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COUNTY BOROUGH OF SALFORD.

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ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

FOR THE YEAR

1889,

BY

CHARLES E. PAGET,

M. R. C. S. ENG., L. R. C. P., LOND., D. P. H.,

MEDICAL OFFICER OF HEALTH.



SALFORD:

W. F. JACKSON & SONS, PRINTERS, 29, NEW BAILEY STREET.

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# BOROUGH of SALFORD.

Divided into Registration Sub-districts and Enumeration Districts, shewing the average Death Rate in each District in the years 1884 to 1888.

■	Represents Rates of Mortality of 30 per 1000 and upwards
■	" " " 25 to 30 per 1000
■	" " " 20 to 25 per 1000
■	" " " 15 to 20 per 1000
■	" " " under 15 per 1000

Represents the Boundaries of the Registration Sub-districts

210, 362, etc., the average Annual Rate of Mortality in each District  
1, 52, 140, etc., the Consecutive Number of the Districts









*Public Health Department,*

*Town Hall, Salford,*

*April, 1890.*

TO THE GENERAL HEALTH COMMITTEE.

GENTLEMEN,—

I have the honour to present to you the Annual Report of the Medical Officer of Health on the Health of the Borough of Salford for the year 1889, this being the first Annual Report which I have been called upon to make to you since my appointment as Medical Officer in the early part of that year. It has been drawn up in accordance with the General Order of the Local Government Board; but, inasmuch as I did not enter on my duties here until June 24th, 1889, I have to claim your indulgence if it should be found that some matters in this review of the past year have been less fully dealt with than they deserve.

I have desired to make no radical change in the form of the Annual Report to which you have become accustomed at the hands of my predecessor for so many years; but, nevertheless, some changes have been made. In the first place, the Medical Officer of Health is not now the Medical Superintendent likewise of the Corporation's Infectious Diseases Hospital; the work of reporting on the internal working of that Institution has, therefore, been left to the Medical Superintendent. Again, there is introduced in this Report, for the first time, a Pictorial Map shewing, by coloured dots, the amount and distribution of infectious sicknesses which have occurred during the year within the several enumeration districts of the Borough.

This Report contains besides, and in especial, a coloured Map, to which I have to direct the particular attention of the Committee, and I have further to ask the Members to compare it with the first of its kind which was included in the Annual Report of the Medical Officer of Health for the year 1884. The latter map gave a sanitary survey of Salford by means of annual rates of mortality per 1,000 living from all causes in the



Enumeration Districts of the Borough during the quinquennial period 1879-83. The one that I have now had prepared relates to the next quinquennial period 1884-88, and so establishes a system of review, in consecutive five-years periods, of the rates in which district-mortalities are affected by the sanitary administration of the Borough. I am sure that it will be immensely useful for this system to be persevered with in the future, so that the actions of the Health Committee may be directed to particular districts with greater certainty of good accruing, and to provide that the worst districts in each period of years may be regularly discovered. Such a system of maps will also serve a great purpose by the encouragement it is certain to inspire when first one and then another of the worst districts is found to yield to sanitary efforts, and by the knowledge that those efforts have been directed with the most absolute certainty of their need. These, and succeeding maps, should be made the basis from which to work.

The present map shows increases of mortality in the Pendleton District in enumeration-districts 131 and 133, specially due to mortalities from scarlet fever and from diphtheria. There are also slight increases in that portion of the District lying between Eccles Old Road and the River Irwell; slight increases also between the Lancashire and Yorkshire Railway and Whit Lane; and very decided improvements in districts 149, 150, 154, 155, and 156 on the other side of the Railway. The chief increase, however, in Pendleton has been between Broad Street, Highfield Road, and Cross Lane, where the district is most crowded and the inhabitants are less amenable to sanitary laws.

On the whole, the Broughton District shows slight increases, particularly in the more crowded localities, and these appear to be due to special mortalities, as in the Pendleton District, from scarlet fever and diphtheria.

In the crowded districts of Greengate and Regent Road, though there are increases in places, it is gratifying to note that the effect of sanitary measures has, in spite of high mortalities from infectious diseases, been generally to lower the mean annual death-rate of these districts.

In the Greengate District improvement is specially found in Nos. 111, 113, 108, 102, 99, 98, 106, 95, 97, 117, 118, and 119, and the reverse in Nos. 112, 103, 96, 94, and 93 of the enumeration-districts. In the Regent Road District there is, on the whole, improvement between



Trafford Road, Cross Lane, The Crescent, and Oldfield Road, especially in enumeration-districts 72, 73, and 49, and on the other side of Oldfield Road there is improvement in Nos. 9, 10, 12, 13, 14, 15, and 44, though higher mortalities appear in some of the districts adjacent to Oldfield Road, and increases are found pretty generally between Taylerson Street and the River Irwell since the sanitary survey for the years 1879-1883.

The question of improved Hospital Accommodation for the isolation and care of cases of infectious sickness has been definitely advanced, and the accepted scheme is much more suited to the needs of the Borough than the one first decided on. To my mind, the erection of an hospital for only 100 beds would have been not only insufficient for the Borough, but this very inadequacy might eventually have endangered the well-earned popularity for hospital-isolation which exists in Salford. The final decision of the Council to provide an hospital containing 184 beds, each bed having an air-allowance of over 2,000 cubic feet, must be hailed as a much nearer approach to the needs of the Borough and the comfort of the patients who are to be isolated in it.

The subject of Insanitary Dwellings has been brought prominently to the notice of the Health Committee in this as in other Boroughs, and has come up for frequent and careful consideration by that Committee and by the Council. I have shewn in detail in this Report the course which has been pursued in respect of Insanitary Dwellings in the Borough since my appointment, and further action by the Corporation is now naturally in abeyance until the question of responsibility—whether it be District or General—is decided. In Appendix IV.—the Report of the Insanitary Dwellings Committee—will be found a list of several groups of property that require to be dealt with. To these others may readily be added, but I trust that the Council will secure amelioration in the condition of those first reported on before proceeding to make additions to their number. The Coloured Map, already referred to, shows that the next steps of the Health Committee should be in particular localities of the Regent Road District, even though the probable extension of the Lancashire and Yorkshire Railway will effect a demolition of between 300 and 400 houses in the Regent Road and Greengate Districts, which, according to the Borough Engineer's Report, "are, for the most part, houses of very indifferent quality, the retention of which could not be desired by anyone."



The year 1889 was marked by an exceptional prevalence of two infectious diseases—namely, scarlet-fever and diphtheria. These diseases were not peculiar to any particular locality, but were spread over nearly the whole area of the Borough. The weekly incidence of these two diseases, together with that of enteric-fever, for the two years 1888 and 1889, will be seen in a graphic form of chart in the section of this Report relating to Infectious Diseases. Appendix III. contains the more stringent rules adopted by the Health Committee for securing the immediate removal and disinfection of possibly infected bedding and clothing, and for the efficient disinfection of houses. Unless such rules are strictly, promptly, and conscientiously carried out, it becomes an impossibility to control or diminish the rates of infectious diseases in the Borough.

The recorded general death-rate of the Borough is 23·0 per 1,000 of the estimated population, but this rate when corrected for age constitution of the population is increased to 25·0 per 1,000. It will be borne in mind that the estimate of the population in Salford has for some years been reckoned lower than that of the Registrar-General, and that the mortality rates contained in this Report are necessarily higher than in the Government Summary. The general mortality, as reckoned in Salford, is presumably at the same rate as for the quinquennial period 1881-5; but I would emphasise the contention that for statistical purposes, and for greater accuracy in statistical compilations for large and growing towns, a quinquennial rather than a decennial census is a national requirement.

I have been careful to make little or no change in the manner of dealing with mortality statistics, in use for some years past by my predecessor, except to elaborate the age periods in Table F3. The forms adopted are so admirable that, apart from anything else, it would have been unwise to make serious changes; but, in addition to this consideration, it is also obvious that alteration in form would have made comparisons with past years difficult and tedious, and would have served no useful purpose.

The chief of the recommendations which I have in this Report to make, are that the work of night-inspections of Sub let and Common Lodging-houses falls very heavily upon the present inspecting staff, and that though with the addition recently granted of two temporary inspectors, some relief has been obtained and the work can be more efficiently done, yet I trust that the temporary appointment will at its conclusion be replaced

by a permanent one ; that it is desirable to frame By-Laws for the larger supervision of the numerous travelling vans, tents, &c., used as dwellings, which are continuously finding temporary location in Salford ; and that, as contended by my predecessor, for the abolition of the private slaughter-house nuisance among the houses of the people, one or more public slaughter-houses or abattoirs, as may be required, should be established by the Corporation in really suitable localities.

I remain, Gentlemen,

Your obedient Servant,

CHARLES E. PAGET,

Medical Officer of Health.



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## I.

## STATISTICAL SUMMARY, 1889.

**Population.**—Estimated to the { **Males** ..... 101,792 } Persons ..... 212,030  
middle of the year ..... { **Females** ... 110,238 }

**Marriages** ..... 1,669

**Annual Rate of Persons Married per 1,000 of the Population.** 15·4

**Births** ..... { **Males** ..... 3,538 } Persons ..... 6,988  
..... { **Females** ... 3,450 }

**Annual Rate of Births per 1,000 of the Population**..... 33·0

**Deaths** ..... { **Males** ..... 2,525 } Persons ..... 4,877  
..... { **Females** ... 2,352 }

**Annual Rate of Mortality** { **Males** ..... 24·8 } Persons ..... 23·0  
per 1,000 ..... { **Females** ... 21·4 }

**Excess of Registered Births over Deaths** ..... 2,111

**Estimated Increase of Population**..... 4,704

**Density.**—The mean density of the Borough is equal to 41·0 persons per acre :—in Broughton, 27·8; Pendleton, 22·3; Greengate, 121·1; Regent Road, 81·2.

**Area.**—The Municipal Borough of Salford comprises the Townships of Salford, Pendleton, and Broughton, together with a detached portion of Pendlebury, and has a total area of 5,170 acres.

**Elevation.**—The mean elevation is 140 feet above sea-level, and varies between 85 feet and 250 feet.

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POPULATION, DENSITY, ANNUAL RATES OF BIRTHS, MARRIAGES, AND DEATHS,  
IN EACH OF THE TWENTY

Year.	POPULATION (estimated to the middle of each year).					DENSITY (persons per acre).				
	Borough.	Regent Road.	Green-gate.	Pendleton.	Brough-ton.	Boro'.	Regent Road.	Green-gate.	Pendle-ton.	Brough-ton.
1861	102,920	33,756	37,519	21,649	9,996	19'9	31'7	142'8	9'0	7'0
1862*	104,975	34,928	37,458	22,139	10,450	20'3	32'7	142'4	9'2	7'3
1863	107,075	36,134	37,389	22,636	10,916	20'7	33'9	142'2	9'4	7'7
1864	109,262	37,374	37,313	23,182	11,393	21'1	35'0	141'8	9'6	8'0
1865	111,393	38,646	37,231	23,633	11,883	21'6	36'2	141'5	9'8	8'3
1861-65	<b>107,125</b>	<b>36,167</b>	<b>37,382</b>	<b>22,648</b>	<b>10,928</b>	<b>20'7</b>	<b>33'9</b>	<b>142'1</b>	<b>9'4</b>	<b>7'7</b>
1866	113,614	39,949	37,144	24,136	12,385	22'0	37'4	141'2	10'0	8'7
1867	115,885	41,294	37,045	24,644	12,902	22'4	38'7	140'8	10'2	9'1
1868*	118,198	42,674	36,941	25,152	13,434	22'9	40'0	140'4	10'4	9'4
1869	120,526	44,087	36,823	25,658	13,968	23'3	41'3	140'0	10'6	9'8
1870	122,965	45,551	36,704	26,177	14,533	23'8	42'7	139'4	10'8	10'2
1866-70	<b>118,238</b>	<b>42,711</b>	<b>36,931</b>	<b>25,153</b>	<b>13,444</b>	<b>22'9</b>	<b>40'0</b>	<b>140'4</b>	<b>10'4</b>	<b>9'4</b>
1871	125,890	47,195	36,517	26,920	15,258	24'3	44'2	138'8	11'1	10'7
1872	130,301	49,301	36,145	28,357	16,498	25'2	46'3	137'4	11'7	11'6
1873*	134,883	51,463	35,747	29,847	17,826	26'1	48'3	135'7	12'4	12'5
1874	139,618	53,670	35,319	31,386	19,243	27'0	50'3	134'3	13'0	13'5
1875	144,518	55,921	34,868	32,977	20,752	27'9	52'4	132'6	13'6	14'6
1871-75	<b>135,042</b>	<b>51,510</b>	<b>35,719</b>	<b>29,897</b>	<b>17,916</b>	<b>26'1</b>	<b>48'3</b>	<b>135'8</b>	<b>12'4</b>	<b>12'6</b>
1876	149,591	58,219	34,393	34,617	22,362	28'9	54'7	130'6	14'3	15'7
1877	154,842	60,561	33,898	36,308	24,075	29'9	56'8	128'8	15'0	16'9
1878	160,277	62,945	33,379	38,054	25,899	31'0	59'1	126'9	15'8	18'2
1879*	165,899	65,371	32,843	39,848	27,837	32'1	61'4	124'9	16'5	19'5
1880	171,727	67,839	32,291	41,697	29,900	33'2	63'6	122'8	17'2	21'0
1876-86	<b>160,467</b>	<b>62,987</b>	<b>33,361</b>	<b>38,105</b>	<b>26,014</b>	<b>31'0</b>	<b>59'1</b>	<b>126'8</b>	<b>15'8</b>	<b>18'3</b>
1881	177,220	70,180	31,867	43,418	31,755	34'3	65'7	121'1	17'9	22'3
1882	181,247	72,084	31,867	44,627	32,669	35'1	67'9	121'1	18'5	22'9
1883	185,345	74,020	31,867	45,859	33,599	35'8	69'4	121'1	19'0	23'6
1884*	189,546	76,016	31,867	47,124	34,539	36'6	71'3	121'1	19'5	24'2
1885	193,843	78,022	31,867	48,413	35,541	37'5	73'1	121'1	20'0	24'9
1881-85	<b>185,440</b>	<b>74,064</b>	<b>31,867</b>	<b>45,888</b>	<b>33,621</b>	<b>35'9</b>	<b>69'5</b>	<b>121'1</b>	<b>19'0</b>	<b>23'6</b>
1886	198,232	80,107	31,867	49,737	36,521	38'3	75'1	121'1	20'6	25'6
1887	202,731	82,212	31,867	51,096	37,556	39'2	77'1	121'1	21'1	26'3
1888	207,326	84,378	31,867	52,472	38,609	40'1	79'1	121'1	21'7	27'1
1889	212,030	86,572	31,867	53,887	39,704	41'0	81'2	121'1	22'3	27'8

\* In the years 1862, 1868, 1873, 1879, and 1884 the facts are those registered in 53 instead of



IN THE BOROUGH OF SALFORD, AND IN ITS FOUR REGISTRATION SUB-DISTRICTS,  
SIX YEARS, 1864-1889.

ANNUAL RATES PER 1,000 OF THE POPULATION.											Year.
MARRIAGES.	BIRTHS.					DEATHS.					
Registration Districts.	Boro'.	Regent Road.	Green-gate.	Pendle-ton.	Brough-ton.	Boro'.	Regent Road.	Green-gate.	Pendle-ton.	Brough-ton.	
11'9	39'7	40'0	43'9	38'0	26'9	24'6	27'8	26'1	21'8	13'8	1861
10'2	39'0	38'7	42'5	39'4	25'9	25'3	29'4	27'8	19'6	14'7	1862
11'7	38'0	37'9	42'0	37'0	26'9	26'0	28'3	29'1	22'5	15'0	1863
12'7	38'6	37'3	44'3	38'2	24'7	26'5	28'7	31'0	21'7	14'6	1864
12'9	37'8	37'3	42'8	36'2	26'4	29'1	32'3	32'8	25'2	14'8	1865
11'9	38'6	38'2	43'1	37'8	26'2	26'3	29'3	29'4	22'2	14'6	1861-65
13'4	37'9	38'5	42'8	35'6	25'9	28'8	32'2	33'9	23'0	13'6	1866
14'3	39'0	40'7	42'2	37'0	28'2	28'2	31'9	31'9	22'8	15'7	1867
13'3	39'3	38'5	43'5	40'4	27'9	30'5	34'3	33'0	28'7	14'9	1868
14'1	38'9	39'1	43'2	38'3	27'6	26'4	29'2	29'2	23'3	15'8	1869
14'1	39'6	41'7	43'1	36'3	30'3	25'8	30'4	27'3	21'3	15'3	1870
13'8	38'9	39'7	43'0	37'5	28'0	27'9	31'6	31'1	23'8	15'1	1866-70
14'6	40'7	43'6	44'2	39'4	26'2	30'3	34'9	32'4	27'2	16'2	1871
15'1	41'4	45'3	44'1	35'7	34'0	25'3	28'9	28'8	20'4	15'6	1872
14'3	41'5	43'7	43'0	40'5	34'1	28'3	32'2	30'1	26'6	16'7	1873
16'2	42'1	45'9	40'9	37'3	41'8	28'2	32'6	29'2	24'9	19'5	1874
17'5	44'4	48'9	41'0	40'9	43'5	29'5	34'8	32'0	23'7	20'6	1875
15'5	42'0	45'5	42'6	38'8	35'9	28'3	32'7	30'5	24'6	17'7	1871-75
20'5	45'5	47'7	43'3	44'1	45'3	29'5	34'5	30'2	24'9	22'4	1876
19'6	44'4	47'0	40'7	43'1	44'7	26'3	31'8	26'3	21'9	19'6	1877
17'9	44'7	46'5	42'5	42'9	45'6	27'1	29'8	28'8	23'6	23'2	1878
15'2	43'0	45'5	40'9	42'5	40'0	26'7	27'5	31'6	24'7	21'5	1879
16'6	41'4	41'3	41'6	42'7	39'5	27'9	31'5	33'2	23'3	20'6	1880
18'0	43'8	45'6	41'8	43'1	43'0	27'5	31'0	30'0	23'7	21'7	1876-80
16'3	38'8	40'2	39'0	39'2	35'0	22'6	24'8	24'8	21'6	16'7	1881
16'7	39'3	41'2	40'3	38'4	35'5	23'5	25'3	29'0	20'9	17'9	1882
15'7	36'5	38'9	38'1	34'5	32'7	23'1	25'1	28'3	20'9	16'8	1883
15'6	37'1	38'1	40'1	34'9	35'2	23'3	24'9	27'6	21'4	18'4	1884
15'5	36'1	38'1	36'1	34'8	33'3	22'1	23'8	27'6	19'9	16'4	1885
16'0	37'6	39'3	38'7	36'4	34'3	22'9	24'8	27'5	20'9	17'2	1881-85
14'6	36'5	36'8	39'5	35'4	33'6	23'6	25'0	29'8	21'0	18'1	1886
14'5	34'3	35'7	36'2	33'2	31'2	24'0	24'2	32'3	22'5	18'4	1887
14'2	34'4	34'2	37'6	34'7	31'9	23'0	25'1	27'5	21'8	16'6	1888
15'4	33'0	33'1	37'0	32'5	30'0	23'0	24'5	28'1	21'6	17'5	1889

52 weeks; corrections have therefore been made in calculating the rates.



Population.

**Estimated Population.**—The population of the County Borough of Salford, as estimated to the middle of the year 1889, was 212,030, and comprised 101,792 males and 110,238 females at all ages. The estimated numbers of males and of females at particular ages will be found in Table B of this report. The actual increase of the population—that is, the excess of births over deaths—amounted to 2,111, as against 2,361 in 1888. It is gratifying to learn, from Table C of this report, that there was a slight decrease in the percentage of illegitimate births to the total births for the whole borough as compared with the average for the previous ten years, and a rather more marked diminution of the rate in particular districts of the borough. The density of the population per acre is very variable, as may be seen in Table A of the report, the range of mean density being between 22·3 in the Pendleton district and 121·1 in the Greengate district.

General  
Mortality.

**Annual Rate of Mortality.**—The total deaths for the year 1889 numbered 4,877,—2,525 being males and 2,352 being females. The corrected death rate for the borough was equal, therefore, to 23·0 per 1,000 of the estimated population—a rate which was identical with that for the preceding year. In arriving at the corrected rate, account has had to be taken of the deaths of persons belonging to the borough who died outside its boundaries, as well as of persons not belonging to Salford but who died within its area. Of the former, there were 136 deaths, of the latter, 14 deaths. The deaths of Salford residents who met their end outside the borough, so far as can be ascertained, are distributable as follows:—Children's Hospital, Pendlebury, 32; Manchester Royal Infirmary, 32; Monsall Hospital, 66; St. Mary's Hospital, 5; Cheetham Hospital, 1.

General  
Mortality  
compared.

Table A of this report is arranged to show clearly the rates of difference in the mortality during successive years, and also the mean of each quinquennial period. Thus it is seen that from 1861 to 1885 inclusive, the mean quinquennial death-rates for the whole borough have successively been, as per 1,000 of the population, 26·3, 27·9, 28·3, 27·5, 23·0; and that the rate for the year 1889 is at the same level as for some years past.

**Compared with other large Towns and Cities of England** the general death-rate of Salford takes rank in much the same position as it has done in recent years.

The annual rate of mortality in England and Wales during the year 1889 was equal to 17·85 per 1,000 of population; less the 28 Great Towns, it was 17·15 per 1,000; and in London the general mortality-rate was 17·4 per 1,000 of population.



After making the necessary correction in the death-rate, it is found that Salford is in a slightly better position among the 28 Great Towns in 1889 than it was in 1888. In the latter year Salford only took precedence of Preston, Blackburn, and Manchester. In 1889 it takes a higher position than Newcastle, Blackburn, Manchester, and Preston.

In the compilation of the accompanying table the figures have, with the exception of those relating to Salford, been taken from the annual summary of the Registrar-General's Returns for 1889. These death-returns are corrected for age constitution of their several populations; but the estimated population for Salford is put at a higher figure by the Registrar-General than is believed to be the case in Salford, and thus the mortality is estimated in this report to be higher than that found recorded in the annual summary. The census of the coming year will speedily settle this question, but it is proper to draw attention to it as an instance that is in favour of the advantage which would be derived from a quinquennial rather than a decennial census.

**District Mortality Rates.**—These rates bear much the same proportion to the general death-rate as for some years previous, the rates per 1,000 varying thus: Greengate, 28.1; Regent Road, 24.5; Pendleton, 21.6; Broughton, 17.5. District Mortality.

During the year 1889 the general miasmatic death-rate was increased, but it preserved its district proportion very closely, showing no special large increase on the average for the previous five years. The diarrhoea death-rate was equal to the average; and the death-rates from acute lung diseases and from phthisis were below the average, as may be seen on reference to Table D of the report.

**Mortality in Age-Groups.**—The annual rates of mortality at all ages, and at the five chief groups of ages—under 5 years, from 5 to 20 years, from 20 to 40 years, from 40 to 60 years, and at 60 years and upwards, both for male and female—will be found in Table B of this report. These Salford death-rates are further compared with the rates of the New English Life Table, and, as in former years, so in 1889, it is found that the general Salford death-rates of persons between the ages of 5 years and 40 years do not materially vary from those of the New English Life Standard. Between the years 20 to 40, indeed, the Salford rate of mortality is lower than that of the Standard. Among both males and females the death-rate is satisfactory during the years of greatest wage-earning power. On the other hand, the child death-rate under five years of age is of a serious nature. In 1889 it was 74.2 per 1,000, as against 61.0 per 1,000 of the English Life Table, though even here improvement on the past may be found, and its continuance hoped for, in the fact that the rate of 74.2 for 1889 is less by 5.1 per 1,000 than the mean rate in Salford for the preceding ten years 1879–88 inclusive. Mortality in Age classes.



RECORDED AND CORRECTED DEATH-RATES PER 1,000 IN 28 GREAT  
TOWNS IN 1889.

Towns in the order of their Corrected Death-rates.	Recorded Death-rate.	Factor for correction for sex and age Distribution.	Corrected Death-rate.	Comparative Mortality Figure.
Columns .....	1	2	3	4
England and Wales .....	17·85	.....	17·85	1000
England and Wales less the 28 Towns .....	17·15	.....	16·77	939
28 Towns .....	19·28	1·0657	20·55	1151
Brighton .....	15·11	1·0296	15·56	872
Derby .....	16·37	1·0402	17·03	954
Norwich .....	18·38	0·9565	17·58	985
Leicester .....	16·93	1·0474	17·73	993
Nottingham .....	16·99	1·0599	18·01	1009
Bristol .....	17·60	1·0351	18·22	1021
London .....	17·45	1·0615	18·52	1038
Portsmouth .....	18·11	1·0301	18·66	1045
Birkenhead .....	17·81	1·0695	19·05	1067
Birmingham .....	18·72	1·0663	19·96	1118
Huddersfield .....	18·83	1·0982	20·68	1159
Hull .....	20·25	1·0316	20·89	1170
Bradford .....	19·17	1·1045	21·17	1186
Cardiff .....	19·51	1·0853	21·17	1186
Wolverhampton .....	20·63	1·0311	21·27	1192
Sheffield .....	20·86	1·0754	22·29	1257
Oldham .....	20·44	1·1097	22·43	1271
Halifax .....	21·56	1·0864	22·68	1312
Leeds .....	22·07	1·0689	23·42	1322
Liverpool .....	21·58	1·0971	23·68	1327
Sunderland .....	22·87	1·0412	23·81	1334
Bolton .....	22·02	1·0959	24·13	1352
Plymouth .....	25·19	0·9903	24·95	1398
Salford .....	23·00	1·0886	25·04	1403
Newcastle .....	25·19	1·0583	26·66	1494
Blackburn .....	25·46	1·0898	27·75	1555
Manchester .....	26·72	1·1143	29·77	1668
Preston .....	30·03	1·0859	32·61	1827



TABLE B.

ESTIMATED POPULATION, AND ANNUAL RATES OF MORTALITY, AT ALL AGES, AND AT FIVE GROUPS OF AGES, IN THE FIFTY-TWO WEEKS OF THE YEAR 1889, AND IN EACH YEAR IN THE PRECEDING DECADE:—COMPARED WITH THE CORRESPONDING RATES OF THE NEW ENGLISH LIFE TABLE—FOR PERSONS, MALES AND FEMALES.

	PERSONS		MALES		FEMALES	
	Estimated Population, 1889.	Deaths 1889.	Estimated Population, 1889.	Deaths, 1889.	Estimated Population, 1889.	Deaths, 1889.
All Ages.....	212,030	4,877	101,792	2,525	110,238	2,352
Under 5 years.....	31,094	2,307	15,521	1,228	15,573	1,079
5-20 years .....	68,541	467	33,953	240	34,588	227
20-40 years .....	68,799	546	32,655	283	36,144	263
40-60 years .....	33,966	789	15,855	419	18,111	370
60 and upwards .....	9,630	768	3,808	355	5,822	413

ANNUAL DEATH-RATES, PER 1,000 LIVING IN 1889, AMONG

	PERSONS.		MALES.		FEMALES.	
	Salford.	New Engl. Life Table.	Salford.	New Engl. Life Table.	Salford.	New Engl. Life Table.
All Ages .....	23'0	19'5	24'8	20'5	21'3	18'5
Under 5 Years .....	74'2	61'0	79'2	65'6	69'3	56'3
5-20 years .....	6'8	4'8	7'1	4'9	6'6	4'7
20-40 years .....	7'9	8'5	8'7	9'0	7'3	8'1
40-60 years .....	23'2	18'3	26'4	20'4	20'4	16'4
60 and upwards .....	79'8	71'9	93'2	75'2	70'9	69'8

ANNUAL RATES OF MORTALITY, TEN YEARS, 1879-88, AND IN 1889.

