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**HEALTH DEPARTMENT.**



**REPORT**

ON THE HEALTH OF THE

**CITY OF LIVERPOOL**

DURING

**1907**

BY THE

**MEDICAL OFFICER OF HEALTH.**



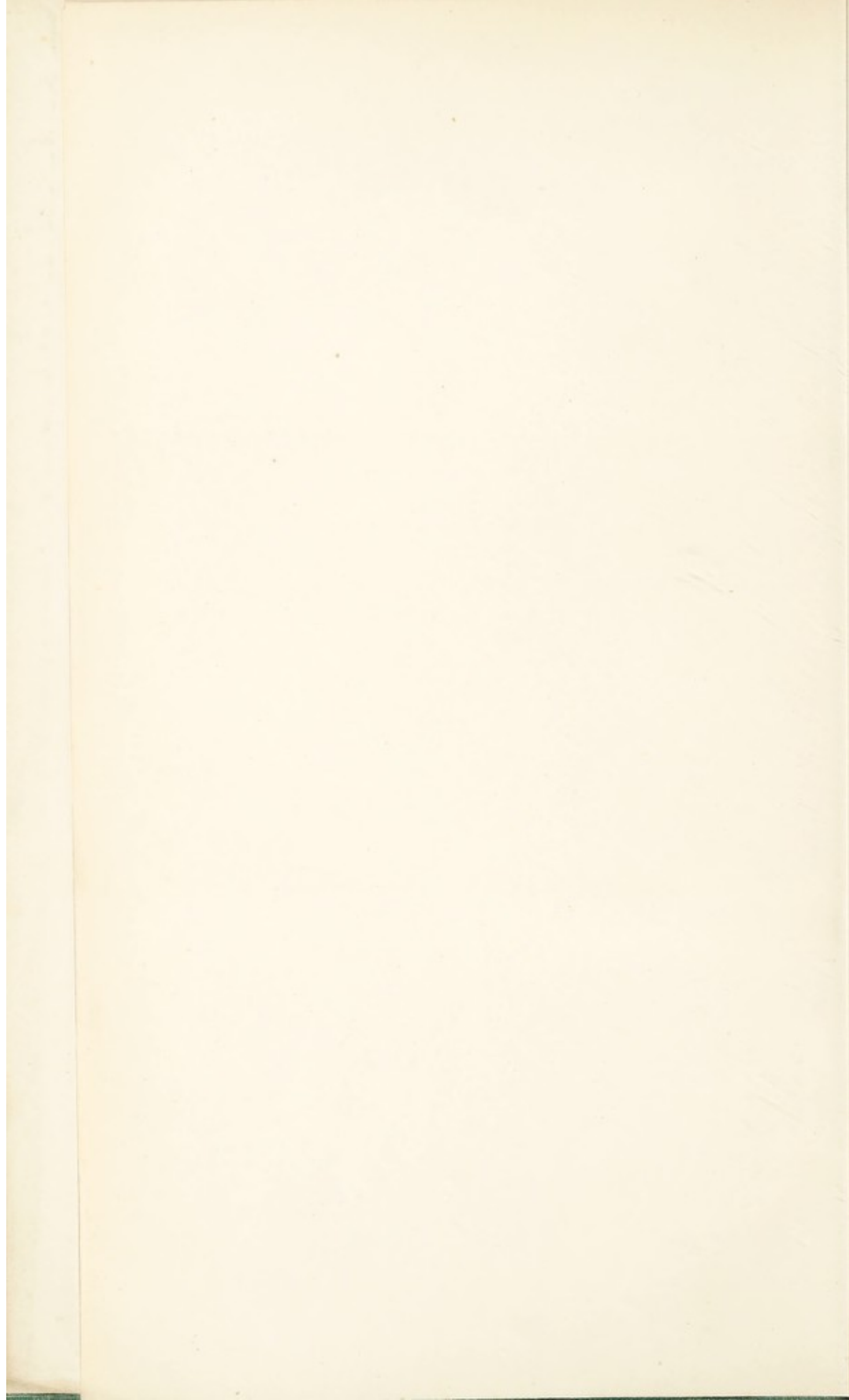


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Liverpool.*





HEALTH DEPARTMENT.

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REPORT

ON THE HEALTH OF THE

CITY OF LIVERPOOL

DURING

1907

BY

E. W. HOPE, M.D., D.Sc.,

*Medical Officer of Health.*



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*(Ordered by the Health Committee to be printed, 30th April, 1908.)*


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1908.





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## APPENDIX.

Local Government Board Tables of Population, Births, Deaths, Infantile Mortality and Infectious Sickness.

Plan-Map showing Birth Rate in Districts of City.

„ „ Death Rate „ „

„ „ Number of Deaths of Infants under one year out of every 1000 born.

„ „ Density of Population in Districts of City.

Table of Total Deaths registered in the City.





## PREFACE.

The year 1907 was characterised by having the lowest death-rate ever recorded in Liverpool. The progressive, although not uninterrupted, decline in the rate of mortality for a number of years is shown on a chart preceding page 9.

Liverpool has, and will no doubt continue to have, a great number of deaths debited to it of persons who are strangers to the City who have been brought into it by ships, or who have come from a distance to seek relief in Nursing Homes and other places for the treatment of the sick. The recorded death-rates therefore include some deaths of persons who do not belong to the district.

It is probable, moreover, that the population (746,144) is somewhat under-estimated. Some evidences in support of this will be found from the natural increase of population by births over deaths, and also by the rapid increase in the number of occupied dwellings in the suburbs. This circumstance would also tend to make the death-rate appear higher than it actually is. In order to ensure precision on these points a quinquennial census is necessary, and successive Presidents of the Local Government Board, whilst admitting the correctness of this view, have not been able, owing to financial difficulties, to give effect to it.

It is particularly gratifying to notice the diminution in infant mortality in the City as a whole. Some of the methods adopted to lessen the waste of infant life are alluded to on pages 19 to 25, and various charts and diagrams have been inserted with a view to make the points clearer to the reader.

It is in the zymotic death-rate that the decline is most marked, notably in zymotic diarrhoea, a circumstance partly owing to the coolness of the summer, and the rainfall.

Measles and whooping-cough continue to claim a large number of victims. Each of these diseases destroys more lives than those forms of sickness which are included under the term "dangerous infectious disease," such as scarlet fever, typhoid fever, typhus fever, and

diphtheria, a circumstance which shows the necessity for a closer application of preventive measures in these forms of sickness. On page 52 there is an interesting table indicating what has been happening during the last 40 years in regard to infectious sickness. Measles and whooping-cough show a less relative decline than the other forms.

The benefits of the general sanitary measures adopted in the City are nowhere more conspicuously shown than in the case of tuberculosis, the decline in this form of disease being one of the most encouraging features of urban sanitary administration. The voluntary notification of phthisis, the distribution of cards of instruction for consumptive people and those who live with them, has been attended with marked benefit, and the results of the use of one of the wards at the Fazakerley Hospital for cases of phthisis are most encouraging.

The abuse of alcohol in certain districts of the City is a melancholy feature, and is alluded to on page 60 and also on page 23.

A very large amount of routine administrative work is recorded in Part II. of the Report, which deals not only with ordinary district inspection, but with the interchange of references from various corporate departments, the supervision of lodging-houses, canal boats, suppression of smoke, proceedings under the Factory and Workshop Act, Midwives Act, the Hygiene of Schools, the removal of patients to hospital, the work of the Milk Depôts, the supervision of the food supplies, and the work of bacterial and chemical examination authorised by the Acts of Parliament.

The advisability of adopting the Public Health Acts Amendment Act, 1907, engaged the attention of the Health Committee, and the Medical Officer advised the adoption of Parts 3, 4 and 5 of the Act, provided that such adoption in no way lessened or interfered with powers which the Corporation already possess under its Local Acts.

Statistics of cleansing and scavenging are given on page 207, and indicate the magnitude of this important work.

Considerable progress has been made not only with regard to the demolition of insanitary property, but in the reconstruction of house property in certain directions, which has rendered such property fit for habitation. Important additions have been made to the number of



Corporation dwellings which are reserved for tenants who have been dispossessed, and whose general behaviour is such as to justify their acceptance as tenants.

The important work of the Hospitals Committee is dealt with on pages 239 to 256, but a more detailed report of this section of administration is published separately.

Certain extremely valuable tables, which will be found in the appendix, have been prepared at the suggestion of the Local Government Board.

Various charts, maps and diagrams have been inserted in the report, which will assist materially in simplifying the information which the report contains.

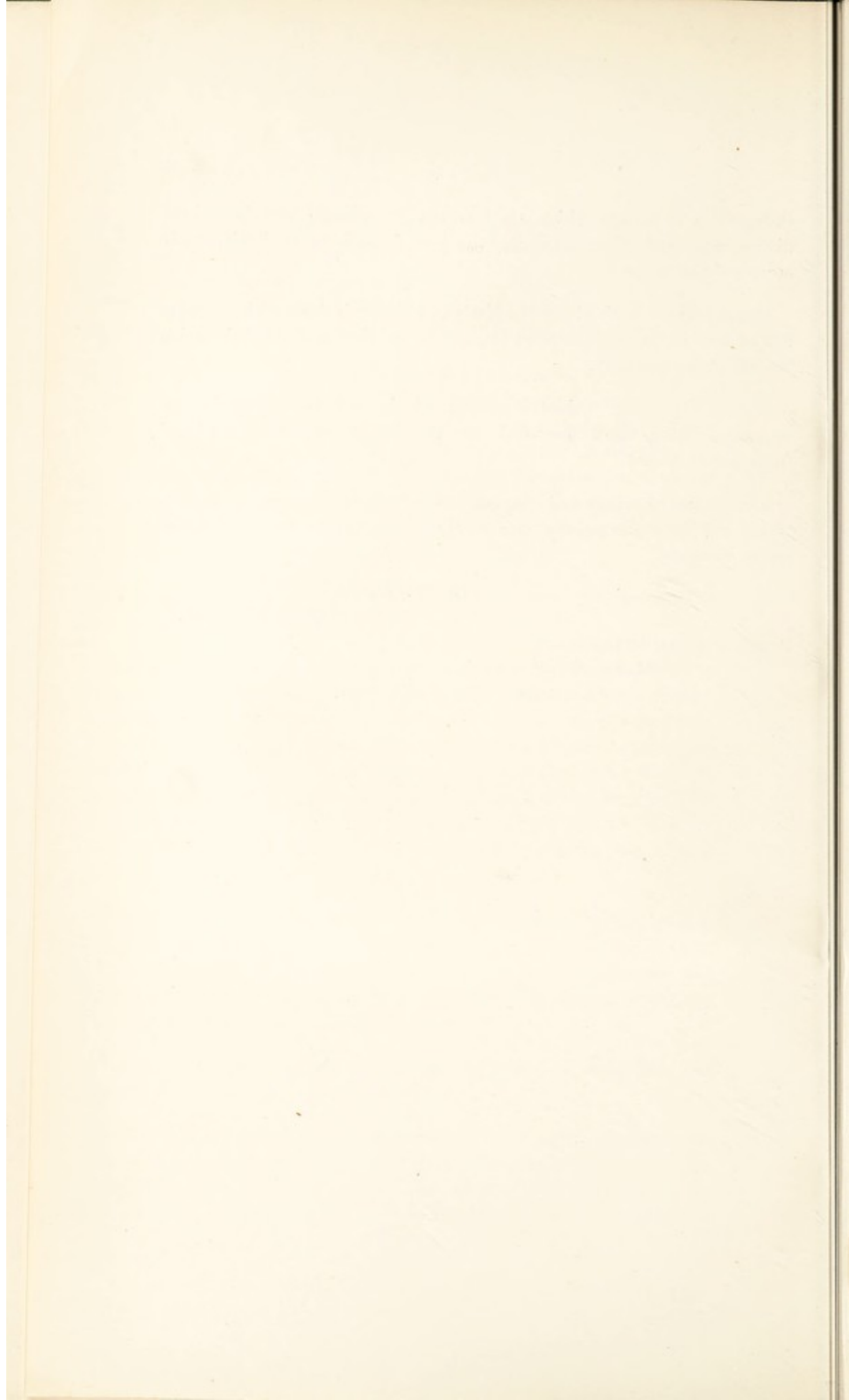
E. W. HOPE,

*Medical Officer of Health.*

PUBLIC HEALTH DEPARTMENT,

MUNICIPAL OFFICES,

LIVERPOOL, 30th April, 1908.





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# STATISTICS

RELATING TO

BIRTHS, DEATHS, AND CAUSES OF DEATH, &c.,  
ZYMOTIC DISEASES AND THEIR INCIDENCE.

---

# SUMMARY

OF

## VITAL STATISTICS FOR 1907.

---

Area of City ... ..	16,619	Acres. (26 square miles)
Population ... ..	746,144	
*Density ... ..	44.9	Persons per Acre.
*Births ... ..	23,654,	Birth-rate 31.7.
*Deaths ... ..	13,676,	Death-rate 18.3.
*Infantile Mortality ... ..	3,383	Deaths under one year, or 143 per 1,000 Births.
Zymotic Death-rate (7 principal Zymotic Diseases) ... ..	1.9	per 1,000.
Phthisis Death-rate ... ..	1.4	per 1,000.

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\* For variations in different districts see plan-map in the Appendix.

## BIRTHS.

---

During the fifty-two weeks of the year, terminating on Saturday, December 28th, 1907, the returns of the local registrars recorded 23,654 births within the City. Of the total births 12,138 were males and 11,516 were females.

The birth-rate in the City of Liverpool is considerably above the average of the great towns, as well as of England and Wales taken as a whole (see diagram, page 8). During 1907 the birth-rate was 31·7 per 1,000 of the population; the average of the previous five years (1902-1906) being 33·3. The rates are calculated upon the corrected population as ascertained by the Census of 1891 and 1901.

The variations in the birth-rate and the distribution of the births in the different wards and districts of the city are indicated upon the accompanying plan-map (see Appendix), and have also been arranged in the following tables:—



## BIRTHS.

DISTRICTS.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		1907.		Corrected Average Rate per 1000 during the 5 years 1902-1906.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Births.	Rate per 1000	
Scotland .....	297	263	288	232	269	259	260	230	2098	39.9	41.8
Exchange .....	132	167	151	141	159	141	151	134	1176	28.5	29.7
Abercromby .....	201	215	248	223	208	214	217	183	1709	33.8	33.0
Everton .....	570	567	514	555	568	533	514	486	4307	34.7	35.9
Kirkdale .....	320	278	280	274	305	294	276	251	2278	32.3	33.8
West Derby—West .....	413	322	377	370	335	298	320	323	2758	30.5	32.8
Toxteth .....	429	464	449	400	375	415	391	405	3328	31.6	33.2
Walton .....	287	264	262	272	264	227	243	195	2014	31.9	32.8
West Derby—East .....	192	185	198	207	198	194	191	171	1536	31.2	30.9
Wavertree .....	126	120	141	124	149	103	118	113	994	27.5	33.3
Sefton Park .....	96	91	73	76	94	80	80	73	663	17.8	19.3
(late Toxteth Rural)											
Garston .....	100	86	93	93	80	90	85	63	690	30.5	35.7
Fazakerley.....	12	9	12	21	13	7	14	15	103	24.7	30.9
City.....	3175	3031	3086	2988	3017	2855	2860	2642	23654	31.7	33.3

The birth-rate is still very high in the old parts of the city, in some instances higher than in the rapidly-extending areas in the suburbs. The high birth-rate amongst the poorer classes no doubt partially results from very early marriage.

The large numbers of inmates of registered Common Lodging-houses and Model Lodging-houses explains in a measure the apparently low birth-rate in Exchange.

In the district known as Sefton Park, the large proportion of domestic employes partially accounts for the low birth-rate.

The following table shows the population, number of births, and the corrected birth-rate per 1,000 during the last twenty-five years:—

Year.	Population.	No. of Births.	Rate per 1,000.
1883	544,547	19,907	36·6
1884	541,031	20,071	37·1
1885	537,548	19,464	36·2
1886	534,088	19,559	36·6
1887	530,649	18,414	34·7
1888	527,233	17,777	33·7
1889	523,838	17,676	33·7
1890	520,466	17,592	33·8
1891	518,302	17,832	34·4
1892	519,590	17,758	34·2
1893	520,882	18,328	35·2
1894	522,178	17,893	34·3
*1895	652,523	22,006	33·7
1896	658,050	21,943	33·3
1897	663,633	22,280	33·6
1898	669,243	22,227	33·2
1899	674,912	22,488	33·3
1900	680,628	22,762	33·4
1901	686,332	21,980	32·0
**1902	710,337	24,283	34·2
1903	716,810	23,910	33·3
1904	723,430	24,278	33·5
***1905	733,714	24,350	33·2
1906	739,180	24,123	32·6
1907	746,144	23,654	31·7

The foregoing table shows the decrease in the birth-rate during the last 25 years. This decrease has, however, been even more pronounced in other parts of the country, and notwithstanding the decline in Liverpool, the birth-rate in this City is still amongst the highest, being exceeded by only three of the towns having a population of more than 100,000.

\* City area extended.

\*\* Garston included.

\*\*\* Fazakerley included.

The following table shows the *natural* increase or decrease of population, that is, the increase or decrease in the number of births as compared with the number of deaths during the year 1907, in the several districts of the city. In only one district, viz., Exchange, is any decrease shown; the nett result in the city showing an increase of births over deaths of 9,978.

DISTRICTS.	Population.	Births.	Deaths.	Number of Births over Deaths.	Number of Deaths over Births.
Scotland ... ..	52,549	2,098	1,461	637	—
Exchange ... ..	41,168	1,176	1,275	—	99
Abercromby ... ..	50,562	1,709	924	785	—
Everton ... ..	123,952	4,307	2,443	1,864	—
Kirkdale ... ..	70,492	2,278	1,310	968	—
West Derby—West ... ..	90,184	2,758	1,511	1,247	—
Toxteth ... ..	105,033	3,328	1,947	1,381	—
Walton ... ..	63,017	2,014	889	1,125	—
West Derby—East ... ..	49,212	1,536	776	760	—
Wavertree ... ..	36,018	994	393	601	—
Sefton Park ... .. (late Toxteth Rural)	37,219	663	339	324	—
Garston ... ..	22,570	690	367	323	—
Fazakerley ... ..	4,168	103	41	62	—
City ... ..	746,144	23,654	13,676	9,978	—
Deaths of persons brought into the City Hospitals from outside the City ... ..	—	—	732	—	—
Total ... ..	746,144	23,654	14,408	—	—



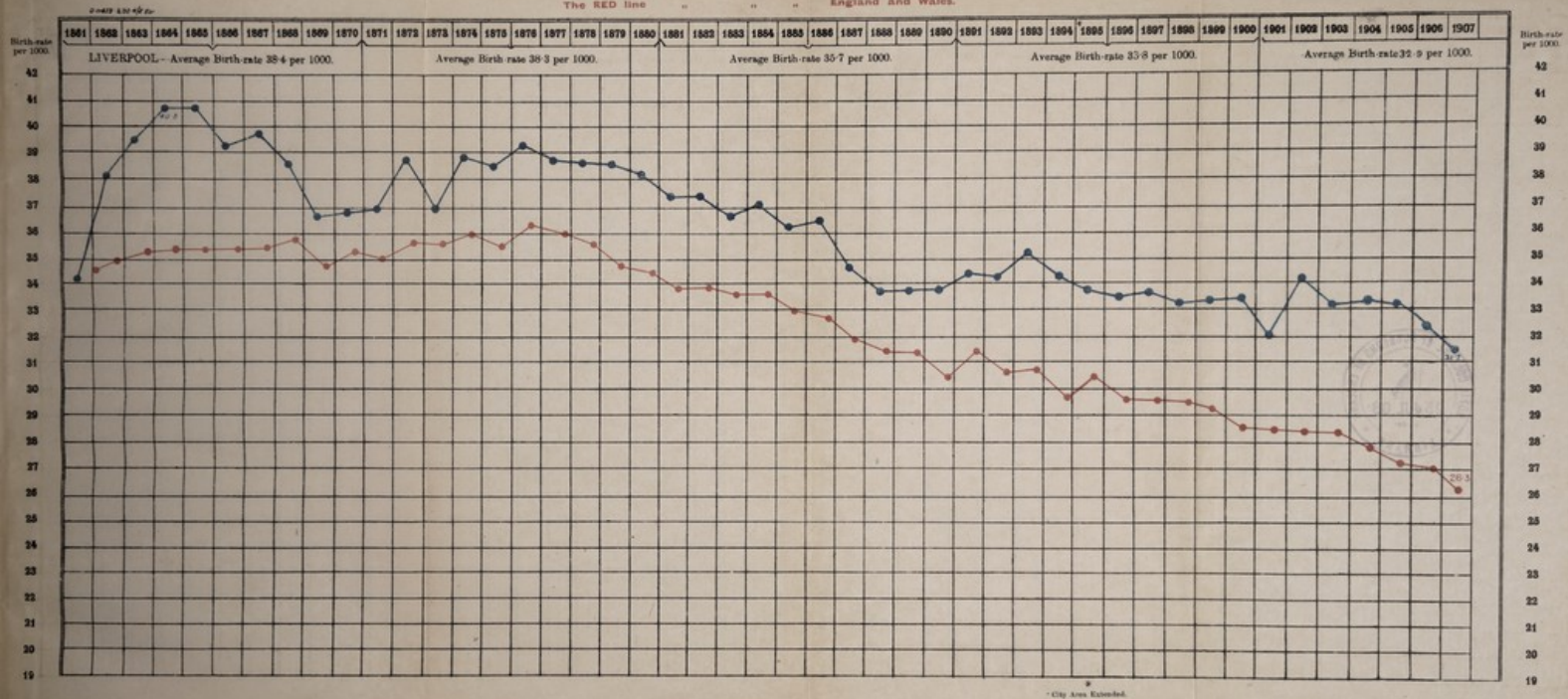
The following tables give the estimated population, number of births recorded, and birth-rate of eighty-two of the large towns of the United Kingdom.

TOWNS.						Estimated Popula- tion in the middle of the year 1907.	No. of Births.	Annual Rate to 1,000 of population.
London	...	...	...	...	...	4,758,218	121,408	25.6
Croydon	...	...	...	...	...	154,342	3,955	25.7
Willesden	...	...	...	...	...	149,192	4,161	28.0
Hornsey	...	...	...	...	...	89,816	1,519	17.0
Tottenham	...	...	...	...	...	122,793	3,703	30.2
West Ham	...	...	...	...	...	308,284	8,779	28.6
East Ham	...	...	...	...	...	136,421	3,580	26.3
Leyton	...	...	...	...	...	122,040	3,169	26.0
Walthamstow	...	...	...	...	...	126,397	3,589	28.5
Hastings	...	...	...	...	...	67,477	1,120	16.6
Brighton	...	...	...	...	...	129,023	2,710	21.1
Portsmouth	...	...	...	...	...	208,291	5,796	27.9
Bournemouth	...	...	...	...	...	69,246	1,197	17.3
Southampton	...	...	...	...	...	119,745	2,757	23.1
Reading	...	...	...	...	...	80,311	1,805	22.5
Northampton	...	...	...	...	...	95,070	1,956	20.6
Ipswich	...	...	...	...	...	72,825	1,848	25.4
Great Yarmouth	...	...	...	...	...	52,879	1,388	26.3
Norwich	...	...	...	...	...	119,191	2,968	25.0
Plymouth	...	...	...	...	...	120,063	2,776	23.2
Devonport	...	...	...	...	...	79,959	2,175	27.3
Bristol	...	...	...	...	...	367,979	8,924	24.3
Hanley	...	...	...	...	...	67,174	2,168	32.4
Burton-on-Trent	...	...	...	...	...	53,425	1,297	24.3
Wolverhampton	...	...	...	...	...	102,016	2,684	26.4
Walsall	...	...	...	...	...	96,171	2,832	29.5
Handsworth	...	...	...	...	...	65,929	1,509	23.0
West Bromwich	...	...	...	...	...	69,123	2,130	30.9
Birmingham	...	...	...	...	...	553,155	15,623	28.3
King's Norton	...	...	...	...	...	75,600	1,846	24.5
Smethwick	...	...	...	...	...	66,467	1,908	28.8
Aston Manor...	...	...	...	...	...	83,266	2,110	25.4
Coventry	...	...	...	...	...	77,626	2,557	33.0
Leicester	...	...	...	...	...	236,124	5,458	23.2
Grimsby	...	...	...	...	...	70,574	2,104	29.9
Nottingham	...	...	...	...	...	257,489	6,889	26.8
Derby	...	...	...	...	...	125,774	3,152	25.1
Stockport	...	...	...	...	...	100,986	2,707	26.9
Birkenhead	...	...	...	...	...	118,553	3,694	31.2
Wallasey	...	...	...	...	...	66,707	1,760	26.5

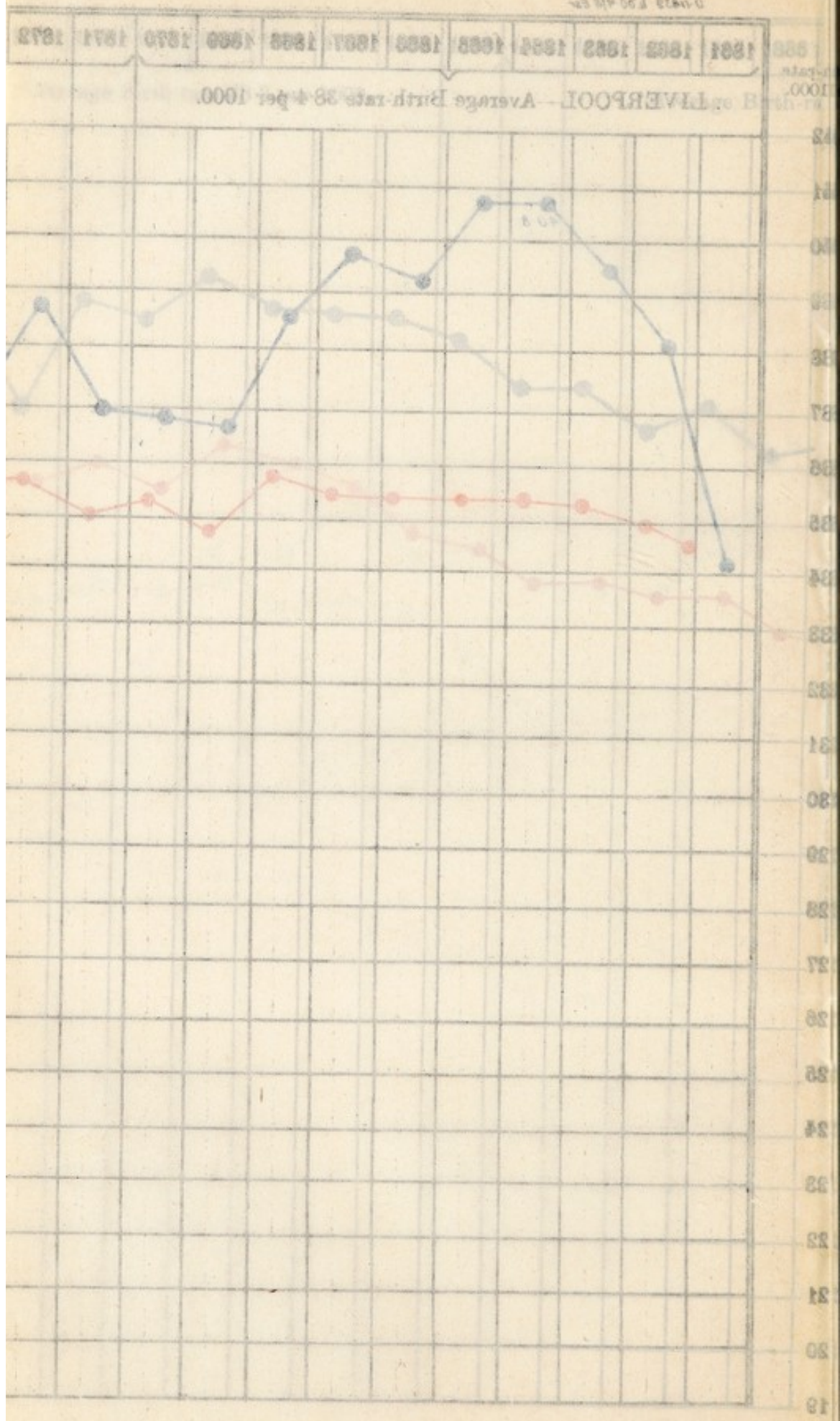
TOWNS.							Estimated Popula- tion in the middle of the year 1907.	No. of Births.	Annual Rate to 1,000 of population.
Bootle...	...	...	...	...	...	...	67,114	2,171	32·4
St. Helens	...	...	...	...	...	...	92,476	3,155	34·2
Wigan...	...	...	...	...	...	...	88,606	2,730	30·9
Warrington	...	...	...	...	...	...	70,269	2,356	33·6
Bolton	...	...	...	...	...	...	182,917	4,455	24·4
Bury	...	...	...	...	...	...	58,901	1,837	22·8
Manchester	...	...	...	...	...	...	643,148	18,434	28·7
Salford	...	...	...	...	...	...	236,670	6,892	29·2
Oldham	...	...	...	...	...	...	141,730	3,743	26·5
Rochdale	...	...	...	...	...	...	87,999	2,071	23·6
Burnley	...	...	...	...	...	...	103,947	2,953	28·5
Blackburn	...	...	...	...	...	...	134,980	3,336	24·8
Preston...	...	...	...	...	...	...	117,093	3,129	26·8
Barrow-in-Furness	...	...	...	...	...	...	61,635	1,791	29·1
Huddersfield	...	...	...	...	...	...	94,814	2,189	23·2
Halifax	...	...	...	...	...	...	110,138	1,913	17·4
Bradford	...	...	...	...	...	...	290,323	5,777	20·0
Leeds	...	...	...	...	...	...	470,268	11,677	24·9
Sheffield	...	...	...	...	...	...	455,553	14,046	30·9
Rotherham	...	...	...	...	...	...	62,412	2,014	32·4
York	...	...	...	...	...	...	84,730	2,181	25·8
Hull	...	...	...	...	...	...	266,762	7,666	28·8
Middlesbrough	...	...	...	...	...	...	101,783	3,470	34·2
Stockton-on-Tees	...	...	...	...	...	...	52,909	1,658	31·4
West Hartlepool	...	...	...	...	...	...	75,473	2,086	27·7
Sunderland	...	...	...	...	...	...	156,029	5,330	34·3
South Shields	...	...	...	...	...	...	113,460	3,276	29·0
Gateshead	...	...	...	...	...	...	125,783	3,851	30·7
Newcastle-on-Tyne	...	...	...	...	...	...	272,969	8,089	29·7
Tynemouth	...	...	...	...	...	...	54,688	1,794	32·9
Newport, Mon.	...	...	...	...	...	...	75,585	2,416	32·1
Cardiff	...	...	...	...	...	...	187,620	4,865	26·0
Rhondda	...	...	...	...	...	...	130,400	4,829	37·1
Merthyr Tydfil	...	...	...	...	...	...	76,085	2,727	35·9
Swansea	...	...	...	...	...	...	97,324	3,157	32·5
Edinburgh	...	...	...	...	...	...	345,747	7,506	21·7
Glasgow	...	...	...	...	...	...	847,584	24,006	28·3
Dundee	...	...	...	...	...	...	165,748	4,543	27·4
Aberdeen	...	...	...	...	...	...	174,579	4,501	25·8
Dublin	...	...	...	...	...	...	390,691	10,958	28·1
Belfast	...	...	...	...	...	...	370,163	11,223	30·4
<b>LIVERPOOL</b>	...	...	...	...	...	...	<b>746,144</b>	<b>23,654</b>	<b>31·7</b>

# BIRTH-RATE, 1861-1907

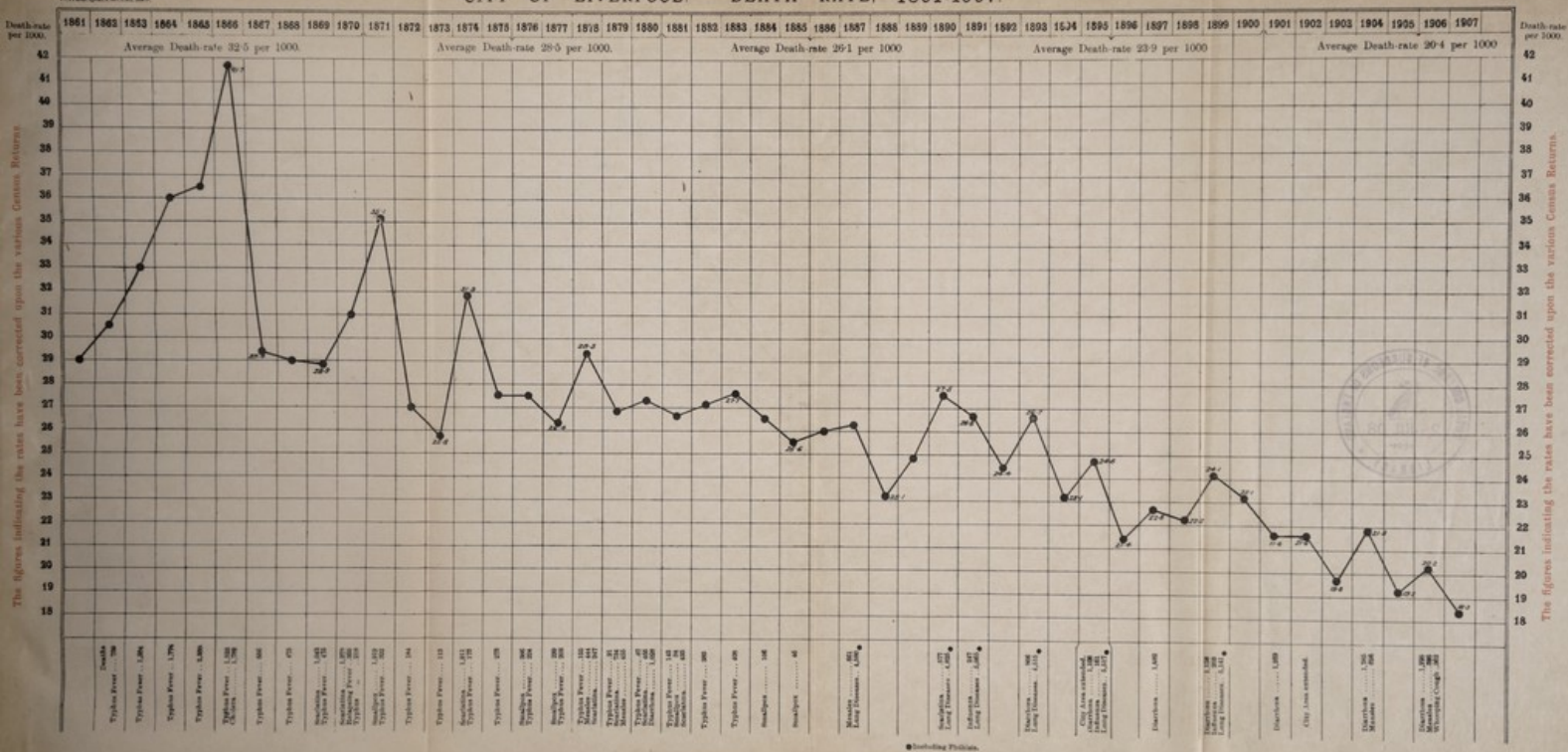
The BLUE line denotes the Birth Rate of Liverpool.  
The RED line " " " " " England and Wales.







CITY OF LIVERPOOL. DEATH RATE, 1861-1907.



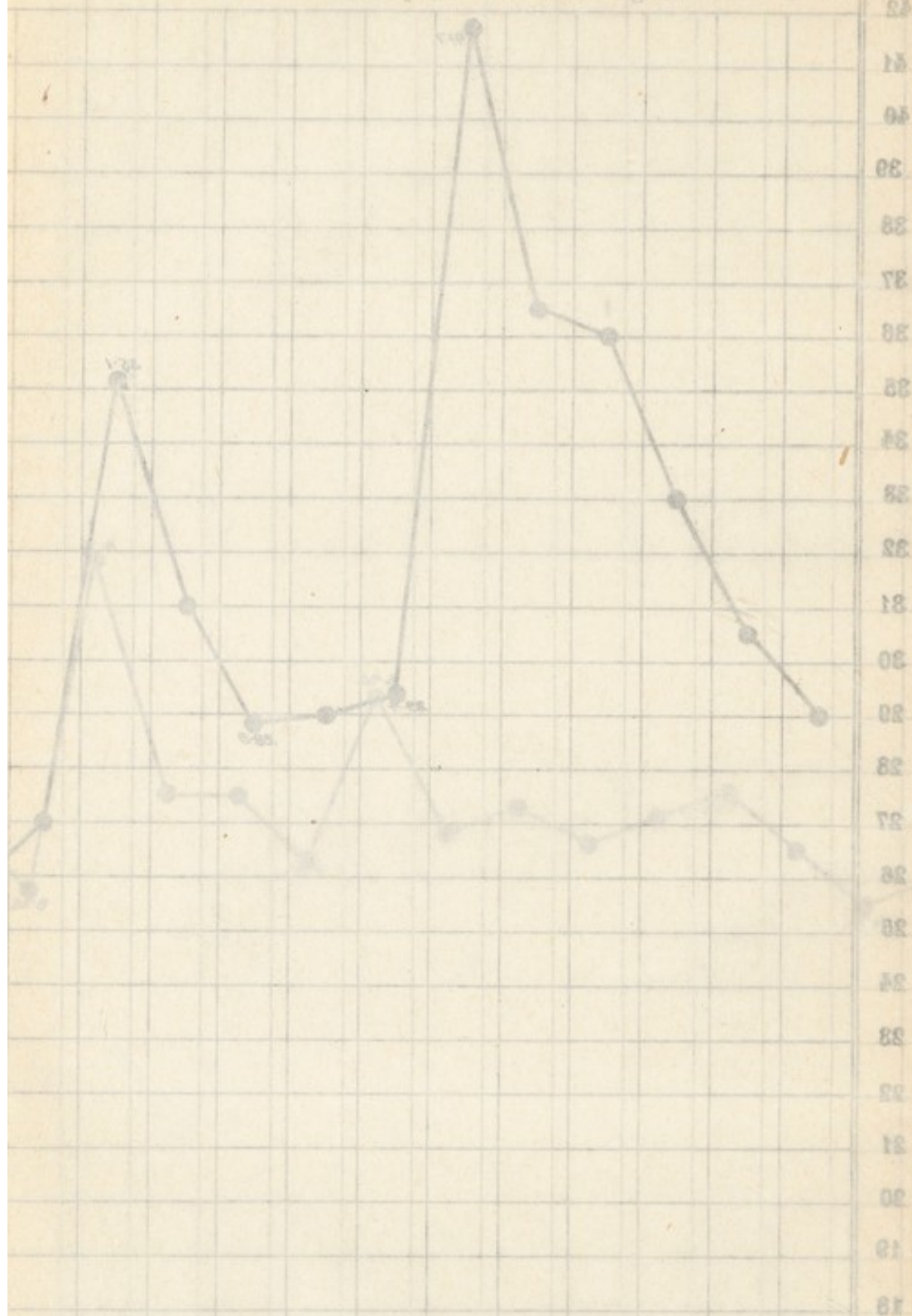


# CITY OF LIVERPOOL. DEATH

0 11 20 12 00 1 00 1 18 1 28

1871 1872 1873 1874 1875 1876 1877 1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900

Average Death-rate 32.5 per 1000



1871	26.5
1872	32.5
1873	35.5
1874	31.5
1875	29.5
1876	29.5
1877	28.5
1878	29.5
1879	29.5
1880	30.5
1881	30.5
1882	30.5
1883	30.5
1884	30.5
1885	30.5
1886	30.5
1887	42.5
1888	36.5
1889	35.5
1890	32.5
1891	30.5
1892	29.5
1893	28.5
1894	28.5
1895	28.5
1896	28.5
1897	28.5
1898	28.5
1899	28.5
1900	28.5



## DEATHS.

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The statistics dealing with mortality and its causes are set forth in the ensuing pages; the total death-rate of the city during the year was 18·3 per 1,000, the lowest recorded in Liverpool; the average rate of the ten years following the extension of the city boundaries (1896-1905) was 21·8, that of 1906 was 20·2. The deaths in public institutions of 732 non-residents, equal to 0·9 per 1,000, have been eliminated from the total deaths.

On comparing the death-rate of one locality with that of another, it is necessary, before any correct conclusions can be drawn from the comparison, to ascertain whether the populations of the two localities are comparable in point of age; if they are not, certain corrections must be made. Quite apart from conditions of sanitation, mortality varies widely at different age-periods, as the next table shows; consequently the death-rate of the community is largely influenced by the proportions living at each age-period; the effect of a high birth-rate in raising the crude death-rate is well seen by the table, which also indicates plainly enough how the crude returns are modified if there happens to be an unusual proportion of the population at any one age-period. A hospital for foundlings, or a home for aged people, will have a very different influence upon the mortality returns of the district than a school containing an equal number of boys from 10 to 15 years of age.

If, for example, we could conceive that the whole population of Liverpool consisted of persons between the ages of 20 and 30, the death-rate last year would have been 4·4 per 1,000; if, on the other hand, we could conceive that it consisted entirely of people above 60 years, the death-rate would be 76·3 per 1,000. It is plain that any variation in the *proportions* living at the respective age-periods would affect the death-rate, and this with absolutely no change whatever in the condition of municipal sanitation. These proportions, however, vary very slowly and very slightly year by year in each district, so that yearly comparisons of the mortality-rate of the same district may be fairly made, but one district must not be put into comparison with another unless the conditions of each are known, and the necessary corrections made.

THE FOLLOWING TABLE SHOWS THE ANNUAL RATE OF MORTALITY PER 1,000 AT EACH OF TWELVE AGE-PERIODS DURING LAST YEAR IN LIVERPOOL, AS WELL AS THE TOTAL NUMBER OF DEATHS.

THE DIFFERENCES WHICH THE FIGURES SHOW ARE VERY STRIKING:—

1907.	* Under 1 year.	1 to 2	2 to 5	5 to 10	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 and upwards.	Total at all Ages.
Rate of Mortality per 1,000 living at ages indicated.	143.0	62.0	15.2	4.1	2.6	4.4	8.8	15.4	29.7	58.2	107.1	172.5	18.3
Total Number of Deaths at each Age Period.	3383	1118	800	333	397	638	954	1208	1534	1762	1174	375	13676
†Estimated Population	20789	18014	52462	80427	148736	144775	107882	78187	51505	30234	10960	2173	746144

(See Comparative Chart on next page).

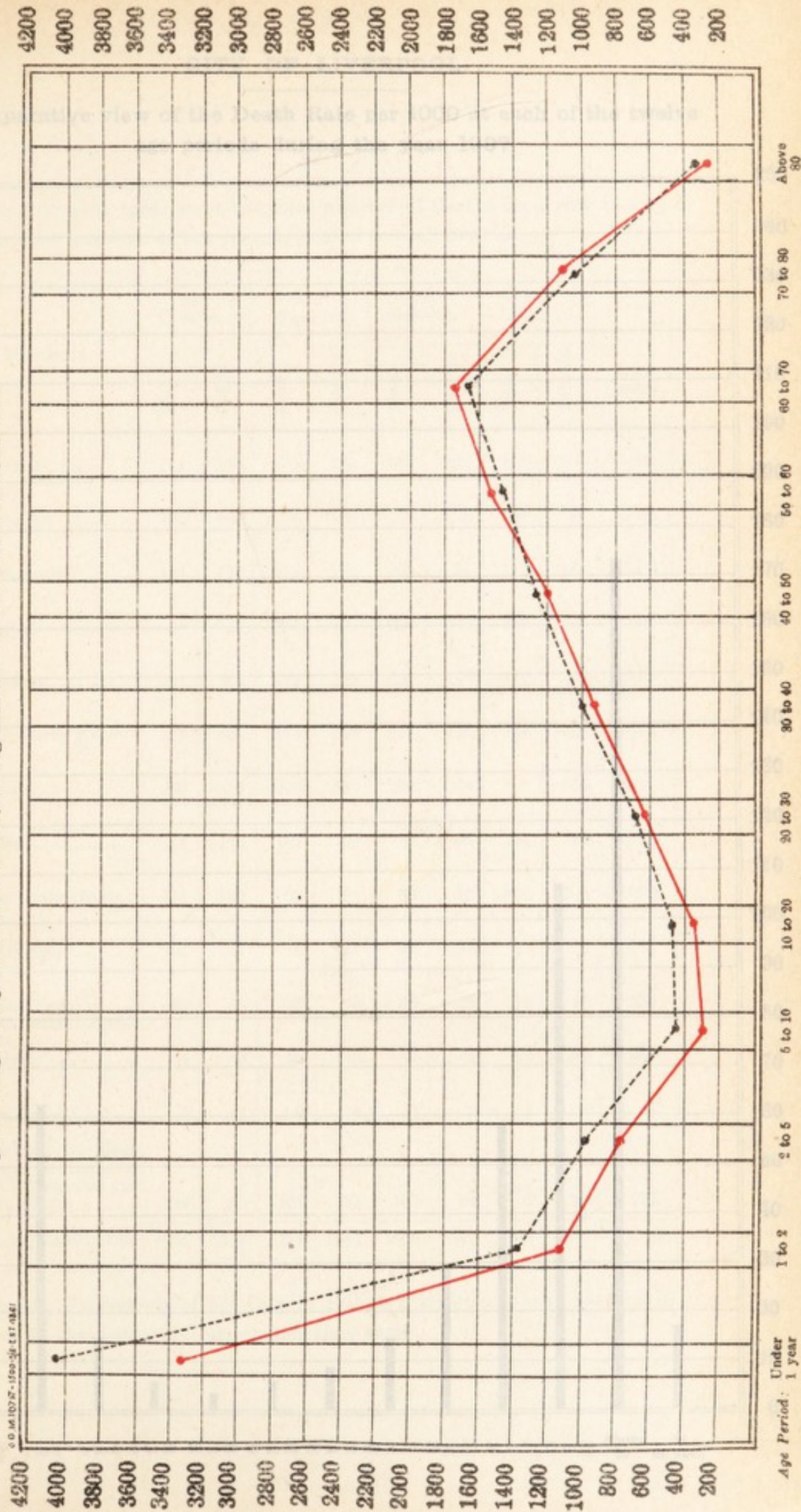
\* Column I. indicates the rate of mortality under one year per 1,000 births during the year.

† This estimate being so far removed from the Census must be regarded as approximate.



# CITY OF LIVERPOOL.

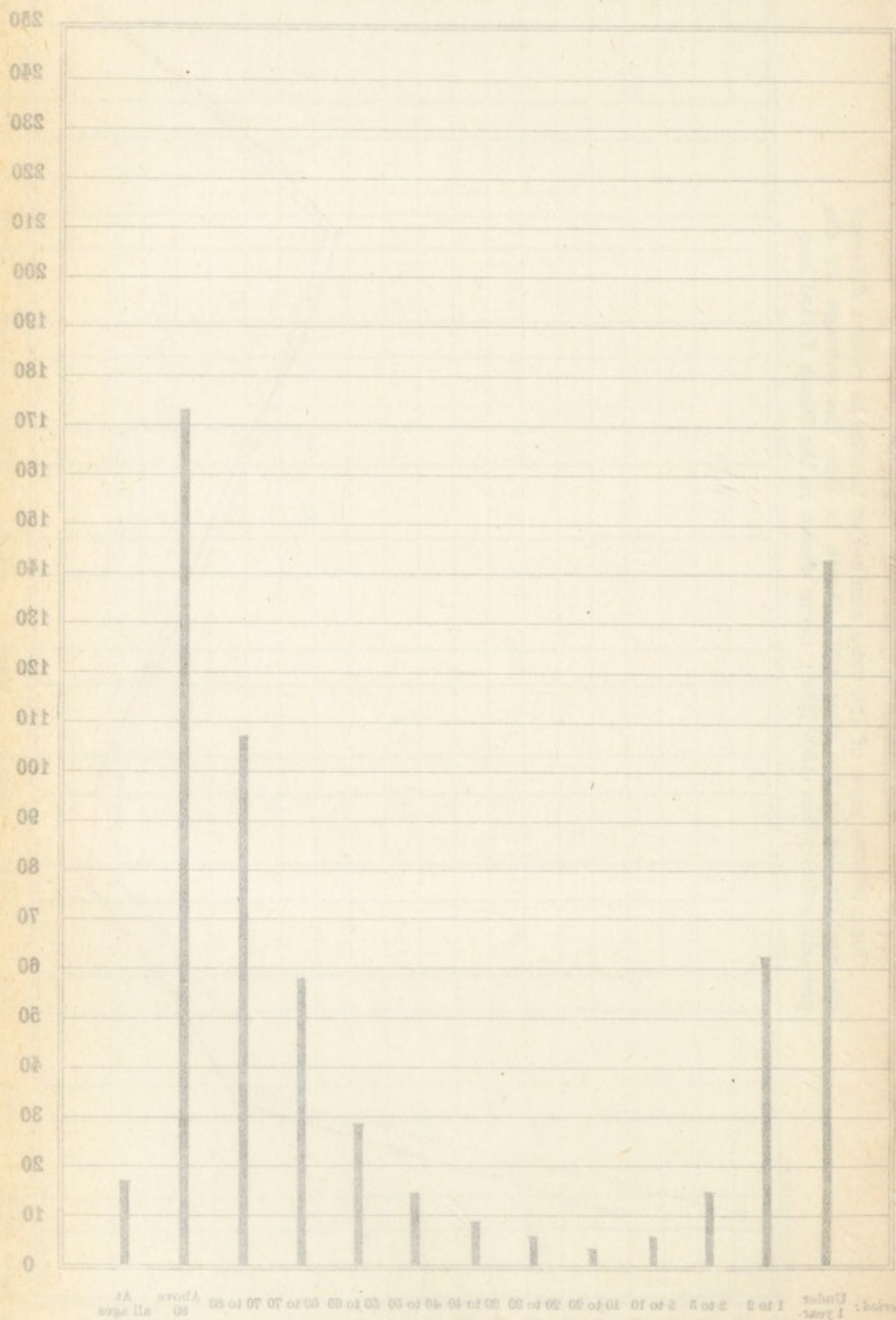
Comparative view of the total number of Deaths at twelve different age periods during the year 1907 shown in Red, the average for the preceding five years (1902-1906), being shown in the Black dotted line.





# CITY OF LIVERPOOL.

Comparative view of the Death Rate per 1000 at each of the twelve age periods during the year 1907.



The following table gives the total number of deaths occurring in each of the four quarters of the year, allocated to each district:—

DISTRICTS.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Year.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total Deaths.
Scotland .....	174	167	183	133	188	161	215	240	1461
Exchange .....	193	148	176	130	162	128	181	157	1275
Abercromby .....	148	130	111	104	101	94	113	123	924
Everton .....	348	314	295	295	309	240	327	315	2443
Kirkdale .....	214	174	174	151	147	126	169	155	1310
West Derby (West)..	217	205	172	192	157	143	198	227	1511
Toxteth .....	260	253	206	217	202	216	307	286	1947
Walton.....	114	145	107	102	94	92	123	112	889
West Derby (East)...	111	102	98	95	86	75	106	103	776
Wavertree .....	74	51	55	41	36	32	52	52	398
Sefton Park .....	49	58	39	49	33	30	38	43	339
(late Toxteth Rural)									
Garston .....	54	49	42	47	41	44	53	37	367
Fazakerley .....	6	4	9	4	5	2	5	6	41
Deaths of Non-Resi- dents of the City in Workhouses and Hospitals .....	122	88	107	81	105	64	102	63	732
Total Deaths in City	2084	1888	1774	1641	1666	1447	1989	1919	14,408

Deaths of residents of the City in Public Institutions have been transferred to the districts from whence they came.

DEATHS IN PUBLIC INSTITUTIONS

Deaths in Public Institutions are referred to the Districts from whence the patients came, but the following table shows that the deaths of 4,984 persons occurred in the undermentioned Institutions for the treatment of the sick:—

	Total Deaths.	Non-Residents of City.
Parish Workhouse ... ..	990	68
Royal Infirmary ... ..	304	85
Children's Infirmary ... ..	118	23
Lying-in Hospital ... ..	18	—
Consumption Hospital ... ..	9	3
Hahnemann Hospital ... ..	12	—
David Lewis Northern Hospital ... ..	235	52
Stanley Hospital ... ..	146	30
Royal Southern Hospital ... ..	192	35
Mill Road Infirmary ... ..	798	62
Hospital for Women ... ..	35	20
City Hospital North ... ..	102	12
Do. South ... ..	33	4
Do. Parkhill ... ..	81	4
Do. East, Mill Lane ... ..	58	2
Do. Fazakerley ... ..	81	3
Walton Workhouse ... ..	714	178
Belmont Road Workhouse ... ..	114	58
Highfield Infirmary ... ..	371	30
St. Joseph's Home ... ..	42	16
Toxteth Workhouse ... ..	405	6
Home for Incurables ... ..	6	4
House of Providence ... ..	5	3
Tuebrook Villa Asylum ... ..	11	3
Turner Memorial Home ... ..	6	2
St. Augustine's Home ... ..	19	2
Kirkdale Home ... ..	23	4
Grove Mount Home ... ..	10	—
Walton Gaol ... ..	9	5
Garston Accident Hospital ... ..	2	—
Other Institutions ... ..	35	18
	<hr/> 4984	<hr/> 732

From the returns made as to the residences of these persons 4,252 of the deaths in these establishments are classified in the districts from whence the patients were removed, viz.:—568 under Scotland district,



649 under Exchange district, 398 under Abercromby district, 745 under Everton, 323 under Kirkdale, 430 under West Derby (West), 588 under Toxteth, 175 under Walton, 151 under West Derby (East), 83 under Wavertree, 58 under Sefton Park (late Toxteth Rural), 78 under Garston and 6 under Fazakerley; 584 were non-residents, who had sought relief in Liverpool Institutions, and of the remainder, 148 were waifs, strangers to the City, whose previous residences were unknown.

In Liverpool the proportion of deaths which takes place in Public Institutions is larger than is the case in other towns, and the fact is an interesting one, as something may be learned of the social conditions of a locality when so large a proportion in times of sickness seek refuge in public institutions, more especially in the workhouses. Generally it implies poverty and want; but on the other hand, it may also, and no doubt does, imply that the institutions have a wide reputation, and attract sufferers to them not only from within the city, but from a distance. Probably both of these conditions exercise influence; but be that as it may, the fact remains that there is no provincial city in which so large a proportion of the deaths takes place in workhouses and hospitals.

The following table shows the percentage of deaths which have occurred in public institutions during the five years, 1903-1907, in the great towns of Birmingham, Leeds, Manchester and Liverpool:—

	1903.	1904.	1905.	1906.	1907.	Average.
Birmingham .....	23·9	22·4	22·2	21·8	24·6	23·0
Leeds .....	14·8	14·6	15·0	15·0	17·4	15·4
Manchester .....	24·5	24·1	23·2	24·6	26·0	24·5
Liverpool .....	30·8	27·8	33·0	31·6	34·5	31·5

The results of the allocation of deaths in public institutions to the districts from whence the patients had been removed, and the addition of these to the number of deaths of residents in those various districts,

are shown in the following table, from which a calculated rate of mortality per 1,000 per annum of the inhabitants has been made. The rates are calculated upon the corrected population as ascertained by the Census of 1891 and 1901.

DISTRICTS.	Population.	1907.		Corrected Average Rate per 1000 during the five years 1902-1906.
		Deaths.	Rate per 1000	
Scotland ... ..	52,549	1,461	27·8	31·5
Exchange ... ..	41,168	1,275	30·9	32·3
Abercromby ... ..	50,562	924	18·2	20·9
Everton ... ..	123,952	2,443	19·7	21·9
Kirkdale ... ..	70,492	1,310	18·5	20·2
West Derby (West) ... ..	90,184	1,511	16·7	18·6
Toxteth ... ..	105,033	1,947	18·5	21·1
Walton ... ..	63,017	889	14·1	15·0
West Derby (East) ... ..	49,212	776	15·7	16·4
Wavertree ... ..	36,018	393	10·9	14·4
Sefton Park (late Toxteth Rural) ... ..	37,219	339	9·1	10·7
Garston ... ..	22,570	367	16·2	16·5
Fazakerley ... ..	4,168	41	9·8	11·7
City ... ..	746,144	13,676	18·3	20·5

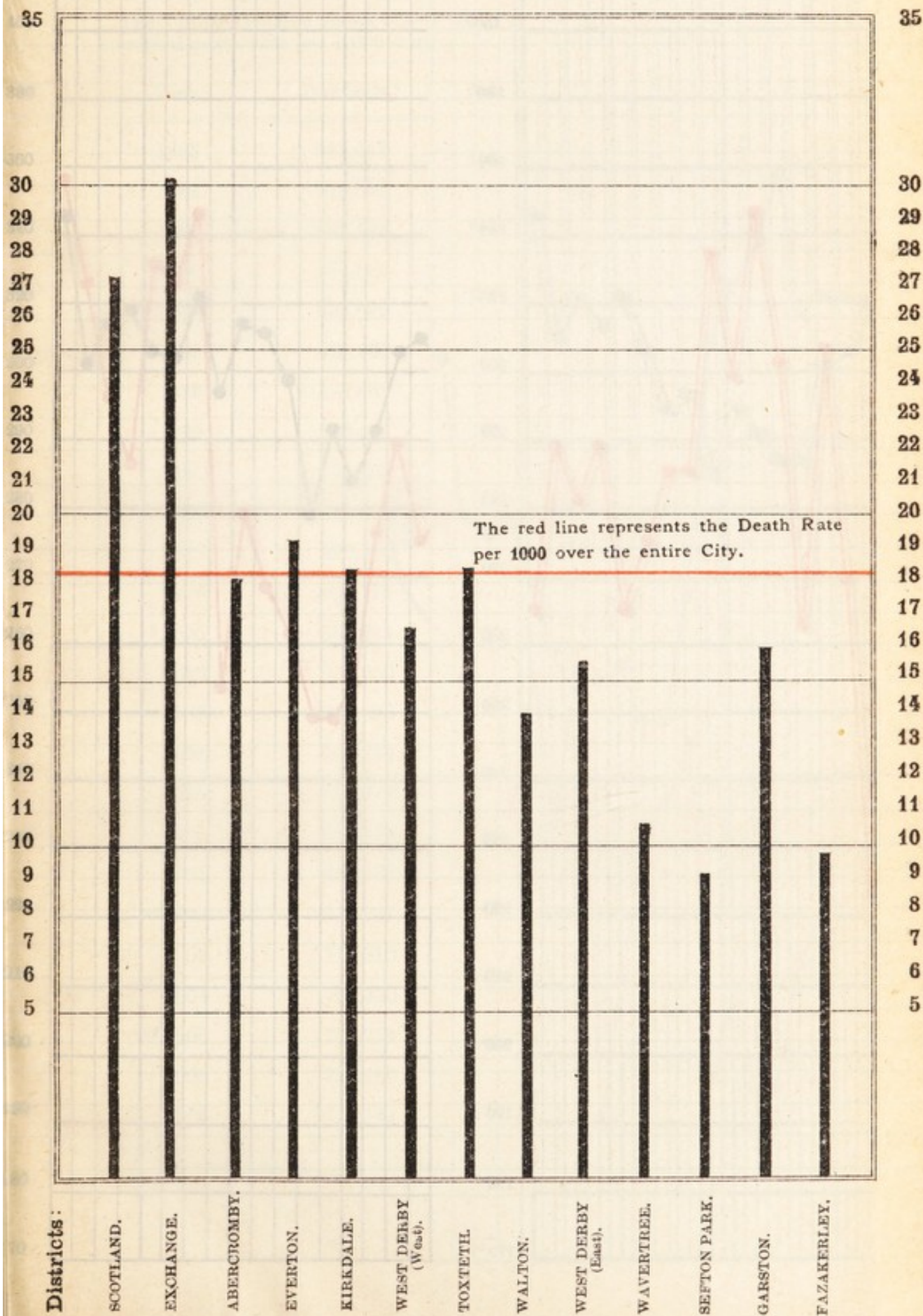
The District Registrars' Returns show that there were 27 deaths (20 of women and 7 of men) at the age of 90 and upwards, viz., 1 male and 9 females at 90, 1 male and 3 females at 91, 2 males and 3 females at 92, 1 male at 93, 1 male and 1 female at 94, 1 male at 95, 1 female at 96, 1 female at 97, 1 female at 99, and 1 female at 111.

The death-rate per 1,000 for 1907 in each of the districts of the city is indicated upon the map at the end of the volume. Scotland and Exchange districts, it must be remembered, contain a great number of common lodging-houses, some of which are resorted to by non-residents of the districts, persons of very migratory habits, and often indigent and broken down. This class tends to swell the mortality of these two districts. Last year the rate in Scotland district was increased by about one per 1,000 from this cause, and in Exchange district by about four per 1,000.



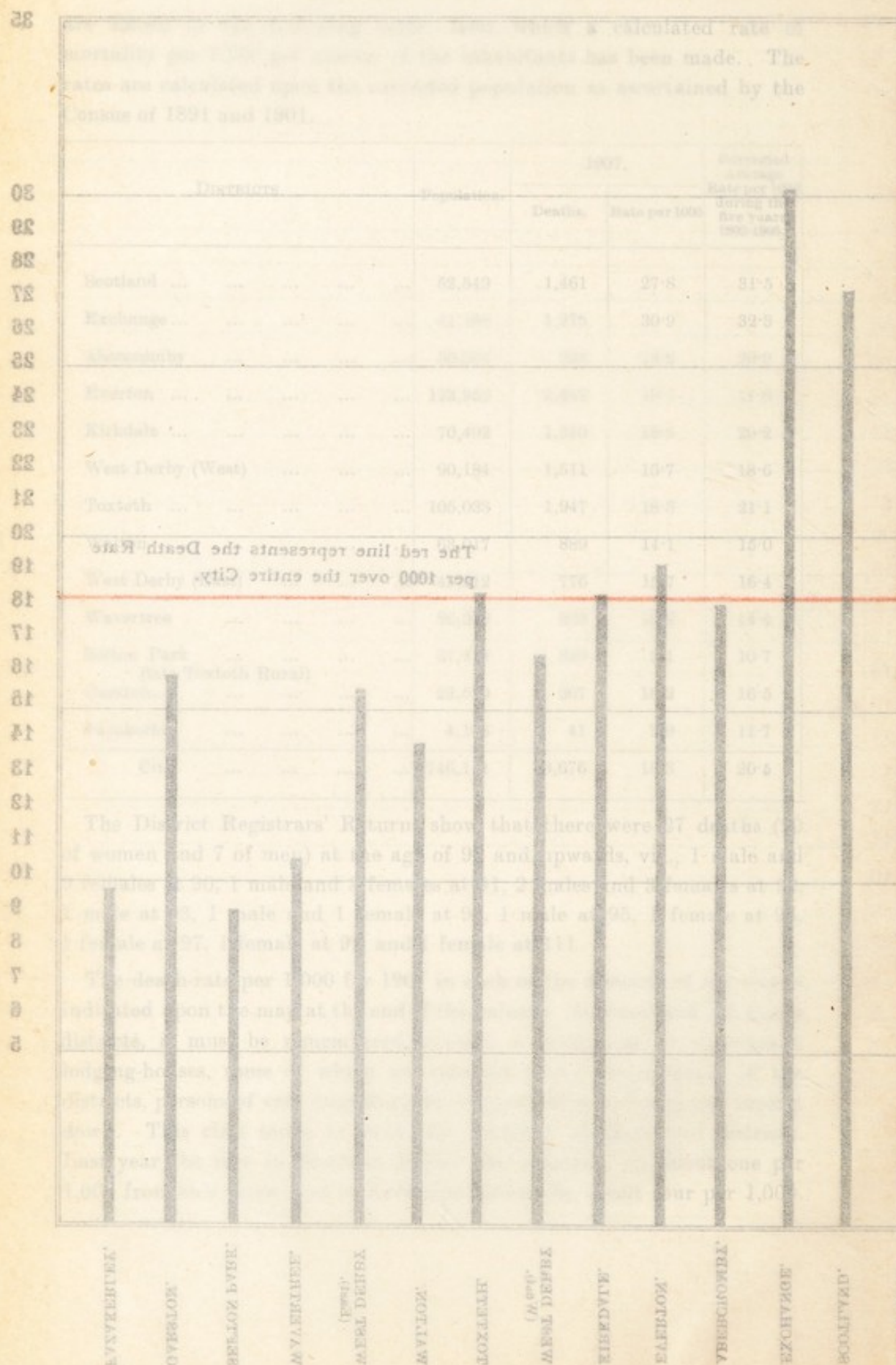
The Red line denotes the  
Black line the average  
**CITY OF LIVERPOOL.**

Comparative view of the Death Rate per 1000 in the different districts  
of the City during the year 1907.





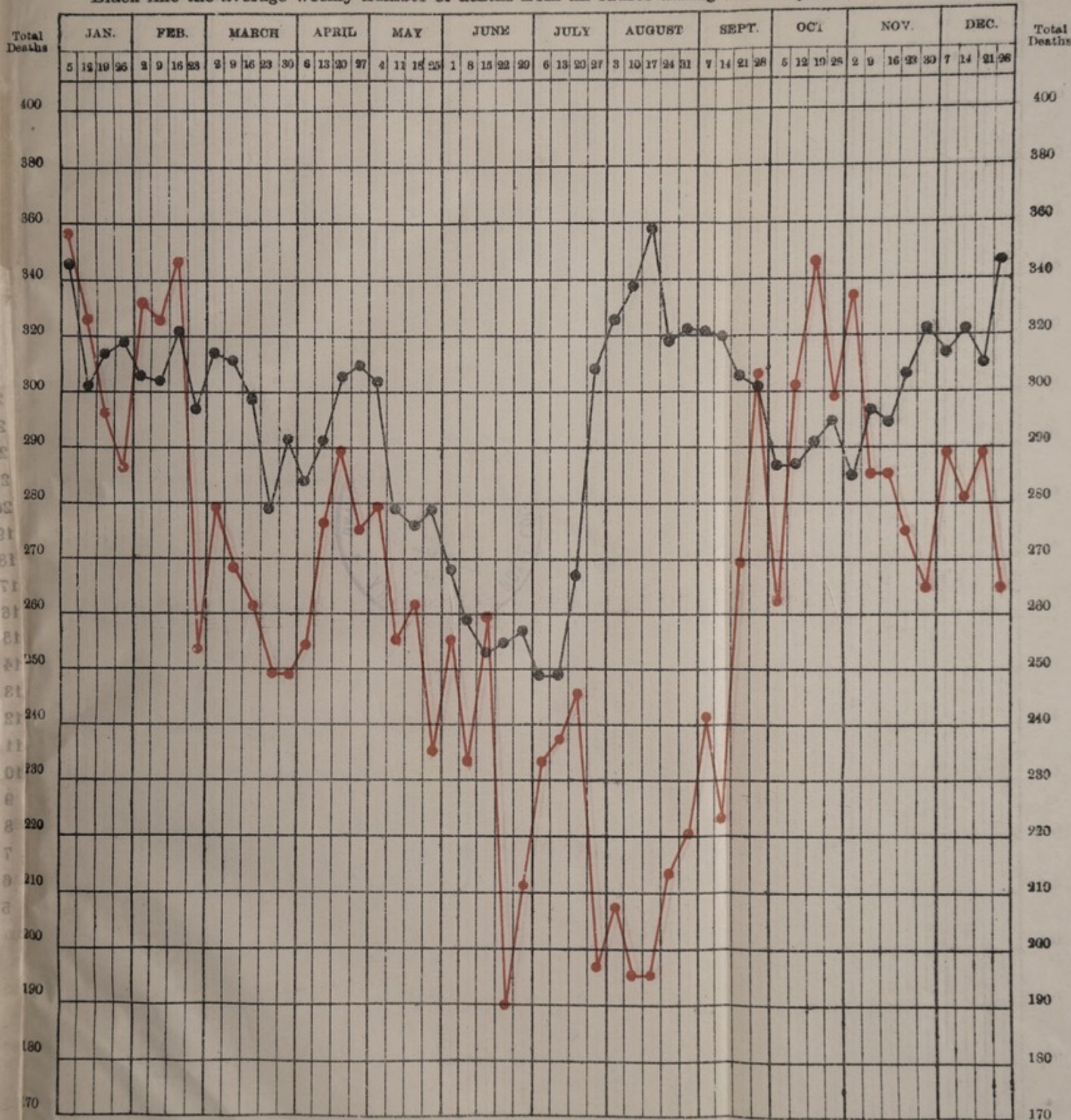
Comparative view of the Death Rate per 1000 in the different districts of the City during the year 1907.





# CITY OF LIVERPOOL. COMPARATIVE MORTALITY CHART.

The Red line denotes the weekly number of Deaths from all causes during the year 1907: the Black line the average weekly number of deaths from all causes during the five years 1902 to 1906.





# CITY OF LIVERPOOL COMPARATIVE MORTALITY

The Red line denotes the weekly number of Deaths from all causes  
The Blue line denotes the weekly number of Deaths from all causes (excluding)

JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPT.
1890	1891	1892	1893	1894	1895	1896	1897	1898

35

30

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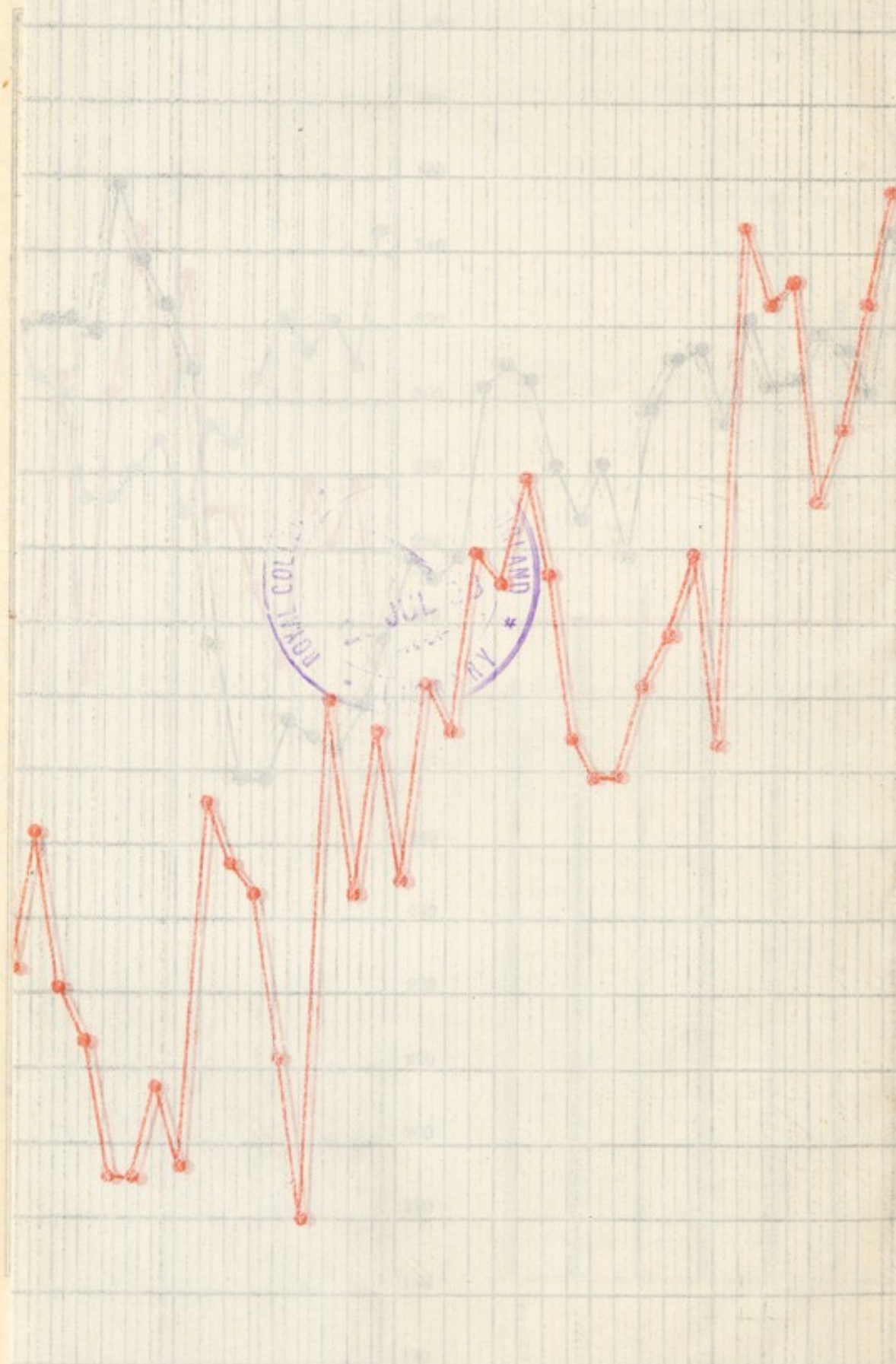
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5





The following table shows the population, number of deaths, and the corrected death-rate per 1,000 during the last twenty-five years:—

Year.	Population.	No. of Deaths.	Rate per 1,000.
1883	544,547	15,074	27·7
1884	541,031	14,382	26·6
1885	537,548	13,764	25·6
1886	534,088	13,919	26·1
1887	530,649	14,006	26·4
1888	527,233	12,159	23·1
1889	523,838	13,047	24·9
1890	520,466	14,293	27·5
1891	518,302	13,911	26·8
1892	519,590	12,671	24·4
1893	520,882	13,919	26·7
1894	522,178	12,073	23·1
*1895	652,523	16,215	24·8
1896	658,050	14,060	21·4
1897	663,633	15,117	22·8
1898	669,243	14,853	22·2
1899	674,912	16,276	24·1
1900	680,628	15,785	23·1
1901	686,332	14,879	21·6
**1902	710,337	15,396	21·6
1903	716,810	14,240	19·8
1904	723,430	15,851	21·9
***1905	733,714	14,103	19·2
1906	739,180	15,001	20·2
1907	746,144	13,676	18·3

\* City area extended.

\*\* Garston included.

\*\*\* Fazakerley included.

