



COUNTY BOROUGH OF BRADFORD.

ON THE

Bealth of Bradford

FOR THE YEAR 1894.

BY

W. ARNOLD EVANS, M.D.,

MEDICAL OFFICER OF HEALTH

TOGETHER WITH THE REPORT ON THE

Infectious Diseases Iloospital

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A. E. FOSTER, M.R.C.S., Eng.,

MEDICAL SUPERINTENDENT.



BRADFORD: M. FIELD AND SONS, TYP., GODWIN STREET PRINTING WORKS.

Şanitary Committee, 1894.

(Meets Every Wednesday at 5 p.m.)

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COUNTY BOROUGH OF BRADFORD, 1894.

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RANGE	42° 40° 38°															44 42' 40' 38'
WEEKLY	36° 34° 32° 30°															<u>36</u> 34
2	28° 26° 24°															30° 28° 26°
	$\frac{22^{\circ}}{20^{\circ}}$ $\frac{18^{\circ}}{16^{\circ}}$															$ \begin{array}{r} 32' \\ 30' \\ 28' \\ 22' \\ 22' \\ 20' \\ 18' \\ 108 16' \end{array} $
DEATHS.	$\begin{array}{ccc} 16^{\circ} & 108 \\ \hline 14^{\circ} & 104 \\ \hline 12^{\circ} & 100 \\ \hline 10^{\circ} & 96 \\ \hline \end{array}$															$104 14^{\circ}$ 100 12
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RAINFALL.

READINGS. BAROMETRIC

WEEKLY RANGE OF TEMPERATURE.

THE NUMBER OF DEATHS.

10		52 48
æ		10
H		44 40 36
RE		36
00		32
URE		28 24
FIGI		20
		16
8		12 4
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	Week. 1 2 3 4 5 6 7 8 9 1011 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 82 28 24 25 26 27 38 39 40 41 42 43 44 42 43 44 42	0 F
	Shews No. of Deaths Weakly from All Causes.	Week.
	Snews No. of Deaths Weekly from Disasses of the Respiratory System (evaluating Consumption.)	
-	Shews No. of Deaths Weekly from Diarrhœa. Shews No. of Deaths Weekly from other Zymotic Diseases.	





VITAL STATISTICS.

POPULATION.

The estimate of the population of the Borough of Bradford by the Registrar General in the middle of the year 1894 was 223,985, an increase of 2,375 upon that for the previous year. Of the total increase, 91 per cent. is accounted for by the excess of births over deaths, viz.: 2,163, leaving only 212 or nearly 9 per cent. as due to the balance of immigration over emigration.

TABLE I.

Shewing Correctel Population, Birth-rate, and Mortality Rates, from 1830-94.

	Corrected Estimate of Population	ANNUAL RATE PER 1,000 LIVING.							
YEAR.	to middle of each year.	Birth-Rate.	Death-Rate.	Zymotic-Rate.					
1890	214,634	29.10	23.51	2.3					
. 1891	216,938	28 64	22.12	2.35					
1892	219,262	27.18	17.91	1.46					
189 3	221,610	27.58	20.90	3.22					
1894	223,985	26.60	16.95	1.65					

The population is distributed in the various wards as shewn in Table II.

WARDS.		Population.	Acreage.	Persons per Acre.
North		13,234	372	35.6
South		13,586	3 08	44·I
East		16,132	392	41.1
West		14,712	166	88.6
Listerhills		19,356	320	60 5
Great Horton		15,293	1283	11.9
Little Horton		15,844	428	37.0
East Bowling		16,630	557	29.9
West Bowling		17,859	1004	17.8
Exchange	•	5,018	117	43.0
Bradford Moor	•••	18,138	674	26.9
Manningham	•••	23,261	457	50.9
Bolton		8,723	994	8.8
Heaton	••••	16,676	879	19.0
Allerton	· ··	9,523	2815	3.4
Borough Total		223,985	10,776	20.8

TABLE II.

MARRIAGES.

The returns kindly given to me by Mr. Crowther, the Superintendent Registrar for Bradford, and by Mr. Helmsley for the North Bierley district, shew that the number of Marriages solemnized in the Borough during 1894 amounted to 2035. This gives a rate of 1 marriage for every 110 of the population, a larger proportion than was registered for 1893, when there was only one wedding for 114 of the population.

3 TABLE III.

Periods.	Number of Marriages.	Proportion of Marriages to Population.
1891	2,171	1 in 99
1892	2,0 59	1 in 106
1893	1,944	1 in 114
1894	2,035	I in 110

BIRTHS.

The total number of Births registered' during 1894 was 5,960, 3,044 of which were of male infants, and 2,916 of females. The birth-rate per 1,000 of the population is therefore 26.60. This is the lowest birth-rate yet recorded, and is 3.7 per cent. lower than that for 1893.

TABLE IV.

Shewing Birth-rates in Bradford and other 8 large towns for 52 weeks, ending December 29th, 1894.

Towns	in or	der o	of ma	gnitu	de of	Rate	es.			Birth-rate per 1,000.
Liverpool										35.8
Leeds								•••		32.9
Manchester										32.7
Birmingham					•••		•••	•••		31.2
Sheffield								•••	•••	31.2
London										27.5
Nottingham							•••			29.2
Bristol							· • •			27.0
Bradford										26 [.] 60
33 Large To	wns						••			30.4

From the above table it is seen that Bradford has the lowest birth-rate of the 9 largest towns of England, and that its birth-rate is over 12 per cent lower than that for the 33 great towns, whose average is 30.4 per 1,000.

TABLE V.

Shewing the Births and Birth-rate in the Borough of Bradford in each of the 15 Wards in 1894.

WARDS.		MALES.			FEMALES.		MALES	MALES AND FEMALES.	ALES.	Birth- rate per	
	Legitimate.	Legitimate. Illegitimate.	TOTAL.	Legitimate.	Illegitimate.	Total.	Legitimate.	Illegitimate.	TOTAL.	1000.	
North	154	15	169	151	14	165	305	29	334	25.2	
South	202	16	218	177	13	190	379	29	408	30.0	
East	225	12	237	221	∞	229	446	20	466	28.9	
West	159	16	175	174	OI	184	333	26	359	24.4	
Listerhills	223	6	232	218	11	229	441	20	461	23.8	
Great Horton	200	9	206	189	3	191	389	8	397	5.5	
Little Horton .	200	38	247	185	33	218	394	71	465	29.3	
East Bowling	218	15	233	200	16	216	418	31	449	27-0	
West Bowling	248	11	259	275	s.	280	523	91	539	30.2	
Exchange	47	S	52	44	-1	51	18	12	93	20.5	
Bradford Moor	264	15	279	257	6	. 260	521	24	545	30.0	
Manningham .	319	14	333	267	13	280	586	27	613	26.6	
Bolton	100	9	106	Iob	-	107	206	2	213	24.4	
Heaton	159	3	162	186	s	191	345	8	353	2.12	
Allerton	134	5	136	118	1	611	252	3	255	26.8	
BOROUGH TOTAL	2861	183	3044	2768	148	2916	5629	331	5960	26.60	

In the various wards the birth-rate varies from 20.5 in the Exchange Ward to 30.2 in West Bowling Ward. Table VI. shews the total births and birth-rates in each quarter of the year.

TABLE VI.

Shewing number of Births and Birth-rates in each quarter of 1891.

1894.	Males.	Females.	Total.	Birth-rate per 1000 living.
1st Quarter	804	714	1518	27.2
2nd ", …	762	753	1515	27.1
3rd ,,	716	765	1481	26•5
4th ,,	762	684	1446	25•9

fllegitimacy.

Out of the total 5.960 births registered 331 were illegitimate, giving a rate of 5.5 per cent of the total births, a slight relapse upon the per centage of the previous year which was 5.2 per cent.

TABLE VII.

Shewing the Illegitimate Births and Birth-rate in Bradford during each of the five years 1890-1894 inclusive.

Year.	Illegitimate Births.	Per cent. of Total Births.
1890	359	5*7
1891	362	5.8
1892	329	5.2
1893	320	5.2
1894	331	5*5

Table VIII. gives the illegitimate rate for each ward, it shews that, as usual, the highest rates are found in the most densely populated districts.

TABLE VIII.

Shewing proportion of Illegitimate Births in each Ward during 1894.

•	WAF	RDS.					* Proportion of Illegitimate Births to Total Births.
North							I in 10.2
South		:.					,, 12.5
East							,, 20.7
West			•••				,, 12.2
Listerhills		···· ···					,, 20.5
Great Horton				•••			", 44°I
Little Horton		<i>.</i>		•••			., 12.1
East Bowling							" 12 ·9
West Bowling		••• •••					,, 29 •9
Exchange			•••		• ••		,, 7 · 6
Bradford Moor	···· ···	···· •··	•••				,, 20.2
Manningham						•••	,, 20.2
Bolton							,, 26 •9
Heaton							,, 39 ·2
Allerton	··· ···				•··•		,, 75
1	Borough	TOTAL					1 in 18.0

* Illegitimate Births in Workhouse distributed among the Wards.

DEATHS.

The total number of deaths registered in 1894 was 3,797, 1,890 of which were of males, and 1,907 of females The total death-rate is therefore 16.95* per 1,000 living, the lowest deathrate yet recorded. The Report of the Registrar General shews death-rate for the 33 great towns of the country to be 18.1 per 1,000, or 6.2 per cent. higher than that of Bradford.

* Ihis takes no account of 36 deaths of persons resident outside the Borough boundary which occurred in the Hospitals of the town. If these be excluded, the death-rate is 16.7 per 1000.

YEAR.	Estimated Popu- lation in the middle	Births.	Deaths.	Annual rat livi	te per 1000 ng.
	of each year.			Births.	Deaths.
* 1 881	184,037	6058	3612	33.0	19.6
188 2	200,158	6225	414 2	31.3	21.3
† ~1883	2 04,§07	5953	3741	29 •1	18.3
1884	209,564	6216	4255	29•1	20°0 [`]
1885	214,431	6218	3791	28.98	1 7· 6
1886	219,411	6285	4187	28· 64	19.08
1887	224,507	6202	4458	27.62	19•86
1888	229,721	6266	3922	27.27	17.12
1889	235,056	6272	4492	26.69	19.11
† 1890	240,515	6247	4982	25.97	20.14
* 1891	216,938	6214	4800	28.64	21.98
1892	219,262	5959	3927	27.18	17.91
1893	221,610	6112	4632	27.58	20.90
1894	223,985	5960	3797	26.60	16.95

TABLE IX.	T_{2}	4B	LE	IX.
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* Census years.

† In these years the births and deaths are those registered in 53 weeks.

TABLE X.

