

**[Report 1909] / Medical Officer of Health, Eccles Borough.**

**Contributors**

Eccles (Greater Manchester, England). Borough Council.

**Publication/Creation**

1909

**Persistent URL**

<https://wellcomecollection.org/works/dx2shr79>

**License and attribution**

You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>



BOROUGH OF ECCLES.

---

ANNUAL  
**REPORT**

OF THE  
Medical Officer of Health

AND

*School Medical Officer*

W. M. HAMILTON, M.D., D.P.H.

**For the Year, 1909.**

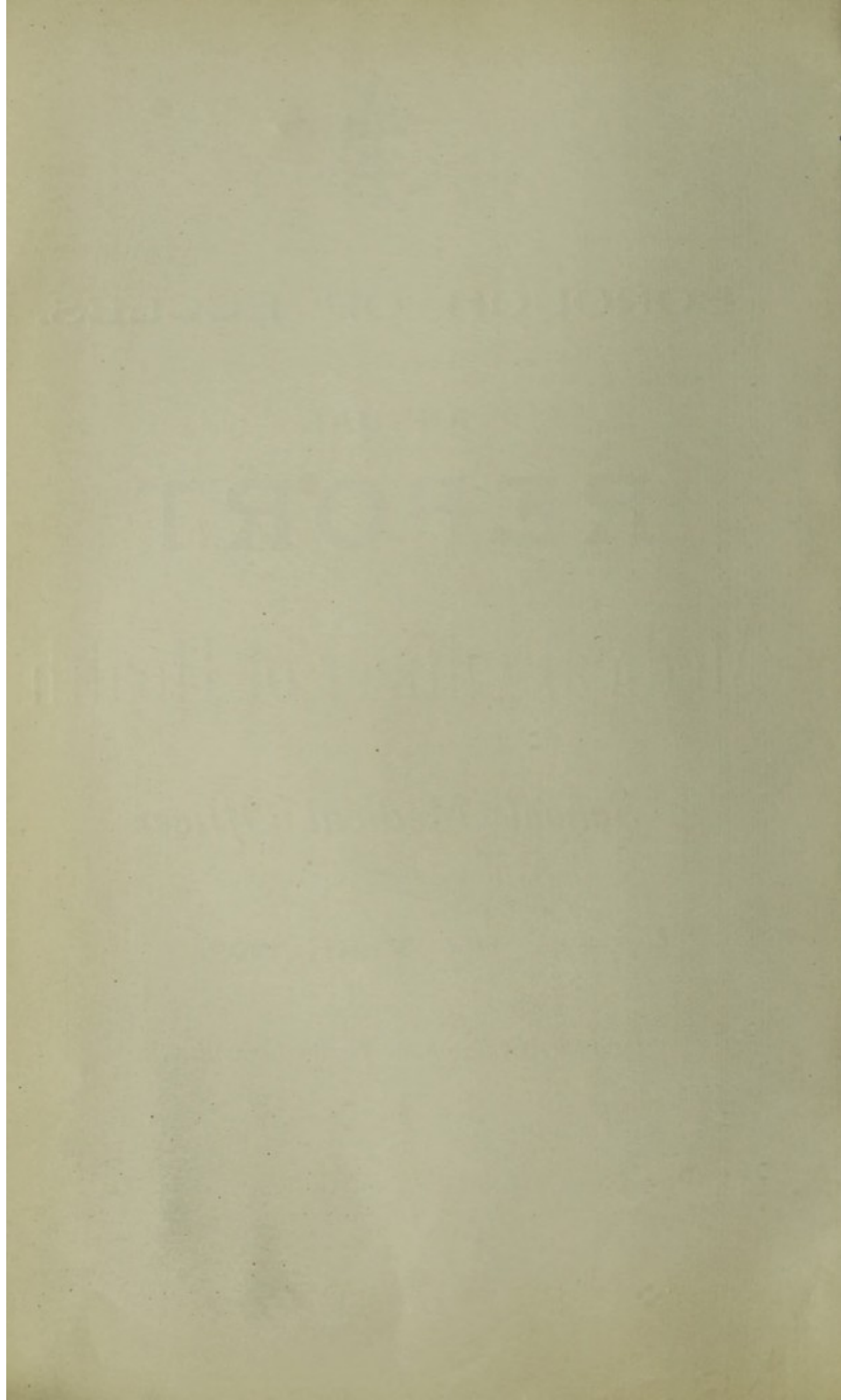
---

*Issued by Order of the Health Committee.*

---

1910.

BOGG & SONS PRINTERS, 167 CHURCH STREET, ECCLES.



# CONTENTS.

---

	PAGE.
Section I.—TRADE, &c., OF THE DISTRICT ... ..	8
„ II.—STATISTICAL SUMMARY ... ..	9
„ III.—VITAL STATISTICS .. ...	10
„ IV.—RECORD OF INFECTIOUS DISEASES ... ..	18
„ V.—SCHOOL MEDICAL INSPECTION ... ..	22
„ VI.—INFANTILE MORTALITY ... ..	41
REPORT OF THE LADIES' HEALTH SOCIETY ...	46
VACCINATION ... ..	47
DIARRHŒA AND ALLIED DISORDERS ... ..	50
„ VII.—PHTHISIS AND OTHER TUBERCULAR DISEASES	53
„ VIII.—REPORT ON ADMINISTRATION OF THE FOOD AND DRUGS ACT ... ..	60
„ IX.—SANITARY WORK OF THE HEALTH DEPARTMENT	61
FACTORY AND WORKSHOP INSPECTION ... ..	66
„ X.—SANITARY LEGISLATION OF 1909 ... ..	74
„ XI.—ANNUAL REPORT OF THE SEWAGE FARM MANAGER ... ..	81

# CONTENTS

## CONTENTS

1. Introduction	1
2. The Nature of the Problem	2
3. The Method of Investigation	3
4. Results and Discussion	4
5. Conclusions	5
6. Acknowledgments	6
7. References	7
8. Appendix	8
9. Index	9
10. Bibliography	10

# Annual Report of the Medical Officer of Health.

---

1909.

---

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I have pleasure in submitting my Annual Report for 1909. It is pleasing to again record substantial progress in Sanitary Work. The death rate has fallen from 13·9 per 1000 for last year to 13·6 for this year. This rate compares very favourably with that for the 76 great towns, the rate being (14·7), and the 142 lesser towns (13·9) of which Eccles is one. The Infantile mortality rate is less than last year, viz., 110. This rate, although not all that could be wished for, is lower by one per 1000 registered births, than the rate for the 142 lesser towns. This is the lowest rate on record for this Borough. I include a chart showing the rate from 1891 to present year. Much credit is due to the voluntary assistance rendered by the Ladies' Health Society.

The organisation of the Health Department has continued to work well, and the manifold duties devolving on it have been thoroughly and conscientiously carried out. I have again to record my thanks to my colleagues, Mr. Laskey and Mr. Laws, for their valuable assistance.

The most important work in which the Committee is engaged—the conversion of the filthy privy pit into cleanly water closets—has made record progress during the year. Since 1895 no new privy has been built. During last year 473 privy pits were converted to 836 water closets; 57 privy pits and 110 ashpits were abolished. Your Committee contributes twenty-five shillings towards the conversion of privies which have not been condemned by your Medical Officer of Health. Already in addition to the saving of life and the improvement of health, the contribution has proved a good investment in the decreased incidence of zymotic diseases which can be directly traced to food infection by dust from the midden and by flies generated in it, viz :—Enteric Fever and Diarrhœa.

The Dairies and Cowsheds have been thoroughly inspected during the year.

The administration of the Factories and Workshops Act has been thoroughly carried out.

The Common Lodging Houses have been inspected at frequent intervals, as also have been the Houses Let in Lodgings. Many cases of overcrowding have been dealt with.

School Medical Inspection is dealt with in a special section.

The demolition of the remaining portion of the Insanitary Area is being proceeded with, and the remaining houses required by the Local Government Board have been built.

I have again to tender my thanks to the Chairman, Mr. Alderman Parr, J.P., and the members of the Committee, for their hearty support during the year. The paramount desire of the Committee has been the improvement of the surroundings and health of the people. It is gratifying to record that every sanitary recommendation of the Committee has received the cordial support of the Council.

I am, Gentlemen,

Your obedient Servant,

W. M. HAMILTON.

## HEALTH COMMITTEE.

--O--

### Municipal Year Ending 1910.

Chairman : Alderman N. PARR, J.P.

Vice-Chairman : Councillor Dr. J. ORR.

THE MAYOR (Alderman T. THOMPSON, J.P.)

Alderman W. J. NUTTALL, J.P.

„ W. PEARSON.

Councillor R. EVANS.

„ A. FARNIE, J.P.

„ T. H. GARDNER.

„ J. K. McMYN.

### Municipal Year Ended 1909.

Chairman—Alderman N. PARR, J.P.

Vice-Chairman : Councillor Dr. G. SIDLEY,

THE MAYOR (Alderman W. J. NUTTALL, J.P.)

Alderman W. PEARSON.

Councillor R. EVANS.

„ W. SCOTT FORBES.

„ T. H. GARDNER.

„ J. K. McMYN.

„ Dr J. ORR.

Meetings of the Health Committee held monthly on the second Monday following the Council Meeting, in the Town Hall.

## SECTION I.

---

### Trade, &c., of the District.

---

The Borough of Eccles is situate four miles West of Manchester. It extends from the Gilda Brook, the Boundary of the Royal Borough of Salford, westward for about two and three quarter miles. It is bounded on the West by Chat Moss, and on the South by the Manchester Ship Canal.

The area of the Borough is 2,008 acres, and the population according to the last census, 34,369—now estimated at 41,500.

The substratum rock is mainly red sandstone, considerable patches of the boulder clay remain in places. In the Peel Green or West end of the Borough—in Barton Road by the Bridgewater Canal and by the side of the Ship Canal are found beds of drift sand. At Monton Green and Slack Lane, coal is found six feet from the surface, being overlaid by the boulder clay.

SHIP CANAL.—No complaints as to the state of the Ship Canal were received during the year.

OPEN SPACES.—The Recreation Grounds have been used to a great and increasing extent by the public. The provision of music weekly in each ground has been a great inducement to keep the people in the open air.

BATHS.—32,883 persons used the Baths during the year. Of these 10,015 availed themselves of the arrangements made by the Baths Committee for free bathing.

TRADE AND MANUFACTURES.—The cotton and iron trades provide the principal industries of the Borough, but there are also silk mills, metallurgical works, and other industries.

WATER SUPPLY.—This is from the Manchester Corporation, and is excellent.

## SECTION II.

---

### STATISTICAL SUMMARY, 1909.

POPULATION estimated to the middle of the year ...	41,500
BIRTHS—Males, 526; Females, 467. . . . .	993
ANNUAL RATE of BIRTHS per 1,000 of population ...	23.9
DEATHS Registered in the Borough — Males, 318; Females, 288 . . . . .	606
ANNUAL DEATH-RATE per 1,000 of the population, after deducting the Deaths belonging to out-districts, and adding Deaths of residents occurring outside district...	13.6
ZYMOTIC DEATH-RATE ... ..	.67
INFANTILE MORTALITY (per 1,000 Births) ... ..	110
EXCESS of REGISTERED BIRTHS over DEATHS ...	387
DENSITY.—The Mean Density of the Borough per acre is equal to	20.6
Persons per acre:—In BARTON WARD 21.4 ; ECCLES WARD, 60.8; IRWELL WARD, 32.0; MONTON & PARK WARD, 12.2; PATRICROFT WARD, 40.7; WINTON WARD, 12.6.	
	ACRES.
AREA :—The total Area of the Borough of Eccles ...	2,008
RATEABLE VALUE for District Rate purposes at April 1st, 1909 . . . . .	£166,182
NETT VALUE of a PENNY RATE ... ..	£648

---

### England and Wales, 1909.

BIRTH RATE ... ..	25.6
DEATH RATE ... ..	14.5
ZYMOTIC DEATH-RATE ... ..	1.12
INFANTILE MORTALITY (per 1,000 Births) ... ..	109

## SECTION III.

## Vital Statistics.

ESTIMATED POPULATION.—The census returns taken in April 1901 show that the population at that date was 34,369. The population has to be estimated to the end of June (middle of the year) ; and I now estimate the population at 41,500.

*Table shewing Acreage, Number of Houses, and Population of the various Wards at Census, and estimated at the end of June, 1909.*

Ward.	Acreage.	Census 1901.						Estimated June 1909			Population
		Dwelling-houses.			Population.			Dwelling-houses.			
		Inhabi- ted.	Unin- habit'd	Total	Males	Fe- males.	Total.	Inhabi- ted.	Unin- habit'd	Total	
BARTON ... ..	378	1162	45	1207	2662	2754	5416	1850	71	1921	8005
ECCLES ... ..	106	1075	32	1107	2311	2609	4920	1476	91	1567	6444
IRWELL ... ..	167	1128	54	1182	2475	2664	5139	1230	32	1262	5360
MONTON and PARK	528	1132	68	1200	2214	3226	5440	1442	114	1556	6467
PATRICROFT ...	170	1329	41	1370	3320	3448	6768	1552	22	1574	6920
WINTON ... ..	659	1450	43	1493	3212	3474	6686	1886	35	1921	8304
TOTALS FOR THE BOROUGH	2008	7276	283	7559	16194	18175	34369	9436	365	9801	41500

BIRTHS.—The number of births registered in the Borough during the year was 993, as against 1081 for 1908. Of these 526 were males, and 467 females; this gives a Birth rate of **23'9** per 1,000 of the population, as against 27'0 for 1908; 26'1 for 1907; and 26'2 for 1906. There were 37 illegitimate births, being 3'7 per cent of the total number of births.

DEATHS.—Of the 606 deaths registered as having occurred within the Borough, 318 were males, and 288 females; of these 74 were of persons belonging to outside districts. (*see Table*). Eleven deaths belonging to this Borough occurred at the Ladywell Sanatorium, and 25 in Institutions in Manchester, Salford, and other places outside the Borough. After

correcting for the above, the death-rate for the year was **13·6** per 1,000 of the population, as against 13·9 for 1908.

**Table of Births and Deaths belonging to various Wards.**

Ward.	Total Deaths.	Death rate per 1,000.	Births.	Birth rate per 1,000.
BARTON .....	112	13·9	224	27·9
ECCLES .....	81	12·5	132	20·4
IRWELL .....	87	16·2	157	29·2
MONTON & PARK ...	63	9·7	89	13·7
PATRICROFT .....	113	16·3	195	28·1
WINTON .....	12	13·4	196	23·6
TOTALS for the BOROUGH	568	13·6	993	23·9

I append the following table, showing the mortality rates for England and Wales, and in the 218 Towns, as compared with those of this Borough.

1909	Annual rate per 1000 living.			Deaths under one year to 1000 Births.
	Births.	Deaths.	Principal Epidemic Diseases.	
England and Wales ....	25·6	14·5	1·12	109
76 Great Towns.....	25·7	14·7	1·42	118
142 Smaller Towns ....	24·8	13·9	1·08	111
England and Wales, less the 218 Towns ...	25·6	14·5	0·8	98
<b>Eccles .....</b>	<b>23·9</b>	<b>13·6</b>	<b>0·67</b>	<b>110</b>

As before stated 74 deaths of persons from outside districts occurred within the Borough. The following table indicates the localities to which they belong, and to which they have been allocated. The Medical Officers of Health of those districts have been supplied with the particulars of those deaths.

Place of Residence.	Place of Death.	No. of Deaths.
Stretford ... ..	UNION WORKHOUSE ... ..	26
Swinton ... ..	Do. ... ..	11
Worsley ... ..	Do. ... ..	10
Barton Rural S.A... ..	Do. ... ..	7
Irlam and Cadishead ... ..	Do. ... ..	4
Urmston ... ..	Do. ... ..	4
Farnworth ... ..	Do. ... ..	1
Manchester ... ..	Do. ... ..	1
Runcorn ... ..	Do. ... ..	1
Sale ... ..	Do. ... ..	1
Manchester ... ..	St. Joseph's Home .. ..	2
Bury ... ..	Do. ... ..	1
Flixton ... ..	Bridgewater Canal... ..	2
Manchester ... ..	Do. ... ..	2
Pendleton ... ..	Field, Barton Lane... ..	1
	Total ... ..	74

#### MORTALITY IN AGE GROUPS :—

Deaths under one year ... ..	110
do. 1 year and under 5 years ... ..	48
do. 5 years and under 15 years ... ..	26
do. 15 years and under 25 years ... ..	27
do. 25 years and under 65 years ... ..	203
do. over 65 years ... ..	154
	<hr/> 568

#### INFANTILE MORTALITY :

The total number of deaths under one year belonging to the Borough was 110. This gives an infantile rate of 110 per 1000 births, as compared with 119 for 1908 and 119 for 1907.

#### \*ZYMOTIC DEATH-RATE :—

The number of deaths due to the principal zymotic diseases was 2. This gives a rate of .67 per 1000 of population, as compared with 1.5 for 1908, and 1.12 for England and Wales.

*Scarlet Fever.* Four deaths were due to this disease.

*Measles.* One death was due to this disease.

*Enteric Fever.* Four deaths

*Diphtheria.*—Eight deaths, as compared with five for 1908.

*Diarrhœa*—There were 9 deaths from this disease. All these deaths were under five years of age.

\* Small-Pox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Fever—(Typhus, Typhoid, and Continued) and Diarrhœa.

*Whooping Cough.*—There were 2 deaths from this disease.

*Acute Lung Diseases.*—Bronchitis, Pneumonia, and Pleurisy.—The deaths from these diseases numbered 111 ; giving a death-rate of 2·6 per 1000, as compared with 2·9 for 1908.

*Influenza.*—There were twelve deaths from this disease.

*Phthisis.*—Forty-six deaths were attributed to this disease, the death rate from which was equal to 1·1 per 1000, as compared with ·75 in 1908.

*Cancer.*—35 deaths were attributed to this disease, the death-rate from which was equal to ·84.

*Other Tubercular Diseases.*—The deaths from these diseases numbered 15, giving a death-rate of ·36 per 1000.