	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	Mean 1879 to 1888.	1889.
PERSONS	All Ages,	26'7	27'9	22'6	23'5	23'1	23'3	22'1	23'6	24'0	23'0	23'0
	Under 5 Years,	89'6	102'9	69'6	80'1	73'1	78'2	70'2	77'4	79'6	72'6	74'2
	5-20 ...	6'1	7'0	5'0	4'5	5'8	5'5	5'0	5'6	5'5	5'6	6'8
	20-40 ...	9'9	9'7	9'4	9'5	8'9	9'2	9'1	8'6	8'3	8'7	7'9
	40-60 ...	25'9	24'3	24'5	23'8	24'2	22'4	22'5	24'4	24'3	24'0	23'2
	60 and upwards	92'5	77'4	83'8	75'9	82'7	79'7	79'8	82'0	86'3	85'9	79'8
MALES	All Ages,	28'7	30'0	24'1	24'4	25'0	24'6	23'5	24'4	25'0	23'6	24'8
	Under 5 Years,	99'4	109'5	74'9	83'3	77'8	85'2	75'6	81'8	83'1	74'4	79'2
	5-20 ...	6'3	7'3	5'9	4'4	6'0	5'9	5'4	5'7	5'6	5'8	7'1
	20-40 ...	9'5	10'8	9'8	9'5	9'9	9'0	9'9	8'4	8'9	8'9	8'7
	40-60 ...	29'0	27'3	27'4	26'7	29'2	23'1	24'1	26'5	27'1	26'3	26'4
	60 and upwards	105'7	86'1	89'6	81'0	89'2	84'7	87'3	84'8	89'8	91'3	93'2
FEMALES	All Ages,	24'8	26'0	21'1	22'7	21'5	22'2	20'8	22'8	23'0	22'5	21'3
	Under 5 Years,	80'1	96'4	63'7	77'0	68'3	71'1	64'7	73'0	76'0	70'9	69'3
	5-20 ...	5'9	6'7	4'2	4'6	5'6	5'2	4'6	5'6	5'4	5'6	6'6
	20-40 ...	10'2	8'8	9'1	9'4	8'0	9'4	8'4	8'7	7'8	8'5	7'3
	40-60 ...	23'3	21'7	22'0	21'3	19'9	21'8	21'1	22'6	21'8	22'1	20'4
	60 and upwards	83'8	73'2	79'9	72'4	78'6	72'5	75'0	80'3	84'1	82'4	70'9



It is satisfactory to notice that in spite of the rates themselves bearing an unfavourable complexion when viewed alone, they point to gradual improvement in the sanitary condition of the borough, in that, with the single slight exception of the age-group of from 5 to 20 years, the death-rate for every age-group, and at all ages, in 1889, is below the corresponding mean death-rates of the preceding ten years. It is much to be desired that this steady, if very gradual, improvement should become more marked in each succeeding year, and that every effort should be made to maintain it.

Infantile  
mortality and  
births

**Infantile Mortality—Births.**—It is convenient to consider the birth-rate in connection with this section of mortality statistics, so that the ratio which deaths under one year of age bear to the registered births may be more especially emphasised.

The total number of births was 6,988, of which 302 were illegitimate. The percentage of illegitimate births to the total births was thus 4·3, as against the mean rate of 4·4 per cent. for the preceding ten years. The rates of illegitimacy were, as might be supposed, highest in the poorest and most crowded districts, viz:—Greengate, 5·3; Regent Road, 4·6; Pendleton, 4·4; Broughton, 2·4. As compared with the preceding ten years rates, the district of Broughton is the only one which shows marked improvement in this aspect of morality.

During the year 1889, the proportion of deaths under one year per 1,000 births was 181, as against 184 in the year 1888, and the same number which is the mean for the preceding *five* years. This slight fall in the average infantile death-rate is so far satisfactory; but, according to the Registrar-General, the year 1889 in Salford gives only the same rate as the mean for the preceding *ten* years. The average rate for the 28 great English towns was 161, the numbers varying between 131 at Brighton to 264 at Preston, as may be seen in the accompanying table prepared from the Registrar-General's Annual Summary.

PROPORTION OF DEATHS UNDER ONE YEAR OF AGE PER 1,000  
BIRTHS IN 28 GREAT TOWNS OF ENGLAND IN 1889.

28 Towns .....	161		
Brighton .....	131	Plymouth.....	166
Portsmouth.....	138	Bolton .....	167
London.....	141	Huddersfield .....	168
Bristol .....	146	Birkenhead.....	170
Derby .....	148	Birmingham.....	170
Cardiff.....	158	Sheffield .....	174
Norwich .....	163	Halifax.....	175

TABLE C.

BIRTHS IN THE BOROUGH OF SALFORD AND IN ITS REGISTRATION SUB-DISTRICTS—DISTINGUISHING LEGITIMATE AND ILLEGITIMATE INFANTS UNDER ONE YEAR OLD.

IN 52 WEEKS OF THE YEAR 1889.

	Births.		Percentage of Illegitimate Births to Total Births.	Deaths under One Year.		Proportion of Deaths under One Year per 1,000 Births.		
	Total.	Illegit.		Total.	Illegit.	Total.	Legit.	Illegit.
<b>Borough.....</b>	<b>6988</b>	<b>302</b>	<b>4.3</b>	<b>1265</b>	<b>104</b>	<b>181</b>	<b>174</b>	<b>344</b>
Regent Road District ...	2869	133	4.6	596	49	208	200	368
Greengate            ,,	1179	63	5.3	211	17	179	174	270
Pendleton           ,,	1749	77	4.4	283	28	162	152	364
Broughton           ,,	1191	29	2.4	175	10	147	142	345

CORRESPONDING DATA FOR THE TEN YEARS 1879-1888.

<b>Borough.....</b>	<b>70584</b>	<b>3100</b>	<b>4.4</b>	<b>12794</b>	<b>1140</b>	<b>181</b>	<b>173</b>	<b>368</b>
Regent Road District ...	29182	1379	4.7	5651	506	194	185	367
Greengate            ,,	12508	619	5.0	2459	237	197	187	383
Pendleton           ,,	17123	708	4.1	2927	250	171	163	353
Broughton           ,,	11771	394	3.3	1757	147	149	142	373



Newcastle.....	175	Bradford.....	182
Manchester.....	176	Nottingham.....	182
Leeds.....	177	Hull.....	184
Oldham.....	178	Liverpool.....	188
Wolverhampton.....	180	Blackburn.....	204
<b>SALFORD</b> .....	181	Leicester.....	205
Sunderland.....	181	Preston.....	264

In Salford the proportion of these deaths of infants per 1,000 births varied considerably. In the first quarter of the year it was 159, or 6 above the average for that quarter; in the second quarter it was 150, or 8 below the average; in the third quarter it was 269, or 2 below the average; and in the fourth quarter it was 150, or 18 below the average. The average district-rate was in the following proportion:—Regent Road, as usual, the highest, 208; Greengate, 179; Pendleton, 162; and Broughton, as usual, the lowest, 147.

Old-age  
mortality

**Senile Mortality.**—Of the 4,877 persons of all ages whose deaths were recorded in Salford during the year 1889, 768, or 15·7 per cent., had either attained or passed beyond 60 years of age. Their death-rate per 1,000 of the estimated population was 79·8, as against 71·9 per 1,000 for the New English Life Table, and as against 82·6 per 1,000, the mean rate for the ten preceding years 1879–88 inclusive. (See Table B). It is worthy of note that, among aged persons, the proportion of deaths is heaviest on the male population.

The quarterly death-rates of this class of persons—60 years and upwards—varied considerably from each other, and from the averages for the previous five years. In the first quarter the rate per 1,000 of population was 82·1, or 16·1 less than the average; in the second quarter it was again 82·1, but 3·4 above the average; in the third quarter it was 68·7, or 2·1 less than the average; and in the fourth quarter it was 85·8, or 1·9 above the average.

Causes of deaths

**Classification of Causes of Death.**—In dealing with this portion of the subject, it is found convenient to construct two tables—D and E. In the former will be found the annual rates of mortality per 1,000 of population from all causes, and from four special classes of diseases—viz., zymotic, constitutional, developmental, and local, compared with the mean rates for the immediately preceding five years 1884–88; in the latter table will be found a comparison of the death-rates in 1889 from the same and other special diseases, with the corresponding mean rates in the two quinquennial periods of 1876–80 and 1881–5. The two tables may, therefore, in this connection be conveniently read together.



TABLE D.

ANALYSIS OF MORTALITY—ANNUAL RATES PER 1000 LIVING IN EACH OF THE REGISTRATION SUB-DISTRICTS OF SALFORD IN THE 52 WEEKS OF THE YEAR 1889 AND THE AVERAGE ANNUAL RATES IN THE PREVIOUS QUINQUENNIUM.

REGISTRATION SUB-DISTRICTS	ANNUAL RATE OF MORTALITY AT ALL AGES FROM ALL CAUSES AND FROM FIVE CLASSES OF DISEASE.											
	All Causes		Zymotic		Constitutional · Developmental				Local.		Other Classes.	
	Five Years 1884-88.	1889	Five Years 1884-88.	1889	Five Years 1884-88.	1889	Five Years 1884-88.	1889	Five Years 1884-88.	1889	Five Years 1884-88.	1889
REGENT RD	24·6	24·5	5·0	6·3	4·1	3·3	1·6	1·8	11·2	10·7	2·6	2·3
GREENGATE	29·0	28·1	5·7	6·8	5·4	4·4	1·6	2·0	13·8	12·3	2·6	2·6
PENDLETON	21·4	21·6	3·9	5·2	4·2	4·5	1·6	1·3	10·1	8·6	1·6	2·0
BROUGHTON	17·8	17·5	3·5	3·9	3·3	3·2	1·1	1·1	8·5	7·5	1·3	1·8
BOROUGH...	23·3	23·0	4·6	5·7	4·2	3·8	1·5	1·6	10·8	9·8	2·1	2·2

REGISTRATION SUB-DISTRICTS	FROM ALL CAUSES				AT ALL AGES FROM							
	Under 1 Year per 1000 Births.		Over 60 years.		Six Miasmatics.		Diarrhoea.		*Acute Lung Diseases.		Phthisis	
	Five Years 1884-88.	1889	Five Years 1884-88.	1889	Five Years 1884-88.	1889	Five Years 1884-88.	1889	Five Years 1884-88.	1889	Five Years 1884-88.	1889
REGENT RD	201	208	81·5	79·3	2·9	3·7	1·8	2·2	5·3	5·2	2·4	1·5
GREENGATE	203	179	96·7	101·0	3·3	4·5	1·9	1·8	6·9	5·9	3·2	2·2
PENDLETON	179	162	80·7	75·5	2·3	3·7	1·3	1·2	4·5	3·4	2·3	1·8
BROUGHTON	149	147	73·9	66·8	2·0	3·0	1·2	0·8	3·4	2·9	1·7	1·6
BOROUGH...	187	181	82·7	79·8	2·7	3·7	1·6	1·6	5·0	4·4	2·4	1·7

REGISTRATION SUB-DISTRICTS	ANNUAL RATE OF MORTALITY UNDER FIVE YEARS PER 1000 LIVING AT THAT AGE.											
	All Causes.		Nervous Diseases.		Six Miasmatics.		Diarrhoea.		*Acute Lung Diseases.		Tubercular Disease.	
	Five Years 1884-88.	1889	Five Years 1884-88.	1889	Five Years 1884-88.	1889	Five Years 1884-88.	1889	Five Years 1884-88.	1889	Five Years 1884-88.	1889
REGENT RD	82·2	82·3	10·6	8·0	13·1	17·1	12·2	12·7	15·3	15·1	6·2	5·9
GREENGATE	93·4	90·9	13·4	9·8	15·2	22·3	14·7	11·4	16·7	15·6	9·3	7·6
PENDLETON	68·6	66·0	11·1	5·7	10·6	15·6	8·4	6·9	12·8	10·3	7·9	10·2
BROUGHTON	56·5	54·2	8·0	6·4	7·8	12·0	9·5	4·8	10·7	11·1	5·8	4·4
BOROUGH...	75·7	74·2	10·7	7·4	11·8	16·5	11·1	9·6	14·1	13·2	7·0	7·0

\*True Croup is not included amongst "Acute Lung Diseases" in this table, although it forms part of the Sub-order "Respiratory diseases" of the Registrar General. It is however included in the "Local Class" of diseases at the head of the table.



## Causes of deaths

Of the 4,877 deaths from all causes and all ages, the following division may be made:—From

Zymotic Diseases,	1,199	or	24·5	% of the total deaths occurred.
Constitutional	796	„	16·3	„ „ „
Developmental	342	„	7·0	„ „ „
Local	2,077	„	42·5	„ „ „
Other	463	„	9·4	„ „ „

In a further division of the zymotic class into the six miasmatic diseases and diarrhoea, it is found that 785 deaths of the former occurred, or about 16·0 per cent. of the total deaths, and that there were 343 deaths from the latter cause, or about 7·0 per cent. of the total deaths.

Again, there were 940 deaths from acute lung diseases, or at the rate of 19·2 per cent. of the total deaths, and 365 deaths from phthisis, giving a similar rate of 7·4 per cent.

From nervous diseases, 229 children under five years of age died, or 4·7 per cent. of the total deaths.

Of deaths from diarrhoea, 298 were of children under five years of age, or 86·8 per cent. of the total deaths from this disease; and 411 deaths were recorded at the same age from acute lung diseases, or 43·7 per cent. of the total number.

The increase in the zymotic mortality is due to the special prevalence of enteric fever in the Regent Road District, and to the extensive epidemics of scarlet fever and diphtheria which invaded the borough and pursued their course concurrently.

The levelling of the general death-rate of 1889 to the same rate as obtained in 1888, and which kept it 0·3 below the rate for the five preceding years 1884–88 inclusive, in spite of the heavy death-rate from the zymotic diseases, was due to the death-rates from constitutional and local diseases being below the same five-year average, and to the developmental and other diseases death-rates remaining at about the average. Had there been excess in any of these rates, it would have been impossible to record so favourable a rate as has been, and the severe troubles through which Salford passed in 1889, arising from extensive epidemics of infectious sickness, would have been much more palpable than they are. I think it may certainly be reckoned that these troubles were minimised in large degree by the energetic measures adopted by the Sanitary Authority for securing the greatest possible amount of isolation of infectious patients, the most stringent methods of disinfection of persons and clothing, and special attendance to district-cleanliness. These measures, however useful they may be in times of peril from disease, are nevertheless equally necessary for the prevention of such danger; and I take this opportunity to express my belief that the addition of two temporary Sanitary Inspectors, in the early part of 1890, to



TABLE E.

AVERAGE ANNUAL RATES OF MORTALITY PER 1,000 LIVING AT CERTAIN AGE-GROUPS IN TWO SUCCESSIVE QUINQUENNIA, AND THE ANNUAL RATES IN THE YEAR 1889.

CAUSES OF DEATH.	All Ages.			Under 5 years.			5-20 years.		
	Quinquennial means.		Year.	Quinquennial means.		Year.	Quinquennial means.		Year.
	1876-80.	1881-85.		1876-80.	1881-85.		1876-80.	1881-85.	
All Causes.....	27.6	22.9	23.0	95.4	74.2	74.2	6.4	5.2	6.8
Smallpox.....	0.5	...	...	1.0	0.1	...	0.5	...	...
Measles.....	0.8	0.7	1.0	5.1	4.5	6.7	0.1	0.1	0.2
Scarlatina.....	1.2	0.5	0.9	5.8	2.4	3.8	1.0	0.4	0.9
Diphtheria.....	0.1	0.1	1.0	0.5	0.5	3.8	0.1	0.1	1.2
Croup (not spasmodic).....	0.2	0.2	0.2	1.5	1.4	1.3	0.1	0.1	0.1
Whooping Cough.....	0.9	0.7	0.3	6.2	4.8	1.8	0.1	0.1	...
Cont'd Fevers, { Typhus.....	0.1	0.1	...	...	...	...	...	...	...
{ Enteric.....	0.4	0.3	0.5	0.8	0.3	0.4	0.4	0.4	0.5
{ Continued.....	0.1	...	...	0.4	0.1	...	0.1	...	...
Diarrhoea and Dysentery.....	1.8	1.3	1.6	11.2	8.4	9.6	0.1	...	0.1
Puerperal Fever.....	0.1	0.1	0.1	...	...	...	...	...	...
Other Zymotics.....	0.6	0.4	0.3	3.0	1.9	1.4	0.1	0.1	...
Phthisis.....	2.7	2.5	1.7	0.7	1.0	0.3	1.2	1.1	0.8
Other Tubercular Diseases.....	1.2	1.1	1.2	6.9	6.2	6.7	0.3	0.4	0.5
Diseases of { Brain.....	3.4	3.0	2.3	13.9	10.9	7.4	0.5	0.6	0.4
{ Heart.....	1.0	1.1	1.2	0.2	0.2	0.2	0.2	0.3	0.3
{ Lungs.....	6.0	5.0	4.4	19.4	14.7	13.2	0.6	0.5	0.7
{ Digestive System.....	1.0	0.9	0.9	1.6	2.1	2.4	0.2	0.2	0.2
Other Diseases.....	5.5	4.9	5.4	17.2	14.7	15.2	0.8	0.8	0.9
CAUSES OF DEATH.	20-40 years.			40-60 years.			Over 60 years.		
	Quinquennial means.		Year.	Quinquennial means.		Year.	Quinquennial means.		Year.
	1876-80.	1881-85.		1876-80.	1881-85.		1876-80.	1881-85.	
All Causes.....	10.6	9.2	7.9	26.0	23.5	23.2	85.5	79.9	79.8
Smallpox.....	0.6	0.1	...	0.3	...	...	0.1	...	...
Measles.....	...	...	...	...	...	...	...	...	...
Scarlatina.....	0.1	...	...	...	...	0.1	...	...	...
Diphtheria.....	...	...	...	...	...	0.1	...	...	...
Croup (not spasmodic).....	...	...	...	...	...	...	...	...	...
Whooping Cough.....	...	...	...	...	...	...	...	...	...
Cont'd Fevers, { Typhus.....	0.1	0.1	...	0.1	0.1	...	...	0.1	...
{ Enteric.....	0.3	0.3	0.6	0.3	0.3	0.5	0.5	0.1	0.2
{ Continued.....	...	...	...	0.1	...	...	0.3	0.1	...
Diarrhoea and Dysentery.....	0.1	...	...	0.2	0.1	0.3	1.7	1.4	2.9
Puerperal Fever.....	0.1	0.2	0.1	...	...	0.1	...	...	...
Other Zymotics.....	0.1	0.1	0.1	0.3	0.3	0.2	0.8	0.5	0.4
Phthisis.....	4.3	3.9	2.5	4.9	4.1	3.2	1.9	1.6	1.9
Other Tubercular Diseases.....	0.1	0.1	...	0.1	0.1	0.1	0.1	...	...
Diseases of { Brain.....	0.6	0.6	0.4	2.8	2.8	2.9	11.9	13.6	11.4
{ Heart.....	0.7	0.7	0.8	2.4	2.5	2.8	6.5	7.5	7.8
{ Lungs.....	1.3	1.1	1.1	7.6	6.8	6.2	29.5	26.4	20.8
{ Digestive System.....	0.6	0.4	0.3	1.8	1.5	1.2	4.3	3.9	4.1
Other Diseases.....	1.6	1.6	1.9	5.1	4.9	5.5	27.9	24.7	30.3



the Public Health Department of the borough, will result in a marked improvement in that district-cleanliness from which so much good may be expected.

Deaths from  
special diseases,  
and groups of  
diseases

**Mortality from Special Diseases.**—Tables F1 and F2 show respectively the causes of death registered in 1889; also in the ten years immediately preceding, and the average decennial number, corrected for the increase of population, and further, the actual district and total mortalities, in the same classification of diseases, at six principal groups of ages. These tables are abridgements for purposes of convenience from the larger and more detailed lists of causes of mortality comprising Table F3. The following statement is a deduction from the former tables, indicating the greater or lesser fatality of diseases in 1889 as compared with the corrected decennial average numbers:—

Cause of Death.	Diminution in 1889.	Excess in 1889.
Small-pox .....	4 .....	—
Measles .....	— .....	61
Scarlet fever .....	— .....	30
Typhus fever.....	6 .....	—
Whooping cough .....	105 .....	—
Diphtheria .....	— .....	179
Ill-defined fever .....	6 .....	—
Enteric fever.....	— .....	39
Diarrhoeal diseases .....	— .....	28
Phthisis and other tuberc. diseases.....	124 .....	—
Premature birth ... ..	21 .....	—
Brain and nervous diseases .....	156 .....	—
Heart diseases .....	— .....	15
Respiratory diseases.....	170 .....	—
Urinary diseases .....	1 .....	—
Atrophy and other ill-defined causes ...	— .....	4
All other causes .....	— .....	39
	<hr/> 593	<hr/> 395
Balance of diminution or excess...	198	

Zymotic mor-  
tality

**Mortality from certain Zymotic Diseases.**—The following tables shew the annual rates of mortality per 1,000 living, for certain zymotic diseases in Salford during 1889, and during the five immediately preceding years; and, at the same time, they provide means for at once comparing these Salford mortalities, in each class, with the corresponding mean rates, during the same range of years, in the 28 great English towns, and in London separately



TABLE F1.

CAUSES OF DEATH REGISTERED IN EACH OF THE TEN YEARS 1879-88,  
IN 1889, AND THE AVERAGE DECENNIAL NUMBER, CORRECTED FOR  
INCREASE OF POPULATION.

	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	Corr'ted Average	1889
All Causes .....	4495	4799	4000	4265	4287	4486	4283	4672	4856	4775	5076	4877
Small Pox .....	...	...	7	18	...	...	1	...	...	8	4	...
Measles .....	139	134	38	167	156	100	178	47	320	132	159	220
Scarlet Fever .....	203	279	84	81	82	144	62	169	155	101	154	184
Typhus Fever .....	4	20	7	12	3	10	10	1	1	7	8	2
Whooping Cough .....	144	219	160	152	105	131	129	127	64	222	164	59
Diphtheria .....	24	22	20	18	24	22	17	12	21	61	27	206
Ill-defined Fever .....	6	26	9	5	6	8	5	5	2	3	8	2
Enteric Fever .....	52	84	42	46	64	81	48	61	82	90	73	112
Simple Cholera .....	1	3	4	3	...	3	2	8	1	1	3	3
Diarrhœa, Dysent .....	141	477	160	237	210	374	244	393	339	184	312	340
Venereal Affections .....	41	33	21	38	56	53	41	35	27	41	44	34
Erysipelas .....	12	14	15	25	19	15	21	7	14	13	18	15
Pyæmia .....	3	...	4	7	9	6	1	3	8	7	5	7
Puerperal Fever .....	7	10	15	13	9	8	11	7	8	18	12	11
Other Zymotics .....	38	31	11	4	6	5	4	3	4	8	13	4
Parasitic Diseases .....	...	...	2	2	4	4	5	7	9	4	4	5
Dietic Dis: Intemp: .....	13	7	22	26	17	15	21	25	17	20	21	17
Rheumatic Fever .....	17	14	6	11	15	19	13	20	26	20	18	17
Cancer .....	66	74	89	77	73	93	96	90	94	103	97	109
Tabes Mesenterica .....	66	91	76	98	82	74	84	119	98	79	98	80
Tuberc: Mening: .....	86	90	75	82	96	93	95	95	60	75	96	115
Phthisis .....	480	459	451	437	489	477	487	489	433	446	525	365
Scrofula .....	59	33	16	19	27	31	41	70	49	35	43	50
Constit: Dis: (other) ...	17	17	27	23	33	40	28	23	35	39	32	60
Prem: Birth .....	91	85	117	106	97	121	115	144	124	113	126	105
Devel: Dis: & Cong: Def: ..	28	14	9	19	20	20	25	20	23	25	23	21
Old Age .....	122	143	108	132	144	119	123	145	175	203	160	216
Apoplexy and Paralysis ...	121	117	150	150	182	160	161	161	192	166	176	172
Epilepsy .....	23	22	18	18	27	16	18	16	27	18	23	27
Convulsions .....	298	246	197	269	171	178	190	189	203	217	244	182
Brain & Nerv: Dis: (other) ..	173	170	178	212	188	180	162	161	182	173	201	107
Heart Diseases .....	191	159	192	191	211	194	220	241	251	224	234	249
Croup .....	48	30	28	46	54	52	36	32	46	56	48	51
Bronchitis .....	711	583	636	495	544	524	559	629	556	569	656	502
Pneumonia .....	304	329	292	314	317	317	350	334	416	413	383	375
Lung & Respr: Dis: (other) ..	87	91	56	49	71	54	54	41	72	83	74	63
Teething .....	4	4	5	3	13	32	7	1	2	2	8	12
Diges: Org: Dis: .....	172	170	142	153	181	168	151	171	169	172	186	181
Urinary Org: Dis: .....	68	73	64	63	65	75	68	99	72	96	84	83
Parturition .....	27	19	39	48	12	30	33	33	35	36	35	39
Gener: Orgs: Dis: .....	5	11	7	7	11	6	6	7	13	18	10	7
Other Local Diseases .....	14	16	11	5	19	13	33	43	35	30	25	27
Accident .....	112	102	86	80	90	91	98	110	123	112	113	111
Homicide .....	3	3	3	3	3	2	1	1	3	9	4	2
Suicide .....	12	9	7	8	12	8	7	15	14	25	13	13
Atrophy .....	244	246	208	187	186	218	174	214	209	242	241	243
Ill-defined Causes .....	18	20	86	106	84	102	48	49	47	56	70	72



1889.	0-5 Years.					1-5 Years.					5-20 Years.				
	Regent Rd.	Greengate.	Pendleton.	Broughton.	Borough.	Regent Rd.	Greengate.	Pendleton.	Broughton.	Borough.	Regent Rd.	Greengate.	Pendleton.	Broughton.	Borough.
All Causes .....	596	211	283	175	126	464	197	249	132	1042	193	82	109	83	467
Small Pox .....															
Measles .....	13	8	6	7	34	88	33	39	13	173	4	4	5		13
Scarlet Fever .....	7	2	2	1	12	42	22	25	17	106	21	17	15	10	63
Typhus .....											1				1
Whooping Cough .....	13	3	2	2	20	21	8	3	4	36	2	1			3
Diphtheria .....	4	4	2	1	11	25	15	41	22	107	19	14	24	26	83
Ill-defined Fever .....								1		1					
Enteric Fever .....						7	1	5	1	14	22	2	10	3	37
Simple Cholera .....								1		1					
Diarrhœa, Dysent : .....	131	31	44	25	231	33	20	11	2	66	1	2	1		4
Venereal Affections .....	12	9	2	1	24	4	1		1	6					
Erysipelas .....	1	2	2		5	1				1					
Pyæmia .....	1				1	1		1		2					
Puerperal Fever .....															
Other Zymotics .....						3				3					
Parasitic Diseases .....	3		2		5										
Dietic Dis : Intemp : .....															
Rheumatic Fever .....											2		1	1	4
Cancer .....							1			1	1				1
Tabes Mesent : .....	17	10	13	4	44	9	5	7	4	25	5		3	2	10
Tubercul : Mening : .....	12	7	20	4	43	21	10	22	8	61	2	4	3	1	10
Phthisis .....	1		1		2	2	1	3	2	8	28	8	7	12	55
Serofula .....	6		8	2	16	8	1	8	1	18	5	1	6		12
Constit : Dis : (other) .....	2	1	6	1	10	4	1	2		7	3	2		1	6
Prem : Birth .....	60	9	24	12	105										
Devel Dis : & Cong : Def : .....	11	4	1	4	20						1				1
Old Age .....															
Apoplexy and Paralysis .....						2				2				1	1
Epilepsy .....											4	1	3		8
Convulsions .....	57	32	25	25	139	22	5	7	3	37	2		2	2	6
Brain & Nerv : Dis : (other) .....	11	5	3	2	21	11	2	11	6	30	5	1	1	2	9
Heart Diseases .....	3		1	1	5				2	2	8	4	5	3	20
Croup .....	2	1	3	1	7	12	12	6	4	34	4	1	4	1	10
Bronchitis .....	48	18	18	11	95	43	13	17	10	83	1	3		1	5
Pneumonia .....	36	12	19	21	88	55	24	21	17	117	17	3	6	7	33
Lung & Respir : Dis : (other) .....	8	2	3	2	15	5	1	5	2	13	2		3	2	7
Teething .....	4		1	1	6	2	2	1	1	6					
Diges : Org : Dis : of .....	20	8	14	4	46	7	2	6	3	18	6	2	2	2	12
Urinary Org : Dis : of .....	2	1			3	10	1	1		12	5		2	1	8
Parturition, dis : of .....															
Gener : Orgs : dis : of .....															
Other Local dis : .....		1		1	2	1	2	1	2	6	6	4	1	1	12
Accident .....	9	8	6		23	7	3	1	4	15	9	3	3	2	17
Homicide .....		1			1						1				1
Suicide .....												1			1
Atrophy .....	90	27	52	39	208	15	6	2	2	25	3	1			4
Ill-defined Cause : .....	12	5	3	3	23	3	1	1	1	6	4	2	2	2	10



