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County Borough



of Halifax.

HEALTH DEPARTMENT.

REPORT

OF THE

Medical Officer of Health,

Together with the Report of the

SANITARY INSPECTOR,

FOR THE

Year ended December 31st, 1905.

Printed by order of the Health Committee.

HALIFAX:

MESSRS. EDWARD MORTIMER, PRINTERS, REGENT STREET.

1906.

Health Committee.

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COUNCILLOR T. S. DODD, *Vice-Chairman.*

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„ J. W. CROSSLAND, J.P.	„ J. WHITAKER, J.P.
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„ H. CLAY.	„ W. SUNDERLAND
„ J. T. DALTON.	„ H. H. SUTCLIFFE.
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Staff of the Health Department.

Medical Officer of Health and Superintendent of the
Borough Fever Hospital.

JAS. T. NEECH, M.D., D.P.H., &c.

Assistant Medical Officer of Health.

J. F. HODGSON, M.D., D.P.H., &c.

Public Analyst.

J. A. DEWHIRST, F.I.C., F.C.S.

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Clerk.

HARRY ASKE.

County Borough of Halifax.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

JAS. T. NEECH, M.D., D.P.H.,

For the Year 1905.

INTRODUCTION.

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

GENTLEMEN,

I have the honour of presenting you with the Thirty-third Annual Report on the Health and Sanitary condition of the Borough. This is the sixth report it has been my duty to compile and place before you. It is made in accordance with the requirements of the Local Government Board.

I regret to have to state that the birthrate of the Borough for the year 1905 is the lowest yet recorded. The fall in the birthrate has been so gradual and persistent, that the cause or causes must be widespread, and I fear deep-rooted and permanent. I consider therefore that improvement in this direction is not likely to be secured. Moreover, what is more serious is that the influences at work are calculated to injuriously affect the nation by undermining its strength and its fibre.

The general deathrate was satisfactory, being only .1 per 1000 above the lowest ever recorded, and the zymotic deathrate was a considerable improvement upon the previous year.

The deathrate of infants under one year of age, though it compares favourably with the large towns generally, shows little or no improvement during the past five years.

A great deal of useful work has been accomplished during the year by the Department, and generally speaking, it has been carried out in an entirely satisfactory manner.

I consider that we need a Destructor to deal with the house refuse, which in my opinion would lead to such economies in many directions, that no extra charge would fall upon the rates.

We also need a lady Health Visitor, to instruct mothers in the art of feeding children. Until such an appointment is made, I fear we cannot expect any material diminution in the mortality of infants.

In conclusion I have to acknowledge the assistance rendered me by Mr. Travis and the Sanitary Inspectors, as well as Mr. Jackson and Mr. C. Carlton, all of whom have rendered me valuable help.

I am,

Gentlemen,

Your obedient Servant,

Jas. J. Keck M.D., D.P.H.

MEDICAL OFFICER OF HEALTH.

TOWN HALL,

HALIFAX,

May 9th, 1906.

STATISTICAL SUMMARY.

	1905.	1904.
	ACRES.	
Area of County Borough ...	13,650	
Rateable Value ...	£493,839	£491,640
Population, estimated to middle of 1905 ...	107,500	107,000
Population, 1901 Census ...	104,936	
Persons per Acre ...	7·8	7·8
Average number of Persons per Inhabited House, 1901 Census ...	4·2	
Average number of Persons per House, 1901 Census ...	4·0	
Birth Rate, 1905 ...	19·2	20·1
„ Average for previous 10 years ...	22·3	22·8
Death Rate, 1905 ...	15·3	15·5
„ Corrected ...	15·05	15·3
„ Average for previous 10 years ...	16·8	17·4
Death Rate for seven principal Zymotic Diseases ...	0·88	1·4
Death Rate, the mean for previous 10 years of Zymotic Diseases ...	1·2	1·3
Death Rate of Infants under 1 year per 1000 Births ...	130	130
Illegitimate Births ...	97	113
Average Age at Death, 1905—Males ...	38·6 years	37·5 years
Average Age at Death, 1905—Females ...	44·1 years	41·2 years
Latitude—North ...	53° 43'	
Longitude—West ...	1° 52'	
Height above Sea Level, feet	625	
Total Rainfall, inches ...	25·94	29·31

Area and Population of the Borough.

Halifax is divided into fifteen Wards, the area and population of which are set out in the following table.

WARDS.	Population Estimated to Middle of 1905.	Acreage.	Persons per Acre.	No. of Houses Built during 1905.
Ovenden ...	7280	531	13·7	10
Akroydon ...	6630	582	11·3	24
North ...	8345	168	49·6	12
Central ...	7835	82	95·5	0
West ...	9285	86	107·9	0
South ...	7690	296	25·9	0
East ...	7010	191	36·7	0
Southowram ...	7530	777	9·6	1
Skircoat ...	9690	513	18·8	60
Copley ...	2970	532	5·5	9
Pellon ...	9420	241	39·0	23
Kingston ...	10460	238	43·9	15
Illingworth ...	7210	4504	1·6	9
Northowram ...	3285	1555	2·1	4
Warley ...	2860	3354	0·8	3
Totals ...	107500	13650	...	170
Average ...	...	...	7·8	...

Marriages.

During the year under review, 1048 marriages were solemnised within the Borough, which gives a marriage rate of 9·7 per 1000, exactly the same as

the rate for 1904, but considerably below the average of the previous five years. The rates during the previous five years were:—1900, 11·2; 1901, 10·5; 1902, 9·8; 1903, 9·5; and 1904, 9·7 respectively. The marriage rate for England and Wales was 15·25 per 1000.

The following table shows where the marriages took place.

In Churches of the Church of England	...	626
In Nonconformist places of worship, and at the Register Office	... ..	422
Total	... ..	1048

Births.

The number of Births registered within the Borough during the year under notice was 2072, or 82 less than were registered during the previous year. Of these, 1030 were males, and 1042 were females, and they give a birthrate of 19·2 per 1000, which is ·9 below that of the previous year, and is the lowest yet recorded. The excess of Births over Deaths was 454.

The birthrate of Halifax has been steadily diminishing, so as that also of the Country generally, but as the following table will show, that of the Borough since 1875 has fallen more quickly than that for England and Wales.

Period.	England and Wales.	Halifax.	Difference.
1875-9	35.3	35.7 +	0.4
1880-4	33.8	30.7 —	3.1
1885-9	31.4	28.0 —	3.4
1890-4	30.7	25.4 —	5.3
1895-9	29.7	23.1 —	6.6
1900-4	28.4	21.5 —	6.9
1905	27.2	19.2 —	8.0

The mean birthrate of 33 of the largest towns for 1905 was 27.6 per 1000, as compared with 28.3 for the year 1904. The birthrate of Halifax was again the lowest of those towns, Bradford coming next with a birthrate of 21 per 1000.

The birthrate of England and Wales for 1905 was 27.2 per 1000.

The following table gives the number of births and birthrates during each quarter of the year.

TABLE SHOWING BIRTHS AND BIRTHRATES
IN EACH QUARTER OF 1905.

Period.	Males.		Females.		Totals.		Birthrate per 1000 living.	
	1905.	1904.	1905.	1904.	1905.	1904.	1905.	1904.
1st Quarter ...	256	238	270	278	526	516	19.5	19.2
2nd " ...	266	299	281	289	547	588	20.3	21.9
3rd " ...	288	271	258	246	546	517	20.3	19.3
4th " ...	220	269	233	264	453	533	16.8	19.9
Whole Years ...	1030	1077	1042	1077	2072	2154	19.2	20.1

The following table gives the birthrates of the different Wards during the past five years.

WARDS.	BIRTH RATES.					
	1901.	1902.	1903	1904.	1905.	Average.
Ovenden ...	22·0	20·7	21·9	21·4	17·5	20·7
Akroydon ...	28·5	28·2	26·0	25·3	27·0	27·0
North ...	27·9	25·2	27·6	22·9	21·2	24·9
Central ...	21·8	20·9	23·8	21·0	20·2	21·5
West ...	18·6	21·0	16·6	17·7	14·6	17·7
South ...	18·2	15·3	17·2	15·4	13·5	15·9
East ...	15·1	15·5	15·9	14·9	14·6	15·2
Southowram ...	27·0	28·9	23·4	25·1	23·2	25·5
Skircoat ...	21·1	17·9	22·3	22·3	21·2	20·9
Copley ...	23·7	14·0	13·2	14·6	21·5	17·4
Pellon ...	23·7	20·0	20·6	18·6	18·7	20·3
Kingston ...	21·4	17·5	18·9	16·9	17·3	18·4
Illingworth ...	21·3	20·2	21·9	19·3	17·8	20·1
Northowram ...	23·8	29·0	21·4	29·0	27·3	26·1
Warley ...	21·2	18·2	21·0	20·3	22·3	20·6

In accordance with my usual custom, I sent a circular to the caretakers of all the cemeteries and burial grounds in the Borough, asking for the number of stillborn children that were interred during the year. I had replies from all of them, and the following table is the result thereof.

Name of Burial Ground.	Number of Still-born Children Buried therein.	
	1905.	1904.
Moor End Chapel...	0	0
Nursery Lane Wesleyan ...	1	0
St. George's, Ovenden ...	3	3
Providence Chapel, Ovenden ...	0	1
Illingworth Church ...	4	7
Christ Church, Mount Pellon ...	11	11
Illingworth Wesleyan Chapel ...	2	0
Mount Zion, Ovenden ...	1	0
Borough Cemetery ...	26	41
Wesleyan Chapel, Northowram ...	0	0
All Saints' Church ...	8	5
Heywood Cemetery ...	2	8
Bradshaw Church ...	0	0
Mount Tabor Burial Ground...	0	0
King Cross Wesleyan ...	11	14
St. Paul's Church, King Cross ...	8	5
All Souls' Cemetery ...	16	12
Warley Church ...	1	2
Wesleyan Chapel, Luddenden ...	0	0
Lister Lane Cemetery ...	7	12
St. Thomas' Church ...	12	0
Totals ...	113	121

From the above table it will be seen that 113 stillborn children were buried during the year, compared with 121 during the previous year. The number buried during 1901 was 108; 1902, 86; and 1903, 118 respectively.

Deaths.

During the year 1905 there were 1651 deaths registered within the Borough, of which 75 did not belong to the district, also there occurred 42 deaths outside the Borough, among persons belonging thereto, so that excluding the former, and including the latter, the corrected number of deaths for the year

was 1618. Of the latter number 825 were males, and 793 were females. This gives a deathrate for the year of 15 per 1000, which is $\cdot 3$ below that of the previous year, but $\cdot 1$ above the rate for 1903, which was the lowest ever recorded in the Borough.

The deathrate for England and Wales for 1905 was 15·2 per 1000. The average for the 76 great towns was 15·7 per 1000, and of the other Yorkshire great towns as follows:—Leeds, 15·3; Sheffield, 17; Bradford, 15·1; Hull, 16; and Huddersfield, 16·9 respectively.

The following table gives the average deathrates of the Borough in quinquennial periods from 1876 to the present time. It shows that the average deathrate, taken in periods as below, has fallen 8·17 per 1000 during the past 29 years.

Period.	Deathrate.
1876-80	23·5
1881-5	21·1
1886-90	21·2
1891-5	17·9
1896-00	17·5
1901-5	15·3

The next table gives the mortality of the different wards for the year under notice, and serves to compare the various deathrates thereof.

WARDS.	Population.	Acreage.	Persons per Acre.	Total Deaths.	Death- rate per 1000.	Mortality per 1000 living.		
						Zy- moties.	Phthisis.	Other Respi- ratory Diseases.
Ovenden ...	7280	531	13.7	124	17.0	1.9	1.6	2.1
Akroydon ...	6630	582	11.3	117	17.6	0.6	0.6	3.3
North ...	8345	168	49.6	148	17.7	1.3	1.3	2.1
Central ...	7835	82	95.5	135	17.2	0.7	1.0	4.5
West ...	9285	86	107.9	131	14.1	0.7	0.9	2.9
South ...	7690	296	25.9	105	13.6	0.9	0.7	1.6
East ...	7010	191	36.7	136	19.4	0.8	2.5	3.4
Southowram	7530	777	9.6	109	14.4	1.8	1.3	1.5
Skircoat	9690	513	18.8	136	14.0	0.5	1.2	2.6
Copley ...	2970	532	5.5	44	14.8	2.0	1.6	3.3
Pellon ...	9420	241	39.0	113	11.9	0.5	0.8	2.5
Kingston ..	10460	238	43.9	108	10.3	0.3	1.1	1.9
Illingworth	7210	4504	1.6	113	15.6	0.4	1.5	2.9
Northowram	3285	1555	2.1	53	16.1	1.8	1.2	2.4
Warley ...	2860	3354	0.8	46	16.0	0.3	1.6	3.1
Totals ...	107500	13650	7.8	1618	15.0	0.8	1.2	2.6

The following table shows the total number of deaths of each sex which have occurred within the Borough, the total ages lived, and the average age at death during the past ten years.

MALES.				FEMALES.			
	Deaths.	Total Years.	Average Ages.		Deaths.	Total Years.	Average Ages.
0-1	169	169	...	0-1	102	102	...
1-5	66	147	2·2	1-5	61	144	2·3
5-15	31	270	8·7	5-15	27	222	8·2
15-25	31	615	19·8	15-25	40	800	20·0
25-65	329	16155	49·1	25-65	316	15304	48·4
65 and upwards	199	14530	73·0	65 and upwards	247	18426	74·6
Total... 1905.	825	31886	38·6	Total... 1905.	793	34998	44·1
1905	Average		38·6	1905	Average		44·1
1904	"		37·5	1904	"		41·2
1903	"		40·0	1903	"		43·3
1902	"		36·6	1902	"		40·2
1901	"		36·2	1901	"		40·1
1900	"		38·3	1900	"		41·2
1899	"		35·1	1899	"		38·4
1898	"		34·4	1898	"		38·2
1897	"		35·3	1897	"		37·9
1896	"		35·5	1896	"		38·4

From the above table it will be observed that the average age at death has risen during the year under notice, compared with the remarkable lowering which took place in the average age at death during the previous year.

Zymotic Deathrate.

During the year under review 95 deaths resulted from the seven principal zymotic diseases, which gives a deathrate of .88 per 1000 compared with 1.4 during the previous year. Halifax usually has a lower zymotic deathrate than any of the 33 great towns of England and Wales, and although the deathrate for the year under notice is considerably lower than that of the previous year, yet one of the above great towns has this year a lower rate than Halifax, viz. Brighton, the zymotic deathrate for which during 1905 was only .54 per 1000.

According to the Registrar General's returns, the zymotic deathrate of the other Yorkshire great towns was as follows:—Leeds, 1.59; Sheffield, 3.2; Bradford, 1.43; Hull, 2.37; and Huddersfield, 1.1 respectively.

The following table gives the average zymotic deathrate of England and Wales, with which that of Halifax favourably compares.

	DEATHRATE FROM							
	Small-pox.	Measles	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Zymotic Death-rate.
England and Wales...	0.00	0.32	0.11	0.16	0.25	0.09	0.59	1.52
76 Great Towns ...	0.00	0.39	0.13	0.16	0.29	0.08	0.83	1.88
141 Smaller Towns ...	0.00	0.31	0.11	0.15	0.23	0.13	0.57	1.50
England and Wales, less the 217 towns ...	0.00	0.24	0.09	0.15	0.20	0.09	0.32	1.09
HALIFAX ...	0.00	.009	0.10	0.25	0.29	0.08	0.14	0.88

From the above table it will be observed that the zymotic deathrate of Halifax is not only below that of England and Wales, the great and smaller towns, but also that of the Country generally.

The following table shows the distribution of the deaths from the chief zymotic diseases among the wards of the Borough.