Comparative Table, shewing the Estimated Population, Birth-rate, Deathrate, and Infantile Death-rate in each of the Ten largest towns of England and Wales (these having a population of over 200,000) for the year 1894.

		Estimated popula tion to middle of 1894.	Birth- rate.	Death- rate.	Zymotic rate.	Deaths of Infants to 1000 Births.
London	•••	4,349,166	30.9	20.6	2.8	155
Liverpool		507,230	34.7	24.7	2.9	181
Manchester	••	520,211	33.7	23.8	3.0	179
Birmingham		432,301	33*3	20.4	2.5	166
Leeds		388,761	33.5	19.8	2•2	169
Sheffield		338,316	35.3	20.8	31	171
Bristol		226,578	2 96	19.2	2.1	147
Bradford		223,985	26 [.] 6	16.9	1.6	144
Nottingham		223,584	29.4	18.7	2.3	167
Hull		212,679	35.0	19.6	2.6	166

8

Mortality in the Wards.

From Table XI. it is seen that the mortality in the Wards varies from 12.4 per 1000 in Allerton to 19.0 per 1000 in the North Ward.

TABLE XI.

Shewing the mortality rates in the various Wards.

	WARDS.					Total death rate per 1000 living.
North						19.0
South				••••		18.9
East				•••	•••	15.5
West	···· ···		•••			18.6
Listerhills			•••			15.8
Great Horton						16-9
Little Horton			•••	•••		16.8
East Bowling				•••		18.7
West Bowling						18.3
Exchange				•••		16.0
Bradford Moor				•••	•••	17.4
Manningham						18.9
Bolton				•••		14•5
Heaton		• ·	••••	•••	•••	- 12.9
Allerton						12.4
Boro	овен То	TAL	•••		•••	16•95

The relative mortality at the different seasons of the year is shewn in Table XII.

	Zymotic Diseases.	Consumption.	Lung Diseases excluding Consumption.	From all causes.
First Quarter	1.6	1.9	3.7	18.2
Second Quarter	1.5	1.8	3.2	15.8
Third Quarter	1.2	1•3	2•I	15.1
Fourth Quarter	2•4	1.4	3.9	18.6
Whole Year	1.65	1.60	3.23	16.95

TABLE XII.

Ages at Death.

INFANTILE MORTALITY.—The number of deaths of infants under one year was 860, giving an infantile mortality rate of 144.3 per 1000 births. The corresponding rate in 1893 was 198 per 1000 births.

The average rate for the thirty-three largest towns was 152. The highest rate of 217 occurred in Preston, and the lowest rate of 121 in Croydon. In London the rate was 143. The chief diseases to which the deaths of infants are attributed are as follows :---

TABLE XIII.

Rates of Mortality of Children under 1 year of age, from Chief Infantile Diseases per 1000 Births.

			18	93.	18	94•
			Total Deaths.	Rate per 1000 Births.	Total Deaths.	Rate per 1000 Births.
From all Causes			1211	198	860	144
Lung Diseases	·· ·		274	• 44	188	32
Convulsions	•• •••		173	28	128	21
Atrophy and Debility .	•••••••		185	30	139	23
Premature Birth			143	23	122	20
Diarrhœa	• •••		187	31	33	5
Whooping Cough	•• ··	•••	46	8	23	4
Tuberculous Disease	 .		37	6	23	4
Measles	•••••		21	3	31	5

II

Table XIV. shows the infantile death-rate in the Wards. The West Ward, as usual, has the highest figure.

TABLE XIV.

Shewing number of Deaths of Infants under 1 year of age and the Deathrate per 1000 Births in each Ward.

W	ARDS.				Deaths of Infants under 1 year of age.	Death-rate per 1000 Births.
North				•••	53	159
South				•••	58	143
East		÷		•••	56	120
West					78	217
Listerhills				•••	61	132
Great Horton					53	133
Little Horton					74	159
East Bowling				•••	85	189
West Bowling		•••		•••	68	126
Exchange				•••	17	165
Bradford Moor			•		73	134
Manningham	• · · · · ·				77	126
Bolton	••• •••		•••	•••	35	164
Heaton				•••	47	133
Allerton				···	2 5	98
Borot	лен То	TAL			860	144

TABLE XV.

Shewing the proportion of Deaths of Children under 1 year and under 5 in the Borough of Bradford, during the 18 years 1877-94.

YEARS.	Deaths under 1 year per 1000 Births,	Deaths under 1 year per 100 Deatns at all ages.	Death-rate under 5 years per 1000 living at that age.	Death-rate under 5 years per 100 deaths at all ages.
1877	157	27.1	78.6	44.3
1878	178	25.9	85.7	47.4
1879	152	23.5	74•3	42.4
1880	176	27.2	82.2	48·0
1881	154	25 8	56•4	40.2
1882	174	27.0	71.4	45.9
1883	147	23.4	50.2	36 8
1884	181	34.2	62 I	41.2
1885	144	23.6	49 ·9	37.7
1886	168	25.1	59.4	41.2
1887	179	24.9	62 o	41.6
1888	153	24.6	50.0	39.0
1889	181	25.3	60.8	4 2 ·6
1890	169	21-2	55.8	35 9
1891	181	23.4	57.2	39.0
1892	155	23.2	44:8	37.4
1893	198	26.1	79.2	39.7
1894	144	22.6	59•2	36.1

Between the ages of 1 and 5 years there occurred 510 deaths; from 5 to 15 years there were 167 deaths; from 15 to 25, 218 deaths; from 25 to 60, 1139 deaths; and at 60 years of age and upwards, 903 deaths. Of the deaths above 55 years of age, Table XVI. gives a more detailed account

TABLE XVI.

Ages	55 to 65	65 to 75	75 to 85	85 to 95	95 and upwards.
Deaths	427	435	224	23	

Deaths in Public Institutions.

The number of deaths occurring in the Public Institutions of the Borough during 1894 was 492, consisting of 291 males and 201 females, distributed as follows :—

	Males.	Ŧ	emales	5.	Total.
Scholemoor Hospital	14	•••	IO		24
St, Catherine's Home	3	•••	9	•••	I 2
Children's Hospital	18		8	•••	2 6
Fever Hospital	19	•••	18	•••	37
Infirmary	85	•••	50	•••	135
Workhouse	152	•••	106		258
	2 91		20 I		4 9 2

Infectious Diseases.

The number of deaths caused by diseases of an infective character was 371, a great improvement upon the total of 713 for the previous year. Table XVII. gives the number of deaths from each of the zymotic diseases since 1885. TABLE XVII.

Shewing number of Deaths from Zymotic Diseases in Bradford during the years 1883-1894.

1885.	1886. 1887.	1888.	1889.	1890.	1891.	1892.	1893 .	1894 .	Total in 10 years for each Disea:e.
:		N	I	:	:	4	113	27	149
33 103 124		120	113	208	81	62	68	III	1023
46 89 98		33	63	46	143	45	14	72	206
19 9 13		7	12	8	13	10	19	13	123
108 13 150		38	178	50	133	90	46**	63	920
3		• :	I	:	63	:	:	:	9
30 35 32		19	48	31	27	18	48	31	319
4 . 3		2	4	ŝ	S	I a	ŝ	I	34
75 235 202	8	131	205	1 54	901	16	292	53	1544
320 487 620		357	625	5co	510	321	713	371	4824

15

The death-rate from Zymotic diseases amounts to 1.656 per 1,000 of the population, and is made up as follows :---

DISEASES.	Deaths.	Death-rate per 1000.
Small-pox	27	•120
Measles "	111	•495
Scarlet Fever	72	•321
Diphtheria	13	·058
Whooping Cough	. 63	·281
Typhus Fever		
Typhoid l'ever	31	•138
Diarrhœa	53	•230
"Fever"	I	•004
Total	371	1.656

TABLE XVIII.—Zymotic Diseases, 1894.

The Zymotic rate for the thirty-three great towns is 2.4 per 1,000, or 45 per cent. higher than that for Bradford. The Registrar-General's returns show that the Zymotic death-rate varied from 0.9 per 1,000 in Huddersfield to 3.3 per 1,000 in Salford.

Table XXX.⁵ shows that amongst the Wards the highest Zymotic rate occurs in East Bowling, viz., 2'9 per 1,000, and the lowest, 0'9 per 1,000, in Heaton Ward. NOTIFICATION OF INFECTIOUS DISEASES.—The number of cases of Infectious disease coming to my knowledge during 1894 is shown in the following Table, and compared with the number for 1893:—

TA	BL	E	X_{I}	X
----	----	---	---------	---

			Монт	н.				1894.			1893.
	January	•••		• •	•••	•••		24 I		•••	108
	February	•••	•••		•••	•••	•••	175	·		116
	March	•••	•••	•••	•••	•••	•••	130			122
	April	•••	•••	•••	•••	•••		12 6	•••	•••	135
	May	•••		•••	•••	•••	•••	173	•••	••••	175
	June	•••	••	•••	•••	••	•••	117	• ••	•••	199
	July		•••	•••	•••			118		•••	528
ŧ.	August	•••	•••	•••		•••	•••	II2	•••		321
	September		•••	•••	•••			108	•••	••	275
	October	•••	•••	•••		•••		104	•••	•••	306
	November	•••	•••	•••	•••	•••	•••	119	•••	•••	421
	December	•••	•••	•••	•••	•••	•••	74	•••	•••	208
								1597			2 914

The diseases were specified as follows :---

М	Iont	н.				1894.			1893.
Scarlet Fever	•••	•••	•••	•••	•••	1035		•••	1445
Typhoid Fever			•••	•••		141			215
Typhus Fever	•••			•	••				
Small-pox	•••		••		•••	196			995
Continued Fever				•••		2			5
Relapsing Fever			· • •				•••		I
Puerperal Fever	•••	•••		•••		22		•••	18
Diphtheria		·	•••	•••		49			71
Membranous Cro	oup	•••	•••	•••		8	• • •		18
Erysipelas	•••					144			146
English Cholera	•••	•••	•••	•••	•••				_
						1597			2 914

SCARLET FEVER.—Out of the total of 1,035 cases of this disease notified 72 proved fatal, giving a case mortality of 6'96 per cent.

The occurrence of the cases was distributed over the quarters of the year as follows :---

1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
288	288	254	205

About half of the cases, viz. 521, were removed from home and treated in the Fever Hospital. In order to compare the result of treatment at home with that in the hospital the Table XX. has been constructed, which shews that during the past three years the mortality of home treated cases has been in excess of that of hospital treated cases, the difference being most marked during 1894.

TABLE XX.

Scarlet Fever cases treated at Home and in Hospital, 1892-94.