The following tables give the estimated population, the number of deaths recorded, the total death-rate, and the infant mortality rate to 1,000 births of eighty-two of the large towns of the United Kingdom:—

TOWNS.					Estimated Population in the middle of the year 1907.	No. of Deaths.	Annual Rate to 1000 of Popula- tion.	Deaths under 1 year to 1,000 Births.
London	...	...	...	...	4,758,218	69,268	14.6	116
Croydon	...	...	...	...	154,342	1,909	12.4	94
Willesden	...	...	...	...	149,192	1,715	11.5	110
Hornsey	...	...	...	...	89,816	771	8.6	77
Tottenham	...	...	...	...	122,793	1,644	13.4	103
West Ham	...	...	...	...	308,284	4,498	14.6	131
East Ham	...	...	...	...	136,421	1,521	11.2	108
Leyton	...	...	...	...	122,040	1,365	11.2	92
Walthamstow	...	...	...	...	126,397	1,511	12.0	113
Hastings	...	...	...	...	67,477	858	12.8	79
Brighton	...	...	...	...	129,023	1,895	14.7	113
Portsmouth	...	...	...	...	208,291	3,332	16.0	123
Bournemouth	...	...	...	...	69,246	829	12.0	83
Southampton	...	...	...	...	119,745	1,556	13.0	108
Reading	...	...	...	...	80,311	994	12.4	90
Northampton	...	...	...	...	95,070	1,169	12.3	122
Ipswich	...	...	...	...	72,825	1,086	15.0	106
Great Yarmouth	...	...	...	...	52,879	786	14.9	128
Norwich	...	...	...	...	119,191	1,735	14.6	125
Plymouth	...	...	...	...	120,063	1,760	14.7	110
Devonport	...	...	...	...	79,959	1,050	13.2	107
Bristol	...	...	...	...	367,979	4,833	13.2	100
Hanley	...	...	...	...	67,174	1,248	18.6	160
Burton-on-Trent	...	...	...	...	53,425	665	12.5	97
Wolverhampton	...	...	...	...	102,016	1,541	15.1	130
Walsall	...	...	...	...	96,171	1,484	15.5	154
Handsworth	...	...	...	...	65,929	688	10.5	101
West Bromwich	...	...	...	...	69,123	1,148	16.7	145
Birmingham	...	...	...	...	553,155	8,925	16.2	147
King's Norton	...	...	...	...	75,600	772	10.2	103
Smethwick	...	...	...	...	66,467	859	13.0	117
Aston Manor	...	...	...	...	83,266	1,075	12.9	125
Coventry	...	...	...	...	77,626	1,146	14.8	104
Leicester	...	...	...	...	236,124	2,983	12.7	131
Grimsby	...	...	...	...	70,574	1,138	16.2	153
Nottingham	...	...	...	...	257,489	4,497	17.5	165
Derby	...	...	...	...	125,774	1,798	14.3	121
Stockport	...	...	...	...	100,986	1,786	17.7	159
Birkenhead	...	...	...	...	118,553	1,817	15.4	110
Wallasey	...	...	...	...	66,707	889	13.4	99

TOWNS.	Estimated Population in the middle of the year 1907.	No. of Deaths.	Annual Rate to 1000 of Popula- tion.	Deaths under 1 year to 1000 Births.
Bootle ... ..	67,114	1,123	16·8	123
St. Helens ... ..	92,476	1,704	18·5	155
Wigan ... ..	88,606	1,649	18·7	163
Warrington ... ..	70,269	1,127	16·1	121
Bolton ... ..	182,917	3,063	16·8	146
Bury ... ..	58,901	938	16·0	136
Manchester ... ..	643,148	11,593	18·1	146
Salford ... ..	236,670	4,176	17·7	140
Oldham ... ..	141,730	2,735	19·4	144
Rochdale ... ..	87,999	1,505	17·1	122
Burnley ... ..	103,947	1,823	17·6	158
Blackburn ... ..	134,980	2,277	16·9	153
Preston ... ..	117,093	2,226	19·1	158
Barrow-in-Furness ... ..	61,635	840	13·7	115
Huddersfield ... ..	94,814	1,602	16·9	97
Halifax ... ..	110,138	1,574	14·3	103
Bradford ... ..	290,323	4,271	14·8	124
Leeds ... ..	470,268	7,173	15·3	130
Sheffield... ..	455,553	7,750	17·1	145
Rotherham ... ..	62,412	1,002	16·1	148
York ... ..	84,730	1,275	15·1	125
Hull ... ..	266,762	4,289	16·1	127
Middlesbrough ... ..	101,783	2,057	20·3	158
Stockton-on-Tees ... ..	52,909	953	18·1	114
West Hartlepool ... ..	75,473	1,019	13·5	127
Sunderland ... ..	156,029	2,983	19·2	130
South Shields ... ..	113,460	1,891	16·7	133
Gateshead ... ..	125,783	1,936	15·4	136
Newcastle-on-Tyne ... ..	272,969	4,335	15·9	123
Tynemouth ... ..	54,688	947	17·4	122
Newport, Mon.... ..	75,585	1,163	15·4	122
Cardiff ... ..	187,620	2,804	15·0	131
Rhondda ... ..	130,400	2,117	16·3	162
Merthyr Tydfil ... ..	76,085	1,483	19·5	154
Swansea ... ..	97,324	1,737	17·9	132
Edinburgh ... ..	345,747	5,587	16·2	127
Glasgow ... ..	847,584	15,659	18·5	130
Dundee ... ..	165,748	3,171	19·1	150
Aberdeen ... ..	174,579	2,505	14·4	124
Dublin ... ..	390,691	9,041	23·2	156
Belfast ... ..	370,163	7,870	21·3	136
<b>LIVERPOOL</b> ... ..	<b>746,144</b>	<b>13,676</b>	<b>18·3</b>	<b>143</b>

The above table is, with the exception of Liverpool, taken without correction from the Returns of the Registrar-General of England and the Registrar-General of Scotland.



## INFANTILE MORTALITY.

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The rate of infant mortality during the year 1907 was the lowest ever recorded in Liverpool.

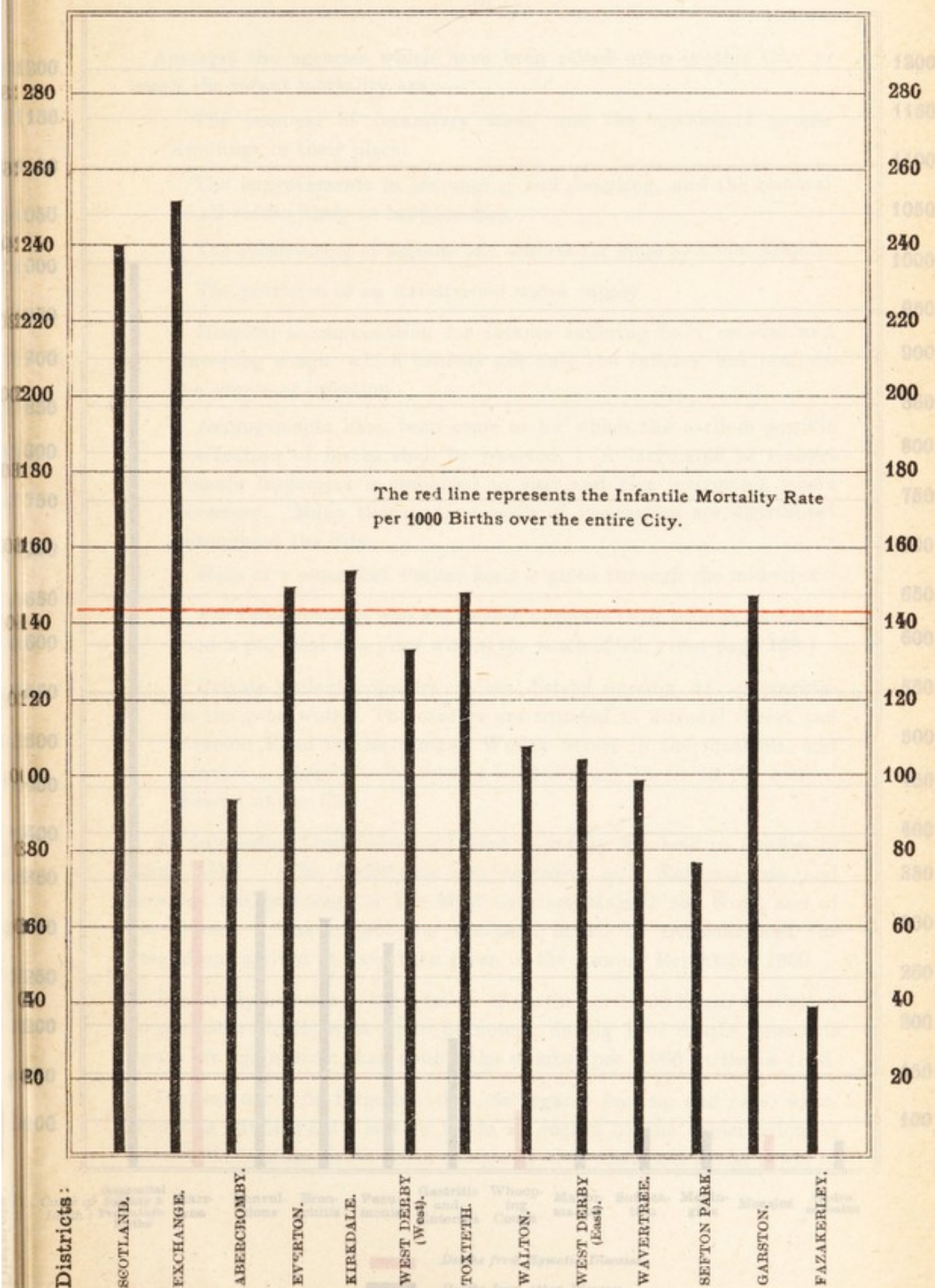
For a great number of years past the subject of the waste of infant life has received close attention from sanitarians, and time after time the conditions with which that waste of life is associated have been considered, and efforts made to grapple with the evil. Of recent years, however, and notably in connection with a declining birth-rate, interest in the subject has spread far beyond the medical profession, and has arrested general public attention.

By the term "infant mortality" is meant the proportion of infants who died before reaching the age of twelve months out of the total number born during the year.

The mortality amongst infants, however good their surroundings and however intelligently maternal care is exercised, is considerable; a certain proportion are premature; some are born with malformations and other defects; others, the offspring of weakly parents, in spite of all care, succumb to one or other of the many ailments to which infancy is susceptible; making due allowance for these, an annual death-rate amongst infants of 80 per thousand seems unavoidable. But if this be granted, it follows that any higher rate is preventible, although the necessary means to prevent it are so extremely difficult to apply that even in good districts the loss of infant life is in excess of this standard. In the poorer districts it is plain to the most casual observer that necessary care and attention are not given to infants; nothing is more common than to see the infant handed over to the custody of children or irresponsible persons, whilst the responsible guardians are either at work or engaged in some other occupation. The children of the very poor are in this way exposed to neglect and inattention which is practically unavoidable, and which, together with improper food and scanty clothing, is reflected in the sacrifice of life.

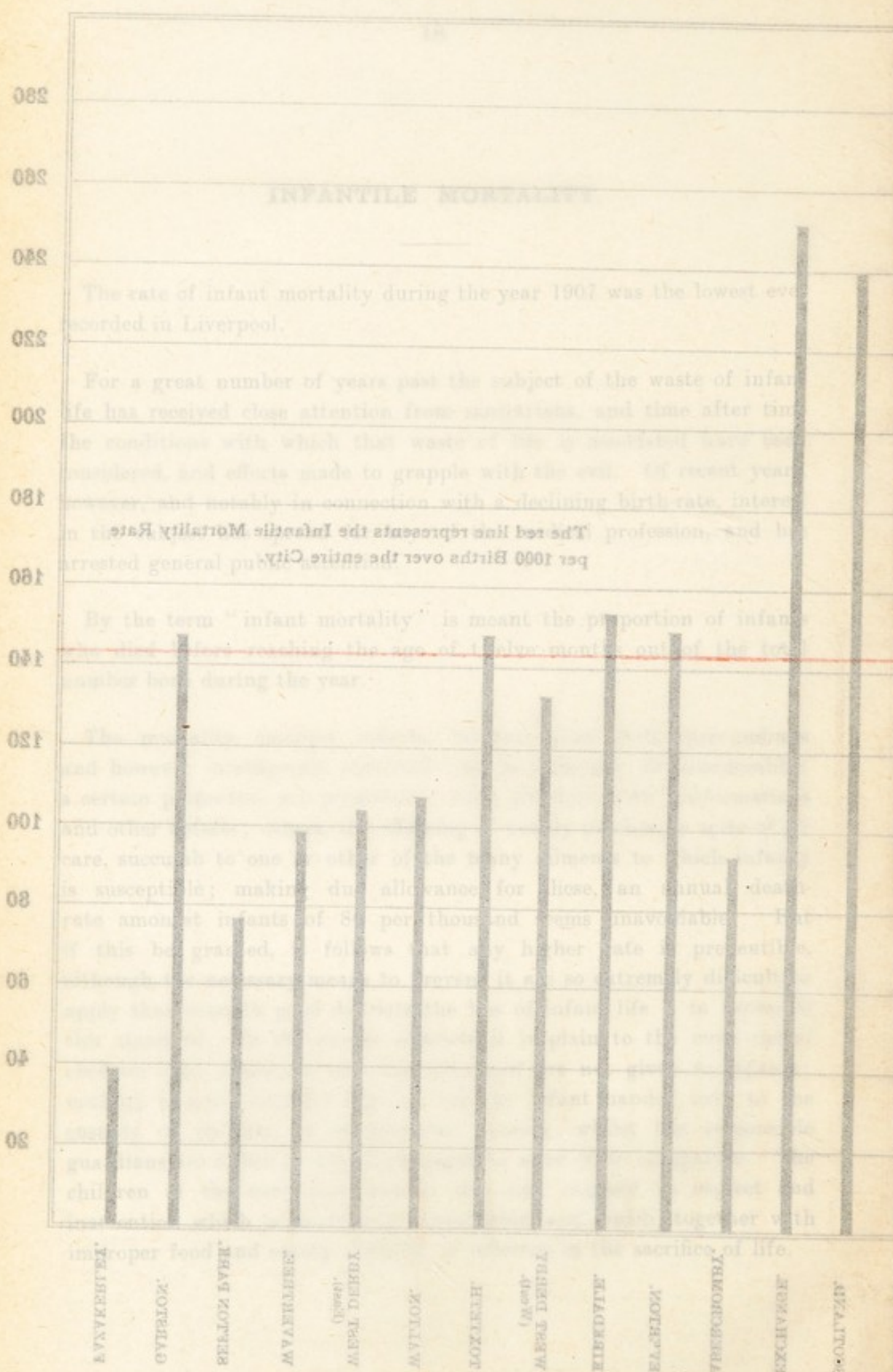
# CITY OF LIVERPOOL.

Comparative view of the Infantile Mortality per 1000 Births in the different districts of the City during the year 1907.





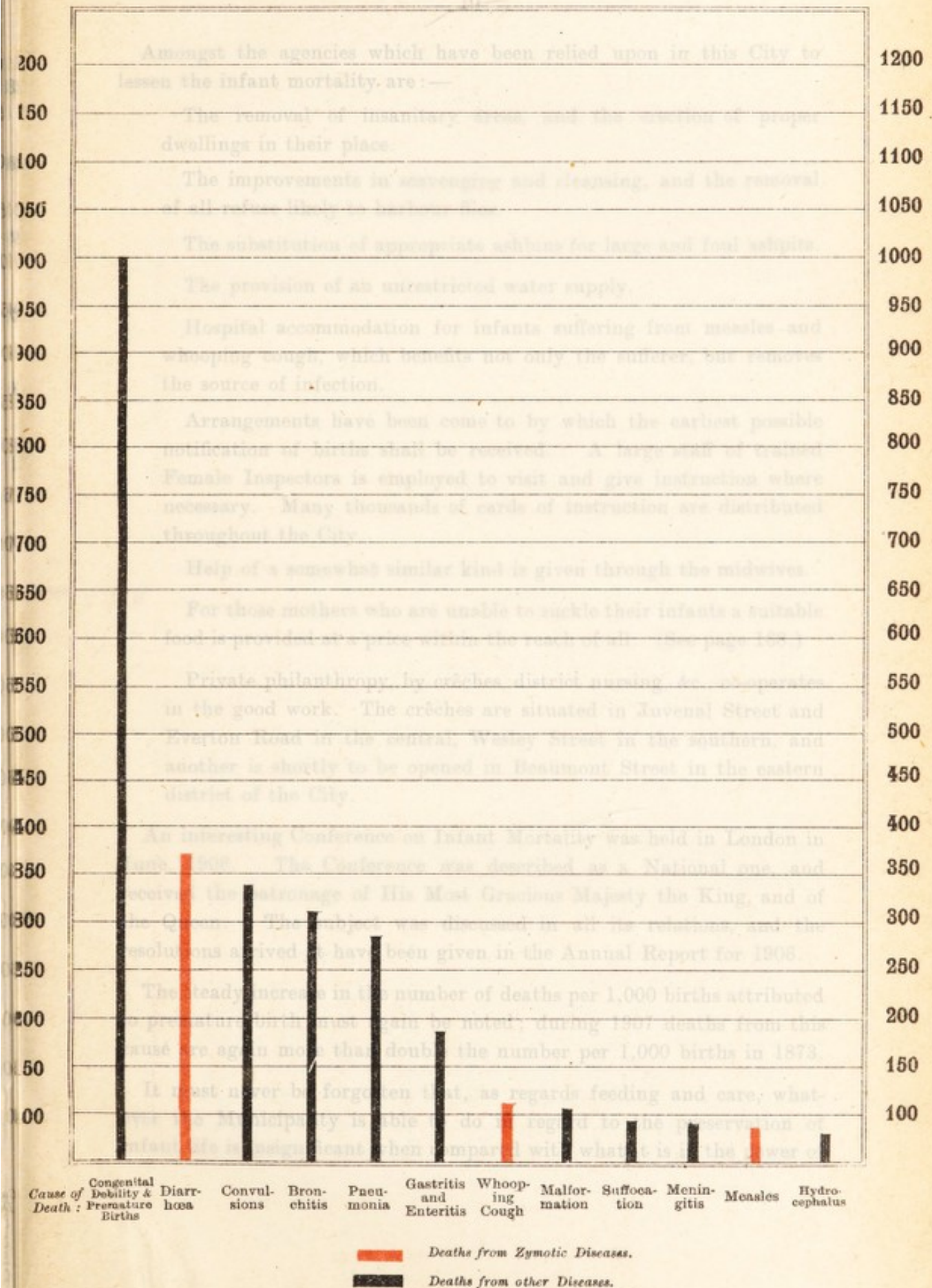
Comparative view of the Infantile Mortality per 1000 Births in the different districts of the City during the year 1907.





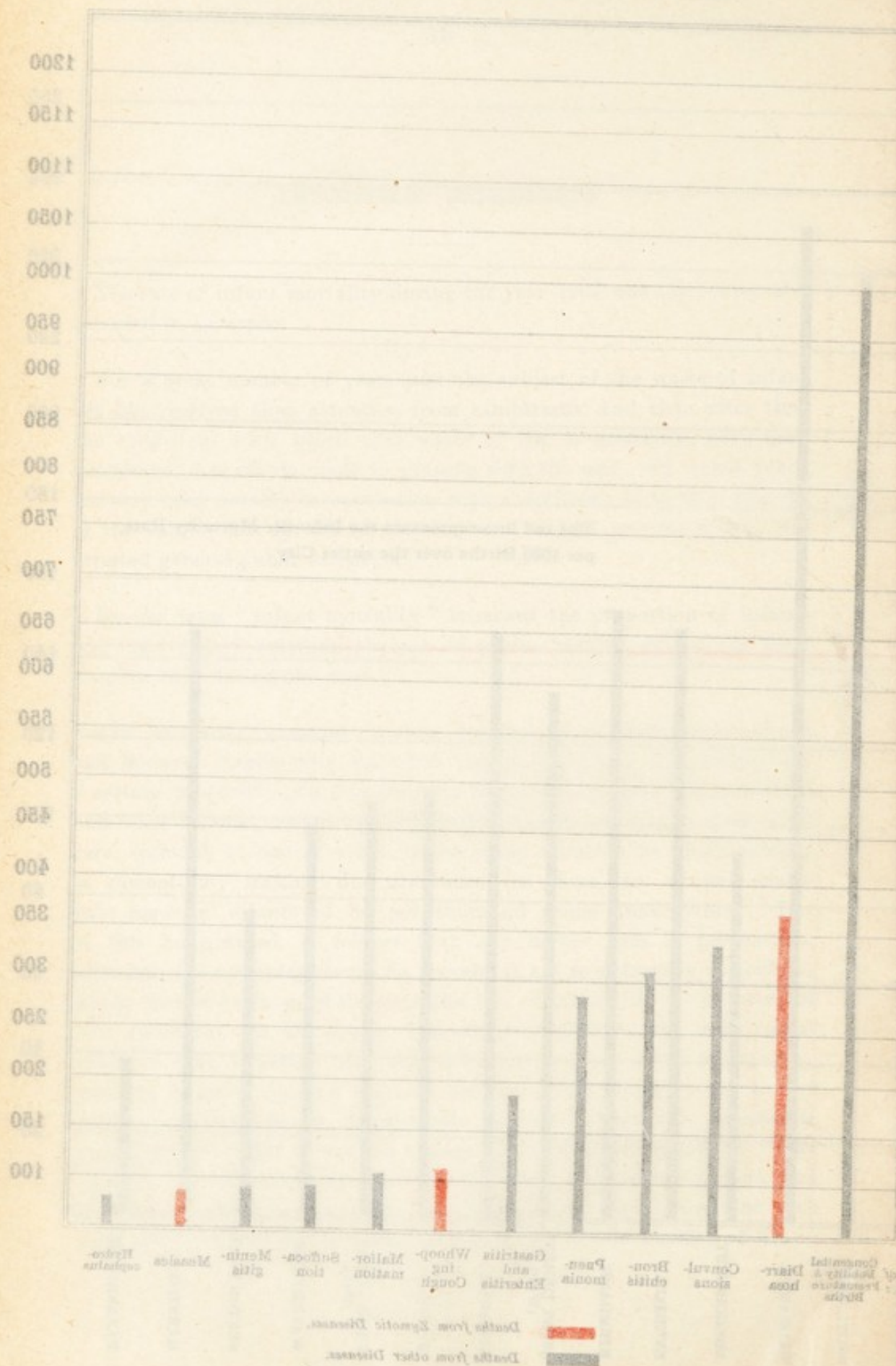
# CITY OF LIVERPOOL.

## Comparative view of twelve of the principal causes of Infantile Mortality (below 1 year of age) during the year 1907.



CITY OF LIVERPOOL.

(below 1 year of age) during the year 1907.





Amongst the agencies which have been relied upon in this City to lessen the infant mortality are:—

The removal of insanitary areas, and the erection of proper dwellings in their place.

The improvements in scavenging and cleansing, and the removal of all refuse likely to harbour flies.

The substitution of appropriate ashbins for large and foul ashpits.

The provision of an unrestricted water supply.

Hospital accommodation for infants suffering from measles and whooping cough, which benefits not only the sufferer, but removes the source of infection.

Arrangements have been come to by which the earliest possible notification of births shall be received. A large staff of trained Female Inspectors is employed to visit and give instruction where necessary. Many thousands of cards of instruction are distributed throughout the City.

Help of a somewhat similar kind is given through the midwives.

For those mothers who are unable to suckle their infants a suitable food is provided at a price within the reach of all. (See page 168.)

Private philanthropy, by crèches, district nursing, &c., co-operates in the good work. The crèches are situated in Juvenal Street and Everton Road in the central, Wesley Street in the southern, and another is shortly to be opened in Beaumont Street in the eastern district of the City.

An interesting Conference on Infant Mortality was held in London in June, 1906. The Conference was described as a National one, and received the patronage of His Most Gracious Majesty the King, and of the Queen. The subject was discussed in all its relations, and the resolutions arrived at have been given in the Annual Report for 1906.

The steady increase in the number of deaths per 1,000 births attributed to premature birth must again be noted; during 1907 deaths from this cause are again more than double the number per 1,000 births in 1873.

It must never be forgotten that, as regards feeding and care, whatever the Municipality is able to do in regard to the preservation of infant life is insignificant when compared with what it is in the power of



the mother to do. If the mother will suckle the infant, its risks are slight. If she will not do so, the Corporation proves but a poor foster-mother, owing to the absolute impossibility of fulfilling the duties which only the mother herself can discharge.

It must be remembered that milk, as nature intended it to be given, is never once exposed to the air, that it passes directly at the time of the manufacture in the gland to the stomach; its composition, temperature and mixture adapt it to the needs of the offspring; it has neither abstractions, adulterations, preservatives nor uncleanness; it is, moreover, bacteriologically clean and pure. Nothing the Municipality can do can equal this.

The highest infant mortality is always reached in the summer and early autumn, the cause of death being ascribed to diarrhœa. The subject has been carefully investigated bacteriologically, but no organism so far has been identified solely as the cause. The contents of some of the foul feeding bottles have been subjected to analysis, with results showing that this liquid was of an extremely dangerous character, and certain samples have proved so highly virulent as to kill the animal inoculated with it within 48 hours.

Co-operation was again sought by the National Health Society and by the National League for Physical Education and Improvement towards improving the milk supply of the country. The Health Committee very willingly rendered all assistance in their power, and authorised the Chairman of the Infant Life Preservation Committee and the Medical Officer of Health to attend certain meetings in London upon the subject.

The value of the special Liverpool milk clauses was recognised, and it was felt that an extension to the whole country of such clauses as Liverpool possessed would be exceedingly valuable.

It is well known that infant mortality varies widely, not only in different towns, but in the various wards or districts of the same towns. Poverty or riches, sanitary or insanitary conditions, occupation or the want of it, high birth rate or low, all play their part in bringing these variations about. But every extended inquiry into the intricate subject of infant mortality brings to light the fact that parents living approximately under the same social and sanitary conditions have such varying success in rearing their infants that the personal factor deserves a careful study.

Families who have at command all the resources of wealth show an infant mortality which is relatively small. It is amongst the less well-off sections of the community that the investigation is most important. We want to get at the facts, and the time and care involved in an inquiry into this aspect of the question finds its reward by enabling preventive measures to be more closely applied.

One of the most important factors undoubtedly is the amount of intelligence which the mother possesses, an intelligence which, if it is not innate, is difficult to acquire, and for which even education is but a poor substitute.

Every town, no doubt, is a suitable field for inquiry in this direction, but in a place like Liverpool, where the greater necessities have led to greater municipal effort, the inquiry is specially interesting.

There is in Liverpool a very large population indeed, dependent upon unskilled labour of a very precarious character. Much poverty results from this, and an accentuation of the problem of dealing with that poverty.

The Corporation have expended very large sums of money in ameliorating the conditions of the congested districts and poorer parts of the city. Whole areas have been demolished, and new bright, airy dwellings erected in their stead; dwellings which none but those dispossessed by the demolition of insanitary dwellings are permitted to tenant. Every facility is devised for their comfort, baths and washhouses are available, and a large staff of trained and skilled women are provided to give them such kindly aid as is possible to all dwellers in the poorer districts. Even food is provided for those infants whose mothers cannot suckle them, and, on occasion, for the mothers themselves when inability to suckle arises from poverty and malnutrition.

These measures are not without their reward, and the diminution in the infant mortality in districts as a whole is encouraging. Still we want to come to closer grip with the question. When we find, for example, that in 874 families, taken consecutively on account of the fact that in each the death of an infant had occurred, the total number of infants born in those families had been 3,801, and that no less than 1,895 of them had perished, practically all in infancy—representing an infant mortality of 498 per thousand—it is obvious that we must go further



into the question of the personal element. The extended inquiry shows, side by side with this, parents under similar conditions, with the same income, following the same occupations, the same hard struggle against poverty, and yet all or nearly all of their children reared. The question arises, to what is this remarkable difference due? A very few illustrative cases are given, and they may be taken as samples of a large number which have been specially investigated and reported upon.

As an illustrative case of an instinctively intelligent woman, I would quote that of Mrs. E., of No. 6, T. Street, who has given birth to seven living children, all of them being quite healthy now, the youngest two being twins of four months old. The father is a dock labourer, and his wages are stated not to exceed on the average 12s. per week. The house is very clean and comfortable, and the children are well cared for, those of the school age attending school regularly. The mother, when she is able, adds to the income by taking in washing, and, as a matter of fact, was working practically up to the day before the birth of the twins.

The mother, who is suckling the twins, is receiving milk for herself from the Corporation Milk Depôt, and she is now receiving certain aid from other sources. Neither of the parents drink, and the condition of the home and the children present a striking example of what can be done even with very little money when none of it is wasted in drink or gambling.

Another illustrative case is that of Mrs. McK., S. Road. Nine children have been born, all now living, the youngest eight weeks old; all have been breast fed. Husband some years ago lost his business through ill-health, from which he recovered. Of late years he has worked at the docks, his wife occasionally charring. All children clean. Home comfortable.

Y., 232, A. Street. Eight children, all living and well. Husband's wages £5 per month at sea. The woman was under sixteen when she married, and vows that none of her daughters shall marry at sixteen.

W., 47, E. Street. Eleven children, ten living. Home clean and comfortable. Average earnings of the father, 12s. per week. Youngest child six weeks old.

The number of parallel cases is exceedingly large, and very commonly the older children assist in adding to the family income.



Place in contrast with these cases, that of Mrs. B., of H. Street. Mrs. B.'s first infant died at the age of four months. The second-born is now living, and is eleven years of age. The third, fourth, and fifth died under eight months of age; the sixth is living; the seventh, eighth, and ninth died at a few months of age. The tenth, aged three months, is living, but is reported to be wasting, and is much neglected. The husband can earn up to 40s. per week, but both parents are intemperate. The midwife who attended at the last confinement states that the mother was lying intoxicated on the floor when she arrived, the baby having already made its appearance. Filth and wretchedness are the characteristics of the home, and the case is now being dealt with by the Society for the Prevention of Cruelty to Children.

Unfortunately long series of cases of this description are recorded, in which obvious drunkenness in an extreme degree is the pre-eminent feature associated with the loss of the infant, the money wasted, the parents drink-sodden, and every feature of intelligent attention to the infant wanting. With these there comes the long string of examples in which the alternations between the gaol and the workhouse are factors, which make it abundantly plain that the children of the family have had no proper maternal solicitude bestowed upon them, and have perished in consequence.

Mrs. G., who was married at the age of sixteen, is an illustration. Out of her ten children, three survived.

Mrs. W. was married at the age of twenty, and has had eighteen children, four of them surviving. In this case violence figures more than once in connection with the death of the infants.

A. F., 112, R. Street. She has had fourteen children, only two of whom are living. She was married at seventeen years of age, and is now a dirty, neglectful, drunken woman. Midwife stated that the woman was drunk on each of her last three confinements.

In a different category are the cases of which Mrs. J., of 2 in 8 Court, B. Street, may be taken as an example, her seven children having been born alive. One of them died at four years, one at two years, another under twenty-one months, and two under twelve months; one of the earlier born ones has survived, and is now eight years old. This boy has suffered severely from eczema; but the mother has never troubled to take him to a doctor. The youngest child is an infant, whose

health is precarious. In this case absolute stupidity appears to be a large factor—whether the woman drinks or not is not apparent. The wages earned by the husband are stated to be 20s. per week.

Again, Mrs. E. has had fourteen children, ten of whom have died in infancy, all of them being artificially fed. She is an incapable woman, and regards the death of her children as an inevitable matter.

A further series may be quoted in which the mothers, without following any special occupation, neglect their children for long periods, either by going out casually to sell papers, &c., or by gossiping with their neighbours. The following are illustrations:—

Sarah N., 5, B. Street. Nine children, three living, six died in infancy. The mother very indifferent to the welfare of the children.

Agnes W., 5, V. Grove, has had fourteen children, three living.

Elizabeth R., 22, L. Street, has had thirteen children, of whom two are living.

These are examples of women who have been large contributors to the death rate.

Another factor in the prospects of life of the infant appears to be the actual number of infants born in the family, and the rapidity with which they make their appearance.

The resources of the average mother in poor circumstances are severely taxed by even two or three little children; the next one to arrive diverts attention from the rest, and as others come in quick succession, adequate attention is impossible.

During the last two years the returns of the Corporation dwellings for labourers are interesting. These are new dwellings erected for the accommodation of persons dispossessed from the insanitary courts and alleys which have been demolished, and may be said to represent the poorest section of the poorest class in Liverpool.

A very striking feature is their remarkable birth rate, which, calculated in the ordinary way, is not 26, as is the case with the general birth rate of the whole country, nor 40, which is the birth rate of the district in which the dwellings are situated, but reaches the extremely high average of 55 per thousand during the last two years.



That the infants born, where life's battle is so hard, do not receive adequate attention goes without saying, and those who die appear to be rapidly replaced with others, a large proportion of whom meet a similar fate.

The lesson to be learnt is the great value of visiting the homes of these poor people, and giving such supervision and kindly encouragement as is possible to the mothers to persevere on right lines in dealing with the infant. Nor need the assistance be limited only to this. Every town has its agencies and its charitable organisations, by which the deserving poor may receive help of a material kind, and the visit of the Inspector of the Health Department is one of the best ways of bringing relief to those in need of it.

It is desirable to add a few words in reference to the Jewish community, and for the purpose of illustration to take fifty poor—some very poor—Jewish families, taken consecutively. The family earnings averaged from 10s. to 30s. per week. The points which stand out are, first, that in every instance the children are well looked after, all suitably clad, and not one ragged or barefooted child seen. The beds were clean, and always a cot provided for the baby beside the mother's bed. Domestic dirtiness is uncommon, but even where it existed all the mothers seemed to realise their duty and responsibility to their children, and to act upon it. Thriftiness and sobriety were universal; no drunkenness at all. A noticeable feature which always impresses the visitor is the attention given by the mothers to the children's food. In no single instance was the mid-day meal wanting; moreover, it is usually good and wholesome, and prepared in a way which the children relish. It must be remembered that some of these families were in receipt of relief from the Jewish Board of Guardians, but others, of course, are fairly comfortably off for that class.

With regard to the numbers of children born, the average number in the family is not large. The maximum was ten, and that only in one family; the average is five, but the figures as to the numbers who have died compare very favourably indeed with those of the Gentile races in the same social scale. In the fifty families, the total number of infants born was 255, and the number of deaths which have taken place amongst the whole number and at various ages, and by no means all in infancy, was 29—figures which speak very favourably.

The following Table indicates the incidence of Infantile Mortality in the various Districts of the City, and during different seasons, also the proportion of deaths under five years to the total deaths:—

DISTRICTS.	Quarters.				Deaths under 5 years of age.	Total Deaths.	Percentage of Deaths under 5 years to Total Deaths.	Percentage of Deaths under 1 year to Total Births.
	March.	June.	Sept.	Dec.				
Scotland .....	130	148	205	252	735	1,461	50·3	24·0
Exchange .....	100	107	115	145	467	1,275	36·6	25·0
Abercromby .....	56	57	65	74	252	924	27·2	9·4
Everton .....	217	240	226	302	985	2,443	40·3	15·0
Kirkdale .....	143	149	120	159	571	1,310	43·5	15·2
West Derby (West).	130	129	119	190	568	1,511	37·5	13·6
Toxteth .....	164	139	172	287	762	1,947	39·1	14·6
Walton .....	84	71	76	106	337	889	37·9	10·8
West Derby (East) .	61	47	52	66	226	776	29·1	10·3
Wavertree .....	50	38	28	37	153	393	38·9	9·9
Sefton Park .....	18	16	18	19	71	339	20·9	7·7
(late Toxteth Rural)								
Garston .....	34	41	48	43	166	367	45·2	14·5
Fazakerley .....	1	6	1	—	8	41	19·5	3·9
Workhouses & Hospitals (Residences outside City) .....	21	20	28	28	97	732	13·2	—
City .....	1,209	1,208	1,273	1,708	5,398	14,408	37·4	14·3

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

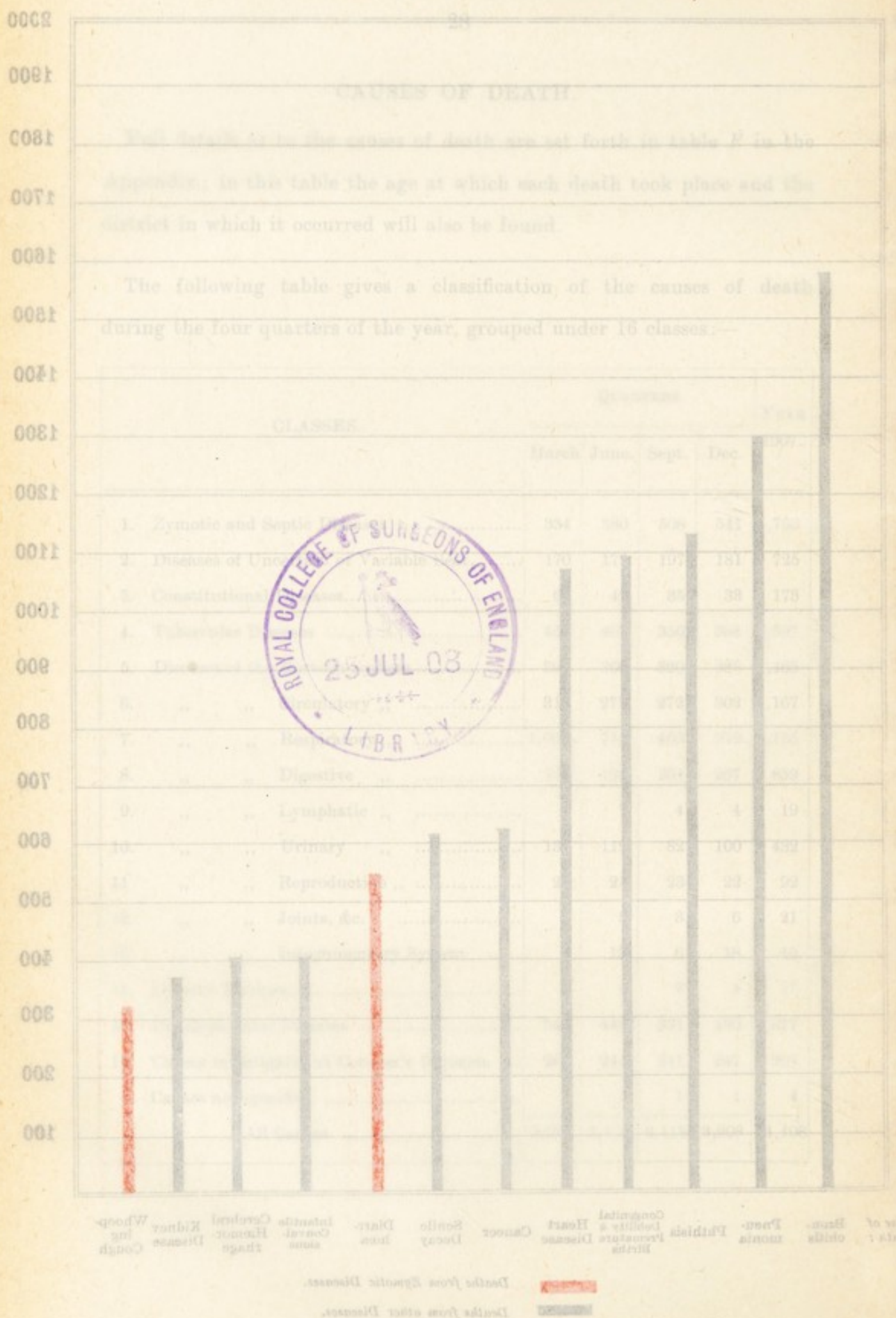


The proportion which the deaths of children under five years of age has borne to the total deaths in the various districts of the city during the last five years is shown in the following table, and also the proportion of deaths of infants under one year of age to every hundred births registered:—

DISTRICTS.	1903.		1904.		1905.		1906.		1907.	
	Percentage of Deaths under 5 years to Total Deaths.	Percentage of Deaths under 1 year to Total Births.	Percentage of Deaths under 5 years to Total Deaths.	Percentage of Deaths under 1 year to Total Births.	Percentage of Deaths under 5 years to Total Deaths.	Percentage of Deaths under 1 year to Total Births.	Percentage of Deaths under 5 years to Total Deaths.	Percentage of Deaths under 1 year to Total Births.	Percentage of Deaths under 5 years to Total Deaths.	Percentage of Deaths under 1 year to Total Births.
Scotland .....	47.5	21.5	57.7	25.8	49.6	22.7	54.5	24.7	50.3	24.0
Exchange .....	32.8	21.2	43.3	28.1	36.0	24.0	41.2	26.0	36.6	25.0
Abercromby .....	31.1	13.2	34.5	13.3	31.8	12.4	33.0	12.0	27.2	9.4
Everton .....	44.5	17.6	55.0	21.3	45.7	15.9	50.9	20.3	40.3	15.0
Kirkdale .....	40.0	14.3	51.7	21.4	44.5	17.4	45.5	16.2	43.5	15.2
West Derby (West) .....	41.6	15.4	45.2	18.1	40.7	14.5	43.0	15.4	37.5	13.6
Toxteth .....	39.9	16.8	51.2	19.1	37.7	14.8	45.4	17.9	39.1	14.6
Walton .....	39.4	11.9	46.3	15.7	40.1	10.5	38.2	12.2	37.9	10.8
West Derby (East) .....	36.0	12.4	38.5	14.6	33.1	11.2	36.9	14.1	29.1	10.3
Wavertree .....	43.9	11.8	46.6	15.1	42.7	11.2	44.7	12.7	38.9	9.9
Sefton Park .....	27.3	8.8	30.8	13.8	22.2	9.5	27.2	9.0	20.9	7.7
(late Toxteth Rural)										
Garston .....	43.1	12.0	55.2	18.3	40.1	11.7	44.8	13.2	45.2	14.5
Fazakerley .....	32.3	14.1	33.3	13.0	32.0	8.4	42.5	10.0	19.5	3.9
Workhouse and Hospitals (Residences outside of City)	10.2	...	14.8	...	10.8	...	13.4	...	13.2	...
City .....	38.8	15.9	47.3	19.6	39.1	15.4	43.1	17.1	37.4	14.3

# CITY OF LIVERPOOL.

Comparative view of twelve of the principal causes  
of death during the year 1907.





## ZYMOTIC DISEASES.

This class of disease is one calling for special attention, and is dealt with in some detail in the following tables, the first of which shows the localities and the periods of the fatal prevalence of zymotic diseases, and the subsequent tables deal specifically with each form of zymotic disease during 1907:—

DISTRICTS.	Deaths from all causes.	ZYMOTICS.				
		Quarters.				Per-centage of Zymotic Deaths to Deaths from all causes.
		March.	June.	Sept.	Dec.	
Scotland.....	1,461	25	53	89	93	17·7
Exchange .....	1,275	26	36	45	57	12·8
Abercromby .....	924	16	17	26	22	8·7
Everton .....	2,443	57	55	93	92	12·1
Kirkdale .....	1,310	43	57	48	50	15·0
West Derby (West).....	1,511	35	45	44	60	12·1
Toxteth .....	1,947	49	36	57	90	11·9
Walton .....	889	17	22	22	34	10·6
West Derby (East) .....	776	19	14	22	14	8·8
Wavertree .....	393	18	15	10	6	12·4
Sefton Park .....	339	6	5	11	5	7·9
(late Toxteth Rural)						
Garston .....	367	10	15	20	7	14·1
Fazakerley .....	41	...	2	...	...	4·8
Workhouses and Hospitals (Residences outside City) .....	732	13	8	21	11	7·2
City .....	14,408	334	380	508	541	12·2

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

Zymotic diseases occasioned 1,763 deaths during the year 1907, and accounted for 12·2 per cent. of the total mortality within the city during this period. The death-rate from zymotic diseases per 1,000 was 2·3. The average rate for the preceding 5 years (1902-1906) was 3·6. The deaths during 1907 were as follows :—

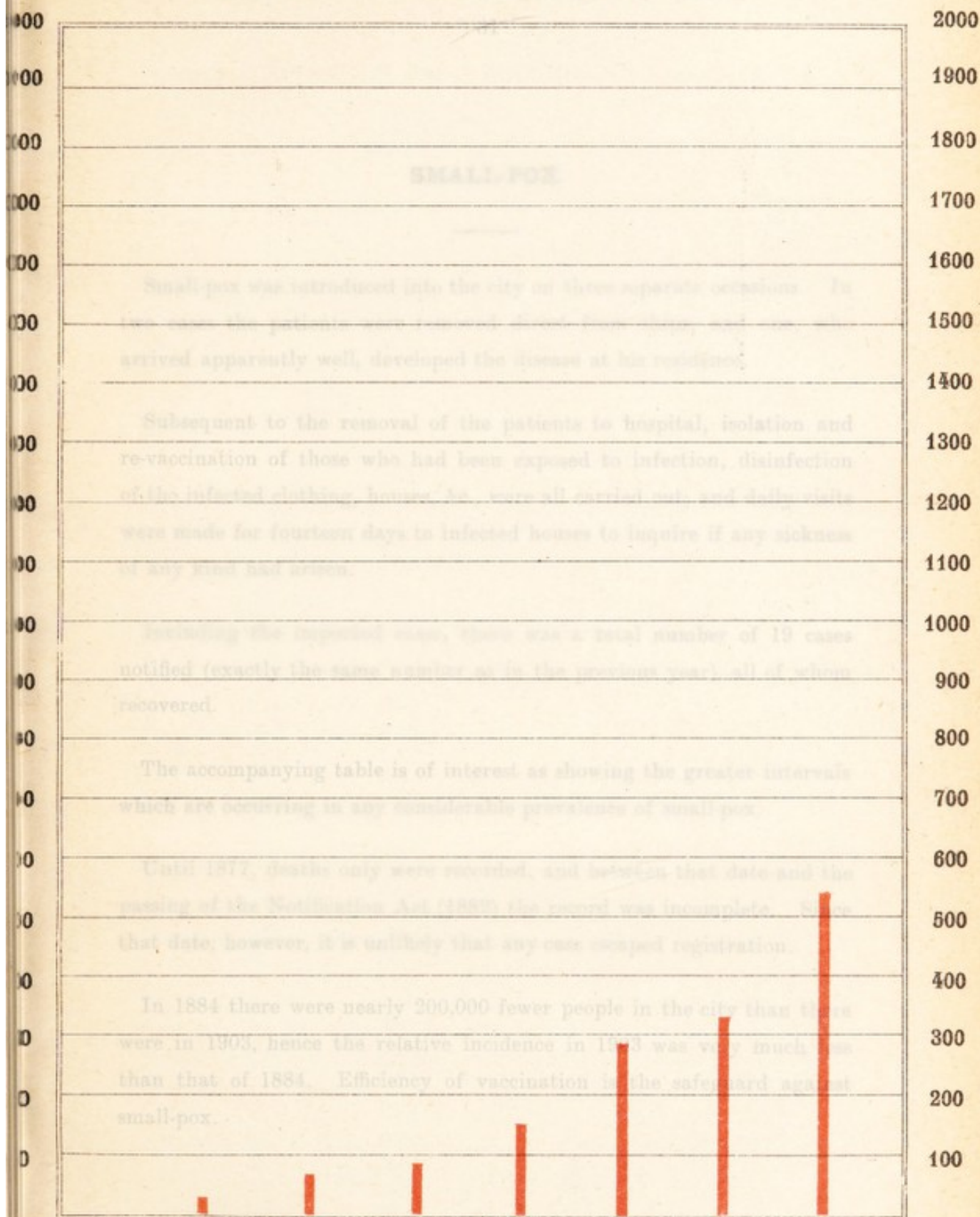
	QUARTERS.				YEAR 1907.
	March.	June.	Sept.	Dec.	
Total Zymotics .....	334	380	508	541	1,763
Smallpox .....	...	...	...	...	...
Measles .....	63	107	70	51	291
Scarlet Fever.....	42	43	26	29	140
Diphtheria .....	26	25	21	23	95
Membranous Croup .....	6	2	3	3	14
Whooping-cough .....	39	86	89	110	324
Diarrhoea .....	37	44	211	252	544
Influenza .....	39	11	4	15	69
Typhus .....	4	4	8	2	18
Fever { Typhoid .....	26	24	23	19	92
Simple Continued .....	...	...	...	...	...
Other Zymotics.....	52	34	53	37	176

NOTE.—Influenza, Measles, and Whooping-cough appear to have been predisposing causes in the case of many deaths primarily ascribed to Respiratory Disease (page 28), inasmuch as one or other of these Zymotics had preceded the fatal illness. See also notes to succeeding tables.



# CITY OF LIVERPOOL.

Comparative view of the total number of Deaths from the principal Zymotic Diseases during the year 1907.



Cause of  
Death :

Smallpox

Typhus  
Fever

Typhoid  
Fever

Diphtheria

Scarlet  
Fever

Measles

Whooping  
Cough

Diarrhoea

Comparative view of the total number of Deaths from the principal Zymotic Diseases during the year 1907.



## SMALL-POX.

---

Small-pox was introduced into the city on three separate occasions. In two cases the patients were removed direct from ships, and one, who arrived apparently well, developed the disease at his residence.

Subsequent to the removal of the patients to hospital, isolation and re-vaccination of those who had been exposed to infection, disinfection of the infected clothing, houses, &c., were all carried out, and daily visits were made for fourteen days to infected houses to inquire if any sickness of any kind had arisen.

Including the imported cases, there was a total number of 19 cases notified (exactly the same number as in the previous year), all of whom recovered.

The accompanying table is of interest as showing the greater intervals which are occurring in any considerable prevalence of small-pox.

Until 1877, deaths only were recorded, and between that date and the passing of the Notification Act (1889) the record was incomplete. Since that date, however, it is unlikely that any case escaped registration.

In 1884 there were nearly 200,000 fewer people in the city than there were in 1903, hence the relative incidence in 1903 was very much less than that of 1884. Efficiency of vaccination is the safeguard against small-pox.

## SMALL-POX DURING THE LAST FORTY-FIVE YEARS.

Years of Increase.	No. of Cases.	Deaths.	Years of Subsidence.	No. of Cases.	Deaths.
1863	Unrecorded	100			
1864	"	482			
1865	"	459			
1866	"	102			
			1867	Unrecorded	22
			1868	"	18
			1869	"	20
1870	"	174			
1871	"	1,919			
1872	"	50			
			1873	"	10
			1874	"	30
			1875	"	29
1876	"	386			
1877	1,660	299			
			1878	35	3
			1879	12	...
			1880	14	2
			1881	262	34
			1882	67	6
			1883	126	26
1884	832	106			
			1885	375	46
			1886	234	29
			1887	23	1
			1888	27	1
			1889	9	1
			1890	2	...
			1891	21	2
			1892	177	13
			1893	75	9
			1894	229	20
			1895	130	12
			1896	8	...
			1897	6	...
			1898	17	2
			1899	10	1
			1900	156	23
			1901	37	6
1902	560	20			
1903	1720	141			
			1904	27	2
			1905	15	...
			1906	19	1
			1907	19	...



## TYPHUS FEVER.

Of recent years cases of this disease have been imported by transmigrants en route to America or Canada. It is particularly liable to spread amongst dirty, ill-fed, and intemperate persons, and incessant watchfulness is necessary in order to hold it in check. The disease almost always attacks the children of the family first; in them the symptoms are obscure, and are often unrecognised until adults succumb.

During 1907, the disease was again introduced by Russian emigrants.

Of the total number of cases, eighteen, as the table shows, resulted fatally, the majority of the deaths taking place during adult age, the period when the disease is most fatal.

The total number of cases reported was 116, against 52 in the preceding year, the average number of the last five years being 135.

AGES AT DEATH.											
Under 1 year.	1—	2—	5—	10—	15—	20—	30—	40—	50—	60 & up- wards.	All Ages.
—	—	—	1	1	—	*5	6	2	3	—	18

\* One a non-resident.

Reports for preceding years sufficiently illustrate the importance of the daily visits which are made to houses which have been infected with typhus fever, as well as the importance of keeping under supervision every person who is known to have been in contact with the patient. None of the stringent measures which have been adopted against typhus are in any way relaxed.

The number of deaths during each of the preceding ten years has been as follows:—23, 19, 13, 11, 14, 25, 57, 25, 28 and 8.

List of streets in the city where cases of TYPHUS FEVER occurred  
during the year 1907.

STREETS.	Cases.	Deaths.	STREETS.	Cases.	Deaths.
Arkwright .....	5	1	Hyslop .....	1	...
Beatrice .....	14	1	Latimer .....	1	...
Blenheim .....	9	...	Leyden.....	1	...
Buckingham .....	1	...	Lorton .....	1	1
Bond .....	1	...	Mann .....	1	1
Boundary .....	1	...	Northampton .....	4	...
Burnet .....	1	1	Northumberland .....	2	...
Caradoc Square .....	2	2	Penrhyn .....	1	...
Conway .....	6	...	Prince Edwin.....	1	...
County Road .....	1	...	Robsart .....	6	...
Cranmer .....	5	...	Slade .....	4	...
Dix .....	9	3	St. Martin's Cottages .....	2	...
Etna.....	2	1	Shaw .....	1	1
Frank .....	1	...	Soho.....	1	...
Gascoyne.....	1	1	Sandys.....	3	1
Great Richmond .....	4	1	Scotland Road .....	1	...
Glenny.....	1	...	Tindall.....	8	1
Hardy .....	2	...	Titchfield .....	2	...
Hill .....	1	...	Torbock .....	3	...
Hopwood .....	4	1	Walton Workhouse .....	1	1
Hurst .....	1	...	(From outside City)		



## TYPHOID FEVER.

---

There were 482 cases of Typhoid Fever reported during the year, the numbers remaining low, as was the case in several preceding years. There were 1,026 in 1902, 681 in 1903, 434 in 1904, 325 in 1905, and 491 in 1906. The deaths were 92, being 7 more than in the preceding year. The figures include the deaths of non-residents.

Upwards of 77 per cent. of the total number of cases notified during the year were removed to hospital. (See page 242.)

The accompanying charts are instructive. The first one indicates the steady decline in the mortality from typhoid fever since the year 1894, a decline which may be ascribed to various reasons, such as the greater facility for isolation of the sick, the abundant supply of pure water, and the greater care taken in the supervision of those food supplies which play an important part in the dissemination of this disease.

The second chart indicates the incidence of typhoid fever during each week of the year 1907, the absence of the usual late autumn rise being a very satisfactory feature.

The number of deaths from Typhoid Fever during each of the preceding ten years, 1897-1906, has been as follows:—

1897	...	...	...	...	...	...	145	deaths.
1898	...	...	...	...	...	...	148	„
1899	...	...	...	...	...	...	182	„
1900	...	...	...	...	...	...	120	„
1901	...	...	...	...	...	...	154	„
1902	...	...	...	...	...	...	190	„
1903	...	...	...	...	...	...	108	„
1904	...	...	...	...	...	...	82	„
1905	...	...	...	...	...	...	49	„
1906	...	...	...	...	...	...	85	„

The following table shows the periods of the year and the localities in which deaths from Typhoid Fever occurred, and also the ages at death.

## DEATHS FROM TYPHOID FEVER.

DISTRICTS.	QUARTERS.								YEAR.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland .....	3	...	1	1	2	...	1	1	7	2	9
Exchange .....	1	...	...	...	1	...	...	1	2	1	3
Abercromby .....	...	1	2	...	1	...	...	...	3	1	4
Everton .....	1	1	2	1	4	2	2	1	9	5	14
Kirkdale .....	2	1	1	2	...	1	...	1	3	5	8
West Derby (West) .....	3	1	1	2	...	...	2	2	6	5	11
Toxteth .....	...	...	1	1	1	...	2	2	4	3	7
Walton .....	2	1	1	1	1	1	...	...	4	3	7
West Derby (East).....	1	2	...	2	1	...	1	...	3	4	7
Wavertree .....	...	1	...	1	1	2	...	...	1	4	5
Sefton Park..... (late Toxteth Rural)	...	...	...	1	1	...	...	...	1	1	2
Garston.....	1	1	...	...	...	...	1	...	2	1	3
Fazakerley .....	...	...	...	...	...	...	...	...	...	...	...
Hospitals (Residences outside the City) .....	2	1	2	1	4	...	2	...	10	2	12
City .....	16	10	11	13	17	6	11	8	55	37	92

AGES AT DEATH.													
Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	60 and up- wards.	All Ages.
...	...	1	...	...	4	8	10	27	28	9	5	...	92

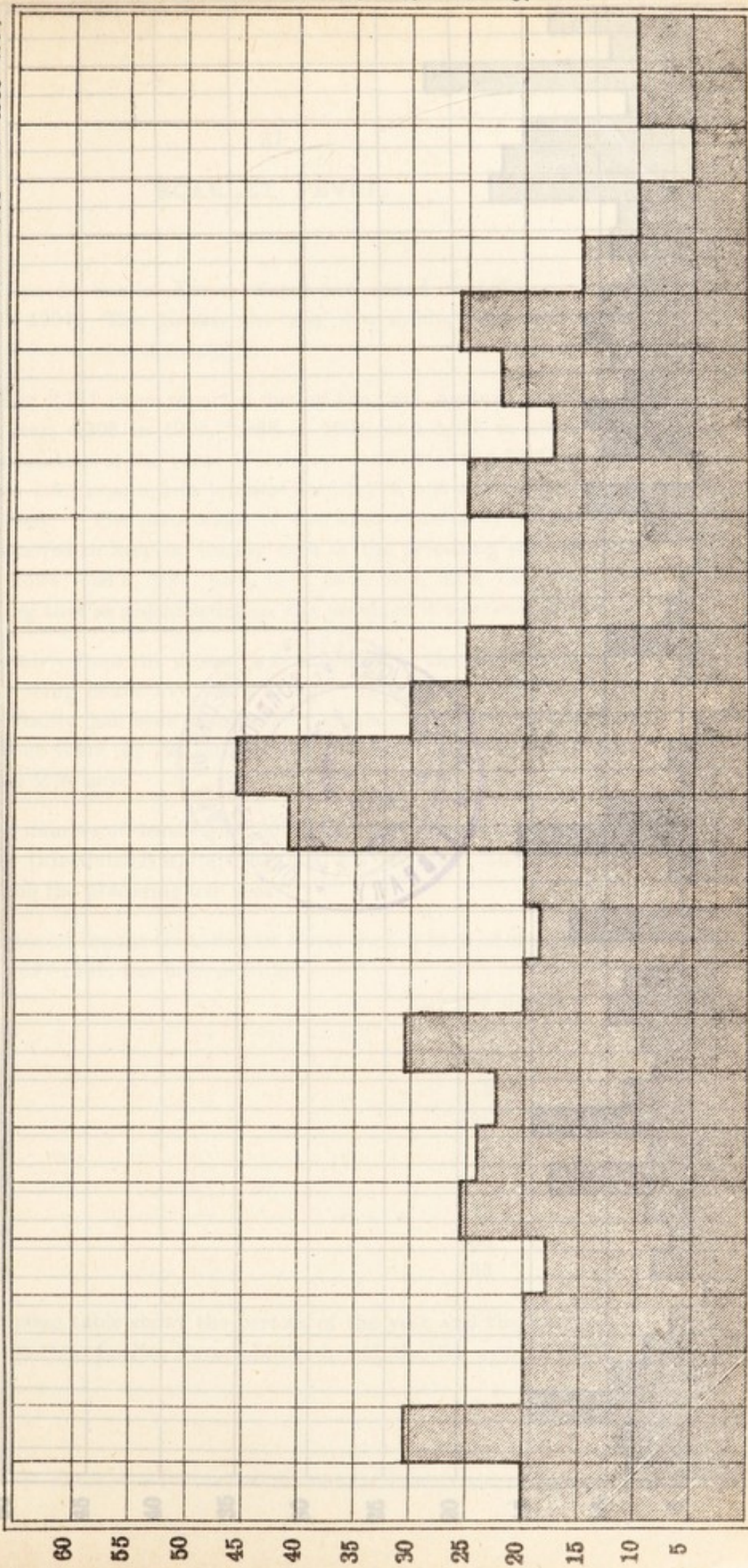
Deaths in Public Institutions are transferred to the Districts from whence the patients came.



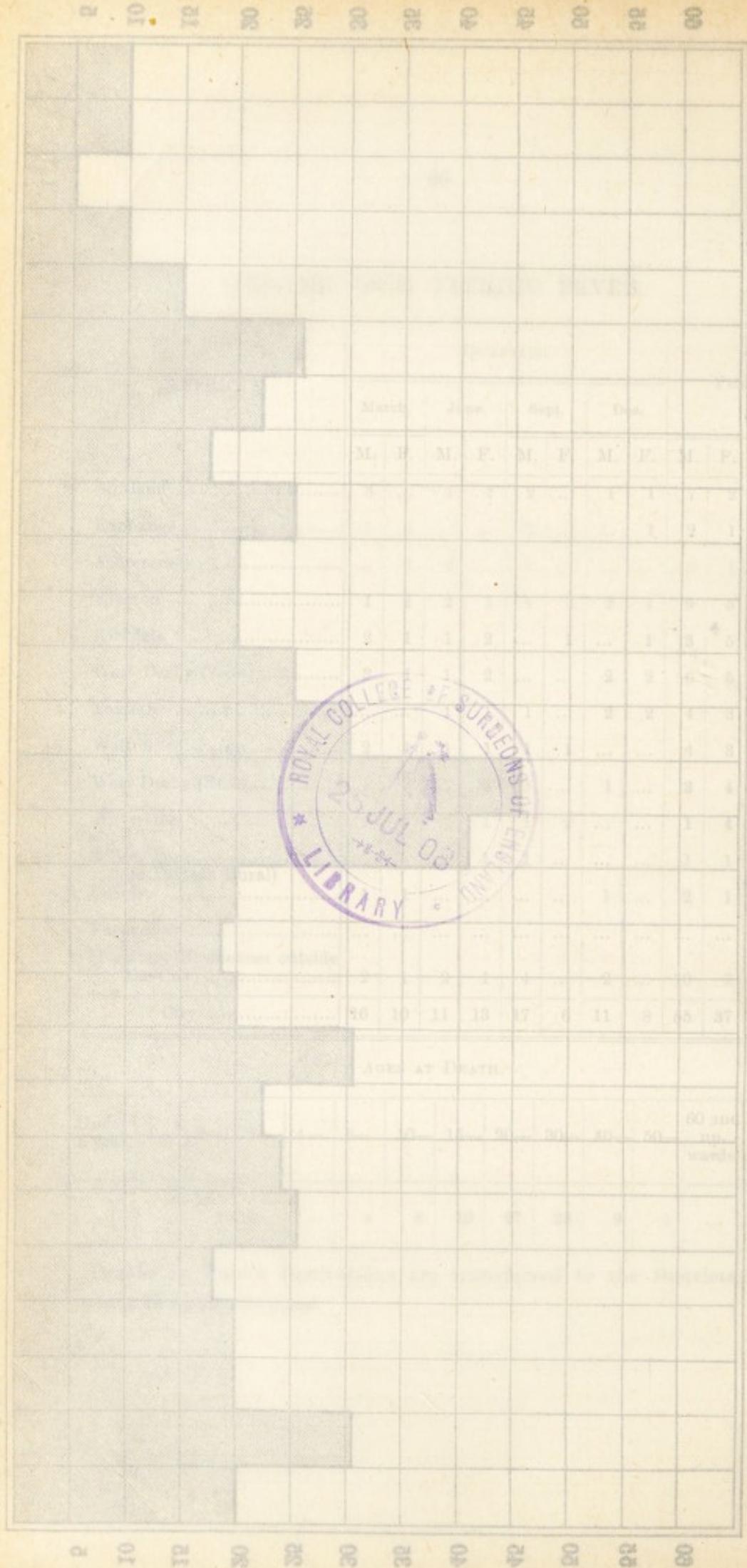
# CITY OF LIVERPOOL.

Death Rate per 100,000 of resident Population  
from Typhoid Fever, 1881-1907.

1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1907







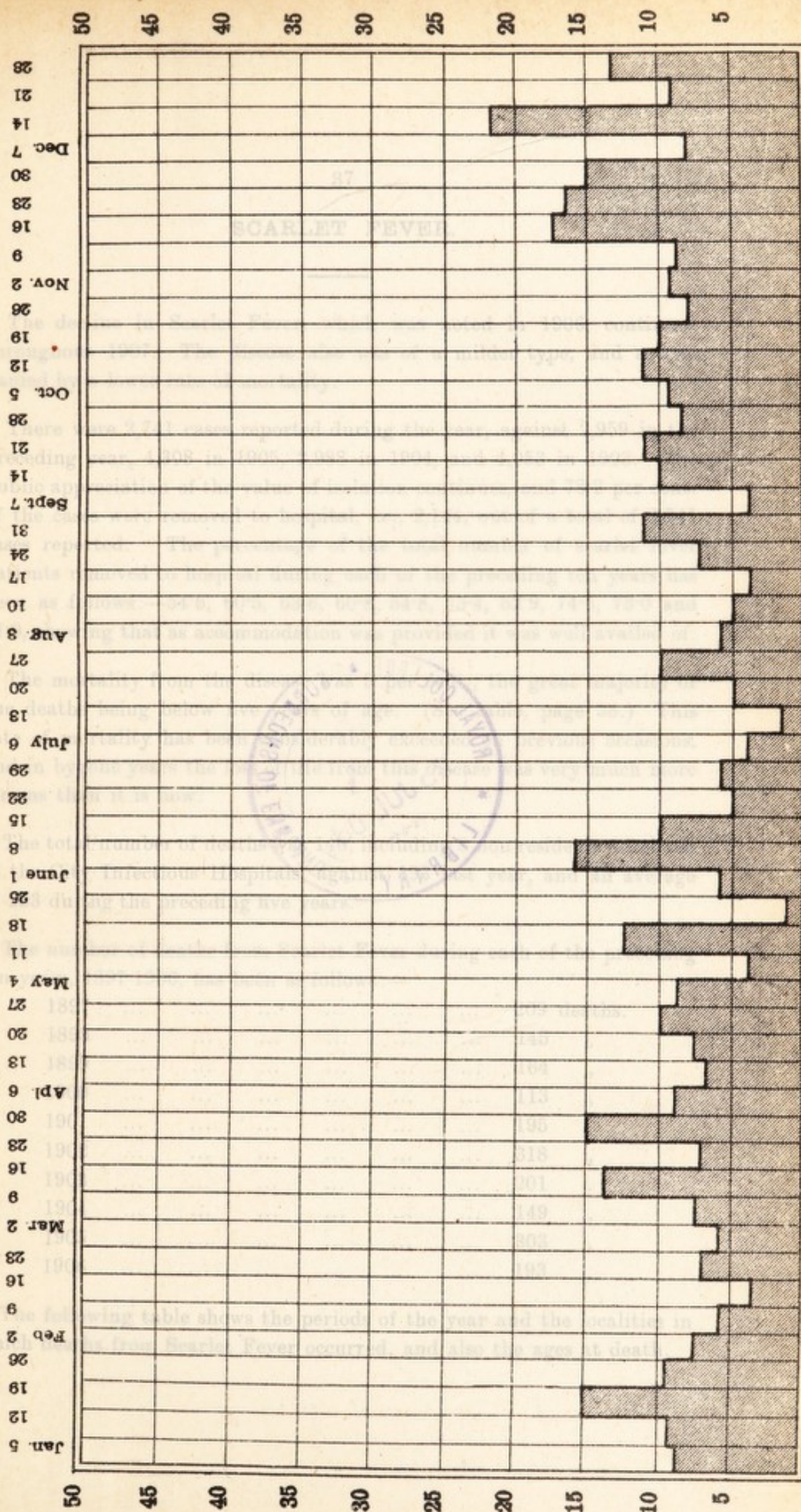
1881 1883 1885 1887 1889 1891 1893 1895 1897 1899 1901 1903 1905 1907 1909 1911

from Laboratory Register 1881-1901  
Death Rate per 100,000 of Resident Population

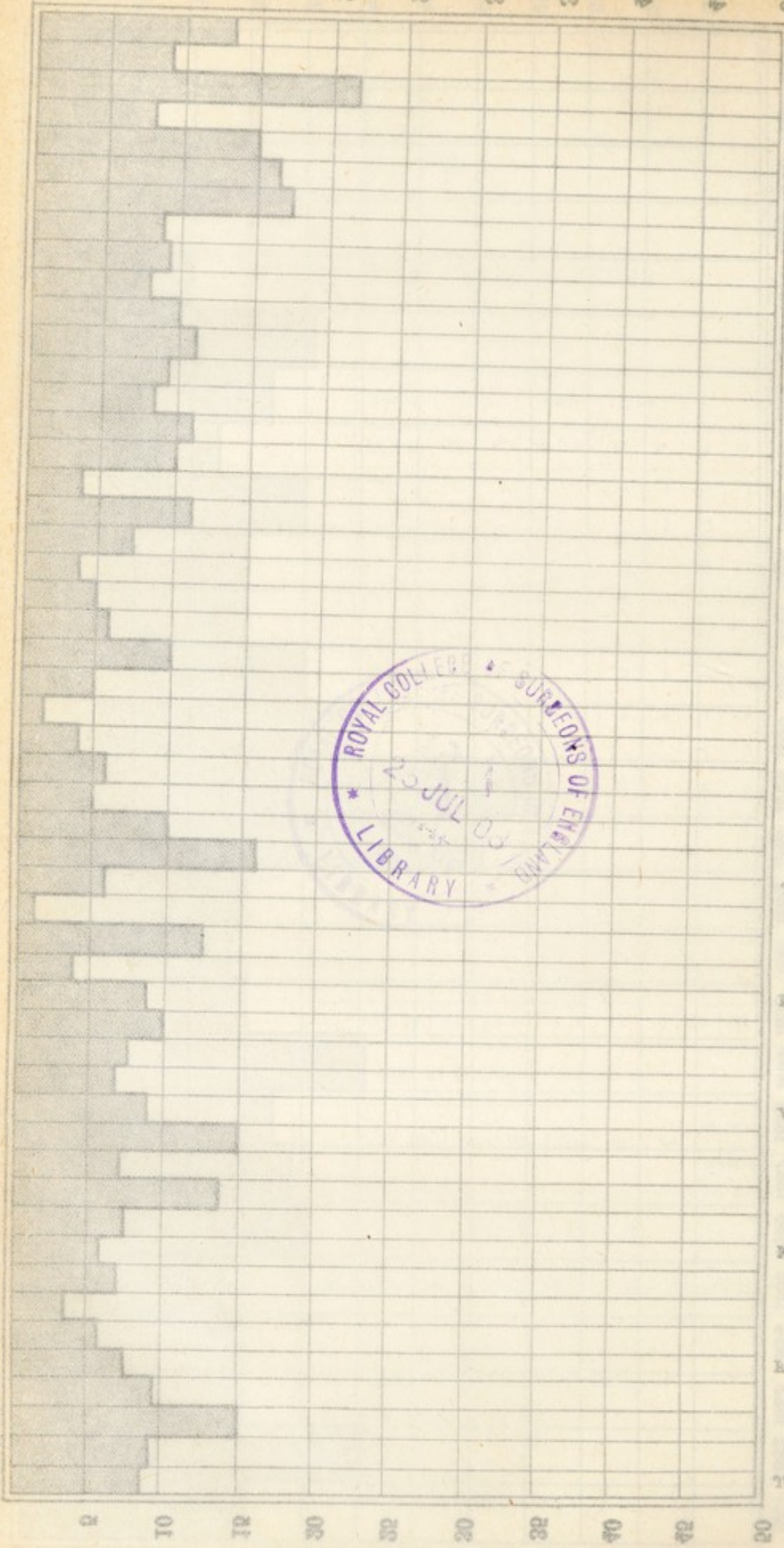


# CITY OF LIVERPOOL.

Cases of Typhoid Fever reported during each week of 1907.







ROYAL COLLEGE OF SURGEONS OF ENGLAND  
20 JUL 03  
LIBRARY

38  
37  
14  
Dec 1  
30  
33  
16  
8  
Nov 3  
38  
16  
13  
Oct 2  
38  
31  
14  
Sept 1  
31  
16  
11  
10  
Aug 3  
31  
30  
13  
July 6  
38  
33  
16  
8  
June 1  
38  
16  
11  
May 4  
31  
30  
13  
Apr 6  
38  
33  
16  
8  
Mar 3  
38  
16  
8  
Feb 3  
38  
16  
13  
Jan 2

Chart of 11th and 12th centuries showing the number of cases of the disease



## SCARLET FEVER.

---

The decline in Scarlet Fever, which was noted in 1906, continued throughout 1907. The disease also was of a milder type, and accompanied by a lower rate of mortality.

There were 2,741 cases reported during the year, against 2,959 in the preceding year, 4,308 in 1905, 2,988 in 1904, and 4,053 in 1903. The public appreciation of the value of isolation continues, and 78·2 per cent. of the cases were removed to hospital, *i.e.*, 2,144, out of a total of 2,741 cases reported. The percentage of the total number of scarlet fever patients removed to hospital during each of the preceding ten years has been as follows:—54·6, 60·5, 63·6, 60·8, 54·8, 53·4, 52·9, 74·6, 73·0 and 74·0, showing that as accommodation was provided it was well availed of.

The mortality from the disease was 5 per cent., the great majority of the deaths being below five years of age. (See table, page 38.) This rate of mortality has been considerably exceeded on previous occasions, and in bygone years the loss of life from this disease was very much more serious than it is now.

The total number of deaths was 140, including 8 non-residents admitted to the City Infectious Hospitals, against 193 last year, and an average of 233 during the preceding five years.

The number of deaths from Scarlet Fever during each of the preceding ten years, 1897-1906, has been as follows:—

1897	...	...	...	...	...	...	209 deaths.
1898	...	...	...	...	...	...	145 "
1899	...	...	...	...	...	...	164 "
1900	...	...	...	...	...	...	113 "
1901	...	...	...	...	...	...	195 "
1902	...	...	...	...	...	...	318 "
1903	...	...	...	...	...	...	201 "
1904	...	...	...	...	...	...	149 "
1905	...	...	...	...	...	...	303 "
1906	...	...	...	...	...	...	193 "

The following table shows the periods of the year and the localities in which deaths from Scarlet Fever occurred, and also the ages at death.