20—40 Years.					40—60 Years.					60 Years and Upwards.					All Ages Borough for year.
Regent Rd.	Greengate.	Pendleton.	Broughton.	Borough.	Regent Rd.	Greengate.	Pendleton.	Broughton.	Borough.	Regent Rd.	Greengate.	Pendleton.	Broughton.	Borough.	
213	107	154	72	546	346	137	184	122	789	311	161	185	111	768	4877
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	220
1	...	...	...	1	1	1	...	...	2	...	...	...	...	...	184
...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	59
...	...	2	1	3	1	...	1	...	2	...	...	...	...	...	206
...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	2
18	1	17	7	43	9	3	2	2	16	1	1	...	...	2	112
...	...	...	...	...	2	...	...	...	2	...	...	...	...	...	3
2	...	...	...	2	5	...	2	2	9	15	5	5	3	28	340
1	...	...	...	1	1	...	1	...	2	1	...	...	...	1	34
2	...	...	...	2	2	2	2	...	6	...	...	...	1	1	15
1	...	2	...	3	...	...	...	...	...	...	...	...	1	1	7
3	1	5	...	9	2	...	...	...	2	...	...	...	...	...	11
...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	4
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
2	2	1	...	5	6	2	1	1	10	...	...	1	1	2	17
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	2	3	1	8	3	...	...	...	3	...	1	1	...	2	17
8	5	4	2	19	20	10	18	13	61	9	4	6	8	27	109
1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	80
...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	115
56	35	54	28	173	42	21	26	20	109	4	5	8	1	18	365
...	...	1	1	2	...	1	1	...	2	...	...	...	...	...	50
4	1	4	2	11	8	1	2	6	17	3	1	4	1	9	60
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	105
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21
...	...	...	...	...	6	1	...	1	8	83	50	47	28	208	216
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	4	...	1	9	30	11	18	13	72	27	24	23	14	88	172
3	3	2	3	11	...	...	4	...	4	1	...	2	1	4	27
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	182
1	1	2	1	5	11	2	7	4	24	5	4	7	2	18	107
18	15	13	6	52	40	15	21	19	95	30	7	21	17	75	249
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	51
16	8	1	...	25	70	30	26	11	137	75	41	29	12	157	502
20	6	11	6	43	29	13	11	7	60	17	6	7	4	34	375
1	4	...	1	6	6	3	2	2	13	5	2	2	...	9	63
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12
15	3	4	1	23	18	8	11	6	43	17	1	13	8	39	181
7	2	1	2	12	18	4	9	4	35	5	4	1	3	13	83
14	5	13	2	34	1	1	3	...	5	...	...	...	...	...	39
...	...	2	1	3	1	...	1	2	4	...	...	...	...	...	7
2	...	2	...	4	1	...	...	1	2	...	1	...	...	1	27
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	4	7	4	22	5	4	8	1	18	7	2	4	3	16	111
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
1	1	2	1	5	3	1	1	1	6	...	...	1	...	1	13
1	...	...	...	1	...	2	...	...	2	2	...	...	1	3	243
2	4	1	...	7	5	1	5	5	16	4	2	3	1	10	72



TABLE F3.

DEATHS REGISTERED IN SALFORD, FROM ALL CAUSES DURING THE YEAR 1889.

DISEASES.	AGES IN YEARS.																						Total.	1 to 5	5 to 20	20 to 40	40 to 60	60 to 90 and upwards
	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 65	65 to 70	70 to 75	75 to 80	80 to 85	85 and upwards						
I. SPECIFIC FEBRILE, OR ZYMOTIC DISEASES.....	338	236	122	77	81	146	36	22	26	23	8	8	17	8	10	7	9	15	5	3	2	..	1199	516	204	65	42	34
II. PARASITIC DISEASES.....	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	..	..	..	
III. DIETIC DISEASES.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17	..	..	..	..	
IV. CONSTITUTIONAL DISEASES.....	115	59	25	25	11	35	28	35	33	61	57	63	55	54	51	33	26	16	11	3	..	..	796	120	98	214	193	
V. DEVELOPMENTAL DIS:.....	125	..	..	..	..	..	1	..	..	..	..	..	..	..	2	6	18	33	52	53	35	17	342	..	1	..	8208	
VI. LOCAL DISEASES.....	427	212	64	43	41	65	27	39	44	44	63	76	100	123	135	136	145	127	98	42	18	8	2077	360	131	227	494	
VII. DEATHS FROM VIOLENCE.....	24	5	3	4	3	9	5	5	4	7	7	9	1	7	5	11	6	5	1	4	1	..	126	15	19	27	24	
VIII. DEATHS FROM/ILL-DEFINED & NOT SPECIFIED CAUSES.....	231	25	3	..	3	9	..	5	..	3	2	3	4	4	5	5	5	6	..	..	1	1	315	31	14	8	18	
TOTALS.....	1265	537	217	149	139	264	97	106	107	140	139	160	180	195	210	200	210	202	168	105	57	26	4877	1042	467	546	789	
I. Zymotic Diseases.																												
1. Miasmatic Diseases.																												
Sm: Pox { Vaccinated																												
Unvaccinated																												
No Statement																												
Measles	34	19	43	18	13	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	220	173	13	..	..	
Scarlet Fever	12	19	36	26	25	53	7	3	1	..	..	..	1	..	1	..	..	..	..	..	..	..	184	106	63	1	2	
Typhus Fever	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	..	
Whooping cough	20	20	8	5	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	59	36	3	..	..	
Diphtheria	11	26	24	23	34	68	13	2	2	1	..	..	1	..	..	1	..	..	..	..	..	..	206	107	83	3	2	
Sim: Contd: Fever	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	
Enteric Fever	..	2	5	4	3	6	14	17	18	16	5	4	9	3	3	1	1	1	..	..	..	..	112	14	37	43	16	
Miasm: Dis: (other)	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	
2. DIARRHOEAL DISEASES.																												
Sim: Cholera	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	3	1	..	..	..	
Diarrhoea, Dysentery	231	59	5	..	2	3	1	..	..	1	..	1	..	3	3	3	7	12	5	3	1	..	340	66	4	2	9	
3. MALARIAL DISEASES.																												
Remittent Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Ague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
<b>4. ZOOGENOUS DISEASES.</b>																												
Cow Pox, Effects of Vaccin: ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hydroph: Gland: Splenic Fev: ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>5. VENEREAL DISEASES.</b>																												
Syphilis .....	24	6	...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	1	...	...	...	...	34	6	...	1	2	1
Gonorrhœa, Str: Ureth: .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>6. SEPTIC DISEASES.</b>																												
Erysipelas .....	5	1	...	...	...	...	...	...	1	...	...	1	1	1	2	...	2	...	...	...	1	...	15	1	...	2	6	1
Pyæmia Septicæmia .....	1	...	1	...	1	...	...	...	2	1	...	...	...	...	...	1	1	...	...	...	...	8	2	...	3	...	2	...
Puerperal Fever.....	...	...	...	...	...	...	...	...	4	3	1	1	2	...	...	...	...	...	...	...	...	11	...	...	9	2	...	...
<b>II. - Parasitic Diseases.</b>																												
Veg: Par: D: (Thrush) .....	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...
An: Par: D: Wrm: Hytd: .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>III. - Dietic Diseases.</b>																												
Starv: Want Breast Milk .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scurvy .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chr: Alcoholism .....	...	...	...	...	...	...	...	...	2	2	1	3	3	2	1	...	1	...	...	...	...	16	...	...	5	9	2	...
Delir: Trem: .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...
<b>IV. - Constitutional Diseases.</b>																												
Rheum: Fev: Rheum: Heart .....	...	...	...	...	...	1	2	1	1	3	3	1	2	1	...	...	1	...	...	...	...	17	...	...	4	8	3	2
Rheum: Chronic.....	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	2	...	2	1	1	...	8	...	...	1	1	2	4
Gout .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets .....	5	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	...	...	...	...	...	...
Cancer, Malignant Dis: .....	...	...	...	1	...	1	...	...	2	4	7	6	8	16	22	15	11	8	6	2	...	109	...	...	...	19	61	27
Tabes Mesenterica .....	44	14	4	4	3	9	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	80	...	...	...	1	...	...
Tuberc: Mening: Hydroceph: ..	44	30	13	14	5	9	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	117	...	...	...	...	...	...
Phthisis .....	2	2	1	3	2	5	22	28	28	48	45	52	41	32	24	12	12	4	2	...	...	365	...	...	...	...	...	18
Tuberc: Dis: Scrofula.....	17	8	7	3	1	8	2	4	1	3	...	...	...	2	...	...	...	...	...	...	...	56	...	...	...	...	...	...
Purpura, Hæmor: Diathesis .....	...	...	...	...	...	1	...	...	...	1	1	...	3	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
Anæmia, Chlorosis, Leucocy: ..	1	...	...	...	...	...	...	...	1	1	1	1	3	...	...	1	...	1	...	...	...	9	...	...	...	...	...	...
Diabetes Mellitus .....	...	...	...	...	...	...	...	...	...	1	2	1	1	...	2	...	2	1	1	...	...	11	...	...	...	...	...	...
Constitutional Dis: (other) .....	2	1	...	...	...	1	...	1	...	...	...	1	...	3	1	2	...	...	...	...	...	12	...	...	1	2	1	...
<b>V. - Developmental Diseases.</b>																												
Premature Birth.....	105	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	105	...	...	...	...	...	...
Atelectasis .....	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
Malform: Congen: Defects .....	17	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	18	...	...	1	...	...	...
Old Age .....	...	...	...	...	...	...	...	...	...	2	6	18	33	52	53	35	...	...	...	...	...	17	...	...	...	...	...	8208



TABLE F3.—(Continued.)

[illegible]







TABLE F3.—(Continued.)

DISEASES.	AGES IN YEARS.																							Total.	1 to 5	5 to 20	20 to 40	40 to 60	60 and upwards
	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 65	65 to 70	70 to 75	75 to 80	80 to 85	85 and upwards							
<b>VII.—Deaths from Violence.</b>																													
1. ACCIDENT OR NEGLIGENCE.																													
Fract: and Contusions .....																													
Gunshot Wounds .....																													
Cut, Stab .....																													
Burn, Scald .....																													
Poison .....																													
Drowning .....																													
Suffocation .....																													
Otherwise.....																													
2. HOMICIDE.																													
Manslaughter .....																													
Murder .....																													
3. SUICIDE.																													
Gunshot Wound .....																													
Cut, Stab .....																													
Poison .....																													
Drowning .....																													
Hanging .....																													
Otherwise .....																													
4. EXECUTION.																													
Hanging .....																													
<b>VIII.—Deaths from Ill-defined and not specified causes.</b>																													
Dropsy .....																													
Atrophy, Debility .....																													
Mortification .....																													
Tumour.....																													
Abscess.....																													
Hæmorrhage .....																													
Sudden Death.....																													
Found Dead in Bed .....																													
Not Specified, Ill-defined .....																													

## SUMMARY OF TABLE F3, 1888 AND 1889.

	No. of Deaths, 1888.	No. of Deaths, 1889.
<b>I.—Specific Febrile, or Zymotic Diseases:</b>		
1. Miasmatic Diseases .....	630	788
2. Diarrhoeal „ .....	185	343
3. Malarial „ .....	...	...
4. Zoogenous „ .....	2	...
5. Venereal „ .....	41	34
6. Septic „ .....	38	34
<b>II.—Parasitic Diseases .....</b>	<b>4</b>	<b>5</b>
<b>III.—Dietic Diseases.....</b>	<b>20</b>	<b>17</b>
<b>IV.—Constitutional Diseases .....</b>	<b>797</b>	<b>796</b>
<b>V.—Developmental Diseases .....</b>	<b>341</b>	<b>342</b>
<b>VI.—Local Diseases:</b>		
1. Diseases of Nervous System.....	574	488
2. Diseases of Organs of Special Sense .....	4	5
3. Diseases of Circulatory System .....	224	249
4. Diseases of Respiratory System .....	1121	991
5. Diseases of Digestive System .....	174	193
6. Diseases of Lymphatic System .....	1	...
7. Diseases of Gland-like Organs of uncertain use .....	3	3
8. Diseases of Urinary System.....	96	83
9. Diseases of Reproductive System:		
(a) Diseases of Organs of Generation.....	18	7
(b) Diseases of Parturition .....	36	39
10. Diseases of Bones and Joints .....	17	14
11. Diseases of Integumentary System.....	5	5
<b>VII.—Violence:</b>		
1. Accident or Negligence.....	112	111
2. Homicide .....	9	2
3. Suicide.....	25	13
4. Execution .....	...	...
<b>VIII.—Ill-defined and not specified causes .....</b>	<b>298</b>	<b>315</b>
<b>TOTAL .....</b>	<b>4775</b>	<b>4877</b>



Zymotic  
mortality

It will be noticed, however, that as the Registrar-General's returns do not distinguish enteric-fever from typhus-fever, or even from simple continued fever, so far as the 28 great English towns in bulk are concerned, and as these diseases are consequently grouped together under the generic term of "continued fever," a completely satisfactory comparison of the death-rates of these diseases with the rates pertaining to Salford is not possible. Nevertheless, it has been found possible to make comparison in respect of enteric-fever and typhus-fever with the rates in London, and this has therefore been done.

SCARLET FEVER MORTALITY. RATES PER 1,000 OF THE  
POPULATION.

	1884.	1885.	1886.	1887.	1888.	Mean.	1889.
England and Wales...	0·40	0·23	0·21	0·27	0·22	<b>0·27</b>	0·23
28 Great English Towns	0·45	0·24	0·25	0·39	0·29	<b>0·36</b>	0·30
London .....	0·36	0·17	0·17	0·34	0·28	<b>0·26</b>	0·18
<b>Salford</b> .....	<b>0·75</b>	<b>0·32</b>	<b>0·85</b>	<b>0·76</b>	<b>0·49</b>	<b>0·63</b>	<b>0·87</b>

DIPHTHERIA MORTALITY. RATES PER 1,000 OF THE  
POPULATION.

	1884.	1885.	1886.	1887.	1888.	Mean.	1889.
England and Wales ...	0·19	0·15	0·14	0·15	0·17	<b>0·16</b>	0·19
28 Great English Towns	0·17	0·17	0·16	0·18	0·21	<b>0·18</b>	0·26
London ...	0·24	0·22	0·20	0·23	0·30	<b>0·24</b>	0·37
<b>Salford</b> .....	<b>0·12</b>	<b>0·09</b>	<b>0·06</b>	<b>0·10</b>	<b>0·29</b>	<b>0·13</b>	<b>0·97</b>

WHOOPING COUGH MORTALITY. RATES PER 1,000 OF THE  
POPULATION.

	1884.	1885.	1886.	1887.	1888.	Mean.	1889.
England and Wales ...	0·42	0·44	0·44	0·38	0·40	<b>0·42</b>	0·40
28 Great English Towns	0·64	0·60	0·54	0·62	0·58	<b>0·60</b>	0·48
London .....	0·79	0·61	0·68	0·70	0·70	<b>0·70</b>	0·40
<b>Salford</b> .....	<b>0·68</b>	<b>0·67</b>	<b>0·64</b>	<b>0·32</b>	<b>1·06</b>	<b>0·67</b>	<b>0·28</b>

MEASLES MORTALITY. RATES PER 1,000 OF THE POPULATION.

	1884.	1885.	1886.	1887.	1888.	Mean.	1889.
England and Wales ...	0·42	0·51	0·41	0·58	0·33	<b>0·45</b>	0·49
28 Great English Towns	0·60	0·69	0·54	0·79	0·47	<b>0·62</b>	0·67
London .....	0·55	0·72	0·50	0·69	0·56	<b>0·60</b>	0·53
<b>Salford</b> .....	<b>0·52</b>	<b>0·92</b>	<b>0·24</b>	<b>1·58</b>	<b>0·64</b>	<b>0·78</b>	<b>1·04</b>

DIARRHŒA MORTALITY. RATES PER 1,000 OF THE POPULATION. Zymotic mortality

	1884.	1885.	1886.	1887.	1888.	Mean.	1889.
England and Wales ...	0·97	0·46	0·84	0·69	0·43	0·64	0·61
28 Great English Towns	1·21	0·69	1·16	0·97	0·60	0·93	0·82
London .....	0·97	0·66	0·95	0·90	0·52	0·80	0·62
<b>Salford</b> .....	<b>1·96</b>	<b>1·27</b>	<b>2·02</b>	<b>1·67</b>	<b>0·89</b>	<b>1·56</b>	<b>1·62</b>

## TYPHUS FEVER MORTALITY. RATES PER 1,000 OF THE POPULATION.

	1884.	1885.	1886.	1887.	1888.	Mean.	1889.
London ...	0·01	0·01	0·00	0·00	0·00	0·00	0·00
<b>Salford</b> .....	<b>0·05</b>	<b>0·05</b>	<b>0·00</b>	<b>0·00</b>	<b>0·03</b>	<b>0·03</b>	<b>0·01</b>

## ENTERIC FEVER MORTALITY. RATES PER 1,000 OF THE POPULATION.

	1884.	1885.	1886.	1887.	1888.	Mean.	1889.
London .....	0·23	0·14	0·15	0·15	0·16	0·17	0·12
<b>Salford</b> .....	<b>0·42</b>	<b>0·25</b>	<b>0·31</b>	<b>0·40</b>	<b>0·44</b>	<b>0·32</b>	<b>0·53</b>

## TOTAL CONTINUED FEVER MORTALITY. RATES PER 1,000 OF THE POPULATION.

	1884.	1885.	1886.	1887.	1888.	Mean.	1889.
England and Wales ...	0·27	0·21	0·21	0·20	0·18	0·21	0·18
28 Great English Towns	0·29	0·22	0·23	0·22	0·20	0·23	0·20
London .....	0·26	0·17	0·17	0·16	0·17	0·19	0·14
<b>Salford</b> .....	<b>0·52</b>	<b>0·33</b>	<b>0·34</b>	<b>0·42</b>	<b>0·48</b>	<b>0·42</b>	<b>0·55</b>

**Uncertified Deaths.**—Of the 4,877 deaths of Salford persons during 1889, 4,787 occurred within the boundaries of the Borough, and of these 210 were certified by the Coroner, and 160 remained uncertified by either Coroner or Medical practitioners. The proportion of uncertified deaths was therefore 3·3 per cent. of the whole number, or 0·3 per cent. less than in 1888, and 1·2 per cent. less than the mean rate for the preceding ten years, 1879–88. Though the rate of 3·3 per cent. is too high, as representing the amount of uncertified deaths in a borough like Salford, it is gratifying to believe that it represents a gradual and continuous decrease from what was a previously very high rate.

Uncertified mortality



TABLE G.

CERTIFICATION OF THE CAUSES OF DEATH IN THE BOROUGH OF  
SALFORD, AND ITS FOUR REGISTRATION SUB-DISTRICTS,  
IN THE YEAR 1889.

	Total Deaths.	Certified by		Not Certified.	Proportion per cent. of Deaths.		
		Registered Medical Practitioners.	Coroner.		Certified by		Not Certified.
					Registered Medical Practitioners.	Coroner.	
<b>Borough</b> .....	4787	4417	210	160	92·3	4·4	3·3
Regent Road District	2092	1941	82	69	92·8	3·9	3·3
Greengate .....	884	786	53	45	88·9	6·0	5·1
Pendleton .....	1138	1057	47	34	92·9	4·1	3·0
Broughton .....	673	633	28	12	94·0	4·2	1·8
CORRESPONDING DATA FOR THE TEN YEARS 1879-88.							
<b>Borough</b> .....	44782	40790	1993	1999	91·1	4·4	4·5
Regent Road District	19185	17474	824	887	91·1	4·3	4·6
Greengate .....	9366	8348	556	462	89·2	5·9	4·9
Pendleton .....	10120	9261	413	446	91·5	4·1	4·4
Broughton .....	6111	5707	200	204	93·4	3·3	3·3



YEAR 1889.

METEOROLOGY, AND REGISTERED DEATHS FROM ALL CAUSES, AND FROM CERTAIN  
PREVALENT DISEASES IN EACH WEEK OF THE YEAR.

Week.	Temperature of the Air.			Air Pres- sure.	Horizontal Movement of Air in Miles p. hour.	Mean Humidity. Complete Saturation. =100	Rainfall in Inches.	*Deaths registered from										
Date of ending.	Highest during the Week.	Lowest during the Week.	Mean Temperature.	Extreme range of Barometric changes.				All Causes.	Smallpox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhus Fever.	Enteric Fever.	Diarrhoea.	Respiratory Diseases.	Phthisis.
1889.	°	°	°															
Jan. 5	44.2	26.8	34.4	0.617	0.2	98	...	107	...	16	3	4	2	...	5	1	22	8
12	47.9	26.0	38.5	0.838	1.5	90	.060	120	...	26	1	3	2	...	1	3	30	6
19	54.7	35.8	40.9	0.498	1.5	92	.030	88	...	19	1	2	1	...	1	2	16	7
26	48.6	36.6	42.7	0.274	0.8	92	.240	107	...	13	3	5	2	...	3	...	25	6
Feb. 2	55.1	31.2	43.2	1.077	2.8	91	1.145	105	...	10	5	5	...	...	1	1	16	14
9	48.7	31.0	38.8	0.927	...	83	.510	92	...	14	5	2	5	...	1	...	15	8
16	50.2	24.8	34.9	0.767	2.0	82	.882	112	...	10	3	7	2	...	...	...	20	17
23	54.0	33.0	42.2	0.332	1.7	85	.170	94	...	8	...	6	...	...	3	1	22	8
Mar. 2	41.8	30.0	34.5	0.616	0.9	86	.027	99	...	18	4	4	2	...	2	2	26	6
9	47.7	26.0	36.0	0.787	2.2	90	.420	108	...	11	4	...	...	...	1	1	30	7
16	52.7	29.0	40.1	0.863	1.1	89	.360	107	...	8	3	5	1	...	4	3	19	8
23	52.4	31.7	42.0	1.372	2.6	86	.110	100	...	7	3	5	...	...	3	1	26	7
30	59.0	34.2	46.3	0.537	1.9	80	.360	91	...	4	3	3	...	...	...	...	26	5
April. 6	53.1	36.9	43.6	0.836	2.0	74	.795	93	...	4	1	4	1	...	1	...	21	10
13	50.2	36.0	41.6	0.402	2.1	90	.490	79	...	2	...	1	...	...	3	1	18	11
20	59.4	37.0	46.5	0.274	1.3	82	.205	108	...	6	4	6	2	...	1	1	24	8
27	61.2	39.0	46.9	0.514	1.8	78	.335	89	...	4	3	...	...	...	1	...	26	10
May 4	70.0	39.1	50.8	0.309	2.1	70	.390	86	...	2	4	1	...	...	3	2	17	10
11	77.0	48.0	56.5	0.192	1.3	77	1.380	95	...	3	7	2	3	...	1	...	16	5
18	69.8	48.2	54.7	0.166	0.3	80	.210	84	...	1	5	4	1	...	2	1	21	6
25	77.1	49.8	60.1	0.522	0.3	73	.035	98	...	3	3	4	...	...	4	2	20	9
June 1	69.6	44.0	54.6	0.326	2.4	73	1.066	78	...	6	3	1	...	...	1	3	14	5
8	81.3	54.0	62.7	0.721	0.5	69	.690	97	...	3	6	3	1	...	1	3	8	8
15	74.8	49.0	57.2	0.273	1.0	67	...	68	...	1	7	2	2	...	...	3	11	9
22	78.7	48.8	61.3	0.135	0.5	67	...	91	...	...	3	...	1	...	1	6	24	5
29	78.3	52.2	64.1	0.160	0.5	59	...	91	...	...	3	2	1	...	4	14	16	6
July 6	76.7	53.9	61.9	0.401	1.0	68	...	112	...	...	6	3	2	...	3	22	15	8
13	72.3	47.8	57.8	0.379	1.1	60	1.106	120	...	1	5	1	2	...	1	38	15	6
20	66.9	48.0	55.5	0.221	1.2	78	.407	115	...	1	6	3	1	...	4	35	5	4
27	69.2	49.2	56.7	0.439	1.3	76	.944	117	...	5	4	5	1	1	3	24	9	8
Aug. 3	81.6	52.0	63.1	0.464	2.0	73	.388	110	...	...	4	3	1	...	3	25	10	8
10	69.3	51.6	58.2	0.477	1.1	76	1.620	76	...	...	2	1	...	...	1	17	7	5
17	71.7	53.0	57.9	0.471	1.5	77	1.190	84	...	...	3	1	1	...	...	24	8	8
24	68.8	49.8	57.2	0.769	1.7	75	1.765	87	...	...	2	1	2	...	2	14	10	8
31	75.2	48.0	57.2	0.415	1.1	76	.240	81	...	...	4	3	...	...	2	7	8	5
Sep. 7	71.8	52.8	61.4	0.301	0.4	71	.150	82	...	2	4	1	...	...	4	13	3	8
14	76.0	53.8	62.0	0.323	0.5	79	.060	60	...	...	3	1	1	...	1	9	8	5
21	65.8	40.9	52.2	0.871	1.6	69	1.050	82	...	...	1	5	3	...	...	16	3	10
28	63.6	39.0	49.7	0.535	2.1	72	1.625	77	...	1	1	3	...	...	5	6	11	6
Oct. 5	56.9	43.3	49.7	0.473	1.1	78	.145	87	...	1	1	5	...	1	5	8	11	8
12	56.9	37.0	47.7	0.853	2.8	88	1.236	72	...	1	5	3	...	...	1	7	8	...
19	56.1	37.9	48.6	0.760	1.0	86	.665	73	...	1	5	3	...	...	...	3	20	5
26	56.4	40.1	47.3	1.101	1.7	89	.385	61	...	2	3	3	...	...	1	3	15	4
Nov. 2	55.2	42.6	47.6	0.433	3.2	89	.810	76	...	...	8	1	1	...	3	4	14	5
9	55.8	37.7	48.4	0.920	1.0	88	.043	61	...	1	1	1	1	...	...	1	17	4
16	56.3	36.8	48.9	0.183	0.6	92	.460	99	...	1	4	9	...	...	1	3	27	8
23	55.8	39.9	46.3	0.404	1.3	91	.200	81	...	...	5	5	2	...	...	4	21	3
30	50.6	29.0	38.0	0.847	1.7	89	.460	80	...	1	2	6	1	...	...	1	22	2
Dec. 7	43.9	31.6	37.1	0.607	1.2	84	.385	102	...	...	3	5	2	...	3	4	27	9
14	52.8	29.8	39.6	0.985	1.9	90	.788	99	...	1	2	5	1	...	2	1	36	8
21	53.9	33.0	44.5	0.849	2.0	87	.894	96	...	1	3	2	7	...	2	1	35	2
28	52.7	33.5	43.4	0.962	1.2	86	.190	110	...	...	6	6	1	...	3	2	37	11



**TABLE OF DEATHS DURING THE YEAR 1889, IN THE URBAN SANITARY  
AND SHOWING ALSO THE POPULATION OF SUCH LOCALITIES,**

Localities.		Population at all ages.		Registered Births.	Mortality from all causes at subjoined ages.						
		Census, 1881.	Estimated to the middle of 1889		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
Total for Borough, exclusive of Public Institutions }		174403	...	6909	4096	1228	886	257	158	975	592
Deaths in Salford Institutions.	Union Infirmary .....	Beds. *	Beds. 800	...	368	19	13	3	20	158	155
	Workhouse .....	1369	1369	79	31	10	6	1	1	6	7
	Wilton Fever Hospital .	60	100	...	160	6	76	53	13	11	1
	Hope Sheds .....	...	.....	...	5	...	2	3	...	...	...
	Royal Hospital and Dispensary .....	60	...	...	95	...	13	12	14	46	10
The subjoined numbers have also to be taken into account											
Deaths occurring outside Salford among persons belonging thereto.	Children's Hospital, Pendlebury .....	Beds. 160	Beds. ...	...	32	1	24	7	...	...	...
	Manchester Royal Infirmary .....	315	...	...	32	...	...	...	4	22	6
	Monsal Hospital.....	192	...	...	66	1	23	23	8	11	..
	St. Mary's Hospital...	...	...	...	5	1	...	...	...	4	...
	Cheetham Hospital...	...	...	...	1	...	...	1	...	...	...
Deaths occurring in Salford among persons not belonging to the town .....					14	1	1	...	3	6	3
The subjoined numbers are the <b>Corrected Deaths</b> in the											
Borough of Salford .....		Pop. 1881 176233	Pop. 1889 212030	6988	4877	1265	1042	360	215	1227	768
Registration Sub-Districts.	Regent Road .....	69716	86572	2869	2123	596	464	137	101	514	311
	Greengate .....	31867	31867	1179	895	211	197	63	36	227	161
	Pendleton .....	43117	53887	1749	1164	283	249	92	49	306	185
	Broughton .....	31533	39704	1191	695	175	132	68	29	180	111



DISTRICT OF SALFORD, CLASSIFIED ACCORDING TO DISEASES, AGES, AND LOCALITIES,  
AND THE BIRTHS THEREIN DURING THE YEAR.