	Treated in	Hospital.	Treated	at Home.
YEAR.	Number of cases.	Death-rate per cent.	Number of cases.	Death-rate per cent.
189 2	592	4 *2	352	5∙6,
1893	289	5•8	1156	4.6
1894	521	5•3	514	- 8 •5

Table XXI. gives the number of notifications and deaths, together with the death-rate per 10,000 of the population since 1870.

YEAR.	No. of Deaths.	No. of Notifications.	Death-rate per 10,000 living.
1870	241		16.93
1871	144		9.79
1872	81		5.23
1873	47)	3.00
1874	289		17.72
1875	458		27.21
1876	143		8.23
1877	IIO		6.13
1878	156		8.42
1879	184		9•45
t880	190		9.61
*1881	118	(6 mos) 424	6•41
1882	66	408	3.29
1883	36	352	1.75
1884	33	493	1.24
1885	46	786	2.12
1886	89	1118	4.06
1887	98	1308	4.37
r888	33 .	407	1•43
1889	63	543	2.68
1890	46	546	1.91
1891	143	1163	6.59
1892	45	944	2.02
1893	71 ·	1445	3.20
1894	72	1035	3.51

TABLE XXI. -Scarlet Fever.

* First year of Notification.

Table XXII. shows that the death-rate from Scarlet Fever is very much higher amongst children under 3 years of age than in those who are a few years older.

TABLE XXII.

Notifications, Deaths, and Death-rate from Scarlet Fever at different Age Periods during 1894.

AGES.		Notifications.	Deaths.	Death-rate per 100.
Under I year		13	6	46.12
I year and under 2		36	6	16.67
2 years ,, ,, 3		53	IO	18.87
3 years ,, ,, 4		98	7	7*14
4 years ", ", 5…		122	5	4.10
5 years " " 10		481	27	5.61
10 years ,, ,, 15		152	6	3.95
15 years and upwards	•••	80	5	6.25
		1035	72	6.96

SMALL-POX.—The epidemic of 1893 continued during the first half of the following year, and it was not until the end of July that the Borough was entirely free from the disease. From Table XXIII. it is seen that there were 196 cases during the year, and that 27 terminated fatally, giving a total percentage deathrate of 13.8.

20

TABLE XXIII.

Shewing the total nur	nber of Cases of Small-pox,	the number of Deaths
	and Case Mortality.	

		MALE	s.	1	Total case			
AGES.	Cases.	Deaths.	Death- rate per cent.	Cases.	Deaths.	Death- rate per cent.	fatality per cent.	
Under 5	9	3	33.3	5	4	80	50	
5—10	8			3				
10—20	I 2			17,	4	23.5	13.8	
20—30	30	5	16.7	27	1	3•7	10.2	
30-40	27	5	18.5	14	2	14•3	17.0	
40 and upwards.	25	3	12	19		• •••	6.8	
TOTAL	111	16	I4·4	85	II	12.9	13.8	

The above tabular statement takes no account of the condition of the cases in reference to vaccination.

The Small-pox Hospital at Scholemoor was closed at the end of July, and with the exception of its being used for a solitary case in the following October has not been re-opened. Table A in the Appendix shows that the cases were distributed over the whole of the Borough and not confined to any particular district.

MEASLES.—During the months of June and July this disease was so extensively prevalent that it was deemed advisable to recommend the closing of some of the Day Schools and Sunday Schools, especially in the North and East Wards. There were 111 deaths registered as due to measles, 106 being in children under 5 years of age. The mortality was distributed over the quarters of the year as follows:—

1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
I	10	2 I	79

The greatest number of deaths occurred in Little Horton Ward.

DIPHTHERIA.—Of this disease 49 cases were reported to the Health Department, 18 of them being in children under 5 years of age. The number of deaths amounted to 13, giving a fatality of 26 per cent. of the cases reported. The largest number of the cases, viz. 9, occurred in Bradford Moor Ward.

WHOOPING COUGH.—There were 63 deaths attributed to this infantile disorder, 62 of which were those of children below 5 years of age. This is about the average yearly number of deaths from the disease.

ENTERIC OR TYPHOID FEVER.—Of Typhoid Fever, 141 cases came to my knowledge during the year, 31 of which ended fatally, giving a case mortality of 21'9 per cent. Although no one part of the Borough was affected in much greater proportion than the rest, yet there was a small group of cases in the Dudley Hill district which seemed to have a common origin. My inquiries satisfied me that these cases were attributable to the sudden rush of steam from neighbouring factory boilers directly into the sewer; there can be no doubt that the practice of discharging steam into the sewers greatly increases the pressure of the air in them and forces noxious gases through the house traps.

Table XXIV. gives the number of cases and fatality at several age periods.

TABLE XXIV.

AGE.	ĊA	Death-rate				
AGE.	Male.	Female.	Male.	Female.	per cent.	
Under 5	3	4	I.		14.5	
5-10	17	14	I	I	6•4	
IO – 20	28	12	. 2	6	20.0	
20-30	19	11	5	I	20.0	
30-40	9	8	6	_1	41.1	
40—50	7	2	4	I	55.2	
50 and upwards	5	2	2		28.5	
ALL AGES	88	53	21	IO	21.9	

Shewing number of cases, deaths and case-mortality from Typhoid Fever during the year 1894.

In Table XXV. is given the distribution of the disease in the different quarters of the year.

TABLE XXV.

		100	-		
YEAR.	ıst Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.
1885	34	27	39	53	153
1886	29	30	48	52	159
1887	19 ·	22	69	43	153
1888	10	14	20	61	105
1889	13	14	88	52	167
1890	37	8	35	64	144
1891	35	27	43	52	157
1892	16	10	34	20	80
1893	17	14	83	101	215
1894	56	24	26	35	141
		1			

Notification of Typhoid Fever.

Table XXVI. gives the monthly incidence of the disease.

 TABLE XXVI.

 Shewing number of cases notified and number of Deaths from

 Typhoid Fever in each month of the year 1894.

1	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Notification	31	15	το	6	7	II	5	7	14	5	12	18
Deaths	6	4	2	3			I	I	6	I	3	4

TABLE XXVII.

Shewing number of deaths and percentage mortality from Typhoid Fever during each of the last 10 years.

YEARS.	No. of Deaths.	Deaths per 100 cases notified.
1885	30	19.6
1886	35	22 •0
1887	32	20.9
1888	19	18.1
1889	48	28.7
1890	31	21.2
1891	27	17.2
1892	18	22.5
1893	48	22.3
1894	31	22.0

TABLE XXVIII.

Cases of Typhoid treated at Home and in Hospital 1892-94.

	Treated in	Hospital.	Treated at Home.		
YEAR.	Cases.	Death-rate per cent.	Cases.	Death-rate per cent.	
1892	50	22.0	30	23.3	
1893	II	36.3	2 04	21.5	
1894	45	15.2	96	25.0	

25 TABLE XXIX.

Notifications of Typhoid Fever in different streets, 1894.

NORTH WARD.

I, Arthur Street.

- 2, Back Victoria Terrace.
- SOUTH WARD.
 - 1, Caine Place.
 - 2, Harris Street.
 - 2, Joseph Street.
 - I, Knowsley Street.
- EAST WARD.
 - I, Barkerend Road.
 - I, Boldshay Street.
 - I, Cowper Place.
 - 1, Heap Lane.
 - I, Hillside Villas.
 - I, Hustler Street.
 - I, Lofthouse Street.
- WEST WARD.
 - I, City Road.
 - 2, Grattan Road.
- LISTERHILLS WARD.
 - I, Abram Gate.
 - **1**, Crowther Street.
 - 1, Duncan Street.
 - I, Ebor Street.
 - 2, Fitzgerald Street.
- GREAT HORTON WARD.
 - 1, Clive Terrace.
 - I, Copthorne Road.
 - 2, Derby Street.
 - I, Gale Street.
 - I, Halstead Place.
 - J. Havelock Street.
 - I, Ireton Street.
- LITTLE HORTON WARD.
 - 1, Franklin Street.
 - I, Jacob Street.
 - I, Horton Lane.
 - I, Parkinson Street.

- 2, Southampton Street.
- 6, Wild Boar Street.
- I, Mount Street.
- I, Mulgrave Street.
- 3, Percival Street.
- 2, Thursby Street.
- I, Lonsdale Street.
- I, Maperton Road.
- 1, Sydenham Place.
- I, Tennyson Place.
- 2, Undercliffe Street.
- I, Upper Bolton Street.
- 1, Infirmary.
- 1, Hampden Place.
- 1, Lower Ashgrove.
- 1, Mannville Terrace.
- I, Park Road.
- I, Randall Well Street.
- 1, Lime Street.
- I, Old Road.
- I, St. Margaret's Terrace.
- I, Sherborne Road.
- 2, Southfield Lane.
- I, Stephenson Street.
- I, Prince Street.
- I, Thomas Street.
- 2, Workhouse.

er je, oo	<u> </u>
EAST BOWLING WARD.	and the second second
5, Bedford Street.	I, Penn Street.
I, Bolling Street.	I, Plantation Place.
I, Broom Street.	I, Pollard Street.
2. Hall Lane.	
· · · · · · · · · · · · · · · · · · ·	I, Sturges Street.
1, Hardy Street.	
4, Moody Street.	e *
WEST BOWLING WARD.	•
2, Baxendall Street.	1, Malt Street.
1, Birch Lane.	I, Mitchell Street.
1, Bombay Street.	1, Parkside Road.
2, Bowling Old Lane.	
I, Boynton Street.	I, Ryan Street.
1, Cotewall Road.	2, Upper Castle Street.
I, Gaythorne Road.	e
2	* e ⁶
Exchange Ward.	e. 3
I, Eastbrook Lane.	2.
BRADFORD MOOR WARD.	3 (8
I, Gay Lane.	I, Leeds Road.
I, Greenhill Lane.	6, Victor Street.
I, Harewood Street.	
MANNINGHAM WARD.	F.
, Arthington Street.	2, Ingleby Street.
I, Bingley Street.	I, Waile Street.
I, Carlisle Place.	I, Wallis Street.
I, Carlisle Road.	I, Young Street.
, ournate reduct	, 0
BOLTON WARD.	24 - A 1
I, Bateman Street.	
3, Midland Road.	1, Quarry Place.
	-
HEATON WARD.	0
I, Frankland Fold.	1, Quarry Street.
I, Leamington Street.	
Allerton Ward.	
I, Argyle Street.	2, Girlington Road.
I, Chellow Terrace.	
	4

DIARRHEA.—The deaths certified as due to Diarrhea amounted to 53, a great improvement upon the total of 292 for the previous year Table XXX. gives more detailed information of the incidence of the disease in reference to age and season.

TABLE XXX.

Shewing the number of deaths from Diarrhæa during each quarter of 1894.