WARDS.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Zymotic Death-rate per 1000.
Ovenden	4	7	...	1	1.6
Akroydon	1	1	1	...	1	0.6
North	5	...	6	1.3
Central	1	1	1	2	1	0.7
West	4	3	...	...	0.7
South	1	1	2	1	2	0.9
East	1	3	2	...	0.8
Southowram	1	...	6	2	1	3	1.7
Skircoat	1	3	1	...	...	0.5
Copley	3	1	...	1	...	1.6
Pellon	1	1	2	...	1	0.5
Kingston	1	3	...	...	0.3
Illingworth	1	2	...	...	...	0.4
Northowram	2	1	2	1	...	1.8
Warley	1	...	0.3
Totals	1	11	27	32	9	15	Av'ge 0.8

The following table gives the average zymotic deathrate of the Borough during the past 29 years, and shows that there has been a gradual and satisfactory fall in that deathrate.

Period.	Deathrate.
1877-81	2.50
1882-6	1.55
1887-91	1.43
1892-6	1.33
1897-01	1.40
1902-5	0.97

Infantile Mortality.

During the year under notice 271 infants under 1 year of age died in the Borough, eleven less than occurred during the previous year. This gives a mortality of 130 deaths to 1000 births registered, exactly the same mortality as for the previous year, although eleven fewer infants died. This arises from the fact that the birthrate for 1905 was below that of the previous year.

The following table gives the number of births, the birthrates, the number of deaths of infants under one year of age in each ward, and the mortality per 1000 births.

WARDS.	Number of Births.	Birthrates.	Number of Deaths under 1 year.	Mortality per 1000 Births.
Ovenden ...	128	17.5	17	132
Akroydon ...	179	27.0	30	167
North ...	177	21.2	35	197
Central ...	159	20.2	28	176
West ...	136	14.6	19	139
South ...	104	13.5	12	115
East ...	103	14.6	15	145
Southowram ...	175	23.2	26	148
Skircoat ...	206	21.2	17	82
Copley ...	64	21.5	6	93
Pellon ...	177	18.7	23	129
Kingston ...	181	17.3	13	71
Illingworth ...	129	17.8	11	85
Northowram ...	90	27.3	14	155
Warley ...	64	22.3	5	78
Totals ...	2072	19.2	271	130

The following table shows the causes of death of infants under one year of age.

CAUSE OF DEATH.					Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks
All Causes.	{	Certified	...	...	54	22	18	9
		Uncertified	...	...	2	...	...	...
Common Infectious Diseases.	{	Measles...	...	...	...	...	...	...
		Scarlet Fever...	...	...	...	...	...	...
		Diphtheria, Croup	...	...	...	...	...	...
		Whooping Cough	...	...	...	...	...	...
Diarrhœal Diseases.	{	Diarrhœa, all forms...	...	...	...	1	1	1
		Enteritis (<i>not Tuberculous</i>)	...	...	...	...	...	...
Wasting Diseases.	{	Gastritis, Gastro-intestinal Catarrh	...	...	...	...	1	...
		Premature Birth	...	...	32	10	5	3
		Congenital Defects	...	...	5	...	1	...
		Injury at Birth	...	...	2	2	...	...
		Want of Breast-milk	...	...	...	...	...	...
Tuberculous Diseases.	{	Atrophy, Debility, Marasmus	...	...	5	4	2	3
		Tuberculous Meningitis	...	...	...	...	...	...
		Tuberculous Peritonitis: <i>Tabes</i>	...	...	...	...	...	...
		<i>Mesenterica</i>	...	...	...	...	...	...
		Other Tuberculous Diseases	...	...	...	...	...	...
		Erysipelas	...	...	...	...	...	...
		Syphilis	...	...	...	...	...	...
		Rickets	...	...	...	...	...	...
		Meningitis (<i>not Tuberculous</i>)	...	...	...	...	...	...
		Convulsions	...	...	5	1	4	1
		Bronchitis	...	...	...	1	2	...
		Laryngitis	...	...	...	...	...	...
		Pneumonia	...	...	...	1	...	1
		Suffocation, overlaying	...	...	2	...	...	...
Other Causes	...	...	5	2	2	...		
					56	22	18	9

Total under 1 Month	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths under One Year
103	32	16	18	11	16	8	11	12	9	16	16	268
2	...	...	1	...	...	...	...	...	...	...	...	3
...	...	...	...	...	...	1	...	...	...	...	...	1
...
...	...	1	...	...	...	...	...	...	...	...	...	1
...	...	...	...	2	2	1	1	3	3	2	1	15
3	...	1	1	1	...	...	1	2	1	...	...	10
...	2	3	...	2	...	...	...	...	...	...	1	8
1	2	1	1	...	1	...	...	...	...	...	2	8
50	7	3	2	...	...	...	...	...	...	...	...	62
6	1	1	...	...	...	...	...	...	...	...	...	8
4	...	...	...	...	...	...	...	...	...	...	...	4
...
14	5	3	2	2	1	1	...	...	1	1	...	30
...	...	...	1	...	2	...	1	1	1	1	...	7
...	1	...	1	1	...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	1	1	...	1	...	3
...
...	1	1	...	...	...	...	1	...	...	1	...	4
...	...	...	...	...	...	...	...	...	...	...	1	1
...
11	3	...	2	...	1	1	...	...	1	2	1	22
3	2	1	4	2	2	...	...	2	...	2	2	20
...
2	2	...	3	1	6	2	5	3	2	1	7	34
2	2	...	2	...	...	...	...	...	...	...	...	6
9	4	1	...	...	1	2	1	...	...	5	1	24
105	32	16	19	11	16	8	11	12	9	16	16	271

The following table gives the infant mortality of the different wards of the Borough during the past five years, and also the average birthrate of each ward during the same period.

WARDS.	Deaths under 1 Year to 1000 Births Registered.						Average Birthrate during the past five years.
	1901.	1902.	1903.	1904.	1905.	Average.	
Ovenden ...	103	154	132	90	132	122	20·7
Akroydon ...	149	140	122	162	167	148	27·0
North ...	118	216	126	162	197	163	24·9
Central ...	198	207	123	145	176	189	21·5
West ...	92	117	135	127	139	122	17·7
South ...	79	138	136	117	115	117	15·9
East ...	198	220	214	228	145	201	15·2
Southowram	148	179	193	127	148	159	25·5
Skircoat ...	122	110	90	61	82	93	20·9
Copley ...	57	97	50	46	93	68	17·4
Pellon ...	119	113	72	126	129	111	20·3
Kingston ...	105	138	126	152	71	118	18·4
Illingworth	93	97	101	158	85	106	20·1
Northowram	115	84	71	136	155	112	26·1
Warley ...	83	76	116	69	78	84	20·6

From the above table it will be seen that the average infantile mortality for East Ward is still the highest.

The next table shows the number of deaths from some of the chief infantile diseases per 1000 births, during the past two years, and the rate per cent. of the total deaths at all ages.

DISEASES	Total Deaths.		Rate per 1000 Births.		Rate per cent. of Total Deaths at all ages.	
	1905.	1904.	1905.	1904.	1905.	1904.
From all causes ...	271	282	130·7	130·9	16·7	17·1
Respiratory Diseases ...	52	61	25·0	28·3	3·2	3·7
Premature Birth ...	62	59	29·9	27·3	3·8	3·5
Diarrhoea ...	10	22	4·8	10·2	0·6	1·3
Whooping Cough ...	15	4	7·2	1·8	0·9	·2
Convulsions ...	22	22	10·6	10·2	1·3	1·3
Scrofula, Tuberculosis	15	10	7·2	4·6	0·9	·6
Measles ...	1	16	0·4	7·4	0·0	·9

The following table serves to compare the infant mortality of England and Wales, the great towns, &c., with that of Halifax.

	Deaths under 1 year per 1000 Births.
England and Wales ...	128
76 Great Towns ...	140
141 Smaller Towns ...	132
England and Wales, less the 217 Towns ...	113
Halifax ...	130

The average infant mortality for England and Wales during the past year is the lowest on record; and, as will be seen, is slightly below that of Halifax, while the average for the great towns, and also the smaller towns is above that of this Borough.

The infant deathrate varies considerably in different parts of the country, and in many places is excessively high. Attention has been drawn to this question, and great efforts are now being put forth throughout the Kingdom, with the object of bringing about a reduction in this mortality. It is hoped that these efforts will meet with success, because there is no doubt that a very large number of these deaths are preventable; for, while the general deathrate of the country during the past 30 years has fallen considerably, the average infantile mortality remains almost the same as it was 30 years ago. This is certainly a serious question, especially in view of the gradual fall in the birthrate generally, and is undoubtedly a weak spot, if, even if it be not considered a blot, in the sanitary administration of the country.

The infant mortality of the other great towns of Yorkshire was as follows:—Leeds, 152; Sheffield, 167; Bradford, 144; Hull, 153; and Huddersfield, 119 deaths per 1,000 births respectively.

The following table gives the average infant mortality of the Borough in quinquennial periods from 1875 to the present time. It shows the fall in that mortality, and compares it with that of England and Wales.

Period.	Halifax.	England and Wales.
1875-9	173	145
1880-4	161	141
1885-9	158	142
1890-4	163	148
1895-9	154	157
1900-4	132	143
1905	130	128

From the above table it will be observed that the infantile mortality of Halifax has gradually fallen during the past 30 years, while the average for England and Wales remains about the same, except that for the year under notice, which is slightly below that of this Borough.

The following table gives the average infant mortality of the 27 largest towns of the country during the past 5 years, and as will be seen from the averages, 3 of those towns have a slightly lower infantile mortality than Halifax.

27 LARGE TOWNS.	Deaths under 1 year to 1,000 Births Registered.					
	1901.	1902.	1903.	1904.	1906.	Average.
Preston ...	216	188	161	183	153	180
Salford ...	204	155	166	193	150	173
Manchester ...	198	152	168	187	157	172
Sheffield ...	200	149	182	158	167	171
Liverpool...	187	162	159	196	154	171
Birmingham ...	186	156	158	195	155	170
Blackburn ...	193	157	159	191	146	169
Nottingham ...	193	158	164	175	155	169
Norwich ...	186	156	149	179	173	168
Leeds ...	188	159	153	176	152	165
Hull ...	174	137	162	181	153	161
Leicester ...	175	152	161	163	148	159
Sunderland ...	181	152	156	165	143	159
Birkenhead ...	181	148	155	180	127	158
Bolton ...	171	134	152	167	166	158
Oldham ...	172	148	160	155	150	157
Newcastle-on-Ty'e	178	139	165	156	137	155
Bradford ...	168	138	147	166	144	152
Plymouth...	149	154	144	173	136	151
Wolverhampton...	162	133	141	152	136	144
Portsmouth ...	162	151	113	141	133	140
Derby ...	154	124	128	143	151	140
Cardiff ...	147	146	122	144	118	135
Halifax ...	127	143	122	130	130	130
Huddersfield ...	131	137	120	136	119	128
Brighton ...	160	125	110	134	101	126
Bristol ...	130	130	116	133	122	126

Comparison of Ward Deathrates.

The following table serves to compare the under-mentioned deathrates of the different Wards of the Borough for the year 1905.

WARDS.	General Deathrates	Zymotic Deathrates	Respiratory Deathrates	Phthisis Deathrates	Infantile Mortality
Ovenden ...	17·0	1·9	2·1	1·6	132
Akroydon ...	17·6	0·6	3·3	0·6	167
North ...	17·7	1·3	2·1	1·3	197
Central ...	17·2	0·7	4·5	1·0	176
West ...	14·1	0·7	2·9	0·9	139
South ...	13·6	0·9	1·6	0·7	115
East ...	19·4	0·8	3·4	2·5	145
Southowram ...	14·4	1·8	1·5	1·3	148
Skircoat ...	14·0	0·5	2·6	1·2	82
Copley ...	14·8	2·0	3·3	1·6	93
Pellon ...	11·9	0·5	2·5	0·8	129
Kingston ...	10·3	0·3	1·9	1·1	71
Illingworth ..	15·6	0·4	2·9	1·5	85
Northowram ...	16·1	1·8	2·4	1·2	155
Warley ...	16·0	0·3	3·1	1·6	78
Average ...	15·0	0·8	2·6	1·2	130

Notification of Infectious Diseases.

The notification of infectious diseases was made compulsory in Halifax by a local Act in the year 1882, and during the year under notice there was a total of 584 cases reported within the Borough, against a total of 775 during the previous year.

The following table shows the total number of cases of each disease notified during the year, and the distribution of the reported cases among the various Wards of the Borough, as well as Institutions.

WARDS.	Small-pox.	Typhoid Fever.	Scarlet Fever.	Puerperal Fever.	Diphtheria.	Erysipelas.	Total.	Rate percentage of Population.
Ovenden ...	2	...	72	...	12	8	94	1·27
Akroydon ...	...	3	14	...	1	2	20	·30
North ...	...	...	20	...	2	3	25	·29
Central ...	9	5	15	...	3	1	33	·42
West ...	15	3	10	...	7	1	36	·38
South ...	1	1	18	...	6	2	28	·36
East ...	7	3	10	1	2	1	24	34
Southowram ...	...	6	17	3	9	9	44	58
Skircoat ...	3	8	11	...	13	7	42	·43
Pellon ...	7	4	25	1	7	6	50	·53
Kingston ...	2	4	22	...	9	1	38	·36
Illingworth ...	2	6	24	...	7	7	46	·63
Copley ...	...	1	15	1	6	1	24	·80
Northowram ...	...	3	61	...	3	4	71	2·16
Warley ...	1	3	4	..	...	1	9	·31
Total, 1905 ...	49	50	338	6	87	54	584	·54

PUBLIC INSTITUTIONS (which are included in the above).

Royal Infirmary ...	...	4	1	...	2	...	...	...
Poor Law Hospital ...	...	1	...	...	...	...	6	...

Lists containing the names and addresses of those notified during each week, were sent to the public libraries throughout the year.

The following table gives the number of cases notified each month during 1905.

MONTH.		Small-pox.	Typhoid Fever.	Scarlet Fever.	Puerperal Fever.	Diphtheria.	Erysipelas.	Total.
January	...	34	2	28	...	9	7	80
February	...	...	3	17	...	3	3	26
March	...	2	5	22	1	5	3	38
April	...	9	4	42	...	2	4	61
May	...	4	...	18	1	5	3	31
June	...	...	...	15	...	10	3	28
July	...	...	5	9	1	12	8	35
August	...	...	6	20	...	6	...	32
September	...	...	3	37	...	6	...	46
October	...	...	8	50	1	7	5	71
November	...	...	7	34	...	11	12	64
December	...	...	7	46	2	11	6	72
Totals	...	49	50	338	6	87	54	584

The next table shows the number of cases of each disease notified yearly, since notification became compulsory, and the rate per cent. which the total number reported bears to the population of the Borough.

YEAR	Small-pox	Cholera	Typhus Fever	Enteric Fever	Scarlet Fever	Continued Fever	Puerperal Fever	Relapsed Fever	Diphtheria	Erysipelas	Chicken-pox	Membranous Croup	Total	Rate percent- age of population
1883	2 ...		2	108	158	43	2	1	14 ...		...	...	330	·43
1884	1 ...		1	69	269	24	4	4	13 ...		...	...	385	·50
1885	7 ...		1	56	214	22	1	...	25 ...		...	...	326	42
1886	3 1		...	57	124	7	5	...	59 ...		...	...	256	·32
1887	1 ...		1	66	727	8	7	...	26 ...		...	...	836	1·05
1888	1 ...		1	36	440	16	1	...	29 ...		...	...	524	·65
1889	2 ...		...	94	153	18	1	3	31 ...		...	...	302	·37
1890	... ..		...	67	328	8	8	1	62 ...		...	...	474	·58
1891	... 1		...	99	429	14	5	2	23 ...		...	...	573	·68
1892	159 ...		1	56	256	9	4	2	71 ...		...	...	558	·66
1893	346 5		...	69	150	5	6	...	57 ...		...	...	638	·69
1894	16 ...		...	52	114	3	6	...	43 ...		...	...	234	·25
1895	... ..		...	58	52	3	4	...	29 ...		...	...	146	·15
1896	... ..		...	105	44	2	4	...	37 ...		...	...	192	·20
1897	... ..		...	78	476	1	8	...	67 ...		...	...	630	·66
1898	... ..		...	79	626	1	9	...	23 ...		...	...	738	·76
1899	... ..		...	92	762	2	3	...	58 ...		...	...	917	·93
1900	2 ...		5	79	330	1	4	3	41 1	...	...	...	466	·46
1901	3 ...		...	67	736	...	1	...	61 15	...	...	...	883	·83
1902	1 ...		...	65	452	1	3	...	37 27	...	...	...	586	·55
1903	130 ...		...	61	320	2	1	...	50 81	328	1	...	974	·91
1904	80 ...		...	47	486	...	9	...	80 73	...	...	...	775	·72
1905	49 ...		...	50	338	...	6	...	87 54	...	...	...	584	·54

Causes of Death.