Mortality from subjoined causes, distinguishing deaths of children  
under five years of age.

	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping Cough.	Typhus.	Enteric or Typhoid Other or Doubtful.	Diarrhoea and Dysentery.	Engl. Cholera.	Rheumatic Fev.	Erysipelas.	Pyæmia.	Puerperal Fever.	Ague.	Phthisis.	Bronchitis, and Pneumonia, and Pleurisy.	Heart Disease.	Injuries.	Other Diseases.
Under 5 ...	193	54	79	41	54	12	1	290	1	...	5	2	...	...	9	397	7	30	939	
5 upwards ...	9	30	50	10	3	165	1	31	2	16	7	2	11	...	287	456	201	45	755	
Under 5...	...	1	...	...	2	...	...	6	...	...	...	...	...	...	...	6	...	...	17	
5 upwards ...	...	...	...	...	...	...	...	11	...	...	1	...	...	...	59	49	23	1	192	
Under 5...	8	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	7	
5 upwards ...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	5	2	...	5	
Under 5...	4	57	19	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	
5 upwards ...	3	32	16	...	...	1	21	...	...	...	1	...	...	...	1	2	...	...	1	
Under 5...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
5 upwards ...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Under 5...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	9	2	
5 upwards ...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	6	8	13	34	19	

in judging of the mortality of the Sanitary District.

Under 5 ...	...	1	2	...	...	...	...	...	...	...	1	1	...	...	1	7	...	...	12
5 upwards ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	4
Under 5 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5 upwards ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	3	10	15
Under 5 ...	1	4	18	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
5 upwards ...	...	1	22	...	...	...	12	...	...	...	...	...	...	...	...	3	...	...	4
Under 5 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
5 upwards ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	2
Under 5 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5 upwards ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Under 5 ...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
5 upwards ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	3	7

Borough, and in the four Sub-Registration Districts thereof.

Under 5 ...	207	118	118	41	56	14	1	297	1	...	6	3	...	...	10	411	7	39	978
5 upwards ...	13	66	88	10	3	298	1	43	2	17	9	4	11	...	355	529	242	87	990
Under 5 ...	101	49	29	14	34	...	7	...	164	...	2	2	...	...	3	195	3	16	441
5 upwards ...	4	23	20	4	2	150	...	23	2	7	4	1	5	...	130	259	96	33	399
Under 5 ...	41	24	23	13	11	...	1	...	51	...	2	...	...	...	1	70	...	12	159
5 upwards ...	4	18	14	1	1	...	7	...	7	...	3	2	...	1	69	119	41	16	184
Under 5 ...	45	27	43	9	5	...	5	1	55	1	...	2	1	...	4	83	1	7	243
5 upwards ...	5	15	27	4	...	...	29	...	8	...	5	2	2	5	...	95	98	60	251
Under 5 ...	20	18	23	5	6	...	1	...	27	...	...	...	...	...	2	63	3	4	135
5 upwards ...	...	10	27	1	...	1	12	1	5	...	2	1	1	...	61	53	45	12	156





### III.

## RECORD OF INFECTIOUS DISEASES AND MEASURES TAKEN TO PREVENT THEIR SPREAD.

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# RECORD OF INFECTIOUS DISEASES

## AND MEASURES TAKEN TO PREVENT THEIR SPREAD.

Disease Notifi-  
cation under  
Local Act, 1882

**Notification of Infectious Diseases.**—The Hospital Special Committee having asked for figures showing the lowest and highest number of cases of infectious disease arising in Salford at any one time since the passing of the Notification clauses in the Local Act of 1882, it became necessary to construct tables for each year from the year 1883, though those for the years 1887 and 1888 were in form.

The tables were constructed to show the weekly incidence of the following principal notifiable zymotic diseases—namely, small-pox, scarlet-fever, diphtheria, typhus fever, and enteric-fever, and they gave the following results:—

1883.		
Week.		Fresh Cases.
44th .....	Highest number .....	44
12th and 16th ...	Lowest „	9
1884.		
37th .....	Highest number .....	65
25th .....	Lowest „	12
1885.		
40th .....	Highest number .....	37
30th .....	Lowest „	5
1886.		
39th .....	Highest number .....	75
16th and 17th ...	Lowest „	11
1887.		
44th .....	Highest number .....	74
24th .....	Lowest „	10
1888.		
46th .....	Highest number .....	86
23rd .....	Lowest „	9

During the year 1889 the results were as follows :—

1889.		
Week.		Fresh Cases.
39th .....	Highest number .....	98
22nd .....	Lowest „	21

Thus the highest incidence from the diseases named during the six years 1883–1888 inclusive was between the 37th and the 46th weeks, or between the months of September and November, and the lowest incidence was between the 12th and 30th weeks, or between the months of March and July. These facts are in accordance with recent investigations as to the periodicity of infectious diseases of the types considered.

During 1889 the greatest incidence from the same diseases was between the 35th and the 45th weeks, or between the months of September and November, and the lowest between the 22nd and 25th weeks, or during the month of June.

The average amount of these diseases shows some variation, thus :—

The mean weekly incidence of fresh cases in 1883 was 23

„	„	„	„	„	1884	„	33
„	„	„	„	„	1885	„	18
„	„	„	„	„	1886	„	36
„	„	„	„	„	1887	„	36
„	„	„	„	„	1888	„	35
„	„	„	„	„	1889	„	47

The average weekly incidence for the first three years was, therefore, about 25, for the next three years about 36, and the mean incidence in 1889 was 47.

The total numbers of cases of notifiable infectious sickness during each year since notification was in force in the borough were for

1883 .....	1,195, or	6·4 per 1,000 of population.
1884 .....	1,694, or	8·9 „ „
1885 .....	960, or	5·0 „ „
1886 .....	1,902, or	9·6 „ „
1887 .....	1,889, or	9·3 „ „
1888 .....	1,971, or	9·5 „ „
1889 .....	2,476, or	11·7 „ „

The following are the tables shewing the actual weekly occurrence of cases for the seven years, 1883–1889, inclusive.



1883.

1884.

Weeks.	Small-pox.	ScarletFever.	Diphtheria.	Typhus	Enteric.	Total.	Small-pox	ScarletFever.	Diphtheria.	Typhus.	Enteric	Total.	
1	1	26	1	1	12	41	...	26	2	...	5	33	
2	...	17	4	...	8	29	...	22	1	...	4	27	
3	...	13	3	...	9	25	...	26	1	...	11	38	
4	...	14	1	...	8	23	...	14	...	...	6	20	
5	...	19	...	...	9	28	...	11	...	...	5	16	
6	...	8	1	...	4	13	...	23	2	...	6	31	
7	...	8	...	2	5	15	...	27	1	...	3	31	
8	...	13	1	...	5	19	...	14	1	...	2	17	
9	...	6	1	1	2	10	...	11	...	...	14	25	
10	...	8	2	...	3	13	...	22	1	...	6	29	
11	...	12	2	...	10	24	...	22	3	...	6	31	
12	...	8	...	...	1	9	...	13	1	...	3	17	
13	...	8	...	...	3	11	...	14	2	...	2	18	
14	...	16	...	...	4	20	...	21	3	...	3	27	
15	2	8	...	...	9	19	...	24	4	...	4	32	
16	...	8	...	1	...	9	...	17	1	...	5	23	
17	...	11	1	...	3	15	...	22	1	...	3	26	
18	...	8	...	...	3	11	1	12	1	...	2	16	
19	1	18	2	...	4	25	...	9	5	...	3	17	
20	...	8	1	...	1	10	...	20	1	...	3	24	
21	1	16	2	...	2	21	1	9	1	...	3	14	
22	1	14	1	...	4	20	...	22	8	...	6	36	
23	...	15	...	...	2	17	...	13	...	...	4	17	
24	...	12	1	...	6	19	...	18	4	1	4	27	
25	...	14	2	...	4	20	...	8	...	1	3	12	
26	...	18	1	...	6	25	...	29	...	...	4	33	
27	...	23	1	...	2	26	...	37	1	...	2	40	
28	...	9	...	...	7	16	2	30	1	...	4	37	
29	...	10	2	...	2	14	...	25	4	...	5	34	
30	...	13	...	...	5	18	...	31	3	...	7	41	
31	...	13	1	...	3	17	...	31	...	...	8	39	
32	...	21	2	...	3	26	...	27	1	2	8	38	
33	...	11	2	...	4	17	...	23	...	2	5	30	
34	...	17	1	...	1	19	...	26	1	...	12	39	
35	...	14	3	...	7	24	...	21	...	2	16	39	
36	...	7	1	2	...	10	...	19	2	1	21	43	
37	...	16	2	...	4	22	...	36	3	1	25	65	
38	...	15	5	...	13	33	...	29	2	7	18	56	
39	...	17	4	2	8	31	...	20	1	1	27	49	
40	...	17	3	...	11	31	...	13	1	3	14	31	
41	...	23	1	...	10	34	...	21	2	...	20	43	
42	...	29	2	...	8	39	...	37	2	1	13	53	
43	...	19	4	...	8	31	...	36	1	...	18	55	
44	...	35	2	2	5	44	1	26	3	...	9	39	
45	...	18	3	...	2	23	...	31	2	...	8	41	
46	...	21	4	1	6	32	...	22	4	...	8	34	
47	...	25	1	...	6	32	...	26	1	1	11	39	
48	...	25	4	2	12	43	...	22	3	...	9	34	
49	...	15	1	...	12	28	...	17	2	1	10	30	
50	...	26	2	...	10	38	...	22	7	1	7	37	
51	...	22	2	...	6	30	...	15	5	1	4	25	
52	...	18	1	...	7	26	...	14	...	...	5	19	
53	...	...	...	...	...	...	...	19	3	...	5	27	
						1195							1694

1885.

1886.

Weeks.	Small-pox.	Scarlet Fever	Diphtheria.	Typhus.	Enteric.	Total.	Small-pox.	Scarlet Fever.	Diphtheria.	Typhus.	Enteric.	Total.	
1	...	15	...	...	6	21	...	13	1	...	3	17	
2	...	11	1	...	1	13	...	12	1	...	7	20	
3	...	19	1	...	1	21	...	16	...	...	5	21	
4	...	16	...	...	4	20	...	10	...	...	4	14	
5	...	14	...	...	2	16	...	20	...	...	8	28	
6	...	5	...	3	4	12	...	15	3	...	3	21	
7	...	14	1	2	3	20	...	10	...	...	7	17	
8	...	7	...	3	3	13	...	13	...	...	2	15	
9	...	22	1	...	3	26	...	22	...	...	3	25	
10	...	13	...	1	2	16	...	13	2	...	1	16	
11	...	7	1	4	3	15	...	14	2	...	3	19	
12	1	9	3	2	3	18	...	11	...	...	3	14	
13	...	3	1	...	7	11	...	8	...	...	5	13	
14	...	10	...	2	10	22	...	8	3	...	1	12	
15	...	14	2	2	13	31	...	14	1	...	3	18	
16	4	8	2	...	6	20	...	9	...	...	2	11	
17	1	7	2	...	5	15	...	8	...	...	3	11	
18	...	12	5	2	3	22	...	10	5	...	5	20	
19	...	12	...	1	4	17	...	11	2	...	1	14	
20	2	3	1	1	4	11	...	12	...	...	3	15	
21	2	14	...	...	3	19	...	20	...	...	4	24	
22	...	4	...	1	5	10	...	22	1	...	4	27	
23	2	14	1	...	4	21	...	41	...	...	2	43	
24	...	8	2	3	4	17	...	14	...	...	2	16	
25	...	9	4	1	2	16	...	34	2	...	1	37	
26	...	7	...	...	...	7	...	27	1	...	1	29	
27	1	8	...	...	2	11	...	55	1	...	2	58	
28	...	6	...	...	5	11	...	34	...	...	2	36	
29	...	4	1	1	2	8	...	45	1	...	6	52	
30	...	3	...	...	2	5	...	24	2	...	3	29	
31	...	7	...	...	3	10	...	37	...	...	3	40	
32	...	3	...	...	4	7	...	42	1	...	3	46	
33	...	11	...	...	...	11	...	45	2	...	5	52	
34	...	14	1	...	7	22	...	38	...	...	8	46	
35	...	10	1	...	9	20	...	58	1	...	6	65	
36	...	11	...	...	4	15	...	20	2	...	18	40	
37	...	19	2	...	2	23	...	41	...	2	12	55	
38	...	18	1	...	4	23	...	45	...	...	11	56	
39	...	27	...	...	2	29	...	66	2	...	7	75	
40	...	29	2	...	6	37	...	52	1	...	8	61	
41	...	18	1	...	8	27	...	58	1	1	12	72	
42	...	15	7	...	5	27	...	50	...	...	11	61	
43	...	17	1	...	2	20	...	45	2	...	7	54	
44	...	24	...	...	7	31	...	56	...	...	12	68	
45	...	23	...	1	5	29	...	53	...	...	14	67	
46	...	13	4	...	6	23	...	51	...	...	13	64	
47	...	23	2	...	6	31	...	55	...	...	10	65	
48	...	19	...	...	3	22	...	40	...	...	10	50	
49	...	14	...	1	5	20	...	40	1	...	7	48	
50	...	11	2	...	10	23	...	30	...	...	3	33	
51	...	6	...	...	7	13	...	39	1	...	10	50	
52	...	6	1	...	5	12	...	34	...	2	6	42	
						950							1902



1887.

1888.

Weeks.	Small-pox,	ScarletFever,	Diphtheria.	Typhus.	Enteric.	Total.	Small-pox,	ScarletFever.	Diphtheria.	Typhus.	Enteric.	Total.	
1	...	23	1	...	6	30	1	27	1	...	7	36	
2	...	19	...	...	6	25	1	20	2	...	6	29	
3	...	27	...	1	4	32	2	14	4	...	9	29	
4	...	24	...	...	3	27	2	40	3	2	17	64	
5	...	15	6	...	4	25	4	39	...	...	6	49	
6	...	23	2	...	8	33	4	24	...	...	9	37	
7	1	23	1	...	6	31	3	24	5	...	4	36	
8	...	13	3	...	3	19	2	30	2	...	7	41	
9	1	25	...	...	5	31	1	20	3	1	3	28	
10	...	21	...	...	2	23	4	35	3	4	6	52	
11	...	32	1	...	3	36	1	17	...	...	2	20	
12	...	30	...	...	4	34	...	27	2	...	4	33	
13	...	27	...	...	5	32	1	16	...	...	4	21	
14	...	27	1	...	3	31	1	16	2	3	1	23	
15	...	16	2	...	3	21	2	22	4	...	5	33	
16	...	19	1	...	3	23	3	18	2	4	3	30	
17	...	28	1	...	5	34	3	25	2	2	5	37	
18	...	8	2	...	3	13	2	15	...	2	3	22	
19	...	21	...	...	6	27	...	12	4	...	1	17	
20	...	21	2	...	2	25	1	9	2	1	3	16	
21	...	11	...	...	...	11	7	16	1	...	2	26	
22	...	13	...	1	...	14	1	18	4	2	3	28	
23	...	18	3	...	3	24	...	8	...	...	1	9	
24	...	9	...	...	1	10	1	12	4	...	1	18	
25	...	22	...	...	1	23	1	22	1	1	2	27	
26	...	23	1	...	2	26	...	14	3	...	1	18	
27	...	18	...	...	3	21	...	14	2	1	...	17	
28	...	15	2	...	5	22	...	17	...	...	4	21	
29	...	29	...	...	9	38	...	14	1	...	3	18	
30	...	16	1	...	6	23	1	25	...	5	5	36	
31	...	21	3	4	13	41	...	10	...	...	2	12	
32	...	21	1	...	4	26	...	9	5	...	4	18	
33	...	32	...	...	10	42	...	14	...	...	12	26	
34	...	29	2	...	11	42	...	17	1	...	10	28	
35	...	39	2	...	10	51	...	18	2	1	17	38	
36	1	48	...	...	19	68	1	24	4	...	8	37	
37	...	27	2	...	18	47	1	27	2	...	28	58	
38	...	32	3	...	28	63	...	35	3	...	17	55	
39	...	48	...	...	19	67	...	26	8	...	33	67	
40	...	42	4	...	18	64	...	13	1	1	15	30	
41	...	46	3	...	10	59	1	18	1	...	30	50	
42	...	46	2	...	9	57	...	27	2	...	35	64	
43	...	36	7	...	8	51	...	28	4	...	32	64	
44	...	56	2	...	16	74	...	29	5	1	27	62	
45	...	45	5	...	11	61	...	27	18	...	19	64	
46	...	41	...	...	6	47	...	35	7	...	44	86	
47	...	37	3	1	9	50	...	27	13	...	23	63	
48	...	42	1	...	8	51	...	32	7	...	23	62	
49	...	38	1	...	5	44	...	39	3	...	22	64	
50	1	31	1	...	9	42	...	23	6	...	21	50	
51	...	37	6	...	7	50	...	22	11	...	15	48	
52	...	17	5	...	6	28	...	20	16	...	8	44	
						1889							1971

1889.

Weeks.	Small-pox.	Scarlet Fever.	Diphtheria.	Typhus.	Enteric.	Total.
1	...	23	17	...	7	47
2	...	19	13	...	16	48
3	...	22	9	...	10	41
4	...	22	8	...	12	42
5	...	23	18	...	9	50
6	...	25	12	...	10	47
7	...	14	26	...	8	48
8	...	12	11	...	10	33
9	...	25	16	...	4	45
10	...	15	4	...	7	26
11	...	25	23	...	5	53
12	...	11	16	...	10	37
13	...	12	9	1	3	25
14	...	20	4	...	9	33
15	...	16	9	...	5	30
16	...	20	7	...	4	31
17	...	19	3	...	5	27
18	...	27	15	...	9	51
19	...	17	18	...	7	42
20	...	27	19	...	11	57
21	...	21	11	...	10	42
22	...	15	3	...	3	21
23	...	18	5	...	5	28
24	...	20	8	...	6	34
25	...	17	5	...	3	25
26	...	22	11	...	14	47
27	...	21	14	...	4	39
28	...	38	7	1	9	55
29	...	28	18	...	13	59
30	...	24	9	...	12	45
31	...	38	15	...	11	64
32	...	22	12	...	10	44
33	...	19	7	...	14	40
34	...	24	13	...	9	46
35	...	45	16	...	23	84
36	...	27	9	...	10	46
37	...	32	10	...	12	54
38	...	28	22	...	26	76
39	...	56	31	...	11	98
40	...	28	20	1	15	64
41	...	56	30	...	11	97
42	...	36	14	...	12	62
43	...	30	17	...	9	56
44	...	39	12	...	12	63
45	...	36	14	...	12	62
46	...	25	14	...	10	49
47	...	23	19	...	12	54
48	...	18	21	...	4	43
49	...	22	10	...	9	41
50	...	17	14	...	7	38
51	...	21	12	...	4	37
52	...	23	11	...	2	36
						2462*

\* It will be noted that this number is lower by 14 than the total number of cases notified, that being the number of notified cases of puerperal fever, which are not included so as to enable comparison to be made between the several years now tabulated.



Hospital  
Isolation

**Amount of Hospital Isolation.**—Of the 2,476 notified cases of infectious sickness, 1,058, or 42·7 per cent., were isolated by the Corporation, as against 48·7 per cent., which was the mean amount of isolation in hospital for the three years 1886 to 1888. The following table shows the district proportions of isolations of cases occurring in them during the year 1889:—

District.	Total No. of Cases.	Number Isolated.	Percentage Isolated.
Regent Road.....	967	378	39·0
Greengate .....	437	293	67·0
Pendleton .....	633	210	33·1
Broughton ... ..	439	177	40·3
Borough.....	2,476	1,058	42·7

There were thus 112 more patients isolated at the expense of the ratepayers than in the year 1888, which is more than explained by there having been during the year under consideration severe epidemics of scarlet-fever and diphtheria occurring simultaneously.

## Disinfection

**Printed Regulations as to Disinfection, &c.**—At my suggestion the Health Committee ordered specific rules, which I had prepared for the guidance of the staff of disinfectors and others, to be printed, so that each responsible person might never lose sight of his important duties. (Appendix III.) These rules related to action of the removal of a fever patient to hospital, and such as it was necessary to observe in the process of house disinfection.

In addition to these, copies of rules which I had prepared for preventing the spread of scarlet-fever, diphtheria, and enteric-fever, in cases where such sickness was treated at home were ordered to be printed (Appendix II.), and to be attached to each set of these rules, further directions for proper disinfection in the sick-room, of the patients' discharges, of soiled linen and clothing during illness, for the care of the house and premises, and the complete disinfection of the sick-room and bedding after illness. At every house where a case is treated a copy of the requisite rules is left, and the District Inspector is instructed to see, as far as possible, that the directions given are properly attended to. I have much reason to be satisfied at the readiness with which

# BOROUGH OF SALFORD:

Pictorial Map shewing the Distribution of Infectious Diseases in Salford for the year 1889, arranged in order of the Census Enumeration Districts.

The figures indicate the numbers of the Enumeration Districts thus—157

- Scarlet Fever... ..
- Diphtheria... ..
- Euteric Fever... ..
- Typhus Fever... ..
- Puerperal Fever... ..







householders have carried out these rules, and in the knowledge that the teachings contained in them have in most instances been very gratefully accepted.

**Amount of Disinfection of Bedding and Clothing by the Corporation.**—During the year 1889, 1,324 parcels of infected bedding and clothing were disinfected by means of high-pressure steam at the Sanitary Station attached to the Wilton Hospital, and were distributed as follows:—Regent Road, 620; Greengate, 299; Pendleton, 104; Broughton, 301. In addition, it was found necessary, in the interests of the public health, that twenty lots of bedding should be destroyed:—from Regent Road, 10; Greengate, 3; Pendleton, 4; and Broughton, 3. The work of disinfection of bedding and clothing is done gratuitously in the interest of the whole borough.

Disinfection of  
Bedding, &c

**Preventive Measures in Public Elementary Schools.**—On the necessary information having been obtained immediately after the notification of a case of infectious sickness, notice is sent at once to the school or schools at which the children, if any, of the household are attending. In some instances it is found that the children from a single house attend two or three separate schools, and the prompt information sent by the Health Department is, therefore, of great importance. The notice sent to the schoolmaster or mistress further conveys the suggestion that no pupil from a house where there is scarlet-fever, diphtheria, &c., should be received into school until their homes are certified to be free from infection. (Appendix I.)

Protection of  
Schools

It was found advisable to recommend the closure of schools at times in consequence of the prevalence of measles, but not otherwise during the year 1889.

**Prevalence and Distribution of Notifiable Infectious Diseases.**—The following table shows the number of cases of infectious diseases which were reported during 1889, and the districts to which they belonged. Further, at the suggestion of the Health Committee, I append a pictorial representation, by means of coloured dots, of the numerical distribution of the cases in each of the census-enumeration districts of the borough:—

Disease  
prevalence

From this map it will be seen directly that scarlet fever was especially prevalent in the more crowded parts of each registration district, but more particularly in the Regent Road District; that diphtheria prevailed most extensively in the Regent Road and Pendleton districts; and that the last-named districts were also the localities in which there was the greatest amount of enteric fever. It was a notable fact that the most considerable incidence of enteric fever in the Regent Road District was in the Trafford Road locality among navvies employed on the Manchester Ship Canal works.