						IS	quar	ter.	2nd q	luarte	1. 3	ıd qua	rter.	4th	quarter,
Unc	ier 5	year	s		•		3		-	.3 .		26		· · · · •	12
Ove	r 5	,,		• : ••	• • •••	:	-3	ر. ا	,	1		- 3		4.0	2
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TABLE XXXI.

Shewing the number of Notifications from each Disease during 1894 in the different Wards.

TOTAL.	IO4	66	156	94	181	161	91	94	113	24	701	19 <b>8</b>	35	85	55	1597
Diphtheria Erysipelas Puerperal M' bran'us Continued Relapsing Fever.	:	:	:	:	:		:	:	:	:	:	:	:	:	:	
8 Smallpox. Scarlet Typhoid Typhus Diphtheria Erysipelas Puerperal M'bran'us Continued Rel Fever. Fever. Fever.	:	:	:	:	I	:	I	:	:	÷	:	:	:	:	:	N
M'bran'us Croup.	3	:	:	I	:	:	:	I	I	:	:	7	:	:	:	8
Puerperal Fever.	4	1	I	S	1	13	8	I	7	:	:	7	:	:	I	22
* Erysipelas	14	Ģ	11	12	19	16	80	13	IO	2	11	∞	11	∞	1	144
Diphtheria	9	3	S	S	I	3	3	9	:	:	6	I	I	3	3	49
Typhus Fever.	:	:	:	:	:	:	:	:	÷	:	:	:	:	:	:	I
Typhoid Fever.	II	13	14	4	11	15	80	18	15	I	IO	6	S	3	4	141
Scarlet Fever.	56	63	114	45	128	101	19	46	66	15	65	154	24	60	37	1035
Smallpox.	OI	13	11	22	20	24	8	6	19	3	12	22	ŝ	II	6	196
WARDS.	North	South	East	West	Listerhills	Great Horton	Little Horton	East Bowling	West Bowling	Exchange	Bradford Moor	Manningham	Bolton	Heaton	Allerton	BOROUGH TOTAL

* Notification of these diseases brought into force Feb. 1st, 1893.

CONSUMPTION.—The number of deaths registered as due to Consumption (Phthisis) is 360, 6 of which were those of children under 5 years of age.

In the Wards the highest rates were in the South, West and North Wards, which had respectively a death-rate of 2.6, 2.2, and 2.0 per 1,000 of the population, the lowest rate, viz. 0.9 per 1,000, being in Bolton and Allerton.

BRONCHITIS, PNEUMONIA, AND PLEURISY.—To these affections of the chest 724 deaths were attributed, 318 being in children under 5 years old, and 406 in persons over this age.

The deaths were distributed over the quarters of the years as follows :---

 Ist Quarter.
 2nd Quarter.
 3rd Quarter.
 4th Quarter.

 207
 181
 115
 221

CANCER.—To one or other of the various forms of malignant disease the deaths of 146 persons were attributed, 44 being of males and 102 of females.

#### TABLE XXXII.

Synopsis of deaths from Cancer during the Years 1886-1894.

	886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.
Total No. of Deaths	100	122	129	137	129	142	159	129	146
Males	23	29	28	50	52	44	52	40	44
Females	77	93	101	87	77	98	107	89	102

DISEASES OF THE NERVOUS SYSTEM.—To this class of diseases there were attributed 566 deaths, including 176 from convulsions, 97 from Meningitis, and 94 from Apoplexy.

Of the deaths from Convulsions 174 were under 5 years of age, of those from Meningitis 70 were under 5 years of age, and from Apoplexy the number of deaths over 55 years of age was 73.

DISEASES OF THE DIGESTIVE ORGANS.—From these diseases there were registered 191 deaths, as compared with 253 for 1893; from diseases of the genito-urinary system 106, as compared with 101 for 1893, and from diseases of the joints and skin 58, as compared with 65 for the previous year.

The number of deaths from VIOLENCE amounted to 123, of which 104 were attributed to accident or negligence, 2 to homicide, and 17 to suicide, of which last 7 were by hanging, and 3 by drowning.

Of the violent deaths 28 were in children under 5 years of age, 12 of whom were in children under 12 months, accidentally suffocated; to burns and scalds there were ascribed 12, and to fractures and contusions 2 deaths in children under five years old.

#### Inquests.

Two hundred and fifty-two inquests were held during the year, as compared with 219 and 225, the numbers for 1892 and 1893 respectively. Seventy-four of the inquests were in children under 5 years of age.

# Uncertified Deaths.

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to a rate of 0.9 per cent. of the total deaths. The average for the 32 provincial towns was 2.3 per cent.

WARDS.					Seve	en princi	pal Zyr	notic Di	seases.												iring 18					
WARDS.	1882.	1883.	1884.	1885.	1886.					1										All Ca	uses.					
	6 то.				1000.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1882 6 mo	1883	. 1884	. 188	5- 1886	. 1887	. 1888	8. 1889			1	1	
North	3.4	2.8	2.6	1.4	2.2	2.1	1.4	3.0	3.5	1.7	2.2	3.4	I.4									. 1890	1891.	1892.	. 1893	· 189
South	3.1	4.7	4.5	3*4	6.2	3 2	2.0	1.8	2.6	2.0	2.1			24.0			17.6	21.2	27.4	20.1	1 21.7	24.9	25.1	21.6	23.4	19.
East	1.6	1.2	2.7	1-7	2.0	2.4	0.9	1.3	I.4	1.8	1.0	4°4 1·6	2.0	18.3			20.1	21.7	24.2	20.1	23.3	25.9	253	20.6	25.1	
West	4.5	1.0	3.5	1-5	19	5.1	1.7	3.7	3.2	2.3			I-2	186	16.2	18.8	17 1	18.7	16.3	16.2	17.2	18.9	21.6	16.6	17.8	
Listerhills	2•3	I•1	2 • 2	1.1	1.6	I • 7	1.1	2.6	[12	I.3	1.5	1.0	2.0	20.9	19.3	24.0	18.6	22.7	24.5	18.0	258	27.0	24.8	20.0	23.7	15.5
Great Horton	1.4	0.4	I · 7	1-5	1.5	3.4	I·I	2.3	07		07	I.O	1.4	17.7	10.1	18.5	16.8	18.0	16.4	16.3	18.6	212	22.4	18.1	18.6	18.6
Little Horton	3.9	I • <del>,</del>	2.9	1.4	24	2•1	1.0		2.0	2.7	1.3	2.7	1.2	18.8	17.0	21.9	17:3	16.0	20.7	15.2	18.7	19.0	20.4	17.9	-	15.8
East Bowling	3.9	1.5	1.0	I • 7	2 · I	2.6	1.6	3.4		1.2	I · 8	2.8	1.8	16.7	17.7	18.0	17.4	16.0	15.9	16.3	15.6	19.2	21.1		17.5	16.9
West Bowling	3.6	1.3	3.4	0.0	2•I	2.3	3.1	2.3	4.0	25	1.4	3.9	5.9	20.0	IQ*2	22.4	20.5	22.6	22.3	13-4	23.4	24.1	24.5	19.0	20.3	16.8
Exchange	2.7	I-I	2.5	0.1	3.7	2.4	1.8	4·1	1•4	20	1.8	4-5	1.8	21.8	25 0	22.2	16.7	10.0	17.3	17.8	18.9	18.8	21 9	17.6	20.3	18.7
Bradford Moor	3.9	1•3	1.0	1.2	2.2			4.6	3.2	. I • I	2.2	30	1.9	19.6	19.7	20.7	17:4	29.7	24.9	27.5	26·1	28.3		18.4	21.4	18.3
Manningham	2.7	0.0	2·I			3.1	2.4	2.1	20	2.1	I.I	2.8	2·1	2 <b>2·</b> 6	21.1	21.5	18.3	18.7	22·1	21.2	20.6			20.8	22.2	16 <b>.0</b>
Bolton	06	1.2	I.8	1.5	1.0	3.0	I.I	2.7	1.0	3.1	0.9	3.3	1.8	19.2	15.4	18.3	18.0	18.4	10.1	14.3	17.2	20.4		-	20.3	17.4
Heaton				0.8	1-5	3.0	0.2	1.2	I.9	0.2	2.0	2.6	1.0	160	14.6	153	13.6	17:0	-				1		1	18.9
Allerton	2.7	I.1	1.8	1.17	I · 2	2.9		2.9	I.0	2.3	I • I	2.7	0.0	18.9	15.0	17.9	13.8	16.5	18		14·4 15·6	17.9	15.3	14.3	19.7	14.2
	·	0.7		0.9		I 8																				
OROUGH TOTAL	3.5	1.2	2.5	1.2	2 2	2.8	I.Q	2.65	2.08	2.35	1.46	3.22	1.65	21.3	18.3	20:0	7 - 1				14·8 		ιδ· <del>1</del>   1	5.7 2	21.2	12:4





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Shewing the mean Death-rate per 1,000 in Bradford and each of its fifteen wards from all causes and from 7 of the principal Zymotic Diseases during the five years, 1890 to 1894.

	×******	1
WARDS.	Mean Death-rate from 7 principal Zymotje Diseases during five years 1890 to 1894.	Mean Death-rate from all causes during five years 1890 to 1894.
North	2•4	22.8
South ¹⁵	2.6	23·2
East	I.Q -	
West	2.8 ***	22.8
Listerhills	17 ( <b>I</b> • <b>I</b> )	19*2.
Great Horton		18.3
Little Horton	2.0	19.3
East Bowling	2.9	21.0
West Bowling	·2·3	19.8
Exchange	2.3	21.3
Bradford Moor	2.0	10° 420•0
Manningham	end	19.5
Bolton	1.6	16.3
Heaton	I.Q.	15.9
Allerton	I•7	16•9
BOROUGH TOTAL	2.15	19.60

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# TABLE XXXV.

Analysis of the Vatal and Mortal Statistics of Thirty-three of the Largest English 2 owns during the Year 1894.