The following table gives the causes of death in the Borough (excluding those not belonging thereto), during the year 1905.

CAUSES OF DEATH.					Number.
Small-pox	...	...	...	...	0
Measles	...	...	...	...	1
Scarlet Fever	...	...	...	...	11
Whooping-cough	...	...	...	...	32
Diphtheria and Membranous Croup	...	...	...	...	27
Enteric Fever	...	...	...	...	9
Epidemic Influenza...	...	...	...	...	18
Diarrhœa	...	...	...	...	15
Enteritis	...	...	...	...	12
Puerperal Fever	...	...	...	...	4
Erysipelas	...	...	...	...	2
Other Septic Diseases	...	...	...	...	2
Phthisis	...	...	...	...	135
Other Tubercular Diseases	...	...	...	...	58
Cancer, Malignant Diseases	...	...	...	...	105
Bronchitis	...	...	...	...	153
Pneumonia	...	...	...	...	130
Pleurisy	...	...	...	...	3
Other Diseases of Respiratory Organs	...	...	...	...	13
Alcoholism, Cirrhosis of Liver	...	...	...	...	13
Venereal Diseases	...	...	...	...	3
Premature Birth	...	...	...	...	62
Diseases and Accidents of Parturition	...	...	...	...	14
Heart Diseases	...	...	...	...	176
Accidents	...	...	...	...	28
Suicides	...	...	...	...	13
Brain and Nervous System	...	...	...	...	176
Digestive System	...	...	...	...	50
Urinary System	...	...	...	...	60
Convulsions	...	...	...	...	35
Old Age	...	...	...	...	109
Congenital Malformation	...	...	...	...	13
All other causes	...	...	...	...	136
All causes	...	...	...	...	1618

Smallpox.

This disease was present in the Borough during the first five months of the year. In all, 49 cases were notified, 34 in January, 2 in March, 9 in April, and 4 in May.

Several cases of smallpox broke out in Halifax during the latter end of 1904, and in the majority of cases, each outbreak was traced to a fresh importation of the infection from outside the Borough. This was not to be wondered at, considering the prevalence of the disease in neighbouring districts, in short, considering the close inter-communication which occurs between Halifax and those districts, it is fortunate the disease did not break out more frequently in the Borough, than actually was the case.

On or about December 13th, 1904, a letter was received at Bell Hall Post Office, from a smallpox hospital outside the Borough, and on the day before Christmas, a patient was removed therefrom suffering from the disease. Out of this case arose six of those reported during the month of January last.

On January 9th, a case of smallpox was reported at 55, Wadsworth Street, the origin of which could not be definitely traced. The patient worked amongst furniture, and whether he came in contact with the disease in that way, it was impossible to say. His eruption was in the early pustular stage before his removal, and he infected the other five persons of his household.

On January 17th, two persons were found at 45, Horne Street, who had almost recovered from the disease, and as a result, three further cases occurred among the members of this family, as well as three cases among persons who had visited this house.

On January 8th, a case was reported in Baker Street, and on the 9th, one in Oates Street, both in the vicinity of Horne Street.

It is possible, therefore, that these persons were infected in Horne Street, or caught the infection from the same source as the persons living in Horne Street. The source of infection in the latter case I was unable to trace.

Five more cases arose out of that in Baker Street, and three others from that in Oates Street.

Out of the 34 cases which were reported during the month of January, 31 originated from the sources above referred to, and 21 of the latter number occurred in four houses. This being so, the outbreak was really not so alarming as it appeared, and the occurrence of so many cases, was due to the original cases being either overlooked, or their true nature not recognised until in an advanced stage. The three remaining cases reported during January, contracted the disease from previous cases in the Borough reported during the month of December.

On April 1st, a mild and unrecognised case of the disease was discovered in Horton Street, and on the 17th, another in Pellon Lane. These two cases infected eight others, which, with two cases reported in March, of which no trace could be obtained, account for the remaining cases reported during the year.

The steps taken to combat the outbreak were as follows:—Immediately a case came to the knowledge of the Department, it was removed to hospital, the remaining members of the family were detained in the house, until the house and all its contents had been disinfected, including the inmates and their clothing. The Vaccination Officer was informed of each outbreak, and the public vaccinator visited the vicinity, and offered vaccination to all. The names of all contacts possible were obtained, and they were kept under observation for 16 days.

A house to house visitation was made in a large area surrounding each infected house, by the District Inspectors, who at the same time left a handbill, of which the following is a copy:—

COUNTY BOROUGH OF HALIFAX.

SMALL-POX.

NOTICE.

Small-Pox having broken out in Halifax, and as Vaccination is the only preventative known, it is strongly advised that all should protect themselves by being Vaccinated or Re-Vaccinated as the case may be.

Vaccination may be performed by your own Medical Attendant, or by the Public Vaccinator, Dr. Drury, of Ferguson Street.

In coping with an outbreak of Small-Pox, it is highly essential that the Medical Officer of Health should have early information of the existence of cases of this disease, because it is not so infectious in the early stages. The

very mild cases are always a source of danger, because in consequence of their mild character they are liable to be overlooked, and spread the disease.

Small-Pox always begins, however mild the case may be, with pains in the back and head, and shivering, then in the course of a day or two, a rash appears, sometimes having the character of measles, but usually consisting of small red spots, appearing first on the face and wrists. The spots enlarge, and in a few days become vesicles containing a watery fluid, when the disease is very infectious.

It is hoped the Public will assist and co-operate with the Health Authority in every possible way, by calling in Medical Advice where any of the above symptoms occur, or giving early information thereof to the Medical Officer of Health. Whenever red spots, even only two or three in number appear on the forehead or wrists, they should arouse suspicion, and the case be reported.

JNO. F. COE, J.P., Chairman of Health Committee.

JAS. T. NEECH, M.D., Medical Officer of Health.

January, 1905.

In consequence of the somewhat sudden increase in the number of cases reported during the month of January, and occurring as they did in several different parts of the Borough, I became somewhat afraid that a more serious epidemic might occur; consequently, I obtained the consent of the Health Committee, and three additional temporary Inspectors were appointed. These Inspectors made a house to house visitation throughout the greater part of the densely populated portions of the Borough, including those districts from which cases of Smallpox were removed.

The result of the enquiries made during those house to house visitations, assured me that there was no danger of any serious extension of the epidemic.

The majority of the above cases were of a very mild type, and no death resulted therefrom. The only death from Small-Pox which occurred in the hospital during the year, being a person belonging to an outside district.

The following table gives the type of the cases as to severity, and shows the relation to vaccination.

Type.	Total No. of Cases.	Unvaccinated	Vaccinated with number of Cicatrices.			
			1	2	3	4
Discrete ...	39	14	2	6	15	2
Semi Confluent	7	7	...	...	...	...
Confluent ...	3	2	1	...	...	...
Total ...	49	23	3	6	15	2

From the foregoing table it will be observed that nearly half the above cases were unvaccinated, but while that is so, only 35 per cent. of the mild cases were unvaccinated, whereas of the severer type, 90 per cent. had not successfully undergone that operation.

Scarlet Fever.

This disease was prevalent in the Borough more or less throughout the year, but at no time did it assume a serious epidemic form.

During the Summer months, June, July, and August, comparatively few cases were reported, but the disease increased during September, and continued much more prevalent to the end of the year.

In all, 338 cases were reported, against 486 during the previous year.

The utility of our present methods of isolating cases of scarlet fever, so far as the prevention of the disease is concerned, has recently been seriously questioned. That hospital isolation has not had the effect of reducing the incidence of this disease is shown by the following table, in calculating which, periods of five years have been taken, so as to get a fair average, and so eliminate the fluctuations of special epidemic years, which will always occur from time to time.

Period	Average No. of Cases of Scarlet Fever per annum notified	Average Population	Average attack rate per 1000 population	Average case Mortality per cent. attacked
1885-9	331	79,207	4.1	6.1
1890-4	255	86,808	2.9	5.8
1895-9	392	95,755	4.0	3.4
1900-4	465	105,211	4.4	3.4
1905	338	107,500	3.1	3.2

From the above table it is evident that in taking periods as above, scarlet fever is now rather more prevalent in Halifax than it was 20 years ago. The question then suggests itself as to whether the isolation of cases of scarlet fever is worth the money which it costs the ratepayers. There is no doubt however that in large communities, an isolation hospital for certain cases of scarlet fever is absolutely necessary, for instance, cases which break out at farm houses or other places from which milk is supplied, cases which break out in places of business, must be

removed for isolation, and possibly also those cases which break out in overcrowded houses; but over and above these, I certainly doubt whether the isolation of scarlet fever is worth while.

The following table gives the number of cases notified during each month of the year.

Scarlet Fever	January	February	March	April	May	June	July	August	September	October	November	December	Total
Cases notified ...	28	17	22	42	18	15	9	20	37	50	34	46	338

Of the above 338 cases, 11 died, which gives a deathrate of $\cdot 10$ per 1,000, and a case mortality of $3\cdot 2$ per cent. of those attacked. During the previous year the deathrate was $\cdot 21$, and the case mortality $4\cdot 7$ per cent.

Fever.

During the year, no cases of typhus or continued fever were reported, so that all those cases notified were of typhoid or enteric fever. Of the latter, 50 cases were reported, against 47 during the previous year.

This disease was prevalent in the Borough almost throughout the year, May and June being the only months during which no cases cropped up.

The following table gives the sanitary conditions connected with, and the probable or assigned causes of the notified cases of typhoid fever.

Disease	Number of Cases reported	Drainage		Ventilation		Old Middens	Goux Closets	Water Closets	Probable or assigned cause				
		Good	Bad	Good	Bad				No trace	From Bad Drains	From a previous case in same house.	From a cold	Contracted away from home
Typhoid Fever	50	42	8	50	...	4	36	10	42	2	2	1	3

Of the above 50 cases reported, 9 ended fatally, which gives a deathrate of .08 per 1,000, and a case mortality of 18 per cent. of those notified. During the previous year the deathrate was .43 per 1,000, and a case mortality of 21 per cent. respectively.

Diphtheria.

If the notifications of this affection are to be relied upon, this disease was present in the Borough throughout the year.

The total number notified was 87, against 80 during the previous year. I am of opinion that this increase of Diphtheria in our midst is apparent rather than real. It is almost impossible to correctly diagnose true diphtheria from certain other forms of malignant sore throat, except by the bacteriological method. I have been led to form this opinion from a large

number of bacteriological examinations made of secretions from the throat. I believe also that not only do many of these sore throats simulate diphtheria, but they are also more fatal than that disease.

The following table gives the sanitary conditions connected with, and the probable or assigned causes of the notified cases of diphtheria.

Disease	Number of Cases reported	Drainage		Ventilation		Old Middens	Goux Closets	Water Closets	Probable or assigned cause						
		Good	Bad	Good	Bad				No Trace	From bad drains	From a previous case in same house	From a cold	From other cases in the neighbourhood	Contracted away from home	Contracted at School
Diphtheria	87	77	10	87	...	1	75	11	70	4	6	3	1	2	1

Of the above 87 cases, 27 died, which gives a deathrate of .25 per 1,000, and a case mortality of 31.0 per cent. During the previous year the death-rate was .15 per 1,000, and the case mortality 21 per cent. respectively.

Erysipelas.

During the year 54 cases of Erysipelas were reported, of which two died. The number reported during the previous year was 73, none of which died.

Measles.

The Borough was practically free from this disease throughout the year. A few cases however occurred about September, and one death resulted therefrom, against 44 during the previous year. This gives a deathrate of .009 per 1,000, against 0.41 during the previous year.

Whooping Cough.

This disease was present in the Borough during the first nine months of the year, its period of greatest prevalence being during January and February. Although a considerable number of cases occurred, the disease at no time, however, assumed a serious epidemic form.

An epidemic of Whooping Cough is very difficult to control; but although that is the case, much more might be done by parents in the way of isolating those sick from the disease, if they would only take the trouble. This disease like Measles is exceptionally fatal to the very young, and increasing years confer increasing immunity. That being the case, the importance of protecting the young from infection becomes at once apparent. If the infection once gains admission to the babies' classes in the infants' school, the disease spreads rapidly among children attending such classes. The disease caused 32 deaths during the year, 31 of which were children under the age of five years. How many of these lives might have been saved, had children of such tender years not been allowed to attend our schools I cannot say, but I am certainly strongly

of opinion that the babies' classes in our day-schools are an important factor in causing the spread of this disease, as well as Measles, among the very young.

The above deaths give a deathrate for the year of 0·29, against a deathrate of 0·17 during the previous year.

Diarrhœa.

There were 15 deaths registered in the Borough during the year from those causes which are classified under Diarrhœa, against 29 during the previous year. Of the above deaths, ten occurred during the month of September, and three in October, so that the four-foot earth thermometer does not appear to be very closely associated therewith, because it reached 56° on July 21st, and only remained there until August 5th, and the mean reading of that thermometer for the month of September was 54°, while the mean reading for October was only 50°.

The above 15 deaths give a deathrate for the year of 0·14, against a deathrate of 0·27 during the previous year.

The following table serves to compare the diarrhœa deathrate with the average of other towns and with England and Wales.

	Deathrate per 1000.
England and Wales	0·59
76 Great Towns	0·83
141 Smaller Towns	0·57
England and Wales, less the 217 Towns	0·32
Halifax	0·14

It will be seen from the above table that the deathrate from diarrhœa in Halifax is not only considerably below the great and small towns of England and Wales, but also is less than half that of what may be called rural England.

It has been frequently asserted that diarrhœa is often due to the improper feeding of infants and children. I have no reason to think that children are more scientifically fed in Halifax than in other parts of the country, consequently while improper feeding may have something to do with the cause of diarrhœa, yet there must be other factors intimately associated with the origin of this complaint. I have no doubt that nature favours Halifax in this direction, and that the high situation of the town tends to give tone to the system, and prevents to some extent the enervation and relaxation which must be the result of higher temperatures in places having lower altitudes. I also think that the improved sanitary condition of the town is an important factor in reducing the deathrate from this cause.

Influenza.

This disease accounted for 18 deaths in the Borough during the year, against 19 for the previous year. These deaths chiefly occurred in the first quarter. During the previous five years, the annual deaths from this cause numbered 19, 10, 9, 9, and 56 respectively.

Respiratory Diseases.

Pneumonia, Bronchitis, and Pleurisy are the diseases included under the above heading, and they caused 286 deaths during the year, viz.:—Bronchitis,

153; Pneumonia, 130; and Pleurisy, 3. The above number gives a deathrate of 2·6 per 1,000, exactly the same as for the previous year, and with it, the lowest on record.

The respiratory deaths in the Borough for the previous five years were 2·6, 2·8, 3·1, 3·0, and 3·7 per 1,000 respectively.

It is satisfactory to note that these figures show a gradual and marked fall in the deathrate from these diseases.

The following table gives the number of deaths from respiratory disease during each month of the year under notice and the three previous years, also the average of these years.

Deaths from Respiratory Diseases	January	February	March	April	May	June	July	August	September	October	November	December	Total
1905	48	26	31	24	24	16	7	8	9	29	31	33	286
1904	38	28	25	28	18	20	13	10	13	23	26	43	285
1903	39	29	30	34	29	18	16	15	14	21	24	40	309
1902	35	46	38	30	22	23	21	16	15	15	30	37	329
Average ...	40	32	31	29	23	19	14	14	12	22	28	38	...

Phthisis.

During the year there were registered 135 deaths from consumption of the Lungs, against 134 and 133 during the previous two years. This gives a deathrate of 1·25 per 1,000, which is the same as that for those years.

