPECTION OF SOCIAL, AND POLITICAL CLUBS.

During the preceding year I gave instructions for an inspection and examination of the sanitary arrangements in connection with the whole of the Clubs existing in the City, and the enquiry was completed in the forepart of the year under review.

In all 155 club premises were inspected with the result that sanitary defects were found to exist on no less than sixty-one.

##### SUMMARY OF DEFECTS.

Drainage defective .. .. .	31
Water-closets foul and defective .. ..	13
Soil pipes defective .. .. .	9
Urinals defective .. .. .	11
Urinals insanitary .. .. .	11
Privies foul and insanitary .. .. .	10
Absence of drainage and sanitary accommodation	2
Sink waste pipes not disconnected .. ..	5
Premises requiring cleansing and whitewashing	4

The whole of the defects have been remedied.

DISINFECTION.

Towards the latter part of the year I took over the control and supervision of the Disinfection Station at Canal Road. Particulars of the work done by the staff of this branch of public administration will be found in the Report of the Medical Officer of Health.

HOUSING, TOWN PLANNING, &c., ACT, 1909.

The two Inspectors appointed to make house to house inspection under the Act and Regulations commenced their duties in the fourth month of the year under review and have continued under my directions and supervision.

The provisions of the Act are well adapted and specially designed to improve the conditions under which the industrial classes are housed, and are undoubtedly of vital importance in their effect on the present and future welfare of our social life. It brings into life original features capable of great possibilities, and saddles local authorities with grave responsibilities.

Like many other Acts of Parliament it must be regarded as a complex piece of legislation and one which will take years of practical experience to thoroughly understand. The drafting of an Act of Parliament and the administration of its provisions are two quite different things. I have had experience of this fact during the year by being faced with peculiar difficulties which led to the Town Clerk communicating with the Local Government Board on one or two occasions, asking for their guidance as to the procedure to be adopted to cope with the difficulties of the positions which had arisen.

The most salient points of the Act are :—

That it shall be the duty of the local authority within the meaning of part 2 of the Housing of the Working Classes Act, 1890, to cause to be made from time to time inspection of their

district with a view to ascertain whether any dwelling-house therein is in a state so dangerous or injurious to health as to be unfit for human habitation, and for that purpose it shall be the duty of the local authority, and of every officer of the local authority, to comply with such Regulations and to keep the records prescribed by the Local Government Board.

The Act furnishes the missing links to the chain of legislation in respect to the Housing of the Working Classes Act, 1890, as it brings into operation the powers of Part 3 of the latter Act which have hitherto been adoptive, and empowers the Local Government Board to deal with defaulting authorities who do not carry out the provisions of both Acts.

It gives local authorities the power (without making application to a Court of Summary Jurisdiction for a Closing Order), to close any dwelling-house unfit for human habitation, whether occupied or unoccupied.

Where a Closing Order has been operative for a period of three months, and the owner has not taken the necessary steps to render the house, in the opinion of the local authority, fit for human habitation, the authority *shall* (not *may*) serve a notice for demolition.

Any owner aggrieved by the Order of Demolition may appeal to the Local Government Board.

Building Bye-laws may be revoked by the Local Government Board where they unreasonably hinder the building of workmen's dwellings.

Power is also given not only to erect dwellings for the working classes, but also to convert any building that may be suitable into lodging houses, and to alter, enlarge, repair, or furnish the latter.

The Inspectors working under the Act in the City have done excellent work. They have

Inspected 2190 houses, in 138 streets ;  
 Reported 2118 nuisances ;  
 Tested 165 house drains, and found 60 defective ; and  
 Reported 16 houses for condemnation.

The summary of nuisances reported and other details of the work performed have been supplied to the Medical Officer of Health, and I presume they will appear in extenso in his Annual Report. Therefore, to avoid repetition I do not reproduce them.

I may say, however, that the operations of the Act have thrown a considerable amount of additional work upon me in respect to administration and inspectorial work.

Before passing to the next subject there is one striking feature which is in some respects worthy of comment. By referring to the Summary of the work recorded by the Housing Inspectors it will be observed that not a single case of overcrowding was reported. It does not follow, however, that overcrowding does not exist. True facts in regard to the exact number of occupants of a house are undoubtedly withheld from the Inspectors in many instances, and this ought not to be possible without incurring risk of prosecution.

### HOUSE TO HOUSE INSPECTION

(By District Sanitary Inspectors.)

The District Inspectors have carried on house to house inspection in their respective districts as in former years, and as this work can only be done by them in spasmodic intervals, to avoid overlapping and disorganisation of the work of the Housing Inspectors the District Inspectors do not participate in House Inspection in the district where the Housing Inspectors are working.

House to house inspections have been made in seventy-seven streets in the City during the year, comprising 1027 dwelling-houses.—

NAMES OF STREETS.

ALLERTON WARD.  
Girlington Road  
Hazelhurst Road  
Portwood Street.

Prospect Terrace  
Thornfield Place  
Thornfield Square

MANNINGHAM WARD.  
Isles Street  
Kensington Street  
Toller Lane  
Whetley Lane

BOLTON WARD.  
Fletcher Lane  
Frizinghall Road  
Idle Road  
Maltkilm Fold  
Myers Lane  
Oakwood Avenue

EXCHANGE WARD.  
Atkinson Street  
Chandos Street  
Chapel Street  
Edward Street  
Guy Street  
Harris Street

Woodlands Road

EAST WARD.  
Sowden Place

GREAT HORTON WARD.  
Cemetery Road  
Clayton Road  
Club Street

NORTH WARD.  
Back Victoria Terrace  
Dixon Street  
Jury Street  
Richmond Street  
Sun Street  
Wapping Road

EAST BOWLING WARD.  
Bowling Back Lane  
Broom Street  
Carter Street  
Quill Street  
Rooley Lane  
Wakefield Road

Cross Lane  
Ireton Street  
Lawrence Street  
Livingstone Street  
Necropolis Road

NORTH BIERLEY  
(EAST).  
Long row  
Main Street  
Royd Street  
Sargeant Street  
Short Row

ECCLESHILL WARD.  
Ashgrove  
Charnwood Road  
Corporation Street  
Craven Terrace  
Harrogate Road  
Mount Street  
Norman Terrace  
Peterboro' Place  
Peterboro' Terrace  
Peveril Terrace

HEATON WARD.  
Patent Street  
Silk Street

SOUTH WARD.  
Acorn Street  
Clayton Place  
Farrar Square  
Fieldhouse Square  
Garnett Street  
Malvern Street  
William Court

LISTERHILLS WARD.  
Bower Street  
Laisteridge Court

LITTLE HORTON  
WARD.  
Barley Fold  
Broadbent Street  
Darton Street

WEST WARD.  
City Road  
Gracechurch Street  
Thornton Road  
Thornton Street

HOUSE TO HOUSE INSPECTION.

Class of House.		Total Number of Houses.	Rooms.		No. of Persons.		Average Number Occupying One Bedroom.	Houses Empty.
Through Vent.	Back-to-Back.		Living.	Bed.	Adults.	Children.		
185	842	1027	1122	1825	2552	1136	2	14

SUMMARY OF SANITARY DEFECTS.

Houses without slop sinks .. .. .	124
Houses overcrowded .. .. .	1
Dirty houses, or parts thereof .. .. .	55
Houses requiring general repairs .. .. .	19
Defective plaster on walls or ceilings .. .. .	142
Damp houses .. .. .	60
Defective bedroom or living room floors .. .. .	68
Defective yard flagging .. .. .	15
Defective house drainage .. .. .	42
Sink waste pipes not properly trapped or disconnected	84
Sink waste pipes defective or choked .. .. .	9
Slop sinks without waste pipe .. .. .	13
Slop sinks defective or foul .. .. .	12
W.C. pedestals foul or defective .. .. .	18
Eavespouts or downspouts defective .. .. .	52
Gully traps choked or defective .. .. .	21
House roofs defective .. .. .	59
Cellars containing water .. .. .	12
Ventilation defective or insufficient .. .. .	22
Dangerous places .. .. .	19
Privy middens insanitary .. .. .	134
Animals improperly kept .. .. .	7
Accumulations of refuse .. .. .	3

The Women Inspectors reported the following defects in sanitation to my Department to be dealt with. The figures for the preceding year are also given for comparison. In thirty-seven cases it was found there was no cause for complaint at the time of investigation and in thirteen cases the defects were of such a nature as not to warrant the service of statutory notices on the owners for the suppression of the nuisances complained of. The remaining defects with few exceptions have now been remedied.

Nature of Defect.	No. of Cases.	
	1911	1910
Damp houses .. .. .	49	43
House roofs or ceilings defective .. .. .	77	62
House windows defective .. .. .	8	19
Cellars containing water .. .. .	3	3
Structural dilapidations .. .. .	18	65
Bad smells .. .. .	22	27
Choked or defective drainage .. .. .	36	44
Chimney flues defective .. .. .	11	14
Gas escapes .. .. .	6	3
Dangerous places .. .. .	11	5
Rainwater conductors defective.. .. .	4	9
Insufficient W.C. accommodation .. .. .	3	—
Defective W.C. pedestals and fittings .. .. .	15	40
Defective water supply fittings .. .. .	1	15
Wastes of water .. .. .	12	—
Choked W.C.'s .. .. .	9	19
Want of repairs to privies and ashpits .. .. .	42	56
Privies requiring conversion to W.C.'s.. .. .	13	—
Filthy privies and water-closets .. .. .	3	—
Defective yard flagging .. .. .	1	—
Foul accumulations .. .. .	1	1
Choked street gullies .. .. .	11	13
Miscellaneous defects .. .. .	7	6

It should be mentioned that a large number of these nuisances were recorded in the department and were being dealt with at the time they were reported by the Women Inspectors.

PLANS SUBMITTED TO AND APPROVED BY  
THE HEALTH COMMITTEE.