THE FOLLOWING TABLE SHOWS THE DISTRICT DISTRIBUTION OF CASES OF INFECTIOUS DISEASES WHICH WERE REPORTED DURING 1889:—

	Small Pox.	Scarlet Fever.	Diphtheria.	Typhus Fever.	Enteric Fever.	Puerperal Fever.	Total.
Regent Road .....	...	479	244	2	239	3	967
Greengate .....	...	273	120	...	42	2	437
Pendleton .....	...	266	204	...	158	5	633
Broughton .....	...	265	123	1	46	4	439
Borough .....	...	1283	691	3	485	14	2476

#### Scarlet-fever

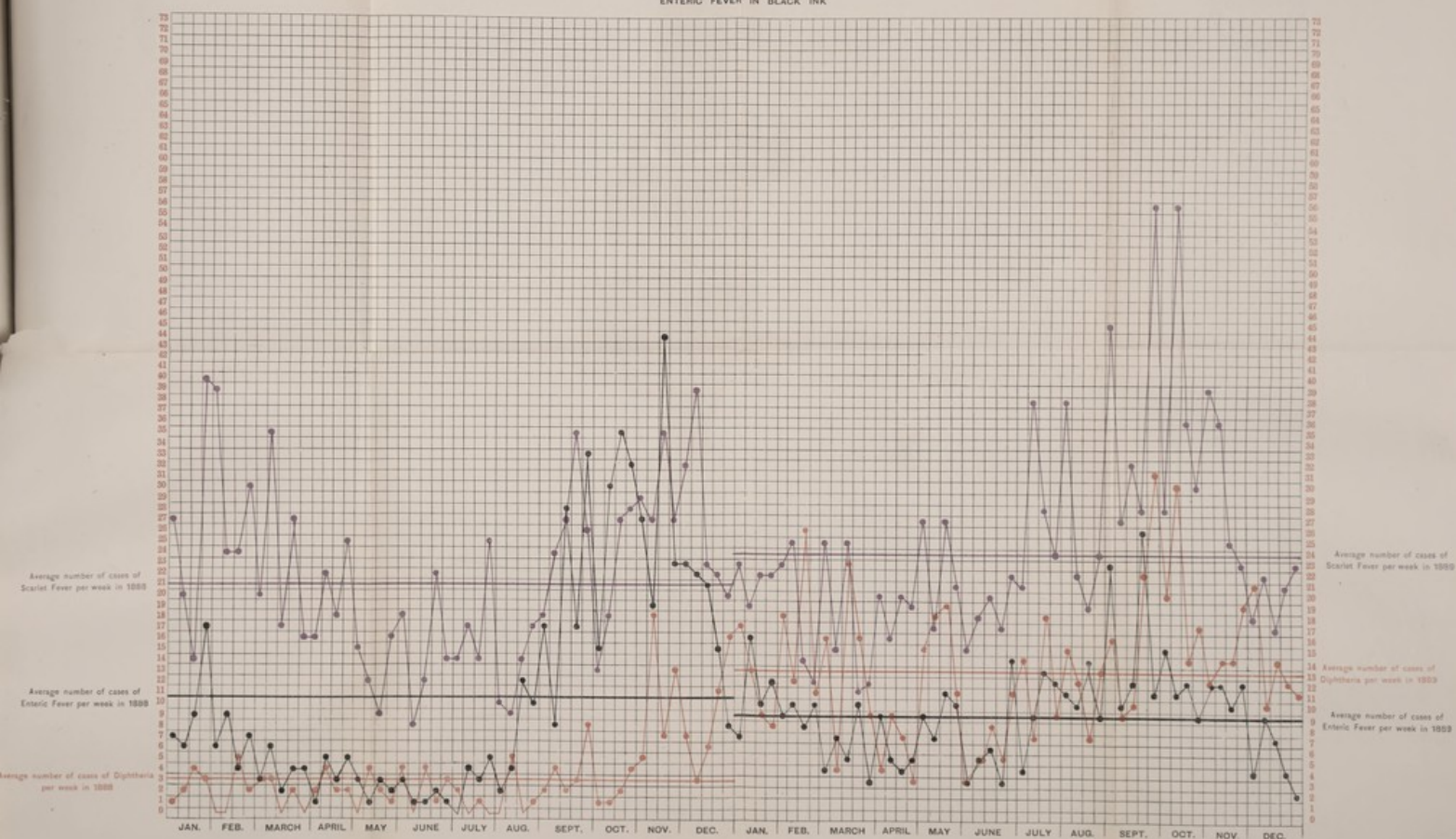
**Scarlet Fever.**—1,283 cases of this disease were notified to the Health Department during the year, as against 1,128 cases in 1888, 1,427 cases in 1887, and 1,536 cases in 1886. The disease, which apparently had become endemic in the borough, appeared to have increased largely in its prevalence during the autumn months, and reached its climax of 54 fresh cases in the last week of September. Of the total number of cases 184 died, as against an average of 154 deaths for the preceding ten years. The increased number of cases of this disease in the borough was coincident with a sharp epidemic of diphtheria, and this greatly increased the difficulties of securing an efficient amount of sanitary control over cases that could not be compelled to go for isolation to the hospitals. The mere fact that the disease spread with such alarming rapidity in the most crowded parts of the Borough is suggestive of careless communication between the sick and the healthy; but the risk of this illegal intercourse was very largely added to by the great mildness of the disease in the summer months, which, no doubt, encouraged parents to think lightly of the poorliness of their children, and caused them to refrain from at once seeking medical aid. I was the more disposed to regard this as a cause of carelessness and ignorance as to the nature of illness by the frequent later notification-returns having the cause of illness stated as "scarlatinal nephritis," a sequela indicating the condition of the patients at the time that medical advice was first sought, and clearly pointing to the fact that in such cases the patients had not till then been isolated as cases of scarlet fever. The accompanying chart shows the weekly incidence and average of scarlet-fever cases, together with the cases of diphtheria, for the years 1888 and 1889.

CHART shewing the average numbers of weekly cases of Scarlet Fever and Diphtheria, and the actual numbers of cases from each of these diseases during the years

1888

DIPHtheria IN RED INK  
SCARLET FEVER IN VIOLET INK  
ENTERIC FEVER IN BLACK INK

1889







## SCARLET FEVER SICKNESS.—RATES PER 1,000 OF THE POPULATION.

	1884.	1885.	1886.	1887.	1888.	Mean.	1889.
<b>Salford (Borough)</b> ...	6.09	3.26	7.75	7.04	5.44	<b>5.92</b>	6.05
<b>SALFORD DISTRICTS.</b> { <b>Regent Road</b> ...	5.33	3.46	8.58	6.64	4.59	<b>5.72</b>	5.53
{ <b>Greengate</b> .....	8.66	4.01	9.38	7.03	4.04	<b>6.62</b>	8.56
{ <b>Pendleton</b> .....	5.04	3.30	3.70	6.77	6.42	<b>5.05</b>	4.94
{ <b>Broughton</b> .....	6.83	2.08	10.02	8.28	7.12	<b>6.84</b>	6.67

**Diphtheria.**—691 cases of this disease were notified during the year, as against 175 cases in 1888, 83 cases in 1887, and 41 cases in 1886. These figures indicate a steady progressive tendency in this disease to assert itself in Salford. The accompanying chart will serve to illustrate the apparently slumbering nature of the disease during the early quarters of 1888, but once having got firm hold of the district in the fourth quarter of the year, it became distinctly epidemic during the year succeeding. The mean weekly average of fresh cases rose from 3.4 in 1888 to 13.3 in 1889, an increase practically of ten cases per week. The climax of the disease was reached in the same week of 1889 as was the climax of the increased scarlet fever prevalence, namely, in the last week of September. I am very strongly of opinion, from the enquiries that I was able to make during the height of the epidemic, that sore-throat-prevalence in the Pendleton and Weaste districts had been steadily on the increase during the last few years, and that while many of these cases gave rise at the time to a suspicion that they might be diphtheritic, there was about the majority an insufficiency of marked symptoms, which prevented their being notified as cases of true diphtheria. A considerable number of these cases may therefore have been *mild* cases of diphtheria, gradually forming fresh centres for personal infection around them, and occasioning a widespread outbreak, which at once assumed epidemic proportions, and practically lasted throughout the whole of 1889. Rigorous disinfection of clothing and premises may be hoped to prove sufficient to overcome the prevalence of the disease in the borough, though I cannot but suspect that its disappearance will only be gradual.

## DIPHTHERIA SICKNESS. RATES PER 1,000 OF THE POPULATION.

	1884.	1885.	1886.	1887.	1888.	Mean.	1889.
<b>Salford (Borough)</b> ...	0.52	0.28	0.21	0.41	0.84	<b>0.45</b>	3.26
<b>SALFORD DISTRICTS.</b> { <b>Regent Road</b> ...	0.53	0.19	0.15	0.32	0.64	<b>0.38</b>	2.82
{ <b>Greengate</b> .....	0.38	0.28	0.16	0.09	0.63	<b>0.31</b>	3.77
{ <b>Pendleton</b> .....	0.51	0.14	0.22	0.40	1.05	<b>0.46</b>	3.79
{ <b>Broughton</b> .....	0.67	0.65	0.36	0.88	1.09	<b>0.73</b>	3.10

**Enteric Fever.**—485 cases of this disease came under notice during the year, as against 572 cases in 1888, 368 cases in 1887, 258 cases in 1886, and 205 in 1885. The greatest incidence of cases in any week was in the third week of September, when



## Enteric-fever

the number of cases was 26. It is remarkable that the severely crowded district of Greengate suffered to only about the same extent as the largely residential district of Broughton, while the Regent Road District, and the poorer parts of the Pendleton District suffered severely. There was nothing in the form of food supply to account for this excessive incidence on either district, and I am forced to consider the local conditions of these localities as in fault for the production of one of the most preventable, by sanitary measures, of all diseases. A disease which is always associated with dirt and filth is surely one that can be coped with by sanitary control,—whether by preventing the entrance of specific filth into food; by cutting off the entrance of sewer-gas into the dwelling; by the abolition of means whereby animal filth is allowed to still further contaminate the atmosphere of a crowded locality; by securing the soil around, and the indifferent foundations of cottage property from the soakage into them of putrescible human excreta. It is a common enough procedure to judge of the healthiness of a locality, and of its success or failure in dealing with its daily accumulations of dirt and refuse, by the records it presents of sickness and mortality from this—enteric fever—a preventable disease in the largest sense of the term. With the object of dealing with this matter, certain districts, and portions of districts, have been marked out for being systematically dealt with, and I venture to believe that a gradual diminution in the amount of this disease in the borough may be looked for in the course of the next few years, as a result of the efforts of the Health Committee steadily prosecuted in this direction.

ENTERIC FEVER SICKNESS. RATES PER 1,000 OF THE  
POPULATION.

	1884	1885	1886	1887	1888	Mean	1889
<b>Salford</b> (Borough) ...	2·22	1·06	1·46	1·81	2·76	<b>1·86</b>	2·29
<b>SALFORD</b> <b>DISTRICTS.</b> { Regent Road ...	2·59	1·04	1·94	1·81	2·57	<b>1·99</b>	2·76
{ Greengate .....	1·13	1·19	1·41	2·04	2·45	<b>1·64</b>	1·32
{ Pendleton .....	2·65	1·14	1·17	2·25	3·83	<b>2·21</b>	2·93
{ Broughton .....	1·85	0·87	0·82	1·04	1·97	<b>1·31</b>	1·16

## Typhus fever

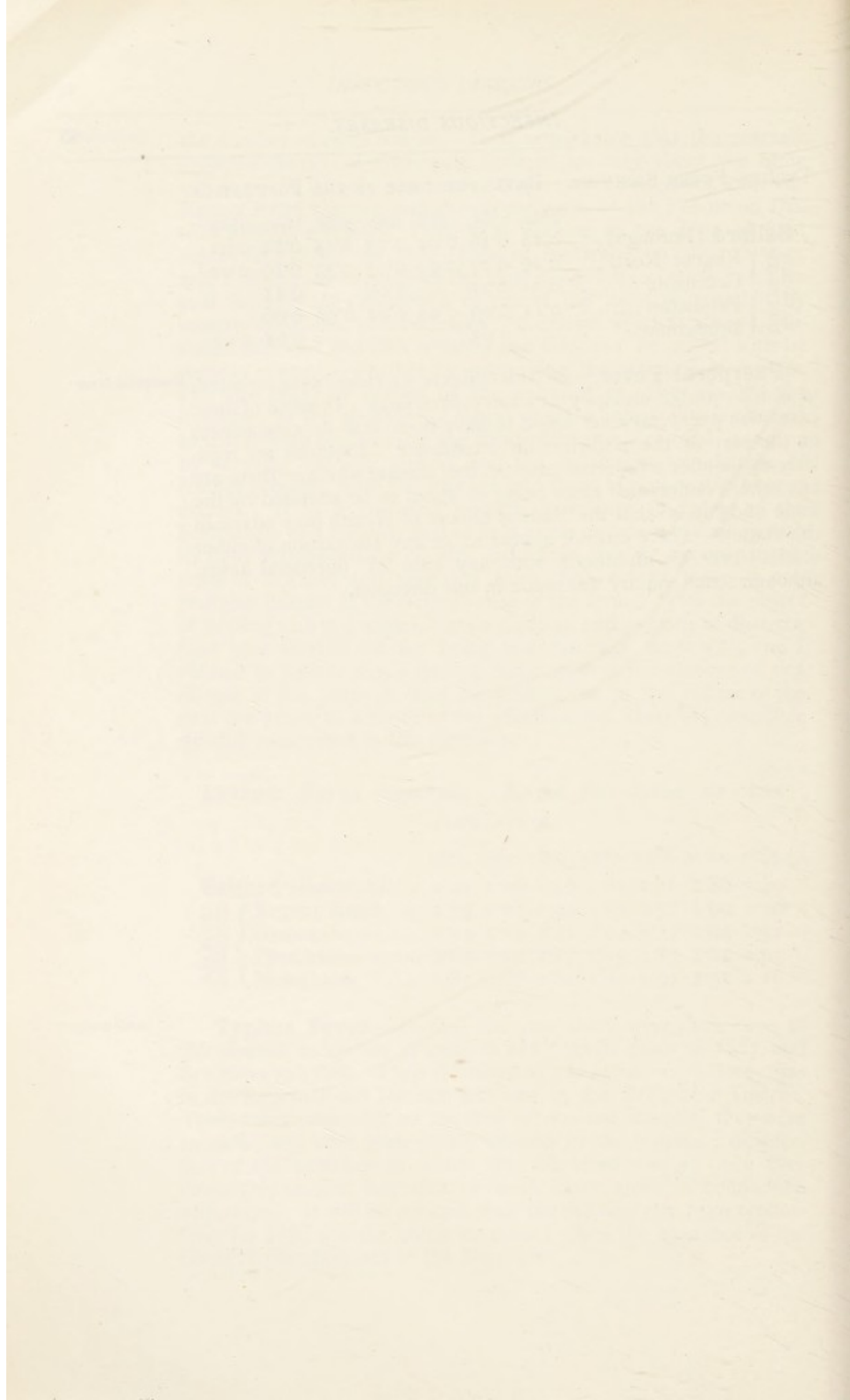
**Typhus Fever.**—During the year there were three cases of this disease, as against 31 cases in 1888, seven cases in 1887, and five cases in 1886. Their distribution was as follows:—Two cases in the Regent Road District, and one in the Broughton District. These cases presented no features of unusual interest, they were sporadic, and were immediately isolated in the hospital; disinfection of the premises in which they occurred was at once very thoroughly carried out, and no fresh cases arose in connection with them. It will be noticed that the sickness rate from typhus-fever for 1889 was the lowest on record since the existence of the Local Notification Act in the Borough.

## TYPHUS FEVER SICKNESS. RATES PER 1,000 OF THE POPULATION.

	1884.	1885.	1886.	1887.	1888.	Mean.	1889
<b>Salford</b> (Borough) ...	0·18	0·16	0·02	0·03	0·15	<b>0·11</b>	0·01
<b>SALFORD DISTRICTS</b> { Regent Road ...	0·26	0·27	0·04	0·05	0·33	<b>0·19</b>	0·02
Greengate .....	0·31	0·19	...	0·06	...	<b>0·11</b>	...
Pendleton .....	0·11	0·08	0·04	0·02	0·06	<b>0·06</b>	...
Broughton.....	...	0·03	...	...	...	<b>0·01</b>	0·02

**Puerperal Fever.**—Of this disease 14 cases were reported, <sup>Puerperal fever</sup> of which number unhappily 11 cases proved fatal. In none of these cases was puerperal fever found to have been due to carelessness on the part of the midwives in attendance. Inquiries are regularly made after a reported case of the disease whether there are any other confinement cases being or about to be attended by the same midwife, so that the Medical Officer of Health may advise in the matter. There did not appear to be any association of either scarlet fever or diphtheria with any case of puerperal fever, although strict enquiry was made in this direction.





#### IV.

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## WORK OF THE HEALTH DEPARTMENT.

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### Districts

#### **Redistribution of Districts for Sanitary Inspection.—**

Shortly after my appointment, in the middle of the year, an additional Sanitary Inspector came on duty, and it became necessary to make a redistribution of the districts apportioned among the District Inspectors. Formerly there were four District Inspectors to the four chief sanitary divisions of the Borough—viz., Broughton, Pendleton, Greengate, and Regent Road. The Broughton District is now left as it was, and a new Sanitary District—Seedley—has been made from the Pendleton and Regent Road Districts, while the Greengate District has had a portion of it transferred to the Regent Road District. By the present arrangement the work of the District Inspectors, in the more crowded portions of the Borough, is confined within a narrower compass, and will, I trust, be shewn to be more effectively performed. At the same time, the inspecting-staff of the Health Department is certainly not in excess of the borough needs, in spite of the new appointment referred to.

### Reports

#### **Periodical Reports of the Medical Officer of Health.—**

As has for long been the custom, the Medical Officer of Health has presented a report at each of the fortnightly meetings of the Health Committee. These periodical reports have dealt in a regular systematic manner with the District and Borough death-rates; the local incidence of infectious sickness, and the measures required to be taken and adopted for preventing their spread; the results of sanitary inspection, with the abatement of nuisances and the cases in which legal proceedings to enforce abatement have become necessary; the inspection of canal boats; the seizure of unwholesome meat; and the results of analysis of the samples of food and drugs submitted to the Public Analyst. All possible care has indeed been taken to prevent delay in necessary action in the interest of the public health of the borough.

### Inspections

**Systematic Inspection.**—The action taken during the year by means of regular and detailed sanitary inspection for securing the abatement of nuisances has been very large. It will be seen from the usual table, which gives a detailed account of the work done by the Salford Health Department (page 75), that over thirty-eight thousand visits have been paid during the year by the sanitary staff. This large increase has been occasioned by the



requirements of the Insanitary Dwellings Committee for a detailed location of inhabited cellar-dwellings in the borough, and also of the "back-to-back" houses in existence and inhabited. To obtain this information it was necessary for every block of dwellings of the description named to be carefully visited and the conditions accurately recorded, so that reliable statistical information could be laid before the Committee. This work necessarily interfered somewhat at the time with the regular work of the inspectors; but, nevertheless, between six and seven thousand nuisances mostly injurious to health were abated or removed. The Sanitary Inspectors further visited the homes of 2,476 cases of infectious sickness, 1,058 of which were isolated in the Wilton and Monsall Hospitals.

### **Abatement of Nuisances under the Public Health** Nuisances

**Act.**—It will be seen from the table of work done by the Health Department that the large number of nuisances dealt with under the General Public Health Act, consisted of houses or premises kept in a filthy or unwholesome condition; of house-drains out of repair, untrapped, or of waste-pipes found to be directly connected with them; of ashpits and privies out of repair or of faulty construction; of accumulations of manure and from animals improperly kept; of passages and yards out of repair, unflagged, or with defective drainage; and from the overcrowding of dwellings. These various forms of nuisance inimical to health make up the sum of the general work of sanitation in the borough, which necessitates the constant issue of notices from the Department and the writing of letters. Of the former, 3,757 were issued; of the latter, 2,633 were written during the year.

**Supervision of Common Lodging-houses.**—Chief Sanitary Inspector Wilkinson reports that, at the end of the year, there were fifty-eight common lodging-houses on the register, containing two hundred and thirty-three rooms. The total amount of bed-accommodation in these houses is for fourteen hundred and twenty-two persons. During the year many changes in proprietorship have taken place. Eighteen persons ceased to keep common lodging-houses, and they have been replaced by others whose applications have been approved by the Health Committee. In addition, two new registrations of common lodging-houses have been made, making an increase of two houses over the number on the register at the end of the year 1888. The weekly average of persons accommodated in the whole number of houses has been about 2,106. The distribution of the houses in the four registration sub-districts is as follows:—



District.	No. of Houses.	No. of Rooms	Persons Accommodated.
Regent Road.....	30	120	610
Greengate .....	19	87	715
Pendleton .....	9	26	97
Broughton .....	0	0	0
<b>Borough .....</b>	<b>58</b>	<b>233</b>	<b>1,422</b>

During the year twenty-seven verbal cautions have been given for minor offences against the regulations; but the houses have been found in most cases to be fairly well conducted. Of the cautions given, eleven were in the Regent Road District, eleven in Greengate, and five in Pendleton. Besides these, six notices under the Public Health Act were issued to require cleaning and limewashing. In some cases where bedding was worn and double-beds were in use, these have been replaced by single beds and new bedding to the number of nineteen. Four cases only of infectious sickness have occurred in as many houses—viz., one of scarlet-fever (Regent Road), two of enteric-fever (Greengate), and one of Diphtheria (Greengate). The patients were promptly removed to hospital, the houses cleansed and disinfected, and no further cases occurred. It was not found necessary to issue any summonses during the year for the keeping of any house in an insanitary state.

#### Sub-let houses

**Houses Sub-let in Lodgings.**—At the close of the year there were five hundred and thirty sub-let houses in the Borough, as against five hundred and twenty-five in 1888. There have been very considerable changes on the register in connection with this class of property, for fifty-five houses have ceased to be registered as sub-let houses, and sixty others have been newly registered, chiefly in the Trafford Road District, where navvies on the Ship Canal are congregated. In the course of inspections of this class of property, of which sixty were made at night, eleven instances were found in which the by-laws were being broken, but not to such serious extent as to require the issue of more than notices under the Public Health Act. In other seven cases summonses were issued.



From certain night inspections made by myself, I am convinced that the present sanitary staff is inadequate for the purpose of effective night-inspection of the sub-let houses of the Borough, and a night-inspector is really much needed. A certain amount of control over the illegal sub-letting of houses has been exercised during the day-time, and to good purpose, by means of the notification of infectious sickness; for of fifty-seven houses—sub-let—which came in for inspection with reference to infectious cases within them, three only were already registered, leaving fifty-four unregistered. Of these latter, eight at once applied for registration, and the tenants of the other houses—forty-six in number—either discontinued the practice under notice from the Health Department, or gave up their houses and left for other parts of the Borough.

The following table shows the number of sub-let houses becoming infected as previously stated, together with particulars of the cases occurring therein.

DISTRICT	Number of Infected Houses.	Number of Cases of Sickness.						Houses	
		Class of Houses.		Small-pox	Scarlet Fever.	Enteric Fever.	Diphtheria.	Since registered.	Discontinued.
		Registered.	Un-registered.						
Regent Road .....	46	...	46	...	8	31	17	8	38
Greengate .....	7	3	4	...	5	...	6	...	4
Pendleton .....	2	...	2	...	...	1	2	...	2
Broughton .....	2	...	2	...	2	...	2	...	2
<b>Borough Total .....</b>	<b>57</b>	<b>3</b>	<b>54</b>	<b>...</b>	<b>15</b>	<b>32</b>	<b>27</b>	<b>8</b>	<b>46</b>

Of the total 74 cases found in sub-let lodgings as above, 41, or 55·4 per cent., were removed to hospital, and the houses, together with all articles of bedding and clothing found in the rooms of the infected persons were promptly and thoroughly disinfected, under the direction of the Health Department. The following table shows the distribution of the cases nursed at home or sent to hospital.



## CASES OF INFECTIOUS DISEASES OCCURRING IN SUB-LET HOUSES.

District.	Nursed at Home.			Removed to Hospital.		
	Scarlet Fever.	Enteric Fever	Diphtheria.	Scarlet Fever.	Enteric Fever	Diphtheria.
Regent Road ...	1	11	16	5	17	5
Greengate ... ..	...	...	2	5	...	4
Pendleton .....	...	1	2	...	...	...
Broughton .....	...	...	...	3	...	2
<b>Totals for Borough</b>	1	12	20	13	17	11
	33			41		

Small houses  
under local Act  
1875

**Registration of Small Dwelling-houses under Sec. 90, Salford Tramways and Improvement Act, 1875.**—There are 62 houses of this description in the Regent Road District, as against 73 in the year 1888, being therefore a reduction of eleven. These same eleven houses, which adjoined each other in two groups; have been converted into two houses, and registered as common lodging-houses. Of the 120 inspections made of these small dwellings 50 were made at night, and on the whole the inspectors report that the system adopted in respect of these houses works fairly well; as formerly, however, complaint is made of the inherent love for the destruction of all kinds of woodwork possessed by most of the tenants, necessitating frequent household repairs and new doors to the tenements. Nineteen notices were issued during the year for the re-numbering of doors, and three persons were summoned for allowing more than the registered number of persons to occupy particular rooms. Though this has been noticed in previous years by the late Medical Officer of Health for the Borough as a well-known typhus-fever area, there has been an absence of that disease in the locality during the year 1889.

Vans, Tents, &c

**Vans, Tents, Sheds, &c., used as Dwellings.**—The inspection of these under Sec. 9 of the Housing of the Working Classes Act, 1885, has been regularly carried on during the past year. In the Borough of Salford, the principal places which have been and



are chosen as sites for the temporary location of shows, vans, tents, and travelling waggons used as dwellings are as follows:—Trinity Market, New Blackfriars Street, St. Simon's Street, Trafford Road, Everard Street, Glasshouse Street, Liverpool Street, and land adjacent to Cromwell Road. During the year there have been located from time to time, on one or more of the aforementioned sites, 179 dwelling-waggons or vans, the occupants of which have been carrying on some sort of trade or business; but, besides these, there were also six vans occupied by gypsies, making a total altogether of 185 vans. All of these were properly inspected on their arrival or during their stay in the Borough. The Inspector has in general given advice in regard to sanitary conditions and surroundings, which has been well received; but it was found necessary to issue notices in seven cases in respect to ventilation of vans, and the cleansing of the ground around them. It will greatly facilitate inspection and regulation of these moveable dwellings if by-laws be prepared and adopted in respect of them at an early date.

No. of Vans. Definite Business.	Gypsies.	Notices Issued.	Total No. of Vans.
179	6	7	185

**Canal Boats Act.**—The Canal Boats Inspector, Mr. H. Rider, has his time divided between the duties of that office and under the Sale of Food and Drugs Act, for which he is assistant inspector for the borough. The number of boats inspected during the year was 1,280. In consequence of the Ship Canal works, some three miles of river communication are now entirely cut off for boat traffic by horse power, and this has had an undoubted influence on the amount of inspections since the number of boats to be inspected has been reduced; as against the year 1888, the total number of inspections was 230 less. The Inspector informs me that many of the captains of narrow boats are compelled to take their wives and children on board with them, in consequence of the tonnage having been recently so much reduced, and their thus being less in a position to pay rent and keep house on shore. The wife in these cases frequently supplies the place of a man, taking regular turns at driving and steering; and another result has been more frequent communications from the Health Department to the School Board Office as to the presence of children on board boats who ought to be attending school. The following table gives a summary of defects found in boats on inspection.



Boats requiring repair.	Cabins requiring re-painting.	Boats working without certificates.	Boats of which the names or numbers were defective.	Cabins found in a dirty condition.	Cabins with defective ventilation.	Cabins with bilge water under floors causing nuisance.
79	17	8	59	53	4	8

No cases of infectious disease were met with in the boats, and no cases of overcrowding.

Dairies, &c.

**Dairies and Milkshops.**—The number of these has been increased by 21 over what were on the Register in the year 1888. They have been regularly inspected from time to time, and have been found kept as a rule in a cleanly condition; at the same time notices had to be sent in ten cases for the removal of paper from the walls of shops, and for securing proper limewashing, and in three other cases for the affixing a proper sign over the doorway of the shop where milk was stored.

Seven cases of infectious sickness occurred in six houses to which registered milk shops were attached, viz., one of enteric-fever (Regent Road); one each of scarlet-fever and diphtheria, and two of enteric-fever (Greengate); and two of scarlet-fever (Broughton). Of these cases, one was removed from the Greengate District to hospital; the sale of milk was discontinued in three houses; and in the other two houses satisfactory isolation of the patients and nurses was effected without interference with business.

The following is a summary table on the whole of these matters :—

District.	No. on Register 1888.	Discontinued.	Registered in 1889.	Remaining in 1889.	Notices Served.	Cases of Sickness.				
						Scarlet Fever.	Enteric Fever.	Diphtheria.	Removed to Hospital.	Nursed at Home.
Regent Road...	243	6	20	257	4	...	1	...	...	1
Greengate .....	80	...	3	83	3	1	2	1	1	3
Pendleton .....	93	1	3	95	...	...	...	...	...	...
Broughton .....	121	7	9	123	6	2	...	...	...	2
<b>Borough .....</b>	<b>537</b>	<b>14</b>	<b>35</b>	<b>558</b>	<b>13</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>6</b>

During the latter half of the past year the Council, on the recommendation of the Health Committee, adopted certain fresh regulations in respect of cowsheds, dairies, and milkshops, which I had found were much needed. They were in due course sent up to the Local Government Board for confirmation; but that Board took exception to certain clauses, and also to certain forms of wording, which it considered of some importance. In consequence, the new regulations are not yet in force in the Borough, but I understand that the matter is in progress of settlement, and that in the course of time the regulations will doubtless come into force.