**Total Deaths and Death Rates from all causes. Children under  
5 years of Age. Zymotic and Pulmonary Diseases.  
For the Years 1876 — 1909.**

Year.	Total Deaths	Rate per 1000	Zymotic Diseases	Rate per 1000	Deaths under 5	Rate per cent.	Phthisis	Rate per 1000	Acute Chest Diseases	Rate per 1000
1876	423	25.4	66	3.9	158	37.5	53	3.1	100	6.0
1877	440	22.7	89	4.6	175	40.0	46	2.3	84	4.3
1878	443	22.2	68	3.4	196	44.2	49	2.4	90	4.5
1879	396	19.2	28	1.3	177	43.8	60	2.9	116	5.6
1880	437	20.5	87	4.0	176	43.7	59	2.7	96	4.5
5 years average	427	22.0	67	3.4	176	41.8	53	2.6	97	4.9
1881	383	17.4	56	2.5	155	40.4	66	3.0	70	3.1
1882	434	19.0	59	2.5	190	49.0	46	2.0	113	4.9
1883	371	15.7	53	2.2	173	47.0	45	1.9	90	3.8
1884	399	16.4	83	3.4	181	45.0	41	1.6	87	3.5
1885	419	16.6	54	2.1	157	37.0	46	1.8	91	3.6
5 years average	401	17.0	61	2.5	171	43.6	48	2.0	90	3.7
1886	419	16.1	47	1.8	186	44.1	40	1.5	93	3.5
1887	475	17.8	90	3.3	219	42.6	41	1.5	127	4.7
1888	437	15.9	54	1.9	183	41.8	49	1.7	100	3.6
1889	465	16.4	79	2.7	213	45.8	49	1.7	93	3.2
1890	603	20.8	50	1.7	218	36.1	50	1.7	142	4.9
5 years average	479	17.4	64	2.2	203	42.0	45	1.6	111	3.9
1891	683	22.3	94	3.1	292	42.7	43	1.4	143	4.7
1892	554	18.1	35	1.1	205	37.0	50	1.6	93	3.0
1893	608	18.6	82	2.5	247	40.6	39	1.2	113	3.5
1894	443	13.0	49	1.4	183	41.3	47	1.4	74	2.3
1895	552	16.2	104	3.1	239	41.4	54	1.6	97	2.9
5 years average	568	17.6	72	2.2	233	40.6	45	1.4	104	3.2
1896	551	15.7	104	3.0	221	40.1	50	1.4	76	2.2
1897	580	16.7	94	2.7	248	42.7	56	1.6	115	3.3
1898	573	16.6	114	3.2	232	40.0	44	1.2	95	2.7
1899	600	16.7	127	3.5	215	35.8	46	1.2	98	2.7
1900	619	17.0	91	2.5	220	35.5	38	1.0	107	2.9
5 years average	585	16.5	86	3.0	227	38.8	47	1.3	98	2.7
1901	570	16.5	94	2.7	217	38.0	43	1.2	94	2.7
1902	553	15.8	79	2.2	182	32.9	29	.8	90	2.5
1903	527	14.8	59	1.6	181	34.3	33	.92	94	2.6
1904	542	14.8	63	1.7	211	38.9	39	1.0	87	2.3
1905	511	13.4	42	1.1	177	32.6	35	.92	95	2.5
5 years average	540	15.0	67	2.0	193	35.3	35	.96	92	2.5
1906	534	13.8	47	1.2	189	35.3	43	1.1	94	2.4
1907	585	15.0	59	1.5	193	30.3	39	1.0	115	2.9
1908	558	13.9	62	1.5	196	35.1	30	.75	117	2.9
1909	568	13.6	28	.67	158	27.9	46	1.1	111	2.6

# Borough of Eccles.

—O—

## Vital Statistics of whole district during 1909, and previous years.

Year.	Population esti- mated to middle of each year.	Births		Total Deaths registered in the District.				Total Deaths in Public Institutions in the district.	Deaths of non-resi- dents registered in Public Institutions in the district.	Deaths of residents registered in Public Institutions beyond the district.	Nett Deaths at all ages belonging to the district.	
				Under 1 year of Age.		At all ages.					Number	Rate.*
		Number	Rate *	Number	Rate per 1000 births registered.	Number	Rate *					
1	2	3	4	5	6	7	8	9	10	11	12	13
1899	... 33560	918	27.3	139	151	614	18.2	85	48	34	600	17.8
1900	... 34230	913	26.8	145	158	653	19.1	102	68	28	619	18.1
1901	... 34500	931	26.9	153	164	595	17.2	96	52	32	575	16.6
1902	... 35000	950	27.1	107	112	583	16.6	123	69	39	553	15.8
1903	... 35600	1014	28.4	123	121	558	15.2	117	61	30	527	14.8
1904	... 36400	1009	27.7	146	144	588	16.1	104	67	21	542	14.8
1905	.. 38000	965	25.3	107	111	571	15.0	139	86	25	511	13.4
1906	... 38500	1010	26.2	141	139	597	15.5	127	86	23	534	13.8
1907	.. 39000	1019	26.1	121	119	653	16.7	145	91	23	585	15.0
1908	.. 40000	1081	27.0	129	119	596	14.9	123	65	27	558	13.9
Averages for Years 1899—1908	36459	981	26.8	131	133	600	16.4	116	69	28	560	15.4
1909	41500	993	23.9	110	110	606	14.6	133	74	36	568	13.6

\* Rates in columns 4, 8, and 13 calculated per 1000 of estimated population.

Area of District in acres (exclusive of area covered by water)... 2,008

Total population at all ages ..... 34,369

Number of Inhabited Houses ..... 7276

Average number of persons per house ..... 4.7

At  
Census,  
of 1901.

The Union Workhouse is situate within the Borough.

# BOROUGH OF ECCLES.

## Vital Statistics of separate Localities in 1909 and previous years.

Names of localities	Whole District.				Barton Ward.				Eccles Ward.				Irwell Ward.				Monton Ward.				Patricroft Ward.				Winton Ward.			
	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
1899	33560	918	600	139	5275	171	85	19	4794	121	85	18	4993	134	115	31	5314	86	56	8	6638	211	163	32	6546	195	96	31
1900	34030	913	619	145	5353	163	117	23	4872	128	72	17	5071	165	135	39	5392	81	50	5	6718	194	169	23	6624	182	136	38
1901	34500	931	575	153	5431	131	97	29	4950	134	78	19	5149	147	130	35	5470	106	50	10	6798	199	164	27	6702	214	116	33
1902	35000	950	553	167	5536	169	88	15	5010	114	89	14	5155	154	107	23	5545	90	64	6	6926	209	116	23	6828	234	89	26
1903	35600	1014	527	123	5666	196	100	25	5140	114	70	12	5155	168	103	39	5665	119	57	5	7046	200	107	20	6928	217	90	22
1904	36400	1009	542	146	5852	182	82	23	5337	117	74	19	5235	163	96	28	5737	112	76	11	7205	210	114	31	7134	225	100	34
1905	38000	965	511	107	6835	190	92	21	5740	116	84	12	5190	132	72	17	6076	106	46	6	6720	209	113	27	7439	212	104	24
1906	38500	1010	534	141	6985	200	114	31	5890	136	78	14	5190	145	82	23	6126	95	59	7	6770	197	88	28	7539	237	113	38
1907	39000	1019	585	121	7227	225	107	35	6146	131	95	24	4902	143	90	17	6149	92	65	3	6751	191	109	18	7825	237	119	24
1908	40000	1081	558	129	7663	240	118	33	6222	136	76	17	4992	155	81	22	6365	100	53	3	6852	193	106	27	7906	257	124	27
Averages of Years 1899 to 1908	36459	981	560	131	6182	186	100	25	5400	124	80	16	5103	150	101	27	5783	98	57	6	6842	201	112	25	7147	221	108	29
1909	41500	993	568	110	8005	224	112	32	6444	132	81	10	5360	157	87	24	6467	89	63	7	6920	195	113	19	8304	196	112	18

## BOROUGH OF ECCLES.

*Causes of, and ages at, Death during the Year 1909.*

Causes of Death.	Deaths at the subjoined ages of "residents" whether occurring in or beyond the district.						Deaths at all ages of "resi- dents" belonging to localities whether occurring in or beyond the district.							Total Deaths whether of "residents" or "non-resi- dents in Public Institu- tions in the district.	
	All ages	Under 1 year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Whole Borough	Barton Ward	Eccles Ward.	Irwell Ward	Monton Ward	Patricroft Ward		Winton Ward
Small-pox ...															
Measles. ....	1		1					1						1	
Scarlet Fever ...	4		4					4	2	1	1				
Whooping Cough ...	2	1	1					2	2						1
Diphtheria including Membranous Croup ...	8		4	4				8		3	1	1	3		
Croup ...															
Fever. { Typhus															
{ Enteric	4			1	1	2		4	2					2	
{ Other continued															
Epidemic Influenza ...	12			1	2	5	4	12	2	4	1	2	1	2	
Cholera (English) ...	1					1		1						1	
Plague ...															
Diarrhoea ...	9	7	1				1	9	3		1	1	2	2	
Enteritis ...	12	10	2					12	7		2	1	1	1	
Gastritis ...															
Puerperal Fever ...															
Erysipelas ...															
Phthisis ..	46		1	4	9	32		46	11	7	7	1	9	11	19
Other tubercular diseases	15	2	7	3	1	2		15	1	2	3	1	2	6	1
Cancer, malignant do.	35					23	12	35	6	3	5	7	7	7	9
Bronchitis ...	69	15	4			17	33	69	17	9	9	4	18	12	17
Pneumonia ..	41	9	7	5	3	12	5	41	5	8	6	2	11	9	7
Pleurisy ...	1						1	1				1			
Other diseases of the respiratory organs ...	2						2	2				1		1	
Alcoholism															
Cirrhosis of liver	8					7	1	8	1		1		3	3	2
Venereal diseases	2	2						2	2						1
Premature birth ...	29	29						29	10	2	7	2	6	2	1
Diseases and accidents of parturition	9				2	7		9	2	1		2	3	1	
Heart Diseases	53				4	26	23	53	9	13	5	5	10	11	15
Accidents	13	2	2	2	1	5	1	13	4	4	2		1	2	8
Suicides	8				1	7		8		1	4		2	1	2
All other causes	184	33	14	6	3	57	71	184	26	23	32	32	34	37	50
All causes	568	110	48	26	27	203	154	568	112	81	87	63	113	112	133

## SECTION IV.

## RECORD OF INFECTIOUS DISEASES.

The total number of cases notified during the year was 262, as compared with 231 for 1908.

Diseases.	1900.		1901.		1902.		1903.		1904.		1905.		1906.		1907.		1908.		1909.	
	Cases	Deaths.	Cases	Deaths.	Cases	Deaths.	Cases	Deaths.	Cases	Deaths.	Cases	Deaths.	Cases	Deaths.	Cases	Deaths.	Cases	Deaths.	Cases	Deaths.
SMALL-POX ...	...	...	...	...	4	...	14	2	...	...	...	...	...	...	...	...	...	...	...	...
SCARLET FEVER ...	254	12	143	10	191	11	139	3	113	3	134	6	208	5	186	5	180	7	171	4
DIPHTHERIA ..	131	17	78	12	108	21	126	23	32	7	30	6	28	5	33	8	30	3	53	8
MEMBRANOUS CROUP ..	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	1	2	...	...
ENTERIC FEVER ...	29	6	54	9	33	4	16	3	36	8	17	4	22	4	13	3	13	4	22	4
PUERPERAL FEVER ..	4	1	5	5	5	5	2	1	2	1	2	...	1	...	1	...	...	2	...	...
MEASLES ...	...	9	...	7	...	11	...	15	4	...	...	16	...	3	...	5	...	18	...	1
WHOOPING COUGH ...	...	3	...	5	...	24	...	2	...	22	...	6	...	...	...	24	...	15	...	2
DIARRHŒA and DYSENTERY	44	...	...	51	...	8	...	11	...	18	...	4	...	30	...	14	...	12	...	9
ERYSIPELAS ...	23	1	14	2	33	3	21	2	19	...	27	1	9	2	20	1	7	...	14	...
CONTINUED FEVER ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...
CEREBRO SPINAL FEVER .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	441	93	294	101	374	87	319	62	202	63	211	43	269	49	254	60	231	62	262	28

*Monthly Return of Notification of Infectious Diseases*

1909	Scarlet Fever	Diphtheria & Membranous Croup	Enteric Fever	Puerperal Fever	Erysipelas	Cerebro Spinal Fever.	Totals.
January ...	25	5	6	—	...	...	36
February...	21	11	4	1	1	...	38
March ...	27	3	6	...	1	...	37
April ...	17	8	...	...	2	...	27
May ...	15	7	...	...	1	...	23
June ...	16	2	2	...	1	...	21
July ...	9	3	...	...	...	...	12
August ...	10	4	...	1	1	...	16
September.	8	4	...	...	2	...	14
October ..	11	2	...	...	1	...	14
November .	5	2	1	..	1	...	9
December .	7	2	3	...	3	...	15
Totals ...	171	53	22	2	14	...	262

# *Borough of Eccles—Cases of Infectious Disease Notified during the year 1909.*

Notifiable Disease.	Cases Notified in whole District.							Total Cases Notified in each locality.							No. of Cases removed to Hospital from each locality							Deaths in Hospital of Patients removed from this District.	
	At all Ages	At Ages.—Years.						Whole district	Barton Ward	Eccles Ward	Irwell Ward	Monton Ward	Patricroft Wd	Winton Ward	Whole district	Barton Ward	Eccles Ward	Irwell Ward	Monton Ward	Patricroft Wd	Winton Ward		Total cases removed to Hospital.
		Under 1 Year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards.																
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup)	53	...	15	28	6	4	..	53	5	18	10	10	5	5	38	4	14	7	4	5	4	38	8
Erysipelas	14	...	1	...	...	11	2	14	2	3	2	2	4	1	2	1	...	...	1	...	...	2	...
Scarlet Fever	171	..	51	106	8	6	...	171	40	30	21	16	22	42	31	4	8	5	2	8	4	31	...
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	22	...	1	6	5	10	...	22	10	2	...	1	5	4	15	7	...	..	1	5	2	15	3
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	2	...	...	...	1	1	...	2	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Plague ...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	262	...	68	140	20	32	2	262	58	53	33	29	36	53	86	16	22	12	8	18	10	86	11

Isolation Hospital—Ladywell Sanatorium, Salford. Total available beds 26.

*Distribution of Infectious Diseases into Wards.*

Diseases.	BARTON.		ECCLES.		IRWELL.		MONTON and PARK.		PATRI- CROFT.		WINTON.		Total.	
	Total Notified.	Total Deaths.	Total Notified.	Total Deaths.	Total Notified.	Total Deaths.	Total Notified.	Total Deaths.	Total Notified.	Total Deaths.	Total Notified.	Total Deaths.	Cases Notified.	Deaths.
SMALL-POX ... ..	...	..	..	...	...	...	...	...	...	...	...	...	..	...
SCARLET FEVER ... ..	40	2	30	1	21	1	16	..	22	...	42	...	171	4
DIPHTHERIA and ... ..	5	...	18	3	10	1	10	1	5	3	5	...	53	8
MEMBRANOUS CROUP														
ENTERIC FEVER ... ..	10	2	2	...	...	..	1	...	5	...	4	2	22	4
PUERPERAL FEVER ... ..	1	...	...	...	...	...	...	...	...	...	1	...	2	...
MEASLES .. ... ..	...	...	...	...	...	...	...	...	...	...	...	1	...	1
WHOOPING COUGH ... ..	...	2	...	...	...	..	...	..	...	...	...	...	...	2
DIARRHŒA and } ... ..	...	3	...	...	...	1	...	1	...	2	...	2	...	9
DYSENTERY.														
ERYSIPELAS ... ..	2	...	3	...	2	...	2	...	4	...	1	...	14	...
CONTINUED FEVER ... ..	...	...	...	..	...	...	...	...	...	...	...	...	...	...
TOTAL ... ..	58	9	53	4	33	3	29	2	36	5	53	5	262	28

AMOUNT OF HOSPITAL ISOLATION OF INFECTIOUS DISEASES.—There were 86 cases of infectious diseases removed to hospital, being 32·8 per cent of the total number of cases notified.

Scarlet Fever—cases notified 171, removed 31, per centage 18·1

Diphtheria and Membranous Croup } do. 53, do. 38, do. 71·7

Enteric fever do. 22, do. 15, do. 68·1

Puerperal fever do. 2, do. Nil, do. Nil.

Erysipelas do. 14, do. 2, do. 14·2

Continued Fever do. Nil, do. Nil, do. Nil.

In 1908, 38·0 per cent of notified cases were removed; 30·3 per cent 1907, 27·5 per cent in 1906.

## SECTION V.

---

### School Medical Inspection.

---

During the year a very large and increasing amount of School Inspection has been done. The inspection of a further group of cases, viz., children seven to eight years of age has been undertaken. In future the parents of these children will be invited to be present at the examination. During the year, 1708 new admissions were examined. Of these 622 were found to be defective. Notices stating the nature of the defect found in the child were sent to all parents who were not present at the examination. Two hundred and ninety-one defective children were found during the course of the general inspections. Notices of all these were sent to the parents. Six hundred and ninety-seven parents were present at the examination. This number is gratifying, and it is satisfactory to report that the number is increasing. The presence of the parent greatly assists in the examination, and enables the inspector to get a complete life history of the child. One very satisfactory result of the years working has been in the treatment of verminous heads. Of these 240 were discovered; of these no less than 155 have been cured. The method of dealing with these cases is as follows:—On the discovery of the case, if the head be in a bad condition, the child is at once excluded, and the leaflet given below given it to take to the parent. If the head be only moderately dirty, the child is allowed to remain in school, but is separated from the other children. On the Saturday but one following the discovery of the head, the parent is summoned to fetch the child to the Town Hall for inspection. If no improvement be found the parent is warned that further proceedings will be taken. The child is again inspected after the lapse of a fortnight, and if no improvements be again found, the parent is summoned before the Committee. Several cases which the efforts of the Inspector could not get cured have been successfully dealt with by the Committee. During the latter part of the year a strong effort has been made to prevent the occurrence of these cases by endeavouring to get the hair of all the female children tied up in two plaits. Dr. Eichholz, H.M. Inspector, on his visit to this Borough, warmly approved of the Committee's efforts in this respect. Dr. Carruthers has so admirably stated the facts relating to cleanliness of the skin and head, that I take the opportunity of quoting his words:—

"Cleanliness has to be defined under the heads of "clean," "somewhat dirty," and "dirty." It must be judged for the head and body separately. "The skin of the body should be examined for cleanliness, vermin, etc., and the hair for scurf, nits, vermin, or sores. At the same time ringworm and other skin diseases should be looked for. It will be noticed that the head and body are to be judged separately, both as regards cleanliness and the healthy condition of the skin, with or without the presence of parasites. In the schedule there is no mention of the integumentary system among the other systems, so that it is considered under this heading. It is difficult to have an absolute standard of the three grades of cleanliness, but a child is clean, a child is somewhat dirty when the condition is passable, and dirty when it is necessary to take steps to remedy the condition: these conditions are quite apart from the presence of any verminous condition, which if present should be stated, so that the attention of the parents be drawn to it with a view to its removal.

"Cleanliness in children is important, as it is in evidence of self-respect, and a dirty child presupposes a dirty mother. Lack of cleanliness in a child may be due to the influence of the home, the school, or the teacher. If the home is dirty, the child tends to be dirty, and certain occupations of the parent, as the miner, may conduce to a disregard for washing. In rural districts a defective water supply may at certain seasons tend to produce a condition of uncleanness which may not pass away with the removal of the scarcity of water. The habits of the teacher are very important in assisting the child to be clean, because if the teacher is cleanly in habit and careful in insisting in cleanliness in the child, much may be done to check the tendency to be unwashed. The school may also be responsible for the condition of the child, if no provision, or very slight, be made for lavatory basins.

"The Building Regulations (Code 3571 of 1907) issued by the Board of Education under Article 17 of the Code, says that "lavatory basins are needed. Girls' schools require a larger number than boys or infants," and the tendency of this regulation, while suggesting that work be kept clean, does not encourage personal cleanliness. More is being done in new schools to remedy this condition, and much good work has been done in late years in advocating the supply of spray baths to schools. Dr. Rose, assistant educational adviser to the London County Council, brought the matter prominently before the Congress of the Sanitary Institute at Cardiff in 1908. He showed that while much had been done on the Continent, very little had been done in this country, Bradford being the only town which had followed the German example and introduced spray baths for cleansing purposes in schools. In Cologne, Frankfort and Weisbaden a sufficient number of baths are provided at the schools to enable every child to have a hot bath once a week throughout the year, and the practice of bathing is general for all children, unless they are medically certified as unfit. It is most important that spray baths should be provided in schools for children, but it is not always possible, even in urban areas, owing to the cost, both in initial outlay and in use. Where it cannot be done, an arrangement might be made with public baths for a regular system of bathing the children. This method might be of advantage in later life, because on leaving school there would not be the same facilities for bathing, but, if children had been taken for years regularly to the public baths they might continue the habit themselves after leaving school.