There also occurred 58 deaths from other forms of tubercular disease, which, added to the 135 deaths from Phthisis, make 193 deaths due to the various forms of tubercular disease. This gives a total deathrate from all tubercular diseases of 1·7 per 1,000, the same as that for the previous year.

The Phthisis deathrate of the country generally has been steadily diminishing, so has also that of Halifax, as the following table will show.

	Average Deathrate from Phthisis
Ten Years - 1881-1890	2·00
Ten Years - 1891-1900	1·50
Five Years - 1901-1905	1·23

Great efforts are now being put forth by various associations and societies throughout the country, to enlighten the public upon the various causes of this disease, and to impress upon them the fact that it is an infectious disease, and one that is preventable.

If this disease is to be stamped out within a reasonable period of time, it seems to me necessary that the attention of the various sanitary authorities of the country must be more forcibly drawn to this important matter, that they may be constrained to put forth greater efforts in combating this terrible disease, which causes more deaths each year than any other single infectious disease, and in many places, including Halifax, more deaths than all the zymotic diseases added together.

Vast sums of money have been spent up and down the country, in combating Scarlet Fever, and to all appearances that disease is as prevalent as ever. If the same amount of money had been spent in the various methods that are known to be successful in the prevention of this disease, Phthisis would have been much less prevalent than it is to-day, and much greater value for the money spent would have resulted than has been the case in connection with Scarlet Fever.

I am glad to see that the question of the compulsory notification of this disease is making progress and coming to the front, because I am satisfied that that is the first great step which will have to be taken by sanitary authorities if they are to put into operation the necessary preventative measures in a thorough and universal manner.

With our present bacteriological methods, there is now no difficulty in the early diagnosis of the disease, and early diagnosis is even of greater importance in the treatment of the disease, than in the prevention of the same. What we want then now, is compulsory notification, that we may have early intimation of the occurrence of this disease, so that we may be enabled to direct our preventive methods into the proper channels, and extend them sufficiently wide, and bring every possible focus of infection under the influence thereof.

The number of cases registered during the year was 109, of which 63 were males, and 46 were females. In 14 out of the above 109 cases a previous case had occurred within a recent period, in one family 5 previous cases had occurred, and in another, 9.

We have supplied a pocket spittoon, free of charge, to all requiring the same, and when a death, or removal to hospital or elsewhere, of persons suffering from the disease has taken place, disinfection was offered in all cases. During the year 72 houses were disinfected after death, and 4 after removal to hospital. In 28 cases disinfection was refused.

Cancer.

Under the above heading are included the various forms of malignant tumours which affect the human subject, and during the year under notice, 105 deaths were registered as having resulted from these causes, against 91 during the previous year. This gives a deathrate of $\cdot 97$ per 1000.

Though the deathrate is slightly higher than last year, the cancer deathrate of Halifax has not varied very much during the past 13 years, as the following table will show.

Years	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905
Deathrate	$\cdot 8$	$\cdot 7$	$\cdot 8$	$\cdot 8$	$1\cdot 1$	$\cdot 6$	$\cdot 6$	$\cdot 7$	$\cdot 7$	$\cdot 8$	$\cdot 8$	$1\cdot 0$	$\cdot 8$	$\cdot 9$

It appears that nothing definite as to the cause of these affections has yet been established.

Deaths from Violence and Uncertified.

The table which follows gives the number of inquests held during each month of the year, and shows the total number to have been 118.

This table is taken from the report of the Chief Constable, and differs slightly from our figures, because it includes 13 deaths which occurred in the Borough, of persons not belonging thereto.

The 57 deaths certified by the Coroner after inquests, are equal to 3·5 per cent. of the total deaths belonging to the Borough. There also occurred 11 deaths which were neither certified by a registered medical practitioner nor the Coroner. This number is equal to 0·7 per cent, of the total deaths.

The following table gives the percentage for the past five years.

Years	1901	1902	1903	1904	1905
Percentage certified by Coroner ...	2·6	2·9	3·1	2·8	3·5
Percentage uncertified ...	3·4	2·6	1·5	1·0	0·7

This table shows that there has been a marked diminution in the percentage of uncertified deaths.

Inquests in the Borough during the Year.

Verdicts.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Accidental Deaths ...	4	3	1	2	2	1	3	...	4	1	1	2	2	2	1	...	1	1	1	1	3	1	2	1	23	17	
Natural Causes ...	4	1	2	1	2	3	4	2	2	3	3	3	...	...	2	...	2	1	3	7	4	2	4	2	32	25
Suicide by various means ...	...	...	1	...	2	...	1	...	...	...	1	...	1	...	...	1	...	1	1	1	...	2	...	11	2	
Other Verdicts ...	...	...	...	...	...	...	1	...	1	2	1	...	1	...	...	...	1	...	...	...	...	1	...	6	2	
Total	8	4	4	3	6	4	9	2	7	6	6	5	4	2	3	1	5	2	5	11	6	3	9	3	72	46	
"	1905	6	7	4	8	7	5	8	4	5	3	3	2	4	3	6	3	2	5	9	1	7	4	4	65	49	
"	1903	10	6	7	2	6	1	12	5	7	...	1	1	7	2	3	6	4	13	3	8	7	8	5	88	39	
"	1902	8	5	7	4	6	1	3	2	11	5	3	...	5	4	3	4	12	6	4	2	6	7	7	75	45	
"	1901	5	1	8	...	7	2	6	1	4	2	6	1	6	...	5	1	3	4	8	4	6	6	2	70	22	
"	1900	8	2	3	3	4	2	4	...	4	2	5	...	2	3	6	3	6	1	4	3	5	2	5	56	24	
"	1899	4	3	1	3	3	5	7	2	7	1	4	2	11	2	4	...	3	...	4	2	1	...	4	1	53	21
"	1898	5	6	5	2	4	1	6	3	5	5	10	...	5	1	7	2	2	1	1	2	7	2	7	1	64	26
"	1897	5	3	7	1	5	2	3	3	5	4	4	1	3	4	3	...	1	3	7	4	2	8	8	55	34	
"	1896	4	2	3	4	7	5	3	1	3	3	7	1	4	1	6	3	4	1	3	5	...	11	4	60	28	

Sewerage and Drainage.

The sewers throughout the main portion of the Borough are mostly in a good and satisfactory condition, and as a large number of house drains are reconstructed and relaid each year, their condition generally in the Borough has improved.

The sewage outfall works at Salterhebble are not yet completed, but sludge pressing machinery has been added thereto, and contracts let for the construction of filter beds.

Scavenging, Disposal of Night Soil and House Refuse.

The scavenging, cleansing, and watering the streets, is carried out by the Health Committee, and the work during the past year has been satisfactorily done.

The greater part of the night soil of the Borough is dealt with under the "Goux" system, there being 17,661 of these closets in the Borough, and 5,157 water closets, an increase during the year of 233 goux, and 166 water closets respectively.

I again desire to draw the attention of the Committee to the fact that, in my opinion, water closets should be insisted upon for all new houses, as the present "Goux" system is a serious charge upon the rates, and the longer the change to water-carriage is delayed, the greater will be this charge upon the rates.

There are at present 921 privy middens in the Borough, a decrease of 43 during the year, and 484 dry ashpits, against 489 a year ago, a decrease of five during the year.

Water Supply.

The water is delivered to the town at a high pressure, and with a constant supply, but coming as it does chiefly from moorland, it is liable at times to contain an excess of peaty acids.

The water of Ogden reservoir is especially liable to be very acid at certain times of the year, and it has now been treated for several years with chalk and lime, with very satisfactory results.

The following table shows the average acidity of the samples of Ogden water taken monthly, before and after treatment. The acidity is given in terms of sulphuric acid, and in parts per 100,000.

Month	Average Acidity of Sample of Water.	
	Taken from Reservoir	Taken after Treatment and as supplied to the Consumer
January	No estimation	No estimation
February	·63	·21
March	·63	·20
April	·78	·26
May	·78	·16
June	No estimation	No estimation
July	No estimation	No estimation
August	·39	·12
September	No estimation	No estimation
October	·58	·06
November	·82	·08
December	1·20	·12

The following table gives the monthly average acidity of the water in Ogden Reservoir during the past five years.

OGDEN WATER.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Five Years' average	83	93	·96	·73	·75	·64	·65	·65	·68	·81	·87	·90

From the above table it will be observed that the water contains least acid during the summer months, and most during the spring months of February and March.

There is no doubt that the presence of acid in drinking water increases the plumbo-solvent power of the water, although the action of such water on lead is not altogether due to the amount of acid therein, because there appears to be no definite relationship between the amount of acid present in the water, and its plumbo-solvent power. As to the exact nature of this acid, and its mode of origin, there is still some doubt. It has been supposed that the acids are derived from the peat, but even if that is the case, the amount of acid present in the water in the reservoirs bears no relation to the amount of rainfall in that district, as the following table will show, which gives the average rainfall at Ogden during the past five years, and the average acidity in the reservoirs.

Month	Average, 1901-5	
	Rainfall	Acidity
January	3.16	.83
February	3.11	.93
March	3.51	.96
April	2.57	.73
May	2.56	.75
June	1.77	.64
July	2.63	.65
August	4.43	.65
September	2.65	.68
October	4.95	.87
November	4.07	.87
December	3.91	.90

The main portion of the town is supplied from Ramsden Wood Reservoir, into which the storage reservoirs flow. The mixed water in this reservoir has always been found to contain much less acid than that in the Ogden Reservoir, and up to April of the year under notice had never been treated. I recommended the Waterworks Committee to undertake the treatment of this water, and since the month of May of the year under review, lime has been added to the Ramsden Wood water immediately it leaves that reservoir, and before its distribution to the service reservoirs.

The result of this treatment has been the reduction of the acidity of Ramsden Wood water by nearly one half. I consider that even a little more lime would be beneficial, because I should like to see the water supplied to the borough as near neutral as possible, for there is no doubt that the acid present in the water greatly tends to increase its plumbo-solvent properties.

The following table gives the average monthly acidity of samples of water from Ramsden Wood Reservoir, before and after treatment.

Month			Ramsden Wood Reservoir	
			Before treatment	After treatment
January	...	...	·27	Not treated
February	...	...	·25	„
March	...	...	·30	„
April	...	...	·45	„
May	...	...	·45	·23
June	...	...	·48	·25
July	...	...	·35	·22
August	...	...	·19	·14
September	...	...	No estimation	·23
October	...	...	·30	·18
November	...	...	·45	·27
December	...	...	·30	·20

Most of the gathering ground connected with the storage reservoirs is the property of the Corporation, and the Waterworks Committee have taken great care for a number of years past, to protect the same from pollution. There is now no danger whatever in the way of sewage pollution, and in that respect, no town in the Kingdom has a purer water supply. It is of course impossible to prevent the water from taking up peaty acids, coming as it does from the moors; but since the whole of the water is carefully treated, the danger of lead poisoning is reduced to a minimum, if not abolished altogether. No cases of such poisoning have come under my notice during the past year.

Common Lodging-houses.

There are still 16 Common Lodging-houses in the Borough, which are registered to accommodate 821 lodgers.

These houses now require to be re-registered each year in May, under the provisions of a local Act of Parliament, and we have found these powers very beneficial in the way of securing a more speedy abatement of nuisances arising in connection with them.

The supervision of the Common Lodging-houses is under the Police, and they are responsible for the administration of the Bye-laws concerning them.

I am informed by the Chief Constable that there has been no case of overcrowding, and no case for complaint of any kind during the year.

Inspector Archbell also visits these houses occasionally, but in consequence of the absence of smallpox during the past year, they have not been so frequently visited by him, as they were during the previous three years.

Dairies, Cowsheds, and Milkshops.

The inspection of dairies, cowsheds, and milkshops, is carried out by the Meat Inspector, J. T. Millington, and for the Warley and Illingworth district, by District Inspector R. Pickard. During the year also, a number of these were visited by myself. The number at present on the register is as follows.

Cowsheds	...	...	507
Milkshops	...	...	68
Total			575

The total for the previous year was 564 being an increase of 11.

The number of dairy farmers and purveyors of milk on the register is 434, against 421 for the previous year, or an increase of 13.

This does not necessarily mean that there are 13 more milk dealers in the Borough than there were during the previous year, because we found that a good many were carrying on the business without being registered. The attention of these were called to the law on the matter, and they immediately complied therewith by making application, and were placed on the register.

We are endeavouring gradually to bring about an improvement in the condition of the cowsheds in the Borough, and so far as their structural condition is concerned, we are making progress.

Our policy is to enforce the regulations in certain of the worst cowsheds each year. By this means, in the course of a few years, we expect to accomplish a considerable improvement in this direction. In all, 16 were altered and reconstructed during the year, which together with 42 previously reported on, a total of 58 cowsheds have been dealt with in this way since the present regulations came into force.

While an improvement is taking place in the structural condition of the cowsheds, I am afraid that an equal progress is not taking place on the part of the cowkeeper himself in the way of greater cleanliness in connection with the cow, the milker, the cowshed, and the milk vessel. I believe that rather more attention is now being paid to these matters, and the

farmer appears to be rather more anxious than heretofore to obtain information on these points, for their association asked me if I would give a lecture on these subjects to their members. This I did, and a goodly number attended thereat.

That milk should be clean and as free as possible from microbes is highly important to the consumer, and especially children. It seems to me that we shall not secure any marked progress towards an ideal milk supply, until the public generally demand it.

The Inspectors between them paid 846 visits to the cowsheds, as well as 131 visits to the various milkshops in the Borough.

The following table gives the number of defects found, together with the number remedied.

Nature of Defects	Number Reported	Number Remedied
Want of Light	10	13
Do. Airspace	9	15
Do. Ventilation	11	16
Made-up and Defective Drainage ...	32	29
Untrapped Drain inside Cowshed ...	13	10
Defective Floors	16	18
Dirty Floors and Stands	7	6
Cowsheds requiring Limewashing ...	17	17
Offensive and Defective Cesspools ...	6	6
Delivery Can unlabelled	1	1
Improper position of middenstead ...	4	2
Pigs kept in Cowshed	7	7
Accumulations of Manure	2	2
Manure Tanks built		3
Totals for 1905	135	145
No of Defects on books Jan. 1st, 1905	211	
Total	346	
Defects still on books Dec. 31st, 1905	201	

As will be seen by the above table, the number of defects standing on the books is still large, and only slightly below the corresponding number twelve months ago. This has arisen through the resignation of Inspector J. K. Crawshaw in the middle of the summer months, which is the period of the year during which the greater number of the defects have to be remedied. We were consequently without an Inspector during six weeks, and it takes a new man coming on the scene some time before he is capable of taking up the work, hence the summer had passed before it was possible to get much done. It is expected, however that during the course of the ensuing year, considerable progress will be made in remedying and reducing the number of these defects.

During the year 417 cows were individually examined, against 308 during the previous year, and out of that number, four were found to have diseased udders. The details of these inspections are set out in a table on the following page.

INSPECTION OF CATTLE.