During the year 835 plans were approved by your Committee for the construction of the following works :—

2202 water closets, affecting	2710 dwelling-houses
10 privies	16 „ „
261 dustbins	affecting 261 dwelling-houses
35 baths	35 „ „
31 water-closets	18 licensed premises
12 urinals	12 „ „
2 privies	1 „ „
210 water-closets	98 factories and workshops
3 urinals	2 „ „
41 water-closets	19 schools, clubs, etc.
12 urinals	10 „ „
2 privies	2 farm premises
Alterations	2 cowsheds
Drainage, etc.	1 „

The accuracy of each plan is verified by a visit to the premises before it is placed before your Committee for approval. This involves an enormous amount of work in the making and keeping of appointments on premises to give advice, and to secure alterations to plans which have been submitted shewing details contrary to the Corporation's Regulations and requirements.

The outstanding features in comparison with the work accomplished in 1910 are :—

W.C.'s for which plans were submitted	449 in excess.
Dustbins	181 in excess.

Dustbins are advocated by the Department in preference to ashes-pits wherever it is practicable for their use.

RECONSTRUCTION AND CONVERSION OF PRIVIES  
AND MIDDENS INTO WATER CLOSETS  
AND DRY ASHES PITS.

I have previously in this Report alluded to the desirability of resorting to drastic measures to rid the City of these foul and noisome "places of convenience," and I have no misgivings in returning to the subject, because on every available occasion in these Reports I have pointed to them as one of the worst and most threatening agencies in the propagation of disease the Health Department has to contend with.

In confirmation of the influence which the privy-midden has upon the incidence of Typhoid Fever, statistics are over-whelming in proof of the rapid fall of this disease in localities where privy-middens have been re-placed by water-closets. Moreover, a marked effect is already being experienced in Bradford which may be attributed to the activities displayed in the abolition of this objectionable form of convenience.

During the year 1133 notices were served to provide water-closets in respect to 4298 houses, as against 626 notices affecting 2442 houses last year.

Under the provisions of the Public Health Acts Amendment Act, 1890, 47 statutory notices and 23 informal letters were served affecting 98 Factories and Workshops.

The number of water-closets actually erected for houses and for factories and workshops will be found in the table given below, together with a comparative statement for the three years previous.

## COMPARATIVE TABLE.

Description of Premises.	1908.		1909.		1910.		1911.	
	W.C.s.	Privies.	W.C.s.	Privies.	W.C.s.	Privies.	W.C.s.	Privies.
Dwelling Houses ... ..	1854	25	1969	12	1945	18	2128	8
Factories and Workshops ...	254	2	194	2	217	2	202	0
Other Premises ... ..	78	5	28	1	—	—	35	2
Totals ... ..	2186	32	2191	15	2162	20	2365	10

A considerable number of conversions of privies into water-closets were in course of construction at the close of the year.

For failing to comply with notices served to convert or re-construct privies into water-closets magisterial proceedings were taken against twelve offenders.

In four instances the cases were withdrawn on payment of costs. In two cases an order to do the work within seven days was made by the Magistrate together with costs against the defendant. In the remaining six cases Police Court proceedings were adjourned over the year end owing to the scarcity of the municipal water supply.

TESTING OF HOUSE DRAINS.

During the year tests were applied by the Sanitary Inspectors for ascertaining the condition of drains in connection with 3301 houses and other premises.

Nature of Test.	Number of Tests.	Result.	
		Positive.	Negative.
Volatile ... ..	1683	763	920
Coloured Water Tests ... ..	996	252	744
Smoke Tests (Machine and Rocket) ...	622	237	385
Totals ... ..	3301	1252	2049

INFECTIOUS DISEASE.

As is customary in all cases where Typhoid Fever, Diphtheria, or Erysipelas are notified to exist, the house drains are tested, except in cases where the system of drainage is such as to render impracticable the application of a test.

The drains of 753 houses where infectious disease has occurred have been tested during the year, with the following results :—

Number of Tests	Diphtheria	380	{	Defective	109 or 28.68%
				Negative	271 or 71.32%
	Typhoid	147	{	Defective	47 or 31.97%
				Negative	100 or 68.03%
	Erysipelas	226	{	Defective	41 or 18.14%
				Negative	185 or 81.86%

In 56 cases the house drains were so constructed as to prevent the application of the usual test.

MATTERS REFERRED TO THE CITY SURVEYOR'SAND OTHER DEPARTMENTS.

Dangerous places.. .. .	317
Defective sewers and sewer ventilators .. ..	32
Gullies requiring breaking down to .. .. .	9
Defective pavements and flagging in public streets..	57
Buildings erected in back yards .. .. .	18
Foul and defective watercourses .. .. .	6
Wastes of water. (Referred to Water Department)..	486
Choked street gullies. (Referred to Street Cleansing Department).. .. .	2113

### DANGEROUS AND UNFENCED PLACES.

The number of dangerous and unfenced places dealt with under the direction and supervision of this Department during the year was 77, as compared with 120 last year.

### BURIAL GROUNDS.

Four hundred and eighty-nine visits have been made by the District Sanitary Inspectors to the various graveyards within the City, as against 603 last year. No irregularities were observed.

### PUBLIC URINALS AND UNDERGROUND

#### LAVATORIES.

The number of public urinals within the City is fifty-nine. The urinal situate at the top of Garnett Street and adjoining the Red House Inn has been abolished. Also, the one fixed in the boundary wall at Lister Park has been done away with owing to the widening of the roadway at that point. It is, however, intended to replace this convenience with one more modern in construction.

All the underground lavatories have been painted out. The Opalite tiling on the walls of the conveniences situate at Town Hall Square has been stripped and new wall tiles substituted at an estimated cost of £99. Various other fittings have been supplied including a copper circulating boiler fitted with a "Thermostat" for automatically controlling the gas supply. This was installed at a cost of £13 7s. 6d. Repairs are made to these places when and where necessary.

SUMMARY OF SANITARY INSPECTOR'S WORK.

During the year the Sanitary Inspectors have made 131,651 inspections and visits for the investigation and suppression of nuisances.

The total number of nuisances reported amounted to 15,041.

The following statement shows the nature and amount of work performed by the Inspectors during the year together with the figures of last year for comparison :—

Particulars of work done.	No. of Cases.	
	1910	1911
<b>DRAINAGE AND SANITARY ARRANGEMENTS.</b>		
Choked drains cleansed .. .. .	1456	1834
Drains amended .. .. .	1175	1184
Drains reconstructed .. .. .	476	1231
Extra drains provided .. .. .	115	375
Cellars drained .. .. .	13	74
Drains underneath houses abolished .. .. .	67	129
Drainage systems intercepted from sewers .. .. .	38	72
Open drain inlets trapped .. .. .	110	115
Waste pipes trapped .. .. .	69	137
Waste pipes disconnected .. .. .	127	226
Rain water pipes disconnected .. .. .	247	909
Rain water conductors repaired or renewed .. .. .	2319	3104
Slop sinks repaired or renewed .. .. .	82	91
New slop sinks provided .. .. .	7	150
Water closet pedestals renewed .. .. .	144	208
Water closets and flushing apparatus repaired .. .. .	399	459
Water closets cleansed .. .. .	173	273
Water closet apartments cleansed and limewashed .. .. .	208	569
Soil pipes repaired or renewed .. .. .	66	136
Indoor soil pipes abolished] .. .. .	8	15
Urinals cleansed, amended, or screened .. .. .	40	97
Urinals remodelled .. .. .	13	7
New urinals provided .. .. .	7	12

Particulars of work done.	No. of Cases.	
	1910	1911
<b>PRIVIES AND ASHPITS.</b>		
Deposit of slops in ashpits prohibited .. .. .	110	105
General repairs executed .. .. .	1028	1294
Privy apartments cleansed and limewashed .. .. .	218	651
Dust bins repaired or renewed.. .. .	93	90
<b>DWELLING HOUSES, ETC.</b>		
Dampness excluded .. .. .	135	340
Roofs repaired .. .. .	368	670
General repairs executed .. .. .	475	686
Houses or parts cleansed or limewashed .. .. .	350	462
Ventilation improved .. .. .	—	50
Overcrowding abated .. .. .	14	25
Cellar areas cleansed .. .. .	70	81
Caravans removed .. .. .	51	46
<b>COURTS, BACK YARDS, AND STABLE YARDS.</b>		
Paving repaired in yards and passages .. .. .	278	387
Yards and passages newly paved .. .. .	—	37
Yards cleansed .. .. .	171	318
Passages cleansed and limewashed .. .. .	137	392
<b>KEEPING OF ANIMALS, ETC.</b>		
Improper keeping of swine prohibited.. .. .	17	37
Improper keeping of fowls, etc. .. .. .	125	92
Accumulations of offensive matter removed .. .. .	164	284
Accumulations of manure removed .. .. .	271	262
Manure pits repaired .. .. .	30	21
Manure pits provided .. .. .	16	14
<b>MISCELLANEOUS NUISANCES.</b>		
Gas escapes .. .. .	—	13
Other unclassified nuisances abated .. .. .	72	119
<b>SPECIAL INSPECTIONS.</b>		
Graveyards.. .. .	603	489
Offensive trade premises.. .. .	646	811
Zymotic diseases investigated and subsequent visits .. .. .	3101	3003
Complaints specially investigated .. .. .	1368	1400

The number of statutory notices served for the abatement of nuisances was 5818, as against 4894 last year.

The number of preliminary notices served for dangerous places was seventy-seven as against seventy the previous year.

For non-compliance with the requirements of notices served fourteen cases were heard before the City Magistrates. Thirteen of these were withdrawn on payment of costs, the defendants promising to do the necessary work forthwith. In the remaining case the Court made an Order to abate the nuisance within seven days. This being disregarded, the defendant eventually had to pay a penalty and also the costs of the proceedings.

### INSANITARY PROPERTY.

The following premises were reported by the various District Sanitary Inspectors as being unfit for human habitation. In each instance I verified the report by a personal visit before referring the same to the Medical Officer of Health. In addition to these, particulars of the sanitary condition of ninety-three houses and cellar dwellings have been obtained by the Inspectors at the request of the Medical Officer of Health, and forwarded to him with a view to closing the same.