" When, however, vermin are present, either as the louse or the flea, the " dirty child becomes a positive evil, and a condition arises that presents many " difficulties. What the condition elsewhere is it is difficult to say, because " dirty linen is not washed in public; but in this area there are, perhaps, " more grants lost from non-attendance of children at school owing to their " being suspended for their verminous condition by teachers, than from any " other cause. In Article 53 of the Education Code, the school medical officer " can exclude children from school on the ground that their uncleanly or " verminous condition is detrimental to other scholars, and the exclusion of such " children shall be deemed, for the purposes of this Code, to be exclusion on " reasonable grounds. After such exclusion, in many areas, the parents are " prosecuted for non-attendance of their children at school, and convictions are " obtained, but not always, and the difficulty of obtaining these convictions " places a premium on the cultivation of vermin. It seems to be a difficulty in " the minds of some justices that the child has been excluded from school, and, " therefore, the local education authority has no right to proceed against the " parent for non-attendance at school; but it was decided in the High Court, " on appeal, in the case of *Jones versus Rowland* (80 L.T. 630), " neither does " the parent cause his child to attend school within the meaning of the bye-law " when he sends his child to a school where he is aware that admission will be " refused." This decision would appear to give a right of appeal in these cases " where local justices decline to convict.

" It was thought that Section 122 of the Children's Act which came into " force on the first April of this year, would remove this difficulty, but the work- " ing of this section has not always been successful, and in some cases harm has " resulted. By this section a local education authority may direct their medical " officer, which means any officer appointed for the purposes of Section 13 of " the Education (Administrative Provisions) Act, 1907, or any person authorised " by this medical officer, to examine, in the public elementary school of the " authority, the person and clothing of any child in attendance, and if found " verminous or in a foul and filthy condition, the local education authority may " give notice in writing requiring the parent or guardian of the child to cleanse " properly the person and clothing of the child within twenty-four hours after " receipt of the notice. If this is not done, the medical officer, or some person " authorised by him, may remove the child and cleanse its person and clothing " in suitable premises and with suitable appliances, without any warrant other " than this section. The examination and cleansing of girls under this section " can only be affected by a duly qualified medical practitioner or a woman duly " authorised by the school medical officer. If the child lapses after being " cleansed, the parent, on summary conviction, is liable to a fine not exceeding " ten shillings. This section leaves the matter in the hands of the local educa- " tion authority, but in rural districts it is difficult and expensive to provide " means and places for cleansing, besides which it has been found in practice " that the protests of the parents cannot be regarded with impunity by the " person authorised to cleanse. An attempt has been made in some cases to " proceed against the parent under Section 12 of this Act, in which any person " who wilfully neglects any child or young person in a manner likely to cause " such child or young person unnecessary suffering or injury to his health, is

"guilty of a misdemeanour, and liable, on conviction, to a heavy fine, or in default of payment to imprisonment for a maximum period of two years. As an education authority, the great objection to this procedure is that either a board of guardians or the police have to prosecute, and the failure of the education authority to follow up their own cases weakens their position; it has also to be remembered that it may be difficult to prove neglect producing unnecessary suffering or injury to health to the satisfaction of a bench of magistrates, as the Inspectors of the National Society for the Prevention of Cruelty to Children have found in the past, when prosecuting under Section I. of the Prevention of Cruelty to Children Act, 1904, which is repealed by the Children's Act.

"Verminous children are not general in schools, but usually there are a few children who introduce the pests, and in spite of many cleansings these children are as dirty as ever in a few days, because their houses are in such a condition that it is impossible to expect them to keep clean. Much may be done to remedy this condition of affairs if the school nurse, or the attendance officer where no nurse is employed, visits the homes of children who are reported as verminous, and reports to the school medical officer. If the report confirms the suspicion that the house is partly to blame in producing the condition, the school medical officer can report to the medical officer of the district, who may, after satisfying himself as to the circumstances, get his authority to take proceedings under Section 46 of the Public Health Act, 1875, which says: "Where on the certificate of the medical officer or of any two medical practitioners (a) it appears to any local authority that any house or part thereof is in such a filthy or unwholesome condition that the health of any person is affected or endangered thereby, or that the whitewashing, cleansing, or purifying of any house or part thereof should tend to prevent or check infectious disease, the local authority shall give notice in writing (b) to the owner or occupier (c) of such house or part thereof to whitewash, cleanse, or purify the same, as the case may require.

"If the person to whom the notice is so given fails to comply therewith within the time specified, he shall be liable to a penalty not exceeding ten shillings for every day during which he continues to make default; and the local authority may, if they think fit, cause such house, or part thereof, to be whitewashed, cleansed, or purified, and may recover in a summary manner the expenses (d) incurred by them in so doing from the person in default (e)." By this means both the home and the child are attended to at the same time, and we may hope for more than a short temporary benefit. It is necessary to attack the house if any lasting good is to accrue in this class of cases, and even although the medical officer of health may not think it necessary to take any steps, his visit to the house is often sufficient to get the parents to make an endeavour to remove the stigma from their child.

"The Board of Education in their first circular on medical inspection No. 576, issued in November, 1907, said: "The aim of the Act is practical and it is important that local education authorities should keep in view the desirability of ultimately formulating and submitting to the Board, for their approval under Section 13 (1) (b) of the Act, schemes for the amelioration of the evils revealed by medical inspection, including, in centres where it appears

"desirable, the establishment of school surgeries or clinics, such as exist in some cities of Europe, for further medical examination, or the specialised treatment of ringworm, dental caries, or diseases of the eye, the ear, or the skin." In Circular 596 issued in August 1908, the school nurse is referred to as having the treatment of sores and minor skin diseases within the scope of her work, but it is pointed out that while she may be appointed to assist in medical inspection, her appointment for the purpose of treatment of these affections has to be sanctioned by the Board as an 'arrangement' for attending to the health and physical condition of the children. In the same circular the establishment of school clinics is referred to, and the Board require, before sanctioning the establishment of a school clinic as an arrangement under Section 13 (1) (b), to be informed as to the methods and scope of the work which it is proposed to do, particularly, "(1) what precautions the local education authority will take to secure that only those children shall be treated in a school clinic for whose treatment adequate provision cannot otherwise be made, whether by the parents or by voluntary associations or institutions, such as hospitals, or through the agency of the Poor Law; (2) what precise defects and diseases will be treated; (3) by whom and on what terms and conditions the treatment will be carried out and what will be its extent; (4) what is the estimated cost of the clinic in respect of buildings and equipment, maintenance and administration and treatment, and how it is proposed to meet this cost, out of the rates or otherwise." With these conditions, school clinics will be limited to certain areas where centres of population and lack of sufficient voluntary medical aid permit, and the local education authority desires such an establishment, but they are not suitable for rural districts, and the work in such areas has to be performed by nurses, and any other method of dealing with such conditions can only be regarded as spasmodic and unsatisfactory."

The discovery of verminous heads is the only case in which directions are given as to treatment. In all other cases the parent is directed to take the child to the family doctor for treatment. The instructions given are—

#### BOROUGH OF ECCLES EDUCATION COMMITTEE.

TOWN HALL,

ECCLES.....19

To the Parent or Guardian of.....  
School..... Admission No.....

I have to-day examined this child and find h      Verminous. The hair **must** be cut. To destroy lice and nits, the hair should be kept wet with paraffin oil for several hours and then washed with soft soap and water; the same should be done next day and the day after, care being always taken **not** to bring a naked light near the paraffin oil; then the hair should be combed daily with a very fine comb soaked in vinegar till no more nits can be found. Children should not in any case exchange hats, or caps, and at night should wear a nightcap to prevent further infection.

W. M. HAMILTON, M.D., D.P.H.

DEFECTIVE SIGHT,—114 cases of this condition have been dealt with during the year. The great majority of these cases have been improved by treatment and by the provision of spectacles. The Committee, recognising that it is impossible to educate a child with defective sight and that this condition causes much unnecessary suffering from eye-strain and its attendant evils, has been very insistent on the remedying of these defects. At the February meeting it was decided to take legal proceedings against a parent for neglecting to provide glasses for his child. This case is of such importance—to the best of my knowledge it was the first case of the sort in the Country that I give the full particulars of it as reported in the local press:—

At the Eccles Borough Police Court, yesterday, before Colonel Andrew and Mr. E. L. Adams. James Crook, a commission agent, 245, Peel Green-rd., was summoned for having unlawfully and wilfully neglected his daughter Agnes, aged 10 years, in such a manner as was likely to injure her health.—The Town Clerk prosecuted on behalf of the Eccles Education Committee, and explained that defendant was charged under Sec. 1 of the Prevention of Cruelty to Children Act, 1904, which provides that any person over 16 years of age having charge of a young person under 16 years of age, who wilfully neglects a child in such a manner as to cause injury to its health (including the sight) is guilty of a misdemeanour. That the Town Clerk stated also implied the absence of reasonable care. On the 4th Sept. last Dr. Hamilton, medical inspector of schools, examined the child at All Saints' School and found that her eyesight was defective. Notice was sent to the parent calling attention to the defect and the request made that spectacles should be provided. The doctor had examined the child on four occasions since that date and found there was no improvement in her sight nor had spectacles been provided. The schoolmaster alleged that the child was unable to do justice to the instruction that was given her for the want of spectacles. Defendant had been written to on several occasions and asked to appear before the medical inspector and the Schools Medical Inspection Committee but had failed to do so. The Committee did not complain of want of courtesy on the defendant's part, but of his not carrying out the request of the medical officer. The Council were spending a very large sum of money in endeavouring to get children to school in a condition fit to receive the instruction provided for them, and if parents would not assist by acting on the instructions of the medical officer that

#### Expenditure Was Being Thrown Away.

Dr. Hamilton, Medical inspector and medical officer of health, stated that he examined the girl, Agnes, on the 4th September, and found she was unable to see any distance without glasses. He sent a note to the parent, and examined the child subsequently on 1st October, 4th December, 21st January, and 16th February, but found no change. On the 21st December the parent was written to warning him that proceedings would be taken if no notice was taken of the Committee's request. The child was undoubtedly suffering through the want of spectacles—Defendant said he received only three letters, two of these asked him to attend at the Town Hall when he was away on business.—Col. Andrew: You have taken no notice of any letters.—Defendant said he had tested the child's

eyesight himself and found that she could read all right from a book.—The Clerk: You shouldn't set your opinion against a doctor's.—Mr. Neave gave evidence relating to the correspondence which had gone from the Education Department to defendant, commencing on the 13th November with a suggestion that he should provide spectacles for the child, as it was not possible for her to see the blackboard at school unless she was placed very near to it.—William Wade, head master at All Saints' School, stated that the child was then at school without spectacles. He believed there was a great strain upon her through want of spectacles. She could not see anything on the blackboard without being put very close to it, and could not recognise words upon it. Her education was being retarded because of her defective eye sight.—Defendant denied that he had received notes which it was alleged had been sent with the child herself, and stated that when he received an intimation that glasses must be provided he instructed his wife to take her to Armstrong's or the Eye Hospital to get them if necessary. He did not blame her because she did not go. That he must take upon himself, but as a commission agent it took him all his time to look after his business.—The Chairman said they were not concerned about his business. He had a duty to perform to the child, and his attitude had been that he would do as he liked. It was a serious case, and one for which they could inflict a penalty of £25 fine or six months' imprisonment. It was the first case that had been brought to that Court under the Schools Medical Inspection Act, but the Bench would not have Acts of Parliament played with as defendant had done. He would be fined 20s. and costs or one month, and it was necessary that what was required for the child should be done that day.

**SCHOOL HYGIENE.**—I have already in two previous Reports dealt fully with the Sanitary Conditions of the various Schools in the Borough. During the latter part of the summer the cellars at the St. Mark's School were flooded. On the first occasion a number of articles of school furniture were found to have been polluted by sewage. These were burned. Representations were made to the Managers and the defects in the drainage pointed out. These have been rectified. During the summer holidays many of the schools were disinfected, special attention being paid to the cloak-rooms. The value of disinfection was illustrated in St. Mark's School. In the month of June four cases of whooping cough were notified by the teacher as having occurred in the school. In addition to the exclusion of the cases and contacts, the school premises, desks, floors, walls, books and cloak-rooms were thoroughly disinfected. No further case developed. Some years ago a very severe epidemic of this disease started in this school and spread over the greater part of the Borough.

**SCHOOL CLOSURE.**—During the year it was not considered necessary to close any of the schools. From time to time during the last twenty years Memoranda have been issued from the Medical Department of the Local Government Board pointing out the circumstances under which the closing

of an Elementary School or the exclusion of particular scholars may be required. The last was in January, 1908, by Dr. Franklin Parsons. The Board of Education has taken the opportunity offered by the appointment of School Medical Officers to revise the articles in the Code of Regulations for Public Elementary Schools, which refer to the exclusion of individual children or to entire school closure. A new Memorandum was issued in the latter part of the year by the Chief Medical Officers of the Local Government Board and the Board of Education. The new Code makes little alteration in the method of compulsory closure. This can still be carried out by resolution of a Sanitary Authority, or by any two members of the Authority, or the advice of the Medical officer of Health, but the school managers can now no longer appeal against an order to close. Under former Codes a school could be closed voluntarily or children could be excluded from school attendance under Medical Authority, the present Code requires that voluntary closing or exclusion, shall be under the advice or with the approval of the School Medical Officer. To comply with this agreement, when the Medical Officer of Health recommends a teacher to exclude a child from school attendance, he shall at the same time send the necessary certificate to the School Medical Officer, who will then give the formal authorization required by the Code. In large towns the position of Medical Officer of Health and School Medical Officer are held by the same person (as in Eccles) the necessity for dual certificates will not arise. In rural districts it will largely increase the clinical work of the Medical Officer of Health.

“In many parts of the country school managers seem to consider that  
 “a school should be closed upon the appearance of a single case of infectious  
 “disease, and pressure is often brought to bear upon the medical officer of  
 “health to authorize this procedure. In this connexion it is satisfactory to  
 “find that Dr. Newsholme and Dr. Newman, in their memorandum,  
 “endorse the opinion given in previous memorandums given by Sir Richard  
 “Thorne, Sir William Power and Dr. William Parsons, that “closure  
 “should be advised by the medical officer of health only in circumstances  
 “involving imminent risk of an epidemic, and not then as a matter of  
 “routine, nor unless there be a clear prospect of preventing the spread of  
 “infection such as cannot be expected from less comprehensive action.”  
 “Closure by a medical officer of health can only be justified when he is  
 “convinced that the school is a centre of infection, and when he has  
 “exhausted all other means at his disposal for discovering that centre.”

THE LOCAL GOVERNMENT BOARD AND THE BOARD OF  
EDUCATION HAVE LAID DOWN THE FOLLOWING RULES  
FOR ACTION IN RESPECT OF PARTICULAR DISEASES  
AND RULES OF OFFICIAL PROCEDURE.

37. The diseases for the prevention of which the exclusion of particular children from school or school closure may be required are principally those which spread by infection directly from person to person, such as measles, whooping-cough, scarlet fever, diphtheria, epidemic influenza, small-pox and r  theln (German measles). In rare cases the same measures may be necessary for enteric fever and diarrh  al diseases, when these spread through the agency of local conditions, such as infected school privies.

38. In the light of the general principles already set out the following procedure appears to be indicated in order to enable the Medical Officer of Health or the School Medical Officer to advise as to the minimum duration of exclusion of school children which can with reasonable safety be adopted in the several more common infectious diseases. It should be noted that although certain recommendations are made as to duration of exclusion of patients and of "contacts" with them, these recommendations are subject to the proviso that *each case as it occurs requires and should receive individual consideration.*

### Scarlet Fever.

#### A. RULES FOR EXCLUSION OF INDIVIDUALS.

##### (1.) *As regards each child attacked by the disease.*

39. (a.) *When treated in the Isolation Hospital* he is usually detained for about six weeks, and longer if any mucous discharges continue. After return home, in view of the occasional protracted infectiousness of patients with such discharges, and sometimes even of those without them, a notice should be sent to the teacher, and a notice should also be given to the parent to the effect that the patient should not attend school for two weeks.
- (b.) *When the patient has been treated at home* the same rules apply exactly, assuming that the patient and his rooms have been effectively disinfected after the illness has ended.

##### (2.) *As regards children living in infected houses.*

40. (a.) *When the patient has been removed to the Isolation Hospital* the teacher and the parents should be instructed to keep all children living in the same house away from school for two complete weeks from the day on which disinfection, subsequent to the removal of the patient, has taken place; and the parents of all children in the house, especially the parents of the patient, should be instructed to keep these children out of contact with other children for the same period.

This interval, although longer than the longest recognised incubation period for scarlet fever, is desirable in the case of children because of the occasional occurrence of anomalous or slight unrecognised attacks.

- (b.) *When the patient is treated at home* no other children from the same house should attend school while the patient is infectious, nor for two weeks after the end of his period of isolation.

#### B. RULES FOR CLOSURE OF SCHOOL.

41. If there is active co-operation between the school attendance officers and teachers and the Medical Officer of Health, school closure should only exceptionally be needed for scarlet fever. In school this disease usually spreads slowly from child to child, and not in the explosive manner characteristic of measles. Hence diligent search for slight cases and supervision of "contacts" should in most instances render school closure needless.

### Diphtheria.

#### A. ADVANTAGE OF BACTERIOLOGICAL EXAMINATION.

42. The examination of the throats of "contacts," whenever practicable, by bacteriological means, is a most important aid to precautionary measures against the spread of diphtheria. If a positive result is obtained in the case of children showing no evidence of diphtheria, the presence of some measure of infection must be assumed, though it will not be advisable to insist on the removal of such patients to an isolation hospital.

It is recognised that in many sanitary districts arrangements do not exist for such examinations; but it has been thought better to set forth the line of action commonly adopted in the best organised sanitary districts. Clinical examination of contacts and other children often throws valuable light on the origin of outbreaks of diphtheria. Particular attention should be paid to children who have been absent without known cause, or who show evidence of pallor, enlarged glands, or sore noses.

#### B. RULES FOR EXCLUSION OF INDIVIDUALS.

##### (1.) *As regards each child attacked by the disease.*

43. (a.) *When treated in the Isolation Hospital* the patient should, when practicable, be detained until three successive swabs taken on different days have given consistent negative results. These swabs should not be taken until at least 48 hours have elapsed since the last application of any disinfectant to the throat.

In view of the debility left by an attack of diphtheria, and the possible return of infectivity in the secretions of the nose or throat a notice should be sent to the teacher stating that the child should not return to school for four weeks after return home.

- (b.) *When the patient has been treated at home* three successive negative swabs should, when practicable, be obtained as above; and after disinfection of the patient and his rooms and belongings, the same period of subsequent abstention from school attendance as above should be enjoined.

(2.) *As regards children living in infected houses.*

44. (a.) *When the patient has been removed to the Isolation Hospital* the teacher and the parent should be instructed to keep all children living in the same house away from school during the next two complete weeks, or even longer, unless these children have been cleared by negative result of bacteriological examination.

This interval is desirable owing to the frequent occurrence of slight cases of diphtheria and "carrier" cases.

- (b.) *When the patient is treated at home* no other child from the same house should attend school while the patient is infectious, nor for four weeks afterwards.

## C. RULES FOR SCHOOL CLOSURE.

45. Although diphtheria, like scarlet fever and unlike measles, usually spreads comparatively slowly in schools, it is apt to be very persistent, and not infrequently causes serious mortality especially among children under five years old. For these reasons, when cases of this disease occur in an infant school, there should be no hesitation in excluding children from attendance who are below the age of compulsory school attendance. This latter remark applies also for measles and whooping-cough.

Closure of other classes of the school should be resorted to only after clinical examination and, where practicable, bacteriological investigation for the detection of diphtheria bacilli in the pharyngeal or nasal mucus of children who have had slight sore throats, and of all other children who have been in contact with diphtheria patients has been made.

The need for protracted exclusion from school of recent diphtheria patients has already been emphasised. The systematic use of these measures should obviate the need for school closure for diphtheria.

**Other Notifiable Diseases.**

46. Children coming from houses in which have occurred cases of erysipelas or of enteric (typhoid) fever who are not themselves ill, need not as a rule be excluded from school. Nor is school closure required for either of these diseases, except in the rare instances in which enteric fever is due to some condition directly connected with the school.