**Supervision of Bakehouses.**—At the close of 1888, there were 103 bakehouses on the register. During 1889 one has been closed, and two businesses have been given up. In addition, there have been added to the register three houses in Pendleton, one in Greengate, and seven in Regent Road. Thus, at the end of 1889 there were 113 bakehouses registered in the borough. The number of persons employed in these establishments were as follows:—205 men, 46 females, and 40 boys. Ten notices were issued for the remedy of sanitary defects and to secure lime-washing. In only one case was it necessary to issue a summons in default of attention to a sanitary notice.

The following table is a summary of work done in respect of the bakehouses during the year:—

District.	No. of houses	No. of ovens.	Kind of Ovens.		Employees.			Notices served.	Summons Issued
			Waggon	Flue.	Men.	Women.	Boys.		
Regent Road.	62	81	50	31	115	28	17	3	...
Greengate ...	12	17	14	3	27	1	8	4	...
Pendleton ...	22	35	23	12	36	10	10	3	1
Broughton ...	17	24	16	8	27	7	5	...	...
<b>Borough .....</b>	<b>113</b>	<b>157</b>	<b>103</b>	<b>54</b>	<b>205</b>	<b>46</b>	<b>40</b>	<b>10</b>	<b>1</b>



## Noxious Trades

**Noxious Trades.**—There are 65 of these under supervision in the Borough, being an increase of four on the number in 1888, but still four below the number for the year 1887. The changes that have taken place are represented by four new tripe-dressers and one new rop or gut cleaner's works. At the same time, one former business of tripe-dressing was discontinued. On the whole, these trades have been conducted with fair regard to the comfort of the neighbourhoods in which they are situated, and there has been no occasion to serve any formal notice, since every verbal caution or recommendation has always been at once complied with.

The following is a list of the trades herewith referred to, and the districts in which they are carried on :—

Nature of Works.	No. of Works in the District.			
	Regent Road.	Green-gate.	Pendle-ton.	Brough-ton.
Soap Works .....	1	1	1	...
Tripe Dressing .....	14	4	4	...
Oil and Tallow .....	2	4	1	...
Tanneries & Leather Dressers	1	1	1	...
Varnish or Tar Distilleries ...	1	3	1	...
Chemical .....	3	2	2	...
Telegraph Cable .....	...	2	..	...
Rop or Gut Cleaning.....	4	1	...	...
Floor or Oil Cloth .....	1	2	...	...
Rubber .....	1	2	1	1
Paper .....	1	...	1	1
<b>Borough</b> .....	<b>29</b>	<b>22</b>	<b>12</b>	<b>2</b>

**Brick-Burning.**—There are ten brickmaking places in the Borough—viz., one in Broughton, two in Salford (Regent Ward), and seven in Pendleton. There has not been much work done for some time at the Broughton place; but several complaints were made during the year respecting smoke from the fires of those in Weaste, and two notices were issued from the Department in consequence.

Brick-burning

**Prevalence of Epizootic Diseases.**—Inspector Fordham, M.R.C.V.S., reports that during the year 1889 there were three outbreaks of *pleuro-pneumonia*. Three diseased animals were killed and destroyed, two being burned in the furnace at the manure depôt and one buried; and in addition 24 head of cattle and 11 swine that had been in contact with the diseased animals were also slaughtered.

Diseases of  
Animals

No case of *foot-and-mouth disease* was reported in the Borough during 1889.

Two outbreaks of *swine fever* occurred during the year, in consequence of which 12 pigs were killed and two were found dead by Mr. Fordham at the time of his visit. All the diseased animals were buried in quicklime six feet deep.

Mr. Fordham made *post-mortem* examination of the bodies of five dogs referred to him from the Police Department, and in two instances he found distinct indications of *rabies*.

**Unwholesome Meat.**—Over fifteen tons of unwholesome meat were seized and destroyed during the year. I am much gratified at the determination of the Health Committee, come to during the latter portion of the year 1889, that in future *all* unwholesome meat, without any distinction, shall be destroyed in the furnace at the depôt. It had been the practice for some portions of diseased meat to be sold for dogs' meat; but to avoid all risk of such meat falling into the hands of unscrupulous persons who might yet palm it off on the public for food, the wholesome decision was come to that in future all meat seized as unfit for food was to be absolutely destroyed by fire.

Meat unfit for  
human food



Subjoined is the monthly seizure of unwholesome meat, and the amount:—

Month.	No. of Seizures.	Weight.			
		Tons.	Cwts.	Qrs.	Lbs.
January .....	11	...	8	2	27
February .....	14	1	...	...	...
March .....	26	1	8	...	18
April .....	20	1	8	2	14
May .....	19	...	13	2	13
June .....	17	...	14	3	8
July .....	17	2	1	...	16
August .....	14	1	2	...	24
September .....	11	1	13	...	3
October ... ..	17	1	10	1	6
November .....	16	1	17	1	8
December .....	15	1	2	3	13
<b>Year 1889.</b>	<b>197</b>	<b>15</b>	<b>...</b>	<b>3</b>	<b>10</b>

TABLE SHOWING THE KIND OF UNWHOLESOME MEAT SEIZED,  
AND THE WEIGHT:—

Kind.	No. of Seizures.	Weight.			
		Tons.	Cwts.	Qrs.	Lbs.
Beef .....	33	9	6	1	5
Mutton .....	128	3	9	1	3
Veal .....	23	...	10	3	10
Pork and Bacon .....	8	1	...	...	14
Horseflesh .....	1	...	6	1	24
Goat .....	1	...	...	3	...
Fish .....	3	...	7	...	10
<b>Totals.....</b>	<b>197</b>	<b>15</b>	<b>...</b>	<b>3</b>	<b>10</b>

**Cowsheds and Shippens.**—At the end of the year 1889 <sup>Cowsheds, &c.</sup> there were 24 cowsheds and shippens on the register, as compared with 35 at the beginning of the year. Inspector Fordham has kept these carefully under his supervision, and no occasion has arisen for action in respect of them by the Health Department of the Borough during the year.

**Private Slaughter-houses.**—There were 46 private <sup>Slaughter-houses</sup> slaughter-houses at the end of the year, as against 51 at the end of 1888. Thus the borough is to be congratulated on a decrease in establishments which are fruitful sources of danger to the health of thickly-populated neighbourhoods. I have made it my practice to visit these houses in company with Inspector Fordham, and with the aid of his valuable experience have recommended improvements in the construction of many, and the abolition of some, which have been at once enforced or endorsed by the Health Committee.

I am compelled by my own observation to reiterate the strong recommendations of my predecessor, in several of his annual reports, that the Corporation should erect public abattoirs on the most approved plan and principles, as the best means for reducing to a minimum the number of private slaughter-houses scattered throughout the borough, many of which, to say the least, are situated in most undesirable localities.



## Adulterations

**Proceedings under the Adulteration Act.**—During the year 1889, 832 samples of food and drugs have been sent for analysis by the Borough Analyst, Mr. J. C. Bell, F.I.C. Of these samples, 84, or just over 10 per cent., were found to be adulterated, which is a higher rate of adulteration than has been the case in the borough since 1882. I believe that this higher rate has been due to greater care on the part of the food-inspector to seek for articles of food likely to be adulterated; and a further increased vigilance will be exercised during the coming year over articles of food not commonly sent for analysis, but none the less used as food by the poorer classes, especially bread and flour.

The usual tables shewing the number of articles taken by the Inspector, and the proportion adulterated, are as follows:—

The following is a statement of cases in which legal proceedings were taken under the Sale of Food and Drugs Act, during the year 1889:—

Article.	No. of Cases.	Amount of Fines.	£ s. d.
Milk .....	1	5s. and costs .....	0 5 0
„ .....	1	£4 2s. and costs .....	4 2 0
„ .....	1	£2 10s. and costs .....	2 10 0
„ .....	1	10s. and costs .....	0 10 0
Butter .....	1	£2 and costs .....	2 0 0
„ .....	1	£4 and costs .....	4 0 0
„ .....	1	10s. and costs .....	0 10 0
„ .....	1	5s. and costs .....	0 5 0
„ .....	1	2s. 6d. and costs .....	0 2 6
„ .....	1	Costs only. ....	0 0 0
<b>Total.....</b>	<b>10</b>		<b>£14 4 6</b>

In addition to the above, nine written cautions were sent to purveyors of milk, two in cases of inferior coffee, and one in respect of tea; making a total of twelve others who narrowly escaped legal proceedings.

SAMPLES COLLECTED BY THE INSPECTOR UNDER THE "SALE OF FOOD  
AND DRUGS ACT," FROM 1875 TO 1889.

	Total.	Milk.	Butter.	Bread and Flour.	Drugs.	Gro- ceries.	Beer and Porter.	Wines and Spirits.	S'ndries
1875...	60	37	1	1	1	...	7	4	9
1876...	119	43	2	18	34	17	...	...	5
1877...	390	114	7	159	22	30	18	37	3
1878...	418	197	10	35	31	25	24	70	26
1879...	518	306	16	130	15	28	10	13	...
1880...	506	269	12	48	5	52	71	18	31
1881...	478	376	11	1	...	61	...	8	21
1882...	465	300	7	47	13	3	58	20	17
1883...	497	436	1	29	1	12	...	2	16
1884...	507	359	10	35	7	...	64	11	21
1885...	478	399	21	14	4	13	21	...	6
1886...	483	361	6	21	...	36	1	22	36
1887...	472	355	2	...	...	25	42	43	5
1888...	883	701	6	...	30	83	...	9	54
1889...	832	652	35	...	21	85	15	17	7

PERCENTAGE OF ARTICLES RETURNED AS ADULTERATED.

	Total.	Milk.	Butter.	Bread and Flour.	Drugs.	Gro- ceries.	Beer and Porter.	Wines and Spirits.	S'ndries
1875...	66.6	62.1	100.0	0.0	0.0	...	100.0	75.0	66.6
1876...	40.3	55.8	50.0	27.8	35.3	17.6	...	...	60.0
1877...	27.4	40.3	28.6	11.3	13.6	6.7	0.0	97.3	0.0
1878...	29.9	29.4	10.0	2.9	51.6	4.0	4.2	67.1	0.0
1879...	12.0	13.1	25.0	5.4	26.6	10.7	10.0	2.3	...
1880...	20.2	25.2	75.0	6.3	0.0	17.3	11.3	11.1	9.7
1881...	16.3	18.1	9.1	0.0	...	1.6	..	37.5	23.8
1882...	15.5	19.0	14.3	2.1	53.8	0.0	1.7	10.0	17.6
1883...	6.6	6.7	0.0	3.4	0.0	8.3	...	50.0	6.3
1884...	7.1	2.8	40.0	5.7	57.1	...	0.0	27.3	61.9
1885...	5.2	4.8	4.8	7.1	0.0	15.4	0.0	...	33.2
1886...	3.9	1.1	50.0	0.0	...	25.0	0.0	0.0	8.3
1887...	8.7	9.9	0.0	...	...	8.0	2.4	7.0	0.0
1888...	6.3	2.8	100.0	...	26.6	13.3	...	0.0	20.4
Average, 1879-88	10.18	10.35	31.8	3.0	16.4	9.96	2.54	14.5	18.1
1889...	10.09	7.3	22.8	...	28.5	24.7	...	...	14.2



*List of samples of Milk taken from Farmers' Cans during the year 1889, AT THE PLACE OF DELIVERY, by the Food Inspectors, and the results of the Analyses.*

No.	Names and Addresses.	Places of Delivery.	Results of Analyses.
1	R. R. J., Broughton Hall .....	Pendleton Station.....	Poor .....
2	D. T., " " .....	" " .....	Do. ....
3	S. P., Delamere .....	Exchange Station .....	Do. ....
4	D. B., Tarvin for Barrow .....	Central Station.....	Good .....
5	F. J., Delamere .....	Exchange Station .....	Do. ....
6	D. T., Broughton Hall .....	Pendleton Station.....	Do. ....
7	B. R., Netherton... ..	Ordsall Lane Station.....	Poor .....
8	B. R., Frodsham .....	" " .....	Good .....
9	P. F., Wem .....	London Road Station ...	Do. ....
10	P. F., " .....	" " .....	Do. ....
11	P. F., " .....	" " .....	Do. ....
12	P. F., " .....	" " .....	Do. ....
13	B. J., Dunham Hill.....	Exchange Station.....	Do. ....
14	F. J., Delamere .....	" " .....	Do. ....
15	D. T., Ince .....	Ordsall Lane Station.....	Poor .....
16	D. T., " .....	" " .....	Good .....
17	D. B. Wem .....	London Road Station ...	Do. ....
18	D. B., " .....	" " .....	Do. ....
19	D. B., " .....	" " .....	Do. ....
20	D. B., " .....	" " .....	Do. ....
21	D. B., " .....	" " .....	Do. ....
22	D. P., Preston Brook .....	Ordsall Lane Station.....	Do. ....
23	D. P., " .....	" " .....	Do. ....
24	D. P., " .....	" " .....	Do. ....
25	L. J., Tabley .....	Old Trafford Station.....	Do. ....
26	L. J., " .....	" " .....	Do. ....
27	M. W., Ollerton .....	" " .....	Do. ....
28	M. W., " .....	" " .....	Do. ....
29	M. W., " .....	" " .....	Do. ....
30	L. S., Tabley .....	" " .....	5% added water .....
31	L. S., " .....	" " .....	Do. ....
32	P. A., Lostock .....	Pendleton Station.....	Good .....
33	H. B., Plumbley .....	Central Station .....	7% added water .....
34	H. B., " .....	" " .....	Good .....
35	K. J., Lostock .....	Pendleton Station.....	Do. ....
36	K. J., " .....	" " .....	Do. ....
37	W. J., Siddington .....	London Road Station ...	20% cream gone.....
38	W. J., Chelford .....	" " .....	5% water added .....
39	H. A., Lostock.....	Pendleton Station.....	Good .....
40	H. J., Mouldsworth.....	Ordsall Lane Station.....	Do. ....
41	F. J., Delamere .....	Central Station .....	Do. ....
22	H. A., Lostock.....	Pendleton Station.....	Do. ....
43	S. E., Mouldsworth.....	Ordsall Lane Station.....	10% cream gone.....
44	S. E., " .....	" " .....	Do. ....
45	B. W., Preston Brook.....	" " .....	4% water added .....
46	B. W., " .....	" " .....	8% water added .....
47	B. W., " .....	" " .....	Poor .....
48	D. P., Norton .....	" " .....	Good .....
49	D. P., " .....	" " .....	Do. ....
50	J. S., Dunham Hill.....	" " .....	Do. ....



*List of samples of Milk taken from Farmers' Cans during the year 1829, AT THE PLACE OF DELIVERY, by the Food Inspectors, and the results of the Analyses.—Continued.*

No.	Names and Addresses.	Places of Delivery.	Results of Analyses.
51	J. S., Dunham Hill.....	Ordsall Lane Station ...	Good .....
52	J. S., „ .....	„ „ „ .....	Do. ....
53	H. A., Lostock.....	Pendleton Station.....	Do. ....
54	H. A., „ .....	„ „ .....	Do. ....
55	H. A., „ .....	„ „ .....	Do. ....
56	H. A., „ .....	„ „ .....	Do. ....
57	J. T., Mouldsworth.....	Central Station.....	Do. ....
58	C. J., Knutsford .....	Old Trafford Station ...	5% water added.....
59	B. C., „ .....	„ „ .....	Good .....
60	B. C., „ .....	„ „ .....	Do. ....
61	W. D., Gisburn .....	London Road Station ...	Do. ....
62	C. J., Knutsford .....	Central Station.....	Do. ....
63	P. T., Ellesmere .....	London Road Station ...	6% cream gone .....
64	P. H., „ .....	„ „ .....	Good .....
65	P. H., „ .....	„ „ .....	Do. ....
66	A. G., Wrenbury.....	„ „ .....	Do. ....
67	M. G., Macclesfield.....	„ „ .....	Do. ....
68	M. G., Henbury .....	„ „ .....	Do. ....
69	M. W., Ollerton .....	Old Trafford Station ...	Do. ....
70	M. T., Wincham .....	„ „ .....	Do. ....
71	M. T., Lymm .....	„ „ .....	Do. ....
72	M. T., Marston .....	„ „ .....	Do. ....
73	H. T., Thelwal.....	„ „ .....	Do. ....
74	J. E., Marston .....	„ „ .....	Do. ....
75	J. E., Knutsford .....	„ „ .....	Do. ....
76	M. J., „ .....	„ „ .....	Do. ....
77	M. J., „ .....	„ „ .....	Do. ....
78	C. M. W., Fernilee .....	London Road Station ...	Do. ....
79	C. M. W., „ .....	„ „ .....	Do. ....
80	C. M. W., „ .....	„ „ .....	Do. ....
81	L. R., Whaley Bridge .....	„ „ .....	Do. ....
82	L. R., „ .....	„ „ .....	Do. ....
83	B. C., Stafford.....	Ordsall Lane Station ...	Do. ....
84	C. S., Eccleshall .....	„ „ .....	Do. ....
85	C. S., Upper Heamies .....	„ „ .....	Do. ....
86	C. S., Eccleshall .....	„ „ .....	Do. ....
87	C. S., Upper Heamies .....	„ „ .....	Do. ....
88	C. S., Eccleshall .....	„ „ .....	Do. ....
89	C. S., Upper Heamies .....	„ „ .....	Do. ....
90	B. C., Stafford.....	„ „ .....	Do. ....
91	B. C., „ .....	„ „ .....	Do. ....
92	B. C., „ .....	„ „ .....	Do. ....
93	B. C., „ .....	„ „ .....	Do. ....
94	C. S., Norton Bridge .....	„ „ .....	Do. ....
95	C. S., „ .....	„ „ .....	Do. ....
96	B. C., Hopton, Stafford .....	„ „ .....	Do. ....
97	B. W., Lower Heamies .....	„ „ .....	Do. ....
98	B. W., Stafford .....	„ „ .....	Do. ....
99	B. W., „ .....	„ „ .....	Do. ....



*List of Cases, other than Adulteration Cases, taken before the Magistrates during the Year 1889.*

Particulars of Offence.	No. of Cases.	How Disposed of.	Amount of Penalties Imposed.
Using furnaces not constructed } to consume their own smoke }	10	{ Nine fined, in all £32; one } withdrawn .....	£ s. d. 32 0 0
Negligently using furnaces } constructed to consume their } own smoke .....	21	{ Thirteen fined, in all £17 15s.; } eight withdrawn .....	17 15 0
Exposing diseased cattle and } meat for sale, and being in } possession of diseased meat }	4	{ One fined £7 10s.; two dis- } missed; one not served ... }	7 10 0
Letting houses in lodgings } without being registered ... }	9	{ Eight fined, in all £1 12s. 6d.; } one withdrawn .....	1 12 6
Permitting more persons to } occupy rooms than they are } registered to accommodate }	3	Three fined, in all 3s. 6d.....	0 3 6
Carrying manure through the } streets during prohibited } hours.....	1	Fined £2 .....	2 0 0
Neglecting to keep a bake- } house in a clean condition... }	1	Fined 10s. ....	0 10 0
Premises in such a state as to } be a nuisance .....	14	{ Eight "Orders to abate" } made; six withdrawn on } payment of costs, the work } having been done and } nuisances abated .....	.....
Totals.....	63		£61 11 0

N.B.—In all Cases where Fines were inflicted, the Costs also had to be paid.

**Smoke Nuisance.**—Inspector Thompstone, who is the Smoke Inspector, and also an inspector under the Food and Drugs Act, reports, in respect of the chief of his duties, that he has made 983 observations, during 1889, of smoke issuing from the chimneys of factories within the jurisdiction of the Borough. As an outcome of these observations thirty firms or their employes were summoned before the magistrates for using furnaces which were not constructed to consume their own smoke, or for using furnaces in a negligent manner; of the 30 cases in which legal proceedings were thus taken, 22 were fined in sums which amounted altogether to £49 15s., exclusive of costs, and the remaining eight were either dismissed or withdrawn.

Smoke from  
Factory  
Chimneys

The following tables give the number of steam boilers and furnaces in use in the factories within the borough at the end of 1889, and also the number of blacksmith's forges. The number of furnaces has been slightly increased over the number in use at the end of 1888, the actual increase being 23. Several firms have, moreover, taken out old and worn-out boilers during the year 1889, and have replaced them with new ones of increased capacity and power, and in all such cases these boilers have been provided with either Automatic Mechanical Stokers or some other smoke preventing appliance.

During the year the Inspector has personally cautioned 109 stokers and other persons for negligently using furnaces. Ten owners or occupiers of bakehouses, &c., were served with notices under the Public Health Act, 1875, which some complied with by the elevation of the chimneys in connection with ovens, &c.

NUMBER OF BOILERS AND FURNACES IN USE WITHIN THE FOUR DISTRICTS OF THE BOROUGH AT THE END OF 1889.

Registration Sub-Districts.	Boilers and Furnaces in use.		Notices issued by the Health Committee.	
	Properly Constructed.	Improperly Constructed.	Number Served.	Number complied with.
Regent Road ...	133	82	95	42
Greengate.....	143	62	73	46
Pendleton.....	198	47	84	50
Broughton .....	29	17	27	12
<b>Borough Total.</b>	<b>503</b>	<b>208</b>	<b>279</b>	<b>150</b>



NUMBER OF BLACKSMITHS' FORGES IN SALFORD AT THE  
END OF 1889.

	Borough Total.	Regent Road.	Greengate.	Pendleton.	Broughton
Blacksmiths' Forges	69	24	19	15	11

PARTICULARS OF WORK DONE BY THE HEALTH DEPARTMENT  
DURING THE YEAR 1889.

	Borough.	Regent Road.	Greengate.	Pendleton.	Broughton.		
No. of Complaints lodged at Health Office	3057	1080	713	522	742		
Inspections made.	Of Dwelling-houses .....	18500	6223	5958	3775	2544	
	„ Lodging-houses .....	2037	863	834	340	...	
	„ Slaughter-houses .....	1994	941	224	628	201	
	„ Shippens .....	649	54	...	239	356	
	„ Dairies and Milkshops.....	85	51	7	5	22	
	„ Bakehouses .....	195	119	18	36	22	
	By Smoke Inspector—Observations taken .....	983	188	379	321	95	
	Under Adulteration Act—Samples collected for Analysis .....	832	432	114	137	149	
	By Meat Inspector—Seizures made .....	198	187	4	4	3	
	Miscellaneous Sanitary Inspections .....	2591	679	770	623	519	
	Re-inspections after Notice .....	10389	3480	3674	1272	1963	
	Total Inspections made by Staff...	38453	13217	11982	7380	5874	
Orders issued for Abatement of Nuisances	3757	1250	869	942	696		
Letters written for ditto.....	2633	875	626	611	521		
Nuisances abated pursuant to order.	Houses and Premises cleansed, repaired, or limewashed .....	992	293	393	172	134	
	Houses disinfected after infectious disease .....	2940	1107	850	412	571	
	House Drains repaired, trapped, or disconnected .....	3071	516	898	741	916	
	Ashpits and Privies repaired or re-constructed .....	1254	228	485	272	269	
	Accumulations of Manure removed .....	84	27	15	20	22	
	Ashpits attended to after complaint .....	1586	211	276	464	635	
	Improperly kept Animals removed .....	61	5	30	23	3	
	Overcrowding of Dwellings abated .....	22	6	10	6	...	
	Passages and Yards repaired, drained, or flagged.....	1323	468	444	268	143	
	Total number of Nuisances abated	11333	2861	3401	2378	2693	
	* Regularly Inspected.	Lodging-houses { Common .....	58	30	19	9	...
		{ Sublet in Ap'ts .....	57	46	7	2	2
Slaughter-houses .....		46	22	6	13	5	
Dairies and Milkshops .....		558	257	83	95	123	
Shippens .....		24	...	...	11	13	
Bakehouses .....		113	62	12	22	17	
Marine and Second-hand Stores .....		189	75	54	44	16	
Patients removed to Fever Hospitals...	1058	378	293	210	177		
Infected bedding & clothing disinfected	1324	620	299	104	301		
Infected bedding destroyed.....	20	0	3	4	3		
Legal proceedings taken (see p. 68 & 72)	73	...	...	...	...		

\* The figures in this section represent the number on the registers at the end of the year 1889.





## V.

### SPECIAL SANITARY MATTERS.

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## SPECIAL SANITARY MATTERS.

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Insanitary  
Dwellings of the  
Working Classes

**On the Work of the Insanitary Dwellings Committee.**—Immediately after entering on my duties in Salford, at the end of the second quarter of 1889, I was requested to furnish the newly-constituted "Insanitary Dwellings Committee" with information on the following subjects, viz. :—

- 1.—The number of cellar-dwellings in the three districts (separately) inhabitable and uninhabitable.
- 2.—A list of the property which has already been condemned by the Medical Officer of Health as unfit for habitation.
- 3.—A statement of unhealthy blocks of buildings in the three districts which have not been condemned as such.

Inasmuch as until my coming to Salford I had absolutely no personal knowledge of the sanitary condition of any part of it, my first report on July 30th, was bound to be of a temporary nature only. In that report I submitted that there was 279 cellar dwellings in the borough, of which I had no difficulty in the very commencement of my inspections to declare some 15 in Hankinson Street, Pendleton, as unfit for human habitation, and a further lot of seven in St. Stephen's Place, Greengate, at a later period. My first report went no further than the consideration of the first resolution, and a general indication of the lines upon which I regarded residence in semi-underground compartments as detrimental to health.

I presented a final report on October 8th, dealing with the third resolution ; a portion of the property included in the second resolution had already disappeared in operations of railway extension, and what was left fell naturally into one of the groups which I now submitted. In this report I pointed out that I had "to urge the necessity of some provision being made to receive the population" which would be "thrown on the district by the closure of their present dwellings," and I suggested that to begin with, this provision should be in the form "of industrial dwellings for not less than, in the first instance, 200 families." The report continued—"Though not able to personally inspect the whole district since the last meeting of the Committee, I have made inspections of a detailed character of some of the worst areas in the district. By the term of 'worst' it will be understood that



*these areas are such as contain premises, and even blocks of buildings, which must be demolished to render the areas moderately sanitary," and further that the areas "are such as have insanitary conditions of such a nature that mere alterations of privy accommodation and the like will not give to them the characters of sanitary property. The remedies must include the demolition of the whole or parts of each area."*

I obviously could not claim to have discovered the very worst areas in the borough, for that could only have been come to with a very accurate knowledge of all parts of the borough, and sufficient time in which to make comprehensive comparisons between all the conditions affecting the several areas; but at least I could claim to have pointed out to the Committee properties which justified the language of the foregoing quotations from my report, and to have found at least *one suitable area on which useful industrial dwellings could be erected.*

The Committee having before it the sketch-plans of the areas reported on, visited and inspected the same, and ultimately adopted all these areas as properties demanding early attention at the hands of the Corporation, and made definite recommendations in respect of them. Finally, the suggestion of the Committee, that "the Town Clerk and the Borough Engineer should jointly report to the Council as to the best course to be pursued to carry out specifically, as indicated, or by scheme, under the 'Housing of the Working Classes Act,' or the 'Artizans' Dwellings Act,' or otherwise, the foregoing recommendations; as well also as to the probable expenditure involved, the fund or source from which such expenditure should be obtained, and the mode of raising and paying the same," was adopted. The report of the Committee may be seen as an appendix to this report, as well as the report of the Town Clerk (Appendix IV.) In consequence of the opinion expressed in the Town Clerk's Report that the expenses of a scheme would fall on the Council acting as the Urban Sanitary Authority, and would be payable out of the Borough Rate, and not out of District Rates, the question of complete amalgamation of the three districts of the borough was by resolution of the Council ordered to be considered, and the execution of any improvement scheme to be in abeyance in the interim.