## DEATHS FROM SCARLET FEVER.

DISTRICTS.	QUARTERS.								YEAR.			
	March.		June.		Sept.		Dec.					
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.	
Scotland .....	1	...	5	3	2	2	2	4	10	9	19	
Exchange .....	1	...	1	1	...	2	...	1	2	4	6	
Abercromby .....	2	2	1	2	1	...	...	...	4	4	8	
Everton .....	3	1	...	6	2	2	5	3	10	12	22	
Kirkdale .....	2	3	3	...	1	...	1	4	7	7	14	
West Derby (West) .....	3	...	2	1	1	1	...	2	6	4	10	
Toxteth .....	3	8	3	3	...	3	2	...	8	14	22	
Walton .....	1	3	2	1	1	1	1	2	5	7	12	
West Derby (East) .....	...	...	...	...	...	...	...	...	...	...	...	
Wavertree .....	2	...	...	...	2	...	...	1	4	1	5	
Sefton Park .....	1	...	...	...	...	2	...	...	1	2	3	
(late Toxteth Rural)												
Garston .....	1	2	2	4	1	1	...	...	4	7	11	
Fazakerley .....	...	...	...	...	...	...	...	...	...	...	...	
Hospitals (Residences outside the City) .....	2	1	2	1	1	...	1	...	6	2	8	
City .....	22	20	21	22	12	14	12	17	67	73	140	
AGES AT DEATH.												
Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	All Ages.
4	22	24	35	15	32	5	1	1	1	...	...	140

Deaths in Public Institutions are transferred to the Districts from whence the patients came.



## MEASLES.

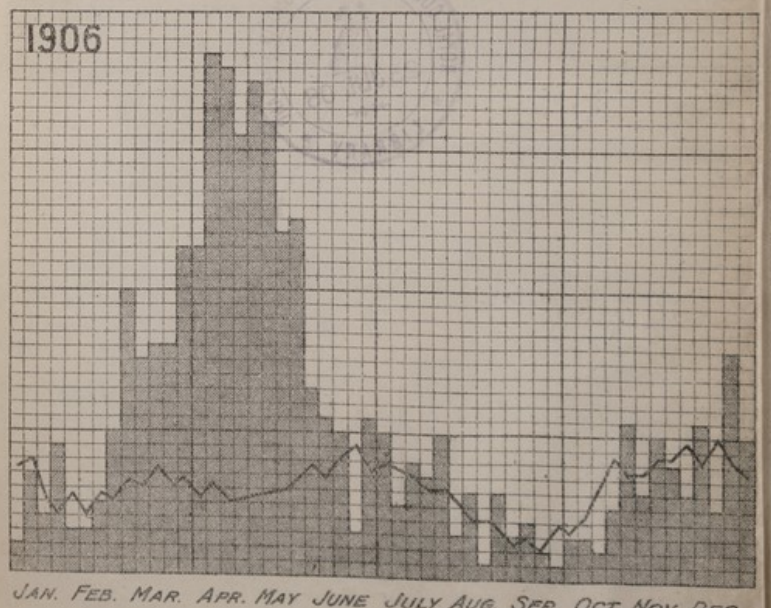
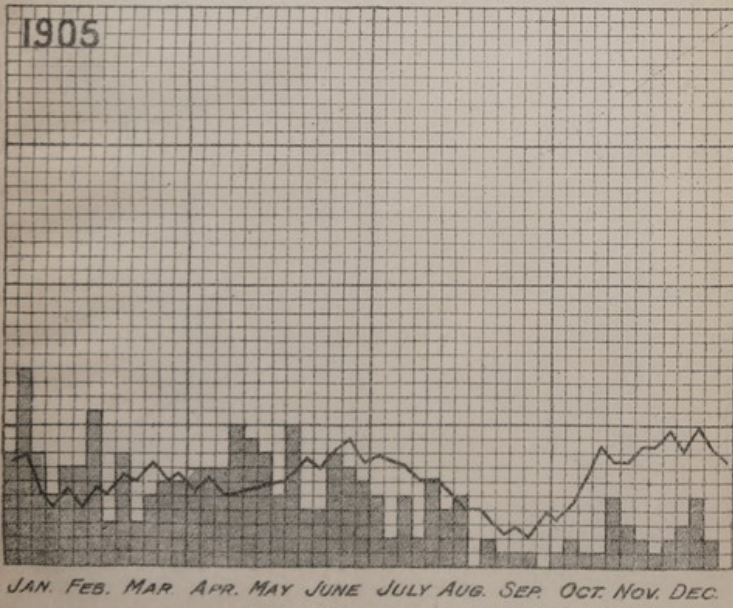
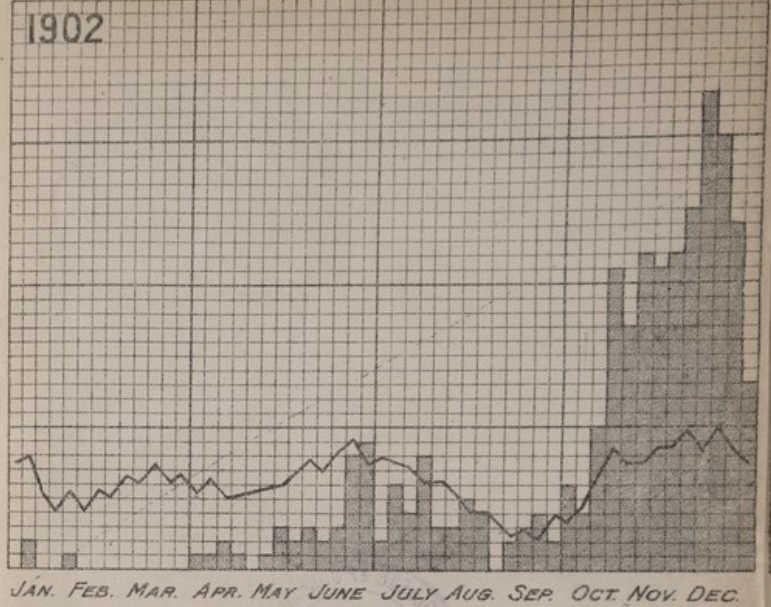
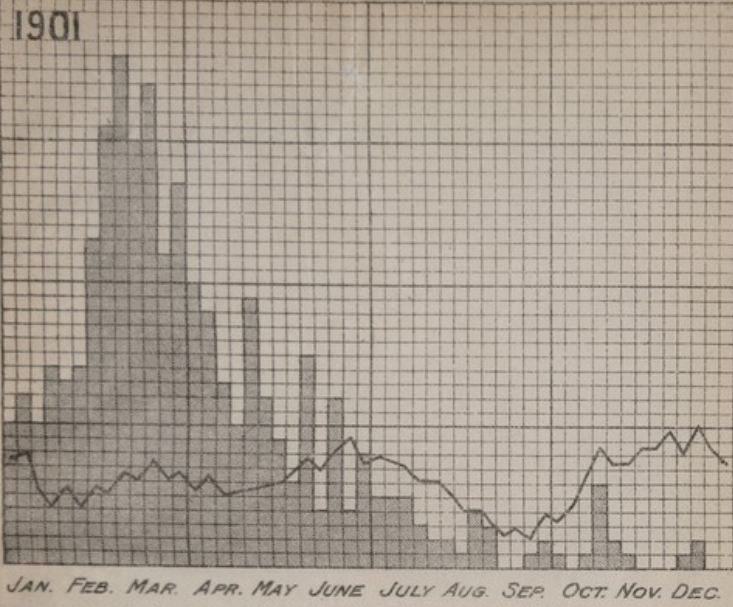
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Measles was prevalent during the early months of the year to an extent which rendered necessary the closure for short periods of a number of the Infant schools.

The disease subsided during the summer months, appearing again towards the winter. The total cases reported during the year were 5,640, showing a decrease compared with the preceding year, when the cases reported reached 6,819, as against 3,938 in 1905, 9,453 in 1904, 2,728 in 1903, 7,141 in 1902, 6,766 in 1901 and 2,372 in 1900. There were 291 deaths directly ascribed to it, the great majority of them being of infants below 3 years of age. The number of deaths in the preceding year was 586.

As has been frequently pointed out, the number of deaths does not fully indicate the destruction of life due to measles, since this disease is commonly associated with bronchitis and pneumonia, and it is beyond any question that deaths primarily due to measles are entered in the returns as due to pulmonary disease. The isolation of the infectious sick in hospital is important and necessary. Provision of hospital accommodation, for a limited number of cases, has now been made for measles, but the deaths from measles do not show a decline comparable to that which has taken place in the forms of infectious disease for which hospital accommodation is available. In the great number of homes in which measles occur isolation in the house is difficult or impossible. In making arrangements for hospital isolation of measles, difficulties of a special kind arise owing to the tender age of the patient, and the peculiarities of the infection in this form of disease.

The tendency of this disease to recur at intervals of about 18 months is well illustrated in the accompanying diagrams; fortunately a larger period than 18 months has elapsed without any considerable outbreak.

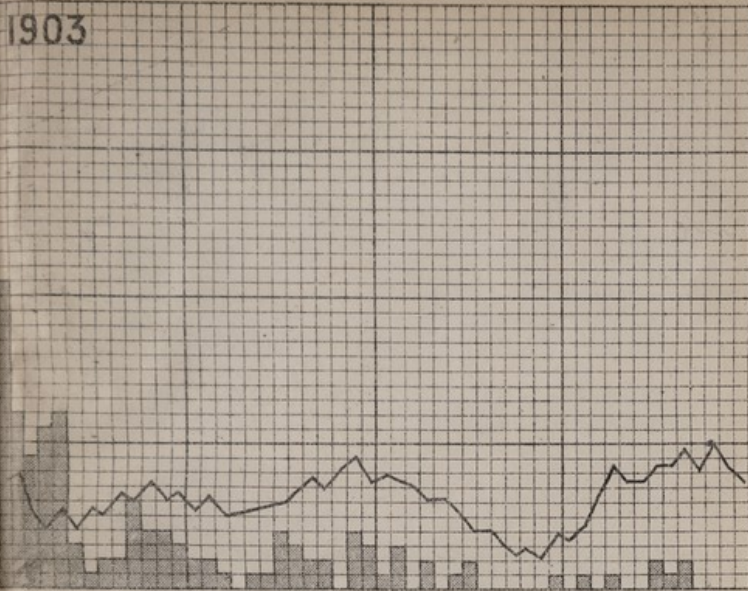


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THE BLACK COLUMNS INDICATE THE NUMBER OF DEATHS FROM MEASLES.  
THE LINE IN THE DIAGRAM FOR EACH YEAR REPRESENTS THE WEEKLY MEAN.

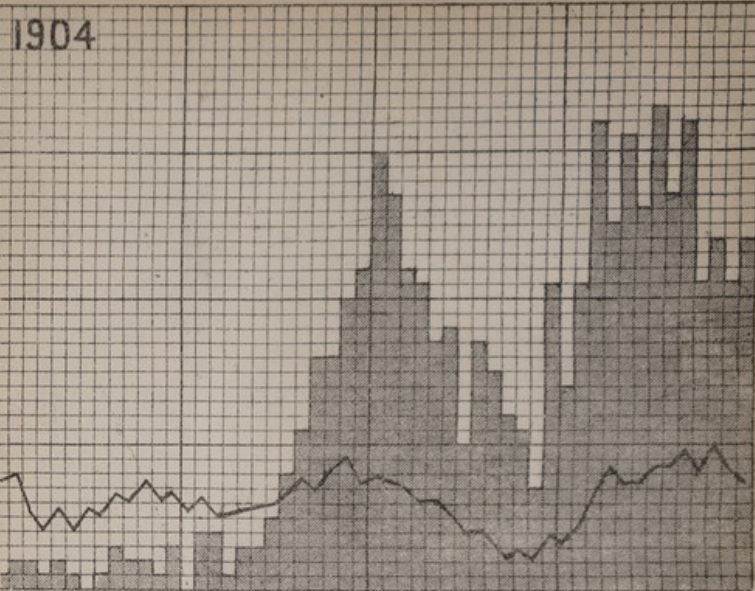


1903



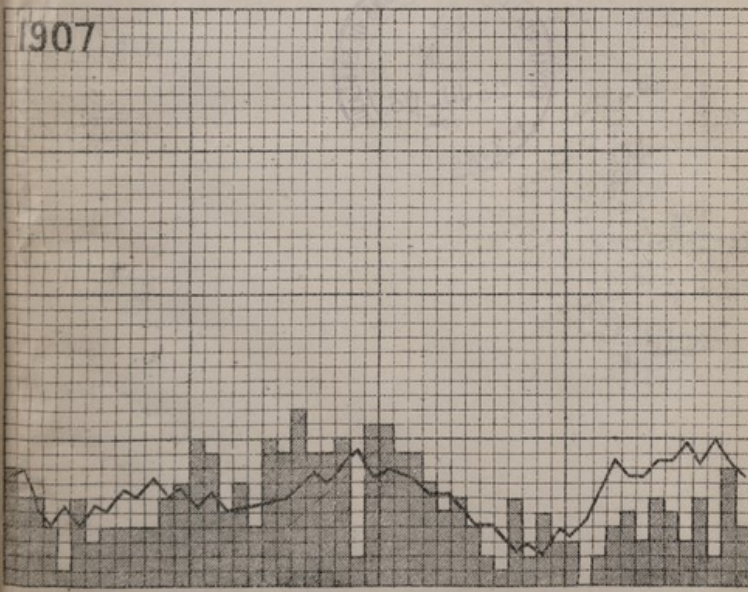
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. DEC.

1904



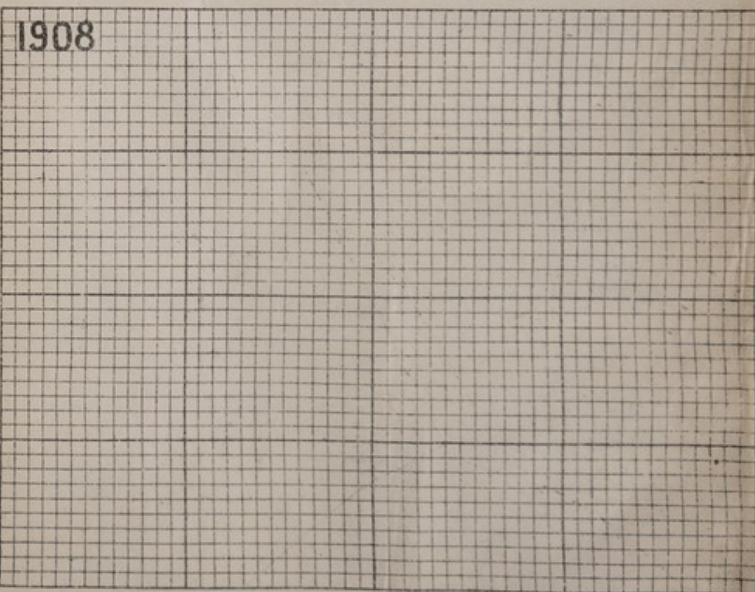
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. DEC.

1907



JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. DEC.

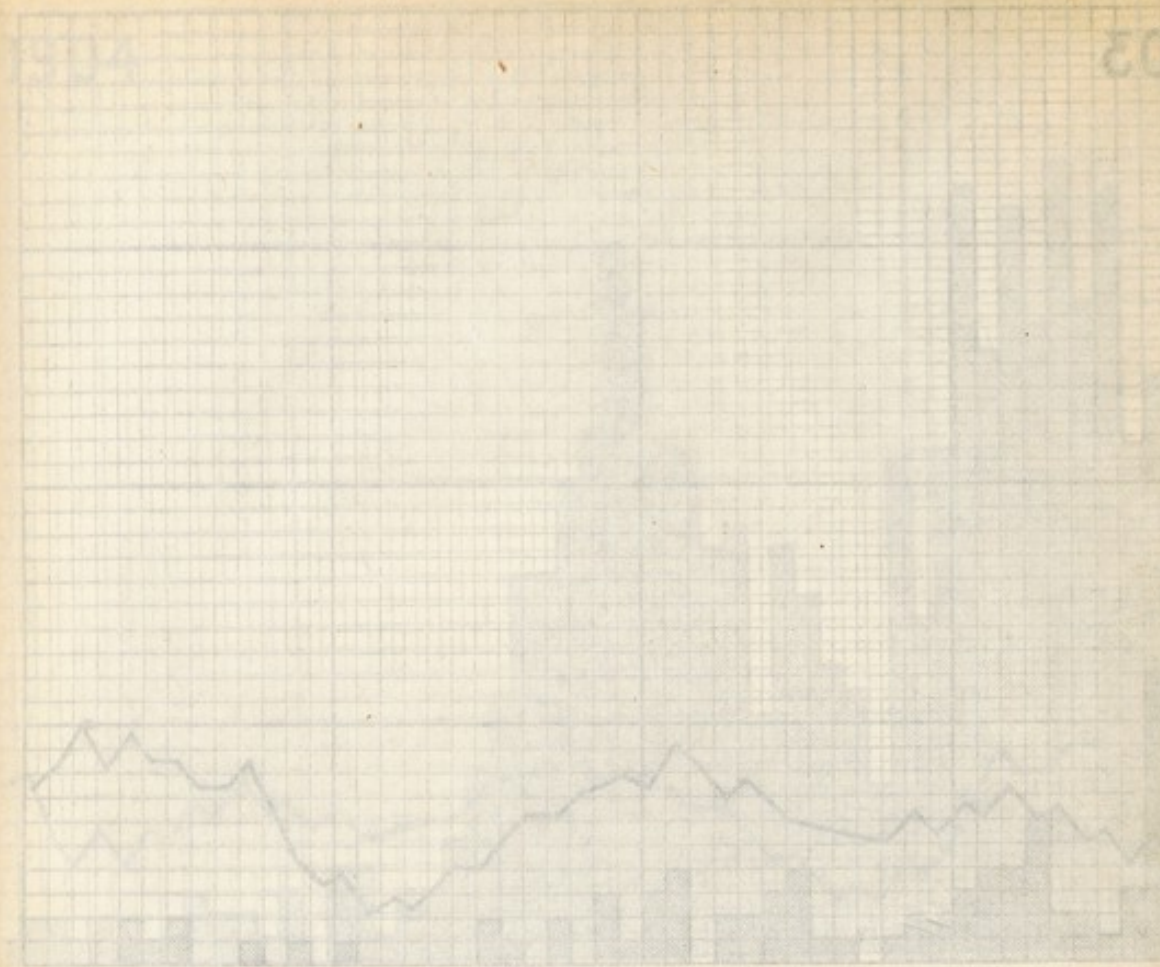
1908



JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. DEC.

MEASLES DURING EACH WEEK OF THE YEARS 1901 TO 1907.  
WEEKLY AVERAGE N<sup>o</sup> OF DEATHS IN THE 10 YEARS 1896 1905.





1891 FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. DEC.



1891 FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. DEC.

LES DURING EACH WEEK OF THE YEARS 1901 TO 1907.  
Average No. of Deaths in the 10 Years 1896 1905.



## WHOOPING-COUGH.

---

This disease, which again showed a considerable prevalence in the city, is one of the most distressing and painful causes of death in very early life; a large number of deaths certified to be primarily due to diseases of the lungs are found on inquiry to have originated in whooping-cough, the great majority of the deaths occurring below two years of age, and more than one-third below twelve months of age. It is plain from this circumstance that isolation of the infected infant in hospital presents many difficulties, similar in character to those which arise in the case of Measles. But in a large proportion of cases the patient would have to be accompanied by the mother, whilst the period of detention in hospital would in the majority of cases be protracted. During last year 324 deaths were directly attributed to whooping-cough, but this figure is by no means a complete representation of the mischief caused by it.

Notwithstanding the difficulties in the way, isolation for a limited number of cases has been found, and some lessening of this disease may be expected with confidence. Experience has repeatedly shown that the introduction of a case of whooping-cough into a court has resulted in the infection of practically the whole of the infant population in that court.

The following table shows the periods of the year and the localities in which deaths from Whooping-cough occurred, and also the ages at death.

The number of deaths from Whooping-cough during each of the preceding ten years, 1897-1906, has been as follows:—356, 333, 314, 538, 166, 407, 318, 426, 151 and 362.

DISTRICTS.	QUARTERS.								YEAR.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland .....	...	2	10	11	15	6	4	9	29	28	57
Exchange .....	1	3	5	3	2	1	2	3	10	10	20
Abercromby .....	2	1	...	2	1	1	1	...	4	4	8
Everton .....	2	4	7	11	12	9	7	10	28	34	62
Kirkdale.....	1	3	10	6	6	9	10	10	27	28	55
West Derby (West) .....	4	2	3	3	3	5	4	12	14	22	36
Toxteth .....	3	2	3	5	4	5	8	9	18	21	39
Walton .....	1	...	1	1	1	1	3	7	6	9	15
West Derby (East) .....	2	...	3	1	3	1	1	2	9	4	13
Wavertree .....	2	3	1	...	...	1	1	...	4	4	8
Sefton Park .....	...	1	...	...	...	1	1	3	1	5	6
(late Toxteth Rural).											
Garston .....	...	...	...	...	...	2	2	...	2	2	4
Fazakerley.....	...	...	...	...	...	...	...	...	...	...	...
Hospitals (Residences outside the City)	...	...	...	...	...	...	1	...	1	...	1
City .....	18	21	43	43	47	42	45	65	153	171	324

AGES AT DEATH.												
Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	All Ages.
130	106	38	26	11	13	...	...	...	...	...	...	324

Deaths in Public Institutions are transferred to the Districts from whence the patients came.



## DIPHTHERIA.

A very gratifying decline in the number of deaths from Diphtheria has to be recorded. Appended is a table showing the periods of the year and the localities in which the deaths from Diphtheria occurred, and also the ages at death.

The number of deaths during each of the preceding ten years has been as follows:—91, 123, 192, 143, 158, 200, 153, 181, 138 and 137.

DISTRICTS.	QUARTERS.								YEAR.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland .....	1	1	...	1	1	...	2	1	4	3	7
Exchange .....	...	...	1	1	...	...	2	1	3	2	5
Abercromby .....	1	1	...	...	...	2	...	...	1	3	4
Everton .....	...	...	2	2	2	1	1	1	5	4	9
Kirkdale .....	1	1	1	2	2	2	2	...	6	5	11
West Derby (West) .....	1	1	1	...	2	1	...	2	4	4	8
Toxteth .....	2	4	1	3	1	2	2	2	6	11	17
Walton .....	1	3	2	...	1	1	1	1	5	5	10
West Derby (East) .....	3	...	3	...	2	1	1	1	9	2	11
Wavertree .....	...	1	2	1	...	...	...	1	2	3	5
Sefton Park .....	1	...	...	...	...	...	1	...	2	...	2
(late Toxteth Rural).											
Garston .....	2	1	...	...	...	...	...	1	2	2	4
Fazakerley .....	...	...	...	...	...	...	...	...	...	...	...
Hospitals (Residences outside the City).....	...	...	2	...	...	...	...	...	2	...	2
City .....	13	13	15	10	11	10	12	11	51	44	95

AGES AT DEATH													
Under 1 year.	1 -	2 -	3 -	4 -	5 -	10 -	15 -	20 -	30	40 -	50	60 -	All Ages.
3	19	12	14	12	27	3	1	1	...	2	1	...	95

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

## CROUP.

The following table shows the periods of the year and the localities in which deaths attributed to Croup occurred, and also the ages at death. Fourteen of the deaths were attributed to Membranous Croup, and eight to Croup.

The number of deaths during each of the preceding ten years has been as follows:—58, 41, 50, 40, 51, 41, 24, 33, 37 and 24.

DISTRICTS.	QUARTERS.								YEAR.			
	March.		June.		Sept.		Dec.					
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.	
Scotland .....	1	...	...	...	...	...	...	1	1	1	2	
Exchange .....	...	...	...	...	...	...	...	...	...	...	...	
Abercromby.....	...	...	1	...	...	...	...	...	1	...	1	
Everton .....	1	1	1	...	...	1	...	...	2	2	4	
Kirkdale .....	...	1	...	...	...	1	1	1	1	3	4	
West Derby (West) .....	...	...	...	1	1	...	...	...	1	1	2	
Toxteth .....	...	1	...	...	...	...	2	...	2	1	3	
Walton.....	...	1	1	...	...	...	...	...	1	1	2	
West Derby (East).....	1	...	...	...	...	1	...	...	1	1	2	
Wavertree .....	...	1	...	...	...	...	...	1	...	2	2	
Sefton Park .....	...	...	...	...	...	...	...	...	...	...	...	
(late Toxteth Rural).												
Garston .....	...	...	...	...	...	...	...	...	...	...	...	
Fazakerley .....	...	...	...	...	...	...	...	...	...	...	...	
Hospitals (Residences outside the City) .....	...	...	...	...	...	...	...	...	...	...	...	
City .....	3	5	3	1	1	3	3	3	10	12	22	
AGES AT DEATH.												
Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	All Ages.
...	7	3	5	1	6	...	...	...	...	...	...	22

Deaths in Public Institutions are transferred to the Districts from whence the patients came.



## ZYMOTIC DIARRHŒA.

---

Zymotic Diarrhœa is one of the most fatal diseases of infants in this City; it is by no means confined to infancy, but during 1907, as in preceding years, nearly three-fourths of the total number of deaths were of infants under twelve months old. It is most satisfactory to be able to record a very marked decline in this form of disease, a result no doubt due partly to the cool and wet summer, as well as to the increased municipal effort to lessen the prevalence of the disease. The disease did not commence to figure prominently in the mortality returns until a later period than usual, namely, the middle of September, and continued until the end of October. Over 500 deaths were registered from it during the year, which represents a lower proportion to the population than has ever been recorded in Liverpool.

Investigation proves incontestably that the deaths of infants from this cause are closely associated with the method of feeding, putrefying food being the medium by which the specific poison is commonly introduced. The deaths amongst children under three months of age, either wholly or partially fed on artificial foods, are fifteen times as great as they are amongst an equal number of infants fed upon breast milk; *e.g.*, investigation has tended to prove that, out of every 1,000 infants under three months of age, naturally fed upon breast milk alone, 20 die of autumnal choleraic disease; but if the same number of infants, at the same age, are artificially fed, then, instead of 20 dying, as many as 300 will die from this cause. It is mainly with a view to meet this excessive mortality that sterilized milk depôts have been established, to ensure a supply of food for infants which is bacteria-free, and which can be given without any exposure to sources of contamination. (See also pp. 18 and 168.)

The connection between the meteorological conditions and the prevalence of zymotic diarrhœa during the third quarter of the year, is well shown in the following diagrams.

These five diagrams give the daily variations of the rainfall and the mean temperature of the air, during the months of June to September, and the daily deaths from zymotic diarrhœa during July, August, and September, for the years 1903, 4, 5, 6, 7, October being included in this latter year.

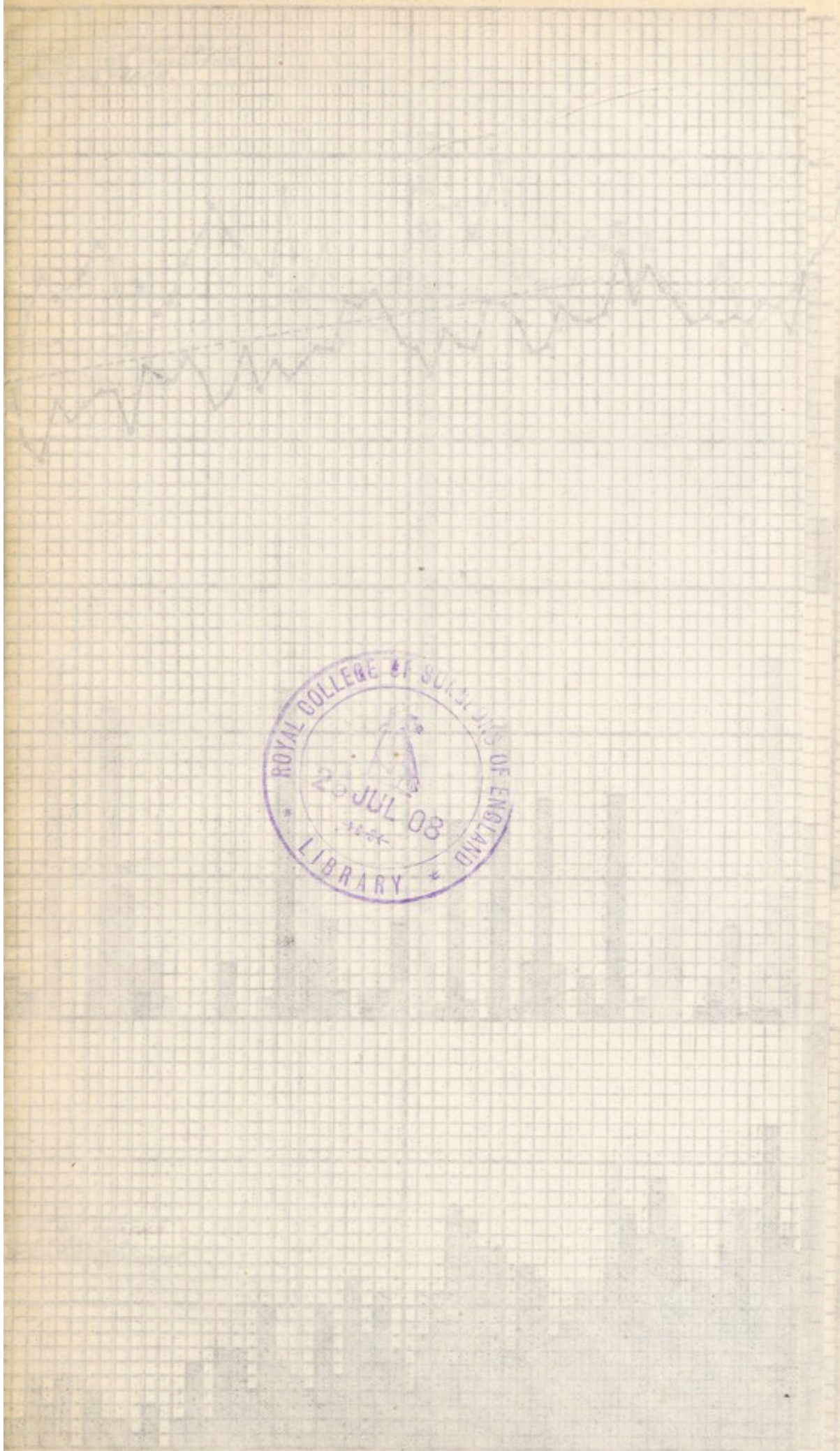
In comparing the years 1903, 1905, and 1907 with the years 1904 and 1906 it will be seen that the mean temperature in the latter frequently rose far above the 20 years' average, and remained so for several days together; it seldom fell below the average. The rainfall during the years 1904 and 1906 was scanty. The summer and autumn of both these years were characterised by severe outbreaks of diarrhœa. On the other hand, the mean temperature during the years 1903, 1905, and 1907 was usually below the average, and rarely rose above it, and then only for short intervals of a day or so. The amount of rain which fell was much greater. These conditions were associated with a death-rate from diarrhœa which was about one-half of that which occurred in 1904 and 1906.

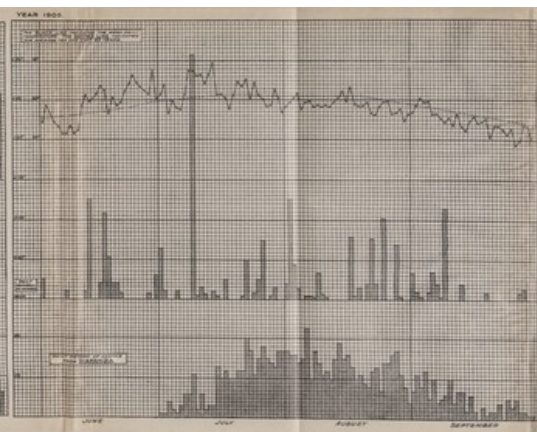
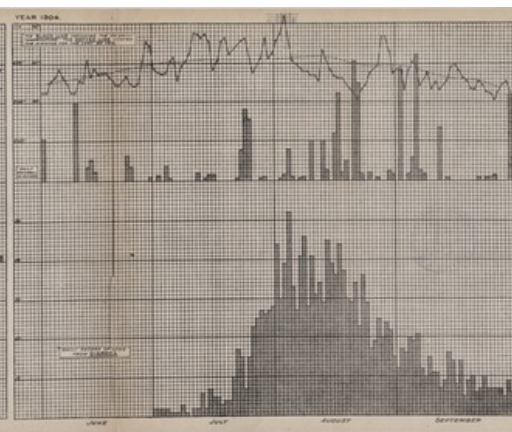
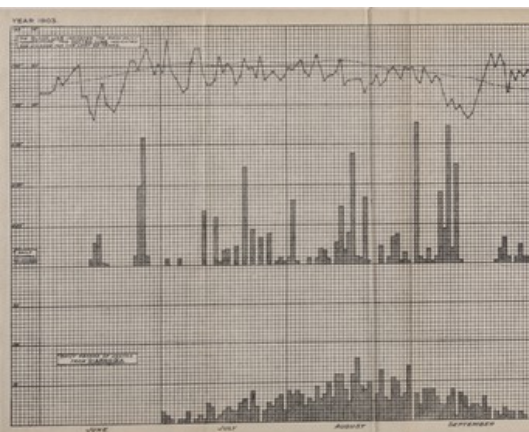
The number of deaths during each of the preceding ten years has been as follows:—1,482, 956, 1,158, 900, 1,269, 611, 657, 1,785, 960 and 1,298.

Provision was made during the year for the treatment at the Fazakerley Hospital of a limited number of infants suffering from infantile cholera. See p. 254 (Hospitals).

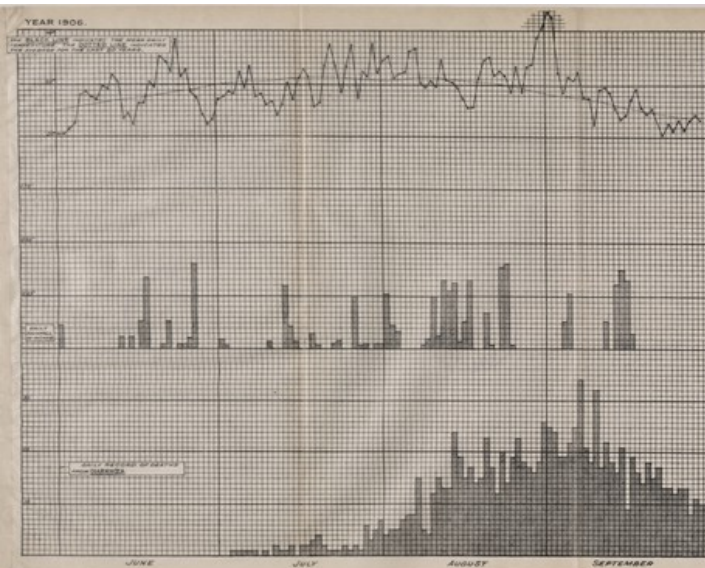
Valuable service has been rendered in previous years by the authorities of the Royal Infirmary, Stanley Hospital, David Lewis Northern Hospital, Belmont Road Hospital, and Children's Infirmary in receiving a considerable number of patients, all of them infants, suffering from this disease. In some instances the cost was defrayed by the Corporation.





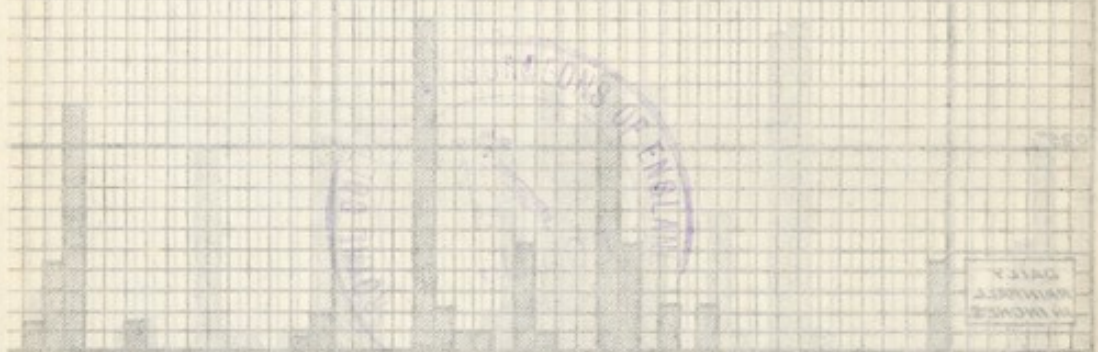
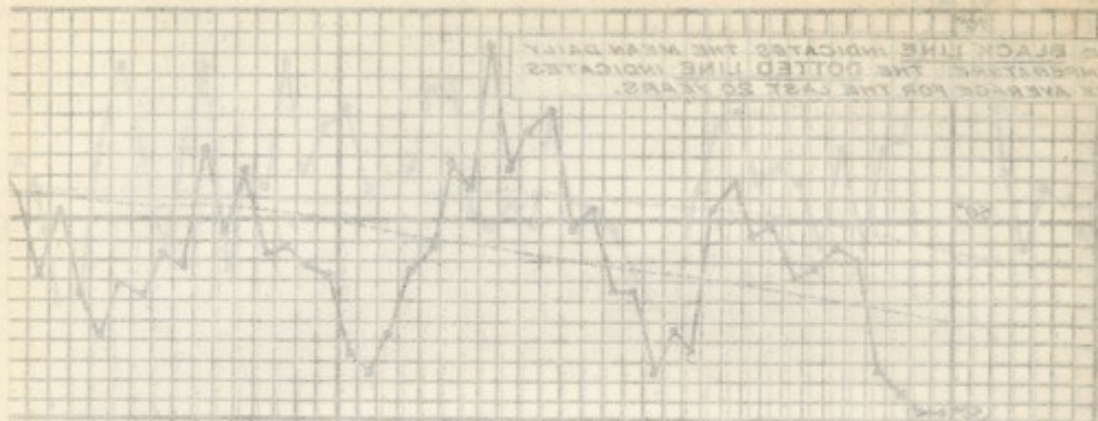






YEAR 1906.

THE BLACK LINE INDICATES THE MEAN DAILY TEMPERATURE. THE DOTTED LINE INDICATES THE AVERAGE FOR THE LAST 25 YEARS.



DAILY RECORD OF DEATHS FROM DIARRHEA



## DEATHS FROM DIARRHŒA.

The following table gives the Districts in which fatal diarrhœa occurred, the seasons in which it took place and the ages of the patients. It will be seen that the greatest fatality was amongst infants under 12 months of age:—

DISTRICTS.				QUARTERS.								YEAR.		
				March.		June.		Sept.		Dec.				
				M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland ... ..	3	2	...	2	26	17	24	28	53	49	102			
Exchange ... ..	3	2	3	3	13	12	10	20	29	37	66			
Abercromby ... ..	...	...	3	1	8	8	5	8	16	17	33			
Everton ... ..	4	7	5	4	23	12	31	19	63	42	105			
Kirkdale ... ..	...	...	2	1	8	11	11	6	21	18	39			
West Derby (West) ... ..	2	1	4	3	10	9	12	18	28	31	59			
Toxteth ... ..	5	3	2	1	9	15	21	14	37	33	70			
Walton ... ..	...	...	2	4	8	5	14	1	24	10	34			
West Derby (East) ... ..	2	...	...	...	7	2	3	1	12	3	15			
Wavertree ... ..	3	...	1	1	1	1	2	...	7	2	9			
Sefton Park (late Toxteth Rural)	...	...	...	1	...	...	...	...	...	1	1			
Garston .....	...	...	...	...	1	...	1	1	2	1	3			
Fazakerley .....	...	...	1	...	...	...	...	...	1	...	1			
Hospitals (Residences outside the City) ... ..	...	...	...	...	2	3	2	...	4	3	7			
City ... ..	22	15	23	21	116	95	136	116	297	247	544			
AGES AT DEATH.														
Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	60 & up- wards.	All Ages.	
371	128	11	10	2	2	1	...	1	1	4	2	11	544	

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

List of Streets in the City wherein Three or more Deaths from  
Diarrhœa occurred during the year 1907.

STREETS.	No. of Deaths.	STREETS.	No. of Deaths.
Beau ... ..	3	Hopwood ... ..	5
Beaufort ... ..	3	Hornby... ..	4
Bidder ... ..	3	Howe ... ..	4
Blenheim ... ..	3	Hughes... ..	3
Bond... ..	4	Kew ... ..	3
Burlington ... ..	4	Nimrod... ..	3
Celt ... ..	3	Overbury ... ..	3
China ... ..	4	Prince Edwin Lane ... ..	4
Clegg... ..	3	Rathbone.....	4
Collingwood ... ..	3	Robsart... ..	6
Field ... ..	4	Roscommon... ..	4
Forth ... ..	3	Rose Place ... ..	3
Gerard ... ..	7	Salisbury ... ..	3
Gore ... ..	4	Victoria Square ... ..	5

In arranging the foregoing list of streets, all deaths occurring in hospitals have been transferred to the streets from whence the patients were removed.



## OTHER ZYMOTICS.

The following table indicates the localities in which deaths from other forms of zymotic disease occurred during the year:—

DISTRICTS.	Influenza.		Erysipelas.		Syphilis.		Rheumatic Fever.		Puerperal Fever.		Other Zymotics.		YEAR.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland .....	2	1	1	1	4	2	...	3	...	1	2	2	19
Exchange .....	1	...	1	...	4	5	1	...	...	2	2	...	16
Abercromby .....	3	5	1	...	2	2	1	2	...	1	1	...	18
Everton .....	5	6	4	1	8	7	3	4	...	1	2	5	46
Kirkdale .....	5	2	...	...	...	5	2	2	...	1	2	2	21
West Derby (West) ..	4	3	1	...	6	2	1	1	...	3	3	2	26
Toxteth .....	6	10	1	...	3	1	2	3	...	1	4	1	32
Walton .....	2	1	...	...	3	2	...	1	...	...	3	...	12
West Derby (East)...	2	2	...	...	3	...	3	3	...	1	...	1	15
Wavertree .....	1	1	...	...	...	1	...	1	...	1	1	...	6
Sefton Park..... (late Toxteth Rural)	...	3	...	2	...	...	1	1	...	...	1	...	8
Garston .....	...	...	...	...	1	3	...	...	...	...	3	1	8
Fazakerley .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospitals (Residences outside the City) ..	1	3	3	1	2	1	1	...	...	3	3	...	18
City .....	32	37	12	5	36	31	15	21	...	15	27	14	245

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

THE FOLLOWING TABLE SHOWING THE ANNUAL AVERAGE NUMBER OF DEATHS FROM SIX OF THE PRINCIPAL ZYMOTIC DISEASES DURING EACH OF THE LAST FOUR DECENNIAL PERIODS, IS INTERESTING AND INSTRUCTIVE. THE DECLINE IN THE MORE FORMIDABLE FORMS OF INFECTIOUS DISEASES IS VERY MARKED.

Years.	Small Pox.	Typhus.	Scarlet Fever.	Measles.	Whooping Cough.	Diarrhea.
1866 to 1875 .....	237.4	652.8	789.4	425.7	496.8	995.3
1876 to 1885 .....	90.8	238.0	421.2	517.8	472.3	658.4
1886 to 1895 .....	8.8	37.1	257.5	399.5	322.4	600.6
*1896 to 1905 .....	19.5	25.1	201.3	329.0	330.4	1,051.9
1906-7 .....	.5	13.0	166.5	438.5	343.0	921.0

\* Including extended City area.



ANNUAL AVERAGE NUMBER OF DEATHS FROM SIX OF THE PRINCIPAL ZYMOTIC DISEASES  
DURING EACH OF THE LAST FOUR DECENNIAL PERIODS, DISTINGUISHING THOSE  
OF PERSONS ABOVE AND BELOW FIVE YEARS OF AGE.

YEARS.	SMALLPOX.		TYPHUS.		SCARLET FEVER.		MEASLES.		WHOOPING COUGH.		DIARRHŒA.	
	Above 5.	Below 5.	Above 5.	Below 5.	Above 5.	Below 5.	Above 5.	Below 5.	Above 5.	Below 5.	Above 5.	Below 5.
1866 to 1875	141.7	95.7	*...	*...	187.7	601.7	14.4	411.3	9.9	486.9	105.7	889.6
1876 to 1885	62.5	28.3	*...	*...	137.0	284.2	35.4	482.4	18.6	453.7	61.9	596.5
1886 to 1895	6.2	2.6	†33.2	†.7	87.6	169.9	28.3	371.2	15.1	307.3	60.2	540.4
**1896 to 1905	14.5	5.	24.2	.9	61.7	139.6	17.1	311.9	11.9	318.5	53.6	1,008.3
1906-7	.5	—	12.5	.5	55.0	111.5	24.0	414.5	15.5	327.5	33.0	888.0

\* During these years the ages at death from Typhus were not differentiated.

† During the eight years, 1888-1895.

\*\* Including extended City Area.

The following table shows the number of deaths, the annual average death-rate per 100,000 of the population from the undermentioned forms of disease during the last five decades 1856 to 1905, and during the last two years 1906-7:—

DISEASE.		1856 to 1865, Average Population 443,938.	1866 to 1875, Average Population 493,405.	1876 to 1885, Average Population 538,651.	1886 to 1895, Average Population 536,974.	1896* to 1905, Average Population 691,351.	1906-7, Average Population 742,662.
Scarlet Fever	Total Deaths.....	5,994	7,894	4,212	2,575	2,013	333
	Rate per 100,000 per annum.	135.0	159.9	78.1	47.9	29.1	22.4
Typhus Fever	Total Deaths.....	7,482	6,527	2,855	371	251	26
	Rate per 100,000 per annum.	168.5	132.2	53.0	6.9	3.6	1.7
Measles	Total Deaths.....	3,215	4,257	5,178	3,995	3,290	877
	Rate per 100,000 per annum.	72.4	86.2	96.1	74.3	47.5	54.2
Whooping Cough	Total Deaths.....	4,779	4,968	4,723	3,224	3,304	686
	Rate per 100,000 per annum.	107.6	100.6	87.6	60.0	47.7	46.1
Smallpox	Total Deaths.....	1,673	2,374	908	88	195	1
	Rate per 100,000 per annum.	37.6	48.1	16.8	1.6	2.8	0.1
Phthisis	Total Deaths.....	15,572	16,476	13,754	11,436	12,632	2,418
	Rate per 100,000 per annum.	350.7	333.9	255.3	212.9	182.7	162.7

\* City Boundaries extended in 1895.



## TUBERCULAR DISEASES.

These diseases are associated with insanitary surroundings, and with conditions of life which tend to lower the general health. Improved sanitation is accompanied by a diminished mortality from these forms of disease, as the accompanying table, which relates to the last four decades and the two years 1906-7, indicates:—

	1866 to 1875.	1876 to 1885.	1886 to 1895.	1896 to 1905.	1906-7.
Annual Average Death-rate per 100,000 of the population, at all ages, from all forms of Tuberculosis ... ..	430·8	349·8	309·8	247·2	219·4
Annual Average Death-rate per 100,000 of the population above 5 years of age from Phthisis ...	362·8	278·6	244·4	203·8	183·5
Annual Average Death-rate per 100,000 of the population below 5 years of age from : Tabes Mesenterica Hydrocephalus ... Other forms of Tuberculosis.	637·1	597·3	539·1	339·5	273·5

The Group of Tubercular Diseases includes Phthisis, Tabes Mesenterica, Hydrocephalus, and other forms of Tuberculosis. They occasioned 1,597 deaths in the City of Liverpool during the year 1907.

#### DEATHS FROM PHTHISIS.

The number of deaths from Phthisis during the year was 1,183. The number of deaths during each of the preceding ten years, 1897-1906, has been as follows:—1,220, 1,209, 1,313, 1,287, 1,302, 1,347, 1,258, 1,282, 1,245 and 1,235.

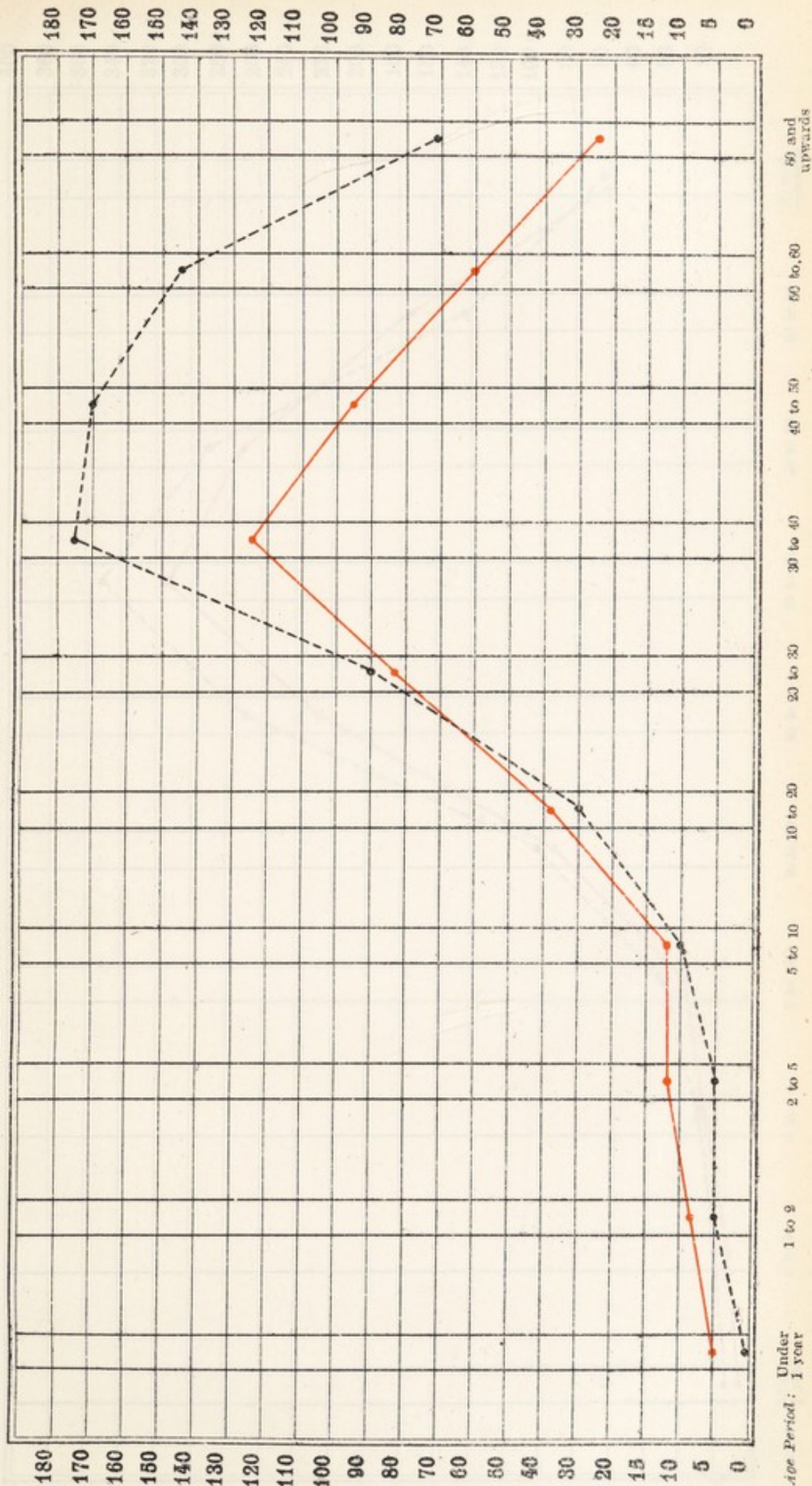
DISTRICTS.	QUARTERS.								YEAR.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland ... ..	17	8	14	5	10	11	14	11	55	35	90
Exchange ... ..	29	17	26	13	20	11	19	16	94	57	151
Abercromby ... ..	26	8	15	10	14	4	11	5	66	27	93
Everton ... ..	37	27	26	19	39	11	18	23	120	80	200
Kirkdale ... ..	14	5	16	10	14	8	9	12	53	35	88
West Derby (West) ... ..	18	24	13	16	18	14	18	13	67	67	134
Toxteth ... ..	26	17	22	18	17	14	17	18	82	67	149
Walton ... ..	10	9	4	12	4	2	10	6	28	29	57
West Derby (East) ... ..	13	5	11	9	12	10	10	8	46	32	78
Wavertree ... ..	6	1	6	4	1	5	6	4	19	14	33
Sefton Park ... .. (late Toxteth Rural)	4	2	1	2	3	4	3	2	11	10	21
Garston .....	5	1	3	1	2	4	1	2	11	8	19
Fazakerley ... ..	2	1	...	...	1	...	...	...	3	1	4
Hospitals (Residences outside the City) ... ..	16	7	12	5	9	5	7	5	44	22	66
City ... ..	223	132	169	124	164	103	143	125	699	484	1,183
AGES AT DEATH.											
Under 1 year.	1—	2—	5—	10—	15—	20—	30—	40—	50—	60 & up- wards.	All Ages.
7	7	13	21	25	82	219	315	266	171	57	1,183

Deaths in Public Institutions are transferred to the Districts from whence the patients came.



# CITY OF LIVERPOOL.

Comparative view of the total number of Deaths from Phthisis at ten different age periods during the year 1907, Males being shown in Black dotted line. and Females in Red.

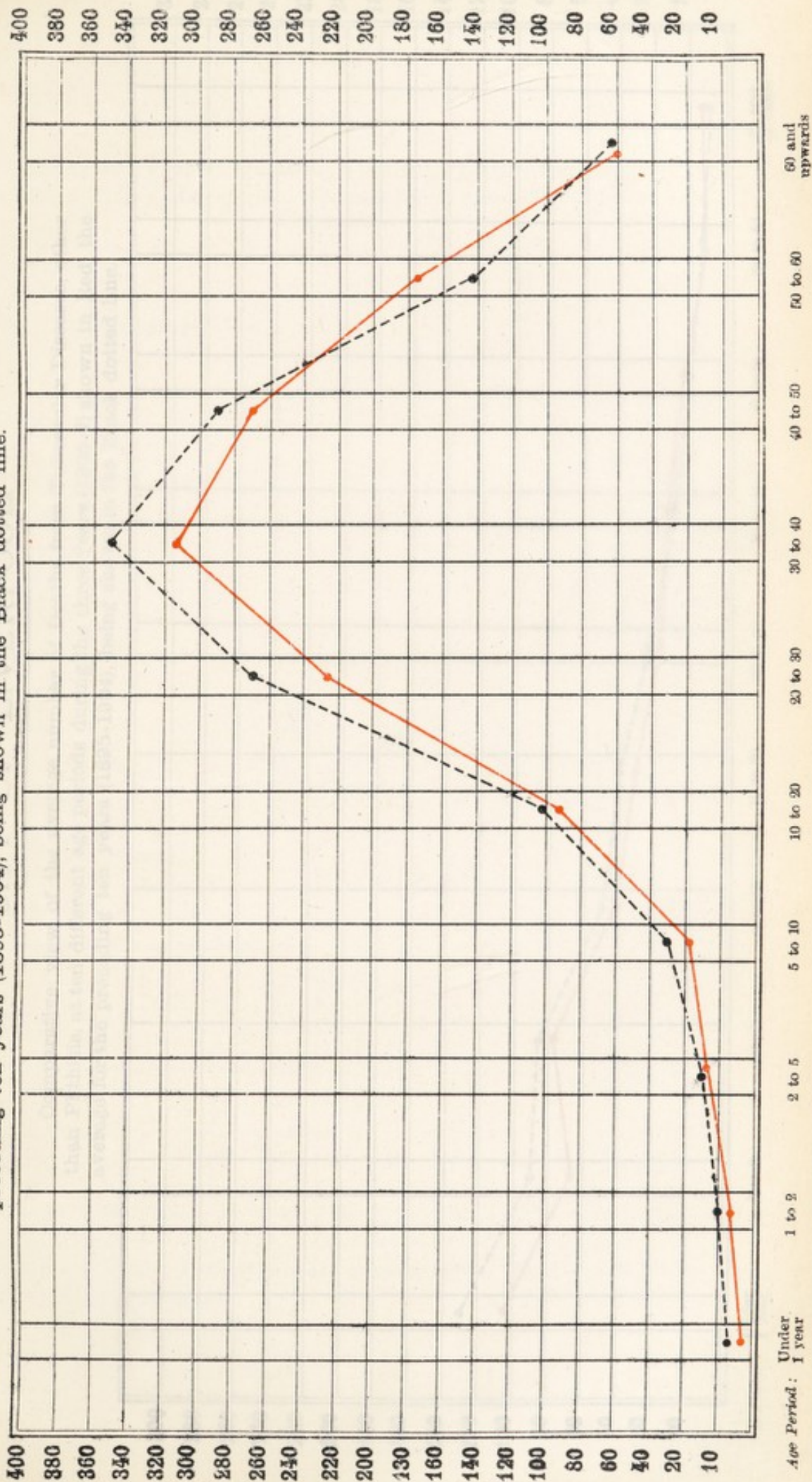


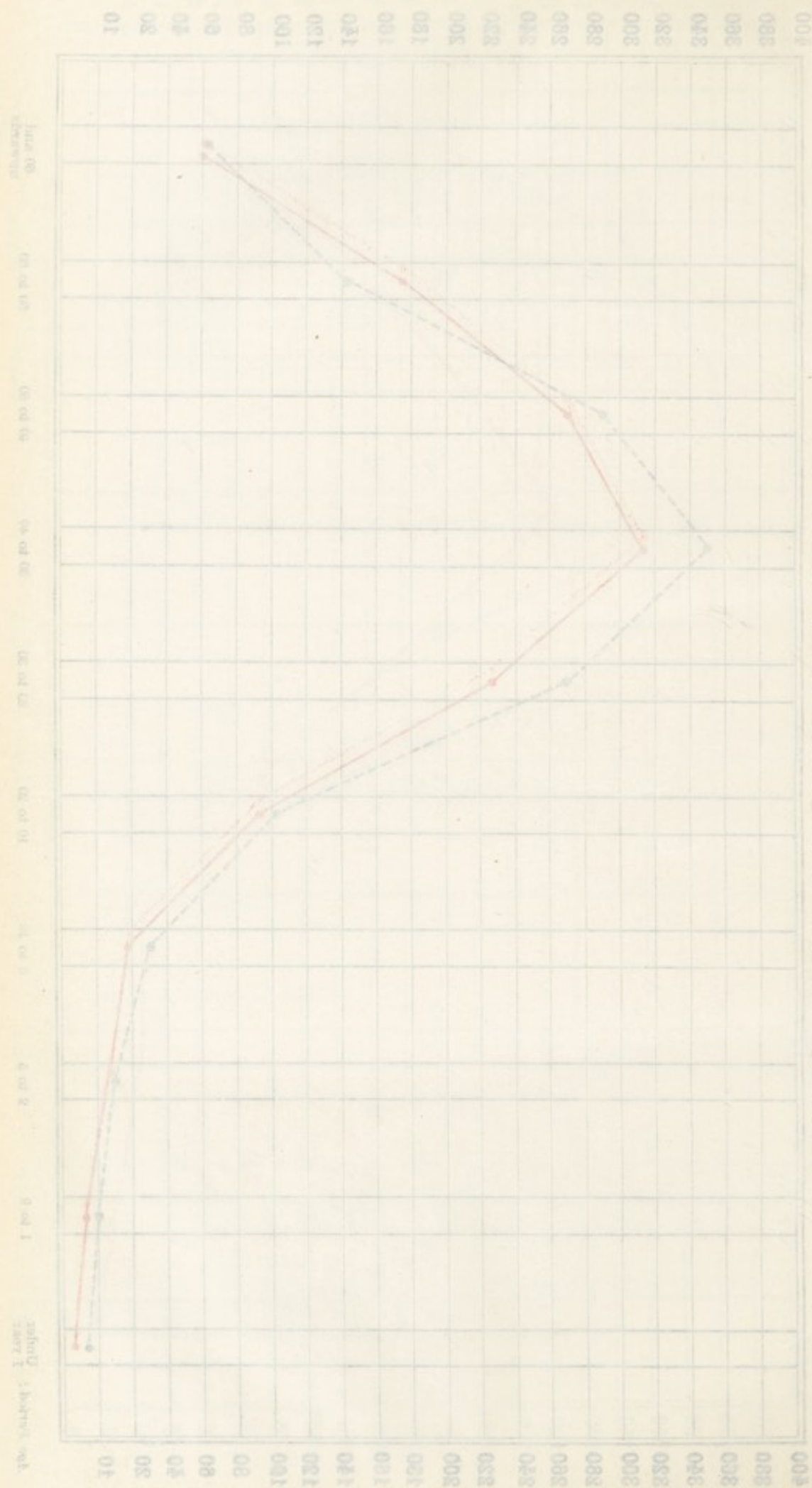




# CITY OF LIVERPOOL.

Comparative view of the average number of Deaths from Phthisis at ten different age periods during the three years (1905-1907), shown in Red, the average for the preceding ten years (1895-1904), being shown in the Black dotted line.



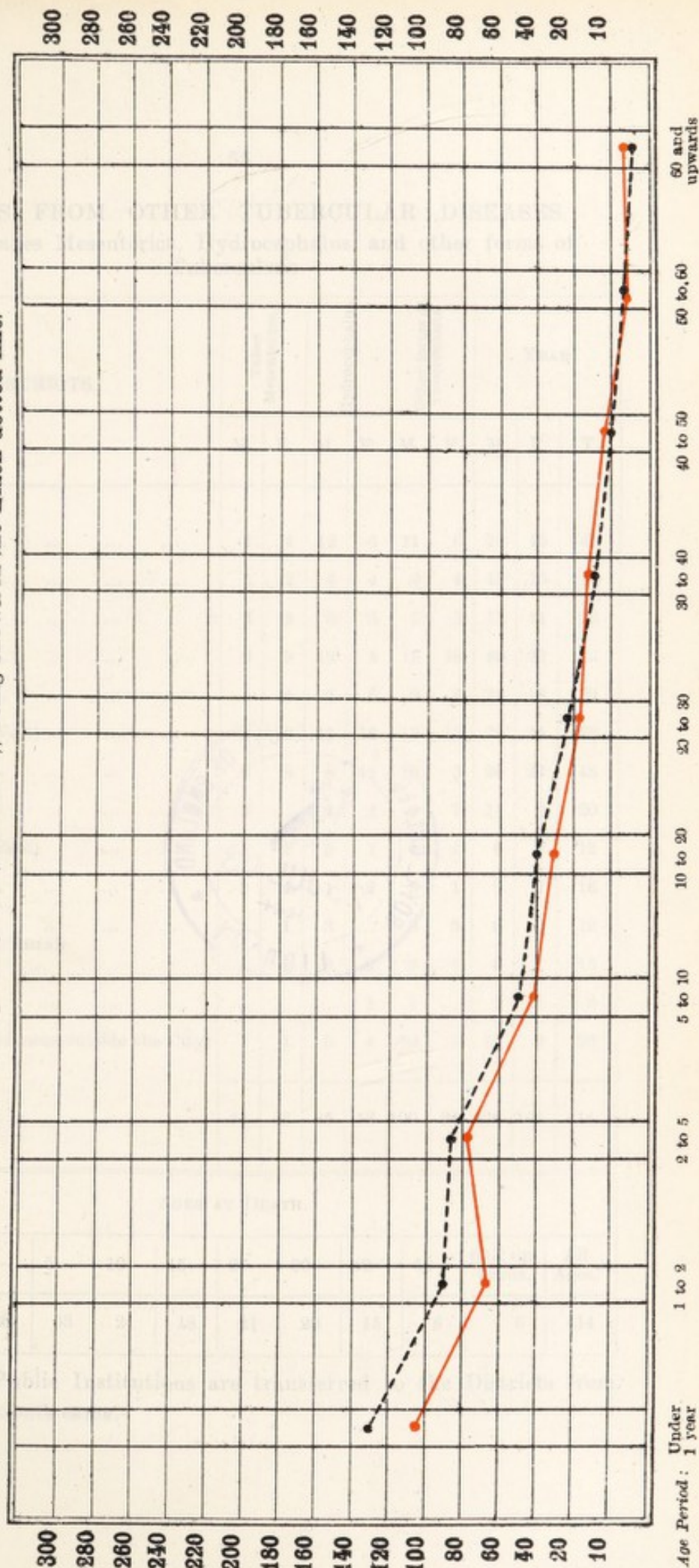


Exceeding ten years (1862-1864) being shown in the Black dotted line  
 the period during the years 1862-1864 shown in red the average for the  
 combined area of the average number of deaths from typhoid



## CITY OF LIVERPOOL.

Comparative view of the average number of Deaths from Tubercular Diseases, other than Phthisis, at ten different age periods during the three years (1905-7) shown in Red, the average for the preceding ten years (1895-1904), being shown in the Black dotted line.







## DEATHS FROM OTHER TUBERCULAR DISEASES.

Viz.:—Tabes Mesenterica, Hydrocephalus, and other forms of Tuberculosis.

DISTRICTS.					Tabes Mesenterica.		Hydrocephalus.		Other forms of Tuberculosis.		YEAR.		
					M.	F.	M.	F.	M.	F.	M.	F.	T.
Scotland	...	...	...	...	2	4	12	5	11	6	25	15	40
Exchange	...	...	...	...	2	2	4	4	9	4	15	10	25
Abercromby...	...	...	...	...	2	3	8	3	5	5	15	11	26
Everton	...	...	...	...	9	9	13	5	18	18	40	32	72
Kirkdale	...	...	...	...	5	4	7	6	9	8	21	18	39
West Derby (West)	...	...	...	...	4	8	11	12	13	15	28	35	63
Toxteth	...	...	...	...	8	8	8	11	10	3	26	22	48
Walton	...	...	...	...	5	...	4	2	2	7	11	9	20
West Derby (East)	...	...	...	...	...	1	5	1	1	4	6	6	12
Wavertree	...	...	...	...	3	4	1	2	5	1	9	7	16
Sefton Park ... (late Toxteth Rural)	...	...	...	...	...	1	3	...	3	5	6	6	12
Garston	...	...	...	...	...	1	3	2	3	4	6	7	13
Fazakerley...	...	...	...	...	...	...	...	1	1	...	1	1	2
Hospitals (Residences outside the City)	...	...	...	...	1	1	6	4	10	4	17	9	26
City	...	...	...	...	41	46	85	58	100	84	226	188	414
AGES AT DEATH.													
Under 1 year.	1—	2—	5—	10—	15—	20—	30—	40—	50—	60 & up- wards.	All Ages.		
100	65	86	53	24	18	21	20	15	6	6	414		

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

## NOTIFICATION OF PHTHISIS.

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The system of voluntary notification of those cases of consumption in which the services of the Health Department could be of use came into operation on 14th February, 1901, and has been continued with good results.

A special form upon which the notification can be made has been circulated amongst medical men, and in those cases in which the requirements of the Health Committee have been fulfilled, the usual notification fee has been paid. Since the inauguration of the system the number of notifications has been as follows :—

Year.	Males,	Females.	Total.
1901	1148	649	1797
1902	1469	730	2199
1903	1153	721	1874
1904	1068	641	1709
1905	1257	604	1861
1906	1257	662	1919
1907	1446	784	2230

During the year 1907, the cases reported

numbered .....	2,280
Of this number .....	139 were duplicates.
<hr style="width: 10%; margin: 5px auto;"/>	
Leaving a total of.....	2,141 Cases.
Deaths from the Disease totalled .....	1,117
Rooms, Bedding, &c., disinfected in .....	577 instances.
Bedding, &c., removed for special disin- fection in .....	57 „

It will be noted that only those cases are notified in which action on the part of the sanitary staff is needed; in many instances, the friends of the patient have themselves carried out disinfection under the guidance of their medical adviser.

Great advantage has attended the admission of patients to the Fazakerley Hospital (see page 241).



The age period at which the greatest number of cases were reported is from 25 years upwards, 1,056 males and 474 females being reported; 233 males and 160 females were reported between the ages of 15 and 25 years.

Total number of Males reported .....	1,446
Total number of Females reported .....	784

There were 89 cases of Tuberculosis other than of the lungs reported.

Dirty Houses were reported in ..... 14 cases.

The occupations showing the largest number of cases were as follows:—

Labourers .....	528 Cases.
Firemen (Marine) .....	56 „
Hawkers .....	49 „
Seamen .....	49 „
Carters .....	46 „
Charwomen .....	43 „
Domestic Servants .....	43 „
Painters and Plumbers .....	39 „
Bookkeepers.....	28 „
Engineers .....	27 „
Tailors .....	25 „

The following table of information for consumptive people was circulated through appropriate channels:—

1.—Consumption is a preventible disease which is caused by minute living germs, called “tubercle bacilli,” which usually enter the body with the air breathed.

2.—The matter which consumptive people cough or spit up contains the germs of the disease in great numbers. If this matter is spat upon the floors, or the walls of any public or private place, or elsewhere, as

soon as it becomes dry the germs of the disease which it contains are blown about and float in the air, like any other minute particles of dust, and are inhaled by anybody breathing that air: or they may fall upon milk or other food, and gain access to the body with that food. These are the commonest ways in which the seeds of the disease enter the body of a healthy person.

3.—It is dangerous to sleep with or to live in close relationship with a consumptive, unless the patient is careful that what he coughs up is destroyed. A pocket bottle or a cup containing a little water and disinfectant should be used to spit in, so that the matter may not dry, and it should be emptied in the closet (not into the ashpit, or upon the footwalk or the roadway), and carefully washed afterwards with boiling water. If the consumptive prefers to use soft paper, linen or calico cloths or handkerchiefs to spit in, they should be thrown upon the fire and burnt forthwith. He should take care that his hands, face, and clothing do not become soiled with the matter coughed up. He should never swallow the expectoration: it is dangerous. When coughing he should always cover the mouth with the hand and turn the head aside.

4.—A consumptive should sleep alone; the windows should always be wide open, except when dressing and undressing. The bed-clothing and personal underclothing should be boiled and washed separately from the clothing of other people.

5.—Tubercle bacilli are not only the cause of ordinary consumption of the lungs, but they may also give rise to consumption of the bowels and other parts of the body, and therefore milk and other uncooked food should be carefully protected from the tubercle bacilli. If such food be kept in a place to which a consumptive patient of careless habits has access and who may spit upon the floor, the dry particles of the matter spat up may blow about with dust and find access to milk or other food, and in this way contaminate it. Mothers who are consumptive should not suckle their children.

6.—Cows suffer from consumption, and the milk from consumptive cows is liable to contain the tubercle bacilli. Milk had better be boiled for a few seconds unless the consumer is sure that it comes from a healthy cow, and that it has not been exposed to danger of contamination



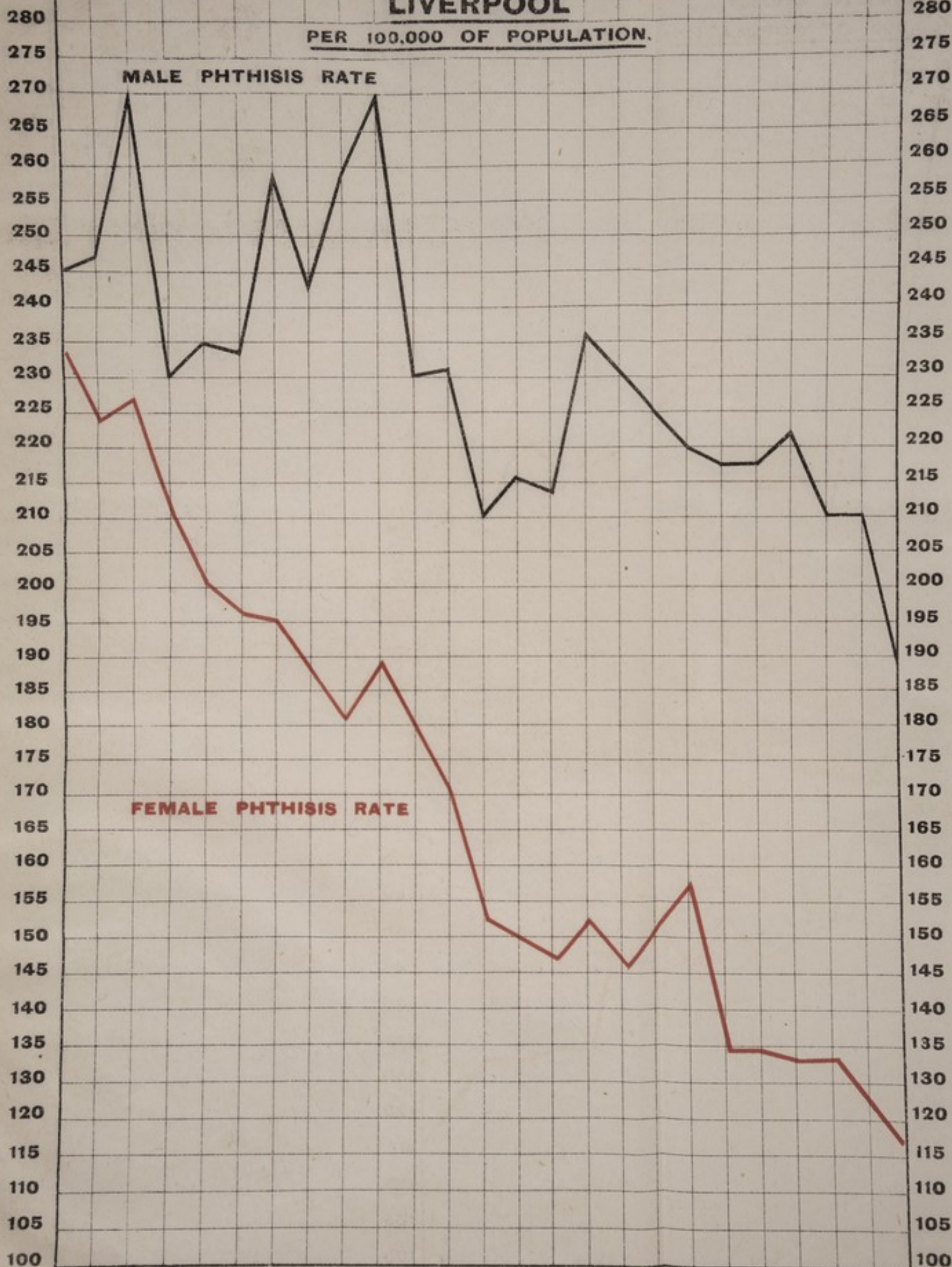
1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1907

# LIVERPOOL

PER 100,000 OF POPULATION.