**Measles.**

## A. CHARACTERISTICS OF THE DISEASE.

47. Certain facts need to be borne in mind in adopting preventive measures against measles. In towns the attack-rate is highest in the third, fourth, and fifth years of life while the death-rate caused by the disease is highest in the second year of life. After the age of five the death-rate caused by it is relatively very small. These facts clearly indicate the importance of postponing an attack of measles, and of adopting special measures to ensure increased safety for children under five.

Persons seldom contract measles a second time, and as in populous districts epidemics commonly recur every two or three years, most of the older children are protected against it by having passed through a previous attack. This rule may not apply to a country village, in which epidemics may be absent for a long series of years.

The early infectiousness of measles while the symptoms are only those of a common "cold" is another marked feature of this disease. It is not unlikely that a majority of the total cases are infected by patients in this early stage. The incubation period from infection to the commencement of catarrhal symptoms is 12 to 14 days with fair constancy.

Although measles is very infectious its infection does not appear to be long lived nor to be commonly conveyed by healthy persons. It thus differs from small-pox, scarlet fever, and diphtheria.

But though there is reasonable ground for the opinion that measles is not readily, if at all, conveyed to school by healthy children coming from infected households, it is desirable, particularly in view of the greater fatality of attacks of measles in children under seven years of age, to assume the possibility of such spread by intermediaries in regard to scholars attending the infant school, and to act accordingly as stated below.

#### B. RULES FOR THE EXCLUSION OF INDIVIDUALS.

##### (1.) *As regards children suffering from the disease.*

48. Children attacked by measles should be kept from school for four weeks.

##### (2) *As regards other children living in infected houses.*

49. In large towns, and in the smaller districts in which the majority of children over seven years of age who are attending public elementary schools have had measles, the practice is frequently adopted, when measles breaks out in a household, of excluding from school attendance only those children of the same household who attend the infant school, and those older children of the same family who have not had measles. These particular children of the same household should be excluded from school until 21 days from the date of onset of the illness of the last patient with measles in the house.

50. The above procedure can be recommended as the result of experience in large districts. It is a compromise which is obviously not a counsel of perfection, and may need future modification. Even under present conditions the procedure may need to be modified in accordance with the special circumstances of a particular district, with special reference to its past history as to measles. The schedules for the medical inspection of school children, if kept carefully, will, in course of time, place at the disposal of the Medical Officer of Health and of the School Medical Officer the history of each child as to measles, as well as to other infectious diseases, and they will thus be able to decide, when a case of measles occurs in a particular class, which scholars in that class should, and which should not, be excluded from attendance at school.

## C. RULES FOR SCHOOL CLOSURE.

51. School closure has probably more frequently taken place on account of epidemics of measles than for any other disease, but as the closure has been commonly deferred until a large proportion of the children are already absent, it has proved useless, in populous districts at least, for the purpose of preventing the spread of the disease.

If measles is introduced into a school, the first crop of secondary cases will occur about 12 days after the original case, and in 12 days more there will be a second crop comprising the majority of the unprotected children. Thus school closure, as ordinarily practised after the second crop of cases has occurred fails to prevent an epidemic. In view of this experience a class closure of short duration after the occurrence of the first case of measles in the class may be substituted, the class being closed on the ninth day after the sickening of the first child, for a period of five days only. After this period, only those who have sickened need be excluded, along with those in the same household who have not had measles or who attend the infant school.

## D. WARNINGS TO PARENTS.

52. Warning notices to parents have been found to be valuable in preventing the spread of measles through the attendance at school of infecting children. These warnings should be sent out as soon as measles has appeared in a class the parents being warned to watch their children and to keep them from school if the slightest symptoms of a "cold" develop during the following three weeks.

The warning notice should also suggest that the parent should at once inform the teacher if these symptoms develop. The teacher can then report the case to the Medical Officer of Health and the School Medical Officer.

**Whooping Cough.**

53. The rules as to exclusion from or closure of school for this disease should be similar to those for measles, except that the infection of whooping cough probably lasts six weeks, and the children in the house who attend the infant school should therefore be excluded from school for this period—or as long as the cough continues.

**Mumps and Chicken Pox.**

54. Three weeks' isolation should be allowed for cases of mumps and the same period, or until all scabs have disappeared, for cases of chicken pox. Inquiry should be made as to the vaccination of supposed cases of chicken pox.

In chicken pox it is well to exclude from attendance at the *infant* school all children of the same family as the patient. In mumps the same practice, owing to the long incubation period of this disease, involves much greater interference with school work; and in view of this fact and of the absence of danger of life, the exclusion may be confined to the patient himself.

**Pulmonary Tuberculosis.**

55. Pulmonary tuberculosis in a recognisable form is seldom a large factor in school life. Where it is known to exist, either through the medical inspection of

children or apart from this, the affected scholar should be excluded from school in his own interest, and in that of the school, if the patient has cough with or without expectoration.

#### GENERAL NOTES AS TO PROCEDURE.

56. In any case in which the Sanitary Authority require the closure of a public elementary school the notice should be addressed in writing to the Correspondent of the managers and should state the grounds on which the closure is deemed necessary. It should be signed either by an authorised Officer of the Sanitary Authority in pursuance of their resolution, or by two members of the Sanitary Authority. A copy of the notice should be sent to the School Medical Officer.

All such notices must specify a definite time during which the school is to remain closed; this should be as short a period as can be regarded as sufficing on public health grounds, since a second notice may be given before the expiration of the first, if it should be found necessary to postpone the re-opening of a school.

57. Reports of Medical Officers of Health to Sanitary Authorities, advising the closure of a school or schools in any district, are to be treated as "special" reports within the meaning of the General Order of the Local Government Board on March 23rd, 1891, and copies of them are required by Article 18 (15) and (16) of that Order to be sent to that Board, and to the County Council. These reports should state the grounds upon which the Medical Officer of Health advocates the closure of the school or schools in preference to the exclusion of particular scholars.

58. Any directions or authorisations given by the School Medical Officer with respect to the question of excluding individual scholars on the ground that their exclusion is desirable to prevent the spread of disease must be embodied in a certificate signed by him; and a copy of every certificate must be furnished to the Local Education Authority (Article 53 (b) of the Code of 1908). The certificate must be produced if required to any Inspector or Officer of the Board of Education's Medical Department.

The number of children on the books is 7632, and the average attendance 6925.

The number of visits made to the Corporation Swimming Baths by scholars accompanied by teachers during the months May to October was

1907	1908	1909
2986	3856	4781.

TREATMENT OF STAMMERERS.—During the year this important work was continued. The system used was that of Professor Berquand. The results of the two classes held during the year were most satisfactory. Very few relapses have occurred: when they do occur they are due to neglect and carelessness. Both the classes were conducted under the supervision of the Medical Inspector. The children were weighed and measured before, and at the end of the classes. In the majority of cases,

a distinct improvement in chest measurement and breathing capacity was noticed. There was no doubt that the increased respiratory efforts entailed by the course of instruction were beneficial. Altogether 71 cases of Stammering were treated.

Mixed Departments.	New Admissions		Gen. inspection defective	Ill clothed.	Malnutrition or underfed.	Dirty head.	Dirty body.	Enlarged tonsils.	Adenoids.	Glands.	External eye disease.	Bad teeth.	Detective sight.	Ear disease.	Hearing or speech defective.	Heart and circulation.	Rickets.	Delicate.	Other defects.	Parents written to.	Parents interviewed.
	Normal	Defective																			
ALL SAINTS' (R.C.) ...	20	7	8	—	—	9	—	3	—	—	—	3	2	—	—	—	—	—	—	14	—
BARTON WESLEYAN ...	7	6	3	—	—	4	1	2	1	—	1	3	—	—	—	—	—	—	—	9	—
CLARENDON ROAD ...	77	17	13	—	—	5	—	3	—	3	1	8	13	—	1s	1	—	—	—	23	2
ECCLES PARISH... ..	30	14	19	—	—	14	—	2	—	—	—	10	9	—	—	—	1	—	—	33	1
GODFREY ERMEN MEM	47	24	16	—	—	21	2	6	2	2	—	9	5	—	—	—	—	—	—	36	2
GREEN LANE ... ..	2	1	1	—	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	2	—
HOLY CROSS (R.C.) ..	25	7	4	—	—	8	—	—	—	2	—	3	—	—	—	—	—	—	—	10	2
LEWIS STREET (SEN.)...	23	10	21	—	—	20	—	1	1	3	1	4	7	—	—	—	—	—	—	30	—
LEWIS STREET (JUN.)...	32	33	13	—	—	23	1	13	2	2	—	7	3	—	1	—	—	—	1	44	1
MONTON ... ..	11	10	6	—	—	2	—	6	1	—	—	5	4	—	—	—	—	—	—	16	—
PATRICROFT (C. of E.) ..	27	8	21	—	—	8	1	1	2	1	3	5	11	—	—	—	—	—	2	28	—
PEEL GREEN ... ..	34	18	18	—	—	8	2	7	—	1	2	9	8	2	—	—	—	—	2	34	—
ST. ANDREW'S (E.) ...	43	18	25	—	1	5	3	11	4	—	1	8	14	1	2	—	1	—	1	35	1
ST. ANDREW'S (M.) ..	24	13	8	—	—	8	2	3	2	—	—	7	1	—	—	—	—	—	1	21	—
ST. MARY'S (R.C.) ...	20	21	6	—	—	10	—	4	1	—	—	7	7	—	—	—	—	—	2	23	4
ST. MICHAEL'S ... ..	14	4	2	—	—	2	—	2	—	1	—	1	1	—	—	—	—	—	—	4	4
TOTALS ... ..	436	211	184	—	1	148	12	64	16	15	9	89	86	3	4	1	2	—	9	362	17

INFANTS' DEPARTMENTS.	New admissions.		Gen. inspection defects.	Malnutrition or underfed.	Dirty head.	Dirty body.	Enlarged tonsils.	Adenoids.	External eye disease.	Bad teeth.	Defective sight.	Ear disease.	Mentally defective circulation.	Rickets.	Delicate.	Other defects.	Parents written to.	Parents interviewed.
	Normal.	Defective.																
ALL SAINTS' (R.C.) ..	27	10	3	1	1	1	5	—	—	4	1	—	—	—	1	2	7	19
BARTON WESLEVAN ...	12	11	4	—	4	—	6	2	—	3	—	1	—	—	—	2	6	16
BEECH STREET ...	60	44	18	1	13	7	18	2	7	18	1	1	—	1	1	16	35	56
CLARENDON ROAD ...	71	46	4	—	4	—	23	8	1	14	3	—	—	—	—	11	9	84
ECCLES PARISH...	48	30	5	2	3	1	13	—	3	12	1	1	1	4	—	3	14	44
GODFREY ERMEN MEM.	50	32	8	—	5	3	12	3	2	12	3	1	—	1	1	7	18	53
HOLY CROSS (R.C.) ...	25	17	6	1	7	3	4	1	1	7	—	—	—	2	1	5	14	20
LEWIS STREET ...	90	67	31	—	31	5	25	6	4	17	7	2	—	2	2	13	41	106
MONTON ...	38	16	2	—	3	—	7	—	—	8	2	—	—	—	—	—	2	47
PATRICROFT (C. of E.) ...	55	29	5	—	3	—	12	1	1	13	2	2	—	6	—	8	12	51
ST. ANDREW'S (E.) ...	56	38	7	—	13	2	8	1	2	15	3	2	—	1	1	10	20	57
ST. ANDREW'S (M.) ...	12	7	4	—	2	—	4	1	2	2	—	1	—	—	—	1	7	11
ST. MARK'S ...	28	16	3	—	2	—	3	1	1	8	—	—	—	1	—	4	5	34
ST. MARY'S (R.C.) ...	37	21	5	1	1	1	13	4	1	10	2	—	—	1	—	2	9	36
ST. MICHAEL'S ...	41	27	2	—	—	2	11	—	—	10	3	—	—	2	1	3	11	46
TOTALS ...	650	411	107	6	92	25	164	30	25	153	28	11	1	21	8	87	210	680

## SUMMARY OF REPORT.

No. of new admissions examined	...	...	...	...	...	1708
Normal on admission	...	...	...	...	...	1086
Defective on admission	...	...	...	...	...	622
Other defectives found at General Inspection	...	...	...	...	...	291
Total number of defectives found	...	...	...	...	...	913
Number of Parents present at Examination	...	...	...	...	...	697
Number of Parents personally informed of defects	...	...	...	...	...	294
Notices of defects sent to Parents	...	...	...	...	...	572
Number of Scholars leaving school examined	...	...	...	...	...	195
Number of Defectives cured	...	...	...	...	...	425
Total number of Notices sent	...	...	...	...	...	572

			Total No. of defectiv's for each Dept.	Total number cured.	Total Number under treatment.	Total number unchanged	Total number left.	Total number not reported upon.
All Saints'	...	M.	15	10	1	—	1	3
do.	...	I.	13	5	—	4	1	3
Barton Wesleyan	...	M.	9	5	1	2	—	1
do.	...	I.	15	6	1	6	2	—
Beech Street	...	...	62	33	6	11	7	5
Clarendon Road	...	M.	30	19	4	4	—	3
do.	...	I.	50	15	10	17	3	5
Eccles Parish	...	M.	33	12	6	3	4	8
do.	...	I.	35	13	1	13	5	3
Godfrey Ermen	...	M.	40	25	4	3	1	7
do.	...	I.	40	25	1	6	4	4
Green Lane	...	...	2	—	—	1	1	—
Holy Cross ...	...	M.	11	7	—	1	2	1
do.	...	I.	23	10	1	6	2	4
Lewis Street	...	S.M.	31	24	2	—	3	2
do.	...	J.M.	46	22	1	13	4	6
do.	...	I.	98	50	6	15	16	11
Monton Day	...	M.	16	6	2	2	—	6
do.	...	I.	18	10	—	5	2	1
Patricroft C.E.	...	M.	29	11	2	4	4	8
do.	...	I.	34	12	—	10	2	10
Peel Green	...	...	36	24	2	2	3	5
Eccles St. Andrew's	...	M.	43	17	7	10	3	6
do.	...	I.	45	21	7	6	8	3
Monton St. Andrew's	...	M.	21	10	4	1	2	4
do.	...	I.	11	1	3	2	3	2
St. Mark's	...	...	19	3	2	4	2	8
St. Mary's	...	M.	27	12	8	4	—	3
do.	...	I.	26	5	4	10	1	6
St. Michael's	...	M.	6	2	1	3	—	—
do....	...	I.	29	10	2	11	5	1
			913	425	89	179	91	129

Out of 240 dirty heads discovered during the year.

155 have been cured.

26 improved or under treatment.

14 unchanged.

38 left school.

7 not yet reported upon.

12 scholars excluded from school, of these 6  
have been found cured.

## SECTION VI.

### Infantile Mortality.

It is gratifying to report a further decline in the mortality in children under twelve months of age. The rate was 110 per 1000 children born, as compared with 119 for last year ; 119 for 1907, and 139 for 1906. This is the lowest rate on record for this Borough. The infantile mortality in Wards, month by month, was :—

#### INFANTILE MORTALITY IN WARDS, 1909.

MONTH.	Barton Ward.	Eccles Ward.	Irwell Ward.	Monton Ward.	Patricroft Ward.	Winton Ward.
January ...	Nil.	154	176	125	125	71
February...	45	Nil.	133	Nil.	86	Nil.
March ...	38	Nil.	200	Nil.	76	133
April ...	208	Nil.	166	90	62	368
May ...	250	100	250	83	176	Nil.
June ...	62	71	117	222	236	117
July ...	45	Nil.	83	Nil.	45	Nil.
August ...	100	Nil.	181	Nil.	77	52
September	333	142	125	Nil.	187	66
October ...	210	142	91	Nil.	62	Nil.
November	62	Nil.	214	333	62	Nil.
December	285	750	Nil.	Nil.	Nil.	333

The Health Committee have devoted a large amount of time and thought during the year to the reduction of this "black stain" on our civilization. The Ladies' Health Society continues to supervise the work of the two female Visitors, to hold Meetings of Mothers for instruction and education in the upbringing of the young, and as far as their means allow, to give donations of food and clothing to necessitous cases. During the latter part of the year a special food was used, under the supervision of the Medical Officer, for wasting and marasmic children, with very great benefit. The Committee has the question of supplying this special food to poor cases, under the direction of the Medical Officer of Health, under consideration. Although the reduction to 110 shews a marked improvement, there is still a long leeway to be made up before the rate reaches the figure of 100 per 1000 so frequently held upon as the desideratum by Dr. Sergeant. the Medical Officer for the County.

During the year twenty-nine deaths of infants were due to premature birth. This condition, though largely preventible, as will be seen from the causes set out below, cannot be laid to the blame of the Health Committee. To remedy it will take at least a generation. The principal causes of premature and immature birth are early marriages, syphilis, alcohol, crowding in densely populated districts and houses, insufficiency of food for the pregnant mother, and carelessness on the part of the mother. It will be patent that this state of matters can only be remedied by education of the senior girls in domestic and personal hygiene, and in temperance. There is no doubt that alcoholic habits in either one or both parents is a frequent cause of premature birth. Another cause, not frequently certified, is congenital syphilis. This disease occupies quite a small place in the returns of the Registrar General. Yet it is one of the diseases most frequently met with in the out-patients' department of Children's Hospitals. In the last report of the Registrar General, only 593 deaths of children under three months are given as due to this cause. It is not easy to harmonize clinical experience with these figures. Many medical practitioners are adverse to putting this cause on the certificate of death. Very frequently the children of syphilitic parents are marasmic, and probably their deaths are attributed to this condition. Marasmus, with its official synonyms debility and atrophy, is a term of great vagueness. It frequently occurs in death certificates in connection with diseases of which wasting is only a symptom. Congenital syphilis, improper feeding, want of breast milk, and the various forms of tubercular disease are some of the causes which reduce infants to a wasting or marasmic state. There are, of course, cases in which wasting forms the whole condition both clinically and pathologically.

For some years I have pointed out that a large percentage of the infantile deaths from diarrhoea was due to impure milk impregnated with germs of a pathogenic nature, bred on accumulations of rubbish and dirt in privy middens and in the neighbourhood of houses. The Committee is doing admirable work in removing the privy middens (this subject is dealt with elsewhere), and substituting air-tight ash-bins. Every effort has been made to get accumulations of rubbish removed, and in enforcing strict cleanliness in and around the houses. These rubbish heaps form breeding ground for flies and these pests infect and contaminate the milk with which infants are fed. The subject of the harmfulness of the house-fly is dealt with in another part of the Report.

During the year the Notification of Births Act has been in force. The great majority of births are notified in accordance with the provisions of the Act. It is now the duty of the father, if he is actually

residing in the house where the birth takes place, at the time of its occurrence, and of any person (including the medical attendant or midwife) in attendance upon the mother at the time of, or within six hours after the birth of the child, to give notice in writing of the birth to the Medical Officer of Health. Forms for Notification are supplied from the Health Office, and the notice must be given within 36 hours of the birth. The cases to which the Health Visitors are sent are carefully selected in the office, and careful judgement is exercised in the selection. In this way the Visitors get in touch with the child in its first week of life—the most important period of its existence. As more than one-third of the deaths of infants occur in the first month of life, it will readily be seen how superior this method is to the old régime under which we did not get this information, in many cases, till after the lapse of six weeks.

The principal causes of infantile mortality may be summed up in (a) Parental conditions. (b) Bad feeding. (c) General mismanagement and exposure to cold. (d) Alcoholism. The factors which tend to the physical well-being of the infant are :—Healthy parentage, breast feeding, pure milk supply in cases in which artificial feeding has to be resorted to, warmth, fresh air, cleanliness, and plenty of sleep. It is also urgently necessary that mothers and expectant mothers should be efficiently cared for and instructed in the management of themselves before and after child-birth, and in the proper feeding and management of their off-spring during the first twelve months of its life. Unhealthy conditions of the body and its principal organs may be induced during this period, which, if not fatal, may render the child weakly and delicate for the remainder of its life.