Date of Inspection.	Cattle and Condition.			Condition of Shed	Remarks
	No. of cows Examined	Udders diseased	General Condition		
1905.					
Feb. 7	1	1	Bad	Bad	Sent to Knacker later
" 10	4		Moderate	Moderate	Just commenced keeping cattle
" 16	2		Good	Bad	
Mar. 20	1		Good, but 1 ill	Good	Cow slaughtered same day
" 23	11		1 poor and ill	1 shed moderate & 1 bad	
" 30	8		Good	Moderate	
Apr. 17	10		"	Good	
" "	8		"	"	
" "	7		"	"	
" "	14		"	"	
" "	3		"	"	
" "	10		"	"	
" "	10		"	"	
" 18	4		"	Bad	No regular customers for milk
" "	14		"	Moderate	
" "	2		"	Good	
" 20	17		"	Lairages	No milk sold from here
May 3	4		Moderate	Moderate	1 been killed and destroyed
" 4	16		Good	Good	
" 8	11		"	Moderate	Had sample of poor milk here
" 10	6		Moderate	"	
" 12	1		"	"	
June 22	1		Milk Fever	Bad	Sent to Knacker, June 26th
Oct. 27	14	1	Good	Good	Inflammation of udder, killed next day
Nov. 10	13		Fair	Moderate	
" "	19	1	Moderate	"	Tuberculous calf came from here
" 22	20		Fair	2 good sheds, 1 bad one	
" "	2		Good	Good	
" "	6		"	"	
" "	8		"	"	
" 24	28		"	2 moderate and 1 bad	Insufficient air space
" 28	9		"	Very Fair	
" 30	3		Moderate	Moderate, but dirty	
" "	3		Good	Moderate	Roof of shed too low
" "	5	1	"	"	Cow with Mammitis, recovering, dry
Dec. 1	4		"	"	
" "	14		Fair	1 Good shed, 1 bad	Insufficient air space
" "	6		Good	Moderate	
" 6	9		Fair, but 1 ill	"	Cow probably tuberculous, but udder right
" "	7		Good	2 Bad sheds	
" 7	12		"	Moderate	
" 8	2		Fair	Bad	
" "	3		"	Moderate, Lairages	
" 15	20		1 ill, probably tuberculous	Good	Poor cow slaughtered week later, proved to be tuberculous
" "	24		Good	Very Fair	
" "	7		Very Fair	Moderate	
" "	5		Good	"	
" 19	9		Fair	"	Poorly cow improving; another bad throat

Slaughterhouses.

There are still nine private slaughterhouses in the Borough, which are mostly situated in districts which have been recently added. These slaughterhouses have been visited during the year, and kept as far as possible under regular supervision. They have been found on the whole to be kept in a fairly satisfactory condition.

The public slaughterhouse which is an old building, and was in existence when the Borough was incorporated in 1848, has been renovated by the Markets Committee, and put into a better sanitary condition, consequently it is possible to keep the same in a cleaner and sweeter state. Greater attention is now paid to those matters, and I have had no cause for complaint during the year.

The following table gives the number of animals that were slaughtered in the public slaughterhouse during the year ended June 30th, 1905.

Cattle.	Calves.	Pigs.	Sheep.	Total.
4601	3558	6696	17126	31981

There were 340 separate seizures of meat during the year.

The following table shows the number of carcasses condemned, and the total weight of the same.

	Cattle.	Calves.	Sheep.	Pigs.	Total.
Number of Animals killed	4601	3558	17126	6696	31981
Do. condemned	14½	22	8	21½	66
Weight of those condemned in lbs. ...	5620	1600	556	2541	10317

The following table gives the diseases and other conditions which led to the condemnation of meat during the year.

	Anthrax	Actinomycosis	Tuberculosis	Morbund	Jaundice	Inflammatory Diseases	Febrile Diseases	Rheumatism	Septic Diseases	Putrid	Decayed	Unsound	Unwholesome
Cows ...	1	1	4 $\frac{1}{2}$	2	...	1	1	...	2	...	...	3	...
Calves ...	...	...	3	2	...	2	...	...	...	...	1	9	5
Sheep ...	...	...	...	4	1	...	...	...	...	1	...	2	...
Pigs ...	...	...	10 $\frac{1}{2}$	1	5	...	...	2	...	...	...	2	...
Rabbits ...	...	...	...	...	...	...	...	...	...	8	...	...	...
Totals ...	1	1	18	9	6	3	1	2	2	9	1	16	5

Besides the above, the following were also destroyed.

	lbs.
Offals ...	4967
Fish ...	4831
Fruit ...	2000
Other Foods ...	930

Tuberculosis was the chief cause of the seizure and destruction of meat, as the following table will show.

	lbs.
Total amount destroyed ...	17,468
Total amount of Meat destroyed	
on account of Tuberculosis ...	5,174
Total amount of Offals destroyed	
on account of Tuberculosis ...	3,754
Total amount destroyed on account of Tuberculosis ...	8,928
Total amount destroyed from other causes ...	8,540

It is worth noting however that the proportionate amount destroyed on account of Tuberculosis was less during the year under review than during the previous year, as the following table will show.

	1904.		1905.
Total amount destroyed ...	30,654	...	17,468
Total amount destroyed for			
Tuberculosis ...	19,826	...	8,928

I consider the above table highly satisfactory, because not only does it show that there was less meat seized on account of Tuberculosis, but also that the total amount destroyed was considerably less, and this has not arisen through a falling off in the number of animals killed at the slaughterhouse, because 309 more were killed during the year under review than during the previous year. I take it that this points to the fact that the butchers generally are taking greater care in the selection of cattle to be slaughtered for the meat supply to the public. Further I also hope that this diminution in the amount of Tuberculosis found in slaughtered cattle, points to a diminution in the amount of tubercular disease among the cattle and pigs of the district.

The greater part of the meat shown to have been destroyed in the above table was taken with the consent of the owner.

Only two prosecutions were instituted during the year for exposing diseased meat for sale. One case was not serious, and the defendant was let off with a nominal fine. The other case was a serious one, and the magistrates inflicted a substantial penalty.

One person was summoned for slaughtering on unlicensed premises, this however was withdrawn on payment of costs.

The following table gives the number of animals killed in the public slaughterhouse during the past seven years.

Year ended	Cattle	Calves	Sheep	Pigs	Total.
June 30th, 1899	5333	4208	20270	7019	36830
„ 1900	5530	4395	17245	7896	35066
„ 1901	4859	4089	16479	6924	32351
„ 1902	5312	5018	17802	5702	33834
„ 1903	4991	4422	17776	6599	33788
„ 1904	4290	3916	16788	6678	31672
„ 1905	4601	3558	17126	6696	31981

The preceding table shows that there has been a falling off in the amount of slaughtering done in the public slaughterhouse, though during the year under review when compared with the previous year, a slight increase is observed.

The butchers certainly are exhibiting a greater desire to supply nothing but wholesome meat to the public, and they take greater interest in the diseases from which animals suffer, and especially Tuberculosis. At their request, I gave them a further lecture during the year under review on that subject.

Factories and Workshops.

Although considerable improvement has been made in regard to the sanitary conveniences of factories in the Borough during recent years, there is still room for further improvement. We are however gradually dealing with

the worst of these, progress is being made, and in the course of a few years, it is expected that satisfactory advancement will have been made, in this direction.

As will be seen by the table which follows, some 231 visits were paid by the Inspectors during the year to the various factories in the Borough. I have also made several visits myself, where special circumstances required the same.

The above visits were chiefly made for the purpose of inspecting the condition of the sanitary conveniences, and of supervising the necessary alterations thereto, for the abatement of nuisances, and the remedying of defects in drainage and the like.

A register of all the workshops situated within the Borough is duly kept.

The workshops have been visited from time to time during the year, and although a number of various defects were found, they appeared to be on the whole fairly well kept, as far as the requirements of the Factory Acts are concerned.

The following table gives the number of visits that were made to factories and workshops, and shops under the Shop Hours Act, by the Sanitary Inspectors.

District	Number of Visits made to Factories	Number of Visits made to Workshops	Number of Visits made under Shop Hours Act
A	89	539	859
B	83	340	378
C	29	326	351
D	30	116	10
Total	231	1321	1598

As a result of these visits, certain sanitary and other defects were discovered. These are set out in detail in the tables which follow, and each table represents a district which is under the supervision of a Sanitary Inspector.

DISTRICT A.

INSPECTOR JAMES ARCHBELL.

Number of Workshops on Register, 220.

Nature of Nuisance.				Number Registered.
IN FACTORIES.				
Insufficient privy accommodation	...	...		15
Defective water closets	...	...	...	14
Defective drains	...	...	...	6
Closets to limewash	...	...	...	13
IN WORKSHOPS.				
Insufficient privy accommodation	...	...		11
Defective water closets	...	...	...	9
Defective drains	..	...	...	6
Want of Ventilation	...	...	...	4
Workrooms requiring limewashing	...	...		61
Total				139

DISTRICT B.

INSPECTOR JOHN WOOD.

Number of Workshops on Register, 310.

Nature of Defects.				Number Registered.
IN FACTORIES.				
Insufficient flush to water closets	...	...		8
Bad smells	...	...	...	3
Made up water closet	...	...	...	1
Defective closets and drainage	...	...		1
Nuisance from smoke	...	...	...	5
Made up lavatory wastes	...	...	...	2
Offensive sewage	...	...	...	1
Insanitary closets	...	...	...	8
IN WORKSHOPS.				
Rooms requiring limewashing	...	...		17
Insufficient privy accommodation	...	...		6
Untrapped drainage	...	...	...	4
Want of Urinals	...	...	...	2
Dilapidated Closets...	...	...	...	4
Dirty floors and staircases	...	...	...	3
Total	...	...		65

DISTRICT C.

INSPECTOR JAMES EDWARD FIRTH.

Number of Workshops on Register, 183.

Nature of Defects.	Number Registered.
IN FACTORIES.	
Broken and made up water closets	1
Broken traps	2
Defective water closets	3
Made up yard and lavatory drains	1
IN WORKSHOPS.	
Defective, broken, and made up water closets...	3
Insufficient privy accommodation	2
Door broken off closet	1
Accumulation of rubbish	1
Workrooms requiring limewashing	7
Dirty closets	6
Defective roofs and damp walls	1
Insufficient ventilation	1
Offensive fumes from gas fires	1
Total	30

DISTRICT D.

INSPECTOR ROBERT PICKARD.

Number of Workshops on Register, 79.

Nature of Defects.	Number Registered.
IN FACTORIES.	
Dilapidated closets	2
Dirty Privies	2
Want of urinal	1
Insufficient closet accommodation	2
Want of separate closets for sexes	1
IN WORKSHOPS.	
Insufficient closet accommodation	1
Workrooms requiring limewashing	3
Dirty closets	1
Want of ventilation	1
Total	14

The number of nuisances and sanitary defects detailed in the foregoing tables in connection with factories and workshops is 248, against 342 during the previous year. Of the above 248 nuisances and defects, 238 were remedied or abated, and the remaining 10 had not been abated at the end of the year.

A number of notices were received from the Factory Inspector during the year, with regard to defects in the sanitary arrangements of factories and workshops, and 14 of the above nuisances were remedied as the result thereof. Upon the completion of the work, a formal notice of abatement was sent from this office to the Factory Inspector.

In accordance with section 107 of the Factory and Workshops Act, the number of Outworkers notified during the year were as follows.

	Tailors.	Shoe-makers.	Seam-stresses	Total.
No. of Outworkers ...	23	1	5	29

All of the above resided within the Borough, and the houses in which they worked were visited from time to time. No cases of infectious diseases were reported, and they were found otherwise satisfactory.

On the opposite page is a detailed list of all the workshops on the register in the Borough.

Boot, Shoe, and Clog Makers ...	150	Fibrous Plaster Works	1
Dress and Mantle Makers	98	Joiners & Cabinet Makers	67
Saddlers ...	12	Brush Makers ...	13
Milliners ...	58	Provision Merchants ...	4
Cotton Doubler	1	Rag Sorters ...	12
Coopers ...	4	French Polishers ...	7
Bakehouses	167	Tailors ...	68
Flock Merchant	1	Marine Store Dealers ...	5
Silversmiths	4	Blacksmiths ...	25
Whitesmiths	5	Upholsterers ...	12
Coach Builders	4	Umbrella Makers ...	2
Rope Makers	4	Box Makers ...	2
Wood Carvers	6	Surgical Inst'm't Maker	1
Wool Sorters	9	Fruit Boilers ...	3
Cork Cutters	2	Paper Maker ...	1
Gun Makers	2	Hosiers and Knitters ...	23
Carpet Repairers	5	Wheelwrights ...	12
Picture Frame Makers	4	Painters ...	14
Wire Worker	1	Plumbers ...	25
Basket Makers	3	Printers ...	14
Tinners ...	16	Sweet Boilers ...	4
Locksmiths...	2	Tripe Dealer ...	1
Cutlers ...	2	Clog Sole Makers ...	3
Underclothing Makers...	11	Belt and Brace Makers	2
Venetian Blind Makers	4	Sewing Machine Maker	1
Electrical Engineers	2	Shirt Makers ...	2
Piano Makers	4	Watch Makers	10
Soap Maker	1	Old Clothes Dealers ...	4
Drysalter ...	1	Pattern Maker ...	1
Boot Upper Maker	1	Leather Cutters ...	3
Cycle Works	2	Sugar Packer ...	1
Tea Packers	4	Designers ...	3
Brass Works	4	Metal Engraver ...	1
Laundries ...	10	Beer Bottling ...	2
Hair Pad Makers	4	Hair Dressers ...	7
Machine Makers	2	Mattress Maker ...	1
Machine Broker	1	Metal Polish Maker ...	1
Marble Masons	2	Herbal Brewery ...	1
Shoeing Smiths	2	Carpet Beater ...	1
Firewood Cutters	3	Chair Maker ...	1
Paper Bag Maker	1		
Total number of Workshops		...	980

Bakehouses.

There are 167 bakehouses registered within the Borough, and they have been all visited from time to time during the year.

Taking the bakehouses generally, there is now a considerable improvement in them, both in regard to the suitability of the buildings for the purpose for which they are used, and in the matter of cleanliness. More attention appears to be now given to the latter, than formerly was the case, though I must say in some cases there is room for improvement.

In the beginning of the year under notice, there were 27 underground bakehouses in existence, all of which have received a certificate of their fitness for use for that purpose in accordance with section 101 of the Factory and Workshops Act. During the year, one underground bakehouse ceased to be used as such, and the premises have since been converted to another use, consequently there are now 26 underground bakehouses in the Borough.

The following table gives the number of bakehouses on the register, and the number of visits paid thereto during the year.

Description of Premises.	Number on Register.	Number of visits made.
Wheat bread and muffin bakers, including confectioners ...	139	452
Oat bread and muffin bakers ...	28	

As a result of the above visits, some 27 defects were found, which are set out in the following table, together with the number remedied.

Nature of Defects.	Number Reported.	Number Remedied.
Brought forward from last year ...	1	...
Defective drains, and sink waste pipes to disconnect ...	5	5
Bakehouses requiring limewashing ...	11	11
Insufficient ventilation ...	4	3
Do. light ...	1	1
Damp walls ...	4	2
Accumulation of rubbish ...	1	1
Fowls kept in bakehouse ...	1	1
Total ...	28	24

The number of defects discovered is very small in comparison with previous years. This arises from the fact that the bakehouses are now in a much better and more sanitary condition than ever they were, and no doubt this has been brought about to a great extent, through the increased attention that has been paid to them as a result of the coming into operation of section 101 of the Factory and Workshops Act, 1901. Two of the above defects were remedied after notice from the Factory Inspector, and four remained unabated at the end of the year.

Ice Cream Makers and Vendors.

There appears to be a considerably less number of itinerant dealers in this article than formerly. This I take it arises from the fact that a large number of confectioners' shops now make and sell ice cream. This is an advantage, because the ice cream will be made under much better sanitary conditions than usually obtained in the rooms which the itinerant dealers occupy for that purpose.

The latter have been visited from time to time during the year, but no serious cause for complaint was found in any case.

Public Health Laboratory.

I regret to have to report that much less use was made of the laboratory during the year, as only 57 specimens and samples were examined, against 204 during the previous year, but while this is the case, between May and September, I examined 60 samples of water for the Waterworks Committee. This corresponds with the period which intervened between the death of the late Borough Analyst, and the appointment of the present one.

The following table gives details of some of the work done.

DISEASE.	Number of Specimens.	Results of Examination.	
		Positive.	Negative.
Diphtheria (Swabs) ...	25	5	20
Tuberculosis (Sputum) ...	17	7	10
Do. (Urine) ...	1	0	1
Do. (Milk) ...	1	0	1
Typhoid (Widal's Reaction) ...	2	1	1
Total ...	46	13	33

Besides the foregoing, seven specimens were examined from the Slaughterhouse, among which were found, Anthrax one case, and Actinomycosis one case.

From the above table it will be observed that the majority of the swabs sent to the laboratory, taken from throats of persons suspected to be suffering from Diphtheria, were found to give a negative result.