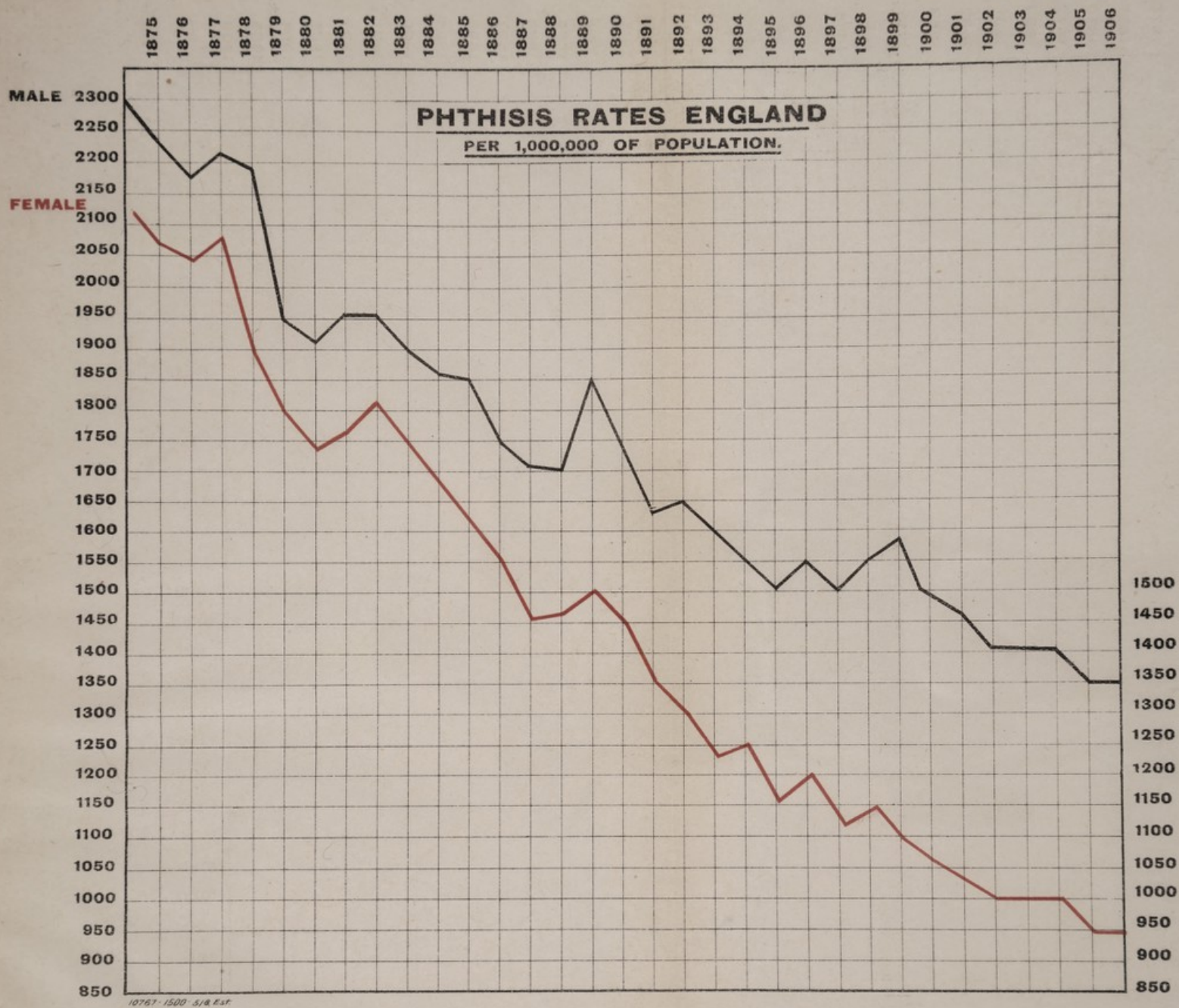
MALE PHTHISIS RATE

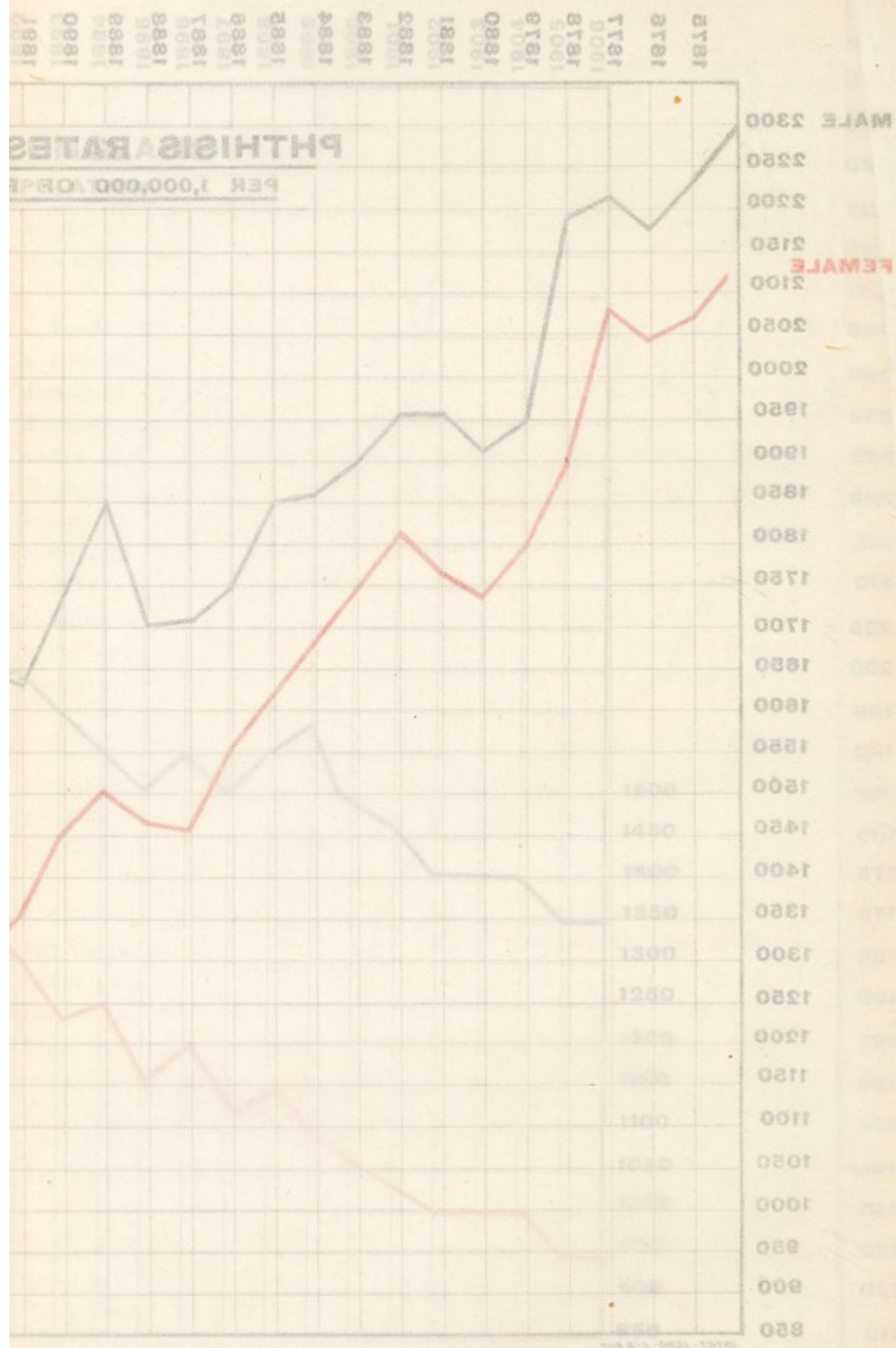
FEMALE PHTHISIS RATE



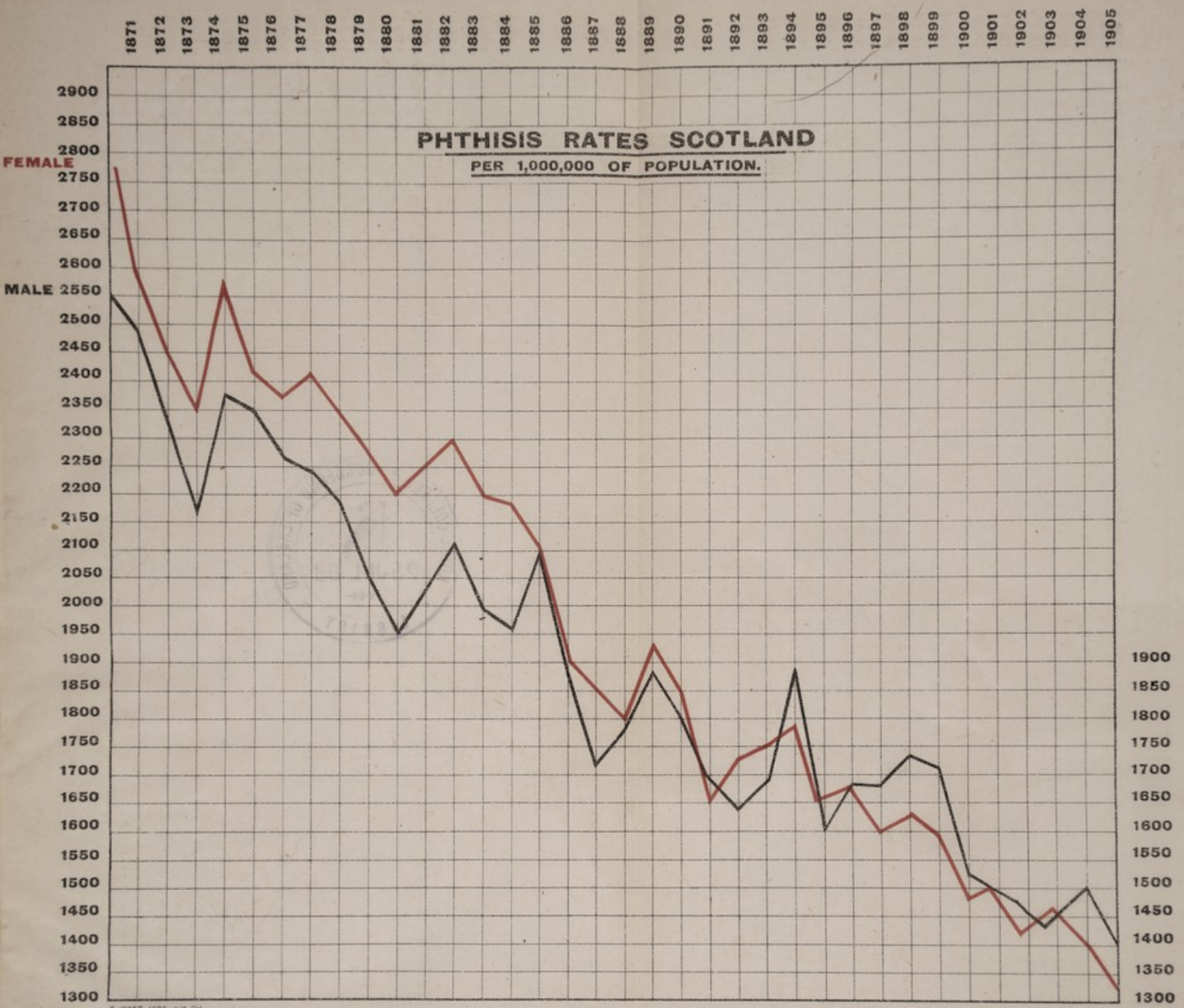


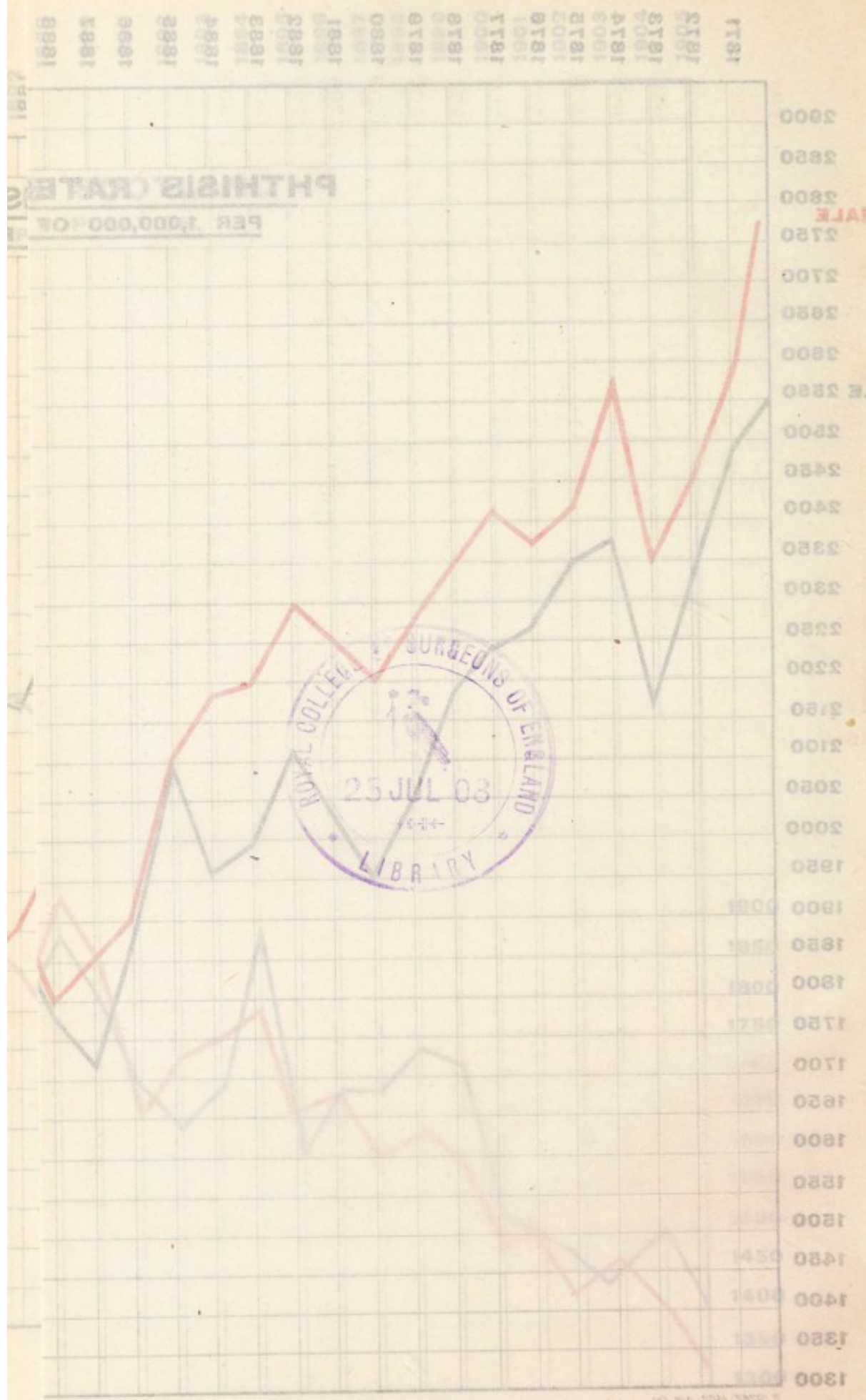






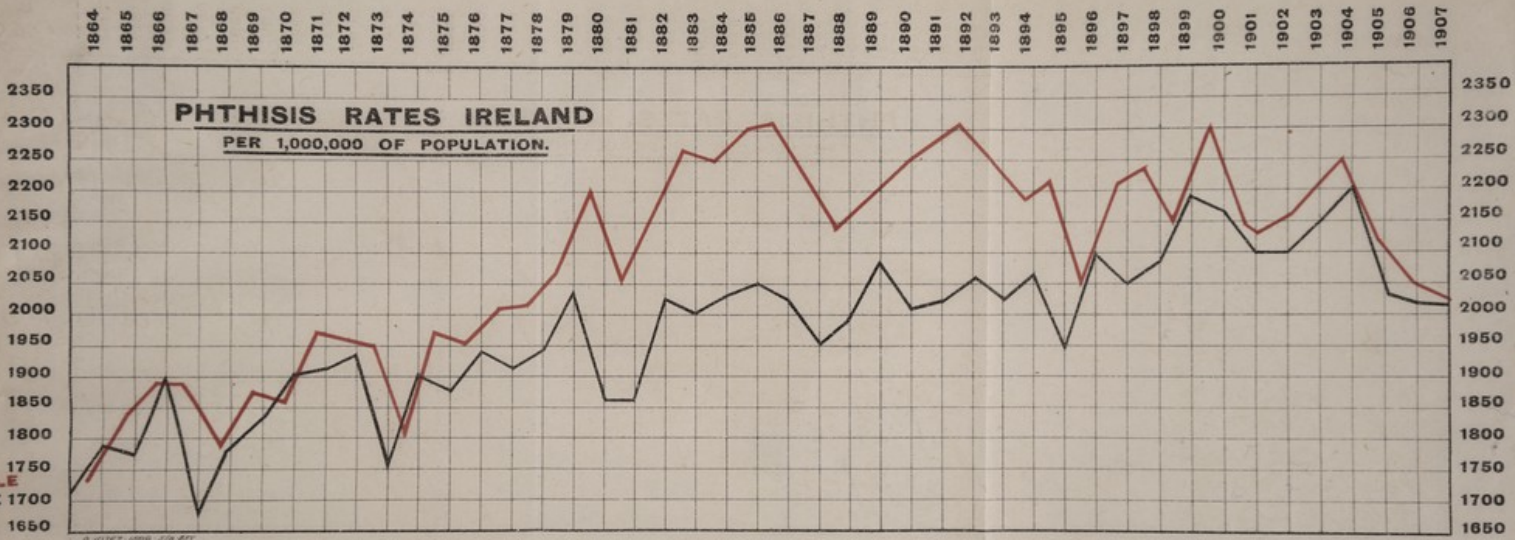






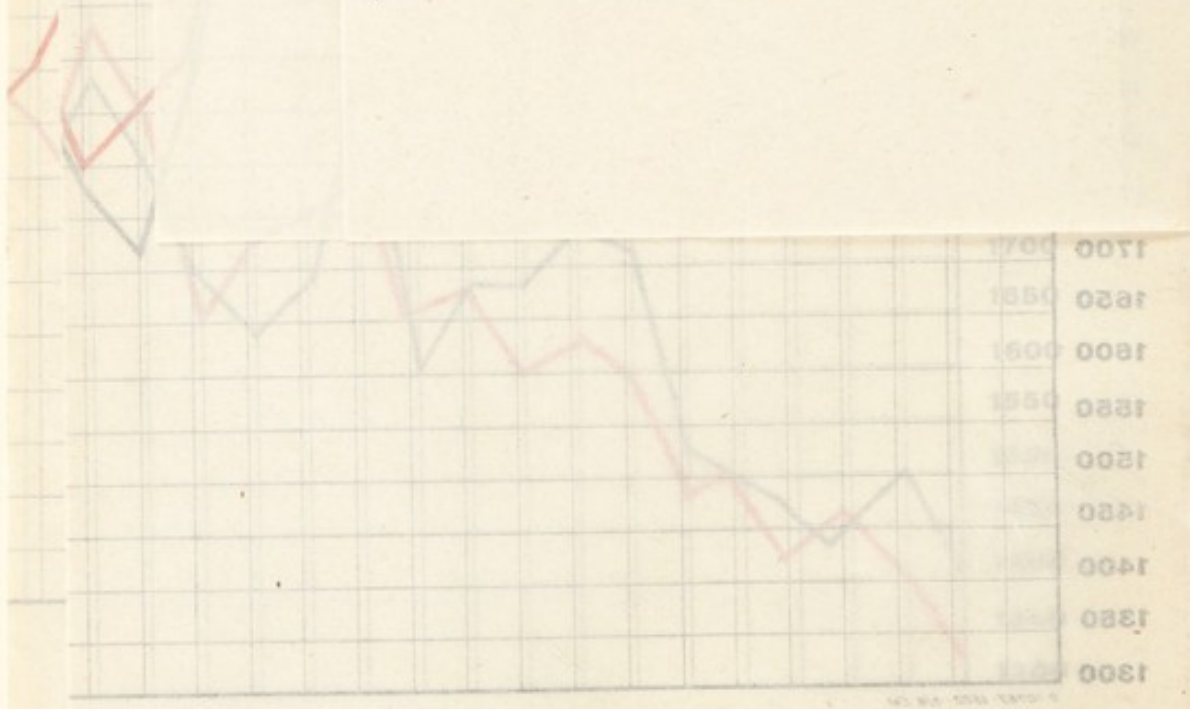


# **PHTHISIS RATES IRELAND** PER 1,000,000 OF POPULATION.



1881  
1882

1881  
1882





afterwards. These precautions should be specially observed in the case of children.

7.—Consumption is a disease from which large numbers of patients recover if the rooms they occupy are always kept thoroughly well-ventilated, and clean and free from dust.

8.—Sunshine and fresh air destroy tubercle bacilli, and are the principal curative agents; the more sunshine and fresh air the consumptive patient gets, the more likely is he to recover.

9.—Sanitary improvements which have been carried out in the city with a view to admit more pure air and sunshine to dwellings, and to lessen overcrowding, have reduced the mortality from consumption to about one-half of what it was 30 years ago, but, to reduce it still further, the people must help themselves by keeping their rooms clean and well-ventilated, and by maintaining strictly temperate habits.

10.—Rooms that have been occupied by consumptives should be thoroughly disinfected and cleansed before they are again occupied, and the carpets and bedding should be disinfected; in fact, so far as these precautions are concerned, consumption may be regarded in precisely the same light as any other infectious disease.

11.—The Officers of the Health Department are always ready to do the necessary disinfection, both of rooms and of clothing, free of charge.

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The accompanying diagrams illustrate the changes which have been taking place during the last twenty to thirty years:—

- (a) In the City of Liverpool;
- (b) In England and Wales;
- (c) In Scotland;
- (d) In Ireland.

It will be seen that with the exception of Ireland, the decline has been marked in both sexes, but much more so in the female than in the male.

## ALCOHOLISM.

---

There is little doubt that the decrease in excessive drinking, and in the evils which follow it, continue. That this result is owing, in great part at all events, to diminished temptations, no one would seriously question, but the evil which still remains is one of the most deplorable and hopeless features with which the Sanitary Authority has to deal, not indeed on account of the direct and obvious consequences—although these are serious enough—but on the well-known indirect effects to be presently alluded to.

During the year, in no less than 164 inquests the verdict of the Coroner's Jury showed that the death of the man or woman on whom the inquest was held was to be attributed to the result of excessive drinking.

In 78 of these cases, viz., 44 of these men and 34 of these women, death appears to have resulted from the direct and immediate poisonous effects of the quantity of alcohol consumed. The deaths of 53 men and 23 women were accelerated by habits of excessive drinking; five men and five women were fatally injured whilst under the influence of drink; in one case temporary insanity supervened upon excessive drinking and the man strangled himself. One woman destroyed her life with carbolic acid, and one man destroyed his life by an overdose of morphia whilst under the effects of drink. In the case of two deaths resulting from personal violence, the person committing the deed was under the influence of drink at the time. But besides these there are many cases of fatal injury in which the verdict of "accidental death" omits any reference to the fact that the injured person was intoxicated at the time. "Alcoholism" is certified to be the cause of death of four men and three women.

It is remarkable that so excessive a fatality occurring year after year from an article in daily use calls for so little comment. Even if it be true that most, if not all, of the victims were persons of useless, vagabond lives, there is no reason to suppose that they were always so, nor to doubt that the line of conduct which terminated their existence is now being followed by others. These deaths, however, do not indicate at all fully the extent of the mischief caused by excessive drinking.



Perhaps the greatest of all harm is done by the squandering away of money on an article which, whilst unfitting the drinker for work, degrades him to a condition of poverty which means want of the necessities of life to those dependent upon him. Many thousands of instances of cruelty to children are known to occur annually in this City owing to the neglect and brutality of parents usually reduced to poverty through wasting their money on drink. These children would be without clothes and without food were it not for the action of the charitable. That it is drink, and drink alone, which is so largely responsible for the indescribable misery of so many children is shown by the generally admitted circumstance that it is only when those responsible for them are under the influence of drink that the children are actually ill-used, and that bodily injury is inflicted upon them. The views of the Liverpool Society for the Prevention of Cruelty to Children have found expression in the following paragraph:—

“It is difficult, satisfactorily, to account for the misery with which the Society comes in contact—particularly as of late this question has met with considerably divided opinion—but this Committee are unable to alter theirs, which has not been arrived at hastily, but is the outcome of years of experience, that the main and besetting cause is intemperance. They are fully alive to the fact that if all drunkenness ceased, degradation would still exist; but, with increased temperance and abstinence, the majority of the crime with which this Society deals would be lacking.”

The City Council have already given expression to their concurrence with a resolution of the Health Committee in the following terms:—

“That the Health Committee begs respectfully to express its sense of the benefits resulting from the action of the Licensing Justices in diminishing the number of public-houses in the congested parts of the City; but the Committee desires respectfully to call the attention of the Licensing Justices to the injurious effects, poverty, sickness, and bad economic conditions, and loss inflicted upon the community by the continuance of the excessive and unnecessary number of public-houses in those areas which are specially dealt with by the Health Committee and by the Housing Committee of the City Council.”

There was no dissentient in the City Council to the views which the resolution expresses, but if any person doubted the accuracy of the conclusions of the City Council on the subject, such doubt would very readily be set at rest by taking note in any district where public-houses are excessive and unnecessary (*e.g.*, amongst many others, in the Brownlow Hill district) of the condition of the squalid, dishevelled women who leave the public-houses, and he will receive further enlightenment if he notes in the case of one or two, or more if he wishes, what sort of homes they go to, what is the condition of the home, and what the condition of the children. He will then be perfectly satisfied that the evils of intemperance are not limited to the person consuming the liquor.

As a result of following to their homes very neglected children, who unfortunately are still so frequently to be seen about the streets, the Female Staff in many instances have been enabled to deal effectively with this form of neglect, which almost invariably is associated with the drunkenness of the mother.

The question of injury to infants and young children whilst in custody of drunken persons received careful attention from the Infant Life Preservation Committee and the Health Committee. The Medical Officer was instructed to report upon the matter, which he did in the following terms:—

“ Under Section II of Part I of the Licensing Act of 1902, it is provided that any person who is found drunk whilst having charge of a child under the age of 7 *in any public place* may be apprehended and dealt with.

“ The section has been followed by satisfactory results in Liverpool. What is now required is an extension of the Act, to prevent the evil which results from persons found drunk in *other than public* places whilst having the custody of infants and young children.



"It is an exceedingly common thing under such conditions that neglect arises and injury is inflicted; the law amply deals with the punishment of those who inflict such neglect and injury, but what is essentially needed is the power of intervention *before* the mischief is done, and authority to remove the infant or young child when injury and neglect are *probable* or *impending*, from the custody of the drunken persons to a place of safety.

"The action to be taken at the time in respect to the drunken persons themselves is of comparatively little consequence; the cost of the maintenance of the child whilst in the place of safety should be defrayed by the persons whose conduct necessitates removal of the child.

"Under the Act of 1902, the age of the child concerned is restricted to 7 years, but it is desirable to extend this limit of age, say, to 14 in the case of girls and 12 in the case of boys, which is still somewhat below the age referred to in the Prevention of Cruelty to Children Act, 1904.

"It is quite true that the Society for the Prevention of Cruelty to Children does, in dealing with the many thousands of cases of cruelty arising through the drunkenness of the custodians, avert a considerable number more, but the desired amendment of the Act would very materially lessen the cases of the kind with which the Society has to deal.

"The Committee will be familiar with the nature and great extent of the evil which it is desired to remedy, but one or two recent ordinary illustrative cases affecting infants are appended, and reports of the medical examiners of certain schools show the desirability of raising the age limit of protection."

The views of the Committee were expressed in the following resolution:—

“That in the opinion of this Committee it is desirable that legislative provision should be made enabling the police or the officers of the Local Sanitary Authority duly authorised in that behalf to enter private premises in cases where they have reasonable ground for suspecting that an inmate of such premises is in a state of drunkenness and that such inmate is in charge of an infant or child under the age of seven years and that injury is probable or impending, and to remove such infant or child to a place of safety, and that a copy of this resolution be forwarded to the Secretary of State and the Members of Parliament for the City with the request that they will support legislation on these lines.”

This resolution was subsequently confirmed by the City Council in December, 1907.

A comparison of three Wards in regard to the general death-rate, the proportion of deaths due to excessive drinking, and the proportion of deaths which take place in Workhouses and Hospitals, shows what proportion of the population in times of sickness are dependent upon charitable aid.

	Population.	General Death-rate per 1,000.	Proportion of Deaths in Workhouses and Hospitals.	Proportion of Deaths due to Excessive Drinking.
Exchange	41,168	30·9	50·9 per cent.	3·4 per cent.
Walton	63,017	14·1	19·6 „	0·1 „
Wavertree	36,018	10·9	21·1 „	0·5 „

Some further aspects of the general question are alluded to on page 23, where the question of infant mortality is briefly dealt with, and the maps facing page 236, showing the insanitary areas now being dealt with by the Housing Committee, deserve careful attention.

The circumstance that many of the broken down and unfortunate classes from various localities drift into the lodging-houses in Exchange, and so pass on into Workhouses, will not be lost sight of.



# CANCER.

The following table indicates the number of deaths from Cancer and kindred diseases during the last five years, and the part of the body affected:—

DISEASE.	1903.			1904.			1905.			1906.			1907.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Cancer of Stomach and Bowels..	102	108	210	111	96	207	139	115	254	114	121	235	111	116	227
" Liver .....	33	55	88	21	40	61	26	34	60	34	48	82	28	50	78
" Urinary and Gen- erative Organs .....	14	119	133	16	96	112	18	107	125	22	100	122	19	125	144
" Breast.....	...	67	67	...	44	44	...	54	54	...	66	66	...	68	68
" Head and Face .....	27	9	36	19	5	24	21	6	27	24	13	37	30	6	36
" Tongue, Neck, and Throat.....	68	15	83	48	5	53	51	13	64	62	20	82	75	18	93
" Other parts of the Body .....	17	9	26	16	16	32	15	6	21	20	14	34	10	9	19
" Parts not specified ...	8	10	18	4	9	13	8	7	15	6	14	20	7	12	19
Total .....	269	392	661	235	311	546	278	342	620	282	396	678	280	404	684

# FEVER AND DIARRHŒA MORTALITY.

The following table shows the death-rate per 1,000 of the population, and the number of deaths from Fever and Diarrhœa during the last twenty-five years:—

Year.	*Death Rate per 1,000 of Population from all causes.	Deaths from Diarrhœa.	Deaths from Fever.		
			Typhus.	Typhoid.	Continued.
1883	27·7	541	408	108	24
1884	26·6	841	77	112	16
1885	25·6	422	71	95	16
1886	26·1	781	47	140	11
1887	26·4	619	52	130	12
1888	23·1	431	32	125	4
1889	24·9	575	45	167	...
1890	27·5	468	23	99	1
1891	26·8	330	37	92	2
1892	24·4	415	18	111	2
1893	26·7	866	44	221	5
1894	23·1	503	50	248	7
†1895	24·8	1,108	24	197	4
1896	21·4	851	36	166	2
1897	22·8	1,482	23	145	5
1898	22·2	956	19	148	5
1899	24·1	1,158	13	182	4
1900	23·1	900	11	120	4
1901	21·6	1,269	14	154	3
‡1902	21·6	611	25	190	2
1903	19·8	657	57	108	...
1904	21·9	1,785	25	82	1
§1905	19·2	960	28	49	1
1906	20·2	1,298	8	85	1
1907	18·3	544	18	92	...

\* Calculated on corrected population as per Census Returns of 1891 and 1901.

† City Boundaries extended.

‡ Garston included.

§ Fazakerley included.



Mr. Plummer, M.A., F.R.A.S., Astronomer to the Mersey Docks and Harbour Board, has kindly furnished the following tables relating to Meteorological observations made by him at the Liverpool Observatory, Bidston:—

# LIVERPOOL OBSERVATORY, BIDSTON, BIRKENHEAD.

Latitude  $53^{\circ} 24' 5''$  N. Longitude  $3^{\circ} 4' 20''$  W.

Height above the Mean Level of the Sea 202 feet.

1907.	Barometer. Mean.	Temperature. Mean.	RAINFALL.		Mean Monthly Humidity. (Complete Saturation equal 100).
			Amount.	No. of days on which .01 in. or more fell.	
	Inches.	Degrees.	Inches.		
January .....	30.291	39.3	0.989	15	86
February .....	29.986	37.7	1.377	13	84
March .....	30.114	44.2	1.540	14	75
April .....	29.765	46.2	1.440	17	76
May .....	29.842	50.6	2.639	21	88
June .....	29.776	54.5	4.709	26	83
July .....	30.010	57.9	1.911	17	78
August .....	29.926	57.9	2.939	18	77
September .....	30.104	57.6	0.560	7	77
October .....	29.590	49.8	4.194	25	81
November .....	29.940	44.6	2.095	19	85
December .....	29.692	41.0	2.175	17	85

DIFFERENCE FROM THE AVERAGE QUANTITIES OBSERVED DURING THE  
LAST 40 YEARS.

1907.	BAROMETER.		TEMPERATURE.		RAINFALL.	
	Above Average.	Below Average.	Above Average.	Below Average.	Above Average.	Below Average.
	Inches.	Inches.	Degrees.	Degrees.	Inches.	Inches.
January .....	0.356	...	0.1	...	...	1.205
February .....	0.054	...	...	3.6	...	0.344
March .....	0.222	...	2.0	...	...	0.218
April .....	...	0.133	...	1.1	...	0.171
May .....	...	0.123	...	1.2	0.724	...
June .....	...	0.216	...	2.9	2.679	...
July .....	0.063	...	...	2.9	...	0.775
August .....	0.012	...	...	2.6	...	0.049
September .....	0.155	...	1.4	...	...	2.346
October.....	...	0.282	0.3	...	0.606	...
November .....	0.042	...	1.4	...	...	0.534
December.....	...	0.182	1.1	...	...	0.399

OBSERVATIONS OF VELOCITY OF WIND.

1907.	Average Hourly Velocity for Month.	Maximum Hourly Velocity.	Date of Maximum Velocity.	Minimum Hourly Velocity.	Date of Minimum Velocity.
	Miles.	Miles.		Miles.	
January .....	19.5	64	Jan. 29	2	January 8, 9, 16, 26.
February....	19.2	75	Feb. 20	0	February 1.
March.....	19.6	72	March 16	1	March 3, 9, 11, 23, 26, 27.
April .....	15.7	45	April 13, 30	1	April 1, 3, 8, 9, 10, 16, 24.
May .....	15.1	57	May 2	1	May 12, 14, 17, 19, 27, 28.
June .....	18.9	59	June 3	1	June 1, 7, 29, 30.
July .....	13.1	36	July 30	1	July 10, 12, 14, 18, 26.
August .....	18.4	47	August 7	0	August 29.
September..	11.9	43	Sept. 3	0	September 7, 8, 12, 19.
October.....	14.1	53	Oct. 15	1	October 4, 5, 11, 27.
November...	14.2	74	Nov. 13	0	November 4, 5, 25, 29.
December...	18.8	64	Dec. 14	1	December 23.



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SANITARY ADMINISTRATION.

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## SANITARY ADMINISTRATION.

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For the purpose of carrying out the requirements of the various Sanitary Acts of Parliament and the Orders, Bye-laws, and Regulations made thereunder, the following staff of the Medical Officer of Health's Department has been employed during the year:—

*Chief Sanitary Inspector	...	...	...	...	1
*Deputy Chief Sanitary Inspector	...	...	...	...	1
*Prosecuting Sanitary Inspectors	...	...	...	...	7
*Inspectors for General Sanitary Purposes	...	...	...	...	31
*    ,,    of Ashpits and Ashbins	...	...	...	...	2
*Female Inspectors for General Sanitary Purposes	...	...	...	...	14
*      ,,    ,,    of Midwives	...	...	...	...	1
*    ,,    Superintendent of Sterilized Milk Depôts	...	...	...	...	1
,,    Assistants at Sterilized Milk Depôts	...	...	...	...	20
§Inspectors of Meat and Animals	...	...	...	...	4
,,    under the Diseases of Animals Act	...	...	...	...	2
**    ,,    of Fish and Fruit	...	...	...	...	4
*    ,,    under the Sale of Food and Drugs Act	...	...	...	...	3
*    ,,    ,,    Workshop and Shop Hours Acts	...	...	...	...	3
†    ,,    , Smoke	...	...	...	...	3
,,    , Removing Patients and Infected Bedding and Disinfecting Infected Houses, &c.	...	...	...	...	11
‡Superintendents of Ambulance and Disinfecting Staff	...	...	...	...	1
,,    Disinfecting Apparatus	...	...	...	...	2
*    ,,    Wall Paper Stripping Staff	...	...	...	...	1
Men engaged on	,,	,,	,,	,,	16
*Chief Inspector of Common Lodging and Sub-let Houses	...	...	...	...	1
***Inspectors of Common Lodging and Sub-let Houses	...	...	...	...	15
*Inspector of Canal Boats	...	...	...	...	1
*    ,,    Bakehouses	...	...	...	...	1
*Inspectors of Cowsheds and Milkshops	...	...	...	...	2
Notice Servers	...	...	...	...	3
Permanent Clerical Staff	...	...	...	...	24

In every case Officers are selected for these positions, whose previous training and occupation have been such as to fit them for the special

duties they are called upon to discharge. Those marked \* are required to hold the Certificate of the Sanitary Institute of Great Britain or a Certificate equivalent thereto; those marked † have Marine Engineers' First Class Certificates, and the ‡ Superintendent Ambulance Inspector holds Sanitary Certificate, and also the Certificate of St. John Ambulance Association. \*\* Fishmongers by trade. § Butchers by trade; candidates are submitted to practical examination upon the lines which have been indicated in the Report of the Royal Commission upon Tuberculosis. \*\*\*Several hold the Certificate of the Sanitary Institute, or an equivalent thereto. || Registered midwife, a fully qualified nurse, and holds diploma of London Obstetrical Society.

The number of occasions upon which the advice and assistance of the Health Department have been sought has decreased during the year. These applications fluctuate slightly year by year; in 1904 they were 9,218, in 1905 8,365, in 1906 8,703, and in 1907 8,279. As in former years, complaint in many cases was made to the Health Department only after repeated requests addressed to the persons causing or allowing the nuisance, or to agents or owners of property, had been ignored. Generally speaking, these complaints arise in connection with jerry-built property. A great deal of the time of the inspectors was taken up by these special examinations.

Requests to examine important public buildings and offices, as well as highly-rented dwelling-houses, have again been very numerous, and the application of the smoke test has in many cases brought to light defects in the drainage system. Requests for the application of the smoke test are frequent, and involve considerable time in carrying out.

What is well known as "insanitary property" is fast diminishing in the city. A good deal of it, however, still remains, necessitating the frequent service of notices to abate nuisances. Owners would do well to demolish property such as this, and erect suitable habitations in their place. By thus co-operating with the Housing Committee, they would rid themselves of the annoyance of receiving notices, and remove centres of disease and degradation from the city.

The following table shows the number of nuisances found by routine inspection or on complaints, and the character of the proceedings taken to abate the nuisances, and the results:—



			1906.	1907.
Number of Complaints made by Inhabitants	...	...	8,703	8,279
„ Nuisances discovered on above complaints...			13,682	12,709
„ „ „ „ house to house				
inspection	...		72,289	73,379
Total Nuisances			85,971	86,088
„ Notices issued	...	...	{ Owners 39,283 { Occupiers 1,669	39,481 1,579
Total Notices			40,952	41,060
„ Notes to Complainants	...	...	1,608	1,900
„ „ sent to comply with notices	..	...	5,581	5,641
„ Re-inspections of Nuisances	...	...	153,408	161,719
„ Nuisances abated on re-inspection	...	...	78,593	83,378
„ Visits to Premises under observation	...	...	1,734	786
„ Incidental calls	...	...	37,216	50,276
„ Informations laid for nuisances	...	...	374	470
„ Fined	...	...	98	140
„ of Magistrates' Orders	...	...	163	246
„ Acquitted or Withdrawn	...	...	113	84
Amount of Fines and Costs			£94 14 6	£123 19 3

The nuisances dealt with comprise mainly—defective and choked drains, sink waste pipes and spouts; defective roofs; defective flagging and paving; defective water-closet basins, putty joints, walls, floors, seats and doors; defective or dirty cisterns; defective supply pipes; insufficient or no supply of water; defective chimney flues; offensive matter, animals or poultry on premises; also dirty floors, &c.

#### NUISANCE FROM STEAM WHISTLES.

Serious complaints were from time to time received of the nuisance and injury to health caused by the unnecessary blowing of numerous steam whistles in various parts of the City, both in regard to unnecessary frequency as well as unnecessary duration. In one instance it appeared that a whistle of exceptional shrillness and severity had been frequently turned on in the early hours by the foreman, and allowed to continue perhaps for half an hour or longer. In all instances the persons causing this nuisance desisted from it when their attention was called to the provisions of the Steam Whistles Act, which gives the Health Committee full power to suppress this nuisance.

## WATER GAS.

It was found that the gas supplied to the City contained very excessive quantities of carbon monoxide, indicating that water gas was being largely supplied to certain districts. A deputation of the Health Committee waited upon the Gas Company, and the matter was discussed between the two bodies.

It is obvious, in view of the poisonous character of some of the gas supplied, that every facility should be given to householders to have their gas fittings tested by the Corporation Lighting Department, and in the event of any officers of the Corporation Lighting Department finding that his advice in regard to the prevention of the escape of gas through defective fittings is not receiving attention, proceedings under the Public Health Act might possibly be taken.

WATER CLOSET CONVERSIONS AND NOTICES TO PROVIDE  
ADEQUATE ACCOMMODATION.

During the year the Health Committee took action with a view to cause proper water-closet accommodation to be provided for houses situated in courts.

The result of the action was in many instances to compel the owners to approach the Housing Committee, and a mutual scheme resulted in great improvement to the houses in question. In the majority of instances, however, it is obvious that the only remedy is demolition, and the action of the Housing Committee is tending to effect this end.

	1906.	1907.
No. of Privies reported for conversion ... ..	21	2
" converted ... ..	9	10
Notices ... ..	7	2
" to provide separate accommodation for court houses ... ..	—	195

IMPROVED SANITARY ASHBINS SUBSTITUTED FOR ASHPITS,  
AND ASHPITS REDUCED IN SIZE.

	1906.	1907.
No. of defective Ashpits reported ... ..	2,502	2,917
" Notices ... ..	3,189	3,159
Improved Sanitary Ashbins supplied ... ..	6,673	6,178
Ashpits reduced in size and cemented ... ..	128	—

The number of improved sanitary ash-bins supplied in place of old insanitary ashpits is 6,178. In addition, approximately, 1,727 improved bins have been placed in new property.



REFERENCES FROM OTHER DEPARTMENTS.

	<u>1906.</u>	<u>1907.</u>
Received from the Education Department ...	21,993	22,073
„ City Engineer ...	8,904	9,794
„ Water Engineer ...	1,859	2,477
„ Lodging-house Inspectors..	6,437	7,964

The references from the Education Department relate to school children said to be suffering from measles, whooping cough, ringworm, skin disease, neglect, &c.

The references from the other Departments mainly comprise insanitary conditions discovered by officers belonging to those departments, but with which it is not within their province to deal. The City Engineer's Department continues to report defects in private drains brought to light during the process of systematic flushing.

REFERENCES TO OTHER DEPARTMENTS.

A considerable number of conditions ascertained by the Sanitary Staff to be prejudicial to health were referred to other departments to be dealt with:—

	<u>1906.</u>	<u>1907.</u>
Referred to City Engineer ...	10,186	10,310
„ Building Surveyor...	1,871	2,074
„ Water Engineer ..	5,817	6,579
„ Education Department ...	29,048	25,095

The references to the Water Engineer comprise mainly, defective fittings, resulting in waste of water; also cases in which the supply was insufficient, owing to various causes.

References to the Education Department chiefly relate to children from infected houses who are attending school, or who are suffering from ringworm, ophthalmia, &c. (See page 125.)

HOUSE TO HOUSE VISITATION.

The following table indicates the results of the systematic house-to-house visitation by the District Male Staff:—

	<u>1906.</u>	<u>1907.</u>
Number of Inspections of Street Houses ... ..	43,752	46,223
„ Street Houses found Clean... ..	42,364	44,717
„ Apartments in Street Houses Examined ..	218,089	234,662
„ Inspections of Court Houses ... ..	2,867	3,029
„ Court Houses found Clean... ..	2,575	2,712
„ Apartments in Court Houses Examined ...	8,710	9,583
Total Number of Houses Examined ... ..	46,619	49,252

DIRTY HOUSES.

	<u>1906.</u>	<u>1907.</u>
Number of Dirty Street Houses Inspected ... ..	1,388	1,506
„ „ Court „ „ ... ..	292	317
„ „ Cellars Inspected ... ..	375	264
„ „ Houses and Cellars Re-Inspected ...	1,824	1,886
„ „ Houses and Cellars cleansed on Re-inspection .. ..	875	892
„ Notices to Owners to Cleanse Dirty Houses ... ..	1,880	2,100
„ Notices to Occupiers to Cleanse Dirty Houses ... ..	122	122
„ Notices to Owners to Whitewash Exteriors of Courts ... ..	1,141	1,109
„ Informations... ..	12	31
„ Fined ... ..	5	23
„ Acquitted or Withdrawn ... ..	7	8
Amount of Fines and Costs ...	£3 13 0	£14 16 0

INFECTED HOUSES.

	<u>1906.</u>	<u>1907.</u>
Number of Infected Street Houses, notified ... ..	3,977	6,015
„ „ Court „ „ ... ..	145	288
„ „ Cellars, notified ... ..	41	80
„ visits to infected Houses and Cellars (notifiable diseases)	8,826	8,155
„ „ „ „ „ (school cases)	11,454	10,980



## EXAMINATION OF CELLARS AND CELLAR DWELLINGS.

			1906.	1907.
Number of Inspections of Street Cellars	...	...	13,807	11,869
„ Street Cellars found disused	...	...	223	298
„ „ „ used for Lumber, &c.	...	...	5,688	5,428
„ „ „ used as Kitchens	...	...	6,296	4,935
„ „ „ found illegally occupied	...	...	117	59
„ „ „ „ legally „	...	...	1,483	1,149
„ Notices issued to Owners	...	...	204	112
„ „ „ Occupiers	...	...	154	65
„ Inspections of Court Cellars	...	...	710	571
„ Court Cellars found disused	...	...	38	56
„ „ „ used for Lumber, &c.	...	...	525	476
„ „ „ used as kitchens	...	...	145	38
„ „ „ illegally occupied	...	...	2	1
„ Informations against Street Cellar Owners			3	3
„ „ „ Court „ „			1	2
„ Fined ... ..			2	3
„ of Informations against Street Cellar Occupiers			1	3
„ „ „ Court „ „			1	2
„ Fined ... ..			1	1
Amount of Fines and Costs			£2 4 6	£2 2 0

The number of cellars filled in by the Health Committee, free of charge to the owners, during the year is 12, and the total filled in during the last ten years is 413.

The total number of cellars let as separate dwellings at present upon the Register is 1,955.

About 6,154 people are at present housed in cellars.

Cellars occupied as dwellings must comply with certain requirements under the Liverpool Improvement Act of 1871, and the Public Health Act of 1875. The requirements of the Act specially relating to Liverpool have been summarised in the report for 1904.

COURT AND ALLEY EXAMINATIONS.

		<u>1906.</u>	<u>1907.</u>
Number of Inspections of Courts and Alleys...	...	44,705	42,609
„ Closets found Dirty, but cleansed by Officer's Instructions ...	...	40,694	37,296
„ Informations ...	...	1	—
„ Fined ...	...	1	—
Amounts of Fines and Costs ...	...	£0 2 0	£0 0 0

Special and systematic visits to courts and alleys are made with the object of ensuring the cleanliness of the domestic offices and the surface of the courts. The aim is to keep the courts and alleys uniformly clean throughout the week, and with this view the district inspectors are instructed that every tenant in each court is in turn to be held responsible for the cleanliness of the water-closets for a period of one week; the inspector records in his visiting book whose turn it is, and duly informs that tenant. Failing compliance with his requirements, an information is laid under the following bye-law, made under the Liverpool Sanitary Act, 1846:—

“ First. From and after the day on which these bye-laws shall come into operation, whenever tenants or occupiers of several houses in courts, alleys, streets, and other places within the Borough, have the right to use in common any middenstead or privy, the several persons having such right shall be, and they are hereby required to keep the internal walls, floors, seats, and fittings of such middenstead or privy thoroughly clean, so that the same is not a nuisance or annoyance to any inhabitant of the said Borough.

Second. That if any privy or middenstead so used in common, or the walls, floors, seats, or fittings thereof, or any of them, shall be in such a state or condition as to be a nuisance or annoyance to any inhabitant of the Borough, for want of proper cleansing thereof, as aforesaid, then the persons having the use thereof in common as aforesaid, shall severally be liable to a penalty not exceeding 40s., and a further penalty not exceeding 5s. for every day during which the same shall remain in such state or condition.”

But under the Public Health Acts Amendment Act, 1890, somewhat similar proceedings may be taken.



Section 21 of this Act runs as follows:—

“ With respect to any sanitary conveniences used in common by the occupiers of two or more separate dwelling-houses, or by other persons, the following provisions shall have effect:—

(1) If any person injures or improperly fouls any such sanitary convenience, or anything used in connection therewith, he shall for every such offence be liable to a penalty not exceeding ten shillings:

(2) If any sanitary convenience or the approaches thereto, or the walls, floors, seats, or fittings thereof is, or are, in the opinion of the urban authority or of the inspector of nuisances or medical officer of health of such authority in such a state or condition as to be a nuisance or annoyance to any inhabitant of the district for want of the proper cleansing thereof, such of the persons having the use thereof in common as aforesaid as may be in default, or in the absence of proof satisfactory to the court as to which of the persons having the use thereof in common is in default, each of those persons shall be liable to a penalty not exceeding ten shillings, and to a daily penalty not exceeding five shillings.”

The courts and alleys continue to decrease in number, owing to the demolition of low-class property for the extension of business premises, or to the removal of insanitary property by the Housing Committee. The number of courts and alleys scheduled for inspection in 1890 was 2,165, in 1895 it had fallen to 1,660, in 1900 it was 1,195, in 1901 it was 1,159, in 1902 it was 1,074, in 1903 it was 1,042, in 1904 it was 976, in 1905 it was 927, in 1906 it was 857, and in 1907 it was 825, showing a diminution in seventeen years of 1,340 courts and alleys, of which 249 were demolished during the last five years.

During the year all courts and alleys having covered entrances were specially washed and hosed down by the scavengers. Under the Liverpool Sanitary Act the exteriors of all courts and alleys require to be limewashed as often as may be necessary. The number of courts requiring limewashing in 1907 was 702, representing approximately 4,135 houses.

### COMMON LODGING-HOUSES.

The Bye-laws require that every case of infectious sickness in a common lodging-house should be at once reported to the Medical Officer of Health. Forty-seven cases of infectious sickness occurred in lodging-houses; with the exception of one case, a daughter of one of the keepers, all the cases were removed to hospital immediately. In all cases the bedding was removed to the disinfecting apparatus, and the rooms purified and cleansed. There were 32 deaths from non-infectious diseases in lodging-houses; 13 of the deceased persons belonged to the keepers' families, and 19 were lodgers.

At the end of 1906 there were on the register a total (including emigration houses) of 439 lodging-houses, and at the end of 1907 the total number was 451, which furnished accommodation for 13,539 lodgers, besides 1,148 members of the keepers' families.

During the year 120 houses were given up and removed from the register, and 132 new houses added, leaving the number on the register 451.

In some of the better-class houses for men, separate cubicles are provided for each lodger, the price paid for them varying from 6d. to 1s. 6d. per night. These cubicles are much more appreciated than the ordinary accommodation provided.

The number of what are known as "model" lodging-houses, for men only, upon the register is 150, and these are registered to accommodate 6,589 lodgers, as well as 266 members of the keepers' families.

The term "model" appears now to be used as a trade designation to indicate premises used for the accommodation of one sex only.

There are also 30 registered model lodging-houses for the accommodation of women only. These have room for 915 lodgers, in addition to 49 members of the keepers' families.

The visits to lodging-houses are both by day and by night. The night visits are almost restricted to the lower districts and commoner class of



house. The lodging and emigration houses of the better class, especially those provided only with single beds for each person, and with no more beds than are equivalent to the number of lodgers allowed, are only occasionally visited at night, unless special circumstances necessitate a closer supervision.

Houses which are not licensed either as lodging or sub-let houses are frequently visited by day when such a course is deemed expedient, in order to ascertain whether any grounds exist for putting these houses on the register.

There were 711 visits paid during the year to such houses.

Persons harbouring lodgers in unlicensed premises receive a notice to apply to have the rooms measured and licensed. There were 21 such notices issued during the year.

The number of day visits paid during the year was 21,348, and the night visits 1,237. During the preceding year the day visits were 19,793, and the night visits 878.

Eighty-four informations were laid against keepers of common lodging-houses during the year for the following offences:—

				1906.	1907.
Not sweeping floors	...	...	...	14	28
Not washing floors	...	...	...	13	18
Overcrowding	...	...	...	12	24
Receiving lodgers in unlicensed rooms	...			5	11
Mixing sexes	...	...	...	1	3
Not applying to register	...	...	...	3	—
				—	—
Total	...	...	...	48	84
				—	—

Convictions followed in each case, the total amount of fines amounting to £22 4s. 6d., and ranging from 1s. and 1s. costs to 40s. and costs. During the preceding year there were 48 convictions, and the fines amounted to £24 17s. 6d.

The number of lodging-houses found dirty was 87; in each case notices were served to limewash and cleanse the premises. All the notices were complied with.

There are 30 houses registered for women, which accommodate altogether about 900 lodgers.

The condition both of labour and lodging-accommodation of the Chinese was brought into prominence during the latter part of February, and a Committee of Inquiry was appointed, which had several meetings and extended its investigations over several weeks.

The Chinese lodging-houses, which have for many years been visited regularly by day and by night, are exceedingly well kept, clean and orderly, notwithstanding that most of the properties are very old. Overcrowding is extremely rare. The Chinese, as a rule, pay every regard to sanitary requirements, and the children of the married Chinese are always well clad and cared for, and very kindly treated.

#### WOMEN'S LODGING-HOUSE.

During the year a large lodging-house for women was opened by the "Salvation Army."

The premises are situated in Netherfield Road South, and are intended to accommodate working women, such as domestic servants, laundry workers and charwomen.

There is accommodation for 190 lodgers and 10 members of the staff.

Special cubicles have been provided for lodgers who desire them. The charge per night varies from 4d. to 6d.

The matron says there has not been a very great demand for accommodation since the opening of the establishment.

The question of the provision by the municipality of common lodging-houses for women was mooted during the year, the suggestion being that an establishment for women run by the municipality would be free from alleged objectionable features in connection with lodging-houses provided by religious or philanthropic bodies or by private enterprise. Careful investigation, however, showed that there was no special need for the establishment by the corporation of any institution of the kind.



### SEAMEN'S LICENSED LODGING-HOUSES.

The Corporation have made Bye-laws, with the sanction of the President of the Board of Trade, for the licensing of Seamen's Lodging-houses, under the Merchant Shipping (Fishing Boats) Act, 1883, Section 48.

Applications from the keepers of Registered Common Lodging-houses for licenses authorising the designation of such Registered Common Lodging-houses as Seamen's Licensed Lodging-houses, are infrequent, only four such licensed lodging-houses now being on the register; these provide accommodation for 64 seamen.

The number of licenses granted since the adoption of the Seamen's Licensed Lodging-house Bye-Laws is 28.

It has not been found necessary to institute proceedings under the bye-laws in question.

Some years ago the holders of licenses to keep Seamen's Lodging-houses were authorised by the Board of Trade to board vessels and seek for lodgers, and while this privilege was granted there was an advantage in holding such a license, but that privilege being now withdrawn, it does not appear that there is any advantage to the keeper of a common lodging-house to have his premises registered as a Seamen's Lodging-house, and hence probably the small number upon the register.

### SUB-LET HOUSES.

These are houses, certain rooms of which are let off to members of more than one family. The bye-laws provide for the registration and inspection in order to prevent overcrowding, and to ensure attention to cleanliness and sanitary requirements.

The number added to the register during 1907 was 669; the number cancelled owing to their being no longer sub-let was 328. The number returned as demolished was 223, making the total on the register on the 31st December, 1907, of 19,832, as against 19,714 at the close of the preceding year.

The number of visits paid to sub-let houses during the day was 94,838, and during the night 22,982, with the result of finding 1,197 rooms overcrowded. In addition to overcrowding, 243 cases of indecent

occupation came under the notice of the inspectors, as against 255 last year; this offence is steadily diminishing. The character of the indecent occupation may be judged of from the following facts:—In 104 instances one man and two women were found in the same bedroom; in 80 instances two men and one woman; in 30 instances two men and two women; in 13 instances one man and three women; in 7 instances three men and one woman; in 2 instances three men and two women; in 3 instances two men and three women; and in 4 instances two men and four women. These cases appear to be the outcome of ignorance and indifference, and not of immoral intent. Under the bye-laws a number of persons have been fined for mixing sexes, and a number, who cannot be reached under the bye-law, cautioned by the inspectors.

With the view of exercising more supervision over sub-let houses, two additional lodging-house inspectors were appointed at the beginning of the year, and extra visits were paid to sub-let houses, with the result that 94,838 day visits and 22,982 night visits, or a total of 117,820 visits were made to these houses during the year; being 12,365 day visits and 4,144 night visits more than in the year 1906.

That the increase in the number of visits has had a beneficial result with regard to overcrowding may be seen from the following table:—

PERIOD.	Number of Night Visits.	Number of Convictions for Overcrowding.	Per centage of Convictions to number of night visits.
Whole year, 1905 .....	19,193	1,326	6·90
Do. 1906 .....	18,838	920	4·88
First Half-year, 1907 .....	11,686	592	5·06
Second do. 1907 .....	11,296	370	3·27

Informations were laid against 1,745 chief tenants and lodgers (room-keepers) for breach of the bye-laws, viz. :—

Overcrowding	...	...	...	...	989
Floors not washed	...	...	...	...	318
Floors not swept	...	...	...	...	90
Not cleansing stairs, &c.	...	...	...	...	308
Mixing sexes	...	...	...	...	40
Total	...	...	...	...	<u>1,745</u>



Eleven cases were withdrawn, one case acquitted, and in twenty-five cases the defendants had left the premises before the summonses could be served.

As the result of proceedings before the Stipendiary Magistrate, fines were inflicted as follows:—1,230 fined 1s. and 1s. costs; 270 fined 1s. 6d. and 1s. 6d. costs; 82 fined 2s. and 2s. costs; 62 fined 2s. 6d. and 2s. 6d. costs; 2 fined 3s. and 3s. costs; 1 fined 3s. 6d. and 3s. 6d. costs; 25 fined 5s. and 4s. 6d. costs; 33 fined 10s. and 4s. 6d. costs; 2 fined 20s. and 4s. 6d. costs; 1 fined 40s. and 4s. 6d. costs; making a total of fines levied during the year of £236 16s. 6d. Offences against the bye-laws have been more than in the preceding year. There were 4,144 more inspections by night than in the preceding year; the day visits were 12,365 more.

Fifty cases of overcrowding were in respect of premises in the recently incorporated district of Garston, compared with 27 last year.

Night inspections of sub-let houses are for the purpose of detecting cases of overcrowding, or mixing of sexes. The inspectors engaged upon this duty proceed in couples for the purpose of corroboration, and for protection in the rougher quarters of the city. The inspections are made during the night, generally between the hours of 11 p.m. and 2 a.m. Some localities are visited between 4 a.m. and 7 a.m. Prior to the night inspection, a careful house-to-house enquiry is made to ascertain particulars as to the number of inmates, the total number of rooms let in lodgings, the character of the probable overcrowding, and other information as prescribed by the bye-laws. In all cases, a copy of the bye-laws, and a notice indicating the number of persons who may occupy each room, are served upon the chief tenant, and these notices are renewed in the case of a new tenancy.

The gradual diminution in overcrowding led the Health Committee in 1901 to amend the bye-laws relating to sub-let houses, and the City Council, with the sanction of the Local Government Board and on the recommendation of the Health Committee adopted amended bye-laws, which amongst other important provisions contained clauses providing that every lodger above 10 years of age shall have not less than 400 cubic

feet of air space, and every person below 10 years of age shall have not less than 200 cubic feet, but if the room is used as a day-room as well as a bedroom, then every inmate must have at least 400 cubic feet. Under the previous bye-law a space of 350 feet only was required, and two persons under twelve were regarded as one adult.

The new bye-laws came into operation on the 30th January, 1901. One result of these bye-laws—which required so relatively large an addition to the cubic space allowed for each lodger—was to put an entirely new definition upon the offence of overcrowding, and although the great majority of people quickly appreciated the effect of the new bye-laws, yet there was necessarily a considerable increase in the number of persons proceeded against for overcrowding amongst those who neglected to comply with the altered provisions.

The following table shows the number of sub-let houses on the register, the number of night visits for the detection of overcrowding, the number of convictions for overcrowding, and the percentage of cases to the number of visits for the past seven years, *i.e.*, since the application of the new bye-laws:—

Year.	No. of Sublet Houses.	No. of night visits for detection of overcrowding	No. of convictions for overcrowding.	Per centage of cases to number of visits.
1901	18,917	17,863	1,351	7.56
1902	19,976	17,274	1,150	6.65
1903	21,719	18,438	1,264	6.85
1904	22,488	17,886	1,148	6.41
1905	20,518	19,193	1,326	6.90
1906	19,714	18,838	920	4.88
1907	19,832	22,982	962	4.18

The bye-laws as to houses let in lodgings, or occupied by members of more than one family, have been inserted in previous reports.

\* This includes the added area of Garston.



The Building Surveyor has kindly supplied the following table:—

NUMBER OF HOUSES ERECTED AND TAKEN DOWN DURING THE YEAR ENDING  
DECEMBER, 1907.

DISTRICTS.							Number erected.	Number taken down
Scotland	...	...	...	...	...	...	123	51
Exchange	...	...	...	...	...	...	—	129
Abercromby	...	...	...	...	...	...	—	24
Everton ...	...	...	...	...	...	...	—	15
Kirkdale	...	...	...	...	...	...	—	4
West Derby (West)	...	...	...	...	...	...	93	29
Toxteth ...	...	...	...	...	...	...	305	62
Walton ..	...	...	...	...	...	...	394	8
West Derby (East)	...	...	...	...	...	...	536	43
Wavertree	...	...	...	...	...	...	582	20
Sefton Park	...	...	...	...	...	...	10	—
Garston...	...	...	...	...	...	...	251	—
Fazakerley	...	...	...	...	...	...	48	1
Totals ....							2,342	386

The City Engineer has kindly supplied the following:—

Number of cellars filled in and bricked up during 1907	...	...	...	12
“ “ “ “ “ the last 10 years	...	...	...	413

SEWER VENTILATION TO END OF 1907.

Number of 9-inch by 6-inch, 9-inch, 6-inch, 6-inch by 4-inch, 4-inch by 4-inch, 4-inch, and 3-inch Iron Pipe Ventilating Shafts	...	...	1,688
Number of Street Ventilating Manhole Covers and Gratings	...	...	6,639

### CANAL BOATS.

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The number of inspections of canal boats during the year was 6,030, and the condition of the boats and their occupants, as regards matters dealt with in the Acts and Regulations, is indicated by the following information:—

Eleven boats, not registered by their present owners, were found to be used as dwellings. Written notices were sent to the owners in seven cases, and four verbal notices were given. Ten notices were complied with, and one boat has not been seen in the district since.

Twenty-one boats were found without certificates on board. Notices were sent to the owners in twenty cases, and one verbal notice was given. Nineteen of the notices were complied with, and two have not been re-inspected.

Eighteen boats were found without the registered number painted on both sides of the boat. Notices were sent to the owners in each case, and the omission has been rectified in sixteen cases. Two boats have not been seen in the district since.

In ten cases defective second bulkheads were reported. Notices were sent in each case, and all were complied with. In three cases where boats were found to be carrying offensive cargo without second bulkheads, notices were served upon the owners to provide second bulkheads. In lieu of this, however, the owners had the boats thoroughly cleansed, and discontinued carrying offensive cargo.

In twenty-two boats the cabins required re-painting. Notices were sent to the owners in each case, and nineteen were complied with. Three boats have not been seen in the district since.



Dirty cabins were reported in ten cases. In six cases verbal notice was given to the masters, and in others written notices were sent to the owners. In seven cases the notices were complied with, and three not being complied with, informations were laid against the masters and small fines inflicted. The cabins were subsequently cleansed.

Besides the foregoing, there were 72 instances of infringements of the Acts and Regulations, caused by leaky decks (33), general leaky condition of boat (1), broken lids to lockers (4), broken scuttle covers (4), defective ventilation (2), broken floors (5), no water casks on board (17), defective stoves (4), removal of bilge water (2). Sixty-four notices were sent, and three verbal notices were given to the owners in respect of the above infringements. Fifty-nine of the notices were complied with, and eight have not been re-inspected.

Informations were laid in 11 cases, viz., dirty cabins (3), overcrowding (2), mixing sexes (5), not having registered number painted on boat (1). In each case fines were inflicted, varying from 1s. and 1s. costs to 10s. and 4s. 6d. costs. The total amount of fines was £4 9s 0d.

One case of Typhoid fever occurred on a canal boat during the year. The patient, the mate of the boat, was removed to hospital. The cabin and bedding were disinfected, and the usual certificate of disinfection was given to the master.

The entire number of infringements of the Acts and Regulations referred to in the report occurred on 115 boats, in several instances the offence being repeated on the same boat.

Twenty notices were sent to the Education Committee of 24 children living on canal boats and not attending any school.

The number of boats on the register is 596. Forty-two boats have been removed from the register, as it was ascertained that one had left

the district and 41 have been broken up. It is probable that other boats have been broken up, or have left the district, but in the absence of definite evidence of this the boats remain on the register. During the year 13 new boats were registered, and 27 re-registered on account of changes of owners, 2 re-registered on account of structural alterations, and 4 re-registered on account of change of owners and name. All boats re-registered on account of change of owners, or the name of the boat being changed, or on account of structural alterations, retain their original numbers. Copies of the registration certificate were issued to the owners of six boats, owing to the original ones being worn out.

In 1898 the Canal Boat Inspectors were appointed as Port Sanitary Inspectors, an appointment which authorised them to inspect all classes of boats, as a difficulty arose in regard to certain boats plying upon the canal which were not registered under the Canal Boats Acts, but which had been registered by the Board of Trade under the Merchant Shipping Act. Thirteen visits were made to boats of this class, and all were found correct.

In 1903 the Port Sanitary Inspectors were appointed as Canal Boat Inspectors. This appointment authorised them to inspect canal boats which ply to and from the docks and on the river. During last year these Inspectors made 773 visits, which are included in the foregoing report. The number of contraventions for which notices were served on the owners was 55 on 36 boats. One notice sent to the Education Committee.

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### SMOKE NUISANCES.

Proceedings for the abatement of Nuisances caused by the emission of excessive smoke from factory chimneys or from steamers, were taken under the Liverpool Sanitary Amendment Act, 1854, sections 24 and 25, the Liverpool Improvement Act, 1882, section 77, and the Liverpool Corporation Act, 1902, section 57, with the following results:—

						1906.	1907.
Number of reports of excessive smoke from	Manufactories	...				266	222
"	"	"		Steamers in river		302	259
"	"	"		" dock		44	27
	Total	...	...	...	...	612	508

Admonished by the Health Committee or written to in respect to nuisances caused by the emission of excessive smoke:—

						1906.	1907.
Manufacturers ...	...	...	...	...	...	1	12
Steamship Owners	...	...	...	...	...	23	6
						<hr/>	<hr/>
Total	...	...	...	...	...	24	18
						<hr/>	<hr/>

			<u>1906.</u>		<u>1907.</u>	
Chief Inspector and Assistants gave M'facturers	420	Cautions		391	Cautions	
„	„	„ Steamship Owners	105	„	99	„
			<hr/>		<hr/>	
Total...	...		525	„	490	„

Number of enquiries respecting Owners

							1906.	1907.
Informations against Manufactories	...	...	...	...	...	...	271	210
„ „ Steamers in river...	...	...	...	...	...	...	261	201
„ „ „ dock...	...	...	...	...	...	...	44	27
Total	...	...	...	...	...	...	576	438

Acquitted or withdrawn, Manufactories	...	...	..	15	6
"    "    Steamer cases	...	...	...	14	5
				<hr/>	<hr/>
Total	...	...	...	29	11

							<u>1906.</u>	<u>1907.</u>
Fined, Manufactories	...	...	...	...	...	...	256	204
„ Steamers	...	...	...	...	...	...	291	223
							<hr/>	<hr/>
Total	...	...	...	...	...	...	547	427
							<hr/>	<hr/>

							<u>1906.</u>	<u>1907.</u>
Amount of Fines, Manufactories	...						£517 10 0	£437 18 0
„ „ Steamers	...						562 2 3	466 14 3
							<hr/>	<hr/>
Total	...						£1,079 12 3	£904 12 3
							<hr/>	<hr/>

It is the duty of the Police to deal with nuisances arising from the firing of domestic chimneys.

#### SMOKE INSPECTION.

The falling off in the number of reports relating to excessive smoke still continues.

The efforts made by manufacturers to diminish the emission of excessive smoke from the chimneys of their respective works has led them in several cases to adopt a form of mechanical furnace known as the "sprinkler," combined with a system of forced draught. Wherever such a combination has been installed it has caused a very fine, charred, gritty dust to be sent out from the chimney.

Unlike smoke, this dust cannot be seen while it is actually issuing from the chimney, and very careful observations have, therefore, to be taken by the Inspectors, so as to definitely determine the source from whence it comes.

In each case where a complaint has been made the source of the annoyance has been successfully traced, and various means have been





The smoke in our atmosphere is entirely produced by the combustion of coal in domestic firegrates, steam boiler furnaces, and other furnaces used for manufacturing processes.

It is a common error to lay the blame of the pollution of the atmosphere by smoke entirely upon the factory chimney, and this is no doubt due to the fact that it is more easily noticeable than the individually small quantities of smoke which are emitted from the chimneys of dwelling-houses, and which reach a very large amount in the aggregate.

#### OFFENSIVE TRADES.

Applications for permission to carry on the following offensive trades were made during the year, and a report by the Medical Officer of Health on each application was submitted to the Health Committee:—

Premises.	Business.	Granted.	Refused.	Date, 1907.
10 and 12, Druid Street	Soap Manufacturing .....	1	—	May 9th
2, Tapley Place.....	Bone Boiling.....	1	—	Nov. 22nd
28 to 32, Mile End.....	Bone Boiling and Sweet Fat Melting .....	1	—	Nov. 28th
1, Freemason's Row ...	Soft Soap Manufacturing ...	1	—	Dec. 19th
	Total.....	4	—	



In cases in which permission is granted, conditions are imposed requiring that the premises be put in proper order to the satisfaction of the City Engineer, Building Surveyor and Medical Officer of Health, that no public or private nuisance be caused, and that the business be discontinued whenever the Council shall so require.

The number of inspections of premises where offensive trades are carried on was 1,540, as against 1,541 in 1906.

					<u>1906.</u>	<u>1907.</u>
Total No. of Visits to Bone Boilers ...	...	...	...	...	153	147
„ Fell Mongers ...	...	...	...	...	46	50
„ Soap Boilers ...	...	...	...	...	239	238
„ Fat and Tallow Melters ...	...	...	...	...	289	320
„ Tripe Boilers ...	...	...	...	...	199	207
„ Gut Scrapers ...	...	...	...	...	141	130
„ Ham Cooking and Potted Meat Works ...	...	...	...	...	63	56
„ Patent Manure Manufacturers ...	...	...	...	...	17	13
„ Tanneries ...	...	...	...	...	95	115
„ Knackers' Yards ...	...	...	...	...	162	123
„ Paint and Resin Works ...	...	...	...	...	18	20
„ Palm Oil Works ...	...	...	...	...	22	24
„ Cotton Seed Oil Works ...	...	...	...	...	36	44
„ Sulphuric Acid Works ...	...	...	...	...	23	23
„ Liver Boilers ...	...	...	...	...	—	2
„ Butter Substitute Manufacturers ...	...	...	...	...	17	20
„ Preserved Skin Works ...	...	...	...	...	21	8
					—	—
Total...	...	...	...	...	1,541	1,540
					—	—

KNACKERS' YARD, CARRUTHERS STREET.THE ANIMAL SLAUGHTERING CO.

The Health Committee have licensed the above Company and premises to destroy carcases of animals affected with contagious disease in accordance with the Orders of the Board of Agriculture and Fisheries.

Carcases of horses and cattle are destroyed under the supervision of an Inspector of the Public Health Department at the Knackers' Yard, where specially tested iron pans with covered lids have been erected for the purpose. The carcases are placed in the tanks intact, sulphuric acid added, and steam applied until a temperature of 250° to 260° Fahr. is reached. An exhaust pipe conveys steam and all offensive odours to the furnace, thus preventing any nuisance arising.

The carcases of horses which are destroyed on account of old age or minor complaints are also dealt with on these premises.

The following are the Returns for 1907 :—

Horses Destroyed.	Horses taken in Dead.	Asses Destroyed.	Cows Destroyed.	Other Beasts.	TOTAL.
155	1,613	26	108	—	1,902

MARINE STORES.

	<u>1906.</u>	<u>1907.</u>
Number of Visits by District Sanitary Inspectors ...	1,155	1,406
(For visits by Workshop Inspectors, see page 107).		

STABLES.

On the instructions of the Health Committee an investigation was undertaken by Mr. Robert Newstead, of the University of Liverpool, into the Life History of the Common House Fly. In view of the obvious mischief occasioned, the investigation was specially directed to the nuisance arising from stables, &c.

	<u>1906.</u>	<u>1907.</u>
Number of Visits to stables by District Sanitary Inspectors... ..	5,035	9,331

RAILWAY CARRIAGES.