This work is being done by the Ladies' Health Society, to whom too much praise cannot be given for the voluntary work they do. An Order of the Local Government Board, on the appointment and qualifications and duties of Health Visitors, was issued in September last to the London County Council and to the Metropolitan Boroughs. It will probably shortly be issued to provincial towns. It is worthy of note that in this particular, as in many other efforts which affect the public health, this Borough is well to the front in its endeavour to reduce mortality.

The principal functions of Women Health Visitors are :—

- (a) *To advise expectant mothers on the management of their health, and as to the influence of ante-natal conditions on their infants.*
- (b) *To follow up the notification of births, and to visit the homes when doctor and midwife have ceased to attend.*

(c) *To note conditions of ignorant feeding or of non-supply of sufficient and nourishing food, and to take judicious steps to correct these evils.*

(d) *To give advice on the proper feeding of infants ; to warn mothers against premature weaning ; to inculcate in particular the importance of breast feeding until the teeth appear ; and, above all, of the avoidance of the use of foul feeding bottles.*

(e) *To promote and encourage the practice of weighing infants regularly, and to instruct or remind mothers on points of general hygiene.*

(f) *To instruct and guide in their work any Voluntary District Visitors who assist in Health Visiting.*

(g) *To note any insanitary or foul conditions in any of the homes visited, and in any of the inmates of the same, and to report these points to the Medical Officer of Health under whom they work.*

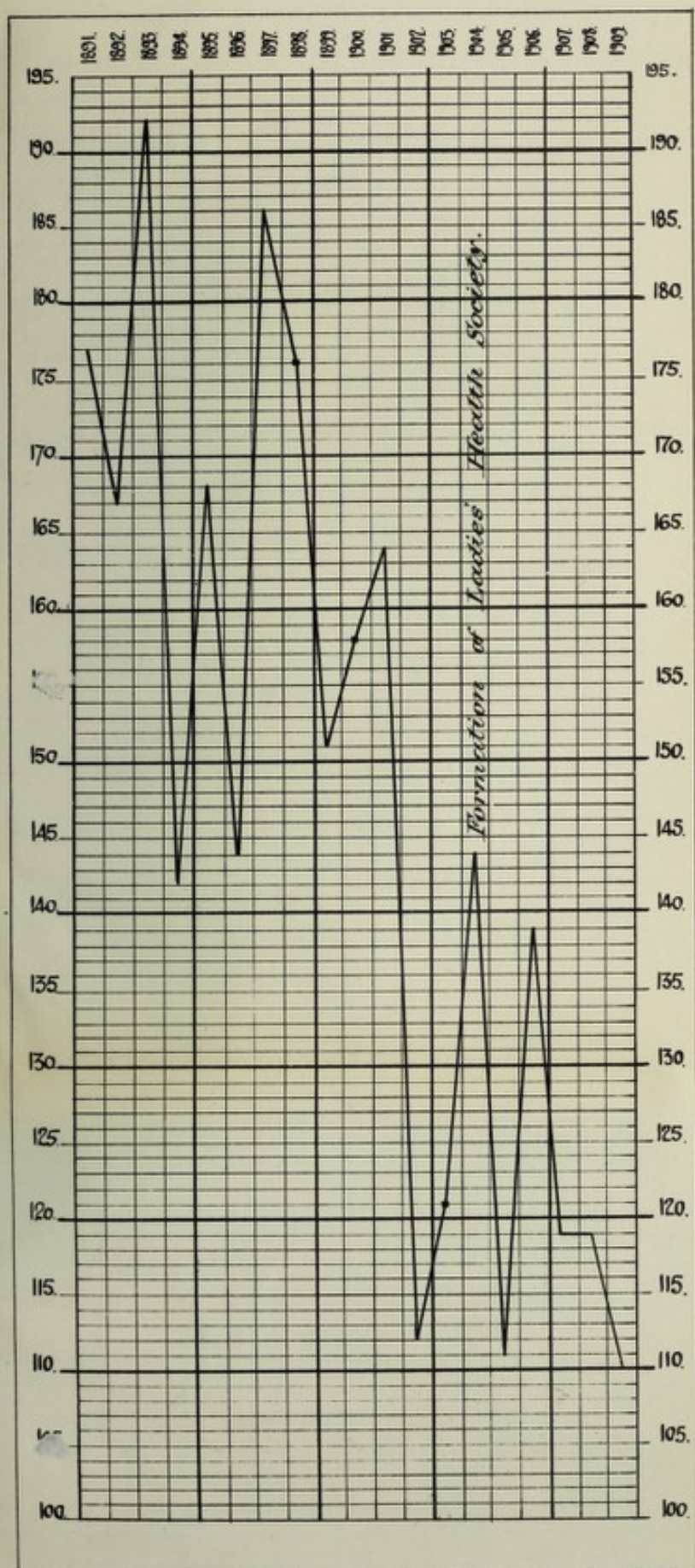
The Order referred to above makes it obligatory for the Health Visitor to work under the Medical Officer of Health.

I have pleasure in publishing the Report of the Ladies Health Society, kindly furnished by Mrs. Mellor.

The accompanying Chart shews the annual rate of Infant Mortality.

# CHART SHOWING INFANT MORTALITY.

## FROM 1891 - 1909.



2. Mathematical Analysis

Topic: Limit - 1990

Exercise 1.1



## BOROUGH OF ECCLES.

*Infantile Mortality during the Year 1909.*

Deaths from stated Causes in Weeks and Months under One Year of Age.

Cause of Death.		Under 1 Week	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes {	Certified .. ..	30	5	5	6	46	12	8	8	5	6	7	6	4	2	2	4	110
	Uncertified .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Common Infectious Diseases {	Small-pox .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Chicken-pox .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Scarlet Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Diphtheria (including Membranous Croup) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Diarrhoeal Diseases {	Whooping Cough .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
	Diarrhoea, all forms .. ..	..	..	..	..	..	1	1	1	3	..	..	..	1	..	..	..	7
	Enteritis, Muco-enteritis, } .. ..	..	1	1	..	2	3	..	1	..	1	2	..	1	..	..	..	10
	Gastro enteritis } .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wasting Diseases {	Gastritis, Gastro-intestinal Catarrh .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Premature Birth .. ..	20	2	2	5	29	..	..	..	..	..	..	..	..	..	..	..	29
	Congenital Defects .. ..	3	1	..	..	4	..	1	..	..	..	..	..	..	..	..	..	5
	Injury at Birth .. ..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
	Want of Breast Milk .. ..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Tuberculous Diseases {	Atrophy, Debility, Marasmus } .. ..	1	..	1	..	2	4	1	1	..	3	1	2	..	..	..	..	14
	Tuberculous Meningitis .. ..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
	Tuberculous Peritonitis } .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Tabes Mesenterica .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Causes.	Other Tuberculous Diseases } .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
	Erysipelas ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Syphilis .. ..	..	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	2
	Rickets .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Meningitis .. ..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	2
	(Not Tuberculous)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Convulsions .. ..	..	..	..	1	1	..	1	2	..	1	..	..	..	..	..	..	5
	Bronchitis .. ..	..	..	..	..	..	3	3	1	2	..	1	3	..	1	1	..	15
	Laryngitis .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Pneumonia .. ..	..	..	..	..	..	1	..	..	1	2	..	1	1	1	2	..	9
	Suffocation, overlying .. ..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	1
	Other Causes .. ..	5	..	..	..	5	..	1	..	..	..	..	..	..	..	..	..	6
		30	5	5	6	46	12	8	8	5	6	7	6	4	2	2	4	110

District (or sub-division) of Barton-upon-Irwell.

Births in the year { Legitimate, 956. Population estimated to middle  
 Illegitimate, 37. of 1909, 41,500.

Death from **all causes at all ages**, 568.

## THE ECCLES LADIES' HEALTH SOCIETY.

---

**Annual Report for the year ended Dec. 31st, 1909, kindly furnished  
by the Secretary, Mrs. Mellor.**

In presenting their Fifth Annual Report, the Committee of the Eccles Ladies' Health Society, desire to say that its labours continue on the same lines as heretofore.

The two Health Visitors have performed much good work during the year, and have made 14,434 visits ; (Mrs. Irlam 7,816 visits ; and Mrs. Morris 6,618 visits.) Mrs. Nanson and Mrs. Higgin, (Superintendents), have conferred weekly with the Health Visitors, going through the visiting lists, noting circumstances of each case, and when necessary, making grants of milk. During the year, 2,331 pints of milk have been given to Infants and Nursing Mothers in poor families, the Committee feel it impossible to over-rate the importance of thus providing a supply of proper food for young infants who would otherwise probably not obtain suitable nourishment.

Mrs. Nanson, (President), continues to attend the fortnightly meeting of the Civic Guild Central Board; in her capacity of representative of the Ladies' Health Society, which has had the effect of bringing dire cases of sickness or poverty discovered by the Health Visitors before the notice of that Association.

This year shows a marked increase in the attendance at the Mothers' Meetings, there are 87 names on the roll with a weekly average attendance of 50 mothers and 12 children. Several of the members have made perfect attendances while many have only been absent because of ill-health or the necessity for accepting a day's work, while there is an increasing desire to send a reason for absence by a friend or neighbour. The aim has been to fill the afternoons with some thing of practical interest and value. In the earlier part of the year Mrs. Holmes gave lessons in cutting-out, week after week to show the women how much more advantageously they could spend their money in this way than by buying cheap ready-made clothing.

In the Autumn, Mrs. Spary Superintended the meetings for many weeks in the absence of Mrs. Anderson, (Superintendent), who was on the Continent. Mrs. Spary showed the women how to wash flannels, how to cook fish, how to make nourishing soups and how to bake cakes. She also

gave them simple hints on Home Nursing, of which they have repeatedly expressed their appreciation. Papers have also been read on the care of young girls, the care of the Mother's Health, care of the Teeth, care of the Skin, Fresh Air; Sunlight; What to do with our Boys; and Influence—to all of which the Mothers have listened with keen interest and attention.

At every meeting a simple motto has been given to the members which is meant to be put into practice during the week.

Once a month a member of the Ladies' Health Committee gave a tea to the Mothers, and this was kept as a Social Afternoon with singing and music. On three occasions these teas were given in gardens and were most highly appreciated. On the 18th of August a very enjoyable day was spent at Southport, the Mothers saving up for the trip. Here at the Children's Home on the shore, the babies were looked after for a trifling charge, and Mothers who had never been free for an hour from their children got a day of well-earned and much needed rest.

After Whit- Week, the meeting place was moved from 18, Peel Street, (on account of the room being too small,) to a large, airy room in the Co-operative Hall, which is now nearly filled.

A new feature this year, is an occasional competition afternoon. There has been cake-making, doll-dressing, knitting, and getting the best value for a penny. Almost all the Mothers have taken part in one or the other, and at Xmas, the dolls, (and other toys given by the Mothers who did not compete), were given to the two Army Captains for distribution among the poorest children, in pursuance of the motto for the week, "It is what we give and not what we get that makes us happy."

There were 993 births registered during the year ended Dec. 31st, 1909, for the same period the number of deaths of infants under one year of age, was 110, giving an Infantile Mortality Rate of 110 per 1000 registered births. This is the lowest Mortality since the Society was inaugurated.

### VACCINATION.

During the year there have been 628 successful Vaccinations, as compared with 738 for last year. I dealt with this subject fully last year. Exemptions numbered 250.

## Diarrhœa and Allied Disorders.

Twenty-two deaths were registered during the year as due to Diarrhœa and Enteritis, as compared with 38 for the previous year, and 61 for the Borough ten years ago. No doubt the wet and cold summer and Autumn had a good deal to do with the low mortality from this disease by reducing the amount of dust and keeping down the generating of the house-fly. It has been learnt by experience that to a great extent the transfer of pathogenic germs from decomposing material is by means of the common house fly. Epidemic Diarrhœa is simply a filth disease which is bred and spread not as used to be thought by the hot sun, but by the thousands of flies that carry the actual filth and bacteria into the houses, and on to the food and milk of the children. Under section 49 of the Public Health Act, 1875, an inspector of nuisances or a medical officer of health is empowered to give twenty-four hours notice to the responsible person requiring the removal of any accumulation of manure which the official considers should be removed. In the event of the notice not being complied with, the manure is vested in, and may be sold by the Urban District Council, and the expense of removal is recoverable from the previous owner of the manure in the event of the amount for which it is sold not being sufficient to cover the cost of removal. The fight against Malaria on the west coast of Africa is a kindred one to that against Diarrhœa and Enteric Fever. The plan of campaign now it has been discovered is a very simple one. Kill the *Anopheles* Mosquito; kill the tsetse fly; *stossina palpalis* and the *musca domestica* (or common house-fly) and the rest of these pests and you abolish Yellow Fever, Malaria, and Sleeping Sickness, Elephantiasis, Plague, Cholera, Enteric Fever, and Epidemic Diarrhœa. Since this subject was first taken seriously in hand by the Liverpool, and to a smaller extent by the London School of Tropical Medicine, the changes wrought in Egypt, West and Central Africa, the West Indies, Brazil and the Phillipines are almost beyond belief. There need now be no such a place as the "White Man's Grave"; modern sanitation can render any place perfectly healthy, in so far as health is governed by climatic conditions. The Health Committee recognising the importance of this subject, in the early part of the Summer issued the following leaflet to each householder.

### FLIES AND DISEASE.

I am instructed by the Health Committee to point out to the Residents and Shopkeepers in the Borough the importance of exterminating the common house-fly.

The house-fly is the carrier of many preventible diseases, especially Infantile Diarrhoea (a most fatal disease in children), Enteric Fever, and, sometimes Scarlet Fever. The presence of flies in a house, or shop, is always an indication of the existence of dust, or dirt, in or near the house or shop. To prevent flies :

- (1) All accumulations of dirt, dust, or manure should be removed.
- (2) On the first appearance of flies, fly-papers should be used ; in this way preventing the laying of eggs.
- (3) All ashes, refuse, vegetable or otherwise, should be stored in a covered bin.
- (4) All food-stuffs should be protected from the fly, and the place where food is stored should be limewashed frequently.
- (5) All Milk should be protected by a fine gauze, or other substance which will prevent the entrance of flies.

It has been demonstrated that one fly can carry 100,000 bacteria.

The Committee hope, in the interests of the Public Health, and especially of the milk-fed infants, that these recommendations will be carried out.

N.B.—Those residents who use the Vacuum Cleaner should take care that the dust is burned.

In addition to the fly causation of Diarrhoea by the pollution of milk, attention must also be directed to the quality of the milk itself. A large quantity of the milk which comes into this Borough is train-borne. Special vans fitted with a refrigerating plant should be provided for its carriage. All farms from which milk comes should be open to inspection. Some large towns, *e.g.*, Manchester and Liverpool, have got this power. We can only inspect the farms in our own area. There should be periodic examination of milk by bacterial methods for infective germs, and analysis to ascertain the amount of fats, solids, and adulteration. The tuberculin test should be periodically applied. Sealed churns, rain and dust-proof, should be used for the conveyance of milk. Wooden shippens should be absolutely prohibited as milk-producing centres. When the milk reaches the consumer, it should be stored in closely covered receptacles. The jug, or other receptacle, should be thoroughly rinsed out with hot water and bi-carbonate of soda before and after use. We are all familiar with the

ustom of leaving the jug outside the door for the milkman to fill ; sometimes the jug remains for hours on the doorstep, exposed to all the dust and the organic and other impurities of the atmosphere. This is simply courting disease, and possible death. It is to be hoped, that in the near future, the Government will place on the Statute book a strong and far reaching Act, dealing with this most important subject.

## SECTION VIII.

---

### Phthisis and other Tubercular Diseases.

---

The death rate from Phthisis during the year was 1·1 per 1000 as compared with ·75 for last year, 1·0 for 1907, and 1·2 for 1899. For the last eight years voluntary notification of this preventible disease has been in force in this Borough. I reported fully on this subject last year. It is regrettable that, with the exception of Poor Law cases, which are compulsorily notifiable, there seems no desire on the part of the medical men in the Borough to assist the efforts of the Committee in checking this disease by the notification of cases in the early stage. It cannot be too often insisted that the disease is *absolutely curable* in the first stage. The number of notifications received during the year was 50, of these 42 were Poor Law cases.

When we become aware of the existence of a case it is at once visited (unless the practitioner notifying has expressed a wish for the case not to be visited). Enquiries are made as to source of infection, habits of life, etc., paper of instructions, printed below, is given and explained to the patient, spitting cups are provided with instructions to burn all sputa. Advice is given to the patient and to the patient's friends as to what precautions should be taken in the interests, not only of the community at large, but also of the patient himself. As Dr. Newsholme so well states—

“That no strict line of demarkation can be drawn between personal and and communal interests, is indicated by the fact that the community, by diminution of infection, and by avoidance of loss of working ability, gains greatly when patients are cured, or when, apart from their cure, they are so housed that they cease to disseminate infection.”

It is very generally admitted that the spread of tuberculosis is due to a very large extent to the practice of indiscriminate spitting, and although a certain proportion of local authorities have made by-laws prohibiting spitting in public carriages, halls, waiting rooms or places of public entertainment, the duty of enforcing such regulations appears to be in the hands of no particular official. Spitting still goes on without let or hindrance and few if any prosecutions take place. The question may very properly be asked whether the time has not come for a by-law prohibiting spitting to be universally adopted and universally enforced.

Is is only too obvious that the continuous adoption of necessary precautionary measures with respect to tuberculosis is much more difficult of attainment if the patient is treated entirely at home. Even a short stay in a sanatorium cannot fail to

have an advantageous educational influence. Short of complete treatment in a sanatorium, the tuberculosis dispensary is an important agent, not only in the cure but in the prevention of the disease. More especially is this the case if there is in connection with the dispensary a thorough and complete scheme of home visitation by tactful and sympathetic health visitors. Dr. Newsholme's views with regard to the efficacy of sanatorium treatment are sufficiently well known, and the practical application of those views at Brighton are an object lesson to the world. Local authorities have full power to provide such treatment for patients whether the latter are or are not in receipt of Poor Law relief, but before embarking on any large schemes they are advised to consider what can be done with existing arrangements.

In the intervals of epidemics, empty rooms or wards of isolation hospitals can be utilized, and under properly regulated conditions experience has demonstrated that this can be done with entire safety to the consumptive patient and with great success in his treatment. The working life of many patients can be extended and their capacity to spread infection stopped by an occasional stay in a sanatorium, say of one month. Such a short absence from work does not necessarily mean loss of employment, and a man will all the more readily enter a sanatorium under these circumstances when he would not be willing to accept more lengthy treatment. It must not be forgotten, moreover, as Dr. Newsholme has already pointed out in his work on tuberculosis, that the treatment of the patient is not the only gain from sanatorium treatment. During the absence from home of the patient his dwelling can be disinfected, his relatives will be relieved from anxiety, and the patient himself will be trained in the methods of disposal of sputum and in the general regulation of his life in a practical manner that is scarcely possible at home.

Frequent disinfection of the rooms used by the patient is offered. In every case an endeavour is made to have the premises disinfected after death. The Cartoon adopted by the Health Committee of New York City, and published by the "Medical Officer," has been posted in all the mills, schools and other public places of assembly; a small one is left at each house where the disease is known to be.

The Committee will remember that at the Congress on Tuberculosis, held in London in 1901, Professor Koch, of Berlin, astonished the scientific world by throwing doubt on the connection and inter-communicability of human and bovine Tuberculosis. As a result of this a Royal Commission was appointed to enquire into the possibility of the transmission of the disease from animals to man. The Commission issued an interim report in 1904, again in 1907, and finally in 1909. The Report proves that Tuberculosis is transmissible by the agency of milk used for human consumption. The Local Government Board concur in this view. In May the Board of Agriculture issued the subjoined Circular to Local Authorities:—

1. In considering the question in relation to animals, the fact that the disease, tuberculosis, is communicable to man by milk has a material bearing on the measures to be adopted. Any action which results in the reduction in the number of tuberculous bovine animals in the country must reduce the risk of the spread of tuberculosis amongst the community, and if it were possible to eradicate from this country the disease in animals, a material step forward would have been taken in the campaign against the disease in man.