															1
io .ins	Rate per c Uncertified	2.1	2.3	0.8	4.2	:	1.4	0.8	I•2	1.3	I•2	1 1	2.0	1.5	5.3
Children year of Births.	Deaths of one under one age to 1,000 and a cone and a c	152	159	143	138	121	138	131	169	150	141	163	166	163	+63
•B30.	Distrib	5,223	3,443	1,780	108	23	52	74	29	69	68	20	64	257	1.5.1
·	Fever	1,997	1,344	653	45	7	11	27	11	22	80	12	17	106	20
.dguoJ	SniqoodW	5.033	2,936	2,097	IOI	62	14	41	78	176	123	77	28	214	10 V H H
ria.	ədidqiQ	3.979	1,309	2,670	190	32	26	33	S	48	69	IO	35	75	-
ever.	Scarlet F	2,177	1,215	962	36	80	4	15	80	16	8	23	53	26	2 2
• <b>8</b> 9	M easl	6,553	3,260	3,293	229	40	36	138	3	114	11	26	72	327	1.7.
	odilamZ	450	36i	89	49	:	:	4	S	91	H	:	S	170	h
from al seases.	Deaths Princip Zymotic Di	25,412	13,868	11,544	758	172	143	332	139	461	283	168	. 274	I,225	
e per ng.	Principal Zymotic Diseases.	2.4	2.3	2.7	3.2	1.5	1.2	5.0	9•I	2.0	6.1	3.I	3.2	2.2	-
Annual Rate per 1.000 Living.	Deaths.	1.81	18.4	17-8	16.2	13.2	16.4	15.2	18.3	17.3	16.2	0.71	20.7	18-6	
Ann I.G	Births.	30.7	31.2	30.1	34.0	25.0	25.8	27.6	28.8	28 2	34.4	32.3	34.1	31.7	
*s	Death	188,995	111,956	77,039	3,841	1,472	1,943	2,584	1,605	3,900	2,408	1,621	1,755	9,125	
	sdtriff	320,497	189,944	130,553	8,067	2,793	3.055	4,709	2,528	6,373	5,103	3,069	2,889	15,562	
10 9	Estimated P tion middl 1894. *	10,458,442	6,109,276	4,349,166	238,184	111,921	118,715	170,973	87.931	226,578	148,890	95.399	85,036	492,301	
				:	:	:	:	:	:	:	:	:	:	:	-
1		:	Tow	:	:	:	:	:	:	:	:	:	ton	•	
	Towns.	IS	ncial						д	;	:		amp	nam	
	To	Towns	rovir	lon	West Ham	don	hton	smo	lout	ol .	iff .	nsea	verh	ingl	
		33 T	32 Provincial Towns	London	Wes	Croydon	Brighton	Portsmouth	Plymouth	Bristol	Cardiff	Swansea	Wolverhampton	Birmingham	
1															

	C 7	2.0	0.5	3.5	6.0	1.3	2.8	0-8	8 · I	3 6	4.8	3.4	6.†	6.0	0. J	3.6	4.5	0.I	6.0	0.1
1	+1+	123	143	179	162	160	174	161	0 <i>L</i> 1	169	217	160	135	144	155	157	142	167	152	157
	134	34	48	508	90	346	141	44	77	86	157	18	4	53	175	191	88	113	44	16
2	ç C	26	17	297	26	96	63	15	27	33	29	12	9	32	52	64	40	82	23	27
	011	16	-'9	276	59	287	140	57	17	42	46	54	61	63	131	239	18	70	31	154
1	0.4	υ	4.1	26	10	146	63	39	29	18	8	22	12	13	73	66	29	6	12	32
-	2.	15	12	229	6	113	112	21	51	6	12	23	3	72	52	40	39	25	9	29
-	+34	64	92	299	21	224	146	56	36	13	37	13	33	111	290	165	93	116	93	96
	2	:	-	20	:	23	10	23	:	÷	I	:	4	27	3	:	3	:	I	:
* 510	340	160	278	1,726	215	1,235	667	255	237	201	290	142	18	371	776	765	373	415	219	435
	5.2	9•I	2.6	3.4	1•8	2.4	3.3	8.1	2.5	9.1	2.6	1.4	6.0	16	2.0	2.3	1.8	3.1	2.4	5.5
19-2	0 / 1	15.0	181	23•8.	18.8	20.4	21.0	18.6	18.7	6./1	20.8	15.8	16.5	16-9	6.11	8.71	17•4	20.8	17.7	18•3
30.8	2 04	29•3	30.6	35.4	31.5	32.0	34.3	27.2	32.2	28.8	32.1	20.2	23.1	26.6	32.2	33.4	32.4	35.1	34.2	31.0
102 CT 2	3,444	1,479	1,902	12,062	2,217	10,592	4,310	2,575	1,799	2,244	2,312	I,552	1,526	3,797	6,927	5,994	3,683	2,821	1,644	3,684
31.37	1 10C'n	2,890	3,223	17,893	3,721	16,606	7,041	3,762	3,099	3,617	3,566	1,988	2,142	5,960	12,502	11,267	6,886	4,768	3,180	ó,250
105.045	+00,022	98,796	105,627	507,230	118,303	520,211	205,828	13 ⁸ .755	96,478	125,797	111,425	98.511	92,861	223,985	388,761	338,316	212,679	136,101	93.372	201,947
1	:	:	÷	÷	:	:	:	:	÷	:	÷	:	÷	:	:	:	:	:	:	vne
	:	:	:	:	:	:	:	:	:	÷	:	~	÷	:	÷	:	÷	÷	÷	Newcastle-on-Tyne
CARES	TITET	:	cad	1	:	ster	:	:	:	E	:	sfield	÷	DRD	:		:	and	ad	tle-o
21 FEED	חווותקעוווטאב	by .	Birkenhead	Liverpool	uo	Manchester	Salford .	Oldham.	Burnley	Blackburn	Preston	Huddersfield	Halifax	BRADFORD	ds	Sheffield	-	Sunderland	Gateshead	vcasi
TOTA	TNOL	Derby	Birk	Live	Bolton	Mar	Salf	Old	Bur	Blac	Pre	Huc	Hal	BR∕	Leeds	She	Hull	Sun	Gat	Nev
-		-																		

#### Sanitation.

Towards the close of the Small-pox epidemic, in the middle of the year, it was noticed that the number of children presented at the Public Vaccination Stations was seriously falling off. The following notice was therefore issued on bills posted over the town, and at the same time precautions were issued in reference to the prevention of diarrhœal disorders:—

County Borough of Bradford.

#### CAUTION.

INFECTIOUS DISEASES.—SMALL-POX AND VACCINATION.

It is at this time of the year that Diarrhœa and other diseases due to accumulations of filth are likely to become prevalent.

Householders, parents, and others, having the care of children, are therefore earnestly requested to take the following precautions :

1.—To boil milk and all liquid foods given to young children, and to frequently scald all vessels in which milk is stored.

2.—To wash the feeding bottles of infants with hot water immediately after use, and to keep the tubes free from sour milk.

3.—To avoid food which has begun to decay, especially fruit.

4.—To empty no "slops" into ashpits. Solid house refuse, such as cabbage leaves, potato peelings and scraps of meat or fish, should be burnt, and all waste liquids poured down the drain.

5.—To keep the backyards clean, and not to allow the contents of ashpits to accumulate without notice being given at the Nuisance Office, Town Hall.

6.—To give immediate notice to the Sanitary Inspector of any accumulation of refuse, manure, or offensive material in the neighbourhood of the house. 7.—To observe the utmost cleanliness in house and person.

Lime for limewashing and disinfectants can be obtained free of charge any day on application at the Health Office, Chapel Lane, and brushes and buckets for limewashing may be had on loan also, without charge.

In reference to Vaccination as a preventive against Smallpox, and in view of the erroneous and misleading statements that have recently appeared in the local press, I think it right to call attention to the following facts :

1.—That during the recent epidemic of Small-pox in Bradford, there occurred 935 cases of the disease, of which 100 proved fatal, the death-rate therefore amongst those attacked was  $10\frac{1}{2}$  per cent.

2.—Amongst those who had been vaccinated the death-rate was only 5 per cent. whereas amongst the unvaccinated persons attacked it was over 28 per cent., hence the mortality amongst the unvaccinated was five-and-a-half times greater than that of the vaccinated.

3.—There was no death from Small-pox of any person under the age of 15 years who had been vaccinated in infancy, but there occurred 34 fatal cases under this age in persons who had never been vaccinated.

4.—Amongst the numerous staff of nurses, servants and others engaged at the Bradford Small-pox Hospital, there occurred no case of this disease. All had been protected by vaccination or re-vaccination immediately before commencing their duties.

The above facts show the benefits conferred by vaccination in infancy and re-vaccination at or about the age of 12 years.

#### By Order,

W. ARNOLD EVANS, M.D., Medical Officer of Health.

Town Hall, Bradford, July 20th, 1894.

## The New Small-pox Hospital.

It is a source of great satisfaction to know that Bierley Hall, with part of the estate adjoining, has now become the property of the Corporation. This estate is well removed from any thickly populated district, and will form an admirable site for the isolation and treatment of persons suffering from Small-pox; its area is  $28\frac{1}{3}$  acres, and consists of land in some parts wooded and in others devoted to pasture. The inquiry of the Local Government Board, in reference to the purchase of the estate, was held on the 19th and 20th of September, 1894; the sanction of the Board was received on March 17th, 1895, and the conveyance of the estate completed on July 12th, 1895.

# Disinfecting Station.

The following articles have been disinfected and houses fumigated during the year :---

Total number of houses fumigated and list of articles disinfected during 1894.

						· 1893.		1894.	
Hous	ses fi	ımig	ated			1928		1056	
		-		Arti	cles dis	infected :—			
Beds	•••		•••		758	Trousers			216
Mattresses				•••	357	Drawers			8 <b>2</b>
Pillows	•••				1366	Flannel Vests			116
Bolsters			•••		632	Dresses			379
Blankets			••	•••	1284	Petticoats			<b>3</b> 97
Counterpan	es	•••			1077	Hose			250
Curtains			•••	•••	33	Dressing Gowns			41
Carpets	•••	•••	•••		86	Shawls			477
Rugs		•••			81	Cushions			152
Coats	•••		•••		488	Mats and Sundrie	es		3815
Waistcoats			•••		204				
						Тота	L		12201

## New Buildings.

Table A shows that 64 new buildings have been certified as fit for habitation during the year.

#### TABLE A.

Shewing number of New Buildings certified as fit for habitation in each of the Wards, and in the whole Borough, during the years, 1889-94.

E						
WARD~.	1889.	1890.	1891.	1892.	1893.	1894.
North	29	9		64	43	8
South	92	104	104	69	35	16
East	78	77	20	49	98	54
West	4	3		3	4	9 ·
Listerhills	82	173	72	30	17	13
Great Horton	27	67	59	37	53	106
Little Horton	тб	15	40	42	4	19
East Bowling	27	31	61	48_	60	78
West Bowling	162	187	, 98	59	103	115
Exchange	3	2 '	I			I
Bradford Moor	131	. 85	98	76	110	87
Manningham	76	130	125	116	148	44
Bolton	86	41	48	30	20	24
Heaton	68	98	31	35	65	18
Allerton	57	48	69	16	22	49
BOROUGH TOTAL	938	1070	826	674	782	641

# REPORT

#### OF THE

# CHIEF INSPECTOR OF NUISANCES.

TO THE MEDICAL OFFICER OF HEALTH,

SIR,—The following statement shews the nature and amount of work done in the Sanitary Department during the year 1894, including an abstract of work carried out in the previous nine years.