Situation of Premises.	Type of House.	No. of Rooms.	Number of Occupants.		No. Un-occupied.	Nature of Defects Generally.
			Over 10.	Under 10.		
Birk Street, 44, 44A, and 44B ..	Back-to-back ..	8	9	6	—	Filthy, damp, dilapidated.
Broom Street, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26 ..	Back-to-back ..	28	29	16	—	Dangerous and dilapidated.
Captain Street, 42, 44, 46, 48, 50, 52, 54, and 56 ..	4 Basement and 4 Back-to-back ..	12	9	4	4	Dangerous and dilapidated.
Carter Street, 17 ..	Back-to-back ..	2	2	—	—	Dangerous and no slop sink.
Chapel Street, 20, 20A, 22, and 22A ..	Through ..	9	—	—	4	Dilapidated and ruinous.
Clayton Road, 2 and 4 ..	One storey ..	2	4	—	—	Damp and dilapidated.
Herring Row, 14 and 15 ..	Back-to-back ..	6	5	1	—	Generally dilapidated.
Kimber Street, 5 ..	Back-to-back ..	2	1	3	—	Very damp and dark.
Leeds Road, 337 ..	One storey ..	2	2	—	—	Damp and defective drainage.
Main Street, Wyke, 10, 11, 12 ..	One storey ..	7	7	—	—	Damp, dilapidated, and filthy.
Pearson Fold, Wyke Lane, 5 and 6 ..	One storey ..	2	—	—	2	Damp and dilapidated.
Providence Place, Wyke, 2, 3, 4, 5, 6, and 7 ..	One storey ..	6	5	6	1	Damp.
Royd Street, Wyke, 3, 4, and 5 ..	One storey ..	6	7	6	—	Damp and dilapidated.
Sterling Street, 21 ..	Detached ..	2	—	—	1	Damp and obstructive.
Smiddles Lane, 145 and 147 ..	One storey ..	3	2	—	—	Damp and insufficient sanitary accommodation.

## SUMMARY:—

No. of Houses ..	51	{	No. of rooms ..	97.	No. of occupants over 10 ..	82
			No. of houses unoccupied ..	12.	No. of occupants under 10 ..	42

DEFECTIVE DRAINAGE.PROCEEDINGS UNDER SECTION 41,PUBLIC HEALTH ACT, 1875.

During the year it was found necessary to refer to the Health Committee under the provisions of the above-mentioned section defective drainage in connection with sixty-eight blocks of property, comprising 348 dwelling-houses and other premises.

These defects were brought to my notice in the following manner :—

In twenty-six cases a complaint of bad smells was received from the occupants.

In thirty-two cases the defects were found as the result of drain tests following twenty cases of Diphtheria, eight cases of Erysipelas, and four cases of Typhoid.

In nine cases House to House Inspection both by the Inspectors specially appointed under the Housing, Town Planning, Etc., Act, 1909, and the District Inspectors was responsible for the insanitary condition of the drains being discovered ; and

In one case the defects were discovered as the result of the conversion of the privies into water-closets.

Each of these cases was referred to the City Engineer and Surveyor on the resolution of your Committee. Subsequently the sewers and drains were uncovered and their condition found to be such as to invariably necessitate entire reconstruction. At the close of the year there remained eight cases awaiting the attention of the Surveyor.

In comparison with the 348 houses dealt with in 1911 ; 167 were similarly treated in 1910 ; 35 in 1909 ; and 36 in 1908.

The great increase in the number of cases reported under this section in the past two years has been brought about by a change in administration.

SMOKE ABATEMENT.

The Smoke Inspector (Mr. S. Nicholson) made upwards of 1200 visits to steam users' premises during the year.

The number of notices served under the provisions of the Public Health Act, 1875, was forty-four.

In respect to these eighteen cases were heard before the City Justices and dealt with as follows :—

In thirteen cases fines for non-compliance with Justices' Orders were inflicted amounting to £6 4s. od., together with costs £4 11s. od:

In two cases the summons was withdrawn, the offenders having abated the nuisances.

In three cases Orders were made to abate the nuisance within fourteen days, and costs were inflicted amounting to £1 7s. od.

Total amount of penalties and costs £12 2s. od.

No prosecutions were taken under the Public Health Act after the month of August.

Under the provisions of the Bradford Corporation Act, 1910, twelve cases were brought before the City Justices. One was dismissed owing to the technical legal objections which were raised by the defence and upheld by the Stipendiary Magistrate. The remaining cases were adjourned to dates early on in the new year.

No prosecutions were taken under the Bradford Corporation Act, 1910, until the month of December.

A branch of one of the largest business Associations in the City has made from time to time over ninety appearances in the Police Court for smoke nuisance offences, but by reorganising their boiler plant and keeping their chimneys practically clean have not been summoned since 1908. The amount of coal consumed by the boilers of this firm exceeds 350 tons per week.

Another large firm of manufacturers within the City whose boilers number close upon thirty, and consumes upwards of 100 tons of coal daily, can boast of an almost smokeless chimney, even when running with a full load.

As an instance of the care which is now being exercised to prevent the emission of dense smoke from the chimneys of factories, many steam users are fixing mirror reflectors. Observation charts are also provided and at some places these are marked off every fifteen minutes, thus showing at a glance the density of smoke emission. Many firms have engaged expert stokers to supervise the work of the men in charge of the boiler plant, and this course has no doubt had a beneficial influence in the reduction of smoke nuisance.

#### INSPECTION OF COMMON LODGING HOUSES.

The number of registered Common Lodging Houses in the City is thirty-five, this being the same as last year.

These thirty-five houses contain 187 rooms for sleeping purposes and are registered to accommodate 1793 lodgers.

The weekly returns sent in by the Lodging House Keepers show that 518,864 persons were accommodated during the year, this being a decrease of 3214 as compared with the figures for the previous year. The nightly average was 1421.

The number of inspections made during the year was 1988, including four night inspections.

The requirements of Section 82 of the Public Health Act, 1875, in regard to cleansing and limewashing, were complied with in all the Common Lodging Houses within the City.

Fumigation in five of the Common Lodging Houses has been carried out during the year and was effectual in destroying vermin. This was much appreciated by both the keepers and lodgers of the houses concerned.

Three applications were granted by your Committee for the transfer of registry.

Various sanitary improvements have been effected at these houses, amongst which may be mentioned the following :—

At 22 and 24 Pine Street a new stoneware sink has been fixed in the lodgers' kitchen.

At 25 Wellington Street two new tube ventilators were fixed in the apex of the roof ; a new skylight put in the second floor bedroom ; a casement window fixed in the partition wall ; and four air grates fixed in the external walls.

At 80 Captain Street the wash kitchen has been enlarged ; two new stoneware sinks, four lavatory bowls, a new urinal, and a new stove fixed, and also three new concrete floors laid down.

At 106 Bolton Road the premises were entirely overhauled. One stoneware sink, three lavatory bowls, two new water-closets, and a new urinal were provided.

At 135 Adolphus Street a stoneware sink and a lavatory bowl were fixed and several other improvements carried out.

At 36 Adelaide Street a new and improved hot-plate stove was fixed in the lodgers' kitchen.

At 11 Adelaide Street two useless staircases were removed from the first floor bedroom and the ventilation arrangements very much improved.

At 6 and 14 Caledonia Street three useless staircases were removed from the bedrooms ; six casement windows fixed in the partition walls, and many other improvements effected.

At 56 King's Court, one new stoneware sink was fixed in the lodgers' kitchen, and two casement windows were placed in the partition walls to the first floor bedroom.

At 62 King's Court, one stoneware sink for washing clothes and one to be used for domestic purposes were fixed in the lodgers' kitchen.

At the Model Lodging House, Sunbridge Road, which by the way is the largest in the City, a new system of heating the whole of the bedrooms has been installed.

At the Women's Shelter, Sunbridge Road, one of the best institutions of its kind in the City, a new bath, one stoneware sink, and two stoneware lavatory bowls were fixed on the first floor.

At 106 Grattan Road, the lodgers' kitchen was very much enlarged and improved. Separate rooms were provided for the Deputy, and the whole of the bedrooms overhauled and ventilated. These improvements resulted in the registered accommodation being increased from sixty-three to eighty-four lodgers per night.

At 116 Westgate, the premises were entirely overhauled. A new floor was laid in the lodgers' kitchen, and the ventilation of the premises greatly improved.

It will thus be seen from the foregoing cases that efforts are being made at these houses to improve the standard both as regards equipment and cleanliness.

### HOUSES LET IN LODGINGS.

Particulars of houses let in lodgings, single tenements, and houses let furnished within the City are given as follows, together with the figures for the previous year :—

No.	District.	1 Houses Let in Lodgings.		2 Rooms Singly Occupied.		3 Single Tenements.		4 Houses Let Furnished.		5 No. of Rooms.	
		1910	1911	1910	1911	1910	1911	1910	1911	1910	1911
1.	Bolton Road ...	40	36	89	80	43	33	46	41	92	82
2.	George Street ...	96	98	208	212	9	9	30	28	63	56
3.	Manchester Road ...	30	25	87	76	2	4	4	5	8	10
4.	Westgate ...	39	38	93	85	4	7	1	1	2	2
	Totals ...	205	197	477	453	58	53	81	75	165	150

## EXPLANATORY :—

The figures in column 1 represent the number of houses that can legally be defined as houses let in lodgings in each of the four districts throughout the City. The figures in column 2 represent the number of rooms let separately to one or more persons.

The single tenements enumerated in column 3 are mostly sub-let in conjunction with those in columns 1 and 2, and they are occupied by the same class of persons, but as they cannot legally be defined as houses let in lodgings they are kept separate.

The furnished houses mentioned in column 4 are mostly "farmed" houses, and they are chiefly occupied by families who require more than one bed. The figures in column 5 represent the number of rooms in the aforementioned houses.

### INSPECTION OF CANAL BOATS.

The number of Canal Boats inspected within the City boundaries during the year was 454. Of these 37 were found not complying with the Acts and Regulations provided in that behalf.

The following is a detailed list of the breaches of the Acts and Regulations :—

Number of Cases.	Nature of Breach.
21	Decks required caulking.
2	New certificates required.
6	No water cask on board.
1	Defective bulkhead.
10	Cabins requiring painting out.
2	Filthy cabins.
3	No certificate of registration on board.
1	Deck rail dilapidated.
1	Certificate produced did not identify owner.
1	Doors required to bunk.
	Total number of breaches .. .. 48
	Total number of boats affected .. 37

Notices were served upon the various owners of the boats requiring them to execute the necessary repairs. Most of these notices were complied with and with few exceptions the certificates were duly signed and returned.