2. It is abundantly clear, at the same time, that any operations aiming at the diminution or eradication of tuberculosis in animals must be commenced with caution, and carried out with due regard to the extent to which the disease is believed to exist amongst cows and the importance of securing the continuance of an adequate milk supply, and also of avoiding any disorganisation of the important industry concerned.

3. The Board have accordingly decided that their first endeavour should be to secure the destruction of every cow found to be suffering from tuberculosis of the udder, and also of all bovine animals which are emaciated from tuberculosis, since these are known to disseminate freely the germs of the disease. Any cow which is proved to be giving tuberculous milk should also, in the opinion of the Board, be similarly dealt with. By such means the Board conceive that a check will be placed upon the spread of the disease, and the way cleared for any future action which may, in the light of experience, be considered necessary and practicable in the public interest. The Order accordingly deals only with the forms of tuberculosis above set out.

4. Local Authorities for the purposes of the Diseases of Animals Acts are charged with the duty of investigating reports received under Article 2 of the Order, with the assistance of a Veterinary Inspector, with a view to causing the slaughter of any animal in their District shown to be suffering from one of these specified forms of tuberculosis. Under Article 3 of the Order the Veterinary Inspector will be able to extend his examination to any bovine animals upon the premises that have been associated with a suspected animal, in order that he may at the same time take steps to deal with any other bovine animal which in his opinion presents clinical symptoms of tuberculosis; and for the purpose of assisting him in his diagnosis as regards such animals he may, but only with the written consent of the owner of the animal, apply the tuberculin test to any such animal. Power is also given to the Veterinary Inspector to take samples of milk and of fæces, urine and abnormal discharges, the intention being that he shall make use of bacteriological methods for the purpose of diagnosis.

5. The Local Authority are required by Article 4 of the Order to cause every animal found by them to be diseased within the meaning of the Order to be slaughtered. The animal to be slaughtered is to be valued in its condition at the time of valuation. Inasmuch, however, as the clinical diagnosis made by the Veterinary Inspector prior to slaughter may not be confirmed on post-mortem examination, it is provided in sub-section (3) of Article 5 of the Order that there shall be separate valuations on the basis both of the animal proving to be affected with tuberculosis and of its proving to be not so affected, and the amount of the compensation will depend on the result of the examination.

6. The compensation payable by the Local Authority for an animal slaughtered under their direction in cases in which the post-mortem examination does not show tuberculosis is a sum equal to the full value of the animal and a further sum of twenty-shillings.

7. Where tuberculosis is found the proportion of the value of the animal payable by way of compensation to the owner is made to depend upon the extent of the disease which is present. The Royal Commission of 1898 made certain recommendations with regard to the meat of tuberculous animals (*see* pages 20-22 of their Report), and the Local Government Boards for England and for Scotland adopted those recommendations and issued Circular Letters in the year 1899 for the guidance of Meat Inspectors as to the degree of tubercular disease which, in their opinion, should cause a carcase of an animal, or part thereof, to be seized under the Public Health Acts. The Board of Agriculture and Fisheries have accordingly adopted this classification as a basis by which the proportion of compensation payable under their Order is to be determined.

8. The degrees of tuberculosis described in Article 7 (4) of the Order are those which in the opinion of the Commissioners justify the seizure by Meat Inspectors of the entire carcase and all the organs thereof. Wherever such conditions are certified to exist the compensation is fixed at a sum equal to one-fourth of the value of the animal or the sum of two pounds, whichever sum is greater, after deducting from this compensation one-half of the costs incurred by the Local Authority for any valuation of the animal by a valuer appointed by the Board or for any examination of its carcase by a veterinary surgeon other than the Veterinary Inspector. For convenience these conditions are described in the Order as "advanced" tuberculosis. In all other cases of disease, namely—in those where a carcase, if otherwise healthy, need not in the opinion of the Commissioners be condemned under the Public Health Acts except as regards the portions containing tuberculous lesions—the compensation is to be a sum equal to three-fourths of the value of the animal after deducting from this compensation one-half of the costs of valuation and examination as in the preceding case.

9. The Order prescribes the precautions to be taken in respect of the milk, &c., of suspected animals (Article 8), and their detention and isolation whilst under suspicion (Article 9). Provision is also made in Article 10 of the Order for dealing with suspicious animals exposed in Markets, Fairs, or Sales.

10. The Order has only been made after very careful consideration of the liabilities which are thrown upon the Local Authority. The Board believe that public opinion is favourable to the adoption of concerted measures designed to check the spread of tuberculosis throughout the country, and no such action can be satisfactory which fails to make provision for dealing with the disease in the animal. Heroic measures in this connection would only defeat their own object, but a well devised scheme for gradually reducing the prevalence of tuberculosis in animals should, the Board feel, carry with it a full measure of public sympathy and support. The payment to agriculturists of reasonable compensation for animals slaughtered in the public interest must in the opinion of the Board, be an essential feature of any such scheme. On the other hand the liability of the Local Authority to provide such compensation on the present basis from public funds is a serious one, and cannot be continued

unless the events show that a return commensurate with the burden imposed is being obtained. It behoves agriculturists, therefore, to second the efforts of the public authorities by themselves taking measures to eradicate the disease entirely from their herds by segregating all bovine animals which respond to the tuberculin test, so as to prevent tuberculosis from being spread within the herd, and the Board will be prepared to advise how this can best be done in particular cases.

11. The Board desire at the same time to point out to Public Health Authorities that any extension in particular localities of the measures now to be taken throughout the country generally, may prejudice their general utility. The danger to the public health from the milk of a cow presenting no clinical symptoms of tuberculosis and not giving tuberculous milk, even should it re-act to the tuberculin test, is admittedly small, and stockowners cannot be expected to pursue the course suggested above unless they are satisfied that re-action to the tuberculin test will not expose their herd to administrative action on the part of Public Health Authorities. It is earnestly to be hoped, therefore, that Public Health Authorities and their Officers will as far as practicable conform in their procedure to the lines laid down in the Board's Order.

12. It is inevitable that at the outset of the operations the expenditure of Local Authorities should comparatively speaking be heavy, inasmuch as the first effects of the Order will be to bring within its purview the cows of all ages suffering from chronic disease of the udder and bovine animals of all kinds which show signs of emaciation. When, however, the Order has been in operation for a few years there will only fall to be dealt with animals which from an outwardly healthy condition develop these forms of the disease. It must not, therefore, be supposed that the expenditure during the initial years will represent the ultimate average cost.

The following is the leaflet referred to above. I reprint it to shew that the Health Committee is doing all in its power to combat this disease.

I.—It has been abundantly proved that "phthisis" or "consumption" is an infectious disease, and is infectious by means of the sputum.

II.—The way in which phthisis is usually spread from one person to another by means of the sputum is as follows:—

- (a) A consumptive patient coughs up a quantity of sputum in which are enormous numbers of the specific germs;
- (b) The sputum lodges where it is spat on, and there dries;
- (c) When dried, the sputum is usually pulverised and floats in the air as dust;
- (d) The germs contained in the sputum, though dried, are still living, and able to infect the air in which they are suspended;
- (e) The infected air when breathed is liable to cause phthisis. This is more particularly true of people who are already suffering from phthisis and whose recovery is thus prevented.

III.—Great care must therefore be used, so that the sputum is not discharged on any spot or into any substance on which it can be dried and subsequently broken into dust.

It must, therefore, not be discharged on the floor or walls of any living room, workshop, meeting room, theatre, or other confined place in which people assemble. It must not be discharged into a pocket handkerchief carried in the usual manner, since it readily dries in such a situation, so that not only are the clothes infected, but, when the pocket handkerchief is again used, a cloud of infective dust is scattered around you.

IV.—There are various ways in which this danger may be avoided.

At home you should spit into a piece of paper or clean rag, carefully clean your mouth with it, and then throw the soiled rag or paper on the back of the fire.

If there is no fire you should spit into a cup containing water, which must be emptied once a day into the drains outside the house, and then thoroughly cleansed with boiling water before being again used.

Outside the home you should carry a number of pieces of soft tissue paper, preferably oiled, and when you must spit use one of these, folding it after use so that the sputum is right in the centre of it, when it will not dirty the pocket. Use one pocket for the unused papers and another for those which have been used.

Or you may carry a pocket spittoon charged with moistened blotting paper. This may be readily obtained at any chemists, or made. It is essential that the lid should fit tight, and that the spittoon should be kept clean.

V.—All persons who have a chronic cough and spit should carry out the above precautions, and it is also advisable that they consult their medical attendant without delay.

VI.—Consumptives should not kiss on the lips.

The eating utensils which they have used should be at once thoroughly cleansed before further use.

VII.—If these precautions are strictly observed a consumptive person runs no risk whatever of infecting others, and adds considerably to his own chances of recovery.

VIII.—The sleeping room of a consumptive should be kept rigorously clean. If, by any chance, the pillows or bed clothes have been soiled with

sputum they should be at once disinfected by steam, or washed with boiling water.

Dust should not be allowed to accumulate anywhere in the bedroom.  
[ The room should be kept well aired and the bedroom window should, whenever possible, be kept slightly open.

IX.—Persons who have contracted consumption, or who have a family history of the disease, should not live or sleep in a room which is damp, crowded, badly lighted, or badly ventilated.

X.—It will often happen when a consumptive person's attention is first called to these rules that a considerable amount of infective dust will have collected in the rooms which he has occupied. These must be carefully disinfected.

Articles, including wearing apparel, carpets, hangings, bed clothes, and mattresses, which admit of such treatment, will be disinfected by the Corporation free of charge. Articles which admit of washing with boiling water may be so washed. Other articles, as well as the floor, walls, and ceiling, should be thoroughly cleaned down with a disinfectant, and the Corporation will do this work if requested. Where the work is done by the householder, directions will be given in each instance of the precise degree and kind of disinfection necessary.

Having once got the rooms quite clean, it becomes easy, though necessary, to keep them so. In order to effect this, the floors and skirtings of rooms used by consumptive persons should be thoroughly cleansed with soap and water at least once a week, and at all times the rooms should be kept free from dust. It is always desirable in dusting a room to moisten the floor with tea leaves or otherwise, and to use a damp duster to other parts of the room. In this way one makes sure of not scattering infectious dust in the air of the room. This is especially necessary in a room occupied by a consumptive whose lungs are, moreover, likely to be injured by the dust left in the room.

XI.—The walls ought to be rubbed down with dough every three months.

XII.—The most essential thing in preventing the spread of this disease, and in aiding the recovery of the consumptive person, is extreme cleanliness in his person and in the living and sleeping rooms used by him, with special attention to the points mentioned in this paper.

The safety of your family and of your workmates, as well as your own chances of recovery, depend on your following these rules.

## SECTION VIII.

*Return of Samples purchased by the Police in the Borough of  
Eccles, under the Food & Drugs Act. for the Year  
ended 31st December 31st, 1909.*

No. Purchased.	Nature of Article.	Genuine	Adulter- ated.	Amount of Fine and Costs.	Remarks.
				£ s. d.	
20 ...	Butter ...	20	...	...	
36 ...	Milk ...	35	1	1 10 1	
1 ...	Scotch Whiskey ...	1	...	...	
5 ...	Lard ...	5	...	...	
2 ...	Mustard ...	2	...	...	
5 ...	Coffee ...	5	...	...	
3 ...	White Pepper ...	3	...	...	
3 ...	Margarine ...	3	...	...	
3 ...	Beer ...	3	...	...	
78 ...		77	1	1 10 1	

Kindly furnished by Mr. Superintendent KEYS.

## SECTION IX.

### *Sanitary Work of the Health Department.*

#### STAFF.

CHIEF INSPECTOR	...	...	...	C. W. LASKEY.
ASSISTANT INSPECTOR	...	...	...	G. LAWS.
CLERK	...	...	...	S. MYLES.
JUNIOR CLERK	...	...	...	T. HARDMAN.
DISINFECTOR	...	...	...	W. CROMPTON.

The year ended December 31st, 1909, was notable for the vast amount of sanitary work accomplished, particularly in the matter of privy midden extinction, and the consequent improvement of drainage conditions. The amount of time occupied in supervising the work necessitated by these alterations has been so great that in some instances other branches of our work have of necessity been somewhat neglected.

*Privy Conversion.*—473 privy pits were converted to 836 water closets; 57 privy pits and 110 ashpits were abolished. As in nearly in every case of privy conversion, specifications were prepared in the Department, and included for the provision of entirely new buildings erected against the house walls, as well as all the appurtenant works of drainage, provision of new gullies, paving of yards, and general repairs of a sanitary character, the amount of time involved in the supervision of these alterations will be readily appreciated.

In the case of the 836 newly water closeted houses, and those having the use of the 57 privies and 110 ashpits which were simply abolished, 1076 portable galvanised iron ashbins were provided, and the weekly removal of house refuse was arranged for. The number of ashbins now in use is 8,642—an increase of 1,307 over the figures for the previous year. This, of course, includes those provided for 231 newly erected houses.

There are still 676 privy pits and 109 ashpits within the Borough :—

			Privies	Ashpits
BARTON	WARD	...	152	16
ECCLES	"	...	67	18
IRWELL	"	...	92	29
MONTON	"	...	92	37
PATRICROFT	"	...	141	8
WINTON	"	...	132	1
Totals			676	109

*Re-drainage of House Premises.*—641 not newly erected houses were entirely re-drained and provided with shallow self-cleansing gullies. In 108 instances new 4in. diameter strong cast-iron sewer ventilating pipes were fixed by, and at the cost of, the Sewers Department of the Corporation.

In addition, the same department took up and re-laid 36 sewers which were found to require alteration and amendment.

*District Inspection.*—Continued attention was paid to this important work, and several parts of the Borough were repeatedly visited for inspection. The number of inspection of dwellings totalled 5,357, and in addition 179 visits were paid to fried fish and other shops, and 137 to stables and pig-keeping establishments.

In connection with works in progress for the abatement of nuisances 6698 visits were recorded. Not quite so much overcrowding of dwellings was discovered as in the previous year, but it was found necessary to issue 14 notices of abatement. In several instances the number of occupants was reduced as the result of verbal cautions.

Untidiness and dirt continue prevalent in some premises, and it was found necessary to serve notices in respect of 36 houses, 20 back yards, and 4 van dwellings.

In 210 cases the receptacles for house refuse were found to require renewal. Galvanized iron ashbins were provided by the owners.

Details of the work upon which the Staff was engaged will be found in the Table at the end of this Section.

*Zymotic and other Diseases.*—697 visits of inquiry into cases of notifiable disease, and 72 into notified cases of Phthisis were paid. To those cases of

"school diseases" reported by the School Attendance Officers and Schoolmasters there were 564 visits. The number and variety of "school cases" reported during the past five years are as follows:—

	1909	1908	1907	1906	1905
MEASLES ... ..	174	777	276	196	443
CHICKEN-POX ... ..	201	74	45	20	88
WHOOPING COUGH ... ..	35	36	405	..	39
MUMPS ... ..	4	2	3	20	84
ECZEMA ... ..	13	20	25	11	104
RINGWORM ... ..	9	14	21	11	54
OTHER DISEASES (Ophthalmia, Sore Throat, Influenza, etc. ...)	2	24	3	14	178
Totals...	438	947	778	272	990

Eight schoolrooms and 423 dwelling-house rooms were disinfected by spraying and fumigation. There were 81 removals of enteric fever "pails," and 6 disinfections of possibly infected privy pits. In 239 cases the walls of infected rooms were stripped and limewashed, and in only 13 instances was it found necessary to serve notices requiring the occupants to carry out this work.

There were removed to the Sewage Farm for steam disinfection 258 lots of bedding.

*Drainage Examinations.*—The number of drains uncovered for inspection was 83, and the "test" (smoke or water) was applied on 1133 occasions. Most of the tests were applied in the case of work in progress, and numerous defects were discovered and remedied. Without such tests a vast amount of defective work would be covered up, and would probably only be discovered upon the outbreak of some infectious disease.

*Dairies, Cowsheds, & Milkshops.*—There are now only 10 premises upon which cows are being kept, as compared with 13 in the previous year; but there has been an increase by 5 in the number of milkshops, which now number 82. Forty inspections were paid to the shippens, and 272 to the dairies and milkshops. In ten cases limewashing of shippens and milkshops was found to be necessary, and in 16 cases various sanitary defects were noted and remedied.

*Bakehouses.*—One case of baking in premises below street level was discovered, and the business was stopped. There are no registered cellar bakehouses within the district. The bakehouses now on the register total

47—a decrease of two—and 167 visits were paid to them. Fourteen were found in need of limewashing, and three other sanitary defects were noted and dealt with.

*Slaughter-houses.*—The use of two slaughter-houses, as such, was discontinued during the year, and they now number 13. Two were found in need of limewashing, but no other defects were noted.

One slaughter-house is licensed from year to year—the others exist under ante 1875 licences.

*Common Lodging-houses.*—There are still but two of these premises, and they continue to be well maintained. We had no cases of infectious diseases in either of them during the whole of the year.

*Houses let in Lodgings.*—Five houses were registered, and six were given up during the year. The number of houses still upon the register is 20, and to them 92 visits of inspection were paid. There were infringements of the Bye-laws in 4 cases. Registration was refused in respect of seven premises which proved to be lacking in proper accommodation.

*Canal Boats.*—Sixty-three boats were inspected—an increase of 15 over the figures for the previous year—and in five cases infringements of the Regulations were discovered. These all had reference to the time allowed for the renewal of cabin painting having been exceeded. Notices requiring the necessary work to be done was served upon the owners, and all have been complied with.

The boats inspected had accommodation for 190 persons, but only 86—64 males and 22 females—were found on board. Only one child was found, a male aged 4 months.

The sanitary condition of the boats was good, and they were all found to be clean.

There was ample provision in the matter of water supply.

No cases of sickness were found on any of the boats.

Every boat inspected was engaged in coal traffic, and all the inspections were made at the Patricroft Coal Wharf.

*Fried Fish Shops.*—The registration of these establishments continues to be useful. We are able to arrange for a systematic visitation, with a view of supervising the preparation of “chips” and fish for food. Thirty three shops are on our register—a decrease of three as compared with the figures for the previous year. There was no cause for complaint in the conditions which obtained.

The number of visits of inspection to these premises, together with various greengrocers' and fishmongers' premises, totalled 179.

*Workshops.*—The number now on the register, exclusive of bakehouses, is 131—an increase by 20 as compared with the previous year. The visits of inspection numbered 302.

The rooms in use number 168. The trades for which they are used are as follows :—

Bootmaking & Clogger	...	31	Brushmaking	...	...	...	1
Dressmaking	...	...	25	Musical Instrument repairing...	...	...	1
Millinery	...	...	20	Blacksmiths	...	...	3
Tailoring	...	...	18	Wheelwrights	...	...	4
Cabinet making & Upholstery.	...	4	Laundries	...	...	...	4
Tin-plate works	...	...	3	Hosiers	...	...	1
Saddlery	...	...	3	Goldbeating	...	...	1
Joiners' shops	...	...	1	Basket making	...	...	1
Cycle repairing	...	...	2	Carriage building	...	...	1
Watch repairing	...	...	2	Bleaching	...	...	1
Photographic enlargement	...	...	1	Picture framing	...	...	1
Rope making	...	...	1	Herb beer brewing	...	...	1

All have been systematically inspected, and the newly occupied premises have been measured in order that the number of occupants might be properly regulated. Cards, giving the particulars as to space, and number of occupants permitted, are supplied and kept exhibited in each workroom.

There were employed in the various workshops 185 adult males, 153 adult females, 90 female young persons, and 25 male young persons—a total of 453.