This is what usually occurs, although the percentage of positive results was greater than that of the previous year. During the past year, 20 per cent. of the swabs sent, contained diphtheria baccilli, whereas in only 13 per cent. of those sent during the previous year could the bacillus be found.

It is hoped that greater use will be made of this laboratory in the future, because at any rate, both with Diphtheria and Tuberculosis, the information which can be obtained by examining specimens from these cases, is most useful.

Midwives' Act.

The administration of this Act has been delegated to the Health Committee, and all the necessary steps were taken for the purpose of putting it into operation. What is needed now is a Lady Health Visitor, properly qualified for the purpose, to pay periodical visits to those registered under the Act, and until such an appointment is made, no proper supervision can be exercised over these women.

The following is a list of those who were registered at the Health Office during the year under notice.

Name.	Address.
Buckley Mary Ann	8, Wainhouse Terrace
Bowling Betty	3, Buttress, Luddenden
Crowther Hannah Elizabeth..	39, Hammond Street
Haigh Matilda	142, Southowram Bank
Edwards Sarah	47, St. Stephen St., Copley
Birrell Agnes	24, Gladstone Road
Wood Mary Elizabeth	10, Fern Street, Boothtown
Turner Elizabeth	490, High Road Well
Sutcliffe Ellen	8, Brickfields, Holmfield
Greenwood Mary Louisa	13, Kingston Street
Lumb Elizabeth Ann	5, Dunkirk Street
Firth Margaret	7, Concrete Street, Lee Mount
Firth S. A.	5, Prince Street
Shelley Emelina	59, Clive Street
Haslem Sarah Ann... ..	59, Bath Place, Woodside
Ogden Emma	5, Summer St., Fenton Road
Halstead Frances Ellen	3, Aspinall Street East
Wade Hannah	4, Lintelfield Street
Connew Sarah	23, Clay Street, Hanson Lane
Crabtree Isabella	31, Bright Street
Robinson Mary Ann	14, Ashbourne Grove
Aaron Hannah	7, Lane Ends, Wheatley
Fielden Louisa	24, Winn Street
Crossley Hannah Holroyd	25, Fairview Terrace
Arnold Mary Ann	18, Garside Street
Farrar Elizabeth	22, Pulman's Yard
Smith Emma	21, Causeway Foot
Wilkinson Ann	18, Elephant Terrace
Scholes Annie	4, Pulman's Place
Milner Mary Hannah	18, Malt Shovel Yard
Jowett Sarah Alice... ..	27, New Bank
Marsland Emma	16, Cherry Street
Smith Clara	4, Brier's Square, Well Lane

Disinfection.

The disinfecting chamber is situated at Stoney Royd Hospital, and that for smallpox is Thresh's apparatus, which is moveable, and when in use, is kept in the grounds in which the smallpox hospital is situated.

During the year under notice there were 9,472 different articles disinfected at Stoney Royd disinfecting station, and 30 in the disinfector at the smallpox hospital, making a total of 9,502.

There were 1,190 rooms in private houses fumigated with Sulphur or Formaline, and disinfected, also 4 elementary day schools were disinfected. The latter are given in the following table.

Date.	Name of School.	Number of Rooms Fumigated.
January 21st ...	Siddal ...	17
February 27th ...	Warley Town School ...	11
April 1st ...	Holy Trinity (Girls) ...	8
„ 4th ...	„ (Boys) ...	4
September 16th ...	Lee Mount (Infants) ...	6
„ 23rd ...	„ „ ...	12
Total No. of Rooms disinfected		58

Disinfecting fluid is supplied free of charge to those in whose family infectious disease occurs, on application at the Health Office.

Schools and Infectious Diseases.

There is no doubt that the elementary day schools offer facilities for the spread of infectious diseases of various kinds. Although that is so, it is quite possible that too great a stress is laid at times upon this source of infection. Out of 338 cases of scarlet fever

notified in the Borough during the year under notice, 181, or rather more than half those attacked with the disease were actually in attendance at school, while at least 100, or nearly one third of those attacked, were above school age.

In the case of Diphtheria, out of 87 cases reported, only 25 attended school.

The following table gives a list of the schools affected with Scarlet Fever and Diphtheria during the year, and the number of cases reported from each school.

Name of School.	Scarlet Fever.	Diphtheria.	Total.
Lee Mount ...	35	2	37
Mechanics' Institute, Northowram ...	21	...	21
Moorside ...	14	3	17
Siddal ...	11	5	16
Warley Road ...	13	2	15
Parkinson Lane ...	11	2	13
Battinson Road ...	10	...	10
Sunnyside ...	10	...	10
Queen's Road ...	7	2	9
Salterlee ...	7	...	7
Parish Church ...	6	...	6
St. Augustine's ...	4	2	6
Pellon Lane ...	3	1	4
Mixenden ...	3	1	4
High School ...	2	2	4
Ackroyd Place ...	3	...	3
Boothtown ...	3	...	3
Portland Road ...	3	...	3
Haugh Shaw ...	1	2	3
St. Joseph's ...	2	...	2
Heath ...	2	...	2
Luddenden ...	2	...	2
Moorside (Infants) ...	2	...	2
Lee Mount „ ...	2	...	2
Tuel Lane ...	1	...	1
St. Marie's ...	1	...	1
Catherine Slack ...	1	...	1
Bradshaw ...	...	1	1
Holy Trinity ...	1	...	1
Total...	181	25	206

In consequence of an outbreak of smallpox in a neighbouring district, from whence the children attended Warley Town school, it was deemed advisable to close the school.

The Infants' department of only one other school was closed during the year, as will be seen from the following table.

Disease.	Name of School.	Date of Closure.	Period of Closure.
Smallpox	Warley Town	March 1st	3 weeks
"	"	" 14th	10 days
Scarlet Fever	Lee Mount (Infants)	Sept. 22nd	4 weeks
"	" "	Oct. 23rd	4 weeks

Meteorological Observations.

These observations are taken by Mr. Whiteley in the grounds of the Public Library at Belle View, and the results are set out in a table which follows.

The following table gives the number of days on which rain fell, and the rainfall in inches during during the past 12 years.

Year.	No. of Days Rain Fell.	Amount of Rainfall.
1894	158	30·31
1895	149	33·78
1896	172	32·02
1897	187	29·72
1898	182	29·49
1899	153	35·33
1900	205	39·68
1901	179	29·41
1902	191	28·03
1903	219	44·25
1904	191	29·32
1905	187	25·94

From the preceding table it will be seen that the rainfall for 1905 was below that of any year during the past 12 years, also that the number of days on which such fell were fewer than since the year 1901.

The rainfall is also collected at ten other stations distributed over the area of the Halifax Corporation Waterworks.

The following table gives the stations, the height above sea level of each in feet, and the rainfall for year 1905.

HEIGHTS ABOVE SEA LEVEL IN FEET.

	1380	1350	1325	1375	1050	1060	990	815	795	568
1905.	Walshaw Dean.	Midgley Moor.	Warley Moor.	Ovenden Moor.	Widdop.	Castle Carr Lodge.	Ogden.	Ramsden Wood.	Albert.	Gibbet.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
January ...	2.09	2.62	2.30	2.45	2.51	2.27	2.01	1.75	1.83	1.75
February ...	2.29	2.96	2.48	2.57	2.77	2.46	2.26	2.06	1.80	1.91
March ...	3.45	3.65	3.63	3.50	4.23	3.23	3.29	3.10	2.86	2.88
April ...	3.55	3.52	3.54	3.06	3.79	3.54	3.12	2.61	2.39	2.35
May ...	.89	.90	.99	.95	1.21	.90	.99	.66	.58	.57
June ...	2.03	2.27	2.32	2.85	2.79	2.14	2.75	2.00	1.81	1.95
July ...	2.42	2.65	2.72	2.53	2.54	2.53	2.51	2.49	2.01	1.97
August ...	4.82	5.64	6.21	6.09	4.78	5.75	5.70	5.23	4.93	5.02
September ...	3.19	3.01	2.94	2.85	3.16	2.87	2.54	2.55	2.25	2.11
October ...	3.72	4.28	4.13	4.47	3.64	3.72	3.84	2.97	2.54	2.44
November ...	4.77	5.36	5.54	5.14	5.66	5.36	5.03	3.94	3.77	3.84
December ...	1.92	1.37	1.33	1.51	1.57	1.23	1.28	.71	.64	.58
Totals ...	35.14	38.23	38.13	37.97	38.65	36.00	35.32	30.07	27.41	27.37

The average rainfall on all the gauges, 1904 ... 35.82

Do. do. 1905 ... 34.42

Difference ... 1.40

General Summary of Meteorological Observations taken at the Public Library, Belle Vue, from January 1st, 1905, to December 31st, 1905.

By J. WHITELEY, SECRETARY AND LIBRARIAN.

LATITUDE OF STATION = 53° 43' N.

LONGITUDE = 1° 52' W.

HEIGHT ABOVE SEA LEVEL = 625 FEET.

1906.	Pressure of Atmosphere in Month.		Temperature of Month.							Mean Temperature.		Vapour.		Mean degree of Humidity.	Mean Weight of a cubic foot of Air.	Mean Reading of Thermometer.			Wind.				Mean amount of Cloud.	Rain.		REMARKS.
Month.	Mean.	Range.	Highest.	Lowest.	Range.	Mean.			Air.	Dew Point.	Elastic Force.	In a cubic foot of Air.				Maximum Rays of Sun.	Minimum on Grass.	Estimated Strength.	Relative proportion of					No. of Days it fell.	Amount Collected.	
						Of all Highest.	Of all Lowest.	Daily Range.				Mean.	Short of Saturation.						N.	E.	S.	W.				
in.	in.	°	°	°	°	°	°	°	°	in.	gr.	gr.	°	°	°	°	°	°	°	°	°	°	in.			
January	29.471	1.692	48.9	21.4	27.5	41.7	33.5	8.2	37.9	35.8	0.205	2.3	0.3	90	548.8	48.5	30.7	2.7	1	9	9	35	8.1	16	1.55	The observations have been reduced to mean values by Glaisher's Barometrical & Diurnal Range Tables, and the Hygrometrical results have been deduced from the seventh edition of Hygrometrical Tables, after corrections for Index errors of the Instruments employed.
February	29.488	1.688	51.8	25.4	25.4	43.4	35.4	8.0	39.4	36.2	0.214	2.5	0.3	89	545.6	53.1	33.1	3.0	8	0	9	35	8.1	15	1.72	
March	29.950	1.509	65.6	30.1	35.5	48.2	36.1	12.1	42.0	35.5	0.218	2.5	1.4	64	535.7	67.6	32.7	2.0	4	12	18	20	7.0	23	2.78	
April	29.134	1.866	57.9	22.5	35.4	46.5	32.1	14.4	40.1	35.4	0.207	2.4	0.5	86	537.5	70.9	34.8	2.4	12	9	13	20	7.1	22	2.49	
May	29.428	1.112	70.8	33.5	37.3	55.7	41.0	14.7	48.9	39.5	0.263	3.0	1.0	79	528.2	84.4	36.7	1.7	19	5	13	17	6.9	7	0.52	
June	29.306	0.728	74.9	42.4	32.5	63.1	47.1	16.0	55.5	47.0	0.325	3.7	1.2	79	520.4	94.5	43.9	2.3	17	18	11	9	7.0	9	1.81	
July	29.381	0.512	86.4	46.6	39.8	66.9	51.9	15.0	59.9	50.6	0.369	4.1	1.7	71	516.0	99.4	48.2	1.7	3	3	7	26	6.2	13	1.91	
August	29.145	0.966	60.9	44.5	16.4	60.8	49.1	11.7	55.4	47.0	0.321	3.9	1.2	81	523.4	89.0	...	2.0	5	18	11	24	7.6	20	4.87	
September	29.274	0.944	62.4	37.4	25.0	56.7	46.6	10.1	51.5	47.1	0.333	3.7	0.6	89	529.9	...	...	2.2	17	3	13	22	7.5	17	1.97
October	29.325	1.380	59.8	31.0	28.8	48.4	37.8	10.6	43.4	37.5	0.224	2.6	0.7	79	540.1	78.2	32.8	1.7	21	2	5	26	7.0	10	2.15	
November	29.003	1.268	51.0	24.4	26.6	44.5	36.0	8.5	40.4	34.3	0.197	2.2	0.9	79	537.6	57.5	31.6	1.7	15	8	12	12	7.8	24	3.64	
December	29.448	1.508	50.6	28.0	22.6	44.2	37.4	6.8	41.1	36.6	0.215	2.5	0.5	85	544.7	53.3	33.6	1.9	2	6	11	30	7.6	11	0.53	
Annual Means	29.280	1.264	61.8	32.4	29.4	51.7	40.3	11.4	46.3	40.2	0.258	2.7	0.9	81	533.9	2.1	11	7	11	23	7.3	

NOTE.—The Annual Means give the Averages for Twelve Months.

The Mean Readings of the Earth Thermometer, four feet below the surface, were as follows:—January, 42°; February, 42°; March, 42°; April, 43°; May, 49°; June, 50°; July, 55°; August, 55°; September, 54°; October, 50°; November, 46°; December, 44°. The Highest Readings were from July 21st to August 5th—56°.

Rain fell on 187 days, and the amount collected was 25.94 inches.

Sale of Food and Drugs Act.

There were 154 samples of food and drugs analysed during the year, against 209 during the previous year. This resulted chiefly from the fact that we were for several months during the year, without a Public Analyst, owing to the lamented death of late Mr. Ackroyd, and the necessary delay in the appointment of his successor.

The following table gives the number analysed per 1,000 population during the past six years.

Year.	Number of Samples Analysed.	Estimated Population of the County Borough.	Number of Samples Analysed per 1000 of the Population.
1900	210	101,187	2·07
1901	183	105,120	1·74
1902	217	105,978	2·04
1903	155	106,800	1·45
1904	209	107,000	1·95
1905	154	107,500	1·43

The following shows the kind of samples and number of each dealt with, together with the results of the analyses.

Kind of Sample.	Number Analysed.	Results of Analyses.		
		Genuine.	Doubtful.	Adulterated
Margarine ...	2	1	1	...
Butter ...	19	15	3	1
Milk ...	122	109	5	8
Beer ...	6	6	...	...
Sweet Nitre ...	3	...	...	3
Paregoric ...	1	...	...	1
Coffee ...	1	1	...	...
Totals ...	154	132	9	13

The percentage of the adulteration was 8·44, against 9·09 during the previous year.

Borough Fever Hospital.

On January 1st, 1905, there remained in the Hospital 67 patients, and there were admitted during the year a total of 354 cases.

The following table shows the number admitted to the hospital, the diseases from which they suffered, the number of deaths which occurred, and the case mortality per cent.

Disease.	Number Admitted.	Deaths.	Case Mortality per cent.
Scarlet Fever ...	246	6	2·4
Diphtheria ...	22	6	27·2
Typhoid Fever ...	29	6	20·6
Smallpox ...	57	...	...
Total ...	354	18	...

The following table shows the number of cases that have been admitted to the fever hospital since the year 1881.

Year	Small-pox.	Cholera.	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Others.	Total.
1881	16			17	34		2	69
1882	13		3	24	15		5	60
1883	2		2	26	8		5	43
1884	1			29	23		2	45
1885	15		1	16	23		4	59
1886	3			18	24		3	48
1887	3			18	54		1	76
1888	5		1	25	28		7	66
1889	4			54	33			91
1890				35	39		7	81
1891		1		47	47		6	101
1892	188		1	17	15		1	222
1893	340			4	1			345
1894	15			15	39		1	70
1895				39	25		7	71
1896				56	30		20	106
1897				32	237		3	272
1898				28	341			369
1899				38	515			553
1900	3			44	250		9	306
1901	3			18	597	12	43	633
1902	1			30	365	7		403
1903	140			24	219	17	4	404
1904	84			22	349	25	6	486
1905	57			29	246	22		354

The administration of the hospital has been quite satisfactory under the management of the Matron, Miss Robison; while the nurses as usual, have been unremitting in their care of the patients.

County Borough of Halifax.

THE
Sanitary Inspector's Report

FOR THE

Year ended 31st December, 1905.