At present there are no boats on the Register of this Authority.

No cases of infectious disease were notified during the year.

As a result of the action of the Canal Boat Inspector two boats were struck off the register of a neighbouring Authority.

From the foregoing summary of defects it will be seen that the breaches of the Acts and Regulations were not of a serious character, and none merited Police Court proceedings.

The standard of fitness so far as sanitary conditions were concerned was the highest ever recorded.

#### CONTROL OF THE MEAT SUPPLY.

During the period under review your Committee put into operation Section 55 of the Bradford Improvement Act, 1910, which prohibits the inflation of carcasses. Thus the objectionable practice is now a thing of the past.

Admitted the "blowing up" of the muscular tissue of a carcass is not generally done to disguise the nature or quality of the meat. The hide may thereby be removed more easily, and the appearance of the joint may perhaps be made more pleasing to the eye. But the point is this, that by resorting to such artificial means natural conditions are falsified whereby immature calf flesh may be sold which would be quite unsaleable otherwise.

Moreover, there is a more serious side to the question. Whether the practice is conducted by the use of a machine or performed by the mouth it must be regarded as uncleanly, and therefore not in the interests of public health.



Plate 1 shows a carcass about to be inflated.



Plate 2 shows the same carcass after the operation.



Whilst we think of the risk incurred in "inflation" by the mouth by exhaled air from the lungs of the operator, who may be suffering with some specific form of disease, we must at the same time look upon the machine with suspicion because micro-organisms of an unfriendly species may accumulate in abundance in the machine and be forced into the muscular tissue of the carcass during inflation.

It may be mentioned in fairness to Bradford butchers that no difficulty whatever was experienced in putting the law into operation.

I venture to think that two photographs taken by Inspector Bentley at St. James Abattoirs, just prior to the Act coming into operation, will be interesting, and for that purpose I have had them reproduced.

INSPECTION OF  
MEAT, SLAUGHTER-HOUSES, POTTED  
MEAT AND SAUSAGE MANUFACTORIES.

During the year the Meat Inspectors examined the carcasses and internal organs of 1154 animals. Of these 343 were condemned as being wholly unfit for human food and the remainder were partially so. The carcasses or affected parts were surrendered and afterwards destroyed in the presence of the Inspectors. In addition, 1 cwt. frozen ox livers; 42 lbs. frozen ox kidneys; 241 pigs' plucks; 80 lbs. mutton; 113 stones beef; 2 cwt. and 1 barrel of udders; 36½ cwt. of sheep and ox feet and tripe; 190½ cwt. and 5 bags of sundry offals; 32 beast livers; 4 pieces of bacon; and 1 rabbit, were found unfit for human food and surrendered by the owners.



The number of premises where sausage and potted meat are made for sale is 187, this being the same as last year. These places have been visited on 2627 occasions, and found generally satisfactory.

Five hundred and fifty-eight visits were paid to butchers' shops open on Sunday mornings for the sale of meat. With one exception the meat exposed for sale was found satisfactory.

The meat supplied by contract to the Fever Hospital and the Union Workhouse has been inspected twice weekly and found to be sound, of good quality, and in accordance with the contract specification.

The Public Abattoirs and Rawson Place Markets have been visited daily.

One case of Anthrax was found by the Inspectors and reported to the Police to be dealt with under the Contagious Diseases (Animals) Act. The Inspector figured in further proceedings connected with this case, an account of which will be found towards the end of this section of the Report.

#### SEIZURES AND PROSECUTIONS.

During the year two seizures were effected by Inspector Raistrick comprising ninety-eight lbs. of beef and one rabbit. Summonses were issued in both cases. One conviction was recorded and in the other case the defendant was given the benefit of the doubt and ordered to pay the costs.

In the first case the Inspector was on duty one Sunday morning and noticed in the window of a butcher's shop several pieces of meat exposed for sale which were putrid. On entering the shop he saw a

salesman "trimming" a brisket of beef, but when he saw the Inspector he discontinued his work. The Inspector also found in a back room two more pieces of meat which were unfit for human food. The owner said he intended giving it away when he closed the shop at mid-day.

The whole of the unsound meat was seized by the Inspector and removed to the Town Hall where I also examined it. A Magistrate's Order was afterwards obtained for its destruction.

In Court, after being sworn, the defendant said he knew the meat was unfit for food and that he had asked the Inspector to look at it, which as a matter of fact was false. The defendant was convicted and fined £1 and 7s. costs.

The facts of the second case are as follows:—The Inspector was walking through Rawson Place Market one Saturday night when he saw some rabbits exposed for sale on a board priced at sixpence each. He also noticed that the liver of one of them was abnormal and affected with tubercular disease. On making a further examination a cyst was found in the head. He called the owner's attention to it and he said he had not noticed anything the matter with the rabbits. They were a consignment of frozen rabbits which had arrived late and he had not had time to examine them. The rabbits were from Australia and this fact makes the case all the more noteworthy, as every animal is supposed to be examined before being passed and packed for export. If the animal had not been seen there is no doubt it would have been sold to the next customer.

It was condemned by a Justice and destroyed. Court proceedings followed and the defendant was ordered to pay the costs of the Summons

the Magistrate remarking that he thought the defendant had acted innocently in the matter.

With reference to the case of Anthrax mentioned previously. The carcase and organs of a cow, deposited in the Cold Stores, Filey Street, were reported for inspection. Inspector Bentley made a preliminary examination in the Stores and suspected Anthrax. Portions of the spleen and kidneys were submitted to the Medical Officer of Health for microscopical examination. The Inspector made a further examination in company with his colleague Inspector Raistrick and they both diagnosed the case as one of Anthrax. The particulars were reported to me and I gave instructions for the matter to be referred to the Police under the provisions of the Contagious Diseases (Animals) Act. Their Veterinary Inspector examined the carcase and organs in the presence of my Inspectors, and on his report being forwarded to them, the Board of Agriculture certified the case as Anthrax. The carcase and organs and also the hide were cremated at the Cliffe Road Destructor and the contact articles were either disinfected or destroyed by the Police.

Subsequently Inspector Bentley was subpoenaed to attend the Otley Police Court and give evidence in a case against the farmer who had sent the carcase to Bradford. The defendant was fined 20s. and costs (total £3 19s. 4d.) for failing to report the matter to the Police in accordance with the provisions of the Contagious Diseases (Animals) Act. The farmer pleaded guilty and ignorant of the requirements of the Act.

During the year several enquiries were made in various parts of the City relative to the slaughtering of swine on unlicensed premises. Three owners and one slaughterman received warning letters from the Town Clerk and this procedure had a marked effect on the offenders.

INSPECTION OF FISH, FRUIT, GAME, POULTRY,  
AND VEGETABLES.

The total quantity of fish, fruit, game, poultry, and vegetables destroyed during the year amounted to more than fifty-two tons.

Daily inspections of the markets have been made and four seizures of unsound foodstuffs made. Proceedings were instituted against the offenders, one case being dismissed and three convicted. Particulars of these will be found under the heading "Seizures and Prosecutions."

A satisfactory feature of the year's work is that not a single seizure has been necessary from wholesale dealers. I have no doubt that this is attributable to rigid inspection and exemplary penalties inflicted, together with warnings given from time to time by the Stipendiary Magistrate.

Sixty-one requests were entered on the book at St. James' Market for examination of foodstuffs, and on each occasion the goods were found unfit for human food and surrendered to the Inspector for destruction.

On twenty-two occasions foodstuffs were found exposed or deposited for the purpose of sale, and after their condition had been pointed out to the owners the goods were surrendered to the Inspector. The total weight of foodstuffs thus found was 1 ton 3 cwts. 3 qrs. and 14 lbs. In several instances the circumstances did not warrant seizures being made and in others the traders were cautioned.

The Inspector received instructions from the Health Committee to make a thorough inspection of all shop premises in St. James' Market. These instructions were carried out with the result that

twenty-six chambers were found to require limewashing and seventeen chambers required both cleansing and limewashing. All this work has since been carried out. The Inspector is of opinion that these places should be limewashed at least once every two years.

The railway strike in August was responsible for the loss of three tons of fish through being detained at Dudley Hill station.

It seems a great pity such a quantity of wholesome food should have to remain at a railway siding until it is putrid and within such easy reach of the markets.

During the year three samples of shell-fish, viz., two mussels, and one cockles, were obtained and submitted for bacteriological examination with the following result :—

1 sample of mussels was found to be sewage polluted.  
 1 " " " " " clean.  
 1 " cockles " " " clean.

#### ARTICLES OF FOOD SURRENDERED.

The following is a summary of the articles examined by the Inspector and found unfit for consumption :—

FISH.						Tons.	Cwts.	Qrs.	Lbs.
Cockles	..	..	46½ bags	..	..	2	19	1	—
Mussels	..	..	122½ bags	..	..	8	17	1	—
Prawns (foreign)			30 tins	..	..	—	3	3	—
Prawns and Shrimps	..	..		..	..	—	6	—	—
Shrimps (picked)			4c quarts	..	..	—	—	2	14
Smelts	..	..	42 boxes	..	..	—	2	2	14

					Tons.	Cwts.	Qrs.	Lbs.
Oysters ..	.. 700..	..	..	..	—	2	—	—
Finnon Haddock ..	..	..	..	..	—	2	3	—
Finnon Codling ..	..	..	..	..	—	9	2	14
Finnon Fillets ..	..	..	..	..	—	3	3	—
Kippers ..	.. 225 boxes..	..	..	..	1	1	3	—
Bloaters ..	.. 1680..	..	..	..	—	5	1	—
Herrings ..	.. 33 boxes and barrels ..	..	..	..	3	2	3	—
Mackerel ..	.. 34 boxes..	..	..	..	1	14	—	—
Sprats ..	.. 3 boxes..	..	..	..	—	5	1	—
Codfish ..	..	..	..	..	—	17	—	—
Haddock ..	..	..	..	..	3	16	2	—
Hake ..	..	..	..	..	1	13	1	14
Plaice ..	..	..	..	..	—	6	1	21
Lemon Soles ..	..	..	..	..	—	8	2	14
Codlings ..	..	..	..	..	—	1	1	14
Sea Bream ..	..	..	..	..	—	3	3	—
Witches ..	..	..	..	..	—	2	2	14
Whitings ..	..	..	..	..	—	8	2	14
Megrims ..	..	..	..	..	—	3	2	14
Halibut ..	..	..	..	..	—	3	2	14
Trout ..	..	..	..	..	—	—	1	17
Sundries ..	..	..	..	..	—	—	2	16
Fish, Game, Poultry, Rabbits, etc., found unfit for food but deposited or exposed for sale ..	..	..	..	..	1	3	3	14
Total ..	..	..	..	..	29	7	0	12