The Committee having carried out the enquiry for which it was appointed ceased to exist at the end of the municipal year, and was not re-appointed. If its suggestions, indeed, are completely carried out, there is work enough in front of the Corporation for some time to come.

**Possible Demolition of Dwellings by Railway Extension.**—Should the Bill of the Lancashire and Yorkshire Railway Company for widening their line from Windsor Bridge to Victoria Station be passed during the present Parliamentary Session, there is a prospect of an early demolition of a number of houses in the line

Demolition  
Dwellings



of extension. In the Borough Engineer's Report to the Parliamentary Committee occur these words:—"I find that about 386 houses will be pulled down by this undertaking on the widening scheme alone. These are, for the most part, houses of very indifferent quality, the retention of which could not be desired by anyone." My inspections of the district indicated enable me to heartily concur in the opinion of Mr. Jacob, though I should have preferred to speak in stronger terms of many of the dwellings. The line of extension will run through the following enumeration-districts, viz.:—17, 5, 4, 3, 98, 99, 101, 121, in which the respective average death-rates for the quinquennium 1884-88 inclusive, may be seen from the map of this report to have been high.

Birtle's Square

**Birtle's Square Demolition Scheme.**—It is now possible to judge more accurately than heretofore of the value of the demolition of one area in Greengate undertaken by the Corporation. In May, 1879, my predecessor certified that an area called Birtle's Square, consisting of 57 houses of the worst description, and the haunt, as a natural consequence, of pernicious morals, was in a state dangerous and injurious to health, and that the whole property ought to be demolished as unfit for human habitation. Many difficulties having been contended with and overcome in connection with the proprietorship of this property, it was finally bought by the Corporation for about £3,000, and demolished in 1881. At least 250 people were dislodged by this act of the Corporation, and the vacant land was eventually sold by the Corporation by auction, in December, 1889, with a comparatively small loss only on the transaction. I think that the Corporation is to be congratulated on having effected, in spite of many difficulties, so substantial an improvement at so small a cost, and I would point to the success of this particular scheme as an encouragement for the carrying out of similar ones in the immediate future.

Inhabited  
Cellars

**Cellar Dwellings.**—At the present time, even as they did in past years, many folks in Salford prefer to live in cellars than to have their residence above ground, and I have found on visiting some of these homes genuine regret at the prospect that they will sooner or later have to be condemned. On turning over past reports of the sanitary condition of Salford, I found that Dr. Syson, Medical Officer of Health, in his report for the year 1868, stated that—"There are still a number of cellar dwellings in the borough which ought to be closed. This closure should be gradual;" and again that he said in his 1869 report—"During the past year eight cellar dwellings have been closed, and upwards of 100 are in process of condemnation;" and lastly, in his 1870 report—"During the past year 58 cellar dwellings have been closed, leaving 676 still on the books." In the 1873 report by Dr. Tatham it is recorded that 39 cellar-dwellings were closed as unfit for human habitation; and in subsequent years this closing was continued, and the number of these dwellings was



further decreased by their demolition, together with the cottages over them, for the purposes of public improvement. As already stated, when I entered on my duties there were 279 cellar dwellings distributed as follows:—Broughton, 1; Pendleton, 102; and Salford, 176. The number now stands at 255, and I consider it very important that there should be an annual reduction of the whole number of cellars until they are all abolished.

It appears to me that no cellar ought to be considered as a suitable or wholesome habitation for human beings, and that its existence, as a separate occupation from the house or cottage above it, ought to be limited to the purposes of a store or a workshop. The general sanitary conditions of a wholly or semi-underground tenement cannot be overlooked, however well it be furnished, painted, or decorated, however reluctant the tenant himself may be to quit it. During the day time such a place may get ventilated in some sort or other; but at night time both door and window are shut, and, in winter particularly, the internal temperature of the cellar is raised much above that of the atmosphere outside or of the ground beneath it. Under these circumstances "ground-air" is simply drawn into the cellar, and two reflections are forced upon one. In the first place, one of the great values of a cellar to an ordinary dwelling-house is that it acts as a ventilated area between uncemented foundations and the upper part of a house, and thus prevents the direct entrance of ground-air into the living rooms. In the second place, it cannot be supposed, with our knowledge of past indifference to sanitary matters, that the condition of the ground in any old town or city in the world is free from pollution: moreover, the foundations of roads and old houses are certainly open to question on sanitary grounds. I cannot believe, therefore, that life in a cellar with so great a liability to the entrance of ground-air from soil, probably contaminated by questionable drainage and by indifferent privy construction, can be anything but detrimental to the inmates. The proverbial person, who has lived in one to a ripe old age, can be no argument in himself against the abandonment of such a dwelling.

I would call attention to the importance of this subject as evinced in the framing of the great Public Health Act of 1875, and the very stringent conditions which that Act attaches to the existence of any cellar dwelling. As I read section 72 of the Act, and as I am advised by the Town Clerk, no cellar can now legally be separately occupied as a dwelling unless the statutory requisitions of that section are complied with; and I take it that it is under this section that the Corporation possesses the power of preventing nearly every cellar in the borough from being used as a dwelling, independently of the certificate of the Medical Officer of Health that any particular cellar or cellars is or are unfit for human habitation.



It appears to me, therefore, that the gradual abolition of cellar-dwellings will be of much benefit to the general sanitary status of the borough; and that it is a measure that ought to be steadily persevered with, although it is undoubtedly politic that it should be gradually effected, in the absence of a scheme for the housing of all cellar inmates, who would be dislodged by a universal closure of their dwellings.

Appendix V. is a copy of the form of notice recently drawn up by the Town Clerk, which has to be affixed conspicuously on a building which has been ordered to be closed by resolution of the Council.

Sanatorium for  
Infectious  
Diseases

**Hospital Accommodation.**—At the time of my appointment a Local Government Board enquiry was just concluded which confirmed the Council in its choice of a site for the new Salford Sanatorium, the new site being land at the extreme limit of the Borough bordering on the Eccles New Road, and bounded on the Eccles side by the Gilda Brook. A few weeks later, a resolution was carried in the Council deferring the purchase of this site, until the questions of hospital provision and the amount of bed accommodation required had been reconsidered by a Sub-Committee appointed at the same time by the Council. After one or two meetings of the Committee, the following resolution was passed:—"That the Medical Officer of Health be instructed to submit a report at the next meeting of this Committee, shewing the lowest and the highest number of cases arising in Salford at any one time, and the average per annum since 1882, and where treated."

On September 10th, 1889, therefore, I laid figures of the weekly occurrence of certain zymotic diseases before the Committee, which appear in another part of this report, together with charts illustrative of their incidence throughout each year.

With respect to that part of the resolution relating to the places where cases of infectious sickness were treated, and also the proportion of notified cases that voluntarily submitted to removal to hospital, I reported to the Committee as follows:—

"I come now to deal with that part of the Committee's resolution relating to the places where such of the foregoing cases that were isolated by the Sanitary Authority were treated from the year 1882.

"In 1882, before the Notification clauses came into operation there were a total of 216 cases isolated; 139 of these were treated in the Wilton Hospital, none in the Pendlebury Hospital, and 77 in Monsall Hospital.

"In the succeeding six years the isolations were as follows:—



	Wilton.	Pendlebury.	Monsall.	Total.	Sanatorium for Infectious Diseases
1883 ...	342	...	—	1	343
1884 ...	645	...	31	30	706
1885 ...	482	...	14	14	510
1886 ...	910	...	18	45	973
1887 ...	892	...	33	37	962
1888 ...	753	...	16	102	871

“The proportions of isolations work out as follows:—

#### IN THE WILTON HOSPITAL.

In 1883 ...	28·6 per cent. of notified cases were isolated.
1884 ...	38·0                   ”                   ”                   ”
1885 ...	50·2                   ”                   ”                   ”
1886 ...	47·8                   ”                   ”                   ”
1887 ...	47·2                   ”                   ”                   ”
1888 ...	38·2                   ”                   ”                   ”

“Before commenting on these figures, it is necessary that I should show what was the total percentage of notified cases isolated in hospitals at the expense of the Corporation, and what part the Wilton Hospital itself bore.

“Total percentage of isolation of notified cases of infectious diseases in Wilton, Pendlebury, and Mohsall Hospitals, from 1883–1888 inclusive, with the proportion sent to Wilton alone, and the difference between Wilton and the whole number isolated.

Year.	Total per cent. in the three Hospitals.	Percentage in the Wilton Hospital.	Difference.
1883 ...	28·7	28·6	0·1
1884 ...	41·6	38·0	3·6
1885 ...	53·1	50·2	2·9
1886 ...	51·1	47·8	3·3
1887 ...	50·9	47·2	3·7
1888 ...	44·1	38·2	5·9
Mean for three years 1883–85	41·1	38·9	2·2
Mean for three years 1886–88	48·7	44·4	4·3
Total Mean for the 6 years 1883–88	44·9	41·6	3·3

“Thus then I find—

“1.—That in the first year of notification practically all the cases that would go for isolation to hospital went to the Wilton Hospital, and were under 29 per cent. of the whole cases.



Sanatorium for  
Infectious  
Diseases

"2. —That the prejudice against hospital isolation has steadily decreased, and that at this time it may be said that at least 45 per cent. of notified infectious cases are isolated per annum by the Corporation.

"3.—That for the first three years 1883–1885 the isolations in the Pendlebury and Monsall Hospitals were only just over 2 per cent. of the total number isolated, while for the next three years, 1886–1888, these outside isolations were nearly doubled."

The chief result of my enquiry was to establish the fact in my own mind that the proposal to build a new hospital, with a bed-accommodation, in the first instance, for 100 cases, was an inadequate one for the ordinary needs of Salford during the months of September, October, November, and December, as was then in contemplation; but that provision ought to be made for not less than 160 patients at those periods in non-epidemic times, owing to the popularity which hospital isolation had acquired with the large artisan classes of Salford. This conclusion was based upon analysis of the figures for the years 1883 to 1888 inclusive; and the same view, having been adopted by the Special Committee, was embodied in its report (Appendix VI.)

In the end, it was decided by the Council to have the plans of the architects, which provided hospital accommodation, in the first instance, for 184 patients, with slightly over 2,000 cubic feet of ward-space for each patient, carried into execution, and they were instructed to proceed with the estimates for the building of the hospital. I am very desirous that the new hospital may be built as soon as possible, with due regard to the principles of sound building; for, as I have before remarked, the time of greatest pressure from infectious diseases in Salford, as elsewhere, is during the last four months of the year, and the Wilton Hospital, having served its purpose, ought not to be occupied by the sick any longer than is absolutely necessary. In the interests of patients treated by the Corporation, too, it is desirable that they should have the advantages of the much freer and more open situation that the new hospital will occupy, and I shall not be surprised if they will then be found to make more rapid and complete convalescence from illness, on the average, than has hitherto been obtainable.

The accommodation at the Wilton and Monsall Hospitals having been overtaxed during the prevalence of epidemics of scarlet-fever and diphtheria during the autumn months, the Salford Guardians agreed to let to the Salford Corporation certain sheds on their infirmary land at Hope, for the purpose of a temporary annexe to the Wilton Hospital during the period of the epidemics, and while the new Salford Sanatorium was being proceeded with. Occupation of these sheds began on October 14th, 1889.



**Excrement and Refuse Disposal.**—The year 1889 is notable for a very distinct advance in the sanitary administration of the Borough of Salford, in a serious attempt to prevent in the future, the injurious influences of ashpit and privy emanations. The following motion was brought before the Broughton District Committee, and was carried:—"That in the opinion of this Committee the present open privy system is a fruitful source of disease amongst the inhabitants of this district, and that the Building Committee be recommended to require, if they have power to do so, all new buildings to be provided with water-closets in lieu of privies, and to order that all reconstructions of old property shall be on the water-closet system, and that if such power is not already vested in the Corporation that application be made for such statutory power as will enable that Committee to carry out such an important sanitary improvement." In due course, this resolution came up for consideration by the Building Committee on October 22nd, when it was decided that the Town Clerk should communicate with several other large boroughs in England, for the purpose of learning whether in them the water-closet system was in force in the houses of the working classes. The replies were ordered to be printed for the convenience of careful consideration on November 19th, and finally on December 3rd it was resolved by the Committee—"That in future all new buildings and reconstructions of old property in the Broughton district be required to be provided with water-closets, and that the Council be requested to make by-laws governing the same." I consider this decision of the greatest importance, as having a very far-reaching influence on the future sanitary advance of the whole borough, and of its ultimate beneficence I have not the smallest doubt.

Excrement  
disposal

It is interesting to consider the replies of the sixteen boroughs to the questions of the Town Clerk of Salford.

- 1.—To the question—"Have you adopted the water-closet system in your borough?" one said, "Yes, exclusively," six replied directly in the affirmative, and four with qualifications, while of the remaining five two replied directly in the negative and the other three that the system was not enforced.
- 2.—To the question—"If so, do you require every house, including workmen's cottages, of say 4s. per week rent, to be fitted with water-closet? and has it been found practicable?" The answers was generally in the affirmative in the cases of new property, and in old property where the privies had become nuisances.
- 3.—To the third and very important question—"Have the owners complained of any difficulty by reason of the tenants stopping up the water-closets or



Excrement  
Disposal

otherwise rendering useless or damaging the same?"—the answers are with four exceptions, in the negative, and these exceptions are worth recording.

- (a) "Yes ; but it has generally arisen through the use of an imperfect form of closet, or defective construction."
- (b) "Some owners do so complain in the case of houses let out in tenements. We have, however, adopted section 90 of the Public Health Act, 1875, and made by-laws thereunder."
- (c) "When water-closets were required to be provided in the lower localities complaints were received. Trough-closets are now required to be fitted in these localities, and practically no complaints are now received."
- (d) "Sometimes, amongst very worst class of tenants. Here I recommend either Macfarlane's trough-closet or range of Adams' closets, with cistern at one end, giving automatic flush."

It really comes to this, as I have experienced during the last few years, that water-closets of the simplest kind, if *properly put in and properly inspected during the time they are fixed and their drains are laid*, do solve to a greater extent than privies and ashpits ever can do satisfactorily, one of the largest sanitary difficulties to be met with in the crowded parts of boroughs—the disposal of excreta. In the crowded portions of towns, health is impossible when the degrees of organic impurity of the air occasioned by human crowding—emanations from the lungs of the diseased, or even of the healthy, and from the skins of the unwashed,—are largely increased by effluvia from soil saturated by excreta and liquid filth, or by emanations from privies and ashpits. The natural motion of air, and the diffusion of gases by natural law, do not suffice to renovate the atmosphere in crowded courts, or down narrow passages between the backs of long rows of cottages. The erection, therefore, in them of structures which will provide for a regular and constant flow of decomposing organic matter into an atmosphere, already made foul enough by the personal emanations of crowded humanity, can be neither wise nor just. To minimise the corruption of air in crowded places is as important as the purification of water, and one of the simplest measures for effecting this is to secure the most complete and rapid removal of all that organic matter,—animal and vegetable,—the storage of which in the neighbourhood of dwellings is fraught with so much danger to the health of the occupants. Not merely is escape from premature death involved in this question, but salvation also from constitutional poisoning, the effects of which may cripple or incapacitate a breadwinner for ever for vigorous labour.

# APPENDICES.



# APPENDICES

# APPENDICES

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## APPENDIX I.

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PUBLIC HEALTH DEPARTMENT,

TOWN HALL, SALFORD,

.....18...

The Sanitary Inspector for your District reports that ..... ..  
is present at No.....which I am informed  
is the residence of... ..one of the pupils in attendance  
at your School.

I would suggest, in the interest of the Public Health, that you should  
not receive into your School any pupils from this house until it has been  
certified free from infection.

I am, Sir,

Yours faithfully,

CHARLES E. PAGET,

Medical Officer of Health.

To the Schoolmaster

of.....School.

.....



## APPENDIX II.

### COUNTY BOROUGH OF SALFORD.

#### RULES FOR PREVENTING THE SPREAD OF SCARLET FEVER.

*Scarlatina and Scarlet Fever are two names for the same Disease.*

- 1.—These rules should be carefully observed when patients are not removed to the Borough Hospital.
- 2.—The danger of infection is the same in all cases, whether mild or severe.
- 3.—The patient should be isolated at once in one room, into which no one should enter except the Doctor and the person nursing.

4.—THE MANAGEMENT OF THE SICK ROOM :—

All needless articles, as carpets, hangings, contents of cupboards and drawers, and everything which is not to be used in the nursing of the patient, should be cleared from the room before the patient enters it.

A fire should always be burning in the room, if there be a grate.

No cups or dishes should be taken from the room, and no waste food should be eaten by any other person than the patient.

All discharges should be treated according to Rule II. of the "Directions for Proper Disinfection."

(In Scarlet Fever the greatest amount of contagium is given off from the mouth, throat, nose, and skin; but at the same time all bowel and kidney discharges should be thoroughly disinfected according to Rule II. of the "Directions for Proper Disinfection.")

Rags should be used in preference to cloths, and should be burned after use.

All bed-clothes and soiled things should be treated according to Rule III. of the "Directions for Proper Disinfection."

All books and papers taken into the sick-room should be burned when done with ; under no circumstances should they leave the sick-room, nor should the patient be allowed to write any letters to any person outside the room.

The person nursing should wear a loose cotton gown over the ordinary clothes, and a cap over the head while in the sick-room. The gown should completely cover every part of the other clothing, and the cap all the hair of the head. (*Cotton is better than moollen material, because particles will not adhere so readily to it.*)

No one leaving the sick-room should neglect to thoroughly wash the face and hands in water mixed with "Condy's Fluid," and the towel with which these are wiped should be used for no other purpose.

A sheet steeped in carbolic acid solution should be hung completely across the doorway, outside the sick-room.

After the illness the room should be thoroughly disinfected, in accordance with Rule V. of the "Directions for Proper Disinfection."

##### 5.—REGULATIONS FOR THE REST OF THE HOUSEHOLD :—

All the windows should be opened as often, and for as long a time, as possible.

Brimstone sprinkled over a shovelful of red-hot cinders should be carried through the house night and morning.

All children in the infected house should be kept from school (a certificate to that effect being given by the Medical Officer of Health), and from playing or going about with other children ; none of the household should go to church, chapel, or any public meeting ; *none should go into any neighbours' house, and no neighbours should be allowed to visit the affected house, until after the "peeling" of the patient has completely ceased, and the disinfection of the house has been satisfactorily performed.*



## 6.—REGULATIONS IN CASE OF DEATH :—

A layer of carbolic acid powder or of chloride of lime should be placed in the coffin.

The funeral should take place as early as possible.

The coffin should not be taken into either church or chapel, but the Burial Service ought to be held altogether in the open air.

No friends or neighbours should enter the infected house, unless for really necessary purposes.

7.—As infection exists in the peeling of the skin, the patient must not appear on the public highway until the peeling of the skin has entirely ceased.

8.—No children or persons having had scarlet-fever should return to school or business, or go to church, chapel, or any public meeting before the end of eight weeks from the beginning of the illness.

9.—All children or persons returning to school or business from an infected house should have clean clothes, washed and disinfected since the illness.

10.—There should be no want of fresh air, cleanliness, or disinfectants.

11.—It is the duty of every person in whose house a case of scarlet-fever is being treated to remember that he or she may be responsible for giving the fever to another person.

12.—*The exposure of infectious persons or clothing in public is punishable under the "Public Health Act, 1875," and the penalty for such exposure will be enforced.*

CHARLES E. PAGET,  
Medical Officer of Health.

## RULES FOR PREVENTING THE SPREAD OF DIPHTHERIA.

1.—These rules should be carefully observed when patients are not removed to the Borough Hospital.

2 — The danger of infection is the same in all cases, whether mild or severe.

3.—The patient should be isolated at once in one room, into which no one should enter except the Doctor and the person nursing. Very special care should be taken to prevent any child entering the room, and no one nursing the patient should have the care of young children at the same time.

4.—THE MANAGEMENT OF THE SICK ROOM:—

All needless articles, as carpets, hangings, contents of cupboards and drawers, and everything which is not to be used in the nursing of the patient, should be cleared from the room before the patient enters it.

A fire should always be burning in the room, if there be a grate.

No cups or dishes should be taken from the room, and no waste food should be eaten by any other person than the patient.

All discharges should be treated according to Rule II. of the "Directions for Proper Disinfection."

In Diphtheria the danger of infection arises from the mouth, throat, and nose; but at the same time all bowel and kidney discharges should be treated according to Rule II. of the "Directions for Proper Disinfection."

Rags should be used in preference to cloths, and should be burned after use.

All bed-clothes and soiled things should be treated according to Rule III. of the "Directions for Proper Disinfection."

All books and papers taken into the sick-room should be burned when done with; under no circumstances should they leave the sick-room, nor should the patient be allowed to write any letters to any person outside the room.

The person nursing should wear a loose cotton gown over the ordinary clothes, and a cap over the head while in the sick-room. The gown should completely cover every part of the other clothing, and the cap all the hair of the head. (*Cotton is better than woollen material, because particles will not adhere so readily to it.*)



No one leaving the sick-room should neglect to thoroughly wash the face and hands in water mixed with "Condy's Fluid," and the towel with which these are wiped should be used for no other purpose.

A sheet steeped in carbolic acid solution should be hung completely across the doorway, outside the sick-room.

After the illness the room should be thoroughly disinfected, in accordance with Rule V. of the "Directions for Proper Disinfection."

#### 5.—REGULATIONS FOR THE REST OF THE HOUSEHOLD :—

All the windows should be opened as often, and for as long a time, as possible.

Brimstone sprinkled over a shovelful of red-hot cinders should be carried through the house night and morning.

All children should be kept from school during the period of illness in the house (a certificate to that effect being given by the Medical Officer of Health), and should be kept as much as possible in the open air.

#### 6.—REGULATIONS IN CASE OF DEATH :—

A layer of carbolic acid powder or of chloride of lime should be placed in the coffin.

The funeral should take place as early as possible.

7.—No child or person who has recently suffered from diphtheria should return to school or business until convalescence has been fully established ; in the case of children not for three weeks after.

8.—Any child or person returning to school or business occupations from an infected house should have clean clothes, washed and disinfected since the illness.

9.—There should be no want of fresh air, cleanliness, or disinfectants.

10.—It is the duty of every person, in whose house a case of diphtheria is being treated, to remember that he or she may be responsible for giving that disease to another person.

- 11.—*The exposure of infectious persons or clothing in public is punishable under the "Public Health Act, 1875," and the penalty for such exposure will be enforced.*

CHARLES E. PAGET,

Medical Officer of Health.

## RULES FOR PREVENTING THE SPREAD OF ENTERIC FEVER.

*Enteric Fever and Typhoid Fever are two names for the same Disease.*

- 1.—These rules should be carefully observed when patients are not removed to the Borough Hospital.
- 2.—The danger of infection is the same in all cases, whether mild or severe.
- 3.—*As enteric-fever is infectious probably only through the bowel discharges of the patient, there should be no difficulty in preventing the spread of the fever from one person to another, if only the greatest attention be paid to the following clauses :—*

### 4.—THE MANAGEMENT OF THE SICK-ROOM :—

A fire should always be burning in the room, if there be a grate.

No cups or dishes should be taken from the room, and no waste food should be eaten by any other person than the patient.

All discharges from the bowels and kidneys should be treated according to Rule II. of the "Directions for Proper Disinfection."

Rags should be used in preference to cloths, and should be burned after use.

All bed-clothes and soiled things should be treated according to Rule III. of the "Directions for Proper Disinfection."

The person nursing should take every precaution possible to keep the hands clean, by washing them frequently with "Condy's Fluid," and always after attending to the patient, and the towel with which they are wiped should be used for no other purpose. The towel should be treated as a soiled cloth, and be properly disinfected before washing.



After the illness the room should be disinfected in accordance with Rule V. of the "Directions for Proper Disinfection."

5.—REGULATIONS FOR THE HOUSEHOLD :—

All the windows should be opened as often, and for as long a time, as possible.

The nursing of the patient should be kept in the hands of one competent person ; but if any assistance be given by anyone else, especially when such assistance has to do with the patient's discharges, the greatest care should be observed in the disinfection and cleansing of the hands afterwards.

6.—REGULATIONS IN CASE OF DEATH :—

A layer of carbolic acid powder or of chloride of lime should be placed in the coffin.

The funeral should take place as early as possible.

7.—There should be no want of fresh air, cleanliness, or disinfectants.

8.—It should be remembered that the spread of enteric-fever may arise through neglect of the above rules, especially of those relating to the disposal of bowel discharges. They should never be disposed of anywhere without abundance of disinfectants. No one engaged in nursing should on any pretence be employed in dairy work, or in the sale of milk.

9.—*The exposure of soiled bedding and clothing is punishable under the "Public Health Act, 1875," and the penalty for such exposure will be enforced.*

CHARLES F. PAGET,

Medical Officer of Health.

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DIRECTIONS FOR PROPER DISINFECTION.

I.—IN THE SICK-ROOM :—

Two table-spoonfuls of carbolic acid powder should be kept in the chamber-utensils used by the patient, and all discharges received into them should be at once covered over completely with more of the powder.

All feeding-utensils should be kept quite clean, and the water in which they are washed should not be used for any other purpose. Before the water is poured away it should be mixed with carbolic acid powder.

## II.—DISPOSAL OF PATIENTS DISCHARGES :—

The safest method is for these to be passed on to old cloths, which should then be burned.

The next best method is for them to be passed into utensils containing carbolic acid powder, and they may then be emptied down a water closet or a sewer; but the entire contents of the utensils containing them should be emptied without being spilt elsewhere, and the closet or sewer should be flushed with water mixed with carbolic acid powder. Disinfectants should be put down also after the flushing.

As a last resource, discharges may be buried in an ashpit, with a plentiful addition of carbolic acid powder or chloride of lime; but discharges should never be thrown into a privy or on to an ashpit.

## III.—CLEANSING AND DISINFECTION OF SOILED LINEN OR CLOTHES DURING ILLNESS :—

The best plan, especially in the case of scarlet-fever and smallpox, is to hang them on lines in an oven, and to bake them for an hour or more.

The next best plan is to place them, immediately on removal from the patient, in a tub containing water which completely covers them, and contains carbolic acid powder to the amount of four table-spoonfuls for each gallon of water. The clothes should be thus steeped for two days, boiled, and then washed in the ordinary way, quite separately from all other things.

## IV.—THE CARE OF THE HOUSE AND PREMISES :—

Brimstone sprinkled over a shovelful of red-hot cinders should be carried through the house night and morning.



Every morning and evening, water containing carbolic acid powder should be poured down all traps and gratings around the house, and down every sink-pipe or closet within the house.

*N.B.—The sprinkling of carbolic acid powder about the house is useless and unmeaning, for disinfection processes can only be effective when they are applied for specific purposes.*

#### V.—THE COMPLETE DISINFECTION OF THE SICK-ROOM AND BEDDING AFTER ILLNESS :—

Immediately after the Medical Practitioner in attendance has certified that convalescence is assured, information should be sent to the Sanitary Inspector, at the Town Hall, who will then direct the disinfection of the house by fumigation with brimstone, and remove all bedding, linen, and clothing, which has been exposed to infection, for disinfection in the apparatus belonging to the Authority, free of charge.

*Ventilation.*—After the fumigation of the room or rooms with brimstone, the windows should be opened, and a fire lit, if there be a grate.

*Cleansing of Walls, Ceiling, and Furniture.*—The walls should be brushed, and when papered, should have the wall-paper scraped off. All wood-work should be washed down with soft soap and hot water, containing carbolic acid powder ; and the floors, bedstead, and furniture thoroughly scrubbed in the same manner. The ceiling should be whitewashed, as also the walls, if they be not papered.

*N.B.—Nothing left in a sick-room during a patient's illness should be removed until after the fumigation by brimstone.*

All other information, and disinfectants, may be obtained on application to the HEALTH DEPARTMENT, TOWN HALL, SALFORD.