	<u>1906.</u>	<u>1907.</u>
Number of Carriages Inspected ... ..	1,046	1,056
„ found dirty ... ..	—	—



## FEMALE SANITARY STAFF.

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The character of the work of the Female Sanitary Staff has practically undergone no change, so far as the routine house-to-house visitation is concerned. More attention, however, has been paid to court houses and cellar dwellings, with the result that a large number of families found living under circumstances which were detrimental to health were dealt with. These conditions, apparently the result of neglect and indifference, were chiefly due to the intemperate habits of the occupants or those in charge of the house. Frequent visits were paid to these cases, and a very noticeable improvement has taken place, which on the whole appears to be of a permanent character.

With regard to the Corporation Dwellings, these have been visited systematically, and it is found generally that more interest is taken in domestic affairs by the occupants than was shown by them before they were dispossessed from their old insanitary habitations. Their changed surroundings and environment has undoubtedly had a salutary effect with regard to personal cleanliness; and in addition to this there is a transformation in many of the homes, the money which was formerly expended on drink being devoted to the needs of the families and to the furnishing of their houses.

The statistics for the year show a marked decline in infant mortality. During the year upwards of 20,000 visits have been paid to newly-born infants, and in each case a card of instructions relating to the care and proper feeding of the child was left with the mother.

Although a number of births were visited before registration, yet it was found that a great many suitable cases were not seen by the Inspectors until after registration. With the advent of new powers, however, viz., the Notification of Births Act (which comes into operation early in 1908, and which provides for the notification of every birth to the Medical Officer of Health within thirty-six hours of its occurrence), the Inspectors will be enabled to visit all suitable cases at a much earlier period, and to give such advice and attention as may be necessary at a time when it is most needed. With regard to delicate children, parents frequently seek the advice of the Inspectors as to the manner of feeding, and the methods to be adopted to ensure an improved condition of health.

The long-tubed feeding bottle as a means of artificial feeding is becoming less common, and its discontinuance is mainly due to the fact that parents are realising the danger which is occasioned by its use.

Wherever it is possible for the infant to be breast-fed, the mother is urged to adopt this method. In deserving and urgent cases, where lack of breast milk has resulted from privation, pure fresh milk has been given to the mother.

Generally speaking, there has been a marked improvement in the condition of infants; their parents, anticipating a visit from the Inspector, appear to take extra precaution against dirt and neglect.

There are, however, instances in which the mother takes little or no interest in regard to the welfare of her offspring, and in cases such as these the infant is given "anything that is going," such as biscuits, "pobs," and a variety of other foods of an unsuitable nature. In many cases even gin, beer and other intoxicants have been given by the mothers to their infants, and this in itself is sufficient to show the great amount of ignorance which still prevails amongst parents in certain districts of the City, and which still remains to be dealt with by the staff. Needless to say, the parents themselves in most of these cases are more or less addicted to drink, and this in a great measure will account for their neglect of, and indifference to, the needs of their families.

In November a Conference was called by the Home Secretary to discuss the best means of instituting an inquiry into the relationship between infant mortality and the industrial occupation of women.

At the Conference a certain plan of inquiry was agreed upon, and the Health Committee authorised the investigation to be proceeded with, so far as Liverpool was concerned.

As a general rule, the advice given by the Inspectors is kindly taken, and subsequent visits show an improvement in many ways, although there are exceptional cases which require great attention and frequent visiting.

In the case of illegitimate children, where the mother is unable to provide for the wants of the baby, suitable advice with regard to its future welfare, &c., is offered. Miss Whishaw, Sunny Bank, Arnside, has rendered valuable assistance in this particular, finding homes for many unwanted babies.



With regard to School work, it will be seen from the statistics that there has been a great increase in the number of school cases reported, and this work has engaged a considerable amount of the time and attention of the Inspectors. Sore heads, sore eyes and skin diseases are amongst the principal ailments which are dealt with, while cases of general neglect are found to be of fairly frequent occurrence.

The following table shows the number of cases visited on account of certain ailments of school children:—

	1906.	1907.
Ringworm .....	1,280	1,977
Itch .....	93	235
Sore Eyes .....	4,191	3,404
Sore Heads.....	1,828	2,090
Impetigo, Eczema and other Skin Diseases .....	3,028	4,345
Total .....	10,420	12,051

Although most of these cases are reported from the Education Department, yet a very large number are referred to the Office of the Medical Officer of Health by nurses, and others who are more or less in daily contact with children, such as teachers, visitors, &c., and also by private individuals.

The homes are visited and the parents are given instructions as to cleanliness and general conditions, and where these instructions are carried out improvement usually results. In all cases, except the most simple, the parents are advised to seek medical assistance.

In addition to the cases shown in the above table the staff have made enquiries with respect to 4,550 school children who exhibited evidences of parental neglect in the shape of dirt, verminous conditions, insufficient food or clothing, untreated injuries, &c. The majority of these cases were referred to them by Dr. Kingsford, but the teachers and school nurses were also frequently the sources of the information.

Where clothing has been found to be verminous, it is insisted that it shall be thoroughly cleansed and boiled. In a number of instances the dirty clothing was found to be worn out and almost useless. This was destroyed, and replaced by a new supply obtained through the agency of the Police Aided Clothing Association.

As hitherto, families have been visited on behalf of the Police Aided Clothing Association with a view to ascertain the habits and circumstances of the parents, and inquiries have been made into cases of neglect reported by the Association's visitors.

Many cases of systematic and wilful neglect were found, and these in the usual course were reported to the Society for the Prevention of Cruelty to Children.

From time to time cases of epidemic diarrhœa have been reported by the Dispensary Doctors, and in a number of instances where poverty or other circumstances rendered it undesirable to treat the case at home provision has been made for its reception at the City Hospital, Fazakerley. This course was followed with good results.

Cases of phthisis, also, amongst children and adults which came to the notice of the Inspectors from various sources, and which were found to be in want of skilled treatment, were also helped, and in many instances admitted to the Fazakerley Hospital. These patients, after their discharge from hospital, were visited and kept under observation for as long a period as thought necessary.

Many children recovering from illness and those requiring change have been assisted into the Convalescent Home at West Kirby and the Summer Camp at Wallasey, whilst children mentally deficient have been helped to suitable homes.

Girls have been received into training homes, and many others on leaving school have had situations found for them.

Infirm and old people who were unable to look after themselves, and others who from one cause or another were living in a dirty or verminous condition, were induced to go into the workhouse or hospital.

Verminous conditions have been dealt with, the bedding, &c., being stoved; whilst in cases considered suitable the old bedding was destroyed and new supplied.

Many individuals or families needing the help of either the Charity Organisation Society or the Relieving Officer have been dealt with in the usual way, whilst many found to be suffering from illness and in want of attention were referred to the Queen Victoria District Nursing Association.



Statistics relating to the work performed by the Female Sanitary Staff during the year will be found appended.

STATISTICS OF WORK DONE BY FEMALE SANITARY STAFF.

						<u>1906.</u>	<u>1907.</u>
Number of Street Houses visited	...	...	...			7,192	7,508
„ Court „ „	...	...	...			772	1,654
„ Cellars	...	...	...			1,036	2,202
„ Families found dirty	...	..	..			554	1,186
„ Re-visits to Families	...	...	...			2,403	2,847
„ Houses found dirty...	...	...	...			2,497	3,346
„ Cellars „ „	...	..	..			356	547
„ Notices issued to cleanse dirty premises...						8	4
„ „ „ floors and woodwork }						27	38
„ References to District Sanitary Inspectors						1,494	1,407
„ „ „ Lodging-house Inspectors...						94	86
„ „ „ Artizans' Dwellings Dept. ....						5	—
„ „ „ City Engineer	...	...				120	55
„ „ „ Water Engineer	...	...				117	91
„ „ „ Education Committee	...					11,059	9,290
„ „ „ The Shelter, Islington	...					78	169
„ Sterilised Milk Depot Visits	..	...				—	8
„ Visits to School Cases	...	...	...			12,336	16,604
„ Revisits „ „	...	...	...			—	938
„ Visits to Schools	...	...	...			70	155
„ Police Aided Association Visits	...	...				97	228
„ Central Relief Society Visits	...	...				13	10
„ Visits in Diarrhoea Cases	...	...	...			1,377	469
„ Visits relative to Births registered	...					20,409	20,097
„ Revisits „ „ „	...					—	977
„ Special Visits	...	...	...			1,688	2,002

## FACTORY AND WORKSHOP ACT, 1901.

### BAKEHOUSES.

The sanitary control of Bakehouses is dealt with under the Factory and Workshop Act and Public Health Acts; the regulations prescribed were set out in the Annual Report for 1904.

By Section 133 of the Workshop Act, 1901, if any child, young person, or woman is employed in a bakehouse, the Medical Officer shall, on becoming aware thereof, give a written notice to His Majesty's Inspector of Factories.

Where any room or place used as a bakehouse is in such a state as to be, on sanitary grounds, unfit for use as a bakehouse, the occupier is liable on summary conviction to a fine not exceeding forty shillings.

Twenty-seven bakehouses were added to the Register during 1907, 18 are new ground-floor bakehouses for bread-bakers and confectioners; the remaining 9 are confectioners only.

During the year seven plans were submitted and approved of for ground-floor bakehouses.

Number of Bakehouses on Register, 31st December, 1907...	...	871
„ Bakehouses added to Register during 1907 ...	...	27
„ Bakehouses struck off Register during 1907 ...	...	12
„ Visits paid to bakehouses ...	...	4,486
„ Bakehouses found dirty (walls and ceilings) ...	...	421
„ Notices issued for lime-washing ...	...	130
„ Bakehouses lime-washed without notice ...	...	291



Number of Notices issued to remove drains from within bakehouse	3
„ „ „ to repair defective floors and walls ...	1
„ „ „ to cleanse floors, windows, areas, tables and troughs ... ..	13
„ „ „ to discontinue using bedroom opening directly into bakehouse ... ..	3
„ „ „ to provide water-closet accommodation	3
„ „ „ „ separate water-closet accom- modation for the sexes ...	1
„ „ „ to cease to use as bakehouses places underground not in conformity with Act, 1901 ... ..	1
Number of References to Government Factory Inspector...	22

All the above notices were complied with by the owners or occupiers.

#### UNDERGROUND BAKEHOUSES.

Underground bakehouses are dealt with by special provisions of the Factory and Workshop Act, 1901, which came into force on 1st January, 1904.

By an underground bakehouse is meant a bakehouse, any baking room of which is so situate that the surface of the floor is more than three feet below the surface of the footway of the adjoining street, or of the ground adjoining or nearest to the room. The expression "baking room" means any room used for baking, or for any process incidental thereto.

Details of the requirements of these premises will be found in the Annual Report for 1905.

The number of underground bakehouses on the register at the end of the year was 187. Since the passing of the Act in 1901, two hundred and thirty-eight underground bakehouses have ceased to be used for baking purposes.

**Administration of the Factory and Workshops Act, 1901, in  
connection with  
FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES  
AND HOMEWORK.**

The following Tables are prepared by request of the Secretary of State:—

**1.—Inspection.**

Including Inspections made by Sanitary Inspectors.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
<b>Factories</b> ... .. (Including Factory Laundries.)	170	62	—
<b>Workshops</b> ... .. (Including Workshop Laundries.)	14,332	1,657	10
<b>Workplaces</b> ... .. (Other than outworkers' premises in- cluded in Part 3 of this Report.)	803	113	—
<b>Total</b> ... ..	15,305	1,832	10

**2.—Defects Found.**

Particulars.	Number of Defects.			Number of Prosecu- tions.	
	Found.	Remedied	Referred to H.M. Inspector.		
<i>Nuisances under the Public Health Acts :—*</i>					
Want of cleanliness ... ..	796	796	—	3	
Want of ventilation ... ..	31	26	—	—	
Overcrowding ... ..	5	5	—	—	
Want of drainage of floors ... ..	3	3	—	—	
Other nuisances ... ..	1,618	1,366	—	4	
Sanitary accommodation { insufficient ... ..	32	32	—	2	
	unsuitable or defective	2	2	—	1
	not separate for sexes..	27	27	—	—
<i>Offences under the Factory and Workshop Act :—</i>					
Illegal occupation of underground bakehouse (S. 101) ... ..	3	3	—	—	
Breach of special sanitary requirements for bakehouses (SS. 97 to 100) ... ..	424	424	—	—	
Other offences ... .. (Excluding offences relating to outwork which are included in Part 3 of this Report).	—	—	—	—	
Total ... ..	2,941	2,684	—	10	

\* Including those specified in Sections 2, 3, 7 and 8, of the Factory and Workshop Act as remediable under the Public Health Acts.



### 3—Home Work.

* NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.										OUTWORK IN UNWHOLE SOME PREMISES, SECTION 108.				OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.							
	Lists received from Employers.							Prosecutions.			Number of Inspections of Outworkers' premises.		Instances.		Prosecutions.		Instances.		Orders made (S. 110).		Prosecutions (Sections 109, 110).	
	Twice in the year.			Once in the year.																		
	a Lists.	Con- tractors.	Work- men.	Lists.	a Outworkers.		Con- tractors.	Work- men.	Numbers of Addresses of Outworkers received from other Councils.	Numbers of Addresses of Outworkers forwarded to other Councils.	Falling to keep or permit inspection of Lists.	Falling to send Lists.	(12)	(13)	(14)	(15)	(16)	(17)	(18)			
					(2)	(3)														(4)	(5)	(6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)					
Wearing Apparel—																						
(1) Making, &c. ....	522	1,871	1,334	41	121	36	85	84	—	29	1,370	—	—	—	3	3	—	—	—			
(2) Cleaning and Washing	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Sacks .....	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Furniture and Upholstery ...	2	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Fur Pulling .....	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Umbrellas, &c. ....	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Paper Bags and Boxes .....	2	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Basket Making .....	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Electro-Plate .....	—	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Total .....	526	1,937	1,334	41	121	36	85	84	—	29	1,370	—	—	—	3	3	—	—	—			

\* Several Employers give out work of more than one of the classes specified in column 1. The lists are included among those in column 2 against the principal class only, but the outworkers are assigned in column 3 into their respective classes.

<sup>a</sup> The figures in columns 2, 3 and 4 are the total number of lists received from employers who sent them both in February and August as required by the Act) and of the entries of names of outworkers in those lists. They will, therefore, usually be double of the number of such employers and (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name will often be repeated.

4—Registered Workshops.			5.—Other Matters.	
Workshops on the Register (S. 131) at the end of the year.			Class.	Number.
Workshops	...	3,422	Matters notified to H.M. Inspector of Factories:— Failure to affix Abstract of the Factory and Workshop Act (S. 133) ... ..	22
Cooking Kitchens of Restaurants	...	334	Action taken in matters referred by (Notified by H.M. Inspector as remediable Inspector ... .. under the Public Health Acts, but Reports (of action not under the Factory and Work- taken) sent to shop Act (S. 5) ... .. H.M. Inspector	107
Bakehouses	...	871	Other ... ..	107
			Underground Bakehouses (S. 101)	126
			Certificates granted during the year ... ..	—
Total number on Register	...	4,627	In use at the end of year ... ..	176



# FACTORY AND WORKSHOP ACT, 1901.

The Inspectors appointed under the above Act for sanitary purposes have visited a large number of Workshops and Workplaces, the summary of which is appended :—

## SUMMARY OF VISITS PAID TO WORKSHOPS AND WORKPLACES.

	1906.	1907.		1906.	1907.
Bamboo Workers .....	4	5	Marine Stores .....	733	570
Basket Makers .....	23	26	Mattress and Bed Makers...	23	9
Block Makers .....	5	10	Metal Polish Makers .....	18	9
Boot Makers .....	595	666	Milliners .....	209	247
Bottlers .....	51	29	Mineral Water Manu- facturers .....	23	12
Bottle Washers .....	3	1	Musical Instrument Makers	10	15
Box Makers.....	26	19	Paint and Varnish Manu- facturers .....	47	21
Brush Makers .....	42	42	Paper Cutters, &c.....	53	41
Cabinet Makers and Joiners	764	831	Photographers .....	75	49
Canned Goods .....	76	82	Pickle and Sauce Manu- facturers .....	63	66
Cap Makers .....	23	21	Picture Framers .....	54	75
Card Gilders .....	16	—	Pipe Mounters .....	13	14
Carvers and Gilders .....	60	74	Plumbers .....	87	89
Chair Makers .....	35	38	Preserve Manufacturers ...	2	—
Chemists' Sundries Manufacturers .....	19	19	Relief Stampers .....	6	3
Coach Builders .....	87	59	Restaurants .....	754	803
Confectioners .....	116	54	Rubber Goods Manufacturers	12	34
Coopers .....	121	152	Sack and Bag Makers .....	116	122
Cork Cutters .....	60	29	Saddlers .....	99	82
Cotton Sorters .....	126	97	Sailmakers .....	36	22
Cycle and Bassinette Makers	90	89	Sign Writers .....	36	36
Dentists .....	6	1	Smiths .....	508	445
Dressmakers .....	745	879	Tailors .....	2,301	2,312
Drysalters .....	60	59	Tarpaulin Makers .....	73	28
Electricians.....	5	7	Trunk and Portmanteau Makers .....	67	64
Engravers .....	71	61	Umbrella Makers .....	18	32
Firewood Manufacturers ...	17	9	Underclothing Makers .....	189	218
Fish Curers .....	8	19	Upholsterers .....	155	157
Flag Makers .....	19	12	Watchmakers and Jewellers	155	133
French Polishers .....	83	96	Wheelwrights .....	36	97
Furriers .....	17	15	Wig Makers .....	24	14
Galvanisers .....	8	15	Wire Workers.....	29	24
Image Makers .....	5	14	Various .....	318	259
Knitters .....	21	24			
Laundries .....	800	965			
Marble Masons .....	36	28			
			Total .....	10,585	10,649

## FACTORY AND WORKSHOP ACT, 1901.

### FACTORIES.

Factories include all places in which mechanical power is used in aid of the manufacturing processes.

The 170 inspections of Factories referred to in the foregoing tables represent 49 Factories, which were inspected by the District Sanitary Inspectors principally as a result of complaints being received. The duty devolving upon the Health Department in connection with Factories is the enforcement of the provision of suitable and sufficient sanitary conveniences.

### WORKSHOPS.

Workshops include any premises (not being Factories) in which manual labour is exercised by way of trade, or for purposes of gain in, or incidental to, the making, altering, repairing, finishing or adapting for sale of any article, and to or over which the employer of the persons working there has the right of access or control.

The Workshop Inspectors made 9,846 inspections of Workshops, and on 3,292 occasions the premises were found to be incorrect. The number of inspections in 1906 was 9,830. This does not include bakehouse workshops visited by the Bakehouse Inspector.

A large number of new workshops have been added to the Register. One hundred and eighty-five workrooms have been measured during the year, as compared with 117 in 1906.

### WORKPLACES.

Workplaces include any place where work is done permanently, and where people assemble together to do work permanently of some kind or other. The kitchens of restaurants, &c., though they are not workshops, come within the meaning of the term "workplace."



803 visits were paid during the year to the kitchens of restaurants by the Workshop Inspectors; on 222 occasions the premises were incorrect. The number of visits in 1906 was 755. Attention is being particularly paid to the nuisance arising from the removal of swill, and the Inspectors make a practice of visiting the premises early in the day when the swill is generally removed.

The nuisances found were in most instances remedied on notices being served, but in several cases it was necessary to take further proceedings, with the result that fines amounting to £5 15s. 6d. were inflicted. The fines in the previous year amounted to £15 2s. 0d.

Several defects were found which could not be dealt with by this Department, and they were referred to the City Engineer, Water Engineer and the Building Surveyor.

#### HOME WORK.

In accordance with Section 107 of the Factory and Workshop Act, 567 lists of outworkers were received (281 in February and 286 in August) giving the names and addresses of 3,271 employees. The number of lists received in 1906 was 473, containing the names of 2,852 employees.

On examination of the lists they were found to contain 1,937 Workshops or Domestic Workshops already on the Register (906 in February and 1,031 in August). The other addresses, excepting those situated outside the City, were visited by the District Sanitary Staff, and in several instances the premises were found to be new workshops or Domestic Workshops, *i.e.*, where the work done constituted the sole or principal means of living of the family. These were placed on the Workshop Register, to be visited periodically by the Workshop Inspectors. The home work in 1,334 cases was found to be an additional source of income only.

A number of firms omitted to send in their lists at the times stated in the Act, *i.e.*, on or before the 1st February and 1st August, and it was necessary to take proceedings in 29 cases. Fines amounting to £23 13s. 6d. were inflicted.

#### LAUNDRIES.

In the course of an Inquiry into the circumstances of the Chinese resident in the City, it was reported that Chinese laundries have been established in Liverpool for a great number of years, and appear to be carried on with success. There are 47 of these laundries registered as workshops, which are periodically inspected by the Workshop Inspectors under the Factory and Workshop Act. They compare quite favourably with the ordinary English laundries, and are on the whole conducted in a more orderly fashion.

#### FURNITURE REMOVERS' VANS.

Number of Visits	...	...	...	...	...	...	110
„ Vans examined	...	...	...	...	...	...	75
„ found correct	...	...	...	...	...	...	59

In each case where the vans or wraps were found dirty, a notice was served on the owner to cleanse same.

#### SHOP HOURS ACTS, 1892—5.

The object of these Acts is to prevent the employment of young persons for such an excessive number of hours as will prejudice the health of these employees.

During 1907, under the above Acts there have been 6,485 visits paid to shops during the day, and 2,202 re-visits made after six o'clock; in 190 instances the hours were found to be incorrect, and in 554 instances a copy of the Act was not exhibited.



The persons concerned have generally evinced readiness to comply with the requirements of the Acts, and have thus lessened the difficulties in its administration. The number of occasions in which it was necessary to take proceedings during the last two years is small.

	1906.	1907.
Number of day visits to Shops ... ..	6,338	6,485
„ Shops found without copy of Act exhibited ... ..	898	554
„ re-visits to Shops during day ...	336	298
„ Shops found incorrect ... ..	83	66
„ re-visits to Shops after 6 p.m... ..	2,498	2,202
„ Shops found incorrect ... ..	353	190
„ copies of Act supplied ... ..	692	482
„ Informations for excessive hours ...	8	3
„ Convictions ... ..	6	3
„ Informations for not exhibiting Notice of Acts and Requirements as to hours of work ... ..	15	9
„ Convictions ... ..	12	9
Total number of Informations ... ..	23	12
„ „ Convictions ... ..	21	12
Total Amount of Fines and Costs ... ..	£19 5 6	£14 13 6

#### SEATS FOR SHOP ASSISTANTS ACT, 1899.

The object of the Act is to provide seats for female assistants.

	1906.	1907.
Visits for the purposes of the Act ... ..	393	662
Found correct ... ..	334	584
Number of Informations ... ..	1	2
„ Convictions ... ..	1	2
Total Amount of Fines and Costs ... ..	£0 14 6	£1 4 0

Seats in each case were subsequently provided.

## EMPLOYMENT OF CHILDREN ACT, 1903.

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This Act is intended for the limitation and regulation of child labour, and affects children of school age, viz., 14 years of age and under. The Act prohibits a child being employed between the hours of 9 p.m. and 6 a.m., although these hours may be varied on the framing of bye-laws.

It contains clauses prohibiting children carrying burdens likely to cause them injury, and from being employed in any occupation likely to be injurious to their lives, limbs, health or education.

Another clause prohibits children who are working half-time under the Factory and Workshop Act from being employed in any other occupation.

There are other clauses relating to children engaged in street trading. These have already been dealt with by the Watch Committee, and are enforced by the Police.

	<u>1906.</u>	<u>1907.</u>
Number of Visits for the purposes of the Act ...	41	268
„ found incorrect ... ..	—	68
„ of Informations ... ..	—	53
„ of Convictions ... ..	—	48
Amount of Fines and Costs ...	£0 0 0	£84 11 6

The following Bye-laws have been prepared, and now await the sanction of the Home Secretary:—

The Mayor, Aldermen and Citizens of the City of Liverpool at a Meeting held in the Council Chamber, within the Town Hall, on the  
 day of 190 , do hereby in  
 pursuance of the powers conferred upon them by the Employment of  
 Children Act, 1903, make the following Bye-laws:—



### Definition Clause.

Throughout these Bye-laws the following words and expressions shall have the meanings hereby respectively assigned to them unless such meanings be repugnant to or inconsistent with the context or subject matter in connection with which such words or expressions occur, namely:—

“Industrial work” means any work in which manual labour is exercised by way of trade, or for purposes of gain in making, altering, repairing, ornamenting, finishing, adapting for sale, or cleaning any article.

The expression “Shop” includes any premises or place where retail trade (including the business of a Barber) is carried on.

### Employment of Children.

1.—A child under the age of 11 years shall not be employed.

Limitation of Age.

2. (1)—No child who is liable to attend school full time shall be employed during school term on weekdays, other than Saturdays, in

(a) delivering Newspapers, or Milk, except between the hours of 7 and 8-15 o'clock in the morning and 5 and 8 o'clock in the evening.

Employment of Children in delivery of Milk, sale of Newspapers, &c.

(b) taking Meals to any person or persons, except between the hours of 12 noon and 1-15 o'clock in the afternoon and 5 and 8 o'clock in the evening.

(c) nursing, or other domestic work, running errands, or in or about a Shop, except between the hours of 7 and 8-15 o'clock in the morning, 12-30 and 1-15 o'clock in the afternoon and 5 and 8 o'clock in the evening.

(d) carrying parcels or delivering goods except between the hours of 5 and 8 o'clock in the evening;

provided that no such child shall be employed for more than 3½ hours on any day as aforesaid.

(2) No such child being a boy under the age of 12 or a girl under 14 shall be employed during the school term on Saturday or on any day during the holidays for more than 6 hours, or being a boy between the

age of 12 and 14 for more than 8 hours, provided that no such child shall be employed on a weekday other than Saturday later than 8 o'clock in the evening or 9 on Saturdays.

Industrial  
work at  
home.

3.—(1) No child who is liable to attend school full time shall be employed during school term in any industrial work at home on weekdays, other than Saturday, except between the hours of 5 and 8 o'clock in the evening, nor for more than 5 hours on Saturday.

(2) No child who is exempt from attending School shall be employed in any industrial work at home for more than 4 hours without an interval of at least one hour, and no such child shall be so employed before the hour of 7 o'clock in the morning or after the hour of 8 o'clock in the evening, nor on Saturdays after the hour of 4 o'clock in the afternoon. Every such child employed under this paragraph shall be allowed for meals on weekdays, other than Saturdays, an absence from work between the said hours of not less than 1 hour for Breakfast, 1½ hours for Dinner, and 1 hour for Tea, and on Saturday 1 hour for Breakfast and 1 hour for Dinner.

(3) No child employed in any industrial work at home on any day shall be employed on the same day in any other occupation.

Employment  
in a shop of  
children not  
dealt with in  
Clause 2.

4.—(1) No child shall be employed, except as otherwise provided, in or in connection with any Shop before 8 o'clock in the morning or after 8 o'clock in the evening, provided that if on one day in the week the shop closes not later than 2 o'clock in the afternoon, employment may be continued on one other day in the same week (to be specified in a notice kept constantly affixed in the Shop) to 9 o'clock in the evening.

5.—No child shall be employed on Sunday except in the delivery of milk and between the hours of 7 and 9 in the morning and 3 and 4 in the afternoon.

Employment  
in a Barber's  
Shop.

6.—(1) No child under the age of 13 years shall be employed in lathering or in similar occupation in any barber's shop.

(2) No child liable to attend school full time shall during school term be employed in lathering or in a similar occupation in any barber's shop, except between the hours of 5-30 and 8-30 o'clock in the evening on weekdays, other than Thursday, on which day a



child shall not be employed as aforesaid at all, or on Saturday between the hours of 10 o'clock in the morning and 9 o'clock in the evening, with an interval of not less than  $1\frac{1}{2}$  hours for Dinner and 1 hour for Tea.

7.—No child shall be employed in or in connection with the sale of intoxicating liquor, either on licensed premises or in any registered club, or in billiard or bagatelle marking, or in selling programmes or other articles in or in shifting scenery on the stage of any theatre, or music hall, or in the kitchen of any hotel, cookshop, eating house, or refreshment room. Employment on Licensed Premises, &c.

8.—No child employed in a place of public Entertainment in pursuance of a License under Section 3 of the Prevention of Cruelty to Children Act, 1904, shall be employed on the same day or days or the day following such employment in any other employment. Employment in a place of public entertainment.

9.—No child who is liable to attend school full time shall be employed in any Agricultural work on any day other than Saturday during the school term except between the hours of 6 and 8-30 in the morning and 5 and 8 in the evening in the months of April to September, and except between the hours of 7 and 8-30 in the morning and 5 and 7 in the evening in the months of October to March; or, in the holidays and on Saturdays, except between the hours of 6 in the morning and 6 in the evening. Agricultural employment.

#### APPENDIX.

##### *Extracts from Employment of Children Act, 1903.*

Section 1.—Any local authority may make byelaws—

- (i) prescribing for all children, or for boys and girls separately, and with respect to all occupations or to any specified occupation,—
  - (a) the age below which employment is illegal; and
  - (b) the hours between which employment is illegal; and
  - (c) the number of daily and weekly hours beyond which employment is illegal:
- (ii) prohibiting absolutely or permitting, subject to conditions, the employment of children in any specified occupation.

Power to make bye-laws for regulating the employment of children.

General  
restrictions  
on employ-  
ment of  
children.

Section 3.—(1) A child shall not be employed between the hours of nine in the evening and six in the morning: Provided that any local authority may, by bye-law, vary these hours either generally or for any specified occupation.

(2) A child under the age of eleven years shall not be employed in street trading.

(3) No child who is employed half-time under the Factory and Workshop Act, 1901, shall be employed in any other occupation.

(4) A child shall not be employed to lift, carry, or move anything so heavy as to be likely to cause injury to the child.

(5) A child shall not be employed in any occupation likely to be injurious to his life, limb, health, or education, regard being had to his physical condition.

(6) If the local authority send to the employer of any child a certificate signed by a registered medical practitioner that the lifting, carrying, or moving of any specified weight is likely to cause injury to the child, or that any specified occupation is likely to be injurious to the life, limb, health, or education of the child, the certificate shall be admissible as evidence in any subsequent proceedings against the employer in respect of the employment of the child.

Offences and  
penalties.

Section 5.—(1) If any person employs a child or other person under the age of sixteen in contravention of this Act, or of any bye-law under this Act, he shall be liable on summary conviction to a fine not exceeding forty shillings, or, in case of a second or subsequent offence, not exceeding five pounds.

(2) If any parent or guardian of a child or other person under the age of sixteen has conduced to the commission of the alleged offence by wilful default, or by habitually neglecting to exercise due care, he shall be liable on summary conviction to the like fine.

(3) If any person under the age of sixteen contravenes the provisions of any bye-law as to street trading made under this Act, he shall be liable on summary conviction to a fine not exceeding twenty shillings, and in case of a second or subsequent offence, if a child, to be sent to an industrial school, and, if not a child, to a fine not exceeding five pounds.

(4) In lieu of ordering a child to be sent under this section to an industrial school, a court of summary jurisdiction may order the child to be taken out of the charge or control of the person who actually has the charge or control of the child, and to be committed to the charge and control of some fit person who is willing to undertake the same until such child reaches the age of sixteen



years: And the provisions of sections seven and eight of the Prevention of Cruelty to Children Act, 1894, shall, with the necessary modifications, apply to any order for the disposal of a child made under this sub-section.

Section 7.—With respect to summary proceedings for offences and Limitation fines under this Act, and any bye-laws made thereunder, the information of time. shall be laid within three months after the commission of the offence.

Section 8.—If it appear to any justice of the peace, on the complaint of an officer of the local authority acting under this Act, that there is reasonable cause to believe that a child is employed in contravention of this Act in any place, whether a building or not, such justice may by order under his hand empower an officer of the local authority to enter such place at any reasonable time, within forty-eight hours from the date of the order, and examine such place and any person therein touching the employment of any child therein. Power of officer of local authority to enter place of employment.

Any person refusing admission to an officer authorised by an order under this section, or obstructing him in the discharge of his duty, shall for each offence be liable on summary conviction to a penalty not exceeding twenty pounds.

Section 13.—In this Act—

The expression "child" means a person under the age of fourteen years: Definitions.

The expression "guardian," used in reference to a child, includes any person who is liable to maintain or has the actual custody of the child:

The expressions "employ" and "employment," used in reference to a child, include employment in any labour exercised by way of trade or for the purposes of gain, whether the gain be to the child or to any other person:

The expression "local authority" means, in the case of the City of London, the mayor, aldermen, and commons of that city in common council assembled; in the case of a municipal borough with a population according to the census of nineteen hundred and one of over ten thousand, the borough council; and in the case of any other urban district with a population according to the census of nineteen hundred and one of over twenty thousand, the district council; and elsewhere the county council:

The expression "street trading" includes the hawking of newspapers, matches, flowers, and other articles, playing, singing, or performing for profit, shoe-blackening, and any other like occupation carried on in streets or public places.

# MIDWIVES ACT, 1902.

During the year 1907 the following alterations were recorded under the provisions of the above Act:—32 midwives left the City, and two died. Against these numbers 20 midwives came into the City from other districts, and 22 candidates passed the examination of the Central Midwives Board and were placed on the Roll. In addition to these, 45 midwives changed their residences (in a considerable number of cases more than once) from one district of the City to another, and two married and consequently changed their names. There was a total of 303 midwives at the end of the year resident in the City.

The following table gives the qualifications of the midwives resident in Liverpool, for the past three years, respectively, viz.:—

			1905.	1906.	1907
Central Midwives Board Examination	...	...	—	30	52
Ladies' Charity and Lying-in Hospital	...	...	153	120	110
London Obstetrical Society...	...	...	124	74	73
Rotunda Hospital, Dublin	...	...	8	7	7
Glasgow Maternity Hospital	...	...	5	4	3
Queen Charlotte's Lying-in Hospital	...	...	4	4	2
Manchester Maternity Hospital	...	...	3	2	3
National Maternity Hospital, Dublin	...	...	3	3	3
Coombe Lying-in Hospital, Dublin	...	...	2	3	3
St. Mary's Hospital, Manchester	...	...	1	1	1
Dundee Maternity Hospital	...	...	1	1	1
Royal Maternity Hospital, Edinburgh	...	...	1	1	5
In Bona-fide Practice prior to 31st July, 1901	...	...	56	45	45
Totals	...	...	361	295	303



The details as to the employment of these midwives are given in the following table, viz. :—

	<u>1905.</u>	<u>1906.</u>	<u>1907.</u>
Number in practice as midwives on their own account ... ..	166	159	166
Employed in public institutions as midwives, maternity nurses, &c. ... ..	21	34	53
Employed in private practice as maternity nurses under the direct supervision of a medical practitioner, or in other employment ...	174	102	84
Totals ... ..	<u>361</u>	<u>295</u>	<u>303</u>

It is satisfactory to note that the proportion of midwives in Liverpool who have been admitted to the Midwives Roll because they were in bona-fide practice in July, 1901, but who had no certificate acknowledged by the Midwives Board, is a much smaller one in Liverpool than in the rest of England. Last year, for instance, out of a total of 303 there were only 45 midwives, namely, 15 per cent., in this category; whereas about 50 per cent. of the midwives in the rest of England are in the position of being without such a certificate.

The following tables give some interesting facts about the status of those midwives in private practice in Liverpool :—

	<u>1907.</u>
Ages—Between 20 and 30 years of age ... ..	5
„ 30 „ 40 „ ... ..	36
„ 40 „ 50 „ ... ..	56
„ 50 „ 60 „ ... ..	40
„ 60 „ 70 „ ... ..	25
„ 70 „ 80 „ ... ..	4
	<u>166</u>

								1907.
No. of Years in Practice—								
				under 1 year	...	...	...	1
"	"		Over 1 and under 10 years	...	...	...	...	58
"	"	" 10	" 20	"	...	...	...	60
"	"	" 20	" 30	"	...	...	...	32
"	"	" 30	" 40	"	...	...	...	11
"	"	" 40	" 50	"	...	...	...	1
"	"	" 50	" 60	"	...	...	...	3
								<hr/> 166
								<hr/>
Single Women	...	...	...	...	...	...	...	17
Married "	...	...	...	...	...	...	...	103
Widowed "	...	...	...	...	...	...	...	46
								<hr/> 166
								<hr/>
Devoting whole time to the work	...	...	...	...	...	...	...	84
Partially employed...	...	...	...	...	...	...	...	82
								<hr/> 166

(Of those partially employed 18 are doing other work and 7 are keeping Maternity Homes.)

The number of births attended by the 166 midwives in private practice was 12,304, and the following table gives some details as to the proportion of births attended by the various midwives, viz.:—

Midwives who attended over 350 cases each...	...	...	...	...	3
" " 300	"	...	...	...	0
" " 250	"	...	...	...	4
" " 200	"	...	...	...	9
(The above-mentioned 16 midwives attended 4,137 cases.)					
Midwives who attended over 150 cases each...	...	...	...	...	11
" " 100	"	...	...	...	19
(The above-mentioned 30 midwives attended 4,053 cases.)					
Midwives who attended over 50 cases each...	...	...	...	...	37
(The above-mentioned 37 midwives attended 2,797 cases.)					
Midwives who attended under 50 cases each...	...	...	...	...	68
(The above-mentioned 68 midwives attended 1,317 cases.)					



In addition to the foregoing there were 1,673 births attended by midwives on the staff of the District work of the Ladies' Charity, and 469 attended by unregistered women, who are under the same supervision as the midwives, making a total of 14,446 out of 23,654 births which occurred during the year.

The number of still births notified by midwives was 391; this is at the rate of 3·2 per cent. of the births attended by midwives in private practice. The prevalence of still births in the practice of midwives varies very much, the highest rate being 10 per cent., the lowest being 1·0 per cent., in the practice of midwives attending over 20 confinements in the year.

The following figures give the months of pregnancy during which the still birth took place, viz. :—

						1907.
Sixth month	...	...	...	...	...	45
Seventh month	...	...	...	...	...	73
Eighth month	...	...	...	...	...	82
Ninth month	...	...	...	...	...	169
Not specified	...	...	...	...	...	22
Total of Still Births ...						391

In 14 cases the child was illegitimate.

Medical assistance was required in 684 cases, which is 5·5 per cent. of the total confinements attended. The highest rate at which any one midwife required medical assistance was in 25 per cent. of her cases. In 227 cases, namely 1·8 per cent. of the births attended by midwives, the patients were so poor as to be unable to pay for medical assistance, and the Corporation resolved to pay the doctor who was called in to help in the emergency. This action of the Corporation has undoubtedly been of the greatest service both to midwives and their patients, who are thus enabled to obtain prompt medical attention in times of emergency. The fee is limited to one guinea, and in many of the cases part of the fee was paid by the patients themselves, and only the remaining portion paid by the Corporation.

The following is a list of the complications for which medical assistance was required:—

Abnormal Presentation—	1906.	1907.
Brow or Face Presentation ... ..	23	38
Occipito-posterior Presentation ... ..	20	7
Transverse Presentation ... ..	33	29
Breech Presentation ... ..	16	14
Foot Presentation ... ..	5	5
Cord Presentation ... ..	6	10
Placenta Prævia ... ..	2	9
Deformed Pelvis ... ..	48	69
Anti-partum Hæmorrhage ... ..	27	15
Post-partum Hæmorrhage ... ..	35	53
Retained Placenta or Membranes ... ..	64	74
Ruptured Perinæum ... ..	25	36
Multiple Births ... ..	12	1
Prolapse of Uterus ... ..	2	1
Malformation of Child ... ..	6	5
Death of Child ... ..	3	1
Abortion or Premature Birth ... ..	13	15
Septicæmia ... ..	2	1
Pyrexia ... ..	11	15
Epileptic Convulsions ... ..	1	2
Eclampsia ... ..	5	5
Obstructed Labour, Uterine Inertia, or requiring Instrumental Assistance ... ..	196	247
Various or not specified ... ..	117	32
Total ... ..	735	684

#### PUERPERAL FEVER.

The number of cases of Puerperal Fever notified to the Medical Officer of Health during the year was 58, of which 12 were fatal. This gives a death-rate of 0·5 per 1,000 births in the City, a rate that compares very favourably with that of England and Wales, which was 1·7 during 1906, and 2·0 for the previous ten years. Thirty-three cases were removed to hospital, viz., 12 to Brownlow Hill Infirmary, 10 to Mill Road Infirmary, 1 to Toxteth Workhouse Infirmary, and 10 to the City Hospital, Fazakerley.



All of the cases were investigated, and 35 with 10 deaths were found to have occurred where midwives were employed either alone or in association with a doctor. They were divided between 31 midwives:— 1 midwife had three cases; 2 midwives had two cases each; and 28 midwives had one case each. In the remaining cases the confinement was attended either by a medical practitioner or by an unqualified woman, who was frequently a neighbour or friend of the patient. In the cases in which midwives were concerned, the midwives were interviewed and measures taken to prevent them spreading the infection. The same procedure was adopted with regard to five cases (no deaths) which occurred in the practice of unregistered women.

In eight of the cases the symptoms did not appear until the midwife had ceased to attend the patient, namely, ten days after the confinement, and the woman was apparently in her usual health.

During 1907 the Central Midwives Board revised the rules which regulate the training and the supervision of the practice of midwives. The chief alterations were those which modify the rules relating to the duties of the midwife to the mother and the child, and these are further amplified by explanatory notes which increase their usefulness.

Every opportunity is taken to bring these rules under the notice of the midwives and to emphasise the importance of adhering to the provisions laid down in them.

They will remain in force until September 30th, 1909, when they may be further revised if it should be thought advisable to do so.

As in previous years, the midwives in private practice were visited periodically. The number of visits paid during the year was 1,003; this number shows an increase over that of the year before, as extra visits are being paid to *bonâ-fide* midwives and to those who by their advanced age are becoming incapacitated and therefore require greater attention.

The case books are carefully examined and the cases are discussed, the midwives being encouraged to note anything of an interesting character, such as the patient's previous history and the condition of the house, surroundings, &c.

The condition of the bags and appliances show a decided improvement on previous years, and in the work of the midwives generally a greater state of proficiency prevails. The houses occupied by the midwives are also inspected, and all sanitary defects are promptly dealt with.

Full advantage has been taken of the arrangements made last year with reference to the reporting of dirty houses and bedding by the midwives, and there is no doubt that the prompt action taken by the Public Health Department has been the means in several cases of saving the lives of both mother and infant.

Arrangements have also been made by which all cases of inflammation of the eyes occurring in the infant are reported immediately to the Medical Officer of Health, and all serious cases of Ophthalmia occurring among the poorer classes taken at once to the Eye Hospital for treatment.

Much valuable assistance has been rendered under these circumstances by the staff of the St. Paul's Eye and Ear Hospital, by setting apart a small ward where these cases can be isolated and where also the mother can be received so that the infant while under treatment shall not be deprived of the maternal nourishment.

Special visits were made in order to make enquiries into Puerperal Fever cases and the circumstances of patients for whom payment of the medical fee was requested, the total number of such visits being 364.

#### UNREGISTERED WOMEN.

The number of unregistered women in practice at the end of the year was ten, three having ceased to practice owing to the restrictions placed upon them by the regulations. 469 births were attended by these women, against 789 in the previous year, a decrease of 40 per cent. ; this decrease is attributable to their not being able to use the title of "midwife."

The ten women still in practice endeavour to conform to the rules, and carry out their work in a satisfactory manner. They are visited from time to time, and assistance rendered to them in a similar manner to that provided in the case of registered midwives.



INFECTIOUS DISEASES AND OTHER MATTERS OF HYGIENE  
RELATING TO SCHOOLS.

During the past year a considerable increase in the work of the Department with regard to the elementary schools has to be recorded. Dr. Kingsford, the additional Assistant Medical Officer, who commenced his duties early in the year, has made enquiries into a large number of actual or threatened school outbreaks of infectious disease, and in addition has found time and occasion to extend his enquiries to many other branches of school hygiene. A large number of children were discovered at school whose condition necessitated further detailed investigation at the homes. This investigation in the majority of cases fell to the lot of the Female Sanitary Staff, which has recently been augmented to meet the increase in the school work. The number of visits to school cases by the Female Staff has gradually increased year by year, from 378 in 1903 to 9,068 in 1905, 12,336 in 1906, and 16,604 in 1907. (See pp. 99 and 101.)

The Male Sanitary Staff continue as before to visit the homes where cases of infectious disease have occurred, other than communicable skin and eye diseases, which are visited by the Female Staff.

With regard to infectious diseases, improvements have been made in the methods of notification and investigation.

The arrangement formerly made with the Education Committee that Head Teachers should notify the Medical Officer of Health as soon as they learn of the absence of a child on account of infectious disease was not always observed. Frequently the Teacher waited for the visit of the School Attendance Officer, and left the duty of notification to that officer, thus often causing a delay of seven to ten days.

By means of a circular letter, and by visits paid to the schools by the Assistant Medical Officer, the original arrangement with the Teachers has again been put in fairly good working order. Early information is absolutely essential if there is to be a successful attempt to cope with a threatened outbreak.

When notifying cases of infectious disease, the teachers at the same time draw special attention to any cases which may have been detected

or suspected whilst the child was in school, and these are amongst the first to be visited at home in order to determine the exact nature of the illness.

More important, however, than the notification of infectious disease is the early recognition and prompt exclusion by the Teachers of suspicious cases amongst the scholars. In this respect there is still room for improvement.

Fear of losing attendances still weighs very greatly with some Teachers, and leads to children whose symptoms are very suspicious being kept in school until the Teachers are quite certain that the ailment is infectious. Obvious ill-health of the pupil is, however, always a proper reason for its exclusion from school, whatever the cause of illness may be.

The Education Code of 1903, Article 101\*, contained an exceedingly valuable provision, and provided that the absences of pupils on account of infectious sickness in their homes should not be deducted from the record of attendances. This clause, however, was withdrawn from subsequent Codes, and the result is a tendency to minimise within dangerous limits the absences of the child.

With the object of ensuring earlier information and to stimulate parental responsibility with regard to infectious disease amongst school children, an important clause has been inserted in the Liverpool Corporation Bill which will come before Parliament in 1908. This clause enforces upon the parents of school children the obligation of notifying the Medical Officer of Health and the Head Teacher within 24 hours of becoming aware of it, the occurrence of infectious disease in the house, and further compels the parent to keep from school the affected children and any others the Medical Officer of Health considers necessary. In certain neighbourhoods, especially where there are many small shopkeepers, concealment of infectious disease is prone to occur, the other children in the house being sent to school to avoid comment. The scope of the clause includes Sunday schools and all other schools.

Lists of infected scholars who have been reported upon by the Sanitary Inspectors are prepared daily, giving particulars as to the school and class attended, the disease, the date of the last attendance at school, and the date of the onset of symptoms. From this list it is possible at a glance to ascertain in what schools children have been present in an infectious condition, and visits to such schools can be made accordingly.



Alterations have been made in the method of excluding children from school when they come from houses in which infectious cases are being treated.

In the case of Scarlet Fever and Diphtheria all children are excluded.

In Measles, Chicken-pox and Mumps, all children under 7 and children over 7 who have not had the disease are excluded.

In Whooping Cough, only children under 7 who have not had the disease are excluded.

These general rules are in many respects similar to the plans adopted in some other towns, but in any case of doubt the Teacher and School Attendance Officer are invited to communicate with the Medical Officer of Health.

**Table I.—\* SCHOOL CASES (Infectious Diseases).**

AGE DISTRIBUTION—March, 1907—February, 1908.

DISEASE.	Under 5.	Under 6.	Under 7.	Total Under 7.	Under 8.	Under 9.	Under 10.	Under 11.	Under 12.	Under 13.	13 and over.	Total 7 years and upwards.	Grand Total.
Scarlet Fever.....	121	258	258	637	196	156	116	104	85	61	76	794	1431
Diphtheria .....	42	73	68	183	68	42	33	23	14	16	20	216	399
Measles .....	764	1540	843	3147	306	120	66	42	30	22	13	599	3746
Whooping Cough ...	479	1068	572	2119	167	70	41	18	13	21	8	338	2457
Chicken-pox .....	286	711	490	1487	224	111	70	38	21	21	11	496	1983
Mumps .....	43	130	156	329	99	67	38	33	38	33	38	346	675
<b>Totals .....</b>	<b>1735</b>	<b>3780</b>	<b>2387</b>	<b>7902</b>	<b>1060</b>	<b>566</b>	<b>364</b>	<b>258</b>	<b>201</b>	<b>174</b>	<b>166</b>	<b>2789</b>	<b>10691</b>
<b>Per cent. of those on Roll.....</b>	<b>22.5</b>	<b>23.1</b>	<b>14.9</b>	<b>19.7</b>	<b>7.3</b>	<b>4.0</b>	<b>2.6</b>	<b>1.9</b>	<b>1.6</b>	<b>1.4</b>	<b>1.2</b>	<b>2.9</b>	<b>8.0</b>

**Note.**—\* The delay in going to press enables us to take a complete year, this work having been commenced in March, 1907.

It will be seen from this table that the pupils below the age of 7 years are the principal sufferers from all forms of infectious disease, that in the succeeding years the incidence rapidly declines, and after 10 years of age the proportion attacked is very small.

It will be observed that the proportion below 5 is slightly less than that between 5 and 6, a figure which perhaps does not exactly express the full incidence, since children under 5 are not so rigorously visited by the Attendance Officers when absent, and cases in this way may escape record.

The table shows generally that during the earlier years of life the risks to the child from attending school are greatest, and its susceptibility to attack diminishes as the child grows older.

The next table gives the monthly incidence of the various forms of common infectious disease.

**Table II.—SCHOOL CASES (Infectious Diseases).**

MONTHLY DISTRIBUTION—March, 1907—December, 1907.

DISEASE.	March.	April.	May.	June.	† July.	August.	September.	October.	November.	December.	Total.
Scarlet Fever.....	93	107	130	129	79	99	181	150	136	125	1229
Diphtheria .....	21	22	32	36	31	33	26	34	65	36	336
Measles .....	433	315	642	507	16	26	86	199	264	297	2785
Whooping Cough ...	128	72	22	12	—	206	181	291	412	302	1626
Chicken-pox .....	248	230	398	288	13	28	94	124	126	110	1659
Mumps .....	38	20	57	41	2	14	31	50	64	140	457
<b>Totals .....</b>	<b>961</b>	<b>766</b>	<b>1281</b>	<b>1013</b>	<b>141</b>	<b>406</b>	<b>599</b>	<b>848</b>	<b>1067</b>	<b>1010</b>	<b>8092</b>

† Holidays—June 28th, August 12th.



Attempts are at present being made to ascertain what proportion of infants attending school have previously suffered from Measles, Whooping Cough and Scarlet Fever. The value of this information is obvious, since the proportion of those who had already suffered, and who were consequently to be regarded as immune from future attack, would be a valuable guide to procedure in the event of an outbreak of such infectious sickness arising in an Infants' Department, and the information furnishes the gauge of the probable extent and duration of an outbreak.

The following table is based upon an investigation of twelve selected and probably representative schools, and indicates the percentage of children at the different ages who have suffered from Measles, Whooping Cough, or Scarlet Fever.

The inference is that as the years advance the susceptibility to disease diminishes.

**Table III.**

Shewing the percentages of children at the various age-periods who have had certain diseases:—

AGES	MEASLES.		WHOOING COUGH.		SCARLET FEVER.	
	Number Involved.	Percentage who have had the disease.	Number Involved.	Percentage who have had the disease.	Number Involved.	Percentage who have had the disease.
2—4	56	57	59	37	56	5
4—5	469	70	468	42	440	6
5—6	1138	74	1091	45	1107	8
6—7	1052	82	1060	52	940	10
7—8	481	85	477	56	455	14
8—9	85	87	87	65	86	18
9—10	27	85	28	71	27	18
10—11	12	83	12	66	12	25

With regard to the school buildings, which were fully reported upon two years ago, many of the older schools are still deficient in light and ventilation, and are still furnished with old types of seats and desks.

Improvement in the cleanliness of the schools would be effected by making the caretaker directly responsible to the Head Teacher, a step which has already been taken so far as Council Schools are concerned.

The sanitary offices of the schools are visited periodically by the Sanitary Inspectors, but closer attention on the part of the Caretakers would be desirable.

The application of the Employment of Children Act has had a salutary effect in lessening the abuse of school children by working them for excessive and up till late hours.

During the year the prevalence of Measles was not great (see Table II.) There was a limited outbreak of Whooping Cough, confined principally to the North end of the City, but somewhat severe in character.

The closer attention paid to the subject of Ringworm explains the larger number of cases brought to notice (see page 99), microscopical examination being employed on many occasions. The disease is extremely difficult to deal with, not only on account of the difficulty of recognising its nature, but because of the protracted course which it runs. Every child found to be suffering from Ringworm of the Scalp should be excluded from school until certified by a medical man to be free from the disease. The plan of wearing a cap in school is generally unsatisfactory and objectionable.

One case of favus was detected in school, the child being a foreign Jewess.



Impetigo. —This very common disease was frequently associated with a verminous condition, and necessitated a very large number of visits to the homes of the sufferers. The large number of cases of impetigo of the scalp, due to the presence of vermin, is deplorable, the condition being frequently associated with other evidences of gross neglect of the children at home. Many cases of this nature were referred to the Society for the Prevention of Cruelty to Children to deal with, and a few cases have been dealt with in the Police Court.

About thirty schools are now being constantly visited by nurses from the Queen Victoria Nursing Association, the children's heads, and when necessary the clothing, being periodically examined by them. Their main attention, however, is given to the treatment of sores and various minor injuries. Many parents, unfortunately, refuse or neglect to carry out instructions given by the nurse. Examples are only too frequent in which every sense of parental responsibility or affection seem to be wanting.

In the Bill shortly to be promoted in Parliament, the Health Committee have advised that clauses should be inserted dealing more stringently with verminous or neglected children.

The following is a list of schools closed during the year, owing to the prevalence of Measles, and other infectious diseases amongst the scholars:—

Date of Notice.	School.	Department or Departments.	Nature of Disease.	Period. of Closure.
1907. Jan. 12	Sheil Road Council .....	Infant.....	Measles, &c.	Three Weeks,
Feb. 16	St. Lawrence, Croylands Street	„ .....	„	„
Mar. 21	St. Bridget's, Bagot Street	„ .....	„	Until 15th April.
21	Sefton Park Council .....	„ .....	„	„

Date of Notice.	School.	Department or Departments.	Nature of Disease.	Period of Closure.
May 3	Sefton Park, Higher Grade	Infant.....	Measles, &c.	Two Weeks ending 20th May
9	Garston Old Road Wesleyan	" .....	"	Until 27th May.
13	St. Alphonsus', Back Great Mersey Street	" .....	"	Until 3rd June.
17	St. Mary's, Kinglake Street	" .....	"	Until 4th June.
23	Garston Victoria.....	" .....	"	Until 10th June.
29	St. Peter's, Sackville Street	" .....	Whooping Cough	Until 17th June.
30	Longmoor Lane Council.	" .....	Measles, &c.	"
31	Rathbone, Council, Albany Road	" .....	"	"
June 13	Banks Road, Council, Garston	" .....	"	Until after Mid-summer Holidays
22	St. Simon's, Bronte Street	" .....	"	"
24	Garston National .....	" .....	"	"
24	St. Francis', Earp Street.	" .....	"	"
Oct. 8	Beaufort Street Council ..	" .....	Measles and W. Cough	Until 21st Oct.
28	St. Silas', Toxteth .....	" .....	Measles, &c.	Until 18th Nov.
29	St. Augustine's, Salisbury Street	" .....	"	Until 11th Nov.
Nov. 1	Infant Orphan Asylum School, Myrtle Street	Whole School	Scarlet Fever	For 21 days.
27	Do.	" "	"	Until 3rd Dec.
8	St. Ann's, Aigburth .....	Infant.....	Whooping Cough, &c.	For Three weeks.
11	Holy Trinity, Walton Breck	" .....	Measles, &c.	Until 27th Nov.
11	Upper Park Street Council	" .....	"	Until 25th Nov.
27	Whitefield Road Wesleyan	" .....	"	Until 16th Dec.
Dec. 4	Clint Road Council .....	" .....	Whooping Cough, &c.	Until after Christmas Holidays
11	Parkhill Higher Grade....	Infant and Junior	Mumps, &c.	"
12	All Saints', Oakfield .....	Infant .....	Measles, &c.	"
17	Earle Road Council.....	" .....	Whooping Cough	"
18	Granby Street Council....	" .....	Measles, &c.	"
18	St. Francis Xavier's, Haigh Street	" .....	"	"



NOTICES TO MASTERS OF SCHOOLS.

The arrangements have been continued with the Education Committee that notice shall be sent to the Committee and postcards to the Head Masters of the various schools informing them when children from infected houses attend their schools. 12,342 cards were sent last year, as against 12,775 in the preceding year.

PUBLIC ELEMENTARY SCHOOLS.

In pursuance of the resolution of the Elementary Schools Management Sub-Committee, dated 13th July, 1903, and approved by the Education Committee on the 19th August, 1903, instructing the Medical Officer of Health to report upon the sanitary equipment, &c., of schools, 188 schools were fully reported upon.

Full Reports were printed by the Education Committee, and circulated to those interested.

Thirty-two of these schools were re-examined in 1907.

All the Public Elementary Schools in the City are visited once each fortnight and an examination made of the sanitary conveniences.

Ordinary visits made by Sanitary Inspectors, apart from special visits for the purposes of the Education Committee, reached the following numbers :—

						<u>1906.</u>	<u>1907.</u>
No. of Visits to Schools	...	...	...	...	...	3,138	2,812
„ found incorrect	...	...	...	...	...	180	163
„ Water-closets and Latrines found dirty or defective						233	361
„ Notices issued for defects	..	...	...	...	...	121	166
„ „ „ dirty closets	...	...	..			—	10

THE AMBULANCE AND DISINFECTING STAFF.

The following table shows the number of patients removed to Hospitals during 1907, compared with the number removed during the preceding year, by Officers of the Ambulance Staff, and the Hospitals to which they were taken :—

Belmont Rd.	City Hospital North, Netherfield Road.	City Hospital South, Grafton Street.	City Hospital, Park Hill.	Brownlow Hill.	City Hospital East, Mill Lane.	City Hospital, Priory Road.	David Lewis Northern Hospital.	Royal Infirmary.	Smithdown Road.	Southern Hospital.	City Hospital, Fazakerley.	Port Sanitary Hospital.	Hahnemann Hospital.	Garston Hospital.	Fazakerley Annexe.	Total.
—	768	466	810	11	706	—	23	8	2	2	934	6	2	—	63	3,801

PRECEDING YEAR.

7	677	552	1230	91	639	1	6	7	12	3	363	18	5	11	106	3,728
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For the removal of patients to hospital, and for the removal of infected bedding, and its return after disinfection, an adequate ambulance staff is maintained. There are eight ambulances provided for the removal of infectious patients to hospital, and as far as possible one ambulance is reserved for each form of disease. In every case the ambulance is cleansed and disinfected in the following way each time it is used :—

The rugs in which the patient is wrapped are left for disinfection at the hospital to which the patient is taken. The interior of the ambulance (which is of smooth varnished wood) is sponged down with a strong solution of formaline. A clean disinfected rug is supplied before another patient is removed.

The ambulance attendants and disinfecting staff are provided with sufficient suits of overalls for their purposes.

Bedding and clothing, after disinfection, are returned home by a staff and conveyance entirely distinct from that which removed them in the infected state. In all cases where it is found desirable to destroy infected articles full compensation is paid, as provided for by the Public Health Act.

Details of the methods employed in regard to Smallpox and Typhus Fever have been given in previous Annual Reports, in which also the general procedure in disinfection has been explained.



INFECTED PREMISES STRIPPED AND DISINFECTED BYSTRIPPING STAFF.

	<u>1906.</u>	<u>1907.</u>
Houses ... ..	6,630	6,589
Rooms Stripped or sprayed with solution of Perchloride of Mercury ... ..	17,406	19,687
„ Disinfected with sulphurous gas ... ..	6,947	6,743
Number of Notes to Owners after stripping and cleansing	2,818	2,322
„ Visits by Superintendent of Staff ... ..	1,877	1,957
„ Enquiries respecting disinfection ... ..	8,522	8,136

LIBRARY BOOKS.

Number of Library Books disinfected ... ..	931	2,619
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In connection with alterations and improvements in the section of St. Martin's Market devoted to the sale of old clothes, the question arose as to disinfecting the clothing brought to the establishment. It was obvious that with suitable accommodation, and a proper amount of light and ventilation, the business would be carried on under very different circumstances to those which had hitherto been the case. In view of the proposed alterations, and also having regard to the circumstance that all infected clothing is dealt with at the Health Committee's Depôts, the Medical Officer recommended that unless the Markets Committee desired to provide a disinfecting station on the premises the matter should stand over.

No infectious sickness has been traced to clothing from this Clothes Market, and closer supervision of the trade is now possible owing to the improved accommodation and better lighting. Any obviously dirty article can be rejected by the officer on duty, and if necessary destroyed or dealt with at the Disinfecting Station. A consideration not to be lost sight of is that disinfection often deteriorates the value of clothing, sometimes to a considerable extent.

THE DISINFECTING APPARATUS.

The number of articles disinfected at the various apparatus during the year amounted to 57,886.

DATE. 1907.	Number of Beds.	Number of Mattresses.	Number of Pieces of Bedding.	No. of Pieces of Wearing Apparel.	Total Number of Articles.
January ... ..	407	136	2,801	1,142	4,486
February ... ..	433	118	2,789	1,089	4,429
March ... ..	413	133	2,952	1,555	5,053
April ... ..	366	110	2,301	1,438	4,215
May ... ..	381	135	2,529	1,260	4,305
June ... ..	541	169	3,026	1,634	5,370
July ... ..	419	177	2,041	1,162	3,799
August ... ..	417	127	2,965	3,075	6,534
September ... ..	447	114	2,540	1,061	4,162
October ... ..	451	188	2,795	1,217	4,651
November ... ..	630	111	4,190	1,423	6,354
December ... ..	393	66	2,753	1,316	4,528
Totals ... ..	5,298	1,584	33,682	17,372	57,886

The number of articles destroyed at the various apparatus during the year amounted to 708, compensation being paid in conformity with the provisions of the Public Health Act.

DATE. 1907.	Number of Beds.	Number of Mattresses.	Number of Pieces of Bedding.	No. of Pieces of Wearing Apparel.	Total Number of Articles.
January ... ..	9	14	11	—	34
February ... ..	13	22	14	—	49
March ... ..	6	24	—	—	30
April ... ..	11	16	11	—	38
May ... ..	11	33	18	7	69
June ... ..	21	37	10	—	68
July ... ..	11	34	13	—	58
August ... ..	17	34	38	—	93
September ... ..	18	38	29	5	86
October ... ..	20	21	27	1	69
November ... ..	18	18	20	1	67
December ... ..	12	7	27	1	47
Totals ... ..	167	298	228	15	708



PRINCE'S DOCK MORTUARY.

The Mortuary at the Prince's Dock is for the reception of the bodies of persons who have been drowned, killed, &c., and upon which the Coroner desires to hold inquests. Bodies are taken to this Mortuary by the police, and when it may be necessary to make post-mortem examinations, any medical gentleman may have the assistance of an inspector on sending a communication to the Ambulance Superintendent, 54, Gascoyne Street.

BODIES REMOVED TO THE PRINCE'S DOCK MORTUARY.		
Number from River.	Number from City.	Total.
19	250	269

FORD STREET MORTUARY AND DISTRICT MORTUARIES.

BODIES REMOVED TO MORTUARIES.						
Green Lane.	Lark Lane.	Wavertree.	Ford Street.	Park Hill.	Smithdown Road.	TOTAL.
—	2	—	194	—	—	196

The Mortuary in Ford Street is provided for the reception of bodies, which cannot be kept at the homes in which death had taken place, without injury to the health of the inmates. The address of the caretaker is 6, Pickering Street.

The District Mortuaries, it will be seen, are seldom used. For the convenience of juries, as well as for other reasons, it is preferable that bodies should be conveyed to the Central Mortuaries.

The method of transport of the bodies of persons killed, or found dead in the street, has been more adequately provided for.

Two alternative plans suggested themselves, one being that a hearse should be provided by the Health Committee, to be kept at some suitable dépôt where it could be obtained upon receipt of a telephone message from the Police; the other, and better arrangement, was to authorise the Head Constable to make arrangements with certain firms of undertakers in suitable parts of the City, to supply a hearse on short notice, together with a shell coffin, for these purposes.

This latter plan is expeditious, inasmuch as shorter distances have to be travelled by the hearse to the place where the body is lying; it is working well.

An application was received from Mr. Augustine Watts, Solicitor, on behalf of the Roman Catholic Bishop, in reference to the Collingwood Street Mortuary Chapel. The use of the establishment has declined very considerably owing to various reasons, and the chief use of the mortuary during the last six years has been as a place of deposit for a few still-born infants and children below seven years of age. Consequently the main use of the building appears to have been for the purposes of a chapel, for which it is well adapted.

A proposal was put forward to adapt a detached part of the building for the purposes of a mortuary, and continue the use of the rest of the building as a place of worship.

Mr. Augustine Watts, in his memorandum, stated that if later, owing to changed circumstances, the proposed accommodation is deemed inadequate, the trustees would, at the request of the Health Authorities, increase the accommodation or even revert to the original mortuary.

After carefully considering the question, the Health Committee were unanimously of opinion that the request might reasonably be complied with.

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PROCEEDINGS UNDER THE DISEASES OF ANIMALS ACTS, 1894 TO 1903.

The duties of the Inspectors under the Diseases of Animals Acts, 1894 to 1903, are to visit cattle steamers, both foreign and cross-Channel, for the purpose of seeing that the provisions of the Foreign Animals Order, 1895, and the Animals (Transit and General) Amendment Order, 1904, are carried out.

Cattle steamers are examined as to fittings, ventilation, &c., and supervision is exercised in regard to cleansing and disinfection after animals are landed. Overcrowding or injury to animals is reported.

The Animals (Transit and General) Order compels the master of the vessel to slaughter all seriously-injured animals forthwith. Such animals are slaughtered on board the vessel, and the carcasses removed to the abattoirs.

Cattle trucks and horse boxes are examined at railway stations, as to fittings, cleansing and disinfection, and the railway pens supervised.

Lairages and sale yards are visited to ascertain if they are cleansed and disinfected in accordance with the regulations of the City Council.

The Diseases of Animals Act relates in the main to certain diseases communicable amongst cattle, sheep and swine, and provides for the separation of diseased animals from healthy ones, for the disinfection and cleansing of vessels, trucks, &c., in which animals have been carried, and it defines the action to be taken to limit and prevent the extension of disease. It also deals with certain forms of disease communicable by animals to man.

The Board of Agriculture, under the powers of this Act, issue orders from time to time dealing with diseases of animals, or with their protection during transit. The Board also prescribes the manner under which animals may be imported or moved from place to place.

The Swine Fever Order, 1901, makes provision for the cleansing and disinfection of pig dealers' premises, and vehicles used by pig dealers, for the conveyance of swine from steamers through the City to pig dealers' premises.

The Swine Fever (Movement from Ireland) Order, 1904, provides that all pigs coming from Ireland must be marked on the loins with a red +, and must be accompanied by a license. These pigs must only be moved for the purpose of slaughter.

The Sheep Dipping (North of England) Order, which came into force on April 9th, 1906, provides that all sheep within the prescribed area, which includes Liverpool, shall be dipped twice during the year.

The accompanying table gives the statistics of the proceedings taken under the Acts or under the Orders of the Board of Agriculture:—

	<u>1906.</u>	<u>1907.</u>
Number of Visits to Railway Stations, including inspections made on Sundays ... ..	2,993	3,144
„ Inspections of Pens ... ..	104,158	107,447
„ found clean ... ..	74,388	76,823
„ „ dirty and cleansed before being used...	29,770	30,624
„ Inspections of Trucks... ..	47,366	48,809
„ found clean ... ..	40,642	42,710
„ „ dirty and cleansed before being used...	6,724	6,037
„ „ leaving the City before being cleansed,	—	62
„ Inspections of Horse Boxes ... ..	290	447
„ found clean ... ..	106	189
„ „ dirty and cleansed before being used	182	239
„ „ „ not „ „ „ „	2	19
„ Inspections of Vessels ... ..	8,406	8,712
„ found clean ... ..	3,482	3,754
„ „ dirty and cleansed before being used	4,853	4,873
„ „ going to Sea before being cleansed,		
without cattle or cargo ... ..	71	85
„ Inspections of Gangways ... ..	9,166	9,060
„ found clean ... ..	7,932	7,453
„ „ dirty and cleansed before being used...	1,234	1,607
„ Inspections of Lairage and Sale Yards	5,688	5,655
„ found clean ... ..	3,430	3,474
„ „ dirty and cleansed before being used...	2,258	2,181
„ Carts used to convey Pigs, inspected ...	2,412	2,468
„ found clean ... ..	2,002	2,069
„ dirty and cleansed before being used..	410	399
„ of visits to Manure yards and wharves ...	516	477

An information was laid under the Animals (Transit and General) Order for carrying 17 shorn sheep on the upper deck of a ship, between 30th November, 1906, and 13th April, 1907. A fine of £5 and costs was inflicted.

<u>INSPECTION OF SLAUGHTER-HOUSES, &amp;c.</u>	<u>1906.</u>	<u>1907.</u>
Number of Visits to Slaughter-houses made by Meat Inspectors ... ..	7,121	7,306
Number of Visits to Butchers' Shops made by Meat Inspectors ... ..	66,081	63,852
Number of Visits to Fish and Fruit Shops made by Fish Inspectors ... ..	59,087	59,415
Number of Visits to Fruit Shops made by Fruit Inspector ... ..	18,192	18,993



FISH PLATFORMS.

	<u>1906.</u>	<u>1907.</u>
Number of Visits made by District Sanitary Inspectors...	23	20

POULTRY DEPOTS.

Number of Visits made by District Sanitary Inspectors...	565	444
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RETURNS OF ANIMALS KILLED IN THE CITY SLAUGHTER-HOUSES,  
AND OF MEAT IMPORTED FOR SALE.

The number of fat cattle from local dairies slaughtered in the City during 1907 was 1,548.

The small number of cattle slaughtered in the City is probably due to the importation of States cattle, and also to the importation of frozen meat chiefly from the River Plate district.

There is a slight increase in the number of sheep slaughtered, and a large increase in the number imported, as compared with the year 1906.

With regard to pigs, it will be noticed that there is a large increase in the number killed in the City, and a decrease in the number imported.

STREET.	Beasts.	Sheep.	Lambs.	Calves.	Pigs.	Dead Meat Imported for Sale.			
						Beasts.	Sheep.	Pigs.	Calves.
Abattoir.	4334	173486	—	17553	44009	52808	331601	31582	1197
Allerton Road, Wavertree ...	577	4817	1	52	152	...	...	...	...
Back Butler Street ...	243	934	235	10	...	...	...	...	...
Back Castle Street ...	281	14	...	1720	...	...	...	...	...
Back Commutation Row.....	...	...	...	...	...	...	...	...	...
Back Mount Vernon Green...	258	2160	389	5	...	...	...	...	...
Bevington Hill ...	689	179	1	208	...	...	...	...	...
Copperas Hill.....	...	...	...	...	5799	...	...	...	...
Corlett Street ...	...	2490	668	...	...	...	...	...	...
Cotter Street ...	...	...	...	...	...	...	...	...	...
Carried forward ...	2048	10594	1294	1995	5951	52808	331601	31582	1197

RETURNS OF ANIMALS KILLED IN THE CITY SLAUGHTER HOUSES  
AND OF MEAT IMPORTED FOR SALE—Continued.

STREET.	Beasts.	Sheep.	Lambs.	Calves.	Pigs.	Dead Meat Imported for Sale.			
						Beasts.	Sheep.	Pigs.	Calves.
Brought forward ...	2048	10594	1294	1995	5951	52808	331601	31582	1197
Derby Lane, Old Swan.....	...	605	226	...	...	...	...	...	...
Edgware Street .....	124	371	260	...	...	...	...	...	...
Foley Street ... ..	...	...	...	...	6296	...	...	...	...
Frederick Street.....	37	2384	277	18	411	...	...	...	...
101, High Street, Wavertree..	70	360	40	1	6	...	...	...	...
105, High Street, Wavertree.	14	215	1	8	16	...	...	...	..
Norman Street .....	...	...	...	...	1807	...	...	...	..
Peel Street ... ..	13	953	211	...	21	...	...	...	..
Prescot Road, Knotty Ash ...	4	728	156	24	33	...	...	...	...
Sandown Lane, Wavertree ...	42	617	458	...	...	...	...	...	...
Sidwell Street, Garston .....	163	93	...	12	165	...	...	...	...
Soho Street.....	...	...	...	...	2757	...	...	...	...
St. Mary's Road, Garston ...	4	43	...	...	9	...	...	...	...
Upper Milk Street.....	...	...	...	...	6374	...	...	...	...
West Derby Road, Tue Brook	112	1405	395	17	201	...	...	...	...
Total in Private Slaughter-houses .....	2631	18368	3318	2075	24047	...	...	...	...
Total in the City .....	6965	191854	3318	19628	68056	52808	331601	31582	1197

PRECEDING YEAR.

Total in Private Slaughter-houses .....	2545	16616	4837	1930	22249	1	...	7	1
Total in the City .....	6228	188636	4837	18410	58294	57780	320486	34063	1057



## UNWHOLESOME MEAT, FISH, FRUIT, &amp;c., SEIZED AND DESTROYED.

DATE.—1907.		Beef.	Veal.	Mutton and Lamb.	Pork.	Poultry.	Rabbits and Hares.	Fish.	Shell fish.	Fruit.	Miscellaneous.
		Lbs.	Lbs.	Lbs.	Lbs.	Head	Head	Lbs.	Bags	Lbs.	
MARKETS.	St. John's .....	6981	50	560	230	2179	436	83891	89	288	90 lbs. Venison. 200 Oysters.
	St. Martin's .....	42	...	...	...	...	...	...	...	...	...
	North Haymarket ...	...	...	...	...	...	32	...	...	34200	...
SLAUGHTER-HOUSES.	Abattoir.....	154680	7744	19237	19628	19	24	...	...	...	...
	Allerton Road .....	143	...	...	...	...	...	...	...	...	...
	Back Butler Street ...	1826	...	...	...	...	...	...	...	...	...
	Back Castle Street ...	28319	1812	323	...	...	...	...	...	...	...
	Bevington Hill .....	25886	738	49	...	...	...	...	...	...	...
	Copperas Hill .....	...	...	...	2927	...	...	...	...	...	...
	Foley Street .....	...	...	...	528	...	...	...	...	...	...
	Norman Street .....	...	...	...	163	...	...	...	...	...	...
	Peel Street.....	25	...	...	...	...	...	...	...	...	...
	Prescot Road, K.A. ...	30	...	...	...	...	...	...	...	...	...
	Sidwell St., Garston..	1495	...	...	168	...	...	...	...	...	...
	Soho Street .....	...	...	...	406	...	...	...	...	...	...
	Banastre Street .....	952	...	...	...	...	...	...	...	...	...
	(Cold Storage)										
	Bronte Street .....	1229	...	...	...	...	...	...	...	...	...
	Brownlow Hill .....	4	...	...	...	...	...	...	...	...	...
	Brunswick Place .....	1465	...	...	...	...	...	...	...	...	...
	Canada Dock.....	13811	...	...	...	...	...	...	...	...	...
	Candia Street .....	...	...	...	...	5	...	...	...	...	...
	Cazneau Street .....	...	...	...	...	...	75	...	...	...	...
Carried forward...		236888	10344	20169	24050	2203	567	83891	89	34488	90 lbs. Venison, 200 Oysters.