## GAME, POULTRY, AND RABBITS.

Turkeys ..	.. 59..	..	..	..	—	6	1	19
Chickens ..	.. 13..	..	..	..	—	—	1	6
Ptarmigan ..	.. 21..	..	..	..	—	—	1	3

						Tons.	Cwts.	Qrs.	Lbs.
Geese	..	..	66..	..	..	—	4	3	19
Rooks	..	..	81..	..	..	—	1	1	22
Ducks	..	..	66..	..	..	—	1	1	22
Grouse	..	..	21..	..	..	—	—	1	4
Hares	..	..	3..	..	..	—	—	—	12
Giblets	..	..	..	..	..	—	1	—	—
Rabbits	..	..	2011..	..	..	2	5	—	—
Total						3	1	0	23

## FRUIT.

Bananas	..	..	42 crates..	..	..	2	7	2	—
Pears	..	..	34 hampers and barrels	..	..	1	18	1	14
Apples	..	..	18 barrels	..	..	—	15	3	—
Rhubarb	..	..	15 boxes and hampers	..	..	1	2	2	—
Tomatoes..	..	..	44 crates and boxes	..	..	—	9	1	24
Blackberries	..	..	66 baskets	..	..	—	4	2	14
Plums	..	..	37 baskets and hampers	..	..	—	7	3	—
Cherries	..	..	4 hampers	..	..	—	—	3	12
Red Currants	..	..	13 baskets	..	..	—	2	1	11
Strawberries	..	..	15 baskets	..	..	—	—	2	4
Gooseberries	..	..	2 bags	..	..	—	1	2	—
Water Melons	..	..	..	..	..	—	—	1	14
Total						7	11	2	9

## VEGETABLES.

Carrots	..	..	..	..	..	3	5	—	—
Lettuce	..	..	154 crates and hampers	..	..	3	5	1	14
Brussels Sprouts..	..	..	47 baskets and bags	..	..	—	14	3	14
Parsley	..	..	1 bag	..	..	—	—	2	—
Red Cabbages	..	..	12 bags	..	..	—	12	—	—

				Tons.	Cwts.	Qrs.	Ibs.
Cabbages	..	60 hampers	..	2	5	—	—
Water Cress	..	15 hampers	..	—	12	—	—
Cauliflowers	..	8 crates..	..	—	12	—	—
Green Onions	..	1 hamper	..	—	—	3	—
Radishes ..	..	11 boxes and hampers	..	—	8	2	—
Peas	..	1 bag	..	—	1	—	—
Mushrooms	..	82 baskets	..	—	3	3	—
Kidney Beans	..	15 baskets	..	—	1	—	—
Total	..	..	..	12	1	3	0

### SEIZURES AND PROSECUTIONS.

#### FISH, GAME, AND POULTRY.

Nature of Article and quantity.	Place of Seizure.	Remarks.	Penalties.			Costs.			
			£	s.	d.	£	s.	d.	
4 Turkeys ..	Rawson Place Market.	Convicted.	2	0	0	0	7	0	
25 quarts Cockles	Do. do.	Convicted.	5	0	0	0	7	0	
153 Gurnet Fillets, 67 Plaice, and 3 pieces of Ling	Do. do.	Convicted.	2	10	0	0	7	0	
5 pieces Venison, 42-lbs), a very bad Case	Do. do.	Dismissed.	0	0	0	0	0	0	
				9	10	0	1	1	0
							9	10	0
							Total .. £10 11 0		

FRIED FISH SHOPS.

There are 328 fried fish shops in the City as against 326 in the year 1910. During the year 763 visits have been made to fish fryers premises.

The Inspector has found it necessary on several occasions to draw the attention of the Health Committee to the disgusting and dirty conditions prevailing in some of these places, and from time to time his reports have been placed on record in the Minutes of the Council and thus found their way into the public press, a course of procedure which has been attended with satisfactory results.

Filthy shops, dirty pans, foul smelling cellars, and a W.C. apartment opening directly into the room where the fish and potatoes were stored, these were some of the conditions met with during his inspections. In one case fish was stored in a cellar within two feet of a W.C. apartment that had no door on, and at the time of the Inspector's visit the pedestal was choked with excreta. Fortunately, such cases are the exception, and it is satisfactory to know that the majority of premises are kept in a cleanly condition and are well conducted.

Official notices were sent to ten owners of shops requiring defects to be remedied, and these were all complied with. During the year the City Council were successful in getting this trade or business included in the scheduled list of Offensive Trades and it is to be hoped that we shall have extended powers for dealing with such cases as have been mentioned.

The Inspector has obtained and submitted to the City Analyst for analysis seven samples of vinegar and four samples of fat. Each sample on analysis was found to be pure.

### FISH CURING YARDS.

During the year 241 visits have been made to fish curing yards. These places were found clean and in other respects in a satisfactory condition.

By request 1680 Bloaters were examined and found unfit for food. They were surrendered to the Inspector for destruction.

### ICE CREAM MANUFACTURE.

Seven hundred and forty-four visits have been made to premises where Ice Cream is made and stored. There has been a continued improvement in the methods adopted for the preparation of this article. Greater care is being exercised in its production and the utensils used in connection therewith are kept in a better condition of cleanliness. Especially is this noticeable amongst the Italian fraternity, of whom the Inspector has had reason to complain on many previous occasions.

Four offenders were proceeded against during the year for breaches of the Ice Cream Regulations, in so far that due precautions had not been exercised to prevent the exposure of ice cream to infection and contamination. Three of these offenders were fined the maximum penalty. The other on giving an undertaking to discontinue the business was fined merely a nominal penalty.

One Ice Cream maker was warned by the Health Committee.

Proceedings were taken against nineteen vendors (chiefly Italians) for failing to have their names and addresses legibly inscribed on their carts. They evidently dislike the public to know the locality in which the cream is made, as such knowledge would very likely be injurious to their trade.

The Inspector found forty-nine gallons of ice cream which was unfit for human consumption. This quantity represents 1760 penny-

worths, and there is no doubt that but for its timely discovery it would have been sold. The stuff was destroyed.

The undermentioned particulars shew the nature and details of the prosecutions instituted for breaches of the Ice Cream Regulations :—

For failing to exercise due precautions to prevent exposure to infection and contamination :—

No. of Case.	Action taken.	Remarks.	Penalties.			Costs.		
			£	s.	d.	£	s.	d.
1	Prosecution	A bad case. Convicted .. ..	2	0	0	0	7	0
2	Do.	Do. do.	2	0	0	0	7	0
3	Do.	Do. do.	2	0	0	0	7	0
4	Do.	A disgusting case. Promised to leave the business.. ..	0	10	0	0	7	0
			6	10	0	1	8	0
						6 10 0		
						-----		
			Total ..			£7 18 0		

For failing to have name and address inscribed on cart :—

Number of Cases.	Remarks.	Penalties.			Costs.		
		£	s.	d.	£	s.	d.
10 cases.	Conviction obtained.. ..	5	0	0	3	10	0
4 ..	Dismissed on payment of Costs ..	—	—	—	0	12	0
4 ..	Withdrawn .. ..	—	—	—	—	—	—
1 ..	Dismissed .. ..	—	—	—	—	—	—
Total .. ..		5	0	0	4	2	0

Total penalties and Costs, £17 os. od.

OPERATIONS UNDER THE SALE OF FOOD  
AND DRUGS ACTS, ETC.

During the year 802 samples of food and drugs have been submitted to the City Analyst by the Food and Drugs Inspector (Mr. J. J. Warrington.)

Of these 743 have been certified by the Analyst as genuine, and 59 as adulterated or doubtful.

In twenty-five cases the offenders were summoned before the Justices for adulteration and penalties and costs amounting to £49 11s. 6d. were inflicted.

I requested the Food and Drugs Inspector to purchase for analysis bread and butter from restaurants and eating houses in the City, as I had reasons to suspect that a fair amount of Margarine was being substituted for butter through that medium.

The suspicion turned out to be well founded as will be observed by reference to the "Remarks" on the samples analysed.

No doubt the practice had been carried on for a number of years to the detriment of the honest trader in butter.

As a result of the prosecutions which ensued fines amounting in the aggregate to £21 were inflicted.

In the absence of the Fish Inspector the following articles of food were surrendered and destroyed after being examined by request and found to be unfit for human food :—

217 Rabbits; twenty-two bags Mussels; one bag Cockles; eleven stones Fillets; fifteen stones Codling Finnon; twenty-nine pounds Halibut; one cwt. Radishes; 108 stones Pears; twenty pounds Peas; and two bags Gooseberries.

The following table shows the nature of the articles submitted for analysis under the Sale of Food and Drugs Acts :—

SAMPLES SUBMITTED FOR ANALYSIS.

MILK.