				No	. of	Cases				
Particulars of work done.	1885.	1886.	1887.	1888	1889.	1890.	1891.	1892.	1893.	1894.
Drains opened and cleansed	1 3 0 5	1207	1125	1011	1356	1298	1429	1178	1236	1518
Drains provided for premises which had previously been without drainage	179	97	30	41	17	13	17	32	16	87
Sink drains disconnected from the sewer or otherwise effi- ciently trapped	2783	1149	788	345	623	871	632	508	365	565
Street Gullies cleansed	3022	3116	2656	2976	2184	2867	3648	3602	4064	483 t
Water Conductors provided and down spouts connected with the drains	700	870	665	828	1062	1251	1143	1127	947	197 <b>7</b>
Swine and Swine Styes removed from objectionable situations	93	55	45	45	24	30	29	13	31	20
Fowls, etc., removed from dwelling-houses	I 22	128	114	99	16 <b>2</b>	219	114	127	87	144
Accumulations of offensive matter removed	187	172	193	187	479	596	689	399	257	317
Filthy Yards and Passages cleansed	334	4 ‡8	508	416	484	578	1099	561	481	955
Surface of back yards and defec- tive pavement repaired	242	164	125	143	219	270	191	199	287	395
Defective Water Closets repaired	217	162	119	114	236	100	III	137	216	310

No. of Cases.

				No.	of C	ases.				
Particulars of work done.	1885.	1886.	1887.	τ888.	1889.	1890.	1891.	1892.	1893.	1894.
Stagnant Water removed from Ashpits	291	320	214	251	495	376	345	286	285	419
Privies and Ashpits repaired and provided with suitable doors and covers	1328	1017	9 <b>2</b> 7	1051	1177	957	779	9 <b>2</b> 4	964	1623
Foul Urinals repaired	19	34	25	30	32	35	20	13	46	32
Filthy Cellar Areas cleansed	90	85	71	131	80	81	84	74	57	85
Offensive Manure Pits removed	25	38	38	36	46	48	<b>2</b> 6	27	27	<b>2</b> 9
Defective Baths and Wash Basins repaired and discon- nected from the drains	173	90	155	124	35	54	25	50	51	77
Privies and Ashpits removed from objectionable positions and re-constructed on im- proved sites	759	423	3 <b>2</b> 0	334	370	391	265	196	2	291
New Water Closets erected	105	97	159	120	156	179	242	321	507	378
Stagnant Water drained off premises	102	160	101	133	130	132	92	83	132	190
Filthy Privies cleansed and lime-washed	963	1542	<b>93</b> 9	1327	1198	1167	1118	1026	1063	1365
Houses and Cellar Dwellings white-washed	313	321	151	224	295	283	237	258	254	341
Houses and Cellar Dwellings disinfected	639	949	1081	456	639	532	1081	779	1979	1015
Houses closed as unfit for human habitation	4	3			5	16	13	8	I	20
Cellar Dwellings closed as unfit for human habitation	18	15	I	2	15	11	<b>1</b> 8	9	I	16
Workshops closed as unfit for human habitation										3
General repairs of houses	50	49	27	71	42	34	<b>2</b> 9	42	36	78
Improvement and Ventilation of premises by the removal of out-buildings, etc., from back yards	121	101	127	172	197	127	81	9 <b>2</b>	20	54
Abatement of Nuisances from over-crowding of houses and cellar dwellings	7	13	15	14	18	41	26	24	24	24
	1		3							

				100.	oric	ases.				
Particulars of work done.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.
Foul Wells closed								2		2
Offensive businesses discontinued	I		I	2			2	2	1	
Foul Mill Dams cleansed	2	2	2	I	1	2	I	I	4	
Rag Warehouses cleansed	11	8	14	21	2	6		4	2	2
Tripe Boilers' premises inspected		72	301	343	209	88	107	86	112	243
Fellmongers' premises inspected			14	97	194	10	24	34	12	20
Houses inspected where infec- tious diseases have occurred	366	1 206	1180	399	563	522	1148	1031	2606	<b>2</b> 670
Bakehouses inspected		••••			11	33	6 <b>2</b>	43	34	25
Mill and Workshop Closets inspected							1613	<b>2</b> 69	140	509

The above particulars represent only those cases where Statutory Notices have been served, and do not include Nuisances prevented or abated on the verbal request of the Inspectors.

The number of persons summoned for non-abatement of Nuisances after Notices given is 17.

## Night Seavenging.

During the year the Contractors have, according to the returns of the Sanitary Officers, emptied 88,499 ashpits, and removed therefrom 9,195 loads of soil and 63,460 loads of rubbish, or a total of 72,655 loads.

There are now 49 railway wagons belonging to the Corporation, which are placed at the service of the contractors as against 60 last year, 11 having been withdrawn by arrangement with the contractors as being in excess of the number actually required in carrying out the work.

#### Burial Grounds.

During the year 130 visits have been made by the Sanitary Officers to the various graveyards within the Borough, but no irregularities have been observed.

#### Dangerous and Unfenced Places.

During the year 378 places, including houses and other buildings, have been reported by the Sanitary Officers as being in a dangerous condition. These have been dealt with and made secure from personal danger, either under the direction of the Borough Surveyor or the Chief Inspector of Nuisances.

#### Public Urinals.

The number of Public Urinals within the Borough is 35, as against 32 last year.

During the year 3 Public Urinals have been erected, viz. 1 in the stone staith at Horton Bank, 1 in the stone staith at Legrams Lane, and 1 by arrangement with the Midland Railway Company at School Street.

Arrangements have also been made for the erection of additional Urinals at the following places, the owners of the respective sites having given their consent thereto, viz. :— I at Sticker Lane, on land belonging to the Trustees of the late Thomas B. Sutcliffe; I at Leeds Road, on land belonging to the Hon. H. E. Butler; I at Allerton, on land belonging to Messrs. James Wood and Co.; and I at Manchester Road, on land belonging to Mr. William Morritt Spence.

By permission of the Poor Law Guardians a Public Urinal has been erected in the Workhouse grounds in Little Horton Lane.

#### Canal Boats.

There is still only one Canal Boat registered within the Borough, and this, along with 202 others registered with other Authorities but plying on the Canal within the Borough, has been examined by the Chief Inspector of Nuisances or his Assistant, Mr. Rhodes. In 11 cases the boats were found to be not in accordance with the regulations; 6 having defective cabins, 3 had no certificate of registration on board, and 1 had no water cask on board.

The owners of all the defective boats were formally requested by the Chief Inspector of Nuisances to have the boats thoroughly repaired, and accordingly the whole of the necessary repairs have since been carried out.

#### Common Godging-houses.

The number of Common Lodging-houses within the Borough is 42 as against 43 last year.

The houses contain 221 rooms for sleeping purposes, and are registered to accommodate 1,834 persons nightly.

The number of persons who have been accommodated during the year is 355,445; the nightly average being 973.

The number of visits paid to these houses during the year by the Sanitary Officers is 2,013, and their reports shew the houses to have been fairly well conducted with one exception. The offender was summoned before the Justices on the charge of neglecting to have the blankets, rugs, bedclothes, and covers, used in such lodging-house, thoroughly cleansed and scoured, as required by the Lodging-house Regulations, when the case was dismissed on payment of costs.

#### Adulteration of Food and Drugs.

During the year ending 1894, 260 samples of food have been submitted to the Borough Analyst by the Food Inspector for analysis. Of these 246 were certified by the Analyst as not adulterated, and 14 were found to be adulterated. Three of the offenders were prosecuted before the Justices, and penalties amounting with costs to  $\pounds_4$  5s. od. were inflicted. The rest of the offenders appeared before the Sanitary Committee, and were cautioned.

The following Table shews the nature of articles submitted for analysis, together with the amount of penalties inflicted against offenders for the year ending December, 1894.

								4	3												
REMARKS.																£ *					
10	. d.	:	:	:	:	:	;	:	:	:	:	9	:	:	:	:	:	:	:	9	0
Amount of Costs.	°.∞	÷	:	:	:	:	:	:	:	:	:	18	:	:	:	:	:	:	.:	18	2
- Wi	1 52 :	:	:	:	:	:	:	:	:	:-	:	:	:	:	:	:	:	:	:	:	10
of .s.	. q.	;	:	:	:	÷	:	:	:	•	÷	:	:	:	:	:	:	:	:	:	0
Amount of Penalties.	s :	÷	÷	:	:	:	:	:	:		:	:	:	:	:	:	:	:	:	÷	0
Å.	'Y	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	;	I	7
No Proceedings.	8	÷	13	:	:	:	:	:	:	:	÷	I	:	:	:	:	:	:	;;	:	II
Dismissed with Costs.	:	:	:	:	:	:	:	:	:	÷	:	I	:	:	:	÷	:	:	÷	÷	-
Convictions.	-	:	:	:	:	÷	:	:	:	:	:	:	:	:	:	:	:	:	:	I	10
Prosecutions.	-	:	:	:	:	:	:	:	:	:	:	I	:	:	:	÷	:	:	:	I	3
Pure.	182	I	∞	9	3	I	10	7	3	I	I	6	13	10	4	I	9	3	S	:	246
Adulterated.	6	:	7	:	:	:	:	:	:	÷	:	6	:	:	:	:	:	:	:	1	14
Totals.	191	I	10	9	ŝ	I	7	7	3	I	I	4	13	19	4	I	9	3	S		260
NATURE OF FOOD.	Milk	Condensed Milk	Butter	Pepper	Whiskey	Rum mu	Beer	Flour	Bread	Rising Flour	Cheese	Vinegar	Lard	Preserves	Ginger	Tinned Green Peas	Sweets	Paregoric	Ice Cream	Spirits of Nitre	Totals
4	N	Ũ	B	д	5	×	B.	H	B	R	C	Ν	H	A.	5	E.	Ś	A	Ic	S	

#### Dairies, Cow-sheds, and Milk-shops.

There are at present within the Borough, under the Contagious Diseases (Animals) Act, 1878, 252 Cow-sheds and 1,083 Dairies, Milkshops, and Purveyors of Milk, as against 258 and 1,043 respectively last year.

During the year 132 applications have been made for registration of premises for the sale of milk, and upon inspection by the Medical Officer of Health or the Dairies and Cow-sheds Inspector, 80 of these were found to be suitable, and were registered accordingly.

One milk dealer, whose dairy and milk vessels were found to be in a dirty condition, appeared before the Sanitary Committee, and was cautioned as to his future conduct. Several others were warned by letter for similar offences.

Inspection has been frequently made, as heretofore, of the milk and milk vessels coming into the town by railway and otherwise from places beyond the Borough. Numerous samples of milk thus delivered have been taken by the Food Inspector for analysis, and the results shew the milk to have been genuine and of good quality.