UNWHOLESOME MEAT, FISH, FRUIT, &c., SEIZED AND DESTROYED.—*Contd.*

DATE.—1907.	Beef.	Veal.	Mutton and Lamb.	Pork.	Poultry.	Rabbits and Hares.	Fish.	Shell-Fish.	Fruit.	Miscellaneous.
	Lbs.	Lbs.	Lbs.	Lbs.	Head	Head	Lbs.	Bags	Lbs.	
Brought forward...	236888	10344	20169	24050	2203	567	88891	89	34488	90 lbs. Venison. 200 Oysters.
Church Street.....	...	...	...	...	...	...	140	...	...	...
Cleveland Square .....	600	...	...	...	...	...	...	...	...	...
Crown Street .....	...	...	...	19	...	...	...	...	...	...
Cumberland Street .....	...	...	...	...	...	...	...	...	11848	...
Currie Street .....	...	...	10	...	...	...	...	...	...	...
Daulby Street .....	1368	...	...	24	...	...	...	...	...	...
Edge Hill Station .....	32	...	112	2312	...	...	60	4	4106	...
Elliot Street .....	40	...	...	...	...	...	...	...	...	...
Falkner Street .....	187	...	...	10	...	...	...	...	...	...
Frederick Street.....	...	...	...	450	...	...	...	...	...	...
Fox Street .....	15	...	60	16	...	...	...	...	...	...
Gill Street .....	384	...	...	...	...	...	...	...	...	...
Gt. Charlotte Street .....	33300	...	...	1800	...	...	7540	...	10442	...
Gt. George Place .....	140	...	...	...	...	...	...	...	...	...
Gt. Homer Street .....	1335	...	629	324	...	...	...	...	...	...
Gt. Howard Street.....	660	...	...	...	...	...	...	...	...	...
Gt. Nelson Street .....	...	...	...	...	...	...	...	...	2220	...
Kensington .....	...	...	...	2	...	...	...	...	...	...
King Street .....	...	...	...	...	...	...	448	...	...	...
Kirkdale Road.....	27	...	...	...	...	...	...	...	...	...
Lime Street Station .....	...	...	...	112	...	...	2540	...	...	...
Carried forward...	274976	10344	20980	29119	2203	567	94619	93	63104	90 lbs. Venison. 200 Oysters.



UNWHOLESOME MEAT, FISH, FRUIT, &c., SEIZED AND DESTROYED.—*Contd.*

DATE.—1907.	Beef.	Veal.	Mutton and Lamb.	Pork.	Poultry.	Rabbits and Hares.	Fish.	Shell-Fish.	Fruit.	Miscellaneous.
	Lbs.	Lbs.	Lbs.	Lbs.	Head	Head	Lbs.	Bags.	Lbs.	
Brought forward...	274976	10344	20980	29119	2203	567	94619	93	63104	90 lbs. Venison. 200 Oysters.
Mill Street .....	41	...	...	...	...	...	...	...	...	...
Moor Place .....	...	...	...	39	...	...	...	...	...	...
North John Street .....	1600	...	...	114	...	...	...	...	...	...
Paddington .....	66	...	...	15	...	...	...	...	...	...
Park Road .....	5	...	...	19	...	...	...	...	...	...
Park Street .....	100	...	...	...	...	...	...	...	...	...
Pitt Street .....	118	...	158	...	336	...	3360	...	...	...
Prescot Street.....	...	...	...	11	...	...	...	...	...	...
Prince Edwin Street.....	...	...	36	...	...	...	...	...	...	...
Queen Square .....	...	...	...	...	13	...	...	...	33856	...
Queen's Dock .....	...	...	...	53780	...	...	...	...	...	...
Rainford Gardens .....	...	...	...	...	...	...	...	...	600	...
Ranelagh Street .....	...	...	44	...	...	...	200	...	12	...
Regent Road .....	590	96	1050	...	...	...	...	...	...	...
(Cold Storage)										
Richmond Row .....	...	...	...	...	...	...	...	...	...	286 lbs. Cheese 1,500 Oysters
Roe Street .....	...	...	...	...	280	...	3732	...	...	1,200 Eggs
Rose Street .....	...	...	...	...	204	904	24688	...	...	2,000 Oysters
Russell Street .....	298	...	...	...	...	...	...	...	...	...
St. James Street.....	17	...	...	...	...	...	...	...	...	...
Scotland Road .....	1735	...	330	...	...	...	...	...	...	...
Soho Street .....	6	...	...	...	...	...	...	...	...	...
Springfield Street .....	50	...	...	...	...	...	...	...	...	...
Stanley Street .....	...	...	...	...	...	...	...	...	132362	...
Carried forward...	279602	10440	22598	83097	3036	1471	126599	93	229934	90 lbs. Venison. 3,700 Oysters. 1,200 Eggs. 286 lbs. Cheese.

UNWHOLESOME MEAT, FISH, FRUIT, &c., SEIZED AND DESTROYED.—*Contd.*

DATE.—1907.	Beef.	Veal.	Mutton and Lamb.	Pork.	Poultry.	Rabbits and Hares.	Fish.	Shell-Fish.	Fruit.	Miscellaneous.
	Lbs.	Lbs.	Lbs.	Lbs.	Head	Head	Lbs.	Bags.	Lbs.	
Brought forward...	279602	10440	22598	83097	3036	1471	126599	93	229934	90 lbs. Venison. 3,700 Oysters. 1,290 Eggs. 280 lbs. Cheese.
Strand Street .....	1600	...	...	...	...	...	...	...	...	...
Temple Court .....	...	...	...	...	...	...	...	...	31456	...
Trowbridge Street .....	757	...	76	1798	...	...	...	...	...	...
Tryon Street .....	...	...	...	...	...	...	...	...	400	...
Upper Milk Street.....	...	...	...	220	...	...	...	...	...	...
Upper Pitt Street .....	...	...	...	102	...	...	...	...	...	...
Vernon Street .....	...	...	...	...	...	...	...	...	6170	...
Victoria Street .....	...	...	375	5660	3	...	302	...	21476	...
Wapping .....	...	...	...	...	...	...	...	...	2850	...
West Derby Road .....	...	...	25	254	...	...	...	...	...	...
William Henry Street ...	9	...	...	...	...	...	...	...	...	...
Window Lane.....	1514	...	...	8	...	...	...	...	...	...
Total .....	283482	10440	23074	91139	3039	1471	126901	93	292286	90 lbs. Venison. 3,700 Oysters. 1,290 Eggs. 280 lbs. Cheese.

Much of the fruit-sorting is carried on at the Cazneau Street Market, as it is more convenient that it should be done here than elsewhere. Considerable care, however, is necessary to prevent children making off with the putrescent fruit which in the process of sorting has been thrown into the receptacles intended for it.

The nuisance has been dealt with by the Market constables and the staff of the Health Committee, but great strictness is necessary in excluding the little children in question from the Market.



The total amount of Meat, Fish and Fruit, &c., found to be unfit for human food is equivalent to—

			Tons.	Cwts.	Qrs.	Lbs.
Meat	..	...	182	4	3	13
Fish	...	...	56	13	0	5
Fruit	...	...	130	9	2	22

and this does not include Fish removed as refuse by Officers of the Cleansing and Scavenging Department under the City Engineer.

The great bulk of this material was not exposed for sale, and did not require a Justices' order for its destruction.

The quantity of fish seized includes both fresh fish and salt fish which had become tainted during transit or storage, a regrettable waste of food.

Fish and fruit unfit for human food are removed by the Corporation carts to the Manure Wharf, and there mixed with stable and other light refuse and sold for agricultural purposes. The Wharf is situated on the canal bank, and the manure is loaded into canal boats for conveyance to its destination. The whole of the operation is supervised by officers of the Health Committee.

#### EXPORT OF HAMS TO ARGENTINA.

Towards the close of last year it was announced that the Government of Argentina proposed to establish a rigid system of inspection of all hams imported into that country. Exporters in this country regarded this decision with some apprehension, as likely to interfere with the importation into Argentina of hams and bacon prepared in this country.

A form of certificate however was devised which met the requirements of the Consul General for Argentina, and received the approval of this Government. This form of certificate has been signed by the Medical Officer, and has tended so far to remove the apprehended difficulty by giving an assurance of the excellence of the materials and the fitness of the premises on which they are prepared.

The Local Government Board have now made the following Regulations with regard to the matter :—

In view of the Regulations issued on the 4th October, 1906, by the Argentine Government with regard to the sanitary inspection of meat foods, the Local Government Board, at the request of the Foreign Office, have formulated the following conditions to be complied with by traders in England and Wales who prepare or pack meat foods for export to Argentina and who desire that such exportations should be accompanied by an official attestation of precautions taken to safeguard the wholesomeness of the foods in question:—

(A.)—*Requirements to be fulfilled by persons manufacturing or packing meat products.*

Such persons should make application to the Board\* for approval or designation of an officer to act as certifying officer for the purpose in question until the Board shall otherwise determine. Such application should state:—

1. Name and address of firm; situation of trade premises concerned, and sanitary district in which these premises are comprised.
2. Nature of meat foods habitually exported or proposed to be exported.
3. How the firm is interested, *i.e.*, whether as manufacturers of the foods, or as packers for export to Argentina, or both, together with any details necessary to explain how the export to Argentina of the meat foods with which the firm is concerned takes place, and where the foods in question have been prepared.
4. Whether application has already been made to any, and if so what, Medical Officer of Health for a certificate regarding the premises in question; whether any such certificate has been given or refused by him; and whether any certificate regarding meat foods despatched to Argentina has been given by any officer of the local authority or other person who is not the Medical Officer of Health of the district.

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\* Applications in respect of trade premises situated in Scotland or Ireland should be made to the Local Government Board of Scotland or Ireland, as the case may be.



5. That the applicant undertakes that he will give all necessary facilities to the certifying officer or his representatives, or to any officer of the Board, in the matter of access, inspection, sampling, and like matters, and that he will not withhold any information which the certifying officer may require in connection with the issue of certificates. This undertaking is required notwithstanding that the certifying officer, if he is Medical Officer of Health of the district, is already in the possession of statutory powers under the Public Health Act, 1875, or other Acts, in relation to inspection of premises and seizure of unsound food.

(B.)—*Conditions to be observed by certifying officers.*

The Medical Officer of Health of the district or other certifying officer designated by the Board is required to keep himself informed, by personal inquiry and in other available ways as to:—

1. Structure and character of premises on which the meat foods are prepared, stored, or packed (as the case may be) in regard to opportunities of objectionable or unwholesome contamination of these foods, at any stage of their preparation, storage, or packing.
2. Cleanliness and wholesomeness of methods employed in preparing, storing, or packing the meat foods in question.
3. Precautions taken to avoid the utilisation for food purposes of diseased, unsound, or unwholesome meat in any portion of the premises; and arrangements safely to dispose of any meat which, on account of disease, unsoundness, unwholesomeness, or for any other reason, is unfit for human food.

If the information obtained by the certifying officer in regard to (1), (2) and (3) above is not in his view satisfactory, certification is to be withheld.

Information is forthwith to be given to the Board by the certifying officer in any instance where he has refused to grant a certificate.

The certifying officer will, as and when requested by the Board, give such information as may be required by them in regard to the methods of inquiry, inspection, and certification which have been adopted in regard to the premises in question.

## (C.)—Forms.

Forms of declarations to be used by manufacturers and exporters, and forms of certificates to be given by the authorised certifying officers are appended.

## (D.)—Discontinuance of Certification.

If the Board have reason to believe that improper use is being made at any time of any declaration, or of any certificate given by a certifying officer respecting any premises, the Board will cease to authorise the issue of official certificates in respect of such premises.

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APPENDIX.

FORMS OF DECLARATIONS TO BE USED BY MANUFACTURERS AND EXPORTERS, AND OF CERTIFICATES TO BE GIVEN BY THE AUTHORISED CERTIFYING OFFICERS, IN CONNEXION WITH THE EXPORT OF MEAT FOODS TO ARGENTINA.

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(A.) FORMS OF DECLARATION AND CERTIFICATE TO BE USED WHERE THE MEAT FOODS ARE PREPARED, STORED, AND PACKED ON, AND DISPATCHED FOR EXPORT FROM, ONE AND THE SAME PREMISES.

(1.) DECLARATION by.....manufacturer of meat foods  
in the.....{ district.  
          borough.

I (or we).....hereby declare that the whole  
of the meat foods as follows:\*

\* Specify  
articles.

.....  
packed in cases marked†.....  
and shipped per .....have been prepared, stored, and

† Insert  
marks. &c.

packed on, and dispatched from, the premises‡.....

‡ Insert  
address.

(Signed).....

Date.....



(2.) CERTIFICATE by.....a person designated by the Local Government Board as Certifying Officer in connexion with the export of meat foods to Argentina.

I hereby certify that the establishment†.....  
situate in the..... { district } , and referred to in the  
  { borough }, and referred to in the  
foregoing declaration, has been and remains under the system of sanitary  
supervision prescribed by the Memorandum of the Local Government  
Board on Argentine Meat Food Certification.

(Signed).....

Date.....

N.B.—The date in the certificate should in all cases be filled up by the Certifying Officer.

(B.) FORMS OF DECLARATION AND CERTIFICATES TO BE USED WHERE THE MEAT FOODS ARE STORED AND PACKED ON, OR DISPATCHED FOR EXPORT FROM, PREMISES OTHER THAN THOSE ON WHICH THEY ARE PREPARED.

(1.) CERTIFICATE by.....a person designated by the Local Government Board as Certifying Officer in connexion with the export of meat foods to Argentina.

I hereby certify that the establishment\*.....  
situate in the ..... { district } , has been and remains  
under the system of sanitary supervision prescribed by the Memorandum  
of the Local Government Board on Argentine Food Certification.

\* Insert address of the establishment in which the meat foods have been prepared.

\* Insert address of the establishment in which the meat foods have been prepared.

(Signed).....

Date.....

† Insert  
address of  
premises on  
which the  
goods have  
been stored,  
packed, or  
dispatched  
for export.

‡ Specify  
articles.

§ Insert  
marks, &c.

(2.) DECLARATION by.....occupiers of the  
premises†.....in the ..... borough.

I (or we) .....hereby declare that  
the‡.....packed in cases

marked§.....and shipped per.....

have all been prepared at the establishment\*.....

referred to in the foregoing Certificate (1), and that they have been

stored and packed on, dispatched for export from, the premises†.....

(Signed).....

Date.....

(3.) CERTIFICATE by.....a person designated by  
the Local Government Board as Certifying Officer in connexion with the  
export of meat foods to Argentina.

I hereby certify that the premises†.....  
situated in the ..... { district }  
borough } , and referred to in the  
foregoing Declaration (2), have been and remain under the system of  
sanitary supervision prescribed by the Memorandum of the Local Govern-  
ment Board on Argentine Meat Food Certification.

(Signed).....

Date.....

N.B.—The date in the certificate should in all cases be filled up by  
the Certifying Officer.





## GLANDERS AND FARCY.

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The Health Committee have made regulations under the Diseases of Animals Act and the Glanders and Farcy Order of 1896 which have been circulated amongst the horse-owners in the city. Accompanying these regulations were notices indicating the means of combating the disease and the necessary precautions to be taken.

The following table indicates the number of affected animals during the last three years :—

Year.					No. of Cases.
1905	...	...	...	...	2
1906	...	...	...	...	2
1907	...	...	...	...	1

Immediate notification of actual or suspected cases of Glanders is received either from the owner, police, or the Veterinary Surgeon who may be called in to the case, or from the Horse Slaughterer's yard (there is only one in the city).

Horses imported from the North American Continent are submitted to Veterinary examination.

In 1907, 84 horses were inspected by the Veterinary Surgeons of the Corporation at various yards throughout the city, but chiefly at the American Horse Repositories, Stanley.

In addition to the above, 147 imported horses were examined, in the first instance immediately upon arrival at the various yards in the city (some of these horses were landed outside the boundary and brought into the city by rail), and again re-examined at the sale-yards on the morning of sale. In addition, about 5,000 horses were examined at sale-yards.

There was no evidence of contagious disease in any of the imported horses, and their condition on the whole was very good.



In further reference to Glanders and Farcy, it may be mentioned that the Veterinary Superintendent has caused the lungs of all horses sent to the Knacker's yard to be submitted to examination, and he is able to report that no case of contagious disease has been found to exist.

This precaution is taken to ensure owners being immediately notified of the existence of the disease, which may be in a latent state, and also to protect the public from unscrupulous persons who may not conform to the requirements of the act.

Lungs Examined.	Glandered.	Not Affected.
1,799	—	1,799

#### EXAMINATION OF CATTLE AND SHEEP.

At the Liverpool Cattle Market during 1907, the following numbers of animals were inspected by Veterinary Surgeons of the Corporation :—

Cattle	...	...	...	...	...	58,792
Sheep	...	...	...	...	...	345,556
Calves	...	...	...	...	...	34

No cases of infectious disease were found.

#### LIVERPOOL PARASITIC MANGE ORDER, 1906.

Under this Order Veterinary examinations are made of all animals suspected of being affected with Parasitic Mange, and in the case of affected animals they are immediately isolated and kept under observation until the disease has entirely disappeared. Thorough disinfection of the premises, harness, utensils, feeding troughs, &c., is carried out under the supervision of Inspectors of the Medical Officer of Health.

The following table gives the number of examinations made and animals affected, &c. :—

Number of Animals and Carcases examined.	Affected.	Died or Slaughtered.	Recovered.
473	82	53	29

#### ANTHRAX.

There were four cases of anthrax in animals reported during the year. In three of the cases the carcases were found in shippens, and one at the Abattoir, Trowbridge Street.

A portion of the carcase was in each case submitted to Professor Boyce, who certified that the animals from which they were taken were affected with anthrax.

The shippens where cases occurred were immediately cleansed and disinfected, all the manure burned, and samples of foodstuffs were in each case submitted for bacteriological examination, with the result that no Anthrax bacilli were found present.

Date. 1907.	Total number of Animals on premises where disease occurred.	Died.	Killed by order of owner.	Locality.	Remarks.
April 24th	10	1	1	Vickers Street ... ..	Fined £5 and costs for removing carcase to Abattoir without giving notice, second cow died 3rd May.
Sept. 30th	9	1	—	Beaufort Street	
Nov. 20th	20	1	—	Tetlow Street	

Details of previous cases of Anthrax appear in the Annual Report of 1906.



SWINE FEVER ORDER.

With a view to facilitate the trade in the import of pigs from Ireland, and in order to fulfil the obligations of the Board of Agriculture, certain premises have been scheduled by the Health Committee to which pigs may be licensed, viz. :—

Stanley Cattle Market; pens at South end of the East side of the Nelson Dock; pens at East side of the Collingwood Dock; pens at South-west side of the Collingwood Dock; pens at South end of Prince's Pierhead.

The exigencies of the import trade appear to be met by this arrangement, the pigs being re-licensed after sorting at the places named. Objection to the arrangement was raised on the grounds that these premises were used for market purposes. An investigation was made into the matter, but it was found desirable, on the whole, that the arrangement should continue.

PIGGERIES.

There were 16 applications to keep pigs during the year; 14 of such applications, involving 121 pigs, were granted. Three hundred and sixty-six visits were paid to piggeries during the year.

RABIES.

In conformity with the requirements of the Board of Agriculture, reports were sent to the Board in respect of five suspected cases of rabies. Bacteriological examination was made in all the cases, and *post mortem* examinations were made by the Veterinary Inspectors. There were no signs that any of the animals had been affected with rabies. One live dog, reported by the Police Authorities to the Board of Agriculture as being a suspected case of rabies, was examined on 17th and 18th April by the Veterinary Inspector, who certified that the animal was not affected with rabies.

## DAIRIES, COWSHEDS AND MILKSHOPS

There is no change in the method of procedure respecting the licensing of cowsheds and the registration of dairies, milkshops and milkstores.

STATISTICS RESPECTING COWSHEDS.

	1907.
Number of applications to keep cows on premises not previously licensed ... ..	11
„ „ granted ... ..	8
„ cows applied for on above applications ... ..	168
„ granted ... ..	146
„ applications in abeyance pending alterations ... ..	1
„ „ refused ... ..	2
„ „ for transfer to fresh tenants of cowsheds previously licensed ... ..	41
„ „ granted ... ..	41
„ „ to keep more cows than the number for which the license was originally granted ... ..	39
„ „ granted ... ..	39
„ „ refused ... ..	—
„ additional cows applied for ... ..	63
„ „ granted ... ..	55
„ Cowsheds on the register 31st December, 1906 ... ..	466
„ „ „ „ „ 1907 ... ..	462
Number of cows licensed to be kept within the city area ... ..	6,734

The increased number of applications for additional Stock is due to licenses being granted to keep additional cows in place of horses removed from the cowsheds. During the past year the attempt has been continued to remove all horses which were kept in cowsheds. Forty-five horses have been so removed from thirty-eight cowsheds and licenses granted to keep forty-seven cows in their places.



COWSHED INSPECTION.

			<u>1906.</u>	<u>1907.</u>
Number of Inspections of Cowsheds	...	...	4,266	4,297
„ found Incorrect	...	...	*402	82
„ of Informations	..	...	7	8
„ Fined	...	...	4	7
„ Withdrawn	...	...	3	1
Amount of Fines and Costs	...	...	£6 17 6	£10 0 0

One hundred and fifty-nine notices have been issued to occupiers directing their attention to contraventions of the regulations.

Number of cowsheds in the city during the years 1898 to 1907 inclusive, together with the number of cows licensed to be kept, and the number of applications for new cowsheds:—

		Cowsheds.		Cows.		Applications.	
1898	...	435	...	5,695	...	13	
1899	...	434	...	5,851	..	2	
1900	...	437	...	5,905	...	5	
1901	...	443	...	5,909	.	6	
1902	...	442	...	6,068	...	16	Incorporation of Garston
1903	...	447	...	6,214	...	12	
1904	...	449	...	6,359	...	7	
1905	...	456	...	6,426	...	17	Incorporation of Fazakerley
1906	...	466	...	6,666	...	7	
1907	...	462	...	6,734	...	11	

\* The large number of Cowsheds found incorrect is due to visits made to various premises undergoing alterations in Fazakerley.

MILKSHOPS.

					<u>1907.</u>
Number of Applications for registration	...	...	...	...	134
of which transfers were	..	...	...	...	94
,, above Applications granted	...	...	...	...	129
,,       ,,       in abeyance	...	...	...	...	3
,,       ,,       refused	...	...	...	...	—
,,       ,,       withdrawn	..	...	...	...	2
Number of Milkshops on the register at the end of 1903	...	...	...	...	812
,,       ,,       ,,       ,,       1904	...	...	...	...	790
,,       ,,       ,,       ,,       1905	...	...	...	...	789
,,       ,,       ,,       ,,       1906	...	...	...	...	826
,,       ,,       ,,       ,,       1907	..	...	...	...	846

DAIRIES AND MILKSHOPS INSPECTION.

					<u>1906.</u>	<u>1907.</u>
Number of Inspections of Dairies and Milkshops					6,472	7,737
,, found incorrect	...	...	...	...	144	77
,, of Informations	...	...	...	...	13	15
,, Fined	...	...	...	...	12	14
,, Withdrawn	...	...	...	...	1	1
Amount of Fines and Costs	...	...			£20 16 0	£20 6 0

One hundred and twenty caution notices have been issued to occupiers of milkshops for contraventions of the Regulations.



LEAVELOOKERS' VISITS TO SHIPPONS FOR THE PURPOSE OF  
EXAMINING COWS.

No. of Visits.	No. of Examinations of Cows.	No. found Healthy.	No. found ill.	No. referred to the Veterinary Surgeon.
1,662	20,752	20,592	160	160

ICE CREAM MAKERS AND VENDORS.

The usual inspections have been made of the premises utilised by the street traders solely for manufacturing ice cream.

The dwellings which these street traders occupy have also been kept under observation, and in no instance during the past year have they been found to make or store ice cream in or about their dwellings.

A systematic inspection has also been made of shopkeepers' premises which are used for the manufacture and sale of ice cream.

					<u>1906.</u>	<u>1907.</u>
Number of premises under Inspection	...	...	...	...	827	786
„ visits made	...	...	...	...	2,298	2,395
„ caution notices issued	...	...	...	...	47	23
„ Informations	...	...	...	...	1	3
„ Fined	...	...	...	...	—	3
„ Withdrawn on payment of costs	...	...	...	...	1	—
Amount of Fines and Costs	...	...	...	...	£0 4 6	£2 8 6

## TUBERCULOSIS AND THE MILK SUPPLY.

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Early in 1907 the Second Interim Report of the Royal Commission on Tuberculosis was issued. Their conclusions are as follows, viz.:—

“There can be no doubt that in a certain number of cases the tuberculosis occurring in the human subject, especially in children, is the direct result of the introduction into the human body of the bacillus of bovine tuberculosis; and there also can be no doubt that in the majority at least of these cases the bacillus is introduced through cows' milk. Cows' milk containing bovine tubercle bacilli is clearly a cause of tuberculosis, and of fatal tuberculosis in man.

“A very considerable amount of disease and loss of life, especially among the young, must be attributed to the consumption of cows' milk containing tubercle bacilli. The presence of tubercle bacilli in cows' milk can be detected, though with some difficulty, if the proper means be adopted, and such milk ought never to be used as food. There is far less difficulty in recognising clinically that a cow is distinctly suffering from tuberculosis, in which case she may be yielding tuberculous milk. The milk coming from such a cow ought not to form part of human food, and indeed ought not to be used as food at all.

“Our results clearly point to the necessity of measures more stringent than those at present enforced being taken to prevent the sale or the consumption of such milk.”

These conclusions indicate very definitely the necessity for further legislation for the whole country upon the lines of the Liverpool Corporation Act of 1900.

The Liverpool and District Cowkeepers' Association have done very valuable work in improving the milk supply of the City.



LIVERPOOL CORPORATION ACT, 1900.

The number of actual or suspected cases of tuberculosis in cattle again shows a very considerable diminution on the previous year, thus bearing out the fact that by a thorough examination and constant supervision the ravages of this disease amongst cattle may be successfully combated.

The examination of cows and cowsheds within the city has been duly carried out throughout the year, and all cases of sickness amongst the cattle are reported by the Leave-lookers. In cases where the cows are reported to be suffering from any disease of the udder, or any other disease likely to be inimical to the public health, the Medical Officer of Health directs that the animal be submitted to Veterinary examination and reported upon. Should clinical symptoms of tuberculosis of the udder be in evidence, the cow is either removed from the shippoon for slaughter or kept strictly isolated pending a definite conclusion of the case, the milk, of course, being either thrown away or boiled and used only as food for swine.

The following is a table showing the number of visits which it was necessary for the Veterinary Inspectors to make to shippoons within the city boundary.

YEAR.	No. of Visits to Town Shippoons.	No. of Cases notified by Owners.	No notice given.	No. of Cows examined.	No. of Cows not affected.	No. of Cows Suspicious of Tuberculosis of the Udder.	No. of Convictions for Offences under the Act.
1901	40	—	—	59	32	27	—
1902	12	—	—	13	7	6	1
1903	61	27	34	121	97	24	7
1904	305	168	137	665	595	70	12
1905	239	176	63	298	241	57	1
1906	198	172	26	225	211	14	—
1907	188	137	51	238	235	3	—
Totals ..	1043	680	311	1619	1418	201	21

MILK SUPPLIED FROM OUTSIDE THE CITY BOUNDARIES.

Under the Liverpool Corporation Act, 1900, Inspectors systematically visit various places supplied with milk from the country, including the railway stations and hospitals, and there take samples. These samples are then submitted to bacteriological examination. Should they be found to contain tubercle bacilli (the germs of consumption), the Veterinary Superintendent or his Assistant, accompanied by the Medical Officer of Health or his representative, and furnished with an Order signed by a magistrate resident within the county from which the milk is consigned (as prescribed by the Act), visits the farm or dairy and examines the stock therein. The cowsheds from which the affected supplies have been derived are situated in the counties of Cheshire, Lancashire, Staffordshire and Shropshire, and in North Wales, the first named being the largest dairy district in the United Kingdom.

The country shippons generally are found to be much inferior (from a sanitary point of view) to those within the City of Liverpool, and although, owing to the passing of the Liverpool Act, they have been greatly improved, there are many which are in a most unsatisfactory condition. In a number of cases farmers have expressed their approval of the beneficial results of the inspections made by the Liverpool Authorities owing to the consequent improvements made in the premises by the landlords.

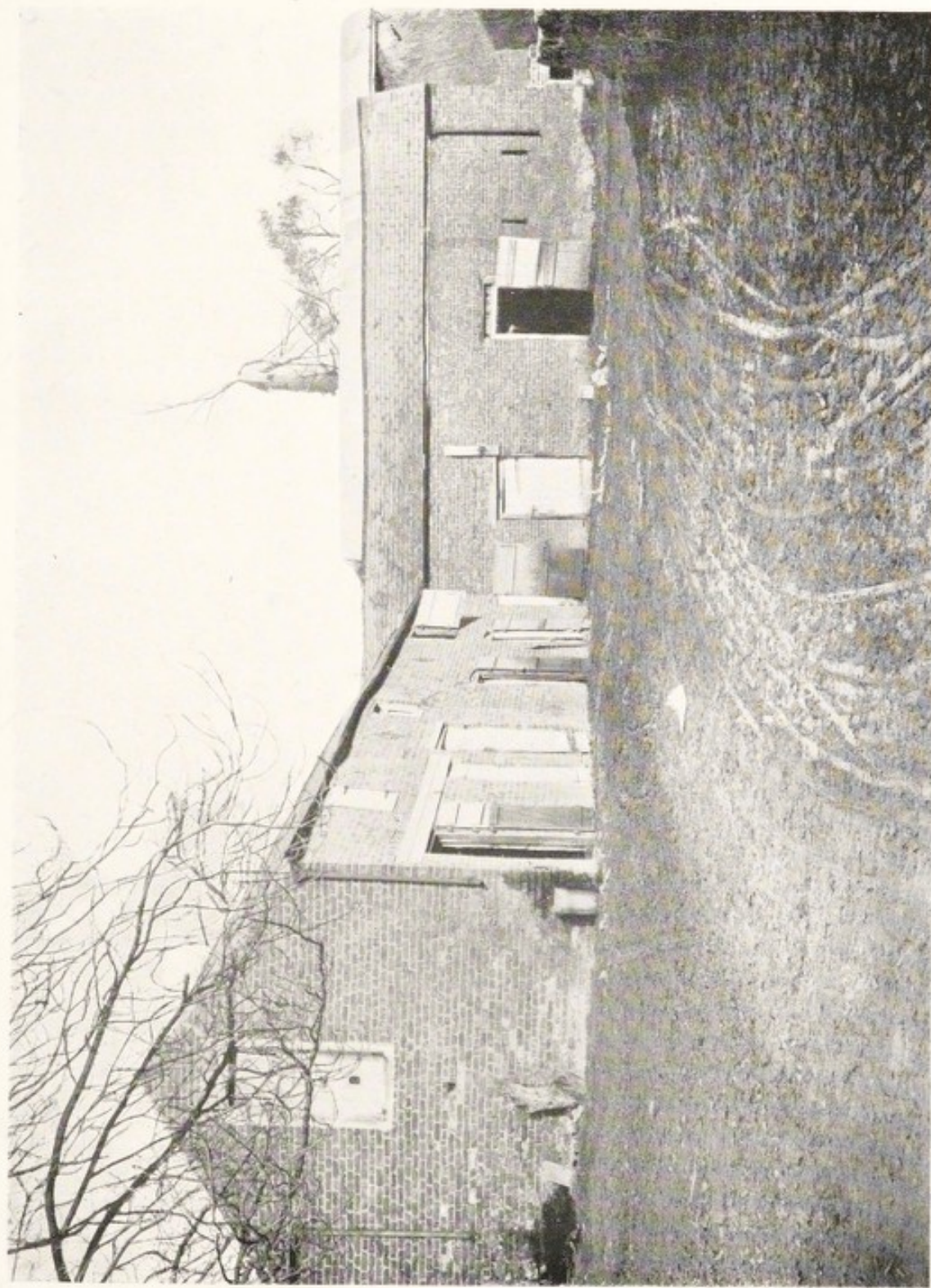
The cattle also are neither so good, nor are they kept in the same cleanly condition, as those of the city.

Another series of photographs are inserted illustrating a cowshed in the country from whence tubercular milk was sent to the city.

When tuberculosis of the udder is suspected the necessary proceedings are taken as prescribed by the act. They are similar in principle to those adopted within the city. Samples of milk are also taken from suspected animals, and submitted to a further bacteriological test to verify the diagnosis of the case. In the meantime the animals are isolated, and the milk dealt with as in the city.

It is not possible in all cases to find evidence of disease of the udder in the herd, the explanation usually being that the animals have been sold during the time which elapses between the taking of the sample in Liverpool and the visit of the Corporation officials to the farm.





General view of a Farm-yard in Denbighshire which includes shippon, stable, and food-house. The near approach to the farm-yard is unpaved; the yard immediately in front of the building consists of kidney stones, very much sunken in several parts. The open doors lead to the cowsheds, closed doors to stable and food-house.







Enlarged view of the same Cowsheds.







Enlarged views of the same Cowsheds shown on No. 1, the defective pavement being more clearly shown.



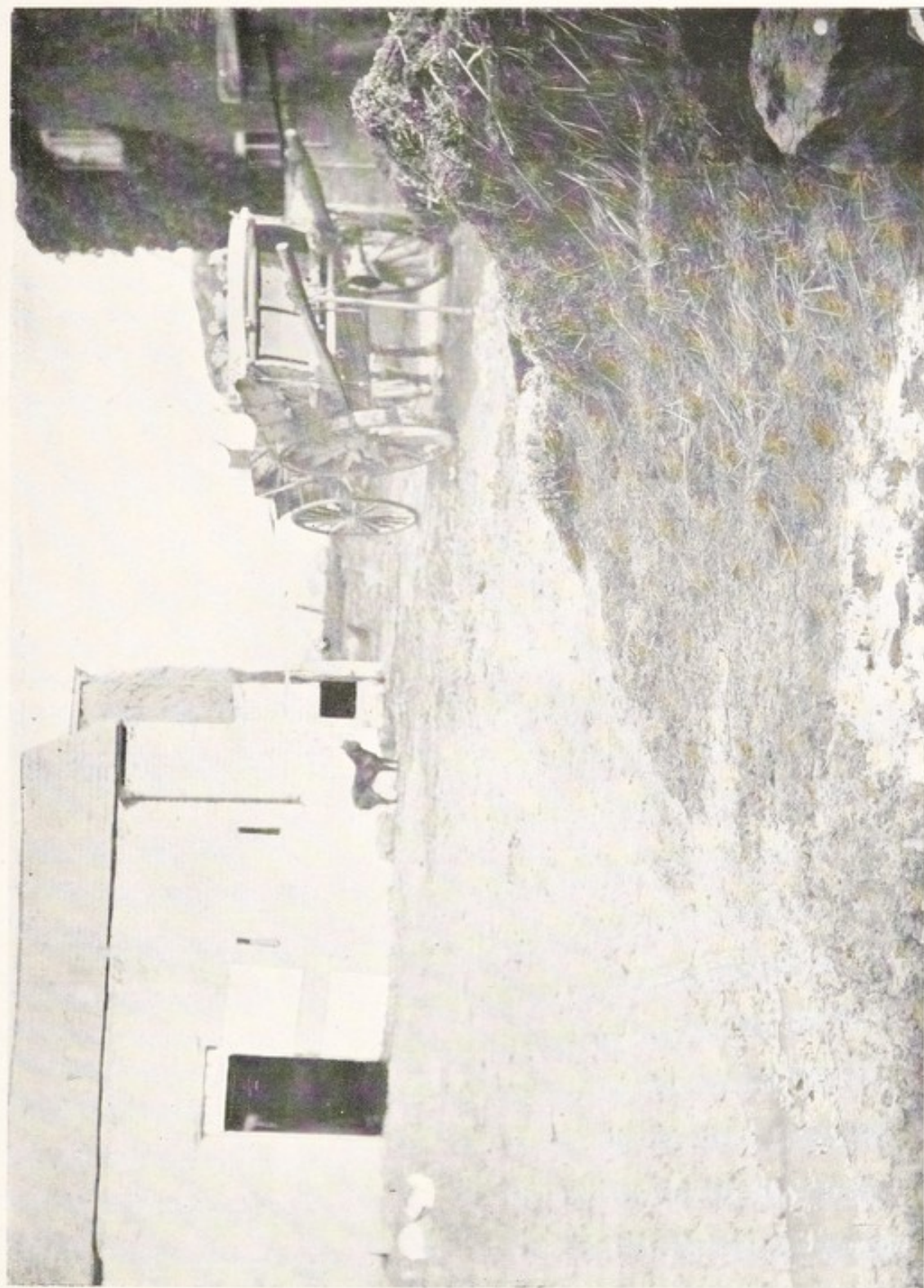




A Denbighshire Cowshed from which Tubercular Milk was sent into Liverpool, the premises being deficient in light, ventilation and cleanliness. Practically the only light and ventilation is from the doors, and when these are closed the place is without light or ventilation. An order was made prohibiting the supply of Milk from this Cowshed to the City of Liverpool.







Shows Cowshed and part of a carelessly kept Manure heap, and immediately in front, pools of foul water lodging in sunken parts of the yard.





Affected animals are usually disposed of for slaughter, but, it is to be regretted they are occasionally found to have been sold as milking cows, and, as a natural consequence, upon going into other herds would be likely to further disseminate the disease.

The following table gives statistical details concerning visits to farms outside the city boundary:—

YEAR.	No. of Visits to Farms.	No. of Shippens Examined.	No. of Cows Examined.	No. of Cows Suspicious of Tuberculosis of the Udder	No. of Convictions for Offences under the Act.	No. of Orders Prohibiting the Sale of Contaminated Milk within the City.
1901	18	40	351	20	1	4
1902	22	66	760	18	3	3
1903	15	32	364	10	3	2
1904	18	39	604	19	1	5
1905	10	20	266	9	4	1
1906	14	25	391	10	6	1
1907	13	31	462	7	1	1
Totals ...	110	253	3198	93	19	17

Local Authorities in Rural Districts are often negligent in regard to the supervision of cowsheds. In every district, Bye-laws should be made and enforced in accordance with the Parliamentary powers given with this object.

Although the application of the act involves a considerable amount of time and expense on the part of the Liverpool Corporation and its officials, the result is that the city is protected to a great extent from the evils which follow an impure milk supply. The Local Authorities of many surrounding districts have also become alive to the necessity of insisting upon better sanitation of farms and cowsheds, and the farmers themselves in many instances show a willingness to be advised as to the best methods to adopt to keep their cattle and shippens in the most healthy and sanitary condition.

Finally, the inclusion *mutatis mutandis* of the principle of the Liverpool Act of 1900 in a general act which would be applicable to the whole country is absolutely necessary to safeguard the milk-supply of the country.

As a result of several combined meetings of the National Health Society and the National League for Physical Education and Improvement the following recommendations in regard to the supervision of the milk supply have been agreed upon:—

1.—That the periodical veterinary inspection of all cows, the milk of which is being offered for sale for human consumption, should be made compulsory throughout the United Kingdom.

- (a) That the inspectors appointed under the provisions of Resolution 1 shall be qualified Fellows or Members of the Royal College of Veterinary Surgeons.
- (b) It is desirable that, wherever possible, the Inspector should not be engaged in private practice.
- (c) That the veterinary inspection should be not less frequent than quarterly, and should be undertaken by the County Councils and County Boroughs.
- (d) That the Board of Agriculture should be urged to schedule Tuberculosis and make it a notifiable disease in the case of milch cows.
- (e) That all forms of udder disease in milch cows should be made notifiable by the owner, and that the sale of milk from cows so affected should be prohibited by law, except on the certificate of the appointed veterinary inspector that the disease is not tuberculous nor of a character likely to affect the wholesomeness of the milk.
- (f) That milch cows showing symptoms of tuberculosis (which may include cases of mammary tuberculosis) shall not be kept in the same field or premises with other milch cows.
- (g) That the sale of milk for human consumption from clinically tuberculous cows should be prohibited by law, and that such milk should only be used for the feeding of other animals after effective sterilization.



2.—That it should be compulsory upon all Local Authorities to make and enforce Regulations under the Dairies, Cowsheds, and Milkshops Order (1885).

That a Bill be drawn up for the purpose of empowering the County Councils to supervise the execution of the Regulations and to take over and execute the powers of defaulting Authorities and charge the expenses to defaulting districts.

3.—That for the present system of Registration a system of annual licenses to Dairymen and their premises be substituted, such licenses to be granted and renewed only if the premises are kept in sanitary condition.

4.—That throughout the Amended Dairies, &c., Order, and the Regulations made under it, the responsibility of carrying out all structural alterations be placed upon the owner.

5.—That all Local Authorities be empowered to cause samples of milk intended for human food to be examined bacteriologically as well as chemically.

6.—That special provision be made to empower all Local Authorities to deal with the offence of the sale of Tuberculous Milk upon the basis of the Manchester, Sheffield, and Liverpool Clauses, but with such modification as may be necessary to prevent overlapping by different Local Authorities.

The County Councils to be empowered to take all necessary action in case of default.

7.—That the addition of preservatives constitutes adulteration, and, as shown by the Departmental Report (p. xxvii., 117), such addition is not necessary for the conservation of Normal Milk, produced, collected, and distributed under proper sanitary conditions.

## MILK DEPÔTS.

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The objects and work of the Milk Depôts have been explained in detail in the Report for 1906.

At these establishments a preparation is made from pure cows' milk so as to make it resemble human milk as closely as possible. This preparation is intended for the use of infants whose mothers are unable to suckle them, and who, but for it, would receive altogether unsuitable and deleterious food.

The problem of finding a complete substitute for the milk of a healthy mother has not been solved, and probably never will be solved, but when artificial feeding becomes necessary it is obviously important that the best possible substitute for mothers' milk should be available.

Great pains are taken to see that the milk is properly used; careful instructions are given, and the infants are visited either at their homes or are seen at the Depôts.

The expenditure and income of the Depôts since their establishment is shown on the appended table.

Since the initiation of the scheme in 1901, 13,050 infants have been fed upon humanised milk supplied either at the Milk Depôts or through dairies, the average age at the commencement of such feeding being three months and three-quarters; very few (765) were, from one cause or another, admitted after twelve months of age.

In the great majority of instances the infants thrived, increasing in weight and remaining perfectly healthy, notwithstanding that on admission they were as a rule in very indifferent health.

The rate of mortality amongst infants feeding on the humanised milk bears a highly favourable comparison with the rate of infant mortality throughout the City.



Customers on books, December 26th, 1906 .....	402
Admitted December 27th, 1906, to December 31st, 1907 .....	1,193
	<hr/>
Total number of customers supplied .....	1,595
	<hr/>
Supplied from Depôts .....	856
Supplied from Dairies .....	739
	<hr/>
	1,595
	<hr/>

Average age on admission during the year,  $3\frac{1}{2}$  months.

The 1,193 customers admitted during the year have been supplied as follows:—

DEPOTS.	Under 12 Months.	Above 12 Months.	Adults and Children above 2 years	TOTAL.
52, Earle Road ... ..	160	7	2	169
251, Netherfield Road ... ..	111	5	5	121
37b, Park Road ... ..	154	7	3	164
47, Cazneau Street ... ..	105	5	2	112
107, Boaler Street... ..	47	4	1	52
53a, Hornby Street ... ..	29	1	—	30
	<hr/>	<hr/>	<hr/>	<hr/>
	606	29	13	648
From Dairies ... ..	515	15	15	545
	<hr/>	<hr/>	<hr/>	<hr/>
Total ... ..	1121	44	28	1193

Of the 635 children admitted to the Depôts, 412 were ill or delicate on admission, many not being expected to live.

Of these 412, 211 improved markedly in health, 105 showed little or no improvement, 47 died and 49 received the milk only casually or for too short a period to gauge the effect.

Total number of children under 12 months supplied from Dépôts:—

On books December 26th, 1906 .....	318
Admitted during year 1907 .....	606
	<hr/>
	924
	<hr/>

Of these 52 died, the causes of death being:—

Marasmus .....	16
Convulsions .....	9
Diarrhœa .....	6
Bronchitis .....	6
Pneumonia .....	6
Consumption and Inflammation of Bowels .....	3
Meningitis .....	2
Inflammation of Stomach .....	1
Measles .....	1
Whooping Cough .....	1
Anæmia .....	1
	<hr/>
	52
	<hr/>

Only 10 of these could be regarded as healthy on admission; 42 were ill on admission, and 8 of these received the milk irregularly.

Total number of children over 12 months supplied from Dépôts:—

On books December 26th, 1906 .....	62
Admitted during year 1907 .....	44
	<hr/>
	106
	<hr/>

Five of these, who were very ill on admission, died from the following causes:—

Marasmus .....	3
Convulsions .....	1
Pneumonia .....	1
	<hr/>
	5
	<hr/>



Number of customers discharged during year 1907 .....	1,222
Reasons for discharge:—	
In a satisfactory condition .....	665
Milk said not to agree .....	175
Children ill—Doctor ordered change of food .....	157
Children dead .....	91
One basket only supplied to .....	84
Removed into Hospitals or Workhouse .....	27
No reason obtainable for discharge .....	23
	<hr/>
Total.....	1,222
	<hr/>

Of the 665 discharged in a satisfactory condition, 383 were of an age to take more general food; 69 children progressed well, but left the town; 32 were over two years old who obtained the milk for a short time during illness.

In 33 cases the parents were irregular in their payments, and their circumstances not being such as to justify the provision of the milk free of charge the supply was discontinued.

Three customers complained of having sour milk during the hot weather. In each of these cases the cause of complaint was due to carelessness on the part of the agent supplying the milk, or on the part of the customers themselves.

Fifty-two mothers obtained a few baskets to supplement the natural supply, which was then found to be sufficient.

Of the 175 infants with whom the milk was said not to agree, 124 (71 per cent.) were ill or very delicate on admission; in many cases various other foods had been unsuccessfully tried before sterilised milk was used.

Of the 157 discharged ill, 108 (68 per cent.) were suffering from illness or were delicate on admission.

Of the 91 who died, 77 (85 per cent.) were ill or delicate on admission, in many cases beyond the hope of recovery.

Great difficulty has been experienced during the year with regard to the cleansing of the bottles, owing to the fact that the customers cannot be prevailed upon to rinse them after use. As a result of this neglect, the bottles have on many occasions had to be twice boiled and left for a week, or even longer, exposed to the air before being rendered fit for use.

The necessity for greater care in this direction has been frequently urged on the customers served direct from the Dépôts, and in some cases the bottles have been sent back to the homes to be rinsed.

The greatest trouble has arisen in connection with the customers served through agents; these have been visited, and also communicated with by letter, and temporary improvement has been shown.

It has, however, been found necessary to affix a label to each basket daily, so that the customers may be impressed with the necessity for greater care on their part.

Number of infants fed on sterilized milk since operations were started to December 31st, 1907 ..... 13,050

Approximate average age,  $3\frac{3}{4}$  months.

Number under 12 months .....	12,285
Number over 12 months .....	765
Number of infants who have died .....	774

Of these 774 there were—

Ill when admitted .....	553
Irregular customers .....	73
Healthy and properly fed .....	148



Of the 148 who were healthy and properly fed, the causes of death were:—

Convulsions .....	28
Diarrhœa .....	29
Bronchitis .....	16
Pneumonia .....	17
Phthisis .....	1
Marasmus .....	5
Dentition .....	4
Inflammation of Stomach and Bowels .....	6
Whooping Cough .....	2
Blood Poisoning .....	1
Disease of Throat .....	2
Croup .....	1
Meningitis .....	3
Anæmia .....	2
Various other causes .....	31
<hr/>	
Total.....	148

The infants fed on sterilized milk have been supplied as follows:—

Netherfield Road Dépôt .....	2,347
Earle Road Do. ....	1,696
Park Road Do. ....	1,613
Cazneau Street Do. ....	2,195
Boaler Street Do. ....	186
Hornby Street Do. ....	131
<hr/>	
Total supplied from Dépôts .....	8,168
„ supplied from Dairies .....	4,882
<hr/>	
	13,050

## Expenditure and Income for Years 1901 to 1907.

	1901.	1902.	1903.	1904.	1905.	1906.	1907.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Wages and Clothing .....	277 11 9	856 4 3	1,093 9 9	1,112 4 7	1,102 2 1	1,091 12 0	1,105 13 7
Rents .....	79 5 6	141 18 1	128 14 1	143 9 2	151 16 3	170 2 3	176 8 3
Rates and Taxes .....	20 13 4	46 15 6	65 9 0	55 19 5	63 19 11	64 17 8	64 13 1
Water Rent .....	39 10 4	100 17 7	79 16 6	66 16 4	84 0 11	67 11 5	62 0 5
Gas .....	3 12 0	18 6 10	30 8 7	33 2 4	31 4 11	27 6 6	33 2 8
Coal .....	1 19 0	6 2 4	19 11 1	14 1 5	14 18 10	6 17 11	4 13 7
Printing and Stationery.....	...	...	...	...	13 9 4	...	...
Advertising .....	7 3 6	12 18 9	12 13 6	14 1 6	21 7 6	34 16 8	35 17 9
Disbursements.....	3 10 0	10 10 0	29 0 10	14 0 0	...	17 0 0	20 7 6
Cleaning Premises, Windows, &c.....	2 16 2	...	27 12 4	...	...	...	...
Travelling and Inspection Expenses.....	303 19 10	1,427 2 10	1,604 12 1	1,527 13 8	1,449 11 1	1,148 6 11	1,198 16 6
Stores (Milk, &c.) .....	3 8 0	6 16 0	13 16 10	13 12 0	13 12 0	13 12 0	13 12 0
Telephone Rent .....	333 8 3	84 16 5	9 9 11	7 7 6	43 15 8	15 13 10	24 2 8
Furniture and Fittings .....	215 18 1	673 14 1	120 0 10	42 11 5	6 5 10	9 2 1	5 7 0
Machinery .....	425 19 0	459 16 8	645 9 0	255 9 1	351 1 9	252 6 8	266 15 2
Bottles, Stoppers, &c. ....	275 12 0	278 8 5	74 0 10	29 16 5	43 6 4	41 3 8	22 14 4
Building Repairs, Alterations, &c. ....	5 12 0	179 16 0	267 13 3	300 6 11	238 3 5	242 7 3	263 2 5
Horsing Vans, and Hire of Float .....	...	27 16 7	10 5 9	...	...	...	...
Electric Light Installation .....	...	2 18 7	2 9 3	2 16 3	2 16 3	2 16 3	2 16 3
Insurance.....	...	...	25 0 0	10 6	...	...	...
Medical Attendance—	...	...	...	...	...	...	...
Scalding Case .....	...	...	...	...	...	...	...
	1,999 18 9	4,334 18 11	4,259 3 5	3,633 18 6	3,631 12 1	3,205 13 1	3,317 3 2
Sale of Milk .....	518 0 2	1,534 13 7	2,230 11 1	1,676 0 6	1,644 7 9	1,250 5 7	1,196 13 7



## SALE OF FOOD AND DRUGS ACT.

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Details are provided under the Sale of Food and Drugs Act, and under its various amendments, to safeguard the honest trader from fraudulent competition, and to safeguard the public from fraud, imposition and danger, in regard to food and drugs.

Apart from the addition to food or drugs, of ingredients, or of colouring matters injurious in themselves, with a view to conceal the inferior quality of the article, the offence is dealt with of adding materials, in themselves harmless, but which fraudulently increase the bulk or lower the quality of the article sold. The main object of the Act is expressed in Section 6 of the original Act, which is as follows:—

“ No person shall sell to the prejudice of the purchaser any article of food or any drug which is not of the nature, substance, and quality of the article demanded by such purchaser. . . .”

Most of the routine action taken in regard to the analysis of food and drugs is to prevent infringements of this clause.

It is obvious that some amongst the many articles used for food are of very much greater consequence than others, not necessarily because greater quantities of them are consumed, but because they are peculiarly liable either to adulteration or contamination. Milk, for example, constitutes the chief and perhaps the only food for very large numbers of infants, and of sick persons; it is not unreasonable, therefore, that exceptional attention should be given to it.

Further reference to milk analyses will be found on page 195.

Analyses under the Sale of Food and Drugs Act are of two kinds, namely, chemical and bacteriological. These two forms of analyses are entirely separate and distinct in their objects, and in their methods; the method of chemical analysis is applicable to the ordinary articles of food comprised under the term of “groceries,” and also to milk, butter,

preserved fruits, tinned meats, cheese, &c., and drugs. The bacteriological method is applicable chiefly, and most usefully, to milk. It is also adopted in regard to other food stuffs of animal origin, a list of them being given in the table of articles examined (page 193).

Great care is necessary in procuring samples, and in submitting them for analysis, or very misleading results will ensue.

All samples of food or drugs are taken either by, or under the superintendence of, Inspectors of the Health Department. It is of the greatest consequence that trained and practised persons should be employed for this purpose. It is necessary from time to time to employ women or young lads as agents, to go into the shop to ask for the articles, and as soon as the agent receives them, the Inspector enters the shop and completes the formalities which the Act requires.

In order to minimise the cost of proceedings under the Act, care must be exercised in the class of article purchased. Only a few purchases are made of those articles which are not likely to be adulterated, and which, experience shows, when they are taken for analysis, are almost invariably found to be genuine. On the other hand, when enterprising firms, seeking new fields for adulteration and profit, place suspicious articles on the market, it becomes necessary, sometimes, to take a considerable number of the articles before the fraud can be detected and checked.

The use of preservatives in food is a matter of importance to the consumer; such preservatives as boracic acid and salicylic acid are apt to stop the processes of digestion, and to do injury to young children and delicate people. The Departmental Committee appointed in 1899 to consider the question of the use of colouring matters and preservatives in food, came to very definite conclusions upon these points (see Section 7 Butter and Margarine Act, 1907).

Any member of the public is entitled, under the Act, to have samples analysed upon payment to the analyst of a fee of 10s. 6d.

Considerable interest has been aroused as to the legality of the sale of patent still whisky as pot still whisky, but the question has not yet been settled.



**Summary of Samples submitted for Analysis from January 1st, 1907,  
to December 31st, 1907, and other Statistical Details.**

INFORMAL SAMPLES.			Nature of Sample.	FORMAL SAMPLES.			
Number taken.	Number genuine.	Adulterated.		Number taken.	Number genuine.	Adulterated.	Information.
—	—	—	Almonds (ground) ...	1	1	—	—
—	—	—	Ammoniated Tincture of Quinine	2	2	—	—
1	1	—	Arrowroot ...	9	9	—	—
—	—	—	Baking Powder ...	9	9	—	—
—	—	—	Barley ...	6	6	—	—
—	—	—	Beer ...	90	90	—	—
4	4	—	Beef Extract ...	2	2	—	—
—	—	—	Brandy ...	11	9	2	—
—	—	—	Brawn ...	1	1	—	—
—	—	—	Bread ...	13	13	—	—
—	—	—	Boiled Peas ...	1	1	—	—
—	—	—	Bun Flour ...	2	—	2	1
189	182	7	Butter ...	90	82	8	7
—	—	—	Camphorated Oil ...	4	3	1	1
1	—	1	Castor Oil Pills ...	—	—	—	—
—	—	—	Capers ...	2	2	—	—
1	1	—	Cheese ...	13	10	3	—
1	—	1	Chlorodyne Gums ...	1	—	1	—
4	4	—	Chlorodyne ...	—	—	—	—
—	—	—	Cinnamon ...	3	3	—	—
—	—	—	Citric Acid ...	4	4	—	—
1	1	—	Cocoa ...	17	17	—	—
1	1	—	Cocoa Mixture ...	3	3	—	—
1	1	—	Cod Liver Oil ...	4	4	—	—
1	1	—	Coffee ...	34	33	1	—

SUMMARY OF SAMPLES—*Continued.*

INFORMAL SAMPLES.			Nature of Sample.	FORMAL SAMPLES.			
Number taken.	Number genuine.	Adulterated.		Number taken.	Number genuine.	Adulterated.	Information.
—	—	—	Coffee and Chicory ...	4	4	—	—
1	1	—	Colouring Fluid ...	—	—	—	—
1	1	—	Colouring Powder ...	—	—	—	—
—	—	—	Compound Liquorice Powder	2	2	—	—
1	1	—	Compound Rhubarb Powder	1	1	—	—
1	1	—	Cornflour ...	4	4	—	—
17	17	—	Confectionery ...	36	36	—	—
2	1	1	Cream ...	22	13	9	—
—	—	—	Cream of Tartar ...	21	21	—	—
—	—	—	Currie Powder ...	6	1	5	—
—	—	—	Custard Powder ...	4	—	4	—
1	1	—	Dessicated Blood ...	—	—	—	—
1	1	—	Dessicated Egg ...	—	—	—	—
1	—	1	Egg Flour ...	3	—	3	2
—	—	—	Egg Powder ...	3	—	3	1
1	1	—	Elixir of Opium ...	—	—	—	—
2	2	—	Flour ...	16	16	—	—
—	—	—	Flowers of Sulphur ...	1	1	—	—
—	—	—	Gin ...	10	10	—	—
—	—	—	Ginger ...	17	17	—	—
—	—	—	Glycerine ...	3	3	—	—
2	2	—	Grapes ...	—	—	—	—
—	—	—	Gregory's Powder ...	1	1	—	—
1	1	—	Head and Stomach Pills ...	—	—	—	—
—	—	—	Honey ...	3	3	—	—
2	2	—	Ice Cream Mixture ...	—	—	—	—



## SUMMARY OF SAMPLES—Continued.

INFORMAL SAMPLES.			Nature of Sample.	FORMAL SAMPLES.			
Number taken.	Number genuine.	Adulterated.		Number taken.	Number genuine.	Adulterated.	Information.
2	2	—	Jam and Marmalade ...	41	36	5	3
10	8	2	Jellies ... ..	8	6	2	1
1	1	—	Lard ... ..	30	30	—	—
—	—	—	Lemon Cheese ... ..	2	2	—	—
—	—	—	Linseed, Liquorice and Chlorodyne Lozenges	1	—	1	—
1	1	—	Liver Pills ... ..	—	—	—	—
—	—	—	Mace (ground) ... ..	6	6	—	—
4	4	—	Margarine ... ..	47	46	1	1
1	1	—	Malt Extract ... ..	—	—	—	—
1	1	—	Manna ... ..	—	—	—	—
3	2	1	Meat Pies ... ..	1	1	—	—
1	1	—	Meat Biscuits ... ..	—	—	—	—
—	—	—	Medicated Wine ... ..	1	1	—	—
205	196	9	Milk ... ..	686	534	152	76
—	—	—	Milk, Condensed ... ..	8	8	—	—
2	2	—	Milk, Humanized ... ..	—	—	—	—
—	—	—	Mixed Spice ... ..	11	11	—	—
—	—	—	Mustard ... ..	3	3	—	—
1	1	—	Mustard and Horseradish ...	—	—	—	—
3	3	—	Oil of Juniper ... ..	1	—	1	—
2	2	—	Olive Oil ... ..	2	2	—	—
—	—	—	Oxymel of Squills ... ..	1	1	—	—
—	—	—	Paregoric ... ..	1	1	—	—
—	—	—	Pepper ... ..	29	28	1	—
—	—	—	Pepper, Cayenne ... ..	3	3	—	—
1	1	—	Pepsine ... ..	—	—	—	—

## SUMMARY OF SAMPLES—Continued.

INFORMAL SAMPLES.			Nature of Sample.	FORMAL SAMPLES.			
Number taken.	Number genuine.	Adulterated.		Number taken.	Number genuine.	Adulterated.	Information.
6	5	1	Pickles ... ..	1	—	1	—
—	—	—	Potted Shrimps ... ..	7	4	3	—
1	—	1	Potted Lobster ... ..	—	—	—	—
13	10	3	Preserved Fruit and Vegetables	10	8	2	1
1	1	—	Proprietary Food ... ..	—	—	—	—
42	42	—	Proprietary Medicine ... ..	19	16	3	1
2	2	—	Rice ... ..	1	1	—	—
1	1	—	Rum ... ..	16	15	1	—
8	7	1	Salmon ... ..	—	—	—	—
—	—	—	Sausage ... ..	6	5	1	—
1	1	—	Saccharated Wheat Phosphate	—	—	—	—
1	1	—	Sugar ... ..	4	4	—	—
—	—	—	Seidlitz Powder ... ..	6	4	2	—
2	2	—	Syrup ... ..	8	8	—	—
—	—	—	Tartaric Acid ... ..	11	10	1	1
1	1	—	Tapioca ... ..	1	1	—	—
3	3	—	Tea ... ..	39	39	—	—
4	4	—	Temperance Beverages ... ..	29	16	13	1
2	2	—	Tinned Lobster ... ..	—	—	—	—
4	4	—	Tinned Meat ... ..	—	—	—	—
1	1	—	Tincture of Myrrh ... ..	—	—	—	—
1	1	—	Tincture of Myrrh and Borax	—	—	—	—
—	—	—	Turpentine, Spirit of ... ..	1	1	—	—
—	—	—	Vinegar ... ..	2	2	—	—
4	4	—	Whiskey ... ..	40	37	3	1
4	4	—	Wine ... ..	19	19	—	—
1	1	—	Witch-hazel, Extract of ... ..	—	—	—	—
—	—	—	Yeast... ..	6	6	—	—
580	551	29		1587	1352	235	98

Total number of samples submitted for chemical analysis during the year 1907, 2,167.



							<u>1906.</u>	<u>1907.</u>
Number of Informations for Adulterated Food and Drugs	...						112	94
„ „ for giving a False Warranty	...						3	3
„ „ „ Label	...						—	1
„ „ for selling milk with no name and address on can	...	...	...				—	—
„ „ obstructing Inspector	...	...					1	—
„ „ for refusing to sell	...	...	...				—	1
„ „ for offences under Margarine Act	...						2	2
Total Number of Informations—Food and Drugs Acts	...						118	101
Number Fined	...	...	...	...	...	...	76	64
Withdrawn on payment of costs	..	...	..	...	...		34	26
Acquitted or Withdrawn without costs...	...	...	...				8	11
Amount of Fines and Costs							£244 19 6—	£230 15 7

The amount of fines for offences under the Sale of Food and Drugs Act have decreased during the past twelve months as compared with the preceding twelve months. The decrease in the total amount is due to the fact that a fewer number of informations were laid. The average amount imposed per conviction during the year is £3 5s. 10½d., against £2 17s. 7½d. for the previous year.

Summary of Samples in which legal proceedings were instituted during 1907,  
together with result.

No. Infor- mations.	Nature of Sample.	Nature of Offence.	RESULT OF LEGAL PROCEEDINGS.				
			No. of Convic- tions.	No. with- drawn on pay- ment of costs.	No. dismiss'd and with- drawn without costs.	Fines.  £ s. d.	Costs.  £ s. d.
33	Milk .....	Deficient in cream .....	19	13	1	41 0 0	26 11 0
8	" .....	Deficient in cream and adulterated with water...	4	4	—	9 0 0	7 16 0
24	" .....	Adulterated with water .....	21	1	2	54 10 0	25 16 1
2	" .....	Deficient in cream and adulterated with borates...	2	—	—	7 0 0	1 14 0
3	" .....	Adulterated with borates .....	3	—	—	7 0 0	2 17 0
2	" .....	For giving a "False Warranty" .....	1	—	1	2 0 0	3 16 0
1	Skimmed milk .....	Adulterated with water .....	1	—	—	2 0 0	0 17 0
1	" .....	Adulterated with water and coloured with a yellow coal tar dye	1	—	—	2 0 0	0 17 0
1	" .....	Adulterated with borates .....	1	—	—	2 0 0	0 17 0
2	Machine Skimmed Milk	Adulterated with water .....	2	—	—	4 0 0	1 14 0
1	Buttermilk .....	Adulterated with borates .....	—	1	—	—	0 15 0
6	Butter .....	Adulterated with foreign fat .....	4	2	—	8 0 0	4 17 6



## SUMMARY OF SAMPLES IN WHICH LEGAL PROCEEDINGS WERE INSTITUTED—Continued.

							£	s.	d.	£	s.	d.
1	Butter .....	For selling Margarine in unlabelled wrapper.....	—	1	—	—	—	—	—	—	—	—
1	Margarine .....	For having printed matter on wrapper in addition to the word Margarine.	1	—	—	—	0	5	0	—	—	—
1	Cherry Brandy .....	Flavoured non-alcoholic syrup, coloured with a coal-tar dye.	—	1	—	—	—	—	—	—	—	—
1	Camphorated Oil.....	Mineral oil and devoid of camphor .....	1	—	—	—	5	0	0	—	—	—
1	Turpentine .....	Refusing to sell sample .....	—	1	—	—	—	—	—	—	—	—
1	Egg Powder.....	Devoid of egg .....	—	—	1	—	—	—	—	—	—	—
2	Egg Flour.....	Practically devoid of egg .....	—	—	2	—	—	—	—	—	—	—
1	Bun Flour .....	" " .....	—	—	1	—	—	—	—	—	—	—
1	Guy's Tonic .....	For giving a false label .....	—	—	1	—	—	—	—	—	—	—
1	Jam .....	Contained large number of fungus spores.....	—	—	1	—	—	—	—	—	—	—
1	Calf's Foot Jelly .....	Adulterated with "Alum .....	1	—	—	—	0	10	0	—	—	—
1	Tartaric Acid .....	Adulterated with one-fifth grain of lead per pound.	—	1	—	—	—	—	—	—	—	—
1	Preserved Peas .....	Adulterated with copper .....	1	—	—	—	—	—	—	—	—	—
1	Marmalade .....	Adulterated with Salicylic Acid .....	—	—	1	—	—	—	—	—	—	—
1	" .....	For issuing a "False Warranty" .....	—	1	—	—	—	—	—	—	—	—
1	Scotch Whiskey .....	Adulterated with patent still spirit and below strength	1	—	—	—	1	0	0	—	—	—
101			64	26	11		145	5	0		85	10 7

DETAILS OF SAMPLES OF MILK OBTAINED FOR CHEMICAL ANALYSIS.

	<u>1906.</u>	<u>1907.</u>
Number of Samples purchased on Week-days in Town..	392	321
„ Informations ... ..	58	40
„ Samples taken at Railway Stations on Week-days... ..	174	251
„ Informations ... ..	3	13
„ Samples purchased on Sundays in Town ...	120	115
„ Informations ... ..	21	19
„ Samples taken at Railway Stations on Sundays	106	124
„ Informations ... ..	3	2
„ Samples taken at City Hospitals ... ..	87	62
„ Informations ... ..	6	3
„ Samples taken at Corporation Milk Depôts...	22	18
„ Informations ... ..	2	—

MARGARINE ACT.

	<u>1906.</u>	<u>1907.</u>
Number of Visits to Wholesale Dealers in Margarine ...	1298	1292
„ Visits to Shops ... ..	11194	11540
„ Informations ... ..	2	2
„ Fined ... ..	2	1

Amount of Fines and Costs ... £3 6s. 6d.—£1 2s. 0d.

The following samples were submitted during 1907 for special examination:—

Nature of Sample	No. of Samples.	Nature of Sample.	No. of Samples.
Ham .. .. .	6	Wall Paper ... ..	1
Salt ... .. .	2	Paint ... .. .	1
Water ... .. .	2	Canvas ... .. .	2



## INVESTIGATION INTO METHODS OF CONTROL OF BUTTER SUPPLY.

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A Select Committee of the House of Commons was appointed in March, 1906, to consider whether any, and if so what, further legislation is required in order to secure the better conduct and control of the trade in butter and butter substitutes.

The Committee sanctioned in regard to milk-blended butter a standard of 24 per cent. of water. This is unfortunate, and will unquestionably result in great loss to the poorer sections of the community, who will be buying water when they are under the impression that they are buying butter. It is most undesirable that any fancy names should be allowed for butter substitutes, all of which should be classed as margarine, in the interests of the consumers.

The Butter and Margarine Act, 1907, is the outcome of the recommendations of this Select Committee.

The Committee met 17 times and received the evidence of 49 witnesses, and in a Report submitted to the House of Commons, July, 1906, made certain recommendations from which the Act was largely framed.

The Act contains 14 Sections, and deals with:—

Section.

1. Registration of factories and consignments.
2. Inspection of factories.
3. Prohibition of adulterants in butter factories.
4. Limit of moisture in butter, margarine and milk-blended butter.
5. Provisions as to the importation of butter, margarine and milk-blended butter.
6. Regulations as to milk-solids in butter.

7. Regulations as to preservatives.
8. Marking of wrappers, &c., used in connection with margarine.
9. Regulation of sale of milk-blended butter.
10. Names of margarine, &c.
11. Penalties for offences.
12. Amendment of section eight of Margarine Act, 1887.
13. Definition of margarine.
14. Short title, construction and commencement.

The Local Authority are required to—

Sec. (1) Register Butter Factories, which are defined as follows:—

(a) Butter factories, that is to say, any premises on which by way of trade butter is blended, re-worked or subjected to any other treatment, but not so as to cease to be butter; and

(b) Any premises on which there is manufactured any milk-blended butter (that is to say, any mixture produced by mixing or blending butter with milk or cream, other than condensed milk or cream) or on which there is carried on the business of a wholesale dealer in milk-blended butter.

Sec. (2) To cause inspection of Butter Factories to be made and to procure samples:—

2.—(1) Any officer of the Board of Agriculture and Fisheries or of the Local Government Board shall have power to enter at all reasonable times any premises registered under the Sale of Food and Drugs Acts or this Act, and to inspect any process of manufacture, blending, re-working or treatment used therein, and to take samples for analysis of any butter, margarine, margarine cheese, milk-blended butter, or of any article capable of being used in the manufacture, treatment or adulteration of any such article as aforesaid.



(2) An officer of a local authority who is authorised to procure samples under the Sale of Food and Drugs Acts shall, if specially authorised in that behalf by the local authority, have the like powers of entry, inspection and sampling as regards any premises registered with the authority as a butter factory.

(4) Where under this section a special authority is required, an officer of the Board or of a local authority shall not be entitled to exercise any of his powers under this section unless, if so requested by or on behalf of the occupier of the premises to be entered, he produces his authority.

Regulations as to Preservatives:—

Sec. 7.—(1) The Local Government Board may, after such inquiry as they deem necessary, make regulations for prohibiting the use as a preservative of any substance specified in such regulations in the manufacture or preparation for sale of butter, margarine or milk-blended butter, or for limiting the extent to which, either generally or as regards any particular substance or substances, preservatives may be used in the manufacture or preparation for sale of butter, margarine or milk-blended butter.

(2) Any regulations made under this section shall be notified in the London, Edinburgh or Dublin Gazette as the case may require, and shall also be made known in such other manner as the Local Government Board may direct.

(3) Any person who manufactures, sells, or exposes or offers for sale, or has in his possession for the purpose of sale, any butter, margarine or milk-blended butter which contains a preservative prohibited by a regulation under this section or an amount of a preservative in excess of the limit allowed by any such regulation, shall be guilty of an offence under this Act.

The Act came into force on January 1st, 1908.

### Proprietary Medicines.

Certain reports were asked for by the Health Committee as to the composition of a number of proprietary medicines intended for infants or young children, many of which contained no substance of medicinal value, but were quite harmless. Some, however, contained more or less active medicinal agents, and the analysis of these resulted as follows:—

ARTICLE.	RESULT OF ANALYSIS.
WINSLOW'S SOOTHING SYRUP .....	Consists of a sugar syrup with $\frac{1}{4}\%$ essential oils, containing about $\frac{1}{16}$ grain of morphine in each fluid drachm.
FENNING'S TEETHING POWDERS .....	The powders vary from 3.7 to 6.1 grains each, and contain about equal grains of potassium chlorate and liquorice root.
STEDMAN'S TEETHING POWDER .....	The powders vary from 1.45 to 2.6 grains each, and contain about 25% of calomel, the residue being mainly sugar, with a little starch.
STEEDMAN'S SOOTHING POWDERS .....	The powders vary from 2.2 to 4.2 grains each and contain about 20% of calomel, the residue being sugar and maize starch.
WOODWARD'S GRIPE WATER .....	A solution of sugar, containing 1% of bicarbonate of soda and 0.15 of oil of caraway.
DINNEFORD'S PURE FLUID MAGNESIA	A dilute solution of bicarbonate of magnesia (1.87%).
CALIFORNIA SYRUP OF FIGS .....	A syrup containing senna flavoured with ginger and other spices. It may quite possibly contain fig juice also.
FENNING'S FEVER CURE .....	Consists of dilute nitric acid, $1\frac{1}{2}\%$ strength, flavoured with peppermint.
PARRISH'S CHEMICAL FOOD .....	Syrup coloured with cochineal, containing in each fluid drachm about $\frac{1}{2}$ of a grain of ferrous phosphate, $\frac{1}{2}$ grain of calcium phosphate, and $3\frac{1}{2}$ grains free phosphoric acid.
HÆMATOGEN .....	A mixture of glycerine and defibrinated blood.



PROPRIETARY MEDICINES—Continued.