Number submitted.	Genuine.	Adulterated or doubtful.	Proceedings taken.	
471	449	22	11	
REMARKS.—			Fines.	Costs.
5.1% of added water; contained 3.8% fat. No proceedings.				
3.0% of added water. No proceedings.				
2.7% of added water. No proceedings.				
Contained 95.3% of the minimum amount of fat. No proceedings.				
Contained 85% of the minimum amount of fat. No proceedings.				
Contained 93% of the minimum amount of fat. Unofficial samples followed by an official one which contained 90% minimum amount of fat .. ..			10/-	9/-
5.4% of added water .. .. .			£1 0 0	7/-
Contained 80% minimum amount of fat .. .. .			£1 10 0	9/-
Contained 92% minimum amount of fat .. .. .			£1 0 0	17/6
Contained 86.7% minimum amount of fat .. .. .			10/-	7/-
6.8% of added water, 96.0% minimum fat .. .. .			10/-	18/6
9.4% of added water, 94.0% minimum fat .. .. .			£2 0 0	7/-
Contained 91.3% minimum amount of fat. No proceedings.				
Contained 96.0% minimum amount of fat. No proceedings.				
.5% of added water, 97.0% minimum fat. No proceedings.				
.9% of added water, 99.3% minimum fat. No proceedings.				
2.8% of added water, 99.3% minimum fat. No proceedings.				
13.8% of added water, 76.6% minimum fat .. .. .			£2 0 0	7/-
11.2% of added water .. .. .			£2 0 0	7/-
Contained 85.3% minimum amount of fat .. .. .			£2 0 0	7/-
18.3% of added water .. .. .			£1 0 0	7/-

SAMPLES SUBMITTED FOR ANALYSIS—*continued.*

Nature of Sample.	No. Submitted.	Genuine.	Adulterated or doubtful.	Proceedings taken.	Remarks.	Fines.	Costs.
Butter .. ..	63	60	3	2	<p>One unofficial sample consisted entirely of margarine. One consisted of one-third butter and two-thirds margarine .. .. .</p> <p>One consisted entirely of margarine .. .. .</p> <p>These were from first class hotels. One summons in connection with the above—for selling margarine containing more than 10% of butter fat—was withdrawn on payment of costs.. .. .</p>	£2	8/-
						£5	9/-
						—	3/-
Bread and Butter	44	33	11	6	<p>Five of these samples were unofficial, varying from the fat being entirely margarine to containing 66% butter. These were followed by official samples and in every case resulted in Court proceedings, as follows:—</p> <p>(1) Margarine. Butter ..</p> <p>(2) Entirely margarine. Withdrawn on payment of costs, having secured a penalty of £5 in the case as above ..</p> <p>(3) 50% of margarine, 50% butter .. .. .</p> <p>(4) Entirely margarine ..</p> <p>(5) Entirely margarine ..</p> <p>(6) 70% margarine, 30% butter. Withdrawn on payment of costs .. ..</p>	£2	8/-
						—	3/-
						£2	9/-
						£5	7/-
						£5	9/-
						—	3/-
Sausage .. ..	12	10	2	—	<p>Contained 64% and 70% of boric acid respectively; unofficial samples which were followed by official samples and contained respectively 575% and 47%. No proceedings taken.</p>		

SAMPLES SUBMITTED FOR ANALYSIS—*continued.*

Nature of Sample.	No. Submitted.	Genuine.	Adulterated or doubtful.	Proceedings taken.	Remarks.	Fines.	Costs.
"Junora" (Wine of Health)	1	—	1	1	Contained no Lecithin-ovo as stated on the label of the bottle. Withdrawn. At the hearing which continued for a few hours the Stipendiary Magistrate pointed out that there was a bona-fide difference of opinion between the City Analyst (Mr. Richardson) and Dr. Hehner (for the defence) on a scientific question, and he did not think it was a matter to be decided in a criminal court. He could not determine who was right, and suggested that so far as that Court was concerned the proceedings should be abolished.		
Fat (for fish frying)	4	4	—	—			
Margarine ..	5	5	—	—		—	—
Cocoa Essence ..	1	1	—	—		—	—
Lard .. ..	22	22	—	—		—	—
Cheese .. ..	7	7	—	—		—	—
Potted Meat ..	7	7	—	—		—	—
Cream .. ..	12	7	5	1	<p>·50% of boric acid unofficial, followed by ·60% boric acid official. No notification was given .. .. .</p> <p>·50% boric acid, 48·44% of fat preservation. Notified. No proceedings. Cautioned.</p> <p>·044% boric acid in excess. No proceedings.</p> <p>·025% boric acid in excess. No proceedings.</p>	£2	19/6
Flour .. ..	28	27	1	—		—	—
Vinegar .. ..	9	9	—	—		—	—
Cocoa .. ..	4	4	—	—		—	—
Lime Juice ..	1	1	—	—		—	—
Mustard .. ..	1	1	—	—		—	—

SAMPLES SUBMITTED FOR ANALYSIS—*continued.*

Nature of Sample.	No. Submitted.	Genuine.	Adulterated or doubtful.	Proceedings taken.	Remarks.	Fines.	Costs.
Rice .. ..	20	18	2	1	One unofficial contained .26% extraneous mineral matter in excess. Followed by an official which contained .34% excess..	10/-	9/-
Sugar .. ..	1	1	—	—		—	—
Bread .. ..	2	1	1	—	Badly made, dark coloured, and hard.		
Pressed Beef ..	1	1	—	—		—	—
Blackberry Jelly ..	1	1	—	—		—	—
Marmalade ..	1	1	—	—		—	—
Raisin Wine ..	1	1	—	—		—	—
Baking Powder ..	1	1	—	—		—	—
Whisky .. ..	3	3	—	—		—	—
Beer .. ..	5	4	1	—	Contained an excess of common salt.	—	—
Laudanum ..	4	4	—	—		—	—
Chloride of Lime .	4	—	4	—		—	—
Seidlitz Powder ..	1	1	—	—		—	—
Ground Ginger ..	1	1	—	—		—	—
Glycerine .. ..	3	3	—	—		—	—
Flowers of Sulphur..	2	2	—	—		—	—
Paregoric .. ..	1	1	—	—		—	—
Castor Oil.. ..	3	3	—	—		—	—
Cod Liver Oil ..	3	3	—	—		—	—
Camphorated Oil..	4	4	—	—		—	—
Olive Oil .. ..	4	4	—	—		—	—
Formalin Throat Lozenges ..	1	1	—	—		—	—
Soap Liniment ..	4	2	2	1	One unofficial, followed by an official sample which contained $\frac{3}{4}$ % instead of $9\frac{3}{4}$ % of soft soap, and were free from camphor .. ..	10/-	7/-

SAMPLES SUBMITTED FOR ANALYSIS—*continued.*

Nature of Sample.	No. Submitted.	Genuine.	Adulterated or doubtful.	Proceedings taken.	Remarks.	Fines.	Costs.
Sal Volatile ..	3	1	2	1	One unofficial, followed by an official sample which contained 52% of the proper amount of the strong sol. of ammonia .. .. .	10/-	7/-
Gregory Powder ..	4	2	2	1	One unofficial, followed by official sample which contained less than half the proper proportion of the more expensive constituents Rhubarb and Ginger, with a corresponding excess of the cheaper, <i>e.g.</i> , light magnesia	10/-	7/-
Lime Water ..	1	1	—	—		—	—
Borax .. ..	2	2	—	—		—	—
Am. Tinc. of Quinine..	1	1	—	—		—	—
Tinct. of Iodine ..	2	2	—	—		—	—
Milk of Sulphur ..	1	1	—	—		—	—
Iron and Quinine Citrate ..	1	1	—	—		—	—
Tartaric Acid ..	2	2	—	—		—	—
Boracic Acid ..	1	1	—	—		—	—
Boracic Ointment	1	1	—	—		—	—
Turpentine ..	6	6	—	—		—	—
Zinc Ointment ..	1	1	—	—		—	—
Compound Liq. Powder ..	3	3	—	—		—	—
Resin Ointment ..	5	5	—	—		—	—
TOTALS ..	802	743	59	25			
						FINES	COSTS
						£39 0 0	£10 11 6
							39 0 0
						TOTAL ..	£49 11 6

In connection with the special arrangement of the Corporation with the trade and public, ninety-two samples were submitted to the City Analyst through the Health Department with the following results :—

Article.	Number Submitted.	Genuine.	Adulterated or Doubtful.
Milk .. .. .	3	3	—
Cocoa .. .. .	4	4	—
Cocoa Essence .. .. .	1	1	—
Rice .. .. .	58	34	24
Cheese .. .. .	2	2	—
Jams .. .. .	7	7	—
Yeast .. .. .	1	1	—
Flour .. .. .	1	1	—
Pearl Barley .. .. .	1	1	—
Oatmeal .. .. .	1	1	—
Pepper .. .. .	2	2	—
Ground Ginger .. .. .	1	1	—
Butter .. .. .	2	2	—
White Pepper .. .. .	3	2	1
Lard .. .. .	1	1	—
Ground Rice .. .. .	1	1	—
Ground Almonds .. .. .	1	1	—
Vinegar .. .. .	1	1	—
Tinned Peas .. .. .	1	1	—
TOTALS .. .. .	92	67	25

During the year forty-seven samples of milk have been obtained and submitted to the Leeds Medical School to be examined for tubercle bacilli. Seven of these were reported as tuberculous.

No. 74. Was from a mixed milk coming by rail from beyond the City boundary. The farm was visited and the cows examined by the Veterinary Inspector (Mr. C. Pitts) but no suspicious cows were found. Seven weeks had elapsed between the taking of the sample and the report, and in the meantime changes had been made in the herd, three cows having been sent away. Two further samples were taken with negative results.

No. 82. Was from a mixed milk purchased from a milk dealer whilst on his round. The farm, which is beyond the City boundary, was visited, and the cows examined by the Veterinary Inspector. One cow was found with a suspicious udder.

No. 86. Was obtained from this cow. The animal was first isolated and afterwards sold to a dealer, all trace of it being lost.

Nos. 83 and 84. Were from a cow outside the City and which was eventually sent to the Knacker. (This is the same as No. 69 in last year's Report).

No. 108. From a mixed milk coming by rail from outside the City. This milk was from a dairy which receives milk from fourteen farms, which milk is all mixed together prior to being sent out for distribution. All the farms were visited and the cattle examined by the Veterinary Inspector. A sample was obtained from one with negative results. Eight cows had in the meantime been sent away.

No. 109. Was from a cow within the City which was first isolated, dried, and sold to a dealer outside the City.

### DAIRIES AND MILKSHOPS.

There are at present about 420 retail milk vendors registered and residing within the City, comprising the following :—

Cowkeepers and retailers, about .. .. .	140
Retailers only, in the streets and from their homes	156
Milk shops, including dairies, confectioners', small grocers', restaurants and other shops ..	118

The milk supply is supplemented by about 150 cowkeepers and milk dealers from beyond the City boundaries, who bring in or send into the City—86 by rail, and about 64 by road.

Thirty milk purveyors have been registered during the year.