The number of visits and inspections made by the Officers have been as follows :—Cow-sheds, 950; Milk-shops, 2,616; and Milk Vessels, 1,512.

Where the sanitary conditions of Cow-sheds and Milk-shops . were found to be defective, notices were served upon the owners and occupiers requiring improvements to be carried out, with the result that 9 Cow-sheds, which were in defective sanitary condition, have been put into good order, and at 7 others the necessary alterations are in progress.

Special attention has also been paid to the Fried Fish Shops and Ice Cream Makers' premises within the Borough, and a marked improvement has been effected in these places in regard to cleanliness and more careful manipulation of the commodities produced thereat.

# Inspection of Meat, Slaughter-houses, Potted Meat and Sausage Manufactories.

There have been 183 seizures of Unsound Meat, Fish, and Fruit. In three cases the offenders were summoned before the Justices, and penalties and costs amounting to  $\pounds 4$  16s. od. were inflicted against two of the offenders, and one was dismissed.

There have been seized and destroyed 19,302 lbs. of beef, 1,780 lbs. of mutton, 630 lbs. of veal, 7,548 lbs. of pork, 16 tons of fish, 1 cwt. of bloaters, 58 bags of cockles, 79 bags of mussels, 1,089 boxes of kippers, 7 boxes of red herrings, 25 crabs, 3 baskets of shrimps, 1 bag of whelks, 5 barrels of pears, 28 baskets of plums, 20 baskets of black currants, 5 tons 11 cwts. of carrots, 2 cwts. of pickled tongues, and 1 goat.

The number of Slaughter-houses under the old regulations is 8, and there are 5 others for which licenses have to be applied for annually.

The number of places at which Potted Meat and Sausages are made is 68, as against 72 last year. These places are regularly visited and reported upon by the Inspectors.

The number of visits made during the year has been as follows :—Private Slaughter-houses, 400; Potted Meat and Sausage Works, 1,259. The Public Abbatoirs are visited daily.

#### Cattle Disease.

During the year there have been four outbreaks of Swine Fever within the Borough, 30 animals being affected with the disease, 8 of which died, and were burned at the Corporation Refuse Destructor Works at Hammerton Street and Sunbridge Road.

Each outbreak was promptly notified by the Sanitary Officers, through the Police, to the Board of Agriculture, in accordance with the Orders in Council, which provide that all cattle affected with Contagious or Infectious disease shall now be dealt with by the Officers of the Board, instead of by the Local Authority as heretofore.

Two cases of Rabies occurred, viz., one at Derby House, Thornbury, a dog owned by Mr. William Jewsbury being affected with the disease, and the other a stray dog also found to be suffering from the disease, owner not known. In both cases the animals were killed by the police, and the carcases afterwards burned under the supervision of the Sanitary Officers at the Refuse Destructor Works at Hammerton Street, and full particulars of each outbreak were duly forwarded at the time of occurrence to the Board of Agriculture.

Yours obediently,

#### JAS. CHAMBERS.

# REPORT

OF

## **INSPECTOR OF WORKSHOPS.**

[First Year of Adoption of Shop Hours' Act, 1892.]

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TO THE MEDICAL OFFICER OF HEALTH.

DEAR SIR,

I have to report that during the year 13 young persons have been found to have been employed over 74 hours during a week.

Twenty-nine young persons were found employed illegally, a large number of them after having been employed a full day at the mill, and the others were not qualified from age or education.

There are still a large number of employers who do not know that regulations are required to be posted, 25 cases having been reported during the year. Three cases were found of working during meal hours, and 6 cases of overtime.

Overcrowding has been dealt with in 7 cases, but there are still a number of workshops which require better ventilation. Several new workshops have been opened for these reasons. I am bound to say that in some trades the workpeople do not avail themselves of the ventilation already existing.

The sanitary condition of 18 shops and workshops has been dealt with, while 1 has been closed.

Separate closet accommodation for the sexes has been provided in 11 cases, while additional provision is provided in 4 cases.

The time for limewashing was exceeded by 31 persons, but was immediately attended to on attention being called to the fact.

Three places were found where people worked and slept in the same room.

Two obnoxious trades were found (chloride of lime and dry soap packing) and careful provision made for the protection of the workers.

One case of Mohair Sorting without fan was discovered.

FRANK ARMITAGE.

# REPORT

#### OF THE

# MEDICAL SUPERINTENDENT

#### OF THE

### FEVER HOSPITAL,

#### FOR THE YEAR 1894.

-:0:-----

GENTLEMEN,

I beg to submit my Report on the work of the Fever Hospital for the year 1894.

The number of Patients who passed through the Wards during the twelvemonths amounted to 621, of these 38 proved fatal, giving the low death-rate of 6.5 per cent.

At the commencement of the year the Hospital contained 38 patients suffering from Small-pox, and it was not until February 14th, when the last of them was discharged, that the painting, cleansing and disinfection of the Wards, rendered necessary by the admission of Small-pox cases, could be undertaken. The Hospital was re-opened for Fever cases on March 20th. Between this date and the time of its closure, several important improvements and alterations were carried out. The Wards which were originally designed for the safe isolation of Small-pox cases were considerably altered, the windows being made to open, ventilators inserted, and stoves provided for each Ward; these Wards have since been used for the treatment of Typhoid Fever, so that Patients suffering from this disease are now separated by a considerable space from the Scarlatina Wards.

The Laundry, which was old-fashioned and inadequate for the needs of the Hospital, has been re-modelled; the old Drying Chamber being re-constructed on more modern principles, and a New Engine and Hydro-Extractor added.

Fire-hydrants and a sufficient length of hose have been placed at points over the Hospital convenient for the instant extinction of fire, should the necessity arise. The pressure in the water mains has been improved by placing the Hospital on the high level service.

A new hot water supply for Wards I. II. and III. has been provided.

Considerable alterations have been effected in the Hospital Grounds, and the wall on the east side raised about two feet.

During the year 525 cases of Scarlet Fever were admitted, 30 of which ended fatally, giving a death-rate of 5.7 per cent.

Forty-two cases of Enteric Fever were received, a number considerably below the average. Of these cases 8 died, the death-rate being therefore 19 per cent. All the fatal cases were those of persons over 20 years of age.

Thirteen cases after admission were found not to be suffering from the disease for which they were certified, they were as follows:—Measles, 3; Dyspepsia, 2; Noticaria 2; Abscess of Liver 1; Pleurisy, 1; Catarrh 1; Bromidism 1; Rheumatism 1; Diphtheria, 1.

Two Nurses contracted Typhoid Fever, but I am pleased to state both made a good recovery.

I have the honour to be, Gentlemen,

Your faithful Servant,

A. E. FOSTER.

# APPENDIX.

TABLE A.-General Statement.

Remaining in Hospital 31st December, 1893	•••		•••	38
Admitted during 1894				5 ⁸ 3
				621
Discharged, relieved or cured	•••	•••		508
Died				38
Remaining in Hospital 31st December, 1894	•••			75
				621

TABLE B. Shewing number of cases admitted during each month of the year 1891.

Total. ŝ 24 46 84 66 11 99 58 55 583 Total Admissions. 17 31 E. 0 26 53 39 36 26 26 14 44 314 31 16 M. 10 20 40 2¹ 269 4 I 28 29 -31 27 27 Total. 16 : 0 3 0 4 0 -: Other Diseases. 3 2 : 6 Ē н н N. : : 1 н Total. 0 ŝ Small-pox. : 0 Ŀ. NI. : Total. 8 3 8 42 ŝ 3 LC, 3 4 4 Enteric Fever. Ξ. 0 -3 0 н 0 -М. : 3 3 ŝ 3 3 3 01 ŝ 1~ 32 Total. 20 45 6.4 2 9 525 ÷ 57 5 65 5 24 Scarlet Fever. 20 36 36 <u>د</u> I 2 52 25 28 40 25 15 295 М. 00 19 5 26 6 21 33 35 23 25 TOTAL FOR YEAR ... | 231 : : Lecember ... September ... November ... Months. : : : -168I :: February March ... October July ... January August April May June

TABLE C.-SCARLET FEVER.

Showing Admissions, Deaths, and Case Mortality from Scarlet Fever during the year 1894.

-	MAL	ES.	FEMA	LES.		TOTAL	•
Age.	No. Admitted.	No. Died.	No. Admitted.	No. Died.	Total Admitted.	No. Died.	Fatalities per cent.
Under 1							•••
I— 2	6		5	I	II	I	9.9
2-3	I 2	3	15	4	27	7	25.9
3- 4	15	I	24	1	39	2	5.1
4 5	27	I	36	5	63	6	9.2
Total under 5					140	10	11.2
5-10	113	5	151	4	264	9	11.4
10—15	41	2	42	2	83	4	4.8
15-20	το		13		23		
20—25	3	I	4		7	I	14.2
25—30	2		2		4		
30 - 35	2		2		4		
35-40							
Over 40							
TOTAL	231	13	291	17	525	30	5.7

The deaths of 7 patients occurred within 48 hours' after admission. If these be deducted the case mortality is reduced to 4'4 per cent.

#### TABLE D.-ENTERIC FEVER.

Showing Admissions, Deaths, and Case Mortality from Typhoid Fever during the year 1894.

	MAL	Е≒.	FEMA	LES.		TOTAL	•
Age	Ad- missions.	Deaths.	Ad- missions:	Deaths.	Ad- missions.	Deaths.	Mortality per cent.
Under 5			I		I	• •••	
5-10	7		2		9		
10-15	7		2		9		
15-20	6				6		
20-25	I	I	3	I	4	2	50 o
25—30	3	2	2		5	2	40 O
30-35	2		I	ı	3	I.	33 3
35—40	1	I	τ		2	1	50.0
40—50	I	T			I	I	100 [.] 001
Over 50	2	I			2	I	50.0
Total	30	6	12	2	42	8	19.0

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#### BRADFORD UNION .- Vaccination Report for the Year 1893.

ABSTRACT OF RETURNS made on the 8th day of February, 1895, by the Vaccination Officers of the Bradford Union, respecting the Vaccination of Children whose Births have been Registered from 1st January, 1893, to 31st December, 1893, inclusive.