ARTICLE.	RESULT OF ANALYSIS.
PEPTOGENNIC MILK POWDER.....	A mixture containing 96% of milk sugar, with pancreatic ferments having very considerable digestive power. It also contains about 1% of bicarbonate of soda.
PRITCHARD'S TEETHING POWDERS ...	Each powder contains on an average 1 grain calomel mixed with sugar. No morphine.
FENNING'S WHOOPING COUGH ..... POWDERS.	Each powder contains on an average 3 grains of sulphur mixed with powdered liquorice root.—No calomel nor morphine. <i>Remarks.</i> —Leaflet enclosed in box stated: "These celebrated powders will always cure whooping cough in a few days."
FENNING'S WORM POWDERS .....	Each powder contains on an average 2 grains of sulphur, mixed with sugar and a red dye. No calomel.
FAULCONER'S WORM POWDERS .....	Each powder contains on an average 1 grain of calomel with about 3 grains of jalap root and about $\frac{1}{2}$ grain of potassium sulphate.
DIARRHŒA MIXTURE .....	Chalk mixture, with a small quantity of sal volatile and aromatic ingredients.
CLARK'S BLOOD MIXTURE .....	A solution of potassium iodide coloured with burnt sugar. (Each fluid ounce contains $5\frac{1}{2}$ grains potassium iodide.)
POND'S EXTRACT .....	Extract of hamamelis (witch hazel) containing 10% alcohol.
SANFORD'S CATARRH CURE .....	Extract of hamamelis (witch hazel), containing 8% alcohol and $1\frac{1}{4}$ % glycerine.
SANFORD'S CATARRH CURE (Solvent)	Consists of Bicarbonate of Soda.
COUGH LINCTUS .....	Contained oxymel of squills, and probably other medicated syrups, with 6.5% of potassium bromide.

PROPRIETARY MEDICINES—Continued.

ARTICLE.	RESULT OF ANALYSIS.
OWBRIDGE'S LUNG TONIC .....	A strong saccharine syrup containing squills and probably other harmless medicaments, with 0.35% chloroform. It contained no mineral drugs or alkaloids.
VENO'S COUGH CURE .....	A mixture containing glycerine and Balsam of Tolu, with senega and probably other vegetable extracts. A trace of chloroform was present. It contained no mineral drugs or alkaloids.
MOTHER SEIGEL'S SYRUP .....	A concentrated complex syrup of various vegetable extracts, including aloes and cayenne. It contained about 3% of borax, but no other mineral drug. It was free from alkaloids.
HOOD'S SARSAPARILLA .....	A mixture of vegetable extracts, free from alkaloids and mineral drugs.
GUY'S TONIC.....	A dilute solution of acid calcium phosphate, flavoured with chloroform and a vegetable bitter, and coloured with cochineal. It contained no mineral drugs nor alkaloids.
VENO'S SEAWEED TONIC .....	A mixture containing glycerine, aloes and rhubarb, and possibly other vegetable extracts. It contained no mineral drugs or alkaloids.
PEPS .....	Lozenges weighing about 22½ grains each and containing about ½% essential oils. No alkaloid present nor any mineral drug.

NOTE.—In the case of fluid mixtures, percentages where given are parts by weight in 100 parts *by volume*.



## FERTILISERS AND FEEDING STUFFS ACT, 1906.

On 1st January, 1907, a Fertilisers and Feeding Stuffs Act, which replaced the old Act of 1893, came into operation.

Under it the City Analyst was appointed official agricultural analyst, and the three inspectors under the Sale of Food and Drugs Act were appointed official samplers.

A certain remuneration was agreed to in respect of the work done under the Act.

The following table shows the number of samples procured during the year:—

Nature of Sample.	No. of Samples.	Nature of Sample.	No. of Samples.
Decorticated Cotton Cake Meal	2	Pea Meal .....	1
Linseed Cake Meal .....	1	Indian Meal .....	2
Sugar Feed .....	1	Pressed Linseed.....	1
Bran .....	1	Oil Cake .....	1
Linseed Cake .....	1	Oil Dust .....	2
Locust Meal .....	1	Total.....	14

## BACTERIOLOGICAL EXAMINATIONS AND ANALYSES.

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The Bacteriological Analyses comprise :—

1. The Examination of food-stuffs of various kinds.
2. The daily and monthly examination of the water supplied to the City.
3. The examination of suspected cases of rabies, anthrax, tuberculosis.
4. The examination of rats taken on shipboard and in the town for the presence or absence of plague.
5. The examination for diagnostic purposes in suspected cases of diphtheria, typhoid fever, sputum and suspected cases of plague.

The general bacteriological condition of foodstuffs and water is ascertained, comprising experiments for the determination of—

- (a) The presence of organisms.
- (b) The number of organisms.
- (c) The kind of organism.

All samples undergo routine examination for the presence of specific organisms indicating dirt or sewage contamination (*Bacillus coli communis* and allied forms, *Bacillus enteritidis sporogenes* and allied forms).

In addition special experiments are conducted to determine the presence or absence of tubercle bacilli.

The total number of food-stuffs examined bacteriologically during 1907 was 1,028, a detailed list of which follows:—



SUMMARY OF FOOD-STUFFS.

SAMPLE.	No.	SAMPLE.	No.
Anchovy ... ..	2	Mincemeat ... ..	5
Beef Suet ... ..	1	Mushrooms, Preserved ... ..	2
Blanc Mange Powder ... ..	1	Marmalade ... ..	20
Butters ... ..	10	Margarine ... ..	2
Beans, Baked ... ..	1	Milks ... ..	451
Condensed Milk ... ..	39	Lard ... ..	2
Custard Powder ... ..	1	Mussels ... ..	27
Cream Cheese ... ..	3	Oysters ... ..	15
Cream ... ..	16	Periwinkles ... ..	17
Cheese ... ..	16	Pineapple Butter ... ..	1
Cockles ... ..	9	Pies, Meat ... ..	27
Dripping ... ..	1	Polony ... ..	4
Fish Paste ... ..	17	Plum Pudding ... ..	1
„ Tinned ... ..	78	Pastes, Game and Meat ... ..	4
„ Potted ... ..	7	Sausage ... ..	17
Fruits, Preserved ... ..	19	Soups ... ..	31
Ginger in Syrup ... ..	1	Syrup ... ..	1
Honey ... ..	1	Sterilized Milk ... ..	6
Ice Creams ... ..	2	Sauces ... ..	7
Jams ... ..	31	Tomatoes, Tinned ... ..	8
Jellies ... ..	20	Treacle ... ..	1
Lemon Curd ... ..	8	Whelks ... ..	1
Meat, Tinned ... ..	60	Water ... ..	14
„ Potted ... ..	17		
Meat Extracts ... ..	3	TOTAL ... ..	1,028

SUMMARY OF ALL EXAMINATIONS.

Food-stuffs ... ..	1,028
Waters ... ..	462
Typhoid ... ..	395
Diphtheria ... ..	498
Rats ... ..	8,814
Miscellaneous ... ..	95
Total... ..	11,292

A very large number of bacteriological examinations were made during the year 1907 of suspected tubercular, typhoid and diphtheria cases for the Medical Practitioners, the total number of such examinations made amounting to 1,523 in addition to the foregoing.

## MILK ANALYSES FOR THE YEAR.

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451 milks were examined for the presence of—

1. The *Bacillus tuberculosis*.
2. The *Colon bacillus*.
3. The *Bacillus enteritidis sporogenes*, or allied forms.
4. Other bacteria.

The *Bacillus tuberculosis* indicates that the animals from which the milk was taken were tubercular, or that the pails into which the milk was received or the hands of the milker were infected from previous contact with a diseased cow or person.

The *Colon bacillus* indicates contamination with dirt of an intestinal origin, or that the cow was suffering from inflammation of the udder.

The *Bacillus enteritidis sporogenes* indicates dust or intestinal contamination.

Experiments were made at the latter portion of the year to standardise the milks by ascertaining at what point up to one-thousandth of a cubic centimetre the *Colon bacillus* vanishes.



Detailed Table showing particulars of Samples of Milk for 1907.

1907. Month.	RAILWAY.			TOWN.			HOSPITAL.			STERILIZED MILK DEPOT.			Total No. Received each Month.	TUBERCULAR.				NEGATIVE.					
	No.	B. Coli Com.	B. Ent. Spor.	No.	B. Coli Com.	B. Ent. Spor.	No.	B. Coli Com.	B. Ent. Spor.	No.	B. Coli Com.	B. Ent. Spor.		Rail.	Town.	Hospital.	Depot.	Total No.	Rail.	Town.	Hospital.	Depot.	Total No.
January .....	25	21	—	11	6	—	6	3	—	—	—	—	42	2	—	—	—	2	4	2	—	2	8
February ...	13	12	—	17	1	—	3	3	—	—	—	—	33	—	—	—	—	—	—	—	—	—	—
March .....	12	2	—	21	—	—	6	5	—	4	1	—	43	—	—	—	—	—	3	—	1	—	4
April.....	11	2	—	13	—	—	5	3	—	—	—	—	29	1	2	1	—	4	1	—	1	—	2
May .....	29	16	—	8	—	—	5	3	—	2	2	—	44	—	—	—	—	—	2	—	—	—	2
June .....	21	16	—	17	15	—	—	—	—	3	3	—	41	—	—	—	—	—	2	—	—	—	2
July .....	10	10	—	19	15	—	—	—	—	—	—	—	29	—	—	—	—	—	—	1	—	—	1
August .....	31	31	—	12	12	—	—	—	—	—	—	—	43	3	—	—	—	3	7	—	—	—	7
September...	10	8	—	12	12	—	5	5	2	2	—	—	29	4	—	—	—	4	1	—	—	—	1
October .....	2	2	—	33	28	—	3	3	—	2	—	—	40	—	—	—	—	—	5	—	2	—	7
November ...	22	14	—	20	20	7	1	—	—	—	—	—	43	1	—	—	—	1	—	—	—	—	—
December ...	10	8	—	11	1	—	7	7	—	7	—	—	35	2	2	—	—	4	—	—	—	—	—
Total.....	196	142	—	194	110	7	41	32	2	20	6	—	451	13	4	1	—	18	25	3	4	2	34

### Presence of the *Bacillus Tuberculosis*.

Of the 451 samples examined for tubercle, 34 guinea pigs died before the tubercular test was complete.

Of the remaining 417 samples, 18 proved tubercular, of which 13 were railway-borne milks, 4 taken in the town, and 1 taken from the Hospitals (railway-borne).

This year it has again been noticed that tubercle is more frequently found in the railway-borne than in the town milks.

The percentage this year is 5.45, as compared with 2.06 in the town milks.

It is a very serious matter that tubercle is so widespread in milk when it is remembered that one tubercular cow may be the means of infecting the milking utensils, the hands of the milker, and, in consequence, even the teats of the other healthy animals. Regulations dealing with infected animals cannot therefore be too stringent.

**Table showing the number of samples of milk examined  
Bacteriologically for Tubercle Bacilli from 1896  
to 31st December, 1907.**

Year.	Total Number of Samples Taken.	Town Samples.		Country Samples.	
		No. taken.	Tubercular.	No. taken.	Tubercular.
1896	119	83	4	36	5
1897	150	63	4	87	5
1898	112	84	7	28	5
1899	352	167	1	185	15
1900	560	255	4	305	5
1901	566	254	2	312	20
1902	595	213	1	382	32
1903	582	231	2	351	19
1904	571	201	4	370	37
1905	560	212	1	348	14
1906	530	209	3	321	22
1907	451	194	4	257	14
Totals.....	5,148	2,166	37	2,982	193





### Presence of the Colon Bacillus and the Bacillus Enteritidis Sporogenes.

The *Colon bacillus* was present 180 times in 257 railway-borne milks and 110 times in the 194 town milks.

The *Bacillus enteritidis sporogenes* was present in 9 of the samples.

The greater frequency of the *Colon bacillus* present in the railway than in the town milks is of importance, for it shows that less care is taken in the handling and transmission of the country milk, and, therefore, that contamination much more frequently occurs.

With regard to the relationship of the *Colon bacillus* to the *Bacillus enteritidis sporogenes*, it has been frequently found that these two organisms do not occur together. The significance of this is important as throwing light upon the significance of the *Bacillus enteritidis sporogenes* as an index of pollution. Where the *Bacillus coli* and *Bacillus enteritidis sporogenes* occur together there would be strong evidence that *Bacillus enteritidis sporogenes* was of recent intestinal origin.

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### RESULTS OF ANALYSES OF BUTTER, CREAM, CONDENSED MILK, CHEESE, TINNED FISH, SHELLFISH, &c.

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**Butter.**—Ten samples were submitted for analysis. The colon bacillus and the *B. enteritidis sporogenes* were absent from each of the samples.

**Cream.**—Sixteen samples of cream were analysed. *B. enteritidis sporogenes* was absent from all samples. The colon bacillus was, however, present in eleven of the samples. One sample was tinned, and was found to contain staphylococci. Two of the ordinary samples were inoculated, one proving non-tubercular, but in the case of the other the animal died before the test had been completed.

**Condensed Milk.**—Thirty-nine samples were examined, and, as has been previously noted, the samples were in all cases *not sterile*. There is no doubt that condensed milk is a most unsatisfactory product. Bacteria are usually present. The milk which was originally condensed may have contained various products of the decomposition of bacteria; these products are masked subsequently by the large quantity of sugar present, but their irritant properties are not destroyed.



**Cheese.**—Sixteen samples of cheese were examined. The colon bacillus was present in six of them, *B. enteritidis sporogenes* being absent from all. One sample of tinned cheese was found to be sterile.

**Tinned Foods.**—A large number of tinned meats, fish and fruits were examined, and they were found to be free, almost invariably, from living bacteria.

**Shell Fish.**—Sixty-nine samples of shell fish were examined; evidence of contamination was found in most samples. *B. enteritidis sporogenes* was found on twenty-four occasions, and the colon bacillus in thirty-six samples.

**Meat and Pork Pies.**—Twenty-seven pies were submitted for analysis, the colon bacillus and *B. enteritidis sporogenes* being absent from all cases.

The total number of foodstuffs examined bacteriologically up to 1907 are as follows :—

1896	...	...	...	...	...	...	122
1897	...	...	...	...	...	...	162
1898	...	...	...	...	...	...	311
1899	...	...	...	...	...	...	505
1900	...	...	...	...	...	...	1,067
1901	...	...	...	...	...	...	1,055
1902	...	...	...	...	...	...	1,097
1903	...	...	...	...	...	...	1,061
1904	...	...	...	...	...	...	1,107
1905	...	...	...	...	...	...	1,147
1906	...	...	...	...	...	...	1,075
1907	...	...	...	...	...	...	1,028

**Plague Observations and Rats.**—During the year a careful watch has been kept over the rats in the ships entering the port, and over those found in warehouses, and various parts of the town. This has been done on account of the well-known fact that rats suffer from plague, and that they assist to spread the disease.

By the systematic examination of these rats we may be put in a position to forestall cases of plague.

Total number of rats examined during the year :—

Town	...	...	...	...	...	...	1,232
Port	...	...	...	...	...	...	7,582
Total							8,814

The Plague bacillus was found in one Port rat.

SPECIAL EXAMINATIONS.

The total number of Special Examinations were as follows :—

Rabies	...	...	...	...	...	5
Anthrax	...	...	...	...	...	74
Tubercle	...	...	...	...	...	8
Actinomycosis	...	...	...	...	...	2
Chronic Mastitis	...	...	...	...	...	2
Special Plague cases	...	...	...	...	...	2
„ Samples	...	...	...	...	...	2
Total						95

ANTHRAX.

The following specimens were examined for Anthrax:—

Nature of Specimen.	Total Number.	B. Anthracis.		
		Present in.	Absent in.	Suspicious
Hair and Dust .....	2	2	—	—
Cylin and Water .....	1	—	1	—
Scrapings .....	1	—	1	—
Sweepings .....	1	—	1	—
Hide .....	13	5	8	—
Straw .....	2	—	2	—
Chaff .....	1	—	1	—
Dust .....	3	1	2	—
Meal .....	9	—	9	—
Wool .....	15	2	11	2
*Hair.....	14	5	9	—
Hay .....	3	—	3	—
Spleen .....	9	3	6	—
Total.....	74	18	54	2

From the foregoing table it will be observed that a proportion of the animal products received in Liverpool are infected with *Bacillus anthracis*, and are therefore in a dangerous condition.

\* One of the samples of Hair had undergone disinfecting processes, but the organism had not been destroyed.



The following specimens were examined for Actinomycosis, Tubercle, Mastitis, Plague and other diseases:—

Nature of Specimen.	Total Number.	Result.	
<b>Actinomycosis—</b>			
Bull's Cheek .....	1	Actinomycosis	
Udder .....	1	,,	
<b>Tubercle—</b>			
Udder .....	7	Tubercular 5	Non-Tubercular 2
Gland .....	1	—	1
<b>Mastitis—</b>			
Udder .....	2	Chronic Mastitis 2	
<b>Special Plague Cases—</b>			
Gland Juice.....	1	No plague bacilli found.	
Gland .....	1	No evidence of plague.	
<b>Special Samples—</b>			
Canvas .....	2	No trace of any form of animal life.	

## City Hospitals.

During the year the Fever Hospitals have again availed themselves of the facilities of the Municipal Bacteriological Laboratories, and numerous specimens have been submitted for examination.

SUMMARY.

Cases of Diphtheria ... ..	498
„ Typhoid ... ..	395
Miscellaneous (Sputa)...	2
Total ... ..	<u>895</u>

DIPHTHERIA.

Positive ... ..	87
Negative ... ..	187
Suspicious ... ..	31
Mixed growth ... ..	57
Cocci ... ..	38
Staphylococci ... ..	43
Streptococci ... ..	55
	<u>498</u>

TYPHOID.

Positive Reaction ... ..	138
Negative Reaction ... ..	156
Indefinite Reaction ... ..	101
	<u>395</u>

During the last year three dilutions of the serum reaction have been employed in the diagnosis of typhoid fever.



### WATER ANALYSES.

The quality of the water supplied to Liverpool, as indicated by the following examinations, shows that its very great bacterial purity is well maintained for the year 1907. The samples analysed have been divided into daily and monthly.

#### DAILY.

The samples have been taken from Ashton Hall and from the Johnston Laboratories, the average number of bacteria per c.c. being 26. The *Colon bacillus* and *Bacillus enteritidis sporogenes* being absent in all samples in the quantity examined, varying from 1 to 10 c.c.

#### MONTHLY.

##### A.—PRESCOT SAMPLES OF FILTERED WATER.

	Average No. of Bacteria.	No. of Exami- nations made.
VYRNWY WATER... ..	23	10
RIVINGTON WATER ... ..	18	7
MIXING WELL ... ..	39	9
NEW RESERVOIR... ..	32	8

##### B.—SAMPLES OF WELL WATER.

A very careful watch has, as in the preceding years, been kept upon the quality of the water derived from the wells.

	Average No. of Bacteria.	No. of Exami- nations made.
DUDLOW LANE WELL ... ..	24	9
GEORGE HOLT WELL, Green Lane ... ..	55	7
JOHN HOLMES WELL ... ..	52	3

#### SPECIAL EXAMINATIONS.

Forty-four special samples have been examined bacteriologically during the year from the Rivington Watershed, and further series have also been investigated, special attention having been directed to the nature of the deposit.





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**CLEANSING AND SCAVENGING.**

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## CLEANSING AND SCAVENGING.

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The washing of streets, courts, back passages, &c., and the improvement in scavenging have been extended during the past year with beneficial results.

During the summer season the street washing was continued:—

197 streets	were washed once a week,
303 streets	„ „ twice a week,
55 streets	„ „ three times a week, and
190 streets	„ „ periodically,

and all passages and tunnel entrances to courts were also regularly washed.

Owing to the defective planning of many minor streets and the absence of adequate back passages some difficulties have yet to be overcome before the collection and removal of domestic refuse can be regarded as satisfactory. The concessions which have been made by the Health Committee for the substitution of sanitary ashbins for the old insanitary ashpits have resulted in a distinct sanitary advantage.

The following is a statement of the number of improved sanitary ashbins which were fixed at the 31st December, 1907:—

In properties assessed at over £10 per annum and new properties .....	22,197
In properties of £10 assessment and under.....	19,648
Total.....	<u>41,845</u>

The number of brick ashpits has been reduced from 65,000 to approximately 42,000.

Under the Bye-laws now in force, all newly-constructed houses must be provided with suitable ashbins.

All private, domestic and office drains are flushed by the City Engineer's Staff twice a year, and there can be no question that a more frequent and very thorough flushing would be attended with great advantage.

The City Engineer has kindly supplied the following tables, which indicate the operations carried out by the Cleansing Staff under his control:—

TABLE No. 1.

NIGHT SERVICE  
FOR EMPTYING COURT, &c., ASHPITS AND MIDDENS.

Middens have been practically abolished in the Old City, and consequently the operations of the night service are limited to the removal of domestic and office refuse from the neighbourhood of the Exchange, where it is impracticable to perform the work during business hours.

In the year 1900 an Improved Sanitary Ashbin was introduced, and 2,385 of these Bins have now been fixed for the use of Courts.

Notices Received.	Collec- tions from Ashpits, etc.	Quantity of Ashes Collected.	Quantity of Refuse Deposited at Chisenhale Street Depot.	Average Working Staff per night.				Analysis of Work.		Average quantity removed from each Ashpit at each Collection
				Ashpit Men.	Wharf Men.	Carts.	Horses.	Loads per Man per Night.	Loads per Cart per Night.	
No.	No.	Loads.	Loads.	No.	No.	No.	No.			Cart Loads.
289	1,778	1,361	1,361	2.93	1.0	1.0	1.0	1.51	4.43	.76



TABLE No. 2.

## SERVICE FOR THE COLLECTION AND REMOVAL OF DRY ASHPIT ASHES.

The number of notices received to empty ashpits during the year 1907 was only 0·38 per cent. of the total collections.

The number of brick ashpits within the City is approximately 42,000. From the year 1898 to the 31st December, 1907, Improved Sanitary Ashbins have been fixed as follows:—

In properties of over £10 assessment, and new properties	...	...	22,197
In properties of £10 assessment and under ...	...	...	19,648
			41,845

In premises unsuitable for fixture bins, 20,000 loose bins have been provided. During this period the number of brick ashpits has been reduced from approximately 65,000 to 42,000. During the year 1907 each ashpit was emptied on an average 10·05 times. The total quantity of refuse collected was 52,633 loads, or 0·12 of a load from each ashpit at each collection.

Notices Received.	Total Collections from Ashpits.	Dry Ashes.												Analysis of Work.		Average quantity removed from each Ashpit at each Collection
		Quantity of Refuse Removed.	Depots at which Refuse was Deposited.								Average Daily Working Staff.					
No.	Loads.		Chisenhale Street.	Rathbone Road Destructor.	Smithdown Road Destructor.	St. Domingo Destructor.	Lavrock Bank Destructor.	Garston Destructor.	Sandhills.	Various Tips, &c.	Asphalt Men.	Carts and Wagons.	Horses.	Loads per Man per day.	Loads per Cart per Day.	Loads.
1,590	420,331	52,633	3,053	6,440	8,127	9,955	11,771	2,247	2,440	8,600	131·80	36·52	31·89	1·30	4·75	·12





TABLE No. 4.

## SERVICE FOR FLUSHING AND CLEANSING TROUGH WATER-CLOSETS, &amp;c.

The frequent flushing of trough water-closets is a sanitary measure, this type of closet being provided principally in the more densely-populated areas of the City.

A large number of the public urinals and trough water-closets are also cleansed and disinfected twice daily during the Summer season, and once daily during the remaining part of the year.

Underground Urinals.	Overground Urinals.	Trough Water-Closets.	Average Working Staff per day.	
			Trough W. C. Men.	Urinal Men.
No. and Stalls. 26—214	No. and Stalls. 153—503	No. 1,275	No. 25·16	No. 16·22

TABLE No. 5.

SERVICE FOR THE CLEANSING OF STREETS, COURTS, AND PASSAGES, AND COLLECTION OF REFUSE.

Total Quantity of Refuse Collected.	Depôts at which Refuse was Deposited.					Average Daily Staff.				Average Number of Loads Removed Daily per Cart.
	Chisenhale Street.	Sandhills.	Waverree.	Destructors.	Various Tips, &c.	Sweeping Machines.	Average Number of Men Employed.	Carts.	Horses.	
Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Per day.	Per day.	No.	No.	No.
70,883	31,261	5,539	4,636	9,263	20,184	5.71	506	56.91	62.62	3.68



**TABLE No. 6.**  
**CLEANSING AND REMOVAL OF REFUSE FROM STREETS, COURTS, AND PASSAGES ON SUNDAYS.**

On Sunday mornings a number of the principal streets in the central parts of the City are cleansed, and, as a sanitary measure, the domestic refuse in certain districts of the City is also collected.

Street Sweepings.												
Removed.			Depôts where Deposited.								Average Daily Staff.	
Saleable Refuse.	Unsaleable Refuse.	Total.	Chisenhale Street.		Sandhills.		Wavertree.		Tips.			
			Saleable Refuse.	Unsaleable Refuse.	Saleable Refuse.	Unsaleable Refuse.	Saleable Refuse.	Unsaleable Refuse.	Saleable Refuse.	Unsaleable Refuse.	Men.	Horses.
Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	No.	No.
1,984	1,357	3,341	1,628	959	304	279	52	—	—	119	246	37·69

TABLE No. 7.

SERVICE FOR STREET WATERING.

In connection with Street Watering approximately 44 million gallons of Water were distributed during the season, in addition to which a large quantity was used for street washing.

Number of Days on which Carts were out during year.	Quantity of Water Distributed.		Average Daily Staff employed during the Season.		Average No. of Loads distributed Daily per Cart.
	Large Loads.	Small Loads.	Watermen.	Carts and Horses.	
		Day.			
145	107,218	22,401	21.57	22.80	32.43

In addition to the figures in the above table 7,093 loads of water were distributed on the drives of Newsham Park and Sefton Park.



**TABLE No. 8.**  
**REMOVAL OF GARBAGE FROM ABATTOIR.**

Loads Removed during year.	Where Deposited.		
	Chisenhale Street.	Sandhills.	Collingwood Dock.
1,177	1,177	—	—

**TABLE No. 9.**  
**RETURN OF HORSE MANURE COLLECTED FROM FIRE STATIONS AND CORPORATION STABLES,  
AND DELIVERIES TO CHISENHALE STREET DEPÔT, &c.**

TOTAL QUANTITY DEALT WITH DURING THE YEAR.	DEPÔTS AT WHICH MANURE WAS DEPOSITED.		
	CHISENHALE STREET.	SANDHILLS.	WAVERTREE.
Loads.	Loads.	Loads.	Loads.
1,933	1,402	276	255

Of the above loads, 630 were collected by the Department from Fire Stations.

TABLE No. 10.

## DESPATCHES OF MANURE AND REFUSE.

DEPÔTS.	Quantity of Saleable Refuse.				Quantity of Unsaleable Refuse.				Grand Total.	Average Daily Staff.		
	Street Sweepings	Mixture.	Ordinary Refuse to Farmers.	Total.	Sea.	Des- tructors.	Tips.	Total.		Tons.	Foreman.	Labourers
Chisenhale St., by Flats...	Tons. 10,992	Tons. 4,312	Tons. 34,301	Tons. 49,605	Tons. ...	Tons. ...	Tons. 1,248	Tons. 1,248	50,853	1	18.5	
Sandhills by Rail ...	...	337	8,190	8,527	...	...	48	48	8,575	...	2.0	
Wavertree do. ...	6,389	...	...	6,389	...	...	...	...	6,389	...	3.0	
Chisenhale Street and Sandhills, <i>vid</i> Collingwood	...	...	...	...	25,088	...	...	25,088	25,088	...	...	
Dock per Hopper Barges	...	...	...	...	12,132	...	...	12,132	12,132	...	2.0	
Clinker per "Beta" .....	...	...	...	...	...	...	...	...	...	...	...	
Charters Street Destructor.	...	...	...	...	...	59,976	...	...	...	...	...	
Rathbone Road " .....	...	...	...	...	...	12,955	...	...	...	...	...	
Smithdown Road " .....	...	...	...	...	...	25,239	...	...	174,091	...	...	
St. Domingo " .....	...	...	...	...	...	36,803	...	...	...	...	...	
Garston " .....	...	...	...	...	...	7,864	...	...	...	...	...	
Lavrock Bank " .....	...	...	...	...	...	31,254	...	...	...	...	6.0	
Sundry Tips.....	...	...	2,553	2,553	...	...	37,550	37,550	40,103	...	...	
Clinker to Tips .....	...	...	...	...	...	...	22,214	22,214	22,214	...	...	
	17,381	4,649	45,044	67,074	37,220	174,091	61,060	272,371	339,445	1	31.5	

The foregoing Table shows that not less than 339,445 tons of Town's refuse were disposed of during the year 1907, but this quantity does not represent the actual quantity collected and carted to the Wharves, as during the Winter months a proportion of the street sweepings is in a liquefied condition, and drains away before despatch of the refuse from the Wharves.



TABLE No. 11.

HORSES.DAILY AVERAGE NUMBER EMPLOYED ON CLEANSING WORK.

Night Ashes.	1.0	Dry Ashes.	28.75	Bell Ashes.	72.30	Street Cleansing.	56.59	Sweeping Machines.	5.68	Markets.	1.39	Watering.	9.84	Abattoir.	1.24	Cannals.	1.74	Destructors.	5.73	Various.	2.72	Total Daily Average.	186.98
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TABLE No. 12.  
AVERAGE DAILY STAFF OF MEN EMPLOYED.

General	Night Service.				Day Service.														Wharves, Depôts, &c.						Grand Total.	855-11								
	Inspectors.	Timekeepers.	Clerks.	Total.	Working Foreman.	Midden Men.	Wharf Man.	Total.	Inspectors.	Watchmen.	Watermen.	Sweepers and Casual Men.	Cart Followers (Sweeping and Bell and Box Ashes).	Passage Men.	Washing.	Gully Men.	Washing Courts.	Trough Water Closet and Urinal Men.	Orderly Boys.	Ash Men.	Boat Men.	Hopper Barge Crew.	Total.	Foreman.			Labourers.	Chisenhale St. and Sandhills.	Wavertree.	Labourers.	Various Tips.	Labourers.	Collingwood Dock.	Total.
6.			4.	17.	1	2-33	1	4-33	22.	7.	9-68	259-40	148-82	63-19	23-72	10-12	2-47	41-38	71.	118-30	10.	13.	800-68	1.	20-5	3.	4.	6.	2.	32-5				



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INSANITARY PROPERTY.

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## INSANITARY PROPERTY.

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The year 1907 has been one of very considerable progress, not only in the direction of the removal of insanitary property by demolition or by reconstruction, but also in the work of providing dwellings for suitable tenants who have been dispossessed from their houses.

The following tables show the progress of the work of the Housing Committee during the last two years, so far as it is concerned with the removal of insanitary property, under the Housing of the Working Classes Acts, 1890-1903 :—

**Table 1.**

Statement showing the number of houses authorised by the City Council to be dealt with during the year 1906, and indicating in detail the result of the action taken :—

### FRONT HOUSES.

Total No. of front houses dealt with during year 1906.	No. of Houses.	Demo-lished.	Ren-dered Sanitary.	In Schemes but still Occupied.	Closed.	In progress.
" A " Closing Orders.....	19	14	1	—	4	—
" B " By Schemes.....	102	—	—	84	18	—
" C " Circular letter .....	72	13	59	—	—	—
Total .....	193	27	60	84	22	—

## COURT HOUSES.

How Dealt With.	No. of Houses.	Demo-lished.	Ren-dered Sanitary.	In Schemes but still Occupied.	Closed.	In pro-gress.	Proceed-ings Pending.
" A " Closing Orders	329	240	30	—	59	—	—
" B " By Schemes...	517	17	—	347	153	—	—
" C " Circular letter...	170	99	71	—	—	—	—
Total .....	1,016	356	101	347	212	—	—
Less houses dealt with by Closing Orders, and included in Schemes.	50	16	—	—	34	—	—
Total No. of Court Houses dealt with during year 1906	966	340	101	347	178	—	—

Table 2.

Statement showing the amount of insanitary property undealt with on January 1st, 1907, and the proceedings authorised in regard to it during the year:—

			Courts.	Court houses.		No. of front houses.
Approximate number of insanitary houses existing on 1st January, 1907.			682	3955		1300
Proceedings authorised by the City Council during the year 1907:—	Courts.	Court houses.			Front houses.	
" A " By Closing Orders ...	21	111			23	
" B " By schemes under the Housing of the Working Classes Act ... ..	7	54			14	
" C " Cases in which summonses have been issued, but for which Closing Orders were not obtained up to Dec. 31st 1907 ... ..	9	67			21	
" D " Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation ... ..	10	60			55	
TOTAL ... ..	—	—	47	292		113
Leaving for future consideration	—	—	635	3663		1187

Table 3.

Statement showing the number of houses authorised by the City Council to be dealt with during the year 1907, and indicating in detail the result of the action taken:—

## FRONT HOUSES.

	No. of Houses.	Demo-lished.	Ren-dered Sanitary.	In Schemes but still Occupied.	Closed.	In progress.
Total No. of front houses dealt with during year 1907	113	13	56	8	24	12

## COURT HOUSES.

How Dealt With.	No. of Houses.	Demo-lished.	Ren-dered Sanitary.	In Schemes but still Occupied.	Closed.	In pro-gress.	Proceed-ings Pending.
" A " by Closing Orders	111	31	14	—	66	—	—
" B " by Schemes ...	54	—	—	14	40	—	—
" C " Cases in which summonses have been issued, but for which Closing Orders were not obtained up to Dec. 31st, 1907	67	17	32	—	—	6	12
D " Alterations and improvements authorised on circular letter, or on action of Health Committee in asking for more closet accommodation	60	26	34	—	—	—	—
Total No. of Court houses dealt with during 1907	292	74	80	14	106	6	12
Less houses included in Schemes, but also dealt with by Closing Orders.	5	—	—	—	5	—	—
Total No. of Court Houses dealt with during 1907.	287	74	80	14	101	6	12



Table 4.

## SUMMARY.

Showing total number of houses dealt with during the years 1906 and 1907 :—

## FRONT HOUSES.

	Total No. of Houses dealt with.	Demo- lished.	Ren- dered Sanitary.	In Schemes but still Occupied.	Closed.	In pro- gress.	Proceed- ings Pending.
1906 .....	193	27	60	84	22	—	—
1907 .....	113	13	56	8	24	12	—
Total .....	306	40	116	92	46	12	—

## COURT HOUSES.

	Total No. of Houses dealt with.	Demo- lished.	Ren- dered Sanitary.	In Schemes but still Occupied.	Closed.	In progress.	Proceed- ings Pending.
1906 .....	966	340	101	347	178	—	—
1907 .....	287	74	80	14	101	6	12
Total .....	1,253	414	181	361	279	6	12

Closing Orders have also been obtained for seventeen derelict court houses which have been closed for a period of years; these have not been included in any previous return.

In considering these Annual Returns it must be borne in mind that after the authorisation by the Council, more or less protracted negotiations ensue before the houses are finally disposed of, but the net result shows that during the two years 1906-7 the number of insanitary dwellings dealt with has been 1,076, of which 454 have been demolished, 325 have been closed and await demolition or reconstruction, and 297 have been reconstructed and rendered sanitary.

## RETURN OF HOUSES ERECTED 1896-1907.

	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907
Under £12 .....	7	95	63	4	...	222	85	201	258	78	243	115
£12 to £18 .....	...	...	...	821	436	558	590	363	284	394	547	609
£18 to £25 .....	944	1,138	1,276	...	...	...	...	...	...	...	...	...
£25 to £35 .....	...	...	...	769	602	633	962	1,058	1,067	872	1,039	1,022
£35 and upwards	204	389	539	607	402	441	323	706	449	638	422	444
	44	34	99	157	133	109	101	125	116	204	202	152
	1,199	1,656	1,977	2,358	1,573	1,963	2,061	2,453	2,174	2,186	2,453	2,342

## HOUSES OF £12 TO £25 RENTAL.

1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907
944	1,138	1,276	1,590	1,038	1,191	1,552	1,421	1,351	1,266	1,586	1,631

## LIVERPOOL SANITARY AMENDMENT ACT, 1864.

Under the provisions of the above Act, the Medical Officer of Health certified that the following premises were unfit for human habitation, and ought to be demolished:—

The court known as No. 8 court in GIBRALTAR Row in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3 and 4 in the said No. 8 court.

The court known as No. 10 court in GIBRALTAR Row aforesaid.

The dwelling-houses numbered 1, 2, 3 and 4 in the said No. 10 court.

The dwelling-houses numbered 18 and 20, contiguous to No. 10 court in GIBRALTAR Row aforesaid.

The court known as No. 12 court in GIBALTAR Row aforesaid.

The dwelling-house numbered 1 in the said No. 12 court.

The dwelling-house numbered 28, contiguous to No. 12 court in GIBALTAR Row aforesaid.

The court known as No. 14 court in GIBALTAR Row aforesaid.

The dwelling-houses numbered 1, 2 and 3 in the said No. 14 court.

The dwelling-houses numbered 30 and 32, contiguous to No. 14 court in GIBALTAR Row aforesaid.

The court known as No. 20 court in UPPER MILK STREET in the City of Liverpool.

The dwelling-houses numbered 4 and 5 in the said No. 20 court.

The court known as No. 5 court in QUEEN STREET in the City of Liverpool.

The dwelling-houses numbered 4, 5, 6, 7, 8, 9, 10, 12 and 13 in the said No. 5 court.

The court known as No. 5 court in DENISON STREET in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5, 6, 7 and 8 in the said No. 5 court.

The court known as No. 12 court in DENISON STREET aforesaid.

The dwelling-houses numbered 2 and 3 in the said No. 12 court.

The court known as No. 13 court in CHEAPSIDE in the City of Liverpool.

The dwelling-houses numbered 2, 3 and 4 in the said No. 13 court.

The court known as No. 2 court in PONTACK LANE in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3 and 4 in the said No. 2 court.



The court known as No. 1 court in CLARE STREET in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5 and 6 in the said No. 1 court.

The dwelling-houses numbered 87 and 89 in CLARE STREET aforesaid, contiguous to No. 1 court in the said Street.

The court known as No. 3 court in CLARE STREET aforesaid.

The dwelling-houses numbered 1, 2, 3 and 5 in the said No. 3 court.

The dwelling-houses numbered 91 and 93 in CLARE STREET aforesaid, contiguous to No. 3 court in the said Street.

The court known as No. 6 court in RICHMOND ROW in the City of Liverpool.

The dwelling-houses numbered 1, 2 and 3 in the said No. 6 court.

The court known as No. 8 court in RICHMOND ROW aforesaid.

The dwelling-houses numbered 1 and 2 in the said No. 8 court.

The court known as No. 5 court in VAUXHALL ROAD in the City of Liverpool.

The dwelling-houses numbered 4 and 6 in the said No. 5 court.

The court known as No. 2 court in ALL SAINTS' LANE in the City of Liverpool.

The dwelling-houses numbered 1, 2 and 3 in the said No. 2 court.

The court known as No. 21 court in NEWSHAM STREET in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5 and 6 in the said No. 21 court.

The dwelling-houses numbered 69 and 71 in NEWSHAM STREET aforesaid, contiguous to No. 21 court in the said Street.

The court known as No. 23 court in NEWSHAM STREET aforesaid.

The dwelling-houses numbered 3, 4, 7, 8, 11 and 12 in the said No. 23 court.

The court known as No. 3 court in BURLINGTON STREET in the City of Liverpool.

The dwelling-houses numbered 1 and 2 in the said No. 3 court.

The court known as No. 4 court in BOND STREET in the City of Liverpool.

The dwelling-houses numbered 3, 4 and 5 in the said No. 4 court.

The court known as No. 6 court in BOND STREET aforesaid.

The dwelling-houses numbered 3, 4, 5 and 6 in the said No. 6 court.

The court known as No. 8 court in BOND STREET aforesaid.

The dwelling-houses numbered 3, 4 and 6 in the said No. 8 court.

The court known as No. 20 court in BOND STREET aforesaid.

The dwelling-houses numbered 3 and 4 in the said No. 20 court.

The court known as No. 22 court in BOND STREET aforesaid.

The dwelling-houses numbered 3 and 4 in the said No. 22 court.

The court known as No. 24 court in BOND STREET aforesaid.

The dwelling-houses numbered 3 and 4 in the said No. 24 court.

The court known as No. 2 court in PORTER STREET in the City of Liverpool.

The dwelling-houses numbered 1 and 2 in the said No. 2 court.

The dwelling-houses numbered 4 and 6, contiguous to No. 2 court in Porter Street aforesaid.

The court known as No. 2 court in CLAY STREET in the City of Liverpool.

The dwelling-house numbered 2 in the said No. 2 court,

The court known as No. 4 court in CLAY STREET aforesaid.

The dwelling-houses numbered 3 and 4 in the said No. 4 court.

The court known as No. 2 court in SAND STREET in the City of Liverpool.

The dwelling-house numbered 3 in the said No. 2 court.

The court known as No. 2 court in SHERIDAN STREET in the City of Liverpool.

The dwelling-houses numbered 1 and 2 in the said No. 2 court

The court known as No. 6 court in HYGEIA STREET in the City of Liverpool.

The dwelling-houses numbered 3, 4, 5 and 6 in the said No. 6 court.

The court known as No. 1 court in LOWWOOD STREET in the City of Liverpool.

The dwelling-houses numbered 4, 6 and 8 in the said No. 1 court.

The court known as No. 2 court in LOWWOOD STREET aforesaid.

The dwelling-houses numbered 3 and 4 in the said No. 2 court.

The court known as No. 4 court in LOWWOOD STREET aforesaid.

The dwelling-houses numbered 3 and 4 in the said No. 4 court.

The court known as No. 6 court in LOWWOOD STREET aforesaid.

The dwelling-houses numbered 1, 2 and 6 in the said No. 6 court.

The court known as No. 8 court in LOWWOOD STREET aforesaid.

The dwelling-houses numbered 1 and 2 in the said No. 8 court.

The court known as No. 9 court in LOWWOOD STREET aforesaid.

The dwelling-houses numbered 3 and 4 in the said No. 9 court.



The court known as No. 1 court in HOLBORN STREET in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 8, 9, 10, 11, 12 and 13 in the said No. 1 court.

The court known as No. 2 court in BACK HIGH STREET in the City of Liverpool.

The dwelling-house numbered 2 in the said No. 2 court.

The court known as No. 3 court in ROSCOE LANE in the City of Liverpool.

The dwelling-house numbered 3 in the said No. 3 court.

The court known as No. 5 court in ROSCOE LANE aforesaid.

The dwelling-houses numbered 2, 4 and 6 in the said No. 5 court.

The court known as No. 8 court in HENRY STREET in the City of Liverpool.

The dwelling-houses numbered 3, 4, 5 and 6 in the said No. 8 court.

The court known as No. 2 court in LAXEY STREET in the City of Liverpool.

The dwelling-houses numbered 1, 2 and 3 in the said No. 2 court.

The court known as No. 1 court (BROOK'S PLACE) in MOSLEY STREET in the City of Liverpool.

The dwelling-house numbered 2 in the said No. 1 court.

The court known as No. 6 court in CLIVE STREET in the City of Liverpool.

The dwelling-houses numbered 2, 4, 6 and 8 in the said No. 6 court.

The court known as No. 3 court in SHAFTESBURY STREET in the City of Liverpool.

The dwelling-house numbered 2 in the said No. 3 court.

The court known as No. 5 court in SHAFTESBURY STREET aforesaid.

The dwelling-houses numbered 3 and 4 in the said No. 5 court.

The court known as No. 7 court in SHAFTESBURY STREET aforesaid.

The dwelling-houses numbered 2 and 3 in the said No. 7 court.

The dwelling-house numbered 6 in COMBERMERE STREET in the City of Liverpool.

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#### SUPERVISION OF CORPORATION DWELLINGS.

During the month of August a report was submitted to the Housing Committee in the following terms:—

The Medical Officer begs to report that from time to time considerable difficulty is experienced in maintaining a proper degree of cleanliness in a certain number of the Corporation dwellings, notably in certain blocks. For some few months past the Medical Officer has caused the same amount of supervision to be exercised by the Female Staff in the Corporation dwellings as in the other dwellings in the vicinity, as the great bulk of the tenants have been accustomed to supervision prior to going into the new dwellings.

The Medical Officer, however, is of opinion that it is desirable that a still closer method should be applied to those tenants, having regard to the very great facilities afforded them for keeping themselves, their children and their dwellings clean. He is of opinion that although this can be attained in various ways, the best way to do it would be, in the event of any new appointment of caretaker being made, to select a person who in addition to such other qualifications as are necessary, is fully qualified as a Sanitary Inspector, and in this way gives evidence of fitness and capacity to advise those tenants who need his attention.

The Medical Officer would also recommend that facilities should be afforded to the present caretakers to attend the ensuing Evening Course of Instruction given under the direction of the Sanitary Science Instruction Committee at Ashton Hall, and that those caretakers who obtain a Certificate of Competency should have some recognition in the shape of a small addition to their pay.

The Committee are already aware that in accordance with their instructions applicants of drunken habits and of dissipated



character are excluded from the dwellings, and that a selection of the better class of dispossessed is being made. This is an additional reason why better results may be looked for.

The Medical Officer would also point out that a very few drunken and disorderly families are a great source of annoyance to the respectable majority, and not only that, but when they quit one of the houses for any reason, the house is much deteriorated, and tenants have complained that in addition to the ordinary dirtiness, vermin are left behind.

It is, therefore, in many ways desirable that the supervision should be as strict as may reasonably be applied in regard to these dwellings, and if the Manager would kindly intimate any case where a house is left in a dirty and verminous condition, the Medical Officer would cause the rooms to be fumigated before a new occupier went in.

A large number of copies of a small book written by Dr. Caton, entitled "How to Live," was distributed among the tenants of the Corporation dwellings.

During the year the number of tenements where sub-letting or overcrowding was suspected by the Manager of the Corporation tenements, and referred to the Medical Officer's Department for investigation, was 43.

Night visits were paid to these tenements, with the result that 15 tenements were found sub-let, of which 11 were also overcrowded. There were also 11 tenements found overcrowded, but not sub-let, *i.e.*, occupied by one family and their relations (or friends in some instances), and 5 cases of indecent occupation of sleeping rooms, *viz.*:—In 3 instances one man and two women were found in the same bedroom; in 1 instance one man and three women; and in 1 instance two men and one woman. The remaining 17 were found correct.

In addition to the foregoing, an anonymous complaint of overcrowding a tenement was received, and in two other instances overcrowding of tenements was suspected by the Sanitary Department, but on visits being paid no evidence of overcrowding was found.

The results of the night visits are communicated to the Manager of the Dwellings, who, where necessary, takes measures to abate the infringements.



APPLICATIONS FOR CORPORATION TENEMENTS, 1907.

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Applications for houses in these buildings have been numerous, there being now about 2,170 tenements completed, all under the control of the Corporation.

These tenements are reserved for persons who have been dispossessed from their houses by any action of the Corporation, and only sober and well-conducted applicants are accepted.

Owing to a great number of the applicants stating that they were living in overcrowded houses, or insanitary cellars, the Housing Committee referred the applications to the Medical Officer of Health for investigation. These applications were dealt with by the Lodging House Inspectors, and in the event of there being any evidence of overcrowding, or illegal occupation of cellars, the application was marked accordingly, and returned to the Manager.

As the statements of many of the applicants were found to be incorrect, it was deemed necessary to make a closer investigation, and for this purpose night visits were paid in many cases.

The number of applications received and dealt with during the year was 489. In dealing with these applications, it was found that in 326 instances the circumstances of the applicant did not comply with the Committee's conditions. Of this number 78 applicants gave false addresses, and in 248 cases there was no evidence that the alleged overcrowding existed. Of the remaining 163 cases investigated, 45 were found to be cases of one family overcrowding a house or cellar, or illegal occupation of a cellar. These were dealt with under the Public Health Act. One hundred and eighteen were claims on account of alleged overcrowding occurring in sub-let houses, of which, in 52 cases, it was found that there was no overcrowding, or the alleged overcrowding was easily remedied by some of the occupants leaving the premises, or by re-arranging the sleeping apartments.

There were 66 cases of overcrowding found in sub-let houses, and in 64 of these instances informations were laid against the chief tenants, and convictions followed.

The total number of cases of overcrowding in ordinary dwellings, cellars, and sub-let houses, and illegal occupation of cellars, was 111, arising out of 489 applications investigated, and in 51 instances the applicants were allowed to rent a Corporation dwelling.

In a considerable number of cases the overcrowding was of very recent date and the offence had evidently been committed with the intention of qualifying for a Corporation house. For instance, in 14 cases the length of tenancy ranged from one day to three weeks.

In some cases the applicants were found to be drunk at the time of the visit of inquiry. Thirteen cases of drunkenness came under the notice of the Inspectors.

The total number of day visits paid during the year was 575, and 124 night visits were made, the total for the year being 699, from which it will be seen that a considerable amount of the Inspectors' time was taken up by investigating these applications.

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The Corporation Surveyor has kindly supplied the following table:—

LIVERPOOL SANITARY AMENDMENT ACT, 1864.

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INSANITARY PROPERTY.

INSANITARY PROPERTY PURCHASED, 1907.

Number of houses purchased by Housing Committee included in Reports referred by Council to Committee ... ..	1
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INSANITARY PROPERTY DEMOLISHED, 1907.

Number of houses in respect of which Compensation for demolition was paid by Housing Committee included in Reports referred by Council to Committee ... ..	190
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[NOTE.—The demolition of a great number of these houses has been accompanied by structural alterations to adjoining property, resulting in 41 "through" houses and 109 single houses being left standing. The term "through" houses signifies that two insanitary houses have been converted into one house and made sanitary by the introduction of through ventilation, with separate yard space and w.c. accommodation, whilst the single houses have also been somewhat similarly improved.]

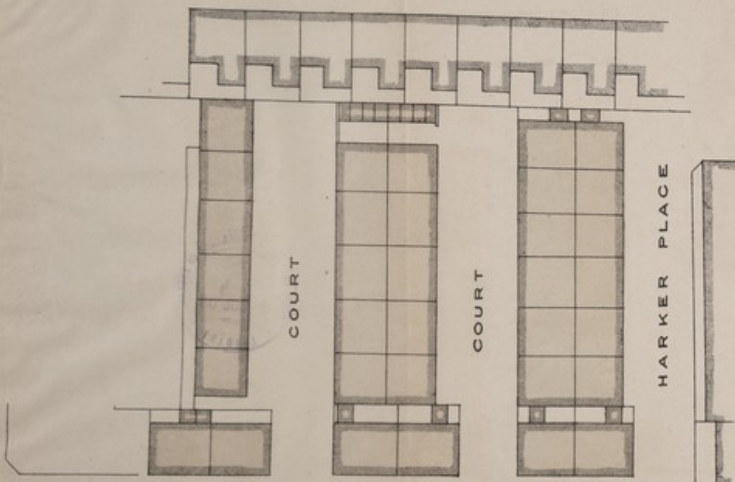
HOUSING OF THE WORKING CLASSES ACT, 1890.

Number of houses purchased under various Improvement Schemes ... ..	148
Number of houses demolished under various Improvement Schemes ... ..	0



COURTS AS FORMERLY EXISTING.

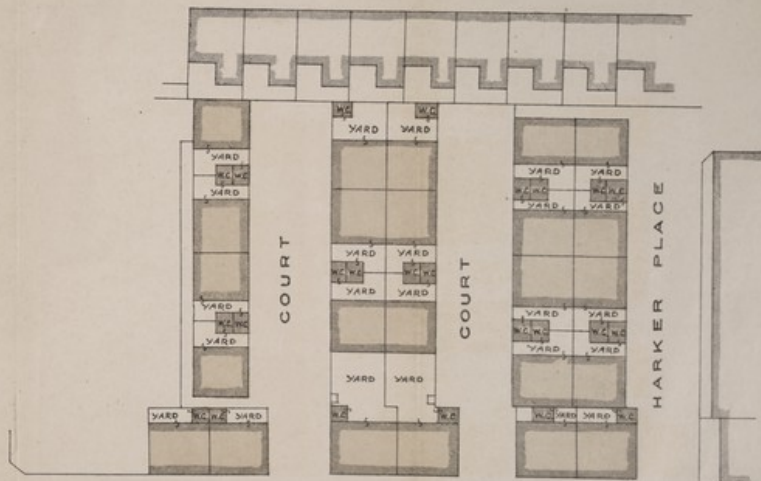
GOMER STREET



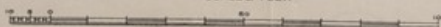
QUEEN ANNE STREET

COURTS IMPROVED

GOMER STREET

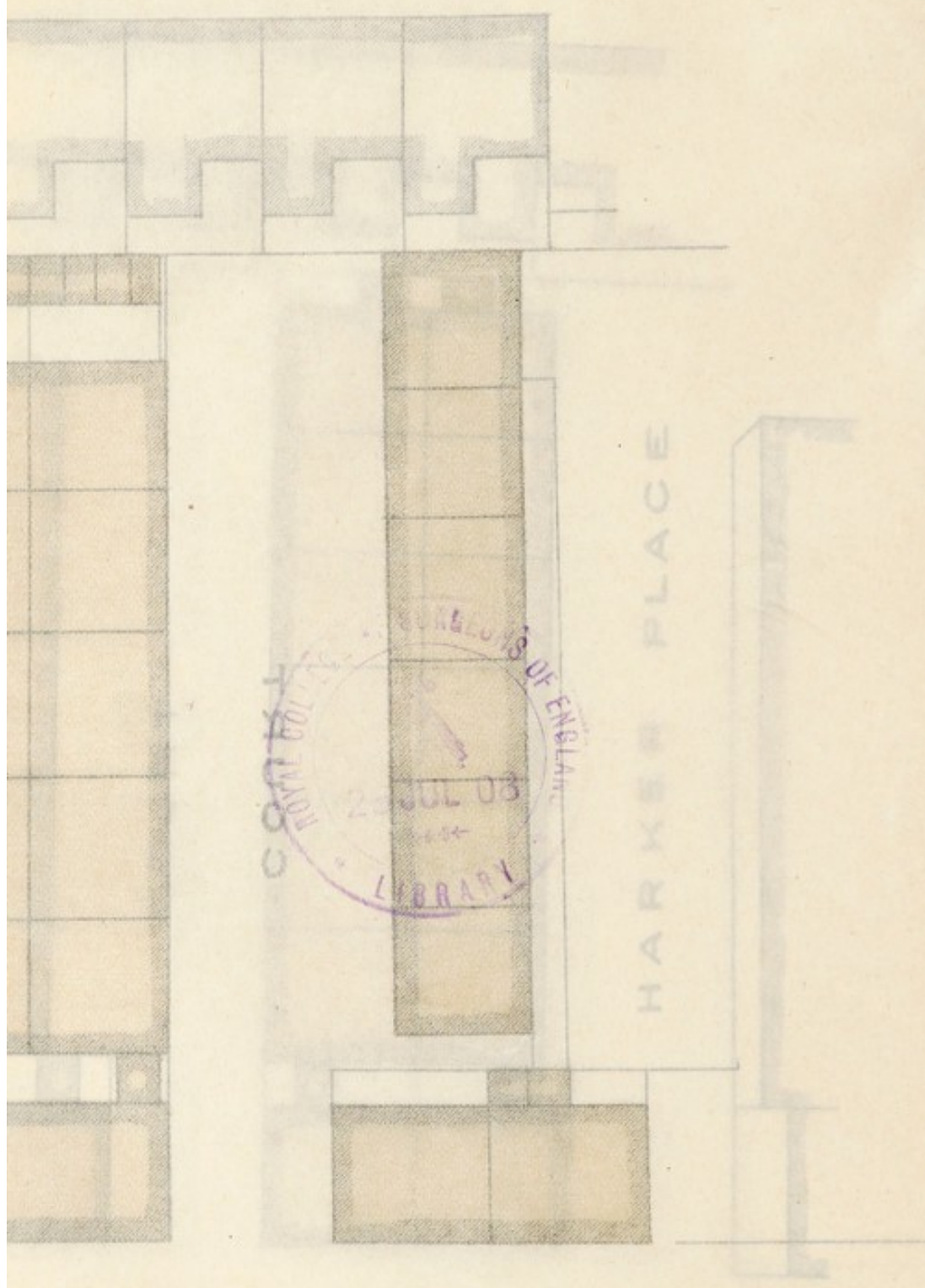


QUEEN ANNE STREET





GOMER



QUEEN



No. 6 COURT, LIMEKILN LANE.

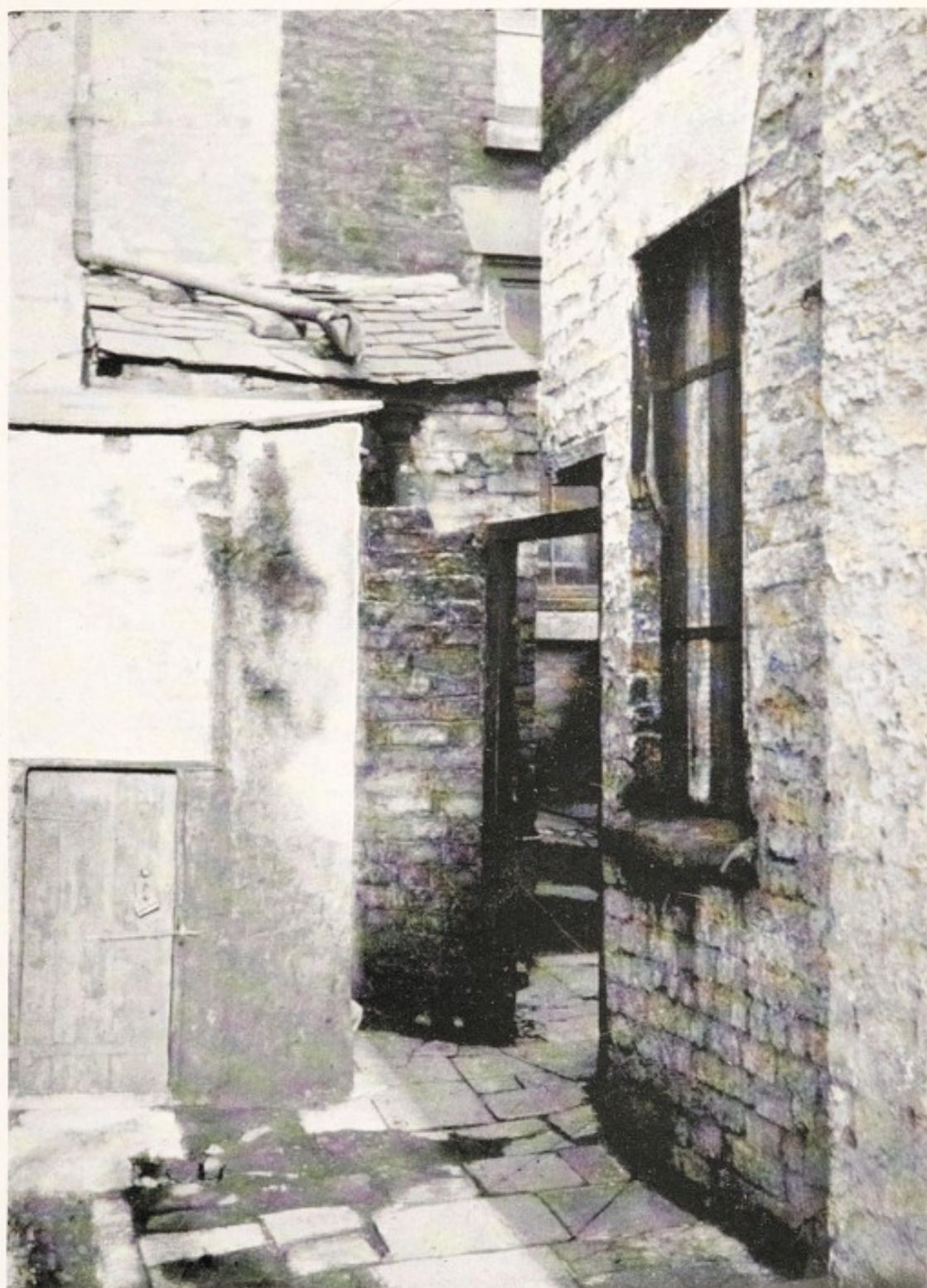
The frontage faces due North, and the houses being back-to-back are entirely deprived of sunlight.

(Included in Burlington Street Scheme.)









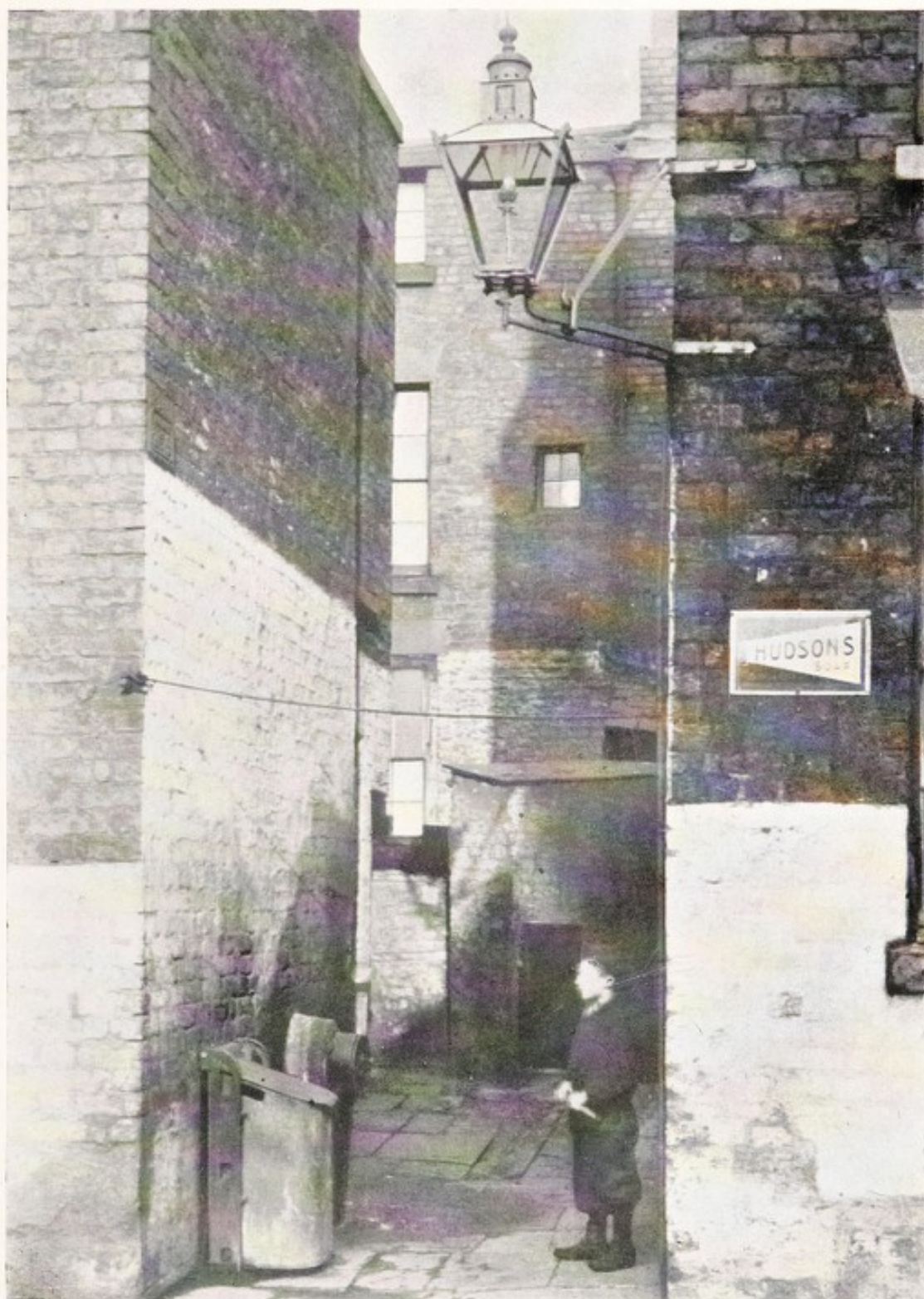
No. 7 COURT, ELDON STREET.

Interior view of Court shewing close proximity of trough water-closet  
to living room window.

(Included in Bevington Street Scheme.)





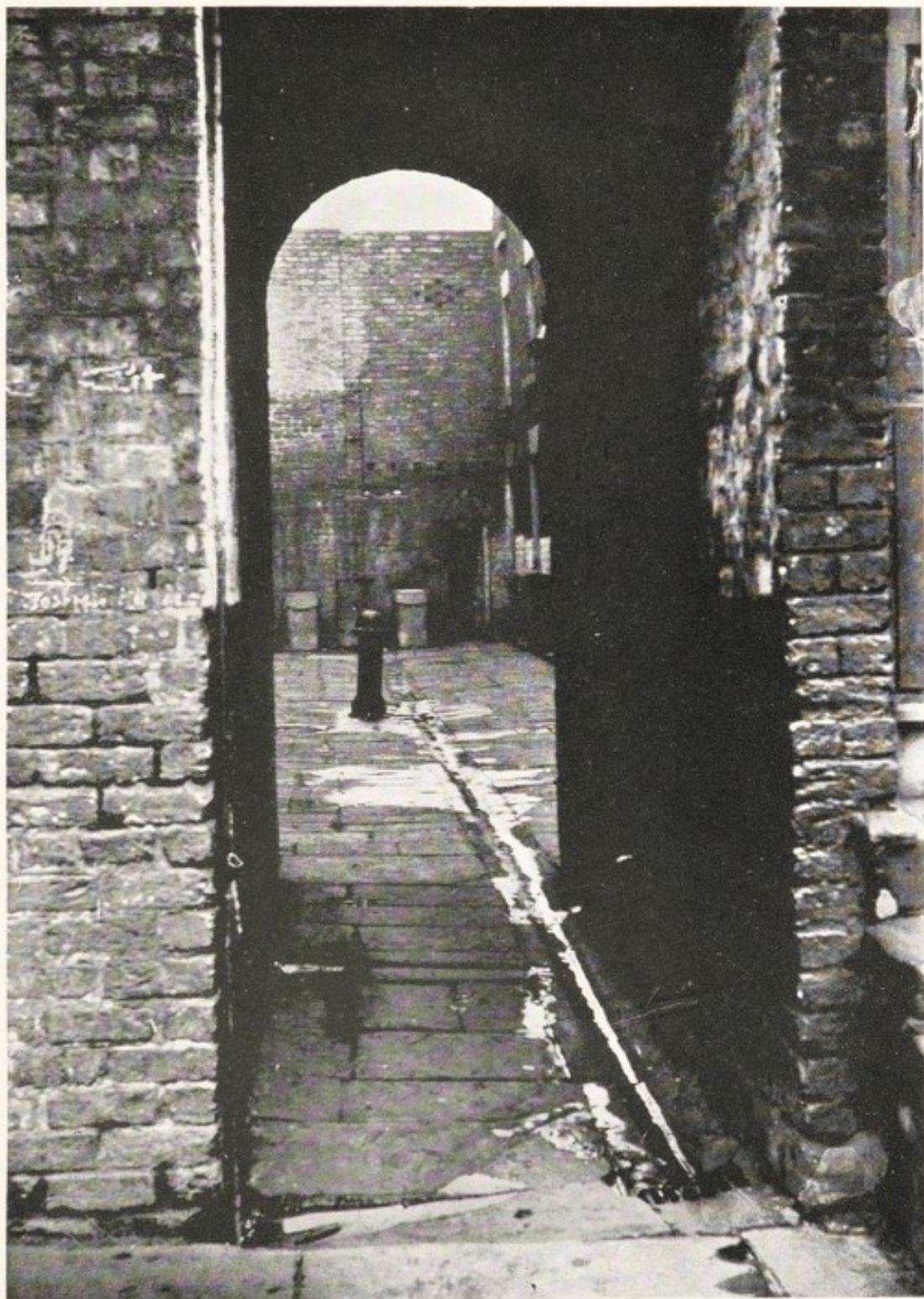


No. 9 COURT, ELDON STREET.

Exterior view of Court shewing high buildings at further end.  
(Included in Bevington Street Scheme.)







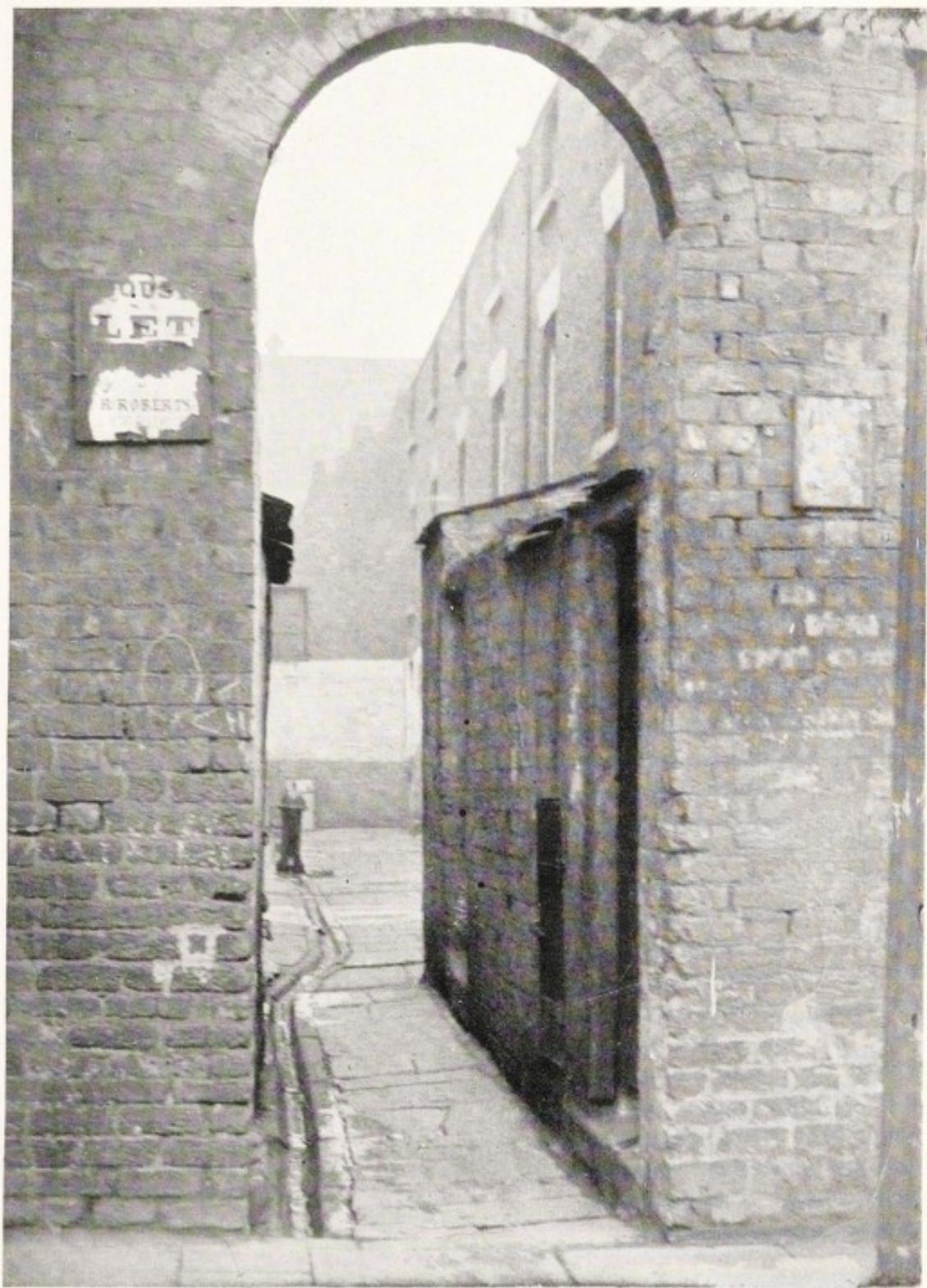
No. 21 COURT, BURLINGTON STREET.

Shewing tunnel entrance, on either side of which is an entrance  
to a dwelling-house.

(Included in Burlington Street Scheme.)





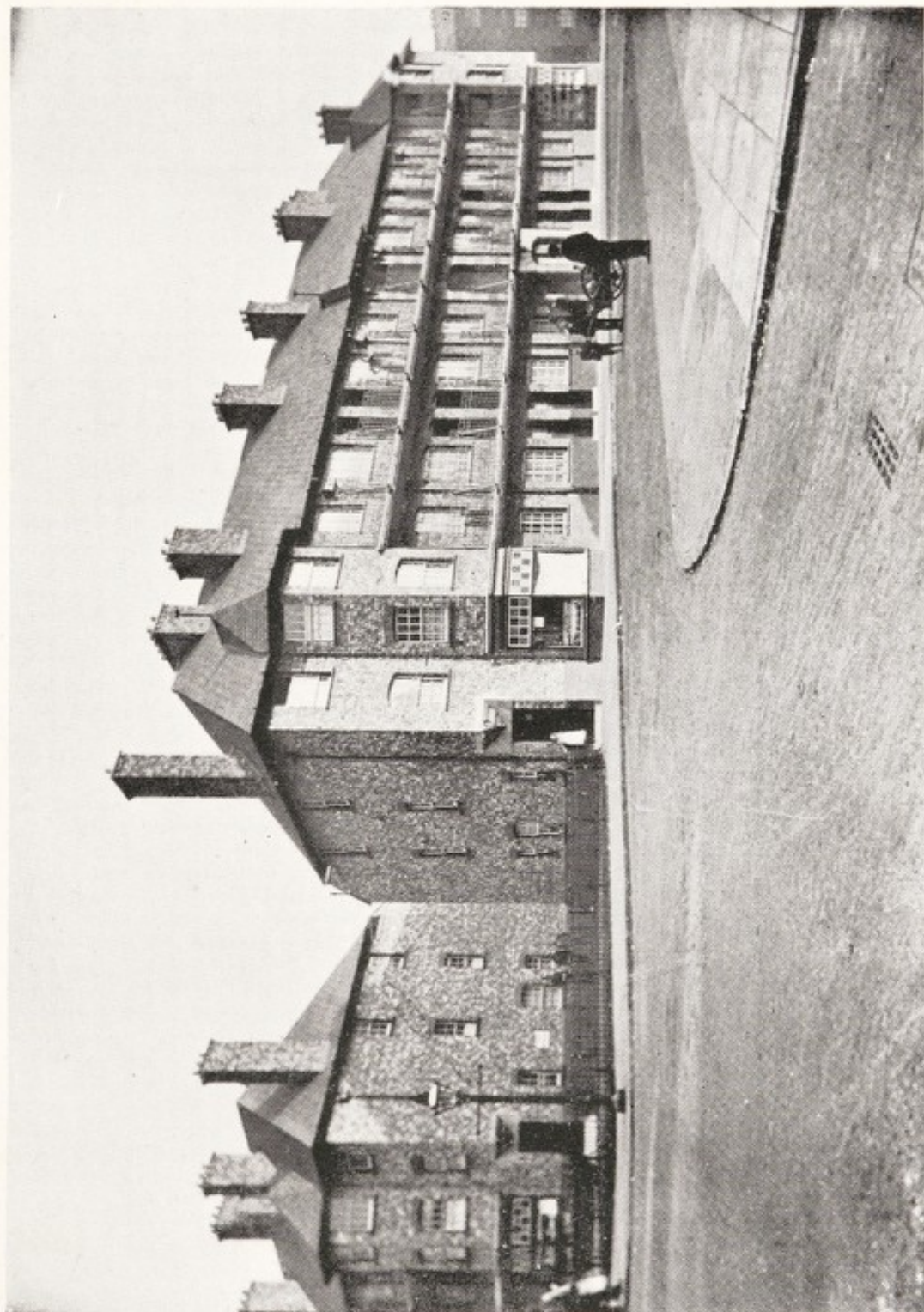


No. 25 COURT, BURLINGTON STREET.