Eight hundred and twenty visits have been made to milk shops and milk dealers' premises.

One milk purveyor was summoned before the Health Committee for not exercising due diligence in connection with his business and cautioned.

### INSPECTION OF COWSHEDS.

There are at present within the City 336 Dairy Farms containing 620 cowsheds, which are regularly under inspection for the enforcement of Regulations made under the Dairies, Cowsheds, and Milkshops Order, and during the year 1555 visits have been made to farm premises for the inspection of Cowsheds and Dairies, and 2939 cowsheds inspected.

Forty-three statutory notices were served upon Cowkeepers to carry out such work as was necessary to put the cowsheds in their occupation into a sanitary condition.

A considerable improvement in the sanitary condition of these places has taken place during the last three years, and during the past twelve months the following improvements to cowsheds and dairies have been carried out at the farm premises hereunder.

NAME OF PREMISES.	SITUATION.	New Cowsheds Provided.	Cowsheds Reconstructed.	Gangways Provided.	Lighting.	Ventilation.	Air Space.	Drainage.	Paving.	New Manure Pits.	Manure Pits Removed.	Walls Smoothed.	Dairies Provided.
Lower Westgate Farm .. ..	Allerton .. ..	—	1	1	1	1	1	1	1	—	—	1	—
Gazeby Hall Farm ..	Allerton .. ..	—	3	2	3	3	3	3	3	—	—	—	—
Lower Grange Farm ..	Allerton .. ..	1	—	—	—	—	—	—	—	1	—	—	—
Dene Lane Farm .. ..	Allerton .. ..	—	—	1	1	1	1	1	1	1	—	1	—
Hill Top Farm .. ..	Allerton .. ..	1	—	—	—	—	—	—	—	—	—	1	—
Mount Pleasant Farm .. ..	Sandy Lane .. ..	—	—	—	2	2	2	2	2	1	—	1	—
Stocker House Farm ..	Sandy Lane .. ..	—	—	—	1	1	1	1	1	1	—	—	—
Lower Swaine Royd Farm .. ..	Sandy Lane .. ..	1	—	—	1	1	—	1	1	1	—	—	1
Bottom Farm .. ..	Buttershaw .. ..	—	—	—	—	—	—	1	—	—	—	—	—
North Farm .. ..	Buttershaw .. ..	—	2	2	2	2	2	2	2	—	—	2	—
Westgate Hill Farm ..	Tong .. ..	—	—	—	—	—	—	—	—	—	—	—	1
Shawfield Farm .. ..	Tong .. ..	—	—	—	—	—	—	—	—	1	—	—	—
Maythorn Farm .. ..	Tong .. ..	—	2	2	2	2	2	2	2	—	—	2	—
Leeming Farm .. ..	Tong .. ..	—	3	3	3	3	3	3	3	1	—	3	—
Top Farm .. ..	Tong .. ..	—	1	1	3	3	3	3	3	—	—	3	—
Chellow Grange Farm .. ..	Heaton .. ..	—	2	1	2	2	—	2	2	1	—	2	—
West House Farm .. ..	Heaton .. ..	—	1	1	1	1	1	1	1	—	—	1	—
Heaton Hall Farm .. ..	Heaton .. ..	—	1	1	1	1	1	1	1	1	—	1	—
Ashwell Farm .. ..	Heaton .. ..	—	1	2	2	2	2	2	2	—	—	2	—
Highgate Farm .. ..	Heaton .. ..	—	—	—	1	1	1	1	1	—	—	—	—
North Hall Farm .. ..	Heaton .. ..	—	—	—	—	—	—	—	—	—	—	—	1
Hollings Close Farm ..	Bolton .. ..	—	2	2	2	2	2	2	2	1	—	2	—
Outlands Farm .. ..	Bolton .. ..	—	—	—	—	—	—	1	—	—	—	—	—
Fieldhouse Farm .. ..	Rooley Lane .. ..	—	1	1	1	1	1	1	1	—	—	—	—
Cemetery Farm .. ..	Rooley Lane .. ..	—	—	1	1	1	1	1	1	—	—	1	—
Shay Fold Farm .. ..	Thornton .. ..	1	1	1	1	1	1	1	1	1	1	—	—
Hoyle Ing Farm .. ..	Thornton .. ..	—	—	1	1	1	1	1	1	—	1	—	—
Ash Tree Farm .. ..	Thornton .. ..	—	2	2	2	2	2	2	2	1	1	2	—
Wards End Farm .. ..	Thornton .. ..	—	1	1	1	1	1	1	1	1	—	1	—
Upper Cote Gap Farm .. ..	Thornton .. ..	—	1	1	1	1	1	1	1	1	—	—	—
Wilcock Farm .. ..	Thornton .. ..	—	—	1	1	1	1	1	1	—	—	1	—
Shay Farm .. ..	Thornton .. ..	—	—	—	1	1	1	1	1	—	—	1	—
Keelham Hall Farm .. ..	Thornton .. ..	—	—	1	1	1	1	1	1	—	—	—	—
Alderscholes Farm .. ..	Thornton .. ..	—	1	1	1	1	1	1	1	—	—	—	—
Travis Farm .. ..	Thornton .. ..	1	1	1	1	1	1	1	1	1	—	1	—
Huddersfield Road .. ..	Wyke .. ..	—	—	1	1	1	1	1	1	—	—	1	—
Whittam Farm .. ..	Lower Wyke .. ..	—	—	1	1	1	1	1	1	—	—	—	—
Beldon Hill Farm .. ..	Great Horton .. ..	—	—	1	1	1	1	1	—	—	—	—	—
Lemon Tree Farm .. ..	Cutler Heights .. ..	—	—	3	3	3	3	3	3	—	—	3	—
Woodhouse Hill Farm .. ..	Bierley .. ..	—	—	—	—	—	—	—	—	1	—	—	1
Green Top Farm .. ..	Fairweather Green .. ..	—	1	1	1	1	1	1	1	1	—	—	1
Woodside Farm .. ..	Low Moor .. ..	1	—	—	—	—	—	—	—	—	—	1	—
Reevy Hall Farm .. ..	Wibsey .. ..	—	—	—	—	—	—	1	—	—	—	—	—
	Total .. ..	6	28	38	48	48	45	51	47	17	3	34	5

## SUMMARY:—

6 Cowsheds—New. (Constructed under the supervision of the Surveyor's Department).  
 28 Cowsheds—Reconstructed.  
 38 Cowsheds—Feeding passages provided.  
 48 Cowsheds—Light provided.  
 48 Cowsheds—Ventilation improved.  
 45 Cowsheds—Air space provided.

51 Cowsheds—Drains relaid or new drains provided.  
 47 Cowsheds—Paving repaired or renewed.  
 17 Cowsheds—New manure pits provided.  
 3 Cowsheds—Manure pits removed.  
 34 Cowsheds—Walls smoothed with cement.  
 5 Cowsheds—New dairies provided.

With the exception of the new cowsheds (built under the supervision of the Surveyor's Department) the whole of the alterations have been supervised by the Cowshed Inspector (Mr. T. Ridley).

Changes in the occupancy of Dairy Farms are constantly taking place, and during the year twenty-two persons have been registered as cowkeepers.

In the course of inspection swine were found on five occasions housed in cowsheds. Upon the attention of the farmers being drawn to the matter the animals were at once removed and a promise given that such a gross breach of the Regulations should not occur again.

Two cowsheds were found to contain poultry. The latter were removed forthwith.

During the year the Inspector has had upon eighteen occasions to serve notices upon farmers complaining of the filthy condition of the cowsheds and cattle, the hindquarters of the dairy cows being fouled with manure, and the udders and teats being in a very dirty state. The farmers were informed that strict measures would be taken to enforce all precautions being taken to prevent contamination of the milk before leaving the farm premises.

Several cowkeepers have failed to limewash their cowsheds at the time stipulated by the Cowsheds Order, viz., in the months of May and October, Notices were served upon twenty-four farmers calling their attention to this breach of the Regulations. The notice in each case had the desired effect. Notices were also served for the removal of manure when necessary.

The water supply at two farms being considered very unsatisfactory, samples were obtained and submitted to the City Analyst. In one case the water was certified to be unfit for human consumption, being heavily polluted with surface washings from manured land.

Notice was served upon the owner of the premises to provide a proper supply. This has since been done by a connection being made to the Corporation main. Regarding the other sample submitted, the water was certified to be wholesome.

### COWSHEDS, DAIRIES AND VETERINARY INSPECTION.

At the time the following report was being prepared, a Report on the Milk Supply of Bradford had been made out for the Health Committee in accordance with their instructions, which I understand will be printed in due course.

The Veterinary Surgeon, Mr. Chas. Pitts, reports as follows:—

At present there are within the City, 336 dairy farms, containing 620 cowsheds, which house approximately 4400 dairy cows.

During the year 2881 visits have been made to these cowsheds, and 1340 inspections have been made to ensure a proper standard of efficiency both as regards their sanitary condition and the cleanliness of the milk utensils used therein.

Eighty-two visits have been made to farms outside the City for the purpose of making 1843 examinations of the udders of dairy cows. Included in that number were 173 examinations of dairy cows at Bentham. These were made in order to find the source of tuberculous milk.

From enquiries it was ascertained that sixteen farms had been supplying milk to Bentham Dairy. Part of the milk had been sent to Bradford and found to contain tuberculous germs, but as about seven weeks had elapsed between taking the sample and the result of the milk test being known, many changes were permitted to take place, and many dairy cows sold during that interval, including the animal giving the diseased milk.

The udders of 26,164 dairy cows have been examined in the City, and inspections have been made regarding the general cleanliness of the cattle. In a great many cases friendly advice has been given to farmers to improve the condition of their cattle and the quality of their milk. Where dirty conditions were found to exist the farmers were cautioned, and their milk filtered at the farm or place of delivery, the results being shewn to them.

As a result of the above examinations, 380 slides or "smears" were made of milk, pus, and serum, and from sputum coughed up by tubercular cattle.

One hundred and thirty dairy cows were found to be suffering from diseases of the udder, from which unwholesome milk was mixed with other milk and sold to the public for human consumption. These animals were pointed out to the owners who were asked not to sell the unsound milk but to destroy it. Many farmers were quite willing to comply with this request and acknowledged their appreciation that the serious condition of things existing had been pointed out to them.