In 29 cases the rooms were found to require limewashing, and 18 sanitary defects were noted and remedied. There were 35 other infringements of the Factory Acts.

*Outworkers.*—Lists of outworkers were received from Manchester (3), Salford (1), and private firms (2). The premises reported were all inspected—34 visits being paid in all.

Those registered numbered 20—an increase of 2—and in every case the conditions were found to be satisfactory.

Seven notices were received from H. M. Inspector of Factories, and the matters complained of received attention. In 14 cases the want of exhibition of "Abstracts" was reported to H. M. Inspector, and in 17 cases notices were issued by the Department.

## BOROUGH OF ECCLES.

## FACTORIES, WORKSHOPS, WORKPLACES, AND HOMEWORK.

## I.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

*Inspections made by Sanitary Inspectors.*

Premises.	Number of		
	Inspections	Written Notices	Prosecutions.
Factories (including Factory Laundries) .....	8	4	Nil.
Workshops (including Workshop Laundries) .....	469	13	Nil.
Workplaces .....			
Total .....	477	17	Nil.

## II.—DEFECTS FOUND IN FACTORIES, WORKSHOPS, &amp; WORKPLACES.

Particulars.	Number of defects.			
	Found.	Remedied.	Referred to H.M. Inspector	Number of Prosecutions.
<i>Nuisances under the Public Health Acts :—</i>				
Want of cleanliness .....	29	29		
Want of Ventilation .....	1	1		
Overcrowding .....	....	....		
Want of drainage of floors .....	1	1		
Other nuisances .....	18	18		
*Sec. 22 P.H.A.A. Act, 1890, has been adopted, and the standard of efficiency is that provided by the Secretary of State.				
Sanitary accommodation	*Insufficient .....	3	1	2
	Unsuitable or defective .....	9	9	
	Not separate for sexes .....	3	3	
<i>Offences under the Factory and Workshops Act :—</i>				
Illegal occupation of underground bakehouse (S. 101..)	1	1		
Breach of special sanitary requirements for bake-houses (SS. 97 to 100)...	17	17		
Total .....	82	80	2	Nil.

### III.—HOME WORK.

NATURE OF WORK.	Outworkers' Lists, Section 107.								Inspection of Out- workers' Premises.
	Lists received from employers.								
	Sending twice in the year.			Sending once in the year.			Addresses of Outworkers.		
	Lists.	Out- workers.		Lists	Out- workers.		Received from other Councils.	Forwarded to other Councils.	
		Con- tractors.	Work- men.		Con- tractors.	Work- men.			
Wearing Apparel—									
(1) Making, &c. ...	2					20		24	
(2) Cleaning & washing Furniture & Upholstery...								8	
Umbrellas &c. ...								2	
Total.. ..	2		2			20		34	

### IV.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year	Number.
Bakehouses .. .. .	47
Bootmaking and Clogging .. .. .	31
Dressmaking .. .. .	25
Millinery .. .. .	20
Tailoring.. .. .	18
Cabinet Making & Upholstering .. .. .	4
Wheelwrights .. .. .	4
Laundries.. .. .	4
Various other Trades ... .. .	25
Total Number of workshops on Register..	178

### V.—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspector of Factories ;—	
Failure to affix Abstract of the Factory & Workshop Act (S.133)	14
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory and Workshop Act (S. 5).	Notified by H.M. Inspector. Reports (of action taken) sent to H.M. Inspector
Other matters, relative to which Notices were received from H.M. Inspector	7
“ “ “ “ “ remedied	7
Underground Bakehouses (S. 101) :—	
Certificates granted during the year.. .. .	Nil.
In use at the end of the year .. .. .	Nil.

*Diseases of Animals Act.*—Two separate cases of Parasitic Mange were discovered during the year. In one case the animal was cured—in the other it was destroyed, owing to it not being worth the cost of treatment. All the usual preventive measures were put into operation, and no other cases occurred.

*Loan of Limewash Brushes.*—273 applications for the loan of limewash brushes were made, and the brushes were lent out free of all charge. Lime is also supplied freely, and the result of its application in dwelling-houses is very gratifying.

***Proceedings taken before the Magistrates.***

Offence.	Result of Proceedings.	Amount of Penalty.
Filthy conduct in a public Urinal. (Towns' Police Clauses Act.)	Fined 2/6 and costs ...	9/-
Littering Streets with brick bats. (Towns' Police Clauses Act.)	Case withdrawn upon payment of costs and contribution of £1/1/0 to the Hospital.	
Houses unfit for Habitation (H. W. Classes Act.)	Closing Order granted in respect of five houses.	
Non-compliance with notice to abate a Nuisance. (P.H.A. 1875).	Work done before the hearing. Ordered to pay costs.	8/-

**Tabulated particulars of Nuisances dealt with, and of other  
Work done by the Staff in the Sanitary Department,  
during the Year ended December 31st, 1909.**

	1909	1908	1907	1906
House Drains—taken up, cleansed & re laid ...	997	955	662	552
„ slopstone waste pipes, disconnected from. ...	...	2	3	1
„ bath „ „ „ „ „	4	3	2	1
„ lavatory „ „ „ „ „	1	...	1	...
„ privy drains „ „ „ „ „	473	363	295	240
„ downspouts „ „ „ „ „	128	135	125	73
„ ventilated „ „ „ „ „	108	128	81	47
„ want of „ „ „ „ „	4	8	7	2
Gully Traps—defective „ „ „ „ „	947	816	515	445
„ want of „ „ „ „ „	2	9	4	4
„ filthy „ „ „ „ „	14	30	17	8
Soil Pipes—defective „ „ „ „ „	12	15	9	5
„ „ ventilation of „ „ „ „ „	4	10	8	4
„ bath and lavatory waste pipes disconnected from „ „ „ „ „	...	1	...	1
„ downspouts disconnected from „ „ „ „ „	9	5	4	1
Water closets—defective ‘pan’ „ „ „ „ „	54	17	1	15
„ various defects in „ „ „ „ „	69	55	93	41
„ inefficient flush to „ „ „ „ „	10	14	1	...
„ insufficient in mills, &c. (No. of cases) „ „ „ „ „	3	1	6	1
Slop-water closets—defective „ „ „ „ „	29	48	37	51
Defective privy pits „ „ „ „ „	668	378	311	255
„ ashpits „ „ „ „ „	134	102	32	37
„ paving of yards and passages „ „ „ „ „	192	272	139	184
„ „ cellar floors, &c „ „ „ „ „	26	26	25	41
„ channelling „ „ „ „ „	1	2	2	6
„ slopstone waste pipes „ „ „ „ „	169	233	152	192
„ brickwork around slop waste pipes „ „ „ „ „	81	186	101	109
„ eaves gutters and spouting „ „ „ „ „	104	104	98	48
„ bath and lavatory waste pipes „ „ „ „ „	3	11	...	...
„ roofs „ „ „ „ „	18	20	41	17
„ manure middens „ „ „ „ „	4	5	...	4
„ slopstones „ „ „ „ „	7	6	2	10
„ urinals „ „ „ „ „	1	1	4	3
Cesspools abolished „ „ „ „ „	3	6	4	8
Dirty houses cleansed „ „ „ „ „	36	69	52	30
„ van dwellings cleansed „ „ „ „ „	4	5	1	3
Yards, &c. cleansed „ „ „ „ „	20	32	65	20
Closets, filthy, cleansed „ „ „ „ „	19	35	18	12
House premises, damp „ „ „ „ „	51	41	22	10
House premises, want of ventilation „ „ „ „ „	42	14	...	...
Houses overcrowded „ „ „ „ „	14	32	7	5
Accumulations of manure and rubbish „ „ „ „ „	49	73	67	53
Buildings—obstructive to light and air, removed „ „ „ „ „	7	14	55	9
Keeping fowls, &c. so as to cause nuisance „ „ „ „ „	8	18	28	10
‘Backing up’ of sewage „ „ „ „ „	22	9	2	2

	1900	1908	1907	1906
Street gullies, defective ...	7	1	19	3
Manholes—foul smells from ...	2	5	...	7
Sewers Defective... ..	36	25	19	16
Waste of water ... ..	39	63	58	15
Want of manure middens ...	5	8	8	7
„ ashbin accommodation ...	210	89	132	158
Miscellaneous ... ..	35	56	41	40
Milkshops and cowsheds requiring limewashing ...	10	5	9	4
„ „ defects in remedied ...	16	14	7	2
Bakehouses requiring limewashing ...	14	12	18	17
„ „ defects in remedied ...	3	15	1	4
Workshops requiring cleansing & limewashing ...	29	17	15	16
„ „ defects in remedied ...	4	17	22	19
Slaughter-houses requiring limewashing ...	2	...	7	4
„ „ defects in remedied ...	...	3	7	3
Houses let-in-lodgings				
Keeping Lodgers in unregistered premises ...	7	17	5	...
Houses let-in-lodgings—Breach of Bye-laws ..	4	4	6	...
Stables require limewashing ... ..	4	...	2	...
Fried fish shops require limewashing ... ..	...	...	2	12
„ „ „ defects in remedied ... ..	...	11	5	10
„ „ „ accumulations of offal... ..	...	5	1	4
Common lodging houses require limewashing ..	...	...	...	1
Pigstyes require limewashing ... ..	4	5	5	8
„ „ defects in remedied ... ..	4	12	2	12
Back to back houses converted into through dwellings	1	...	...	...
No. of privies converted into water closets ...	473	363	287	240
„ water closets provided in lieu of privies ..	836	651	489	407
„ houses not newly erected provided with new drains ... ..	641	563	358	321
„ preliminary notices served ... ..	12	25	37	10
„ committee's „ „ ... ..	65	129	141	82
„ complaints made under Sec. 41 P.H.A. ...	4	10	23	14
„ notices served under do. ... ..	2	4	5	4
„ notices under Sec. 5 of I.D.P.Act. 1890, requiring stripping and limewashing ...	13	13	12	26
„ reports made under Sec. 36 P.H.A. ..	70	50	52	39
„ notices served do. do. ... ..	70	35	28	39
„ cases before the Magistrates ... ..	4	11	3	4
„ letters written ... ..	2940	2060	1660	1885
„ letters received ... ..	1448	1005	1083	1118
„ of visits in cases of zymotic diseases... ..	697	371	514	555
„ „ „ of phthisis ... ..	72	26	48	76
„ „ „ in other cases of sickness ..	664	1051	1057	603
„ rooms disinfected ... ..	423	326	384	335
„ schools do. ... ..	8	1	5	4
„ books do. ... ..	20	20	49	56
„ stables, &c. do. ... ..	...	...	...	5
„ Walls, &c. stripped and limewashed ...	239	183	220	200
„ Re-inspection of nuisances ... ..	6698	6553	5793	5257
„ Inspections of dwellings ... ..	5807	4288	3804	3804
„ „ slaughter houses ... ..	126	87	71	71

		1909	1908	1907	1906
No. of inspections of milkshops	...	272	237	164	145
" " cowsheds	...	40	71	62	79
" " common lodging houses	...	59	68	66	65
" " houses let in lodgings	...	92	71	48	51
" " bakehouses	...	167	151	170	161
" " workshops	...	302	270	289	259
" " outworkers' premises	...	34	42	47	43
" " stables & piggeries	...	137	107	102	89
" " van dwellings	...	204	94	99	110
" " canal boats	...	63	48	45	51
" " fried fish and other shops	...	179	241	182	124
" " factory premises	...	8	12	...	...
" " marine stores	...	...	8	...	...
" cottage water closets inspected	...	1049	1588	1273	944
" schools inspected	...	2	..	6	8
" owners seen re nuisances	...	499	395	349	303
" smoke observations	...	2	28	4	40
" 'tests' applied to drains	...	1133	1024	66	612
" drains opened up for examination	...	83	105	69	102
" typhoid pails removed, cleansed, &c.	..	81	58	48	68
" privy pits and drains disinfected	...	6	3	21	56
" Notices under Sec. 93 Eccles Corporation Act					
1901	...	9	24	28	23
" Certificates under Sec. 93, E.C.A., 1901	..	9	24	28	23

*\* List of Streets & Passages Paved during the Year  
ending 31st December, 1909.*

					Length in Yards.
Alexandra Road (part of) ...	...	...	...	...	136
Bell Terrace ...	...	...	...	...	142
Driffield Street ...	...	...	...	...	62
Edison Road (part of) ...	...	...	...	...	128
Hospital Avenue ...	...	...	...	...	232
Richardson Road ...	...	...	...	...	115
School Road ...	...	...	...	...	156
Trevelyan Street (part of) ...	...	...	...	...	41
Willan Road ...	...	...	...	...	115
Total ...	...	...	...	...	1127 lin. yds.
<hr/>					
Back Bell Terrace ...	...	...	...	...	166
Back Birkdale Grove ...	...	...	...	...	70
Back Bright Road ...	...	...	...	...	75
Back Cross Street North ...	...	...	...	...	61
Back Cross Street South ...	...	...	...	...	61
Back Devonshire Road ...	...	...	...	...	88
Back Gladstone Road ...	...	...	...	...	105
Back Liverpool Road ...	...	...	...	...	117
Back Richardson Road ...	...	...	...	...	68
Back Vicarage Terrace ...	...	...	...	...	70
Back Vicarage Grove ...	...	...	...	...	58
Back Willan Road ...	...	...	...	...	104
No. 1 Passage Cross Street ...	...	...	...	...	31
Total ...	...	...	...	...	1074 lin. yds.
<hr/>					

*Number of Houses certified in the Wards during the  
Year ending 31st December, 1909.*

BARTON	...	...	...	...	...	...	121
ECCLES	...	...	...	...	...	...	38
IRWELL	...	...	...	...	...	...	39
MONTON	...	...	...	...	...	...	11
PATRICROFT	...	...	...	...	...	...	Nil.
WINTON	...	...	...	...	...	...	22
TOTAL							<hr/> 231 <hr/>

\* Kindly furnished by the Borough Surveyor.

## SECTION X.

---

### Sanitary Legislation of 1909.

The Parliamentary Session of 1909 has not been fertile in sanitary legislation. The energies of the House of Commons have been devoted almost continuously throughout the exceptionally long session to consideration of the Budget and the Finance Bill, with the result that there has been very little time for taking up outstanding questions of sanitary reform. The Housing and Town Planning Bill has fortunately been added to the statute book, but it was not until the last days of November that it was finally passed. That measure contains many valuable provisions, which should have a distinctly beneficial influence, especially on urban development and sanitation. On the other hand, the Milk and Dairies Bill, which was promised in the King's Speech at the opening of the session, and dealt with one of the most important questions of the hour, was withdrawn without having received any serious consideration; whilst the measure which was promised by Mr. Burns upwards of two years ago for dealing with the pollution of rivers and the recommendations of the Royal Commission on Sewage Disposal, has not even been laid before Parliament. The much-needed consolidation of the numerous Public Health Acts also still remains to be taken in hand.

#### **Local Education Authorities (Medical Treatment) Act.**

(9 Edw. 7; chap. 13.)

This short Act of five sections extends Section 13 of the Education (Administrative Provisions) Act, 1907, by providing for the recovery by Local Education Authorities of costs for medical treatment of children attending public elementary schools in England and Wales,

#### **Diseases of Animals Act.**

(9 Edw. 7; chap. 26.)

This Act provides that the Local Authority for the purposes of the Diseases of Animals Acts, 1894 to 1903, shall pay to a veterinary surgeon or veterinary practitioner, in respect of every notification of diseases made by him to the Local Authority or any officer of the Local Authority, in pursuance of an Order under those Acts requiring such a notification, such fee, not exceeding two shillings and sixpence, as may be prescribed by the Order.

This Act came into force on 25th November, 1909.

#### **Education [(Administrative Provisions) Act.**

(9 Edw. 7; chap. 29.)

This Act makes provision for the better administration by Central and Local Authorities in England and Wales in certain matters of detail of the enactments relating to education. Section 5 is especially important. It

empowers the Council of any county, borough, or urban district, with the consent of the Board of Education, to appropriate any land held by them in their capacity as Local Education Authority, for any of the purposes of the Council, otherwise than in their capacity as Local Education Authority, approved by the Local Government Board: provided that the Council shall not on any lands so appropriated (a) create or permit any nuisance, or (b) sink any well for the public supply of water or construct any cemetery, burial ground, destructor, station for generating electricity, sewage farm, or hospital for infectious diseases, unless, after local enquiry and consideration of any objections made by persons affected, the Local Government Board, subject to such conditions as they think fit, authorise the work or construction.

This Act came into force on 25th November, 1909.

### **Cinematograph Act.**

(9 Edw. 7; chap. 30.)

This Act makes better provision for securing safety at Cinematograph and other Exhibitions.

Section 1 provides that these exhibitions shall not be given unless the regulations made by the Secretary of State for securing safety are complied with, or elsewhere than in premises licensed for the purpose in accordance with this Act.

Section 2 (1) empowers County Councils to grant licences to such persons as they think fit to use the premises specified in the licence for the purposes aforesaid. (2) A licence shall be in force for one year or for such shorter period as the Council on grant of the licence may determine. (3) A County Council may transfer any licence from one person to another. (4) An applicant for a licence or transfer of a licence must give seven days' notice in writing to the County Council and to the chief officer of police. (5) Fees are to be paid in respect of the grant, renewal, or transfer of a licence, not exceeding one pound for one year, or five shillings per month.

Under Section 3 the owner of a cinematograph will be liable to a penalty of twenty pounds, and in the case of a continuing offence a further penalty of five pounds a day, for a contravention of this Act.

Section 4 empowers a constable or any officer appointed for the purpose by a County Council, at all reasonable times, to enter any premises, whether licensed or not, with a view to seeing whether provisions of the Act, &c., are being complied with.

Section 5 empowers County Councils to delegate their powers to justices sitting in petty sessions; and Section 6 applies the Act to county boroughs as if the Borough Councils were County Councils.

Section 7 adapts the Act to the case of premises licensed by the Lord Chamberlain instead of the County Council, deals with the licensing of movable buildings or structures, and exempts exhibitions in private dwelling-houses to which the public are not admitted.

By Sections 8 and 9 the Act is applied to Scotland and Ireland.

The Act comes into operation on 1st January, 1910.

## **Housing, Town Planning, &c., Act.**

(9 Edw. 7; chap. 44.)

This is an Act to amend the law relating to the housing of the working classes, to provide for the making of town planning schemes, and to make further provision with respect to the appointment and duties of County Medical Officers of Health, and to provide for the establishment of Public Health and Housing Committees of County Councils. It is only practicable here to give the main features and provisions of the Act.

It is divided broadly into three divisions.

PART I. deals with the Housing of the Working Classes, and aims at removing some of the main difficulties and obstacles which have hindered the effectual carrying out of the Housing of the Working Classes Act, 1890. Hitherto Part III of that Act has only been in force where adopted by a Local Authority. The first section of the new Act, alters this by providing that, after the commencement of the Act, Part III. of the Act of 1890 shall extend to and take effect in every urban or rural district, or other place for which it has not been adopted, as if it had been so adopted. It is therefore now the definite statutory duty of every Local Authority to provide proper housing accommodation for the working classes. No longer has the question as to the adoption of the Act to be first considered and decided upon.

Again, one of the first difficulties which Local Authorities have encountered on taking up the housing question has been that of securing land for the purpose at a reasonable cost. This is dealt with by, amongst others, Section 2, which will enable a Local Authority to purchase land compulsorily for the purpose of the Act by means of an order submitted to the Local Government Board, and confirmed by that Board in accordance with the procedure prescribed in detail in the First Schedule. It may be noted in passing that one of the clauses of that schedule provides that in determining the amount of any disputed compensation under any such order, no additional allowance shall be made on account of the purchase being compulsory.

Section 3 provides for the borrowing of money by Local Authorities from the Public Works Loan Commissioners, and extends to eighty years the maximum period which may be allowed for repayment. Section 6 empowers them to lay out and construct public streets or roads in connection with housing schemes. Section 7 deals with expenditure of money for housing purposes in cases of settled land; and Section 8 empowers a Local Authority to accept a donation of land or money or other property for housing purposes.