## APPENDIX III.

## COUNTY BOROUGH OF SALFORD.

RULES TO BE OBSERVED ON THE REMOVAL OF A FEVER PATIENT  
TO HOSPITAL.

1. The patient will be removed in the Ambulance, with such parts of the bedding as may be convenient.

2. *At the same time* the remainder of the bedding and other articles of linen and clothing as may be in the patient's room, and likely to be infected, will be removed in another van to the hospital, for efficient disinfection in the apparatus there.

## SPECIAL INSTRUCTIONS.

It is essential that the *removal of linen and clothing should be at the same time as the patient is removed*, lest any part of them (already perhaps infected) may be put away, and at a later date give rise to fresh cases of fever. This danger must be particularly avoided where cases of scarlet-fever, small-pox, typhus-fever, and diphtheria are concerned.

*Within twenty-four hours* after the removal of a patient to the hospital, *but immediately after if possible*, the room vacated by the patient must be properly disinfected.

## RULES TO BE OBSERVED IN THE PROCESS OF HOUSE DISINFECTION.

1. On receipt of instructions from the Foreman, the disinfectors will proceed at once to the houses to be disinfected.

2. The disinfectors will then prepare the room or rooms for efficient disinfection, thus :—

- (a) Everything in a room must be arranged so as to be exposed thoroughly for fumigation ; drawers must be opened, linen and clothes hung on lines across the room, books set on end or hung on lines, so that the leaves may be open, and all parcels untied and the contents freely exposed.



- (b) Any clock in a room may be removed after being carefully wiped over with a damp cloth which has been dipped in water containing carbolic acid, in the proportion of four tablespoonfuls of powder to each gallon of water, and the cloth must then be left in the room.
- (c) The chimney of the room must be closed up very carefully, and also the window or windows, so as to prevent any escape of fumes during disinfection.
- (d) One pound of sulphur to every 1,000 cubic feet of space must be placed over a pail of water in the middle of the floor of the room, but not too close to any hanging articles of linen or clothing, and be set fire to.
- (e) The disinfecter will then at once leave the room, and on closing the door proceed, by pasting brown paper around its edges, to prevent the escape of sulphurous fumes from the room.
- (f) The door is not then to be re-opened till at least two hours from the time of its being closed.
- (g) On the door being re-opened the windows are to be opened at the same time, the chimney also opened and a fire to be lighted in the grate, and the room thus thoroughly well ventilated.
- (h) The walls must then be brushed down, and, where papered, the wall paper must be thoroughly scraped off. All wood-work is to be washed down with soft soap and hot water containing carbolic acid powder, in the proportion of four tablespoonfuls to each gallon of water. The floors, bedstead, and furniture are to be thoroughly scrubbed in the same manner by the tenant.
- (i) The tenant must limewash the ceiling, and also the walls, and be advised to distemper the walls rather than to re-paper them in any bedroom.

*It will be the duty of each district inspector, as formerly, to superintend the disinfection of premises, and to report any neglect of the foregoing provisions of the rules.*

CHARLES E. PAGET,

August, 1889,

Medical Officer of Health,

## APPENDIX IV.

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### REPORT OF THE INSANITARY DWELLINGS COMMITTEE.

TO THE COUNCIL OF THE COUNTY BOROUGH OF SALFORD.

Your Committee were appointed on the 5th day of June last, by a Resolution of the Council, as follows, namely :—

Resolved—

“ That, in the opinion of this Council, it is expedient to take  
“ steps for improving the dwellings of the poor, and making  
“ better provision for the health and comfort of the less favoured  
“ classes of the community, and that a Committee be appointed  
“ to consider the subject, and report to the Council thereon,  
“ reserving the question as to whether any expenditure to be  
“ incurred shall be borne by the Borough Fund, or the District  
“ Funds respectively.”

Resolved—

“ That half the Members of the Committee now directed to  
“ be appointed, be members of the Health Committee, and the  
“ remainder from members of the Council.”

Your Committee commenced their duties with a determination to make themselves, first of all, authoritatively acquainted with the worst Insanitary Dwellings in the Borough, and they requested the Health Committee to supply the following information :—

- 1.—The number of cellar dwellings in the three Districts (separately) inhabitable and uninhabitable.
- 2.—A list of the property which has already been condemned by the Medical Officer of Health as unfit for habitation.
- 3.—A statement of unhealthy blocks of buildings in the three Districts which have not been condemned as such.



This was complied with, and the Medical Officer of Health subsequently reported to your Committee that there were 279 Cellar Dwellings in the Borough, of which he had certified 15 to be unfit for habitation, leaving, therefore, 264 to be further dealt with; and he also submitted lists of (1) Cellar Dwellings, (2) Back to Back Houses, and (3) premises already condemned by the Medical Officer to be unfit for habitation.

The Medical Officer of Health was thereupon requested to continue his investigations, but it should be stated that the rest of the information required by your Committee was found by him to be of such a nature as to render it impossible for him, with his already laborious and increasing duties, to supply it, except after a considerable lapse of time, and it was therefore deemed prudent to take the worst descriptions of dwellings into consideration at first, leaving the rest to be dealt with, if possible, afterwards.

The Borough Engineer was also instructed to obtain information as to sites available for the building thereon of Artizans' Dwellings, within half a mile radius of the Salford Town Hall, together with the cost of the land, and the probable expense of building thereon dwellings for 200 families, with an average of five persons per family; and Mr. Councillor Corbett was respectfully requested to confer with the Borough Engineer upon the subject, and furnish him with any information in his possession, to enable him to prepare his report.

The Town Clerk was also instructed to prepare an Epitome of the powers given by the General and Local Acts up to the present date, to deal with Insanitary Dwellings, the demolition of unhealthy property, and the erection of Artizans' and Labourers' Dwellings, and to have the same printed and a copy furnished to each member of this Committee.

These requests have been duly complied with, and the outcome considered by your Committee.

Although the Medical Officer of Health has not been able, as yet, to complete for your Committee his full list of insanitary properties, he has, nevertheless, furnished sufficient to occupy the serious consideration and attention of the Corporation for a long time to come.

Your Committee have now before them plans and particulars of the following properties, which, in their opinion demand early attention, namely:—

No. 1.

1 to 17, Temple Place, and adjoining properties.

No. 2.

The block between Spaw Street and Johnson Street, Browncross Street and the Railway—Golden Lion Court, Stable Street, Johnson Street, and 12, Yorkshire Street.

No. 3.

The area bounded by Walker Street, Quay Street, Worsley Street, and the Bonding Warehouse.

No. 4.

Cross Court.

4 and 5, Balderson's Court.

1, 2, 3, 4, 5, and 6, Wood's Buildings.

No. 5.

Taylor's Court and Hunt's Court.

No. 6.

Caygill Street and Collier Street.

Thompson's Court.

Elton's Court.

1 and 2, Rolla Court.

1, Starkey Street.

Robinson's Buildings.

No. 7.

Weatherall's Court.

Wood's Court.

Nuttall's Court.

Hulme's Court.

Moverley's Court, and

Cooper's Court.

No. 8.

The area bounded by Brewery Street, Rosamond Street, Rigby Street, and St. Stephen's Street.

No. 9.

The two blocks of houses situated in Pink Street, Rose Street, and Brougham Street.



## No. 10.

Lord's Passage,

1, Lord's Buildings.

2 to 9, Lord's Buildings.

1, Lord's Court.

From this list your Committee have selected five, which, in a sanitary point of view, they believe to be the most urgent. These properties have all been visited by your Committee. They are those above, classified as Nos. 3, 6, 7, 9, and 10, and they recommend that without unnecessary delay they be dealt with as hereafter mentioned, namely:—

## No. 3.

Garden Street.....	}	The back to back block bounded by Garden Street, Brown Street, Wood Street, Walker Street, and Worsley Street, and the back to back cottages in Garden Street, abutting on the Bonding Warehouses, and the Cottages in Walker Street, Nos. 5, 6, and 7, and the adjoining houses fronting Brown Street, to be forthwith put into a sanitary condition, at the instance and to the satisfaction of the General Health Committee.
Brown Street .....		
Walker Street.....		
Worsley Street ...		
Wood Street .....		

## No. 6.

Caygill Street.....	}	Certain important and necessary alterations and improvements in Caygill Street and Collier Street are being taken in hand by the Health Committee, at the instance and suggestion of your Committee, as properly coming within the scope of their ordinary powers. But as to the whole of the tenements and premises bounded by Queen Street, Rolla Street, Starkey Street, and Collier Street, saving the Public House at the corner of Collier Street and Rolla Street, and the Works at the corner of Queen Street and Starkey Street; your Committee recommend that they be demolished. The back to back cottages in Robinson's Buildings, with the Courts abutting thereon, might be first dealt with. This recommendation would comprise about 80 tenements, or a dislodgment of probably 300 persons.
Collier Street .....		
Queen Street .....		
Robinson's		
Buildings, &c.		



No. 7.

Weatherall's Court	}	The cottages in these courts, in their present state, are uninhabitable, and should be condemned. It is recommended as a first stage that the back to back cottages, in alternate blocks, as shown pink on the plan, be demolished, and the ashpits removed. This would comprise about twenty tenements, and dislodge about eighty persons. If all these cottages could be purchased at a reasonable cost it would be well to acquire the whole of them, as well as those fronting Queen Street, abutting thereon, for the erection of more habitable property.
Wood's Court.....		
Nuttall's Court ...		
Hulme's Court.....		
Moverley's Court..		
Cooper's Court ... in Queen Street.		

No. 9.

Pink Street .....	}	The two blocks of houses, numbers of which are empty and delapidated, situated in Pink Street, Rose Street, and Brougham Street, should be demolished, and replaced by the erection of Artizans' Dwellings. This comprises 42 back to back tenements, and would dislodge about 150 persons.
Rose Street.....		
Brougham Street..		

No. 10.

Lord's Court, Old- field Road.....	}	No. 1, Lord's Court, No. 1, 2, and 3, Lord's Passage, and No. 1, Lord's Buildings, to be demolished, and the site left vacant.

It is computed that the whole of these works would dislodge about 300 households, or about 900 persons, and provision might be made, by the erection of new dwellings on one or other of the sites named, or on one or other of the vacant plots of land which, in various parts of Salford, belong to the Salford District of the Corporation, and which would locate considerably more than that number.

It is recommended that the erection of Dwellings project be decided upon and put in hand with the least possible delay.

If the works are forthwith commenced and proceeded with, it may reasonably be anticipated that to meet the present insanitary condition



of things, an expenditure will be required of from £100,000 to £150,000 during the next two or three years; but if, as your Committee have reason to anticipate, the project of acquiring one or more of the sites for the erection of Artizans' Dwellings should be allowed to be taken in hand by private enterprise, or by a company which, we understand, is being formed for the purpose, the liability referred to would be correspondingly reduced.

There are practically two modes of improvement of insanitary property, namely :—

1. By structural alterations ;
2. Demolition and re-erection.

The former may be accomplished without any formulated scheme, through the intervention of the Health Committee, and substantially at the expense of the owners.

The latter is a more serious and costly undertaking, involving a large expenditure of money, at the expense of the ratepayers, and necessarily requiring considerable time and labour to bring to a successful accomplishment.

Your Committee are of opinion that it would be prudent to proceed by degrees, and not to embark on very extensive or wholesale works of demolition, until one or more schemes of re-erection are matured, and places thus found for the reception of the unhoused.

The work must necessarily therefore be gradual, and cannot be effected by so summary and sweeping a process as many suppose.

Much has been recently done, and is now being systematically done, in the different parts of the Borough, by structural alterations, the closing of cellar dwellings, the prevention of overcrowding, the abatement of nuisances, and the like ; and the Health Committee is hereby urged to continue to vigorously and unflaggingly prosecute its labours in that direction.

As the worst class of property is mostly in the Salford District, a difficulty surrounding the question is foreshadowed in the objection, on the part of the Pendleton and Broughton Committees, to bear any share of the large expenditure to be incurred on the condemned parts of



Salford. If, as would seem to be the opinion of the Town Clerk, each District must bear its own burdens in this connection, then it would appear that the obligation to effect the necessary works and improvements must rest with the members of the several Districts alone, especially as Pendleton and Broughton are already proceeding to effect what they consider obligatory in their respective Districts.

The present might not be deemed, however, an unfavourable time for the Council to reconsider the question of the amalgamation of the three Districts, and if, by foregoing all apparent advantages sinking all differences, and throwing aside all conditions and controversy, a hotch-pot union were brought about, the Districts difficulty, before referred to, would be removed. Unless such a project is seriously entertained, it may be well to say—as your Committee's functions are at an end with the expiring municipal year—that there would seem to be really no practical utility in their re-appointment, because, if the necessary work must be undertaken by, and at the cost of, the several Districts, your Committee, as a "General Committee," would be utterly powerless in the matter, and one-half of its members, at least, in a false position.

Your Committee beg to suggest that before putting in operation the Statutory provision against owners of condemned properties, an opportunity should be given them to effect a sale of them by private treaty, for what, in their present condition, the properties are reasonably worth. This might save time and money and prevent disappointment, and, probably, hardship in some instances, as the property owners must see that it would be a decided advantage to them to dispose of their properties at even less than they considered they were worth, rather than risk their being sold for "old materials," under the Act of 1875.

This line of procedure has, we believe, been taken by some other Corporations, with considerable advantage all round, and much delay and expenditure has been thereby saved.

If negotiation were successful, the Improvement Committee might then apply for enlarged borrowing powers, or borrow the needful amount from the Public Works Loan Commissioners, by operation of the "Lodging Houses Act, 1851," and the "Housing of the Working Classes Act, 1885." Under these Acts, the Council, with the approval of the Treasury, may both appropriate their own lands, and purchase



(even under compulsory powers) the lands and premises of others, for the purpose of erecting lodging-houses and cottages for the working classes, and are also empowered thereby "to furnish" the tenements, if thought desirable, and provision is made for obtaining the necessary funds from the Public Works Loan Commissioners.

The Artizans' Dwellings Acts, though beneficent in their object, are undoubtedly a very costly and somewhat cumbrous and tardy piece of machinery, and which it is desirable to abstain from putting in motion until other remedies appear likely to fail.

The Local Act of 1875 is more speedy and drastic in its operation, but whilst giving summary powers to the Corporation to demolish condemned property, it does not give in itself any authority to rebuild.

At any rate, your Committee think a trial should be made, say by notice or circular, in the way indicated, and if negotiations with the owners were found fruitless, recourse might then be had to the statutory powers of the Imperial Acts.

Your Committee believe that with respect to some of the condemned properties the owners would even be glad to be relieved of them for little more than a nominal consideration.

Your Committee have no desire to dictate as to the particular process by which their recommendations shall be carried out, especially as they possess no executive powers, and are only authorised to report and recommend; but they would further suggest that, if this report is approved of, the Town Clerk and the Borough Engineer should jointly report to the Council as to the best course to be pursued to carry out specifically, as indicated, or by scheme, under the "Housing of the Working Classes Act," or the "Artizans' Dwellings Acts," or otherwise, the foregoing recommendations; as well also as to the probable expenditure involved, the fund or source from which such expenditure should be obtained, and the mode of raising and paying the same.

C. MAKINSON, CHAIRMAN.

Town Hall, Salford,

October 22nd, 1889.



The Town Clerk submitted the following report:—

## REPORT OF THE TOWN CLERK

AS TO THE BEST COURSE TO BE PURSUED IN CARRYING OUT THE  
RECOMMENDATION OF THE INSANITARY DWELLINGS COMMITTEE.

TO THE COUNCIL OF THE COUNTY BOROUGH OF SALFORD.

I beg to submit the following Report as to the best course, in my opinion, to be pursued with reference to the due, speedy, and effectual carrying out of the Recommendations of the Insanitary Dwellings Committee, as set forth in their Report to the Council, dated 22nd October, 1889.

The Committee pointed out that there were practically two modes of dealing with insanitary property within the County Borough:—

- (1.) By allowing the present buildings to remain *in situ*, and insisting upon necessary structural alterations thereto, and
- (2.) By the compulsory demolition of the present insanitary buildings, and the re-erection of other dwellings, in accordance with approved sanitary principles.

Full powers for enforcing the execution of necessary structural alterations in and the demolition of insanitary property, are conferred upon the Council by the Salford Tramways and Improvement Act, 1875 (38 and 39 Vict., c. 101), and the enforcement of the Act is not beset with any special difficulty, but is comparatively simple and tolerably expeditious in its operation. A recapitulation of these statutory powers will not here be necessary, as they have already been succinctly set forth in the Epitome already presented by me to the Council.

The suggestion of the Committee that, before putting in operation the statutory powers against the owners of certain condemned properties, an opportunity should be given to such owners to effect a sale by private treaty, and for reasonable value to the Council, is a wise and prudent one, and might, if judiciously carried out, prove to be a policy of true economy, both of time and money.



The real *crux* of the situation is, of course, not only the removal of insanitary property, but also the re-erection and provision of dwellings as speedily and as perfectly sanitary as possible, for the decent and proper lodgment of the labouring classes, at a reasonable rental, without an undue overburdening of the rates of the County Borough. It becomes, therefore, a matter of considerable importance, to determine how, and under what special statutory provisions, this great public work may be most advantageously commenced and carried out. It does not appear necessary, in advising the Council to enter into an elaborated statement, as to the whole of the statutes which have been from time to time enacted with reference to this subject.

In order to initiate the great object of purchasing insanitary property, and erecting sanitary dwellings for the labouring classes, it would appear advisable to proceed under, and in effect, to adopt the provisions of the Labouring Classes' Lodging Houses Acts, 1851 to 1867, in conjunction with the Housing of the Working Classes Act, 1885, as by these statutes full powers are given to the Council to appropriate, purchase, or rent lands, including, of course, all premises thereon, and subject to the approval of the Lords Commissioners of Her Majesty's Treasury, to erect suitable buildings for the labouring classes, and to convert any existing buildings into lodging houses, in addition to the enlargement, improvement, and repair thereof, and the fitting up, furnishing, and supply of such lodging houses with all requisite furniture and fittings. Power is also given to the Council to contract for, purchase, or lease, any lodging house already or hereafter to be built. The Public Works Loan Commissioners, with the consent of the Treasury, are empowered to advance money to any Council authorised to carry into execution the said Labouring Classes' Lodging Houses Act, 1851, for the purpose of assisting in the purchase of land and buildings, or in the erection, alteration, and adaptation of buildings, to be used as dwellings for the labouring classes, and in providing all conveniences which may be deemed proper in connection therewith.

When the last before-mentioned Acts have been duly adopted by the Council, they will have power to carry such Acts into execution within the area for which they are adopted, and all expenses incurred by such Council, acting as the Urban Sanitary Authority for the said

County Borough, will be defrayable as part of the general expenses of such Authority under the Public Health Act, 1875, and are by such Act chargeable upon the Borough Fund, and payable out of the Borough Rate.

This, in my opinion, is the course to be pursued, in order to escape all difficulty with reference to the separate Districts forming the County Borough of Salford.

SAML. BROWN, TOWN CLERK

Town Hall, Salford,

2nd December, 1889.



## APPENDIX V.

## COUNTY BOROUGH OF SALFORD.

## TAKE NOTICE

That, by "The Salford Improvement Act, 1870," it is provided that if the Officer of Health shall certify to the Corporation that any building or part of a building is unfit for human habitation, the Corporation may, by their Order affixed conspicuously on such building or part of a building declare that the same is not fit for human habitation, and the same shall not, after a date therein to be specified, be inhabited, and after the date mentioned in such Order, no person shall let or occupy, or knowingly suffer to be occupied, such building or part of a building.

And whereas the Medical Officer of Health of the said County Borough has, by writing, certified to the Corporation that a certain building or part of a building, to wit  
used as a dwelling-house, situate and being  
in the County Borough of Salford, is unfit  
for human habitation,

Notice is hereby given that the Corporation do hereby order and declare that the said building or part of a building used as a dwelling-house, situate and being  
aforesaid, is unfit for human habitation, and that the same shall not, after the                      day of                      one thousand eight hundred and                      be inhabited, and no person shall, after that date, let or occupy, or knowingly suffer to be occupied, the aforesaid building or part of a building, used as a                      dwelling-house.

Notice is hereby further given, that if, after the expiration of the period aforesaid, any person lets or occupies, or continues to let or knowingly suffers to be occupied, the said building or part of a building, used as a dwelling-house, he will for every such offence be liable to a penalty not exceeding £5, and a further penalty not exceeding 40/- for every day during which the offence shall continue, and that proceedings will be instituted for the recovery of such penalties.

Dated the                      day of                      one thousand eight hundred and

TOWN CLERK.

## APPENDIX VI.

## REPORT OF THE HOSPITAL SPECIAL COMMITTEE.

TO THE COUNCIL OF THE COUNTY BOROUGH OF SALFORD.

Your Committee having been appointed under a resolution of the Council of the 7th August last, were directed to enquire and report upon the best means of adequately providing for the treatment of infectious disease arising in the Borough, and having further been instructed by resolution of the Council of the 2nd instant to report the result of their proceedings at a special meeting of the Council, to be held on the 16th instant, do now present what may be termed an interim report, as follows, shewing the position up to date.

The business of the Committee appeared, naturally, to divide itself into two parts, namely:—To ascertain whether any arrangement could be made with the Boards of the Monsall and Pendlebury Hospitals, for the accommodation of the whole of the Salford patients, and, if so, whether the terms and conditions appeared satisfactory; or, secondly, whether the Ladywell site was the best upon which to proceed with the erection of a Hospital for the Borough. Your Committee, therefore, immediately placed themselves in communication with these authorities, and requested an interview. Owing to the absence from town of the gentlemen composing these Committees, the earliest date at which your Committee could meet the Monsall authorities was the 18th September, when an interview took place at the Manchester Infirmary.

Your Committee having stated the purpose of their interview, the Monsall Committee undertook to lay the matter before the Infirmary Board for consideration. It was then stated that there did not appear to be any insuperable difficulty in the way of an arrangement, by which the whole of the Salford patients could be received at Monsall, by consent of the Infirmary Board; and an outline of the cost of providing 130 beds was indicated as £13,000, or thereabout, of capital outlay, which might be provided by Monsall on the usual terms. Further, your Committee were



informed that the actual cost of maintenance at Monsall was found to be reduced from 20s. 9d. per week in 1886, to 13s. 9d. in 1888, so that it was probable that, should an arrangement be made, there would, ultimately, be a considerable saving in the cost of maintenance, as compared with the experience at Wilton Hospital.

On the following day, your Committee had an interview with the Pendlebury authorities, by whom they were very courteously received and shown over the hospital. One ward of 28 beds was shown to your Committee, which for many years has been used by the Manchester Corporation for Scarlet Fever cases; and a similar wing, at present occupied by the nursing staff, was pointed out to the Committee as capable of being reserved for the treatment of Salford cases of Scarlatina. To do this, would, however, require the building of other quarters for the nurses, and some further accommodation would also be necessary for isolating the attendants in this wing. Your Committee have since received a letter, dated 10th instant, stating that the Pendlebury Committee were considering what structural alterations would be necessary, and were making enquiries as to their character and cost, and that until these were finished, the Board would be unable to make a more definite statement.

With the Monsall authorities, several communications have passed, resulting in the following copy of a resolution passed by the Infirmary Board on Monday last, the 14th instant:—

“That the Town Clerk of Salford be informed, in reply to his  
“letter of the 5th October, that the Board of Management of the  
“Royal Infirmary, whilst fully cognizant of and recognizing the  
“obligations imposed upon them by the Act of Parliament of the  
“28th May, 1852, which united the Manchester House of  
“Recovery with the Manchester Royal Infirmary, and willing at all  
“times to assist the Salford Corporation in their sanitary difficulties,  
“regret that they cannot further increase their existing great  
“responsibilities, by consenting to provide for, and to undertake the  
“treatment of, the whole of the cases of infectious disease arising in  
“the Borough of Salford.”

There is little room for doubt that the proceedings at the last meeting of this Council have contributed materially to this result, and that unless the Council is prepared to approach the Infirmary Board with a more united



front, there is every prospect that this valuable public institution will, at no distant date, fall into the hands of the Manchester Corporation, freed from all liabilities, and that Salford, which has partially contributed to this result, will find itself deprived of its rights and of all benefit therein.

Your Committee have made enquiries as to the nature and extent of the provision for infectious disease made in other large towns, and thirty-eight replies have been received, from which are extracted the following particulars, namely :—

Town.	Weekly Cost per Patient.		No. of Beds.	Population.	Cost per Bed.	
	s.	d.			£	s.
Birmingham .....	14	9	*120	447,912	150	0
Bolton .....	14	3	36	115,000	250	0
Glasgow .....	19	5	540 (350 inf., 190 sp.)	528,144	50	19
Hull .....	12	3	80	208,017	175	0
Liverpool .....	7	10	260 (160 inf., 100 sp.)	606,562	36	0
Newcastle-upon-Tyne	10	6	129 (105 inf., 24 sp.)	160,983	Inf. 228	0
					Sp. 125	0
Edinburgh .....	21	0	300 (240 inf., 60 sp.)	266,900		
Oldham .....	23	11	100	142,400	110	18
Bradford .....	29	9	180	235,056	134	0
Sheffield .....	49	0	64 (and a Smallpox H'l)	284,508	312	10
Nottingham .....	—		112	235,000	—	
Leeds .....	—		150 (100 inf., 50 sp.)	357,000	—	

\* Smallpox and Scarlatina only.

Your Committee are of opinion that the proposals of the Health Committee to provide 100 beds in the new hospital are altogether inadequate to meet the requirements of the Borough, and strongly recommend that not less than 160 beds should be provided. From the various Health Reports which have been sent to the Committee from other towns, your Committee have noted various additional methods which have been adopted in the attempt to cope with infectious disease, and would here mention that at Leeds, Bradford, and Leicester, an isolation house has been provided, as a temporary accommodation for persons suspected of infection; and again, your Committee would note that in Glasgow the practice is to admit to the hospital all persons suffering from infectious disease, rich or poor, without any charge being made.



The Council will notice that hitherto your Committee have not spoken of the second part of their work, which to some members of the Committee has been from the first the most important—namely, the question of site. That question the Committee have during their negotiations been unable to take up; but, with the indulgence of the Council, it may probably be reported upon in the course of the next two or three weeks.

In concluding this report, your Committee desire to observe that the utility of an infectious hospital does not depend upon the compulsory powers of the Health Authorities so much as upon persuasion, followed by a recognition of benefits conferred upon the suffering; and from the reports received by your Committee from other towns, it is apparent that these institutions are already growing in public estimation.

But while reporting their proceedings, your Committee feel that they would be gravely wanting in their duty to the Council and to the ratepayers if they passed silently over one very serious fact which has been the outcome of their enquiries—enquiries which have resulted in the disclosure of a state of things in the past history of the Salford Hospital, and involving those who have had the management and direction of its affairs in the most serious responsibility—namely: that, although it has been over and over again stated that the accommodation provided there was sufficient for 100 patients—sixty in the stone building and forty in the wooden shed—it is now ascertained by this Committee that the total space there amounts only to 92,700 cubic feet, which is reported as sufficient only for 46 adults, or for 61 children. Further, it must be stated that from January, 1886, to December, 1888—that is during the whole of 1886 (excepting the months of April and May), the whole of 1887 and 1888, there has been constant overcrowding of the sick—as many as 159 patients having upon one occasion been crowded into a space sufficient only for 61. During this time there appears to have been room available at Monsall under the existing agreement, but which was not fully utilised. The natural consequences followed—namely: that the death-rate, which was 8·8 in 1886, rose in 1887 to 10·8, and still further in 1888 to 11·7, and your Committee have not yet received any satisfactory explanation why such a state of things was permitted to continue.

On behalf of the Committee,

F. S. PHILLIPS, CHAIRMAN.

Salford, October 5th, 1889.