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

GENTLEMEN,

I have the pleasure to submit for your consideration my Thirty-first Annual Report on the operations of the Health Department for the year ended December 31st, 1905.

TOWN HALL, HALIFAX,

May, 1906.

HEALTH DEPARTMENT.

Summary of Work done.

Total number of Visits made by the District Inspectors	25284
Total number of Visits to Houses	12822
" " Lodging Houses and Furnished Rooms	1605
Number of Visits to Houses with reference to Defective Drainage	3411
Number of Visits to Houses with reference to Cleanliness, Overcrowding, &c.	924
Number of Visits to Houses with reference to Infectious Diseases	2336
Rooms Disinfected	1190
Cases removed to the Hospital	354
Infectious Diseases reported	584
Nuisances reported	2434
Nuisances abated	2453
Notices served	1162
Letters served (referring to Nuisances, &c.)	256
Summonses taken out	5
Smoke Observations taken	684
Old Ashpits altered to Goux System	29
Goux Closets registered	234

It must be remembered that many nuisances are frequently included under one notice, and therefore the number of nuisances represent considerably more than the number of notices.

Removal of Nuisances.

At the commencement of the year 365 complaints remained on the books and in course of removal, since then 2434 have been registered and 2453 removed, leaving at the close of the year 346 to be dealt with. The following table shows the nature of nuisances registered.

Nature of Nuisances.				Number Registered.
Defective Sink Drains	...	...	...	90
„ „ Pipes	...	...	..	64
„ „ Syphon Traps	...	...	...	48
„ Basement Drains	..	...	...	79
„ Yard Drains	...	...	...	65
„ Urinal Drains	...	...	..	8
„ W.C. Drains	...	...	..	16
„ Area Drains	...	...	...	8
„ Private Street Drains	...	...	...	10
Made-up Sink Pipes	..	...	.	16
„ Bath Pipes	..	...	...	1
„ Lavatory Pipes	...	...	..	4
„ Basement Drains	...	...	..	136
„ Water Closets	...	..	...	22
„ Yard Drains	...	...	..	57
„ Urinal Drains	...	...	..	7
„ Gullies	...	...	..	53
„ Private Street Drains	...	...	...	7
Untrapped Basement Drains	...	...	..	16
„ Sink Drains	...	...	...	72

NUISANCES—*Continued.*

Nature of Nuisances.				Number Registered.
Untrapped Area Drains	...	...	...	5
„ Yard Drains	...	...	...	31
„ Urinal Drains	...	..	..	6
„ Bath Pipes	...	...	..	11
„ Lavatory Pipes	...	...	...	3
Drains not efficiently Trapped :				
Sink Drains	...	...	...	7
Cellar Drains	..	...	...	6
Yard Drains	...	...	...	6
Urinal Drains	...	...	...	4
Area Drains	...	...	...	3
Sink Drains requiring Disconnecting	...	...	...	110
Defective Fall-pipe Drains	..	...	...	10
„ Fall-pipes	...	...	..	50
„ Spouting	...	...	...	82
„ Roofing	...	...	...	49
Broken Pot and Iron Traps...	...	..	..	13
Insufficient Supply of Water to Closets...	...	...	...	5
Nuisances from Water in Cellar	...	...	...	23
„ Want of Drains	...	...	...	67
„ Smoke	...	...	...	9
„ Poultry	...	...	...	7

NUISANCES—*Continued.*

Nature of Nuisances.	Number Registered.
Nuisances from Pigeons	2
„ Rabbits	1
„ Swine	4
Houses Overcrowded	22
„ requiring limewashing	92
Accumulations of Offensive Matter	86
Privies requiring Limewashing	184
Insufficient Privy Accommodation	39
Offensive Ashpits and Privies	28
„ Goux Closets	78
„ Ash Tubs	124
Doors off Closets	61
„ Ashes Tub Places... ..	42
Dilapidated Closets	87
Ashpits requiring Re-construction	18
Miscellaneous	152
COWSHEDS.	
Defective Drains	27
Want of Light, Room, Air Space, and Ventilation	28
Dilapidated Cowsheds and Floors	14
Cesspools requiring Emptying and Defective	13
Offensive Middensteads	13
Cowsheds requiring Limewashing	8

NUISANCES—*Continued.*

Nature of Nuisances.				Number Registered.
FACTORIES AND WORKSHOPS.				
Rooms requiring Limewashing	...	...	...	9
Insufficient Privy Accommodation	...	...	...	3
Want of Ventilation	...	...	...	3
Defective Drains	...	...	...	5
BAKEHOUSES.				
Want of Ventilation	...	..	...	2
Rooms requiring Limewashing	..	..	..	3
TOTAL ...				2434

The above list does not include work carried out after mere verbal notice.

Night Scavenging.

The following table shows the number of ashpits cleansed during the year, and the number of loads of manure and rubbish collected.

Month.		Number of Ashpits Emptied.	Loads of Soil.	Loads of Rubbish.	Total Number of Loads.
January	...	396	128	133	261
February	...	503	167	158	325
March	...	395	122	138	260
April	...	308	116	55	171
May	...	454	135	143	278
June	...	440	144	149	293
July	...	566	136	113	249
August	...	363	161	69	230
September	...	432	133	98	231
October	...	560	136	116	252
November	...	379	139	129	268
December	...	177	69	47	116
TOTAL	...	4973	1586	1348	2934

The total number of ashpits cleansed during the year is 4973, as against 4825 in the previous year. 45 ashpits with privies have been altered to the Goux system, and ashes tubs supplied in the place of 7 dry ashpits. The above includes Ovenden, Illingworth, Copley, Warley, and Northowram Wards.

TABLE SHOWING THE NUMBER OF ASHPITS WITHIN
THE BOROUGH, DECEMBER 31st, 1905.

District.	Wards.			Ashpits with Privies.	Dry Ashpits.	Total.
1	Akroydon and North			44	47	91
2	Ovenden and Illingworth			286	28	314
3	Central and East	...	...	34	91	125
4	West and South	...	...	12	194	206
5	Skircoat and Southowram			31	32	63
6	Pellon and Kingston			6	35	41
7	Copley	...	...	101	35	136
8	Warley	..	...	238	22	260
9	Northowram			169	...	169
TOTAL				921	484	1405

Goux Scavenging.

The following table shows the number of closet tubs and loads of ashes collected during the year.

Month.			Number of Closet Tubs Collected.	Loads of Ashes Collected.
January	...	...	55448	1918
February	...	...	50831	1638
March	...	...	57868	1896
April	...	...	50108	1636
May	...	...	55755	1866
June	...	...	56251	1594
July	...	...	54780	1398
August	...	...	57073	1479
September	...	...	54746	1405
October	...	...	55960	1719
November	...	...	55645	1831
December	...	...	54233	1837
TOTAL			658698	20217

The above represents 31,366 loads of night soil (each load containing 21 closet tubs) as against 31,319, and 20,147 loads of ashes respectively for the preceding year.

The number of additional closets registered is 234, being a decrease of 30 on the number registered during the year 1904.

Streets Scavenging.

Table showing number of lineal yards and miles swept during the year in each ward.

Wards.			Number of Lineal Yards Swept.	Miles.	Yards.
East ...	...	...	2885519	1639	879
Central	...	...	1024492	582	172
South	...	...	1173606	666	1446
West ...	...	...	746857	424	617
North	...	...	598438	340	38
Akroydon	...	...	334126	189	1486
Southowram	...	...	644852	366	692
Skircoat	...	...	218788	124	548
Kingston	...	...	132673	75	673
Pellon	...	...	291212	165	812
Ovenden & Illingworth Part swept by Halifax Gang	}		981348	557	1028
Total ...			9031911	5131	1351

Streets Scavenging.

The subjoined table gives at a glance the work done in this department during 1905.

Number of Streets swept	36181
Lineal yards swept... ..	9031911
Square yards swept	71947278
Number of Streets watered	4947
Loads of Water used for that purpose...	5733
Loads of Sweepings gathered ...	6117
Loads of Snow removed from the Streets	691
Number of Gullies emptied	217382
Garbage removed from Market Hall ...	1019

During the year 340 loads of garbage have been removed from fishmongers, fried fish shops, and greengrocers.

The work done in this department varies according to the condition of the weather. The Winter having been mild, and practically free from snow and frost, the increase in the number of miles swept is 249 miles more than in the previous year. The paving of public roads has not during the last few years added very materially to our work in this department.

In the middle of the Summer, your Committee gave instructions to suspend street watering in consequence of shortness of water, with the result that only 5733 loads were put on the streets, against 10836 in the previous year.

Birks Hall Tips.

Table showing the number of loads of Ashes and Rubbish tipped during the year.

Name.	Number of Loads.
Goux Department	18464
Gas Works	240
Highways Committee...	560
Private Firms	5040
Waterworks	80
Total	24384

It will be seen from the above table that 24384 loads of rubbish have been tipped at Birks Hall, 5040 by private firms. As this is the only tip we have for Halifax and Ovenden, it becomes a matter for consideration as to the desirability of closing it against private individuals, seeing that a Destructor is still looming in the distance, and the extent of our tipping capacity at Birks Hall will only last about four years.

ANALYSIS OF REFUSE COLLECTED IN THE BOROUGH
OF HALIFAX DURING THE YEAR 1905.

			No. of Loads.
From Wet and Dry Ashpits ...	...	...	2934
From Ashes Tubs ...	...	...	20217
From Goux Closet Tubs ...	...	...	31366
Sweepings gathered from the Streets, and Refuse from Gullies ...	...	...	6117
Garbage removed from Market Hall ...			1019
Horse Droppings from Streets ...			260
Garbage from Fried Fish Shops ...			340
Total Number of Loads ...			62253

Smoke Observations.

The following Table shows the number of Smoke Observations taken during the year, and the average number of minutes of dense smoke emitted.

	Number of Observations taken.	Average Number of min'tes of dense smoke emitted.
Number of Observations taken	684	
Number showing moderate Smoke or <i>nil</i> ...	} 226	
Number of Observations taken for a period of 60 minutes, each showing Dense Smoke	} 358	
Number of Observations show- ing Dense Smoke above the Maximum adopted by the Committee ...	} 9	
Average number of minutes of Dense Smoke emitted from Chimneys ...	}	2.09

The number of observations taken during the year is 684. Nine of these showed dense smoke above the maximum allowed by your committee. The average number of minutes of dense smoke emitted from the chimneys is 2.09.

TABLE SHOWING NUMBER OF VISITS MADE BY
THE MEAT INSPECTOR.

Description of Premises.					Number of Visits.
Public Slaughterhouses...	...	...	...	...	933
Private Slaughterhouses	...	...	...	...	215
Borough Market	...	...	...	...	599
Wholesale Market	...	...	...	...	390
Fasting Sheds...	...	...	...	...	341
Potted Meat Houses	...	...	...	...	334
Tripe Boiling Houses	...	...	...	...	114
Butchers' Shops	...	...	...	...	4432
Fried Fish Shops	...	...	...	...	136
Cowsheds	...	...	...	...	529
Dairies and Milkshops	...	...	...	...	159
Bakehouses	...	...	...	...	398
Other Visits	...	...	...	...	998
Total					9578

TABLE SHOWING MEAT, FISH, FRUIT, ETC.,
DESTROYED AS UNFIT FOR HUMAN FOOD.

Kinds of Food Destroyed.					Quantity in lbs.
14½	Carcases of Beef	...	...	...	5620
	Beef not in Carcase	...	...	...	973
21½	Carcases of Pigs	...	...	...	2541
	Pork not in Carcase	...	...	...	1157
8	Carcases of Mutton	...	...	...	556
22	Carcases of Veal	...	...	...	1600
8	Rabbits	...	...	...	12
3	Turkeys	...	...	...	22
	Fish	...	...	...	4831
	Fruit	...	...	...	2000
	Offals	...	...	...	4967
Total					24279

From the above table it will be seen that 24,279 lbs. of Meat, Fish, Fruit, &c., were destroyed as unfit for food, which is 11,599 lbs. less than in the previous year. The decrease is chiefly in the following, viz.—Carcases of Beef, 5620 lbs., against 8500 lbs. in 1904; Beef not in carcase, 973 lbs., against 2497 lbs.; Carcases of Pigs, 2541 lbs., against 10,130 lbs. The chief increase of any article destroyed over the previous year was in Fruit, which was 2000 lbs., against 650 lbs.

Canal Boats.

The inspections are made periodically by the Chief Sanitary Inspector.

The number of Boats inspected during the year 1905 was 52. Of this number 51 were found to conform with the Acts.

Infringement of the Acts and Regulations was found in one case only, that of painting.

In all cases where females and children were on board, proper provision was made for the separation of the sexes. Of the 52 boats inspected there were three with women and children on board, and six with women only. The children in all cases having been brought for the single journey only.

All boats were free from bilge water, ventilation was fairly good, and good provision was made for the storage of water. The boats generally were clean and in good condition. There has not been a single case of sickness or overcrowding on board.

The boats plying in this district chiefly belong to one Company and are registered either at Goole, Mirfield, or Leeds, consequently no arrangements have been made for Registration.

Number of Boats Inspected.	Number Registered to carry.	Number of Males on board.	Number of Females on board.	Total.
52	338	104	9	113

AGES OF CHILDREN FOUND ON CANAL BOATS.

	Under 1 Year.	Years.							Total.
		1	2	3	4	5	6	7	
Number ...	1	1	1	2	1	2	1	1	10

TABLE SHOWING PROSECUTIONS UNDER THE PUBLIC HEALTH ACT & FOOD & DRUGS ACT.

Date.	Defendant's Name.	Nature of Offence.	Decision of Court.			Remarks.
			Penalties.	Costs.	Total.	
1905 Jan. 10th ...	Walter Pearson ...	Slaughtering on Unlicensed Premises at Great Scausby Farm, Bradshaw	£ s. d.	£ s. d. 0 8 6	£ s. d. 0 8 6	Case withdrawn, Defendant paying costs.
Jan. 31st ...	Frank Ambler ...	Exposing for sale Diseased Meat	0 10 0	0 5 6	0 15 6	
do. ...	Herbert Rushworth	Exposing for sale Diseased Meat, at Holmfield	...	...	...	Adjourned to Feb. 14th
Feb. 14th ...	Herbert Rushworth	Exposing for sale Unsound Meat at Holmfield	5 0 0	0 8 6	5 8 6	
Dec. 12th ...	Isaac Shepherd ...	Selling Milk adulterated with 6% of added Water	2 0 0	0 5 6	2 5 6	
do. ...	Daniel Greenwood	Selling Milk adulterated with 7% of added Water	10 0 0	0 7 6	10 7 6	Or 2 months imprisonment

Infectious Diseases Removed to Hospitals.

During the year 57 cases of Smallpox have been removed to Belle Vue Hospital. Twenty-nine cases of Typhoid, 246 cases of Scarlet Fever, and 22 cases of Diphtheria have been removed to the Borough Fever Hospital, Stoney Royd.

Disinfection.

1190 rooms have been fumigated where fever cases existed. 9472 articles have been disinfected at the Disinfecting House, Stoney Royd.

From the records here presented, it will be seen that a vast amount of work has been accomplished during the year, which cannot fail to have a beneficial effect upon the health of the inhabitants of this Borough.

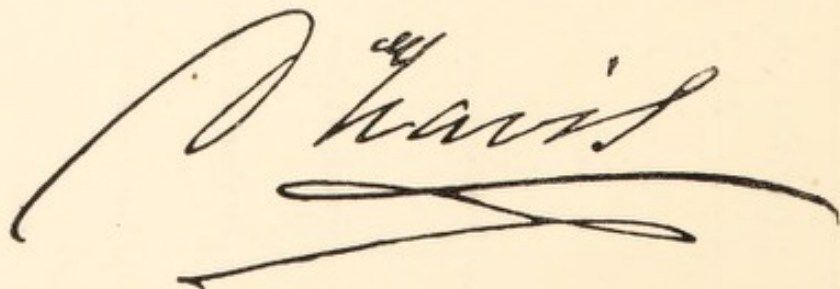
Change of Staff.

Mr. J. T. Millington was appointed Meat Inspector, July 26th, 1905.