At a later date, from the farms where diseased udders had been found, samples of milk were filtered and examined to ascertain if they contained pus. If any was found the dairy cows were examined and the milk filtered on the following day. This process was repeated until the milk at the place of delivery was found to be free.

The number of dairy cows found with tuberculous udders was twenty-four, of which three were found as a result of samples of mixed milk being collected at the places of delivery and forwarded to the Leeds School for examination. The remaining twenty-one were found by clinical observations and confirmed by repeatedly examining the secretions of the udders under the microscope. Wherever possible, post mortem examinations were made.

These twenty-four animals were disposed of as follows :—

Fifteen were totally destroyed ;

One was sold to a butcher at Queensbury ; and

Eight were sold to dealers outside the City and thus lost sight of.

From inspections made, 122 dairy cows have been found to be infected with the germs of tuberculosis in different stages of the disease. In these cases, even if the animal is in a dying condition, we have no powers to act therein unless the udders are affected, and yet these disease-infected animals are allowed to contribute to our milk supply and to furnish food for infants.

These 122 animals were disposed of as follows :—

Eighty-six were destroyed at the Knacker's yard ; and

Thirty-six were sold to dealers outside the City and thus lost sight of.

Visits have been made to many of these dealers and enquiries made in the endeavour to ascertain the ultimate destination of the animals they traffic in, but the information received was calculated to be more misleading than of any real value.

Many of the animals affected with tuberculosis cough up millions of tubercle bacilli, and it has been proved that these bacilli may float about in vapour in the cowshed for at least five hours before coming to rest. During the process of milking these germs may fall on to the milk or milk utensils and thus contaminate the supply. Moreover, during that time a thorough dissemination of germs may take place, not only on the utensils, which may be in the yard, but on every part of the interior of the building, ready to be distributed and set in motion at any moment. They may infect other animals in the same shed or contaminate the milk during the operation of milking. It will thus be seen that it does not follow that tuberculous udders are invariably the cause of tubercle bacilli in the milk supply.

Many farmers know that they are not compelled to give information regarding these diseased cattle, and in many instances deliberately give misleading answers totally opposed to the real facts of the case. The reason is obvious when one learns that a cow thus diseased, if alive, can be sold for £3 to £5, whilst the same animal, if dead, will only realise about 10s. to 25s.

SHOP HOURS ACTS, FACTORY AND WORKSHOP ACT,  
EMPLOYMENT OF CHILDREN ACT.

INSPECTION OF SHOPS, WORKSHOPS,  
BAKEHOUSES, &c.

SHOPS INSPECTED—SHOP HOURS ACT, 1892.

The number of visits and investigations made where young persons are employed was 5532. In 141 shops the employers had failed to exhibit the notice referring to the provisions of the Act and stating the number of hours during which young persons may be employed. Seven of these employers who had previously been cautioned for similar offences were prosecuted, and the remainder cautioned. Twelve young persons were found employed in shops after having been previously on the same day employed in a factory or workshop for the full number of hours permitted by the Factory and Workshops Act. Each of the employers was warned that a repetition of the offence would involve prosecution.

SHOP SEATS ACT, 1899.

Special visits were made to 279 shops where female assistants are employed, and enquiries made as to compliance with the provisions of this Act. In one case it was found that seats were not provided. A warning notice was served upon the employer, with the result that the necessary seats were immediately provided.

SHOP HOURS ACT, 1904—BUTCHERS',HAIRDRESSERS', ANDBOOT AND SHOE DEALERS' CLOSING ORDERS.

Visits have been specially made by day and night after closing hours to butchers', hairdressers', and boot and shoe dealers' shops in connection with the respective closing orders. Four thousand nine hundred and ninety-one observations were made of these shops, and 110 were found open in contravention of the orders. Ninety-nine of these were first offenders, and the occupiers were cautioned. The remainder who had previously been warned, were prosecuted.

EMPLOYMENT OF CHILDREN ACT, 1903.

The Inspectors have again given particular attention to the enforcement of the bye-laws made under this Act for the regulation of the hours of children employed in the City. A large number of visits have been made to shops and other places where children are employed in the early morning, during the day, and at night, in all parts of the City. The provisions of the bye-laws as they relate to the employment of children in various occupations before and after school hours, and as half-timers, have been carefully explained to all persons found to be employing children. The number of offences discovered during the year against the bye-laws was 302, and there were in addition thirteen offences against the general provisions of the Act itself, making a total of 315, as compared with 439 in the previous year, 277 in 1909, 375 in 1908, and 724 in 1907. In thirty cases where the offence was repeated after warnings had been given the employers were prosecuted, and the remaining employers were served with warning notices and supplied with printed copies of the bye-laws.

The following is a summary of the offences committed :—

Children employed for more than 20 hours in a week	16
Children employed after 9 p.m. on Saturdays ..	8
Children employed after 8 p.m. on weekdays ..	58
Children employed as half-timers for more than 30 hours in a week .. .. .	19
Children employed under eleven years of age ..	33
Children employed the whole of the day on Saturday	76
Children employed both mornings and evenings ..	24
Children employed on Sundays .. .. .	7
Children employed during school meal hours ..	39
Children employed during the days in school holidays	1
Children employed after 8 a.m. on week-days ..	10
Children employed after half-time in factories ..	11
Children employed so as to be liable to cause injury to health .. .. .	2
Other offences .. .. .	11
	—
	315

### CHILDREN'S PERFORMANCES.

During the year 129 children were licensed by the magistrates to take part in public entertainments at the various theatres and other places of amusement. Visits were made in each case to see that the conditions of the licence were properly carried out, and that the children were suitably cared for and educated. All the conditions were found to be satisfactory. Visits were also paid to the places of entertainment at times when there were no licenses in operation, and on four occasions children were found to be taking part without having been licensed accordingly. In each case proceedings in the Police Court were instituted and the responsible persons were fined.

WORKSHOPS AND BAKEHOUSES.

The total number of workshops on the registers is now 2359, and of bakehouses 471, as compared with 2282 and 455 respectively last year.

	Workshops.	Bakehouses.
Visits made by the Shop Inspectors ..	2490	744
Visits made by Women Health Visitors ..	685	
Visits made by the Sanitary Inspectors ..	602	
	<hr/>	
Making a total of .. .. .	3777	744

Special attention is paid to the cleanliness, ventilation, air space, closet accommodation, and general sanitary conditions of these places, as required by the Public Health Act and the Factory and Workshop Act.

FAILING TO KEEP LISTS OF OUTWORKERS.

Thirty-five employers who had failed to keep on their premises lists of outworkers employed by them as required by the Factory and Workshop Act, 1901, were cautioned, and in each case the list was immediately provided.

NOTIFICATION OF OUTWORKERS EMPLOYED.

Two hundred and seven employers who had failed to send in on the 1st of February and the 1st of August lists of outworkers employed by them as required by the Factory and Workshop Act, 1901, were warned, and your Committee allowed one month's grace in each case, with the result that 200 lists were duly received within that period. In the remaining seven instances the employers were prosecuted.

OUTWORKERS' PREMISES.

316 visits of inspection were made to outworkers' premises, in the course of which 47 sanitary defects were found to exist. These have since been remedied.

SANITARY DEFECTS IN WORKSHOPS, ETC.

The following is a summary of the sanitary and other defects found by the Shop Inspectors to exist in workshops, workplaces, and bakehouses. With slight exceptions the defects have all been remedied.

Particulars.	No. of Cases.
Workshops without abstract of the Factory and Workshop Act (notified to H.M. Inspector of Factories) .. .. .	82
Dirty bakehouses limewashed and cleansed ..	129
Dirty workshops limewashed and cleansed.. ..	288
Workshops without separate accommodation for the sexes.. .. .	10
Workshops with insufficient closet accommodation..	6
Workshops with foul or defective W.C.'s or Privies..	137
Workshops where additional ventilation was required	49
Workshops overcrowded .. .. .	7
Gas stove without provision for carrying off fumes..	28
Water closet in bakehouse .. .. .	1
Bed in bakehouse .. .. .	1
Baking underground without certificate .. ..	3
Workshop without means of escape in case of fire..	1
Various other nuisances remedied .. .. .	74
Total .. .. .	816

PROSECUTIONS.

The following are the prosecutions undertaken by the Shop Inspectors during the year:—

Under what Act.	Nature of Offence.	No. of Cases.	Penalties.			Costs.		
			£	s.	d.	£	s.	d.
Shop Hours Act, 1892	Failing to affix notice required by the Act .. .. .	7	2	4	0	2	16	0
Shop Hours Act, 1892	Breach of Hairdressers' Closing Order .. .. .	10	6	18	0	3	14	0
Employment of Children Act, 1903 ..	Employing Children after half-time in Factory .. ..	2	0	12	0	0	13	0
Employment of Children Act, 1903, Bye-Laws .. ..	Breach of Bye-Laws .. ..	28	7	2	0	11	1	0
Factory and Workshop Act, 1901 .. ..	Failing to send list of out-workers .. .. .	7	1	9	0	2	6	0
Total ..		55	18	10	0	20	17	0
						18 10 0		
						£39 7 0		

H.M. INSPECTOR OF FACTORIES' COMPLAINTS.

During the year the Factory Inspector, in pursuance of Section 5 of the Factory and Workshop Act, 1901, made 60 complaints to the Town Clerk in writing of matters affecting the sanitary condition of Factories and Workshops in the City. Your Workshop and Sanitary Inspectors dealt with the complaints and caused statutory notices to be served for various breaches of the Act.

At the close of the year the requirements of 8 of the notices had yet to be complied with, but the work was in progress at most of the places affected.

CONCLUSION.

In conclusion, I wish to record my appreciation for the kindly assistance, consideration, and encouragement extended to me by the Chairman, Deputy-Chairman, and members of the Health Committee. I also take the opportunity of thanking the members of the Staff for their willing co-operation and assistance, and more especially I must acknowledge the valuable assistance I have received from my Chief Assistant (Mr. Drake), and my Chief Clerk (Mr. Sutcliffe).

FRANK WHITE,

*Superintendent and Chief Inspector of Nuisances.*