Shewing diminished width of entrance to court in consequence of the position of the closets, used in common by the occupiers of the houses beyond. (Included in Burlington Street Scheme.)







View of some of the Dwellings erected by the Corporation in the Hornby Street Area (Limekiln Lane),  
on sites cleared of Insanitary Property.





## INSANITARY PROPERTY.

NUMBER OF HOUSES reported under each PRESENTMENT  
from JANUARY, 1865, to JUNE, 1904 (both inclusive).

DATE.	PRESENTMENT.	HOUSES REPORTED.	YEAR.	DEMOLISHED.
January, 1865...	1st Presentment.	101		101
July, 1865...	2nd "	95		95
January, 1866...	3rd "	190		190
" 1869...	4th "	61		61
October, 1871...	5th "	76		76
August, 1880...	6th "	43		43
April, 1884...	7th "	373		373
December, 1884...	8th "	629		629
March, 1889...	9th "	86	1889	98
April, 1890...	10th "	368	1890	208
" 1891...	11th "	501	1891	221
August, 1894...	12th "	299	1892	422
March, 1896...	13th "	240	1893	323
January, 1897...	14th "	799	1894	69
October, 1898...	15th "	304	1895	307
December, 1899...	16th "	666	1896	137
July, 1901...	17th "	346	1897	605
—	—	—	1898	471
June, 1904...	18th "	363	1899	511
—	—	—	1900	586
—	—	—	1901	190
—	—	—	1902	345
—	—	—	1903	157
—	—	—	1904	111
—	—	—	1905	605
—	—	—	1906	545
—	—	—	1907	190
No. of houses reported upon by the Medical Officer of Health, and purchased privately under the power of Act of 1882—May 1885 to April, 1888 .....		5,540		7,669
No. of houses included in Hornby Street and Upper Mann Street Areas .....		943		943
No. of houses included in Burlington Street, Brassey Street, Beau Street, Bevington Street, Holly Street, Saltney Street, Frank Street and Grafton Street Areas..		710		—
No. of houses reported on by Medical Officer of Health to Council, 1889-1904 .....		1,011		
1905 .....		930		
1906 .....		166		
1907 .....		297		
Total .....		162		
Total .....		9,759		8,612

## HOUSING OF THE WORKING CLASSES ACT, 1890.

Return made to the Local Government Board, in pursuance of Sec. 44 of the Housing of the Working Classes Act, 1890, in respect of the year ended 31st March, 1908.

### BUILDINGS UNFIT FOR HUMAN HABITATION.

Number of dwellings in respect of which representations were made to the Local Authority during the year:—

(a) By the Medical Officer of Health ..... 304

Number of dwelling houses respecting which action had been taken under Part II. of the Act, which were satisfactorily dealt with by the owner during the year, without a closing order being obtained, viz.: ..... 84

(a) Number made fit for human habitation ..... 62

(b) Number closed or demolished voluntarily..... 22

Number of dwelling houses in respect of which closing orders were made during the year ..... 181

Number of dwelling houses ordered to be demolished by the Local Authority during the year (Sec. 33) ..... 63

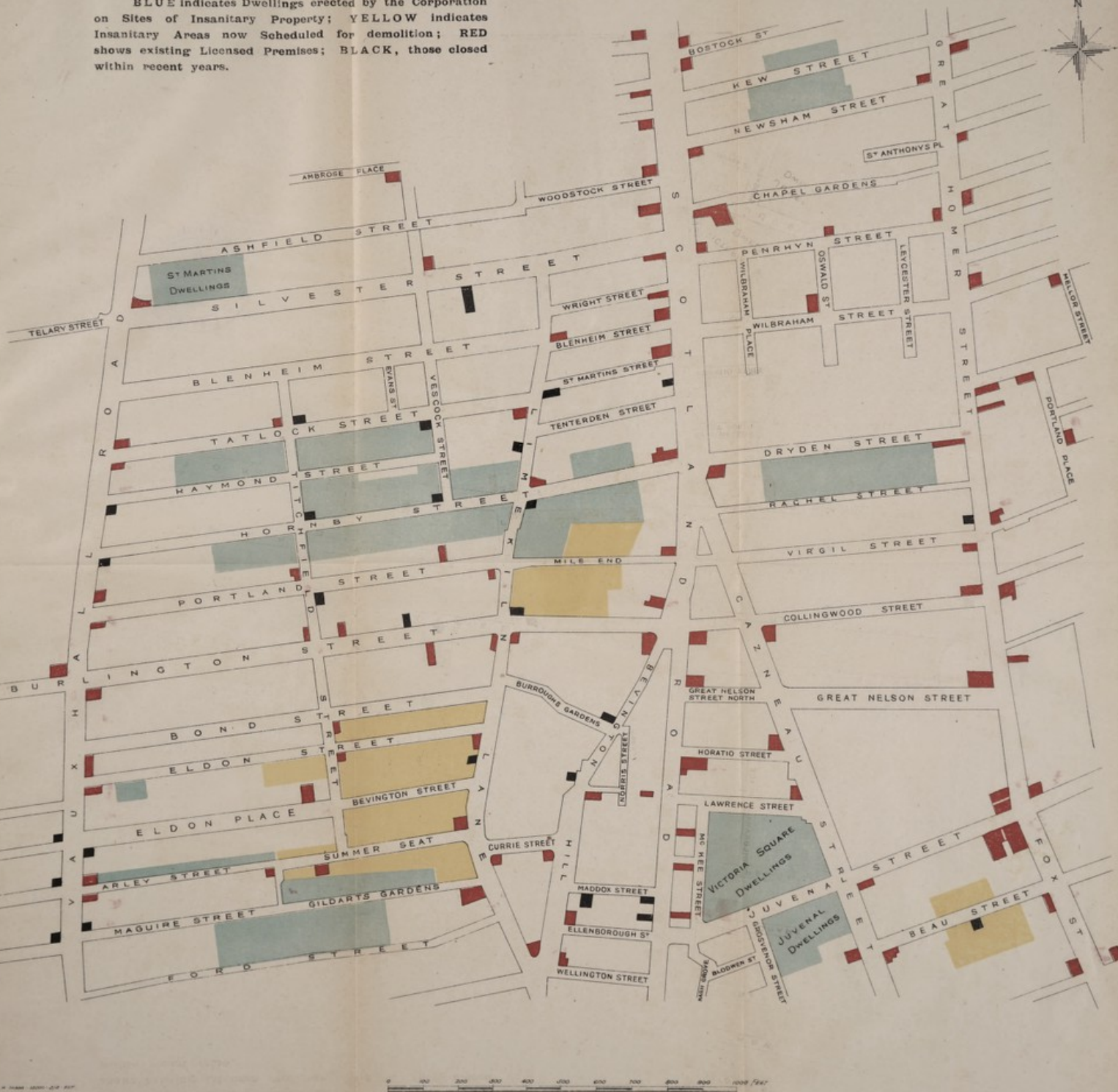
Number of dwelling houses (if any) in respect of which appeals under Sec. 35 (1) made during the year against orders of the Local Authority for demolition were allowed —



# Maps showing a group of Insanitary Areas dealt with by the Corporation.

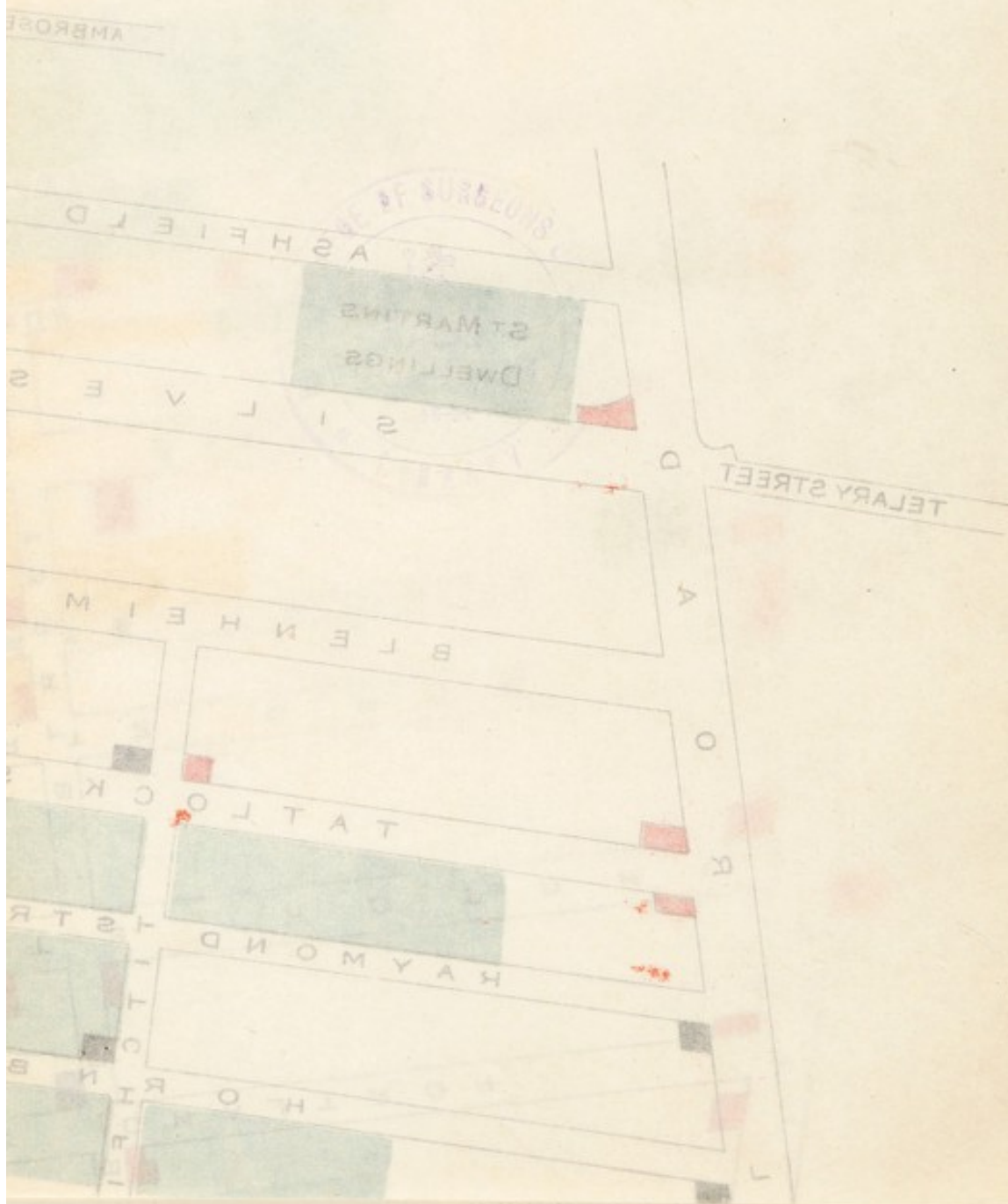
No. 1.

BLUE indicates Dwellings erected by the Corporation on Sites of Insanitary Property; YELLOW indicates Insanitary Areas now Scheduled for demolition; RED shows existing Licensed Premises; BLACK, those closed within recent years.



# Maps showing a group of Insanitary Areas

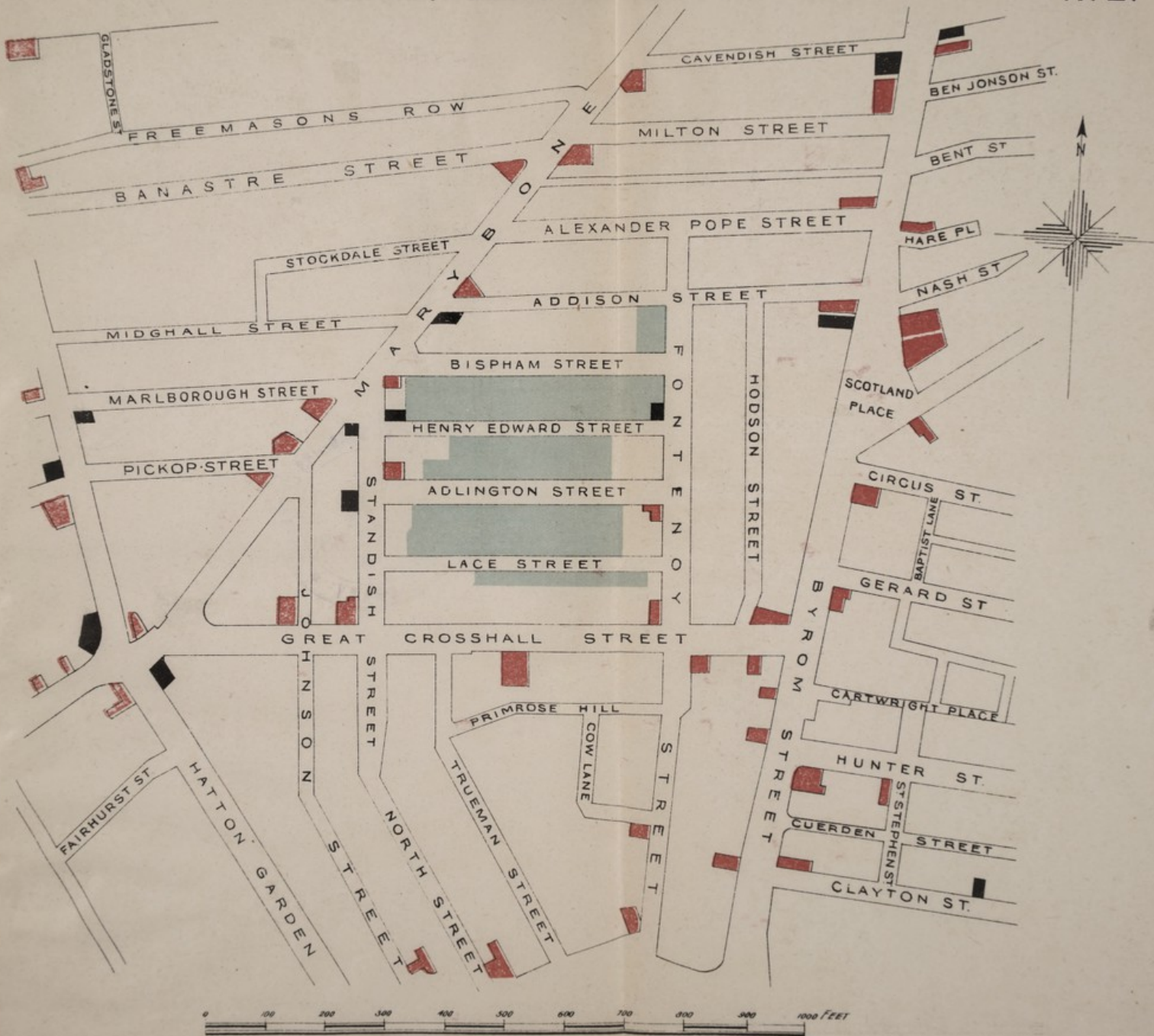
BLUE indicates Dwellings erected on Sites of Insanitary Property; Insanitary Areas now Scheduled shows existing Licensed Premises; within recent years.





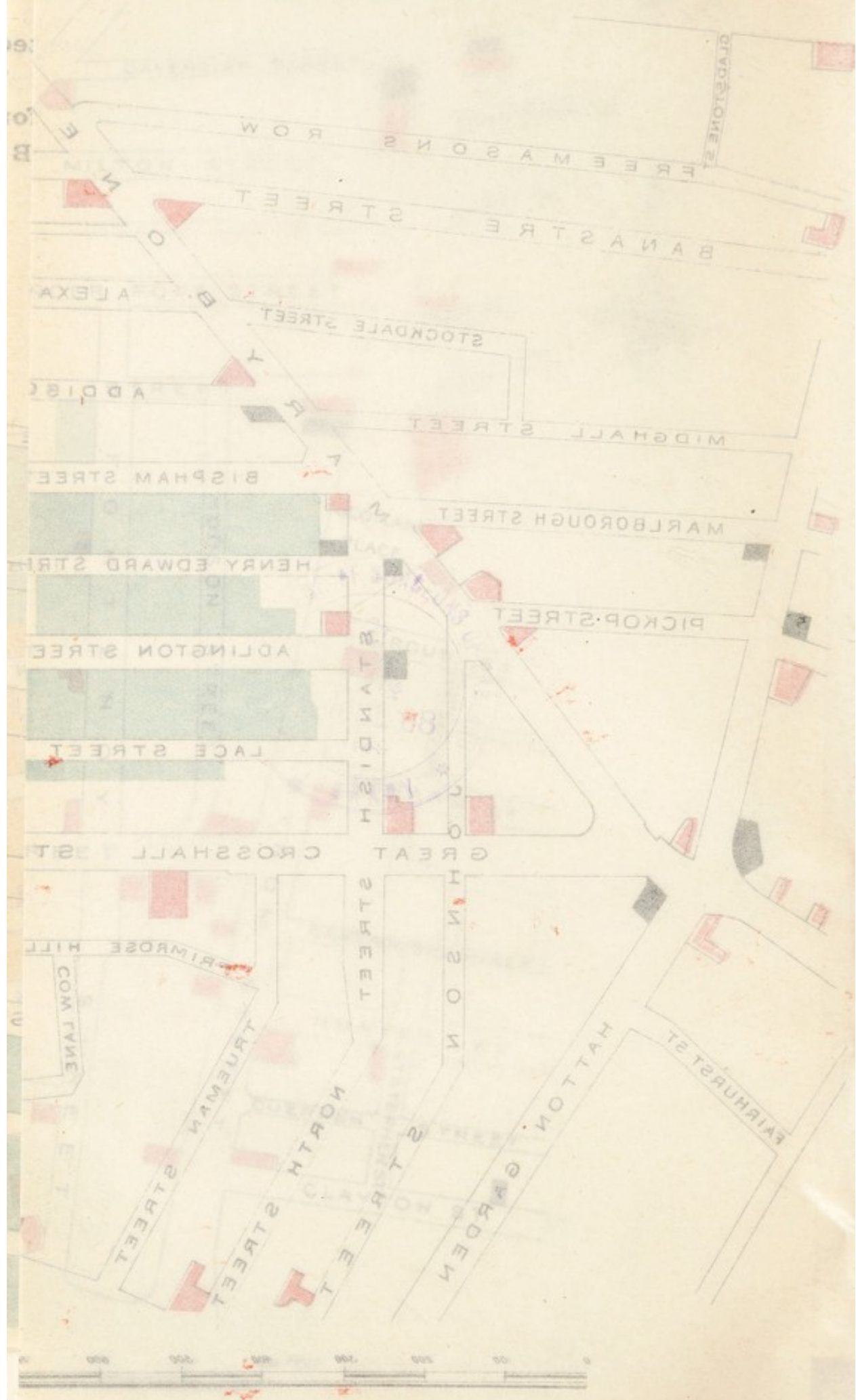
BLUE indicates Dwellings erected by the Corporation  
on Sites of Insanitary Property; RED shows existing  
Licensed Premises; BLACK, those closed within recent years.

N<sup>o</sup> 2.





BLUE indicates Dwellings  
on Sites of Insanitary Property  
Licensed Premises; BLACK, those



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CITY HOSPITALS.

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## HOSPITAL ACCOMMODATION.

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With the opening of the City Hospital at Fazakerley, the question of the permanent closure of Parkhill Hospital engaged the attention of the Hospitals Committee during the month of February, and although it was obviously not safe at that time to close the Institution entirely, a considerable number of the beds were put out of commission, viz., 200, and the staff was correspondingly reduced. In September the question was again brought forward, but it was felt that whatever action might be desirable in the near future, the close of the year, when an increase of infectious sickness usually arises, was not an opportune time to come to any decision.

The Hospitals Committee, therefore, deferred in the meantime any further action in this direction.

At the present time the number of beds available is as follows:—

City Hospital North	...	...	...	162	beds
„ South	...	...	...	100	„
„ East	...	...	...	152	„
„ Parkhill	...	...	...	150	„
„ Fazakerley	...	...	...	350	„
„ Fazakerley Annexe	...	...	...	160	„
				1,074	„

The approximate apportionment of beds is as follows, but the arrangement is modified as circumstances necessitate:—

Smallpox	...	...	...	...	160	beds
Typhus Fever	...	...	...	...	20	„
Typhoid Fever	...	...	...	...	100	„
Scarlet Fever	...	...	...	...	554	„
Diphtheria	...	...	...	...	80	„
Measles	...	...	...	...	60	„
Isolation	...	...	...	...	100	„
					<hr/>	
					1,074	„

The value of the hospitals, and the immense amount of useful work performed, is shown by the fact that no less than 4,578 patients were treated within their walls, the great majority of these being cases of scarlet fever.

The tables which follow will show in detail a great deal of information relating to all of these cases, but it is of special interest to point out the much greater demands made by the public upon these institutions at the present time than formerly. The advantages of the hospitals are now so fully recognised by the public that the removal to hospital of their sick dependents is insisted upon, and claimed as a right. A few years ago, in cases similarly circumstanced, removal would never have been sought, and would even have been resisted.

The claims resulting from this enlightenment of the public cannot be met without expense, but it would be difficult to point to any example of necessary municipal expenditure in which the direct benefits, alike to the recipients and to the community, are so strongly marked.

The average duration of stay in hospital of patients whose treatment was completed during the year 1907 was as follows:—

Scarlet Fever Patients from	...	...	...	8 to 9 weeks
Typhoid	...	...	...	6 „ 7 „
Typhus	...	...	...	4 „ 5 „
Diphtheria	...	...	...	5 „ 6 „

In many instances detention in hospital is very prolonged owing to the severity of the original illness, and the consequent slow convalescence of the patient.

Arrangements have been made between the Hospitals Committee and various Local Authorities to receive cases of infectious disease from districts beyond the City boundary, namely, Sefton Rural District, Waterloo and Seaforth, Great Crosby, Little Crosby, Allerton, Childwall, and the Children's Convalescent Home, West Kirby. Applications have also been made by the Councils of Formby and Litherland requesting the Liverpool Corporation to receive cases of infectious disease, and a request has also been received from the Bootle Corporation in regard to cases of smallpox, but no definite arrangement has yet been come to.



Special cases have been received from several other districts during the course of the year, but no permanent agreement was arranged, and application was made in connection with each particular patient.

Arrangements have also been made to deal with any case of cholera, yellow fever, or plague which may arise in any of the neighbouring urban or rural districts. A suitable charge is made in each case.

In addition to the foregoing, the disinfection of bedding and clothing is also undertaken for the Sefton Rural District Council.

Steps have been taken by the Committee to render the training of probationer nurses more efficient. Probationers are received at some, but not all, of the city hospitals, and under the arrangements now arrived at, the system, which will include lectures, as well as practical and clinical instruction, will render the course of training a very full and complete one.

On the recommendation of the Health Committee, a scheme, approved by the Port Sanitary and Hospitals Committee, was adopted by the Council in September, by which 24 beds at the City Hospital, Fazakerley, were to be devoted to the treatment and experimental study of cases of Tuberculosis. The structural completeness of this Hospital, the climatic and soil conditions obtaining, together with the exceptional facilities for laboratory work, appeared to render the Institution at Fazakerley particularly suited to this undertaking. A Medical Officer with experience in opsonic work and its application to the treatment of disease was appointed to assist in the investigation of this branch of the work. The short period which has elapsed since the inauguration of this scheme does not permit an exact statement as to the results which are likely to be obtained. One cannot fail, however, to be impressed by the very rapid improvement which has taken place in the condition of the majority of the patients who have had the advantage of this treatment. Evidence is not yet available to show how far the disease has been permanently arrested in those patients who have been discharged from Hospital. A system has, however, been adopted by which these patients shall present themselves at regular intervals for examination. It is further anticipated that visits to the house of recovered patients by Inspectors of the Health Department may result in a continued observance of those hygienic methods which the patients have acquired in Hospital. (See page 56.)



# INFECTIOUS DISEASE.

The following table shows the number and nature of cases of Infectious Disease coming under the notice of the Medical Officer of Health during the year 1907, including those reported under the Notification Act.

YEAR—1907.	FEVER.				Smallpox.	Scarlet Fever.	Measles.	Diphtheria.	Membranous Croup.	Puerperal Fever.	Erysipelas.	TOTAL.
	Typhus.	Typhoid.	Simple.	Relapsing.								
January .....	16	43	1	...	7	257	471	85	3	10	89	982
February .....	4	28	...	...	1	215	403	59	2	5	80	797
March.....	6	43	1	...	...	181	691	64	1	5	78	1,070
April .....	5	36	...	...	7	226	618	48	...	4	59	1,003
May.....	16	32	...	...	1	232	1,024	68	3	9	60	1,445
June .....	16	39	...	...	...	217	872	75	...	9	66	1,294
July .....	22	28	...	...	1	175	100	67	5	3	42	443
August .....	6	35	...	1	...	198	76	59	1	1	67	444
September.....	13	31	1	...	...	308	154	69	1	1	55	633
October .....	9	46	1	...	...	243	310	69	1	3	50	732
November .....	3	65	...	...	1	265	480	153	2	3	88	1,060
December .....	...	56	1	...	1	224	441	93	1	5	56	878
TOTAL.....	116	482	5	1	19	2,741	5,640	909	20	58	790	10,781
Removed to hospital	116	373	4	...	19	2,144	342	627	4	33	188	3,850

The number of patients removed to hospital includes those taken to general hospitals as well as those taken to the City Hospitals. (See page 134.)

# THE INFECTIOUS DISEASE (NOTIFICATION) ACT

The number of notifications received by the Medical Officer under the above Act, during the past five years, were as follows:—

	1903.	1904.	1905.	1906.	1907.
January ...	1,288	576	632	803	527
February ...	1,115	624	592	583	403
March ...	1,221	573	712	634	381
April ...	1,072	556	633	410	412
May ...	1,128	609	827	365	454
June ...	1,082	679	862	409	437
July ...	940	491	643	335	352
August ...	632	487	606	368	391
September ...	743	629	810	475	476
October ...	884	839	1,068	674	476
November ...	691	846	1,101	655	593
December ...	561	704	938	550	472
	<u>11,357</u>	<u>7,613</u>	<u>9,424</u>	<u>6,261</u>	<u>5,374</u>

The diseases were specified as follows:—

	1903.	1904.	1905.	1906.	1907.
Smallpox ...	1,548	27	11	110	25
*Chickenpox ...	2,631	1,792	2,254	636	—
Scarlet Fever ...	4,110	2,995	4,299	2,765	2,727
Typhoid Fever ...	740	496	378	510	546
Typhus Fever ..	177	82	84	46	91
Continued Fever	56	36	19	29	16
Remittent Fever..	—	1	—	2	—
Relapsing Fever .	7	1	2	1	2
Fever ...	2	2	2	1	1
Puerperal Fever..	62	67	79	116	69
Diphtheria ...	876	1,015	1,021	915	970
Membranous Croup.	39	67	48	36	37
Erysipelas ...	1,107	1,030	1,225	1,087	847
† Anthrax ...	2	2	2	7	15
† Cerebro Spinal Fever	—	—	—	—	28
	<u>11,357</u>	<u>7,613</u>	<u>9,424</u>	<u>6,261</u>	<u>5,374</u>

\* Not now notifiable.

† Scheduled as a notifiable disease for 6 months, from March, 1907.

‡ Scheduled as a notifiable disease for 3 years, from June, 1907.



NUMBER OF CASES REPORTED AND NUMBER REMOVED TO HOSPITALS, 1889-1907.

	SMALLPOX.		SCARLET FEVER.		TYPHOID.		TYPHUS.		MEASLES.	
	Number Reported.	Number Removed.	Number Reported.	Number Removed.	Number Reported.	Number Removed.	Number Reported.	Number Removed.	Number Reported.	Number Removed.
1889 ..	9	8	1,832	533	670	302	158	124	3,175	104
1890 ..	2	2	3,520	938	506	296	103	87	4,013	152
1891 ..	21	21	1,176	448	588	350	175	156	2,262	160
1892 ..	177	177	1,554	603	699	345	73	70	3,376	150
1893 ..	75	73	3,538	1,380	1,396	728	183	168	2,316	94
1894 ..	229	226	3,963	1,415	1,350	745	325	312	2,494	122
1895 ..	130	127	2,710	1,039	1,306	662	162	158	3,462	93
1896 ..	8	8	3,584	1,589	1,063	539	305	298	2,930	138
1897 ..	6	6	3,001	1,641	991	559	158	156	4,389	94
1898 ..	17	16	2,424	1,467	863	585	92	84	2,458	105
1899 ..	10	10	2,416	1,537	988	668	70	64	5,107	140
1900 ..	156	154	1,968	1,198	731	450	42	41	2,372	108
1901 ..	37	37	3,310	1,814	864	567	55	54	6,766	185
1902 ..	560	559	5,914	2,994	1,026	670	155	155	7,141	177
1903 ..	1,720	1,719	4,053	2,145	681	462	272	266	2,728	114
1904 ..	27	27	2,988	2,214	434	296	97	97	9,453	428
1905 ..	15	14	4,308	3,147	325	235	98	95	3,938	322
1906 ..	19	19	2,959	2,191	491	360	52	49	6,819	389
1907 ..	19	19	2,741	2,144	482	373	116	116	5,640	342



The following tables, prepared by the Medical Staff of each Hospital, show the number of patients, the nature of the illness, and the results, at each of the six City Hospitals during the year 1907.

### CITY HOSPITAL NORTH, NETHERFIELD ROAD.

*Visiting Physician, Dr. R. I. RICHARDSON.*

*Resident Physician, Dr. B. T. J. GLOVER.*

DISEASES.	Remaining Dec. 31st, 1906.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment during the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
Scarlet Fever.	64	470	—	534	129	—	302	64	3	39	8.3
Enteric Fever.	16	149	—	165	—	—	102	29	1	34	22.8
Typhus Fever.	14	108	—	122	—	—	103	—	3	19	17.6
Diphtheria ...	—	1	—	1	—	—	1	—	—	—	—
Other Diseases	—	58	—	58	—	—	46	—	—	12	20.7
Isolation and Observation Cases. ...	6	19	—	25	—	—	15	10	—	—	—
Totals..	100	805	—	905	129	—	569	103	7	104	12.9

### SCARLET FEVER.

	AGE PERIODS.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases .....	168	204	77	13	7	1	—	470
No. of Deaths .....	30	9	—	—	—	—	—	39
Percentage of Deaths	17.8	4.4	—	—	—	—	—	8.3

## ENTERIC FEVER.

	AGE PERIODS.							Total.
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	
No. of Cases.....	9	25	50	29	26	8	2	149
No. of Deaths .....	1	3	6	10	10	3	1	34
Percentage of Deaths	11·1	12·0	12·0	34·4	38·4	37·5	50·0	22·8

## TYPHUS FEVER.

	AGE PERIODS.							Total.
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	
No. of Cases .....	8	14	42	16	17	7	4	108
No. of Deaths .....	—	—	3	3	7	4	2	19
Percentage of Deaths	—	—	7·1	18·7	41·1	57·1	50·0	17·6

## DIPHTHERIA.

	AGE PERIODS.							Total.
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	
No. of Cases.....	1	—	—	—	—	—	—	1
No. of Deaths .....	—	—	—	—	—	—	—	—

## OTHER DISEASES.

Disease.	Admitted.	Died.
Pneumonia .....	34	5
Broncho Pneumonia .....	8	1
Cerebro-Spinal Fever .....	7	3
Tubercular Meningitis.....	4	2
Measles .....	1	—
Diphtheria.....	1	—
Exfol. Dermatitis.....	1	—
Gonorrhoea .....	1	—
Typhus Contacts.....	14	—
Malaria.....	1	1
	<u>72</u>	<u>12</u>

Mortality=16·6%.

## CITY HOSPITAL SOUTH, GRAFTON STREET.

Visiting Physician, Dr. N. E. ROBERTS.

Resident Physician, Dr. H. L. HAMILTON.

DISEASES.	Remaining Dec. 31st, 1906.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment during the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
Scarlet Fever.....	50	330	—	380	81	—	231	50	2	18	5·45
Enteric Fever.....	13	92	1	106	—	—	69	29	1	8	8·69
Typhus Fever .....	—	9	—	9	—	—	9	—	—	—	—
Diphtheria .....	—	2	—	2	—	—	2	—	—	—	—
Measles .....	—	4	—	4	—	2	1	—	—	1	25·00
Other Diseases.....	2	37	—	39	—	—	36*	—	—	3	8·10
Isolation & Obser- vation Cases .....	—	9	—	9	—	—	9	—	—	—	—
Totals .....	65	483	1	549	81	2	357	79	3	30	6·21

\* Of this class, 4 were removed to General Hospitals.

One case of Scarlet Fever was admitted suffering from advanced Anæmia and died within 24 hours.



## SCARLET FEVER.

	AGE PERIODS.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases .....	157	117	43	10	3	—	—	330
No. of Deaths .....	9	8	1	—	—	—	—	18
Percentage of Deaths	5·73	6·83	2·32	—	—	—	—	5·45

## ENTERIC FEVER.

	AGE PERIOD .							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 up- wards.	Total.
No. of Cases .....	5	16	23	28	12	6	2	92
No. of Deaths.....	—	—	2	4	2	—	—	8
Percentage of Deaths..	—	—	8·69	14·28	16·6	—	—	8·69

## TYPHUS FEVER.

	AGE PERIODS.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases.....	1	2	2	2	2	—	—	9
No. of Deaths.....	—	—	—	—	—	—	—	—

## DIPHThERIA.

	AGE PERIODS.							Total.
	Under 5	5—10	10—20	20—30	30—40	40—50	50 up- wards.	
No. of Cases .....	1	—	—	1	—	—	—	2
No. of Deaths .....	—	—	—	—	—	—	—	—

## OTHER DISEASES.

Disease.	Admitted.	Died.
Bronchitis .....	1	—
Broncho Pneumonia.....	6	—
Cerebral Disease .....	1	—
Cerebro Spinal-Meningitis .....	1	1
Constipation .....	1	—
Endocarditis.....	1	—
Erysipelatous Inflammation of leg.....	1	—
Gastritis .....	1	—
Malaise .....	9	—
Meningitis .....	1	1
Meningitis and Pneumonia .....	1	1
Pneumonia .....	8	—
Pneumonia and Empyæma .....	1	—
Pneumonia and Pleurisy .....	1	—
Pneumonia and Varicella .....	1	—
Tubercular Disease of Chest.....	1	—
	<u>36</u>	<u>3</u>

Mortality=8·3%.

# CITY HOSPITAL, PARK HILL.

Visiting Physician, Dr. N. E. ROBERTS.

Resident Physician, Dr. De COURCY.

DISEASES.	Remaining Dec. 31st, 1906.	Admitted during the year.	Transferred from other City Hospitals	Total under Treat- ment during the year.	Transferred to other City Hospitals	Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
Scarlet Fever .....	165	505	45	715	48	542	93	2	32*	5.8
Enteric Fever .....	—	2	—	2	1	1	—	—	—	—
Diphtheria.....	9	154	—	163	—	123	14	17	26†	16.2
Measles .....	31	134	1	166	—	136	17	1	13‡	8.9
Other Diseases .....	—	27	—	27	1	11	3	1	12	44.4
Isolation and Obser- vation Cases.....	—	14	—	14	—	12	2	—	—	—
Totals .....	205	836	46	1087	50	825	129	21	83	9.5

\* One death occurred amongst the cases brought over from 1906; and one death in transferred cases.

† One death occurred in the cases brought over from 1906.

‡ This includes a case transferred from another City Hospital.

## SCARLET FEVER.

	AGE PERIODS.							Total
	Under 5	5-10	10-20	20-30	30-40	40-50	50 up- wards	
No. of cases.....	208	237	83	13	6	2	1	550
No. of deaths .....	23	5	2	1	—	—	—	31*
Percentage of deaths.....	—	—	—	—	—	—	—	5.6

\* This does not include the death brought forward from 1906.



## DIPHTHERIA.

	AGE PERIODS.							Total.
	Under 5	5-10	10-20	20-30	30-40	40-50	50 up- wards	
No. of cases .....	61	59	18	10	2	3	1	154
No. of deaths .....	15	8	2	—	—	—	—	25*
Percentage of deaths.....	—	—	—	—	—	—	—	16·2

\* This does not include the death amongst those brought forward from 1906.

## OTHER DISEASES.

Disease	Admitted	Died
Tonsillitis .....	5	—
Infective Endocarditis .....	1	1
Pneumonia .....	2	2
Urticaria .....	2	—
Enteric .....	2	—
Laryngismus Stridulus.....	1	1
Nephritis .....	1	1
Broncho Pneumonia.....	1	1
Marasmus.....	4	3
Phthisis .....	2	—
Tubercular Meningitis.....	1	1
Chicken Pox .....	2	—
Heart Disease .....	1	—
Scald (before admission) .....	1	1
Cellulitis of Neck .....	1	1
Measles .....	134	12
	<u>161</u>	<u>24</u>

Mortality —14·9%.

CITY HOSPITAL EAST, MILL LANE.

*Visiting Physician, DR. H. A. CLARKE.*

*Resident Physician, DR. A. E. HODGSON.*

DISEASES.	Remaining Dec. 31st, 1903.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment during the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
Scarlet Fever...	40	345	—	385	—	6	304	56	1	18	5·2
Enteric Fever..	—	1	—	1	—	—	1	—	—	—	—
Diphtheria .....	28	248	—	276	—	—	219	21	8	28	11·2
Measles .....	—	51	—	51	—	—	39	1	1	10	19·5
Other Diseases.	—	55	—	55	—	—	49	2	—	4	7·2
Isolation and Observation Cases.....	—	10	—	10	—	—	10	—	—	—	—
Totals.....	68	710	—	778	—	6	622	80	10	60	8·4

SCARLET FEVER.

	AGE PERIODS							Total.
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	
No. of Cases.....	115	123	61	26	14	6	—	345
No. of Deaths.....	14	4	—	—	—	—	—	18
Percentage of deaths	12·1	3·2	—	—	—	—	—	5·2

## DIPHTHERIA.

	AGE PERIODS.							Total
	Under 5	5-10	10-20	20-30	30-40	40-50	50 up- wards	
No. of Cases .....	71	72	71	22	6	5	1	248
No. of Deaths.....	18	10	—	—	—	—	—	28
Percentage of Deaths .....	25·3	13·8	—	—	—	—	—	11·2

## MEASLES.

	AGE PERIODS.							Total.
	Under 5	5-10	10-20	20-30	30-40	40-50	50 up- wards.	
No. of Cases .....	24	19	5	3	—	—	—	51
No. of Deaths .....	10	—	—	—	—	—	—	10
Percentage of Deaths .....	41·5	—	—	—	—	—	—	19·5

## OTHER DISEASES.

Disease.	Admitted.	Died.
*Tonsillitis .....	42	—
Isolation and Observation .....	10	—
Septicæmia .....	5	3
Cerebral Abscess .....	1	1
Laryngitis and Erythema Nodosum .....	1	—
Croupous Pneumonia .....	1	—
Varicella.....	1	—
Pertussis.....	1	—
Influenza .....	1	—
Drug Eruption .....	1	—
Syphilis .....	1	—
	<u>65</u>	<u>4</u>

Mortality= 6·1 %.

\* This class is composed of the cases which, sent in to Hospital as "Diphtheria," proved "Negative" on Bacteriological Examination.



# CITY HOSPITAL, FAZAKERLEY.

Medical Superintendent, DR. C. RUNDLE.

Assistant Medical Officer, DR. H. E. WILLIAMS.

Diseases.	Remaining Dec. 31st., 1906.	Admitted during the year.	Transferred from other City Hospitals	Total under Treatment during the year.	Transferred to other City Hospitals	Discharged Cured	Remaining at end of year	Died within 48 hours of Admission	Total Deaths	Total Mortality per cent. of Admissions.
Scarlet Fever .....	145	525	213	883	39	700	129	3	15*	2.8
Enteric Fever.....	3	5	—	8	—	4	3	—	1	20
Puerperal Fever .....	—	12	—	12	—	9	2	—	1	8.33
Diphtheria .....	29	142	—	171	9	118	37	2	7	4.9
Phthisis .....	—	36	—	36	—	9	26	—	1	2.7
Measles .....	1	124	1	126	11	78	30	—	7	5.6
Other Diseases .....	2	103	7	112	2	62	16	8	32	31.06
Infantile Diarrhœa .....	—	52	—	52	—	39	3	3	10	19.2
Isolation and Observation Cases .....	—	9	1	10	2	8	—	—	—	—
Erysipelas .....	—	70	—	70	—	64	2	—	4	5.7
Totals .....	180	1078	222	1480	63	1091	248	16	78	7.2

\* One of these deaths was a patient transferred from another City Hospital.

## SCARLET FEVER.

	AGE PERIODS.							Total
	Under 5	5-10	10-20	20-30	30-40	40-50	50 up- wards	
No. of Cases.....	182	217	108	12	6	—	—	525
No. of Deaths.....	12	1	1	—	—	—	—	14
Percentage of Deaths .....	6.59	.46	.92	—	—	—	—	2.66

## ENTERIC FEVER.

	AGE PERIODS.							Total
	Under 5	5-10	10-20	20-30	30-40	40-50	50 upwards	
No. of Cases .....	—	—	2	2	1	—	—	5
No. of Deaths.....	—	—	—	1	—	—	—	1
Percentage of Deaths .....	—	—	—	50	—	—	—	20

## DIPHTHERIA.

	AGE PERIODS.							Total
	Under 5	5-10	10-20	20-30	30-40	40-50	50 upwards	
No. of Cases .....	41	60	29	5	5	2	—	142
No. of Deaths.....	2	4	1	—	—	—	—	7
Percentage of Deaths .....	4·8	6·6	3·4	—	—	—	—	4·9

## OTHER DISEASES.

Disease.	Admitted.	Died.	Disease.	Admitted.	Died.
Acute Tonsillitis .....	20	—	Varicella .....	6	1
Ulcerative Tonsillitis .....	1	1	Ophthalmia .....	3	—
Vincent's Disease .....	1	1	Furunculosis .....	1	—
Acute Bronchitis.....	3	—	Erythema .....	1	—
Cerebro Spinal-Meningitis...	1	1	Foreign body in Trachea ...	1	1
"    Fever .....	3	1	Stomatitis.....	1	—
Influenza .....	2	—	Gastro-Enteritis .....	3	1
Delirium Tremens .....	1	—	Suppurative Tonsillitis .....	1	—
Infantile Hemiplegia .....	1	1	Pericarditis .....	1	1
Lobar Pneumonia .....	6	3	Acute Dyspeptic Diarrhoea..	7	1
Broncho Pneumonia .....	4	2	Abscess of Lung and Liver..	1	1
Infantile Convulsions.....	1	1	Debility .....	2	—
Meningitis .....	4	3	Cretinism .....	1	1
Acute Miliary Tuberculosis.	2	2	Appendicitis .....	1	—
Tetanus .....	1	1	Tubercular Adenitis.....	1	1
Morbus Cordis .....	1	—	Whooping-Cough Varicella..	1	—
Acute Pulmonary Tuber- culosis .....	1	—	Cancerum Oris .....	1	1
Tubercular Meningitis .....	1	1	Acute Nephritis .....	1	1
Whooping-Cough.....	6	3	Chronic Nephritis .....	1	1
Syphilis .....	3	—	Burns .....	1	—
Rheumatism.....	1	—	General Tuberculosis .....	2	2
Constipation .....	1	—			
				103	33

Mortality ... .. 32·03 %.

## CITY HOSPITAL, FAZAKERLEY ANNEXE.

Medical Superintendent, DR. C. RUNDLE.

Diseases.	Remaining Dec. 31st, 1906.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment dur- ing the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
Scarlet Fever...	—	6	95	101	—	—	33	68	—	—	—
Diphtheria.....	—	—	9	9	—	—	—	9	—	—	—
Smallpox .....	—	16	—	16	—	—	16	—	—	—	—
Measles .....	—	3	4	7	—	—	7	—	—	—	—
Other Diseases.	3	44	9	56	—	6	43	6	—	1	2.2
Isolation and Observation Cases .....	—	44	2	46	—	—	27	19	—	—	—
Totals .....	3	113	119	235	—	6	126	102	—	1	.88

## SCARLET FEVER.

	AGE PERIODS.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases .....	5	1	—	—	—	—	—	6
No. of Deaths .....	—	—	—	—	—	—	—	—

## SMALL POX.

	AGE PERIODS.							
	Under 5	5-10	10-20	20-30	30-40	40-50	50 up- wards	Total.
No. of Cases.....	3	—	3	2	4	—	4	16
No. of Deaths.....	—	—	—	—	—	—	—	—



## OTHER DISEASES.

Disease.	Admitted.	Died.
Varicella.....	33	—
Impetigo.....	2	—
Syphilis .....	1	—
Urticaria .....	1	—
Varicella and Whooping Cough.....	2	—
Whooping Cough .....	1	1
Exfoliative Dermatitis .....	1	—
Erythema .....	2	—
Vaccinia .....	1	—
	<u>44</u>	<u>1</u>

Mortality ... .. 2·2 %

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## APPENDIX.

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The following tables I, II, III, IV, V, and marked also A, B, C, D, E, are prepared pursuant to an instruction of the Local Government Board.

TABLE I.

YEAR.	Population estimated to Middle of each year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.						TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT.	Deaths of non-residents registered in Public Institutions in the District.	Deaths of residents registered in Public Institutions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
		Number.	Rate.*	Under 1 year of age.		At all ages.								
				Rate per 1000 Births regist'd.	Number.	Rate.*	At all ages.							
							Number.	Rate.*						
1	2	3	4	5	6	7	8	9	10	11	12	13		
1897.....	653633	22280	33.6	4488	201	15590	23.5	3604	473	...	15117	22.8		
1898.....	669243	22227	33.2	4111	184	15380	23.0	3812	527	...	14853	22.2		
1899.....	674912	22488	33.3	4481	199	16861	25.0	4278	592	7	16276	24.1		
1900.....	680628	22762	33.4	4247	186	16393	24.0	4257	616	8	15785	23.1		
1901.....	686332	21980	32.0	4138	188	15493	22.5	4231	618	4	14879	21.6		
+1902.....	710337	24283	34.2	3936	162	15994	22.5	4564	602	4	15396	21.6		
1903.....	716810	23910	33.3	3815	159	14848	20.7	4549	685	77	14240	19.8		
1904.....	723430	24278	33.5	4780	196	16524	22.8	4587	673	35	15886	21.9		
+1905.....	733714	24350	33.2	3762	154	14849	20.2	4908	746	28	14131	19.2		
1906.....	739180	24123	32.6	4194	173	15745	21.3	4985	744	60	15061	20.3		
Averages for years 1897-1906.	699822	23268	33.2	4195	180	15767	22.5	4377	627	22	15162	21.6		
1907.....	746144	23654	31.7	3438	145	14408	19.3	4984	732	46	13722	18.3		

\* Rates in Columns 4, 8, and 13 calculated per 1000 of estimated population. † Garston included. ‡ Fazakerley included.

NOTE.—The deaths to be included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The "Public institutions" to be taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums.

Area of District in acres }  
(exclusive of area } 16,619.  
covered by water.) }

Total population at all ages.....704,134 } At Census  
Number of inhabited houses .....126,835 } of  
Average number of persons per house .....5.5 } 1901.

**A**—Continued.

I. Institutions within the District receiving sick and infirm persons from outside the District.	II. Institutions outside the District receiving sick and infirm persons from the District.	III. Other Institutions, the deaths in which have been distributed among the several localities in the District.
<p>Parish Workhouse, Brownlow Hill. Royal Infirmary.</p> <p>Children's Infirmary.</p> <p>Consumption Hospital.</p> <p>Eye and Ear Infirmary.</p> <p>David Lewis Northern Hospital.</p> <p>Stanley Hospital.</p> <p>Royal Southern Hospital.</p> <p>Mill Road Infirmary.</p> <p>Hospital for Women.</p> <p>City Hospital North.</p> <p>„ South.</p> <p>„ Parkhill.</p> <p>„ East.</p> <p>„ Fazakerley.</p> <p>Walton Workhouse.</p> <p>Belmont Road Workhouse.</p> <p>Toxteth Workhouse.</p> <p>Highfield Infirmary.</p> <p>Turner Memorial Home.</p> <p>St. Augustine's Home.</p> <p>Kirkdale Home.</p> <p>House of Providence.</p> <p>St. Joseph's Home.</p> <p>Home for Incurables.</p> <p>Tuebrook Villa Asylum.</p> <p>Nursing Homes.</p>	<p>County Asylums.</p>	<p>Hahnemann Hospital.</p> <p>Epileptic Hospital.</p> <p>Leyfield Poor Law Schools.</p> <p>Grove Mount Home.</p> <p>Branch Workhouse, Luton Street.</p> <p>Cottage Homes, Fazakerley.</p> <p>Children's Rest.</p> <p>Claremont Home.</p> <p>Walton Gaol.</p> <p>Skin Diseases Hospital.</p> <p>Accident Hospital, Garston.</p> <p>Samaritan Hospital.</p> <p>St. Paul's Eye and Ear Hospital</p> <p>St. Elizabeth's Schools.</p>

The three Union Workhouses are situated within the District.



TABLE II.

NAMES OF LOCALITIES.	1.—Scotland District.				2.—Exchange District.				3.—Abercromby District.				4.—Everton District.			
	Population esti- mated to middle of each Year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.
YEAR.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1897.....	53264	2122	1711	475	44065	1381	1495	348	53564	1711	1216	233	116534	4441	2875	902
1898.....	53192	2111	1825	460	43505	1310	1557	316	53256	1633	1242	245	117647	4304	2729	807
1899.....	53121	2125	1865	509	42951	1278	1634	314	52950	1695	1258	229	118940	4328	3143	880
1900.....	53049	2166	1890	521	42405	1332	1549	347	52645	1633	1303	252	120904	4442	2896	846
1901.....	52934	2044	1694	455	41831	1180	1299	285	52301	1565	1099	245	121953	4216	2902	819
1902.....	52876	2225	1745	492	41332	1216	1432	298	52004	1757	1155	220	122964	4627	2735	731
1903.....	52834	2267	1578	489	41332	1230	1244	261	51742	1713	1141	227	123521	4342	2656	768
1904.....	52763	2237	1732	577	41780	1275	1456	369	51445	1652	1065	220	123549	4444	2947	949
1905.....	52692	2170	1661	493	41674	1234	1311	297	51149	1715	1008	214	123741	4413	2471	705
1906.....	52621	2137	1633	528	41619	1227	1304	319	50855	1664	1032	201	123940	4422	2770	897
Averages of Years 1897 to 1906.	52934	2160	1727	499	42249	1266	1428	315	52191	1673	1151	228	121369	4397	2812	830
1907.....	52549	2098	1466	428	41168	1176	1278	295	50562	1709	929	161	123952	4307	2449	648

NOTE.—Population of each district corrected as per Census Returns of 1891 and 1901.

TABLE II.—*continued.*

NAMES OF LOCALITIES.	5.—Kirkdale District.				6.—West Derby (West) District.				7.—Toxteth District.			
YEAR.	Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 Year.	Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 Year.	Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 Year.
	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1897 .....	68144	2423	1509	457	82434	3040	1827	557	106525	3527	2456	712
1898 .....	68472	2377	1368	408	83670	3039	1783	538	106396	3493	2308	626
1899 .....	68801	2361	1578	434	84907	3086	1841	566	106268	3545	2678	711
1900 .....	69132	2408	1552	470	85924	3019	1836	507	106393	3429	2496	681
1901 .....	69410	2292	1438	448	86882	2921	1736	522	105922	3356	2349	632
1902 .....	69798	2396	1494	402	87751	2986	1729	450	105636	3671	2421	630
1903 .....	69984	2352	1301	338	88295	2996	1640	463	105532	3405	2141	573
1904 .....	70271	2468	1573	528	89111	2902	1712	526	105399	3586	2380	685
1905 .....	70310	2324	1381	405	89689	2891	1566	419	105290	3436	1935	509
1906 .....	70450	2323	1373	378	90081	2853	1657	439	105162	3415	2299	614
Averages of Years 1897 to 1906.	69477	2372	1456	426	86874	2979	1732	498	105852	3486	2346	637
1907 .....	70492	2278	1315	357	90184	2758	1520	376	105033	3328	1954	487

NOTE.—Population of each district corrected as per Census Returns of 1891 and 1901.

B—*Continued.*



TABLE II.—continued.

NAMES OF LOCALITIES.	8.—Walton District.				9.—West Derby (East) District.				10.—Wavertree District.				11.—Sefton Park District (late Toxteth Rural).			
	Population esti- mated to middle of each Year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.
YEAR.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1897.....	48728	1552	756	230	40914	991	677	180	20138	451	259	77	26367	641	336	91
1898.....	50230	1639	736	200	41677	1024	684	139	21402	588	297	97	27336	649	324	79
1899.....	51779	1686	873	273	42454	1035	697	169	22746	704	372	114	28340	645	330	87
1900.....	53376	1754	855	245	43245	1161	749	155	24174	820	396	115	29381	598	315	63
1901.....	54977	1742	824	270	44016	1162	763	192	25670	888	411	147	30436	614	364	74
1902.....	56379	1897	887	250	44872	1302	721	146	27304	962	399	118	31579	603	397	93
1903.....	58032	1912	812	228	45736	1426	718	177	29018	980	414	116	32489	630	296	56
1904.....	59501	1898	986	298	46568	1479	791	216	30840	937	486	151	33441	664	389	92
1905.....	61127	2075	870	218	47428	1503	749	169	32774	1101	453	124	34530	654	374	62
1906.....	62043	1971	909	242	48112	1491	875	211	34832	1101	488	140	35079	689	342	62
Averages of Years 1897 to 1906.	55617	1812	850	245	44502	1257	742	175	26889	859	397	119	30897	638	356	75
1907.....	63017	2014	892	218	49212	1536	777	159	36018	994	393	99	37219	663	341	51

NOTE.—Population of each district corrected as per Census Returns of 1891 and 1901.

B—Continued.



TABLE II.—**B**—*Continued.*

NAMES OF LOCALITIES.	12.—Garston District.			
YEAR.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.
	<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>
1897.....	15733	494	247	82
1898.....	16133	485	280	91
1899.....	16544	530	268	92
1900.....	16966	544	268	91
1901.....	17398	562	340	104
1902.....	17842	641	277	69
1903.....	18295	657	290	79
1904.....	18762	676	369	124
1905.....	19739	716	299	84
1906.....	20530	710	339	94
Averages of Years 1897 to 1906...	17794	601	297	91
1907.....	22570	690	367	145

NAMES OF LOCALITIES.	13.—Fazakerley District.			
YEAR.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.
	<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>
1897—1899.....	Statistics	not available		
1900.....	1753	36	14	4
1901.....	1887	39	14	5
1902.....	2085	63	24	4
1903.....	2919	85	34	11
1904.....	3292	100	33	13
1905.....	3571	118	53	10
1906.....	3856	120	40	12
Averages of Years 1900 to 1906...	2766	80	30	8
1907.....	4168	103	41	4

NOTE.—Population corrected as per Census Returns of 1891 and 1901.

TABLE III.  
Cases of Infectious Disease notified during the Year 1907.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.																Public Institutions (Workhouses and Hospitals).	Emigrants, Seamen, &c., passing through the City.	NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.																Public Institutions (Workhouses and Hospitals).	Emigrants, Seamen, &c., passing through the City.
	At all Ages.	At Ages—Years.						Scotland.	Exchange.	Abercromby.	Everton.	Kirkcaldy.	West Derby (West).	Toxteth.	Wallon.	West Derby (East).	Wavertree.	Sefton Park (and Toxteth Road).	Garsdon.	Fasakerley.	Scotland.	Exchange.	Abercromby.			Everton.	Kirkcaldy.	West Derby (West).	Toxteth.	Wallon.	West Derby (East).	Wavertree.	Sefton Park (and Toxteth Road).	Garsdon.	Fasakerley.								
		Under 1.	1 to 3.	3 to 15.	15 to 25.	25 to 65.	65 and up- wards.																																				
Small-pox .....	19	2	2	1	2	12	...	2	...	1	...	...	1	...	1	...	6	...	...	...	5	3	2	...	1	...	...	1	...	1	...	6	...	...	...	5	3						
Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Diphtheria .....	909	23	332	385	99	70	...	35	47	28	146	69	86	170	149	62	57	30	15	2	7	6	32	39	23	111	52	57	135	74	39	38	8	6	1	6	6						
Membranous croup	20	2	16	2	...	...	...	4	...	...	8	4	...	...	3	1	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...							
Erysipelas .....	790	18	38	79	105	511	39	121	85	60	121	56	87	94	62	24	21	16	14	4	23	2	8	2	10	7	6	7	12	2	2	4	1	1	...	4	1						
Scarlet fever .....	2741	63	1228	1260	122	68	...	179	143	139	425	267	392	361	292	109	98	134	135	13	41	13	159	126	114	341	221	301	269	197	73	74	86	118	8	41	13						
Typhus fever.....	116	...	10	41	27	38	...	46	8	2	37	1	...	19	1	1	...	...	...	...	1	...	45	8	2	37	1	...	19	1	1	...	...	...	...	1	...						
Enteric fever.....	482	...	24	153	98	197	...	57	28	19	77	47	64	53	36	18	17	15	5	1	9	36	31	14	10	39	21	29	31	15	9	7	7	1	...	2	30						
Relapsing fever....	1	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...						
Continued fever ...	5	...	1	...	1	3	...	1	1	...	1	1	...	...	...	1	...	...	...	...	...	...	1	1	...	1	1	...	...	...	...	...	...	...	...	...	...						
Puerperal fever....	58	...	...	...	17	41	...	10	3	6	9	3	9	7	6	2	1	1	1	...	...	...	...	...	2	1	...	3	2	1	...	...	1	...	...	...	...						
Plague .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...						
*Tuberculosis.....	2230	9	66	232	393	1504	26	477	439	233	353	105	167	257	73	48	11	13	13	...	...	41	7	2	4	6	1	2	5	3	...	5	1	...	...	...	...						
Totals .....	7371	117	1717	2163	865	2444	65	992	755	488	1177	553	806	961	623	266	211	209	183	20	86	101	288	192	164	548	304	397	474	295	125	134	103	127	9	59	53						

(u) The localities in which the Isolation Hospitals are situated.

(w) The localities in which Workhouses are situated.

\* Notification voluntary since February, 1901.





TABLE IV.  
Causes of, and ages at, Death during Year 1907.

CAUSES OF DEATH.	DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING IN OR BEYOND THE DISTRICT.							DEATHS AT ALL AGES OF "RESIDENTS" BELONGING TO LOCALITIES, WHETHER OCCURRING IN OR BEYOND THE DISTRICT.														Total Deaths whether of Residents or non-Residents, in public Institutions in the District.
	All ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Scotland	Ex-change.	Aber-cromby.	Ever-ton.	Kirkcaldy.	West Derby. (West).	Toxteth.	Walton.	West Derby. (East).	Waver-tree.	Sefton Park.	Garston.	Fazaker-ley.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Small-pox .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Measles .....	286	66	204	16	...	...	...	40	46	5	32	46	32	39	4	6	11	5	19	1	70	
Scarlet fever .....	132	4	93	33	2	...	...	19	6	8	22	14	10	22	12	...	6	3	11	...	122	
Whooping-cough .....	323	130	180	13	...	...	...	57	20	8	62	55	36	39	15	13	8	6	4	...	36	
Diphtheria and membranous croup .....	107	3	67	33	1	3	...	9	5	4	12	15	10	17	11	13	5	2	4	...	64	
Croup .....	8	...	6	2	...	...	...	...	...	1	1	...	...	3	1	...	2	...	...	...	...	
Typhus .....	17	...	...	2	4	11	...	5	2	4	4	...	...	6	...	...	...	...	...	...	...	
Fever .....	80	...	1	10	17	52	...	9	3	4	14	8	11	7	7	...	5	2	3	...	18	
Enteric .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Other continued .....	65	7	1	1	1	36	19	3	1	8	11	7	7	16	3	4	2	3	...	...	5	
Epidemic influenza .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Plague .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
*Diarrhoea .....	787	617	149	3	1	8	9	122	85	50	171	69	84	110	44	30	11	1	9	1	74	
*Enteritis .....	165	...	97	13	6	30	19	9	13	11	45	16	15	29	8	10	3	1	5	...	41	
*Puerperal fever .....	12	...	...	...	1	11	...	1	2	1	1	1	3	1	...	1	1	...	...	...	9	
Erysipelas .....	13	...	...	...	1	6	6	2	1	1	5	...	1	1	...	...	...	2	...	...	13	
Other septic diseases .....	73	13	8	20	4	24	4	7	3	4	14	8	7	10	4	7	2	3	4	...	28	
Phthisis (Pulmonary Tuberculosis) .....	1126	7	20	42	162	877	18	92	153	94	202	88	134	150	57	79	33	21	19	4	574	
Other tubercular diseases .....	389	97	145	70	27	47	3	40	25	26	72	40	63	48	20	12	16	12	13	2	138	
*Cancer, malignant disease .....	613	1	...	...	11	429	172	32	47	53	100	60	74	89	57	40	21	31	9	...	270	
Bronchitis .....	1533	304	117	8	10	576	518	193	149	114	294	142	159	201	92	92	34	23	39	1	466	
Pneumonia .....	1277	268	388	47	51	414	109	158	106	72	243	126	140	182	82	51	37	24	55	1	335	
Pleurisy .....	51	1	8	1	2	27	12	1	4	5	8	3	9	5	5	5	2	2	2	...	23	
Other diseases of Respiratory organs .....	185	34	29	3	3	90	26	31	12	14	35	28	18	19	6	11	5	3	2	1	18	
Alcoholism and Cirrhosis of liver .....	220	...	...	1	1	203	15	20	40	15	39	23	24	29	9	9	5	4	3	...	84	
Venereal diseases .....	64	56	3	...	1	4	...	6	9	4	15	5	8	4	5	3	1	...	4	...	26	
Premature birth .....	454	454	...	...	...	...	...	34	25	28	89	61	59	66	34	23	13	7	14	1	49	
Diseases and accidents of parturition .....	51	...	...	...	10	41	...	5	3	3	9	4	5	11	5	2	2	1	1	...	16	
Heart diseases .....	1000	3	2	34	51	602	308	95	105	71	166	92	110	136	70	73	30	29	20	3	378	
Accidents .....	513	98	75	32	22	226	60	72	67	33	73	60	48	93	25	14	8	6	13	1	295	
Suicides .....	64	...	...	...	5	49	10	2	8	6	12	9	9	4	2	4	3	4	1	...	16	
All other causes .....	4114	1221	325	124	109	1205	1130	402	338	286	698	335	444	617	314	268	128	146	113	25	1743	
All other causes .....	13,722	3384	1918	508	503	4971	2438	1466	1278	929	2449	1315	1520	1954	892	777	393	341	367	41	4984	

\*See notes at back.

## NOTES TO TABLES IV. AND V.

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- (a) In Table IV., all deaths of "Residents" occurring in public institutions, whether within or without the district, are to be *included* with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-21 to be *included* among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-residents" occurring in public institutions in the district are in like manner to be *excluded* from columns 2-8 and 9-21 of Table IV.
- (b) See notes on Table I. as to the meaning of "Residents" and "Non-residents," and as to the "Public Institutions" to be taken into account for the purposes of these Tables. The "Localities" in Table IV. should be the same as those in Tables II. and III.
- (c) All deaths occurring in public institutions situated within the district, whether of "Residents" or of "Non-residents," are, in addition to being dealt with as in note (a), to be entered in the last column of Table IV. The total number in this column should equal the figures for the year in column 9, Table I.
- (d) The total deaths in the several "Localities" in columns 9-21 of Table IV. should equal those for the year in the same localities in Table II., sub-columns c. The total deaths at all ages in column 2 of Table IV. should equal the gross total of columns 9-21 and the figures for the year in column 12 of Table I.
- (e) Under the heading of "Diarrhœa" are to be included deaths registered as due to Epidemic diarrhœa, Epidemic enteritis, Infective enteritis, Zymotic enteritis, Summer diarrhœa, Dysentery and Dysenteric diarrhœa, Choleraic diarrhœa, Cholera and Cholera Nostras.
- In addition, and as regards deaths of children *under one year of age*, under the heading "Diarrhœa" in column 3 (Table IV.) are to be included all deaths classified as "Diarrhœal diseases" in Table V.
- Under the heading of "Enteritis" in Table IV., are to be included only deaths *over one year of age* registered as due to Enteritis, Muco-enteritis, Gastro-enteritis, Gastric catarrh, Gastritis, and Gastro-intestinal catarrh, unless from information obtained by enquiry from the certifying practitioner or otherwise, the Medical Officer of Health should have reason for including such deaths under the specific term "Diarrhœa." Deaths from diarrhœa secondary to some other well-defined disease should be included under the latter.
- (f) Under the headings of "Cancer" and "Puerperal fever" should be included all registered deaths from causes comprised within these general terms. Thus: Under "Cancer" should be included deaths from Cancer, Carcinoma, Malignant disease, Scirrhus, Epithelioma, Sarcoma, Villous tumour, and Papilloma of bladder, Rodent ulcer. Under "Puerperal Fever" are to be included deaths from Pyæmia, Septicæmia, Sapræmia, Pelvic peritonitis, Peri- and Endo-Metritis occurring in the Puerperium.
- (g) Under "Congenital Defects" in Table V. are to be included deaths from Atelectasis, Icterus neonatorum, Navel hæmorrhage, Malformations and Congenital hydrocephalus.
- (h) Under "Tuberculous Meningitis" are to be included deaths from Acute hydrocephalus.
- (i) Under "Other Tuberculous Diseases" are to be included deaths from Tuberculosis, Tuberculosis of bones, joints and other organs, Lupus and Scrofula.
- (j) All deaths certified by registered Medical Practitioners and all Inquest cases are to be classed as "Certified"; all other deaths are to be regarded as "Uncertified."



TABLE V.

## CITY OF LIVERPOOL.

## INFANTILE MORTALITY DURING THE YEAR 1907.

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

(See Notes at back of Table IV.)

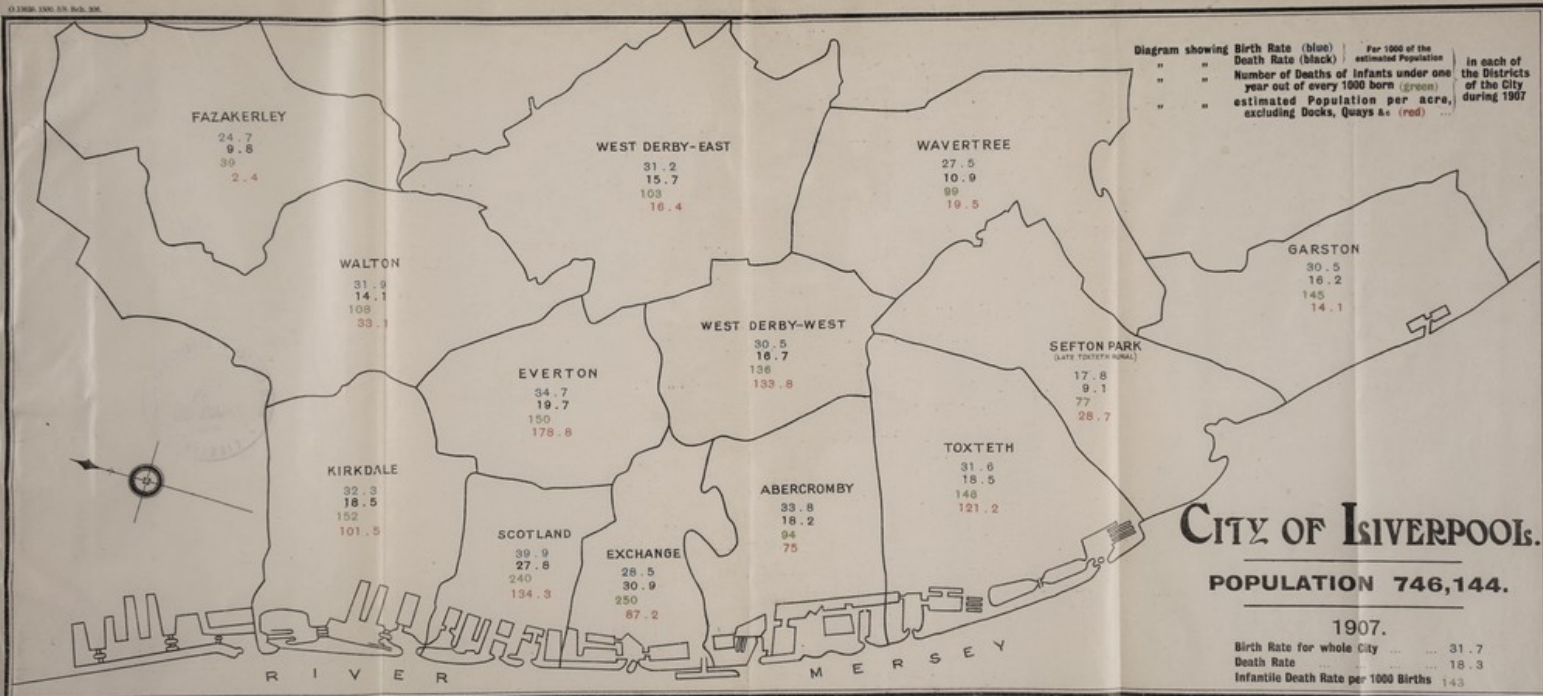
CAUSE OF DEATH.	Total under 1 Month.												Total Deaths under One Year.			
	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.		9-10 Months.	10-11 Months.	11-12 Months.
All Causes.	Certified ... ..	523	125	156	111	915	359	313	290	189	169	201	158	166	153	3234
	Uncertified ... ..	51	6	9	5	71	14	10	6	9	10	8	7	3	6	149
Common Infectious Diseases.	Small-pox ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Chicken-pox ... ..	—	—	—	—	—	—	—	1	—	—	—	2	1	—	4
	Measles ... ..	—	—	—	1	1	1	1	—	2	3	10	11	7	16	66
	Scarlet Fever ... ..	—	—	—	—	—	—	—	—	—	1	—	—	2	1	4
	Diphtheria: (including Membranous Croup) ... ..	—	—	—	—	—	—	—	—	1	—	—	—	—	2	3
	Whooping Cough ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	130
Diarrhoeal Diseases. (See Notes to Table IV.)	Diarrhoea, all forms ... ..	1	2	7	5	15	20	34	52	25	35	35	30	36	30	367
	Enteritis, Mucro-enteritis, Gastro-enteritis ... ..	—	5	5	1	11	14	14	11	21	13	21	12	7	6	151
	Gastritis, Gastro-intestinal Catarrh ... ..	1	1	5	3	10	10	14	18	5	7	7	7	3	5	98
Wasting Diseases.	Congenital Defects ... ..	47	11	13	9	80	14	3	3	4	3	1	—	1	—	110
	Injury at Birth ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Want of Breast-Milk, Starvation ... ..	—	1	1	—	2	—	1	2	2	—	—	—	—	—	7
Tuberculous Diseases.	Atrophy, Debility, Marasmus ... ..	95	29	30	20	174	91	78	72	30	25	19	13	7	10	532
	Tuberculous Meningitis (See Notes to Table IV.) ... ..	—	—	—	—	—	1	1	6	3	2	4	6	3	7	40
	Tuberculous Peritonitis: Tubes Mesenterica ... ..	—	—	—	—	—	2	6	5	5	8	3	1	1	2	38
	Other Tuberculous Diseases. (See Notes to Table IV.) ... ..	—	—	—	—	—	1	1	2	4	2	4	—	3	1	26
Other Causes.	Erysipelas ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Syphilis ... ..	2	—	5	2	9	15	15	9	2	2	4	—	—	—	56
	Rickets ... ..	—	—	—	—	—	—	—	1	—	—	—	1	—	—	4
	Meningitis (not Tuberculous) ... ..	—	2	—	—	2	3	3	8	5	9	9	7	8	11	70
	Convulsions ... ..	63	23	26	20	132	62	41	29	19	9	11	13	9	8	342
	Bronchitis ... ..	1	10	8	11	30	40	37	28	29	17	27	21	21	19	304
	Laryngitis ... ..	—	—	—	—	—	1	1	1	1	—	—	—	—	1	5
	Pneumonia ... ..	—	4	4	4	12	19	22	19	16	21	25	18	27	22	268
	Suffocation, overlying ... ..	13	3	10	5	31	25	14	7	3	2	3	2	1	—	88
	Other Causes ... ..	24	5	14	5	48	21	18	10	12	14	20	14	13	21	216
Other Causes ... ..	574	131	165	116	986	373	323	296	198	179	209	165	159	170	166	3383

Population, Estimated to middle of 1907, 746,144. Births in the year 23,654. { Legitimate ... 22,866  
 Illegitimate ... 788

Deaths from all Causes at all Ages 13,676







FAZAKERLEY

24.7  
8.8  
39  
2.4

WEST

31.2  
15.7  
103  
16.4

WATTS

31.8  
14.1  
108  
33.8

WEST



KIRKDALE

32.8  
18.8  
152  
101.2



SCOTLAND

EXCHANGE

22.9  
27.8  
240

25.8  
25.8