I again take the opportunity to tender my thanks to the District Inspectors, and the Chief Clerk (Mr. J. W. Jackson), for the valuable assistance rendered to me during the year.

I am, Gentlemen,

Your obedient Servant,

A large, stylized handwritten signature in dark ink, appearing to read 'J. Harris'. The signature is written in a cursive style with a long, sweeping underline that extends to the left and then curves back under the main body of the signature.

Chief Sanitary Inspector
and
Scavenging Superintendent.

APPENDIX.

VITAL STATISTICS OF THE BOROUGH OF HALIFAX DURING 1905 AND PREVIOUS YEARS.

Year.	Population estimated to Middle of each Year.	Births.		TOTAL DEATHS REGISTERED in the District					Total Deaths in Public Institutions in the District.	Deaths of Non- residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	NET DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
		Number.	Rate.*	Under 1 year of age.		At all ages.						Number.	Rate.*
				Number.	Rate per 1,000 Births Registered	Number.	Rate.*						
1	2	3	4	5	6	7	8	9	10	11	12	13	
1895	92,875	2186	23.5	354	161.4	1826	19.6	195	23	...	1803	19.4	
1896	93,581	2329	24.8	351	150.7	1694	18.1	197	27	21	1688	18.0	
1897	94,311	2147	22.7	301	140.2	1603	16.9	220	33	28	1598	16.9	
1898	95,037	2205	23.2	369	167.3	1751	18.4	235	28	28	1751	18.4	
1899	95,767	2239	23.3	363	162.1	1806	18.8	258	34	30	1802	18.8	
1900	98,910	2316	23.4	314	135.5	1874	18.9	277	42	19	1851	18.7	
1901	105,120	2351	22.3	301	128.2	1726	16.4	294	38	21	1709	16.2	
1902	105,950	2225	21.0	324	145.6	1645	15.5	282	36	25	1634	15.4	
1903	106,800	2248	21.0	279	124.1	1610	15.0	308	54	36	1592	14.9	
1904	107,000	2154	20.1	282	130.9	1662	15.5	303	52	33	1643	15.3	
Averages for years 1895-1904	99,535	2240	22.5	323	144.6	1719	17.3	256	36	24	1707	17.2	
		2072	19.2	271	130.7	1651	15.3	319	75	42	1618	15.0	
1905	107,500												

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

TABLE SHOWING THE NUMBER OF INFECTIOUS DISEASES IN EACH LOCALITY OF THE BOROUGH, NOTIFIED DURING THE YEAR, AND CLASSIFIED ACCORDING TO AGE; ALSO THE NUMBER OF CASES REMOVED FROM EACH LOCALITY TO THE BOROUGH FEVER HOSPITAL.

NOTIFIABLE DISEASES.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.																NUMBER OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	At all Ages.	At Ages—Years.						Oswald Ward.	Akyuden Ward.	North Ward.	Central Ward.	West Ward (W.).	South Ward.	East Ward.	Soochowam Ward (W.).	Skimoot Ward.	Pelon Ward.	Kinkden Ward.	Hingwerth Ward.	Copley Ward.	Northam Ward.	Wesley Ward.	Oswald Ward.	Akyuden Ward.	North Ward.	Central Ward.	West Ward (W.).	South Ward.	East Ward.	Soochowam Ward (W.).	Skimoot Ward.	Pelon Ward.	Kinkden Ward.	Hingwerth Ward.	Copley Ward.	Northam Ward.	Wesley Ward.	Oswald Ward.	Akyuden Ward.	North Ward.	Central Ward.	West Ward (W.).	South Ward.	East Ward.	Soochowam Ward (W.).	Skimoot Ward.	Pelon Ward.	Kinkden Ward.	Hingwerth Ward.	Copley Ward.	Northam Ward.	Wesley Ward.	Oswald Ward.	Akyuden Ward.	North Ward.	Central Ward.	West Ward (W.).	South Ward.	East Ward.	Soochowam Ward (W.).	Skimoot Ward.	Pelon Ward.	Kinkden Ward.	Hingwerth Ward.	Copley Ward.	Northam Ward.	Wesley Ward.	Oswald Ward.	Akyuden Ward.	North Ward.	Central Ward.	West Ward (W.).	South Ward.	East Ward.	Soochowam Ward (W.).	Skimoot Ward.	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East Ward.	Soochowam Ward (W.).	Skimoot Ward.	Pelon Ward.	Kinkden Ward.	Hingwerth Ward.	Copley Ward.	Northam Ward.	Wesley Ward.	Oswald Ward.	Akyuden Ward.	North Ward.	Central Ward.	West Ward (W.).	South Ward.	East Ward.	Soochowam Ward (W.).	Skimoot Ward.	Pelon Ward.	Kinkden Ward.	Hingwerth Ward.	Copley Ward.	Northam Ward.	Wesley Ward.	Oswald Ward.	Akyuden Ward.	North Ward.	Central Ward.	West Ward (W.).	South Ward.	East Ward.	Soochowam Ward (W.).	Skimoot Ward.	Pelon Ward.	Kinkden Ward.	Hingwerth Ward.	Copley Ward.	Northam Ward.	Wesley Ward.	Oswald Ward.	Akyuden Ward.	North Ward.	Central Ward.	West Ward (W.).	South Ward.	East Ward.	Soochowam Ward (W.).	Skimoot Ward.	Pelon Ward.	Kinkden Ward.	Hingwerth Ward.	Copley Ward.	Northam Ward.	Wesley Ward.	Oswald Ward.	Akyuden Ward.	North Ward.	Central Ward.	West Ward (W.).	South Ward.	East Ward.	Soochowam Ward (W.).	Skimoot Ward.	Pelon Ward.	Kinkden Ward.	Hingwerth Ward.	Copley Ward.	Northam Ward.	Wesley Ward.	Oswald Ward.	Akyuden Ward.	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Northam Ward.	Wesley Ward.	Oswald Ward.	Akyuden Ward.	North Ward.	Central Ward.	West Ward (W.).	South Ward.	East Ward.	Soochowam Ward (W.).	Skimoot Ward.	Pelon Ward.	Kinkden Ward.	Hingwerth Ward.	Copley Ward.	Northam Ward.	Wesley Ward.	Oswald Ward.	Akyuden Ward.	North Ward.	Central Ward.	West Ward (W.).	South Ward.	East Ward.	Soochowam Ward (W.).	Skimoot Ward.	Pelon Ward.	Kinkden Ward.	Hingwerth Ward.	Copley Ward.	Northam Ward.	Wesley Ward.	Oswald Ward.	Akyuden Ward.	North Ward.	Central Ward.	West Ward (W.).	South Ward.	East Ward.	Soochowam Ward (W.).	Skimoot Ward.	Pelon Ward.	Kinkden Ward.	Hingwerth Ward.	Copley Ward.	Northam Ward.	Wesley Ward.	Oswald Ward.	Akyuden Ward.	North Ward.	Central Ward.	West Ward (W.).	South Ward.	East Ward.	Soochowam Ward (W.).	Skimoot Ward.	Pelon Ward.	Kinkden Ward.	Hingwerth Ward.	Copley Ward.	Northam Ward.	Wesley Ward.	Oswald Ward.	Akyuden Ward.	North Ward.	Central Ward.	West Ward (W.).	South Ward.	East Ward.	Soochowam Ward (W.).	Skimoot Ward.	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TABLE SHOWING CAUSES OF, AND AGES AT, DEATH DURING THE YEAR, 1905 IN THE SEVERAL LOCALITIES OF THE BOROUGH.

CAUSES OF DEATH.	DEATHS IN OR BELONGING TO WHOLE DISTRICT.							DEATHS IN OR BELONGING TO LOCALITIES (AT ALL AGES).														Total Deaths in Public Institutions in the District.	
	AT SPECIFIED AGES.							Oulton Ward.	Albion Ward.	North Ward.	Central Ward.	West Ward.	South Ward.	East Ward.	Southdown Ward.	Stoughton Ward.	Cockle Ward.	Pellon Ward.	Kingsdown Ward.	Hillgarth Ward.	Northdown Ward.		Wedge Ward.
	At all Ages.	Under 1.	1 to 4.	5 to 14.	15 to 24.	25 to 44.	45 and upwards.																
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Measles	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Scarlet Fever	11	...	7	2	2	...	...	...	1	...	1	...	1	...	...	1	3	1	...	1	2	...	6
Whooping Cough	32	15	16	1	...	...	...	7	1	5	1	3	2	3	2	1	...	2	3	...	2	...	1
Diphtheria and Membranous Croup	27	1	13	10	...	3	...	4	1	...	1	4	1	1	6	3	1	1	1	2	1	...	9
Enteric Fever	9	...	...	...	1	7	1	...	...	...	2	...	1	2	1	...	1	...	...	...	1	1	9
Epidemic Influenza	18	...	1	...	...	9	8	5	1	...	1	1	1	...	1	...	...	...	3	5	...	...	...
Diarrhoea	15	10	3	...	...	1	1	1	1	6	1	...	2	...	3	...	...	1	...	...	...	...	...
Enteritis	12	8	...	...	...	2	2	...	...	1	1	4	...	1	1	1	...	3	...	...	...	...	2
Puerperal Fever... ..	4	...	...	...	2	2	...	2	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...
Erysipelas	2	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...
Other Septic Diseases	2	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Phthisis	135	...	1	3	23	102	6	12	4	11	8	9	6	18	10	12	5	8	12	11	4	5	28
Other Tubercular Diseases	58	13	15	9	1	15	5	11	7	6	5	4	4	4	1	3	1	5	3	2	2	...	12
Cancer, Malignant Disease	105	...	...	...	...	75	30	9	6	11	5	13	8	7	6	10	2	5	9	8	1	5	27
Bronchitis	153	20	6	...	...	40	87	6	15	12	21	11	9	10	6	12	6	14	9	10	5	7	13
Pneumonia	130	34	32	8	4	31	21	9	6	6	15	15	4	14	6	14	4	10	11	11	3	2	27
Pleurisy	3	...	...	1	...	2	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Other Diseases of Respiratory Organs	13	1	...	2	...	8	2	1	...	2	1	2	1	...	1	...	...	...	1	2	2	...	1
Alcoholism, Cirrhosis of Liver	13	...	...	...	...	11	2	...	...	1	2	...	3	...	1	...	1	...	2	1	2	...	2
Veneral Diseases	3	2	...	...	...	1	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...
Premature Birth... ..	62	62	...	...	...	...	...	2	7	10	8	2	1	4	7	2	...	9	5	2	2	1	1
Diseases and Accidents of Parturition	14	1	...	...	3	10	...	1	...	3	...	...	1	3	2	1	...	...	2	...	...	1	3
Heart Diseases	176	5	1	3	6	106	55	13	14	19	13	15	11	17	13	17	1	11	12	12	4	4	33
Accidents	28	7	2	3	...	8	...	2	...	6	4	...	3	3	1	2	...	2	1	3	1	...	19
Suicides	13	...	...	...	1	12	...	2	...	2	...	1	2	...	...	2	...	2	...	1	...	1	...
Diseases—Brain and Nervous System	176	3	3	6	10	92	62	14	12	16	18	11	15	7	10	13	7	14	13	19	3	4	26
„ Digestive System	50	6	6	1	5	20	12	7	2	4	5	5	3	5	2	4	...	4	2	3	2	2	15
„ Urinary System	60	1	...	3	...	39	17	6	3	3	6	2	4	7	3	10	1	7	2	3	3	...	12
Convulsions	35	29	5	...	...	1	...	1	2	4	3	2	1	...	6	5	4	...	1	4	1	1	...
Old Age	109	...	...	...	...	...	109	3	12	9	5	13	12	15	4	11	3	7	6	4	2	3	33
Congenital Malformation	13	8	2	3	...	...	...	4	...	1	...	1	...	...	2	...	2	2	1	...	...	...	...
All other Causes... ..	136	43	14	3	13	46	17	5	15	11	8	11	10	12	15	9	3	4	10	7	10	6	37
All Causes	1618	271	127	58	71	645	446	124	117	148	135	131	105	136	109	136	44	113	108	113	53	46	319

VITAL STATISTICS OF THE BOROUGH OF HALIFAX DURING 1905 AND PREVIOUS YEARS.

WARD OF LOCATION	WHOLE BOROUGH	STANDISH WARD	ARLINGTON WARD	DOVER WARD	CENTRAL WARD	WEST WARD	SOUTH WARD	EAST WARD	ROBINSON WARD	SENGUPTA WARD	PELTON WARD	EDMOND WARD	LEIGHFORTH WARD	COLLEY WARD	BISHOPSTOWN WARD	WARTLEY WARD
Year.	Population at each year.	Births registered at each year.	Deaths registered at each year.	Marriages registered at each year.	Population at each year.	Births registered at each year.	Deaths registered at each year.	Marriages registered at each year.	Population at each year.	Births registered at each year.	Deaths registered at each year.	Marriages registered at each year.	Population at each year.	Births registered at each year.	Deaths registered at each year.	Marriages registered at each year.
1895	6840193100 26	6855182129 32	7716182134 35	8837202167 37	8576177147 25	8510172177 22	8540121142 29	7349 211 133 36	7774185 95 23	7643195143 32	7069186 99 23	7106153123 23				
1896	6925175 90 21	6927174100 26	7830235126 42	8875210168 47	8629201148 18	8570193143 22	8580164119 25	7470 228 110 38	7821174127 31	7760215110 29	7140191115 29	7227145114 13				
1897	6925180 98 25	6929200105 33	7829212122 37	8875196141 26	8628175122 22	8569140131 19	8586130118 23	7468 206 121 32	7819163 94 19	7758194 94 24	7138187 92 20	7226141112 16				
1898	7040172 97 29	7050204103 29	7929215131 36	8950237163 46	8678174130 30	8610130127 24	8586136140 20	7558 240 155 56	7926177122 27	7878170109 28	8278184 99 18	7246143112 15				
1899	7020178103 26	7050202131 33	8129214140 40	8950196152 38	8678191138 26	8700160142 20	8600125126 22	7558 226 127 47	8076177127 26	8078203114 30	8564188 92 30	7266163122 17				
1900	7146174 97 24	7152174 94 19	8129232129 33	8950206159 37	8690200162 39	8712148133 15	8629131127 21	7598 236 110 27	8206167102 14	8170207142 26	8964225153 25	7280150114 26	Newly added area.			
1901	7045153113 16	6540187104 28	8165228167 29	7833171146 35	9282173133 17	7600139111 14	7601106172 27	7465 202 134 39	8850187117 24	9138217149 26	10166218116 23	7035150108 13	2905 69 37 4			
1902	10595022251634 324	7174149107 23	6560185 77 26	8250208166 45	7833164134 34	9282195170 23	7613137111 16	7008109155 24	7485 217 127 39	9080163124 18	9225185111 21	10310181118 25	7105114100 14	2908 41 30 4	3263 78 58 9	2830 60 44 5
1903	10680022481592 279	7250159114 21	6560171100 21	8205229134 29	7835187139 23	9282155130 21	7670132106 18	7008112134 24	7515 176 121 34	9420213146 19	9340193122 14	10400197122 25	7170157 91 16	2935 39 31 2	3270 70 47 5	2850 60 55 7
1904	10700021541643 282	7270156106 14	6560166122 27	8310191155 31	7835165128 24	9285165136 21	7600119116 14	7010105151 24	7525 189 99 24	9505212153 13	9350174122 22	10415177115 27	7180139114 22	2945 43 35 2	3270 95 55 13	2850 58 36 4
Averages of Years 1895 to 1904	10638322091623 292	7063169103 22	6818185106 27	8058215140 36	8477193156 35	9501181142 24	8224145130 18	7955124138 23	7499 213 124 36	8448182121 21	8434196122 26	8944193112 24	7184148111 18	2832 50 33 3	3268 84 56 8	2843 57 43 5
1905	10750020721618 271	7280128124 17	6630179117 20	8345177148 35	7835159135 28	9285136131 15	7600104105 12	7010103136 15	7530 175 109 26	9690206136 17	9420177113 23	1046018108 13	7210129113 11	2970 64 44 6	3285 90 53 14	2860 64 46 5

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