Another matter in which difficulties have arisen relates to money applicable under trusts for housing purposes, but not advantageously utilised to the intended object. Under Section 9, if in any case it appears to the Local Government Board that the institution of legal proceedings is requisite or desirable with respect to any property, the Board may certify the case to the Attorney-General, who shall, if he thinks fit, institute legal proceedings, or intervene in proceedings already instituted.

Enforcement of the Housing Acts is also definitely provided for. Under Section 10 the Local Government Board, on complaint of a County Council, Parish Council, or four inhabitant householders, may proceed to inquire as to a

case of default, and make the requisite order, which may be enforced by mandamus.

The Local Government Board are also given power (Section 11) to order defaulting Local Authorities to carry out, within a limited time, improvement schemes for "unhealthy areas," under Part I. of the Act of 1890, or reconstruction schemes for "unhealthy dwellings" under Part II. of that Act. As regards rural districts, County Councils are enabled by Section 12 to act in default of a Rural District Council under Part III. of the Act of 1890; and by Section 13 the Local Government Board are empowered to confer on County Councils the powers of a Local Authority as regards any rural district or part of a district.

The contracts of landlords are affected by Sections 14 to 16, Section 14 providing that in any contract for letting for habitation a house or part of a house at a rent not exceeding £40 in London, £26 in a borough or urban district of 50,000 inhabitants, or £16 elsewhere, there shall be implied a condition that the house is in all respects reasonably fit for human habitation.

The procedure for closing orders and demolition orders, and for improvement and reconstruction schemes, is amended, strengthened, and simplified in various respects by Sections 17 to 51. One or two amendments are of special interest. Thus, Section 43 prohibits the erection of back-to-back houses, and in that respect runs counter to the system which has been in great favour in Leeds and other Yorkshire and North Country towns. The only exceptions to this provision are—(a) houses containing several tenements in which the tenements are placed back-to-back if the Medical Officer of Health certifies that the several tenements are so constructed as to secure effective ventilation of all habitable rooms; and (b) houses abutting on streets approved before 1st May, 1909, in places where there are local Acts or bye-laws in force permitting back-to-back houses.

Another novel provision is that in Section 44, which gives the Local Government Board power to revoke unreasonable bye-laws.

An interesting provision is that in Section 45, which saves the sites of ancient monuments or other objects of archaeological interest.

A further amendment is made by Section 50, which provides that the expression "cottage" may include a garden of not more than one acre. In Section 53 of the Act of 1890 the amount of garden was limited to half an acre.

The Housing Acts are applied to Scotland by Sections 52 and 53, with the necessary modification.

PART II. of the new Act relates to Town Planning, and is quite a new departure in local government legislation. Section 54 provides that "a town planning scheme may be made in accordance with the provisions of this Act as respects any land which is in course of development or appears likely to be used for building purposes, with the general object of securing proper sanitary conditions, amenity, and convenience in connection with the laying out and use of the land, and of any neighbouring land." In this clause is indicated the general aim of the new Act. In the sections which follow are set out the powers of the Local Government Board as regards revising, approving, varying, or revoking

schemes, prescribing sets of general provisions for carrying out the general objects of town planning schemes, or for dealing with areas of special character, and the Board are given very clear powers of compelling defaulting Local Authorities to prepare and execute town planning schemes. Provision is made for the payment of compensation in respect of property injuriously affected by any scheme, and it is also provided (Section 58 (3)) that where any property is increased in value the responsible Authority may recover from any person whose property is so increased in value one-half of the amount of that increase.

This town planning part of the Act is applied (Section 66) to the Administrative County of London, the London County Council being the Local Authority, and it is also applied to Scotland (Section 67).

PART III of this Act relates to the appointment and duties of *County Medical Officers*, the establishment of *County Public Health and Housing Committees, &c.*

Section 68 definitely provides that "every County Council shall appoint a Medical Officer of Health under Section 17 of the Local Government Act, 1888." The officer's duties are to be prescribed by general order of the Local Government Board; he shall have the same powers of entry on premises as are conferred on a Medical Officer of Health of a district; he shall be removable by the County Council with the consent of the Local Government Board and not otherwise; he shall not be appointed for a limited period only, except that the County Council may with the sanction of the Local Government Board make a temporary arrangement for the performance of all or any of the duties of the Medical Officer of Health of the county. A County Medical Officer of Health appointed after the passing of this Act shall not engage in private practice, and shall not hold any other public appointment without the express written consent of the Local Government Board.

Section 69 requires that—(1) "The Clerk of a Rural District Council shall forward to the Medical Officer of Health of the county a copy of any representation, complaint, or information, a copy of which it is the duty of the District Council to forward to the County Council under Section 45 of the Housing of the Working Classes Act, 1890 (which relates to the powers of County Councils).

(2) The Medical Officer of Health of a district shall give to the Medical Officer of Health of the county any information which it is in his power to give, and which the Medical Officer of Health of the county may reasonably require from him for the purpose of his duties prescribed by the Local Government Board.

(3) If any dispute or difference shall arise between the Clerk or the Medical Officer of Health of a District Council and the Medical Officer of Health of a County Council under this section, the same shall be referred to the Local Government Board, whose decision shall be final and binding.

(4) If the Clerk or Medical Officer of Health of a District Council fails to comply with the provisions of this section, he shall, on information being laid by the County Council, but not otherwise, be liable on summary conviction in respect of each offence to a fine not exceeding ten pounds.

Section 71 is also important. It requires that:—(1) "Every County Council shall establish a Public Health and Housing Committee, and all matters relating to the exercise and performance by the Council of their powers and duties as respects public health and the housing of the working classes (except the power of raising a rate or borrowing money) shall stand referred to the Public Health and Housing Committee, and the Council, before exercising any such powers, shall, unless in their opinion the matter is urgent, receive and consider the report of the Public Health and Housing Committee with respect to the matter in question, and the Council may also delegate to the Public Health and Housing Committee, with or without restrictions or conditions as they think fit, any of their powers as respects public health and the housing of the working classes, except the power of raising a rate or borrowing money, and except any power of resolving that the powers of a District Council in default should be transferred to the Council. (2) This section shall not apply to Scotland or the London County Council."

County Councils are also empowered (Section 72) to promote the formation or extension of, and may assist societies on a co-operative basis, having for their object, or one of their objects, the erection or improvement of dwellings for the working classes. The County Council, with the consent of and subject to the regulations made by the Local Government Board, may for the purpose of assisting a society make grants or advances to the society, or guarantee advances made to the society, upon such terms and conditions as to rate of interest and repayment, or otherwise, and on such security as the Council think fit, and the making of such grants or advances shall be a purpose for which a Council may borrow:—Provided that the regulations of the Board shall provide that any such advance made on the security of any property shall not exceed two-thirds of the value of that property.

This Act does not extend to Ireland. It received the Royal Assent and came into operation on the 3rd December, 1909.

### **Unsuccessful Bills.**

In fulfilment of the promise in the King's Speech on the opening of the Session, Mr. Burns introduced into the House of Commons his *Milk and Dairies Bill*. The main objects of this Bill were to provide for—(1) The more effective registration of dairies and dairymen; (2) the inspection of dairies and the examinations of cows therein; (3) the prohibition of the supply of milk from a dairy where such a supply has caused, or would be likely to cause, infectious diseases, including tuberculosis; (4) the prevention of the sale of tuberculous milk; (5) the regulation of the importation of milk so as to prevent danger to public health arising therefrom; (6) the issue of regulations for securing the supply of pure and wholesome milk; (7) the establishment by Local Authorities in populous places of milk depôts for the sale of milk specially prepared for infants.

The provisions as to registration proposed to supersede the provisions as to the registration of dairies contained in the Contagious Diseases (Animals) Acts, and the orders made thereunder. The provisions as to the inspection of dairies, and the prohibition of the supply of milk, reproduced, with amendment, Section 4

of the Infectious Diseases Prevention Act, 1890, Section 71 of the Public Health (London) Act, 1891, and the model milk clauses incorporated in many local Acts. The clause as to the prevention of the sale of tuberculous milk was also taken from the model milk clauses, but the scope of the enactment was somewhat extended. In connection with this Bill, the Board of Agriculture and Fisheries issued an order under the Diseases of Animals Act, 1894, dealing with the notification of tuberculosis in cattle, and the inspection, examination, detention, isolation, and slaughter of tuberculous cattle, and the giving of compensation in appropriate cases; but on the withdrawal of the Bill, the Board of Agriculture withdrew the order they had issued on the subject. The Bill will no doubt be re-introduced next session. The new Parliament will also, it is to be hoped, take up the question of *Rivers Pollution*, and the recommendations of the Royal Commission on Sewage Disposal. The question is of considerable and growing importance, involving, as it does, the *oyster and shell fish* industry. The settlement of the difficulties connected with this question has already been too long delayed.

## SECTION XI.

### Annual Report of the Sewage Works Engineer and Manager, for the year 1909.

GENTLEMEN,

I beg to submit to you the following report upon the work of this Department for the year ended December 31st, 1909.

**SEWAGE FLOW.**—There has been a slight increase in the flow of sewage to the works. Gaugings taken during March 7th to 27th inclusive, gave an average dry-weather flow of 1,470,000 gallons per day, as compared with 1,450,000 gallons during 1908. Over 25 per cent of this flow is trade effluent which is turned into the sewers without any preliminary treatment.

**PUMPING AND TREATMENT.**—The pumping and treatment of the sewage has been carried on without intermission during the whole of the year, with the exception of 16½ hours during the early mornings of six days in November, when pumping operations were suspended to allow the Contractor's for the new pumping machinery to make the necessary connections with the existing mains.

**MACHINERY.**—The boilers, engines and pumps, crushing plant, lighting plant, &c., have been maintained in good working condition.

**DESTRUCTORS.**—The destructors have been in full working operation the whole of the year. All the steam required for pumping, &c., has been generated by the refuse destroyed. The water evaporated was 2,787,200 gallons, and the calorific value of the refuse was 1·1 lb. of water per lb. of refuse. Taking coal at the contract price of 7/6 per ton, with a calorific value of 5lbs. per pound, the steam produced is equivalent to that of a coal bill of £932.

The working capacity of the destructor's during the year averaged 30·24 tons per day of 24 hours. The whole of the ashpit refuse, dry ashes, and trade refuse collected in the Borough amounting to 10,264 tons, and 773 tons which have been carted from the tip, have been destroyed at a cost of one shilling per ton for labour.

The tins, &c., are picked out and sold to the Central Hall Mission, Manchester, at 5/- per ton, and the broken glass (pale green cullet) is sold to the Withington Sheet Glass Works, Pendleton, at 12/6 per ton. The receipts for the year from this source being £5/2/0.

The costs of alterations and structural repairs to the destructors for the year was £3/15/7.

The by-product from the destructors in the form of clinker, equalled 33 per cent of the total refuse destroyed, and was disposed of as follows:—

3179 tons laid in contact beds and storm water filters.

500 tons sold to Contractors, and used on roads, concreting, &c.

DISINFECTOR.—258 disinfections have been successfully carried out during the year. The income was £135/9/0, allocated as follows:—£70/19/0 to Building Account and £64/10/0 to Labour Account.

SETTLING TANKS.—The settling tanks have been in working operation the whole of the year. The detritus tanks were cleaned out every fortnight, the first two settling tanks every six weeks, and the two new settling tanks every three months. The average depth of sludge at these times was, detritus tanks six feet, first two settling tanks, two feet 9 inches, the two new settling tanks 2 feet 3 inches.

CONTACT BEDS.—The four half-acre contact beds in working operation are giving satisfactory results.

FARM.—The effluent from the contact beds, after being allowed to aerate and settle on the plot reserved for that purpose, is further treated by irrigation on the land.

For cabbage and mangold growing the land is widely ridged and the crops grown upon the ridges, the effluent flowing down the furrows. The land is opened up when required with a horse hoe, the ridges stroked up, and irrigated as before.

The area of land is, however, too small to treat the whole of the effluent in this manner, and certain plots are therefore laid out as filtration areas, the effluents being run on from six to eight hours at a time with intervals for rest and aeration. The plots are worked for about six months in turn, then deeply ploughed and allowed a resting period.

STORM-WATER FILTERS.—Three storm-water filters are now in working operation and supply a long felt want in the treatment of storm-water.

**SLUDGE.**—The weight of sludge deposited during the year was estimated at 3,700 tons. Part of this has been utilised as manure upon the farm, and part run into trenches three feet wide, fifteen inches deep and four feet apart, which, when full and partly dried, are covered over with soil, ploughed, worked and cropped in the ordinary way, and the remainder has been used to raise the low lying land on the field bought for tipping purposes to an agricultural level.

**PRODUCE.**—The produce grown on the farm consisted of cabbage, Italian rye-grass and mangolds.

**FARMING STOCK.**—There are four horses working on the farm, and one cob for disinfecting van, &c.

The receipts from farm produce, &c., realised £244.

#### WAGES PAID IN THIS DEPARTMENT.

1 Engine Driver, Fitter, 35/- per week, with overtime paid for at same rate.			
2 Enginemmen, 27/- per week each	"	"	"
7 Destructor Firemen, 30/- per week each	"	"	"
2 Tankmen, 24/- per week each	"	"	"
2 Youths (Tanks), 15/9 per week each	"	"	"
2 Teamsmen, 26/- per week each	"	"	"
4 Farm labourers, (average) 24/- per week each	"	"	"
1 Clerk and Disinfecter Attendant, 26/- per week	"	"	"
1 Youth, 6/- per week			

Men employed on Capital Account are paid 5½d. to 6d. per hour, according to the nature of the work.

**EXTENSIONS OF WORKS.**—The extensions and alterations carried out during the year have been as follows:—

**PUMPING PLANT.**—One new steam pumping plant has been fixed, consisting of a two crank compound condensing engine, of an enclosed type, with forced lubrication, of 110 B.H.P., by Messrs. Browett, Lindley & Co., and two 10 inch centrifugal pumps, each capable of lifting 120,000 gallons of sewage, 23 feet high, in one hour. The pumps are arranged with separate rope driving pulley, each fitted with patent friction clutches, and may be worked alternately or simultaneously as desired. Each one is provided with separate suction pipe and flap valve on each discharge, and a steam air ejector with the necessary cocks and connecting pipes for charging them. The pumps when tested gave an output of 12·07% over the specified delivery.

The contract for this machinery was let to Messrs. Whitehead & Poole, Radcliffe, for the sum of £847/17/0, and the foundation work was carried out by your own staff.

The two old 9 inch diam. cylinder engines and centrifugal pumps were taken out and sold for £35.

STORM WATER FILTERS.—The construction of storm-water filter No. 2 was completed in March, making a total area of 87260 super yards available for this treatment, with a capacity of 3,630,000 gallons per day.

PERCOLATING FILTERS.—A percolating filter, 4840 super yards in area, is now in course of construction. The under-drainage consists of 4 inch tubes, 12 inches long and laid close together with a row of Naylor's patent tiles every 9 feet to prevent rolling, the whole being laid on a concrete floor. The filtering media consists of five feet of clinkers varying from 2 inch to  $\frac{3}{8}$  inch mesh, and one foot of finer mesh, all under  $\frac{1}{8}$  inch being rejected. One-third of the area will be in working operation by April.

**TABLE I.**  
**Monthly Record of Refuse Destroyed and Cost of Destruction.**

MONTH.	Ashpit Refuse.		Dry Ashes.		Fish Offal.		Carted from Tip.		Total of Tons Destroyed.		Cost of Labour per month.	
	Tns.	Cwts. Qrs.	Tns.	Cwts. Qrs.	Tns.	Cwts. Qrs.	Tns.	Cwts. Qrs.	Tns.	Cwts. Qrs.	£	s. d.
1909.												
January ...	310	9 0	577	6 0	12	11 1	31	14 0	932	0 1	46	8 2
February...	260	4 3	488	16 0	11	0 0	...	...	760	10 3	40	11 10
March ...	364	16 1	528	9 3	13	15 3	...	...	907	1 3	46	13 1
April ...	317	19 3	598	2 2	17	17 0	2	9 3	936	9 0	48	6 11
May ...	236	2 0	562	16 0	20	6 1	78	5 2	897	9 3	48	2 4
June ...	228	10 2	533	0 3	13	12 0	99	8 0	874	11 1	47	12 5
July ...	362	12 2	559	5 3	18	5 2	103	5 0	1043	8 3	48	12 7
August ...	306	16 2	531	13 0	21	3 0	186	18 0	1046	10 2	45	15 3
September	154	17 0	566	2 2	19	10 3	103	13 0	844	3 1	45	18 3
October ...	284	4 3	585	15 2	19	10 0	62	15 0	902	0 1	48	12 1
November.	266	19 3	591	18 0	15	16 1	23	4 0	897	18 0	47	12 5
December.	134	11 3	767	5 1	11	12 2	82	5 0	995	14 2	49	11 9
TOTAL ...										11037	18 0	563 17 1

Annual cost in labour of destroying the refuse, including cleaning out boiler flues, &c., is 1/- per ton.

The rainfall during 1909 upon the Eccles Corporation Sewage Works, as registered by the rain gauge on the Settling Tanks, which is fixed at an altitude of 72 feet above sea level, has been as under :—

Month.	Rainfall per Month.	Days on which over or fell.	Greatest fall.
1909			
January .....	1·665	13	·390
February ...	1·000	7	·400
March .....	2·365	11	·650
April .....	3·360	14	·450
May.....	1·835	11	·395
June.....	2·175	14	·540
July .....	4·905	21	1·080
August .....	3·800	16	·660
September ...	2·435	11	·710
October .....	4·751	21	·732
November ...	·955	6	·450
December ...	5·845	21	1·100
Total .....	35·091	166	

The following Table gives the annual rainfall for the last ten years :

Year.	Rainfall.	Year.	Rainfall.
1899 ... ..	31·899	1904 ... ..	26·450
1900 ... ..	38·167	1905 ... ..	27·103
1901 ... ..	30·909	1906 ... ..	32·425
1902 ... ..	25·903	1907 ... ..	31·798
1903 ... ..	41·138	1908 ... ..	30·314

*Effluents from the Treatment of Sewage.*

Description of Sample.	Oxidizable Organic matter.	Method of Treatment.	Remarks.
	Oxygen absorbed 4 hours test. Grains per gall.		
Eccles Corporation. April 15, 1909, 12-15 p.m. Fine weather.	0.36	Tanks, Filters, and Land.	Clear, faint brown colour. Light brown sediment. Earthy smells.
Eccles Corporation. July 13, 1909. 2-30 p.m. Showery weather	0.46	do.	Light brown liquid Faint turpidity flocculent ochrey sediment. Sewage smell.
Eccles Corporation. Oct. 12, 1909, 1-55 p.m. Fine weather.	0.23	do.	Clear brown liquid brown flocculent sediment. No smell.

(Signed),

FRANK SCUDDER F.I.C.,  
For SIR HENRY ROSCOE,  
Mersey and Irwell Joint Rivers Committee.

**Results of Treatment ascertained in the Laboratory at  
the Sewage Works.**

Description of Sample.	Oxidizable Organic matter.	Albuminoid Ammonia.	Nitrogen existing as Nitrites and Nitrates.
	Oxygen absorbed, 4 hours test, Grains per gallon.		
Eccles Sewage (average).....	5.22	0.760	—
Settling Tank Effluent (average).....	2.23	—	.2389
Effluent from Contact Beds (average).....	0.619	—	.0654
Final Effluent from Land (average).....	0.45	0.075	1.1148

The oxygen absorption test gives a purification of 90.9 per cent.

The albuminoid ammonia test gives a purification of 90.1 per cent.

GEORGE W. WILLIS,

ENGINEER & MANAGER.

Sewage and Destructor Works, Eccles.