Registration—	Number of Births registered from 1st		umber of the Feb., 1895,				Per centage of cases finally accounted	Births whi Feb., 1895, unentered "Vaccinat ster" on a	remained in the ion Regi-			All cases not accounted for in
Sub-Districts.	Jan., 1893, to 31st Dec., 1893.	Col. 10. " Success- fully Vac- cinated."	Col. "Insus- ceptible of Vccina- tion."	"Had Small Pox."	Col. 13. " Dead Unvac- cinated."	Total duly entered in the Register as finally accounted for.	for to total Births.	Postpone- ment by Medical Certificate.	Removals and Cases not found.			preceding columns.
I	2	3	4	5	6	7	8	9	10	ιī	12	13
1. Bowling	1008	676	6		123	805	79.9	4	76			123
2. Bradford East	1808	1183	10		282	1475	81.6	24	143			166
3. Bradford West	1612	1069	6	I	246	1322	82	5	165			120
4. Horton	1 302	752	7		169	935	71.8	17	130			220
TOTAL	5730	3687	2)	I	820	4537	79.2	50	514			629



# TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS,

Coming to the knowledge of the Medical Officer of Realth, during the year 2894, in the Urban Sanitary District of Bradford, classified according to Diseases, ages, and Localities.

		ATION AT AGES.	Births.		NE	W CAS	SES OI WLED	GE OF	DESS I. THE M	N EACH Iedicai	LOCAL OFF	ALITY, ICER O	COMIN F HEA	IG TO ALTH.	THE	Nt SE	JMBER VERAL	OF SUC	CH CAS LITIES	SES R	emovei Freatr	) FRO	M THE	IR HOM	ies in Hosp	THE TAL.
Names of Localities adopted			id Bi	Aged under 5	I	2	3	4	5	6	7	8	9	10	11	I	2	3	4	5	6	7	8	9	10	11
for the purpose of these Statistics.		Estimated	stere	or over 5				as			EVERS	;. 	r	-					su			FEVE	RS.			
,	Census 1891.	to middle of 1894.	Register	over 5	Small-pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Small-pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.
(a)	(b)	(c)	(d)	(e)	Sr	S.	A	M	Ĥ	년 년 년	ర	Ц	Ъ	Ū	ଳ	SI	Sc	Ā	X	Ĥ	ЩH.	ပိ	R	Pu	Ch	L H
North	12783	13234	334	Under 5 5 and upwards	1 9	16 40	1 5	3	•••	I IO	• • •	•••		•••	2 12	1 9	9 28	 I	•••	•••	2	• •	•••	•••		•••
South (H)	13124	13586	408	Under 5 5 and upwards	4 9	22 41	I 2		•••	I I2	•••	•••	I		 6	4 8	8 22	•••		•••	2	•••		•••	•••	•••
	15583	16132	466	Under 5 5 and upwards	2 9	38 76	 5	•••		 14	•••	•••	 I		1 10	2 9	17 37					••••				••••
West	14216	14712	359	Under 5 5 and upwards	 22	18 27	32	I		 4	•••	•••	5	•••	 I 2	2 I	10 13	2	•••	• • •		•••		•••		•••
Listerhills	18696	19356	461	Under 5 5 and upwards	1 19	33 95	 I	•••	•••	 11	 I	•••	 I		2 I 7	1 19	20 45			•••	2	•••				• •
Great Horton (H)	14768	15293	397	Under 5 5 and upwards	2 22	30 7 I	2 I		•••		•••	•••	2	•••	 16	2 22	7 18		•••	••••	3	•••				
Little Horton	15306	15844	465	Under 5 5 and upwards	 8	23 38	I 2		•••		1	•••	2	•••	<b>I</b> 7 3	 8	12 20	 I	•••	•••	···· 2 ·	•••		•••	••.	•••
East Bowling	16068	16630	449	Under 5 5 and upwards	 9	16 30	2 4	I 	•••	2 16			 I		I 12	 9	8 15	•		•••	I I 2	•••		•••	•••	
West Bowling	17250	17859	539	Under 5 5 and upwards	<b>і</b> 18	12 54		I 	•••	I I4			2	•••	Io	1 18	4 35	•••		•••	2		•••		•••	•••
Exchange	4846	5018	103	Under 5 5 and upwards	 3	6 9				 I	•••		•••		 5	3	I 7			•••	 I	•••	•••	•••	•••	•••
Bradford Moor	17520	18138	545	Under 5 5 and upwards	2 10	23 42	7 2	•••	•••	 10	•••			•••	 11	I IO	12 29	 I	•••	•••	7	•••	••	•••	•••	•••
Manningham	22469	23261	613	Under 5 5 and upwards	1 21	53 101	 I	2	•••	 9	•••		 3	•••		1 21	22 63	•••				•••	•••	•••		
Bolton	8425	8723	213	Under 5 5 and upwards	· 3	10 I4	 I	•••	•••	 5	•••	 I	•••	•••	2		4	•••	•••	•••	• • •	•••	•••	•••	•••	•••
Heaton	16108	16676	353	Under 5 5 and upwards	 11	14 46	I 2		•••				•••		I 7	 I I	9 21	 I	•••	•••	•••	•••	•••	•••	•••	•••
Allerton	9199	9523	255	Under 5 5 and upwards	 9	8 29	3		•••			•••	 I	•••	 I	 9	4 21	•••	•••	•••	2	•••	•••	•••	•••	
Borough Totals	216361	223985	5960	Under 5 5 and upwards	14 182	322 713	18 131	8		5 136	I	 I	. 22		8 136	13 180	143 378	2 4	···· ···	•••	I 44	•••			•••	



# TABLE OF DEATHS DURING THE YEAR 1894,

# In the Urban Sanitary District of Bradford, classified according to Diseases, Ages, and Bocalities.

	мо	RTAL AT	.ITY SUP	FROM JOINI	ALI ED A	, CAU GES.	SES		MOF	RTALI	TY F.	ROM	SUBJ	OINE	D CAT	USES,	DIST	TINGU	ISHIN	ig Di	EATH	IS OF	CHILI	DREN	UNI	DER F	IVE Y	YEAR	S OF	AGE.
Names of Localities adopted for the purpose of these Statistics.	 ທໍ	year.	er 5.	under	under	under	upw'ds.		I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
these Statistics. (a)	O At all ages.	S Under I y	(p) I and under	(a) 5 and un 15.	S 15 and un 25.	og 25 and un 60.	(4) 60 and upw	( <i>i</i> )	Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhœa and Dysentery.	Rheumatic Fever.	Ague.	Phthisis.	Bronch'tis. Pneumonia. and Pleurisy.	Heart Disease.	Injuries.	All other Diseases.	Τοται
North	219	53	31	11	9	73	42	Under 5 5 and upwards		2	 I	2		 I			 I			6	2	3	 I		 24	19 24		28	47 63	84 135
South	260	58	46	29	22	73	32	Under 5 5 and upwards	 I	18 18			•••	1 8			•••	•••	•••	8		I 2			2 30	20 26		2 2	52 48	104 156
East	218	56	30	13	15	55	49	Under 5 5 and upwards		2	2	•••		 2		•••	2	•••		6 2		I I	 I		1 28	I3 20	 I2	1 6	63 54	86 132
West	385	78	43	21	27	155	61	Under 5 5 and upwards	 I	I I	 I	I 	• •	• • •	•••		 I	•••	I 	6	6	8	2	•••	I 33	30 39		9 36	58 132	121 264
Listerhills	266	61	39	IO	11	87	58	Under 5 5 and upwards		I 2	I 	•••	•••	2			. 2	•••	2	8	5	3	2	•••	I 25	20 31	 22	I 2	57 78	100 166
Great Horton	250	53	34	8	25	80	50	Under 5 5 and upwards	6 18	I 3	I 	•••	•••	 3		•••		•••		8	I 	2	2		I 27	20 34	 16	23	46 57	87 163
Little Horton	490	74	38	12	17	153	196	Under 5 5 and upwards			I 		•••	2		•••	 I	•••	1	13 1	4	35	2	•••	 42	30 72	 50	I 4	58 196	112 378
East Bowling	271	85	44	8	12	67	55	Under 5 5 and upwards		I 	I I	•••	•••	 3	•••	•••	 I			7	11 	6 I	 I		 17	35 22	 19	23	65 74	129 -142
West Bowling	285	68	41	<b>I</b> 4	21	79	62	Under 5 5 and upwards		[ 2		I	•••	 6	•••	•••	 I		•••	9 1	4	3	1 5		 30	30 25	 20		00 18	109 176
Exchange	70	17	7	4	2	28	12	Under 5 5 and upwards		I 	•••	••••	•••	•••	•••		•••	•••		2	I 	4	•••			6 9	 7	I 	9 25	24 46
Bradford Moor	275	73.	39	6	15	72	70	Under 5 5 and upwards	I 	2 2	3 I	•••	•••	 I	•••	•••	•••		 I	12	. 4	5	•••	•••		28 27	 28	1 8	56 73	112 163
Manningham	382	77	55	II	27	113	99	Under 5 5 and upwards	•••	4 I	•••	I 		 I	•••	•••	2		 I	10 	15 	3	2	•••	36	32 39	 2 I	 5	67 142	132 250
Bolton	110	35	14	4	4	30	23	Under 5 5 and upwards		2	•••		•••	 I	•••	 I		•••	I 	I 	I 	́ І 			1 6	13 8	 1	···; 6	29 38	49 61
Heaton	213	47	36	10	6	54	60	Under 5 5 and upwards	•••	 3	•••				•••		•••		•••	6 1	3	I 			21	13 20	 12	5 2	55 71	83 130
Allerton	103	25	13	6	5	20	34	Under 5 5 and upwards	••••	 I	•••		•••		•••		 I	•••		4	5	•••	•••			9 10	 12	I 2	19 31	38 65
BOROUGH TOTALS	3797	860	510	167	218	1139	903	Under 5 5 and upwards	7 20	34 38	7 6	5	•••	г 30	•••	 I	 I2	••	51	106 5	62 I	44 9	I 21		6 354	318 400	267	28 91 1	741 162	1370 2427
PUBLIC INSTITUTIONS.																					1									
Scholemoor Small-pox Hospital, (Great Horton)	24	3	3		4	13	I	Under 5 5 and upwards	6 18	 	•••								•••		•••				•••	•••	•••			6 18
St. Catherine's Cancer Home (West)	12			•••	I	9	2	Under 5 5 and upwards	•••	•••						•••			•••		•••		1		••••		•••		 12	 I 2
Children's Hospital, (Heaton)	26	7	14	5	••••	•••		Under 5 5 and upwards	•••	 I	•••	•••	•••			•••						I 		••••	 I	2		2	16 3	21 5
Fever Hospital (South)	37		16	13	2	6		Under 5 5 and upwards		14 14			••	7					•••	I 				1			11		I 	16 21
Infirmary (West)	135	8	10	10	14	78	15	Under 5 5 and upwards	, 		•••	•••							•••				0		4	5				18 117 18
Workhouse (Little Horton	258	15	3	2	9	94	135	Under 5		•••		•••	•••	2								5	2 .	2	27		26	3 13	17 30	<b>240</b> 79
TOTALS	492	33	46	30	30	200	153	Under 5 5 and upwards	6 18	14 15			••••	 9					•••	I 		2 5			2	550		37 20	57	413

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