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HEALTH DEPARTMENT.

REPORT

ON THE HEALTH OF THE

CITY OF LIVERPOOL

DURING

1906

BY THE

MEDICAL OFFICER OF HEALTH.

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HEALTH DEPARTMENT.

REPORT

ON THE HEALTH OF THE

CITY OF LIVERPOOL

DURING

1906

BY

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

Medical Officer of Health.

(Ordered by the Health Committee to be printed, 9th May, 1906.)

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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.

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PREFACE.

The following pages indicate as briefly as circumstances will permit the condition of the city as regards health during the year 1906, and also record the scope of the more important branches of sanitary administration.

The year was characterised by an increase in the infant mortality, consequent upon the prevalence of measles in the early part of the year, and of infantile cholera which followed upon the excessive heat during the early part of September. It will be seen, however, that these causes also operated, not only in Liverpool, but in most of the 76 great towns with the result of raising the general death-rate, as shown in the Registrar-General's Annual Summary.

The index shows where details concerning the infant mortality of the city will be found, and with these may be studied the new table E. (see appendix), prepared at the instance of the Local Government Board, which sets forth the mortality of infants during each of the first four weeks of life, and also during each of the first twelve months.

Considerable attention was directed during the year to the insanitary property question, and on this account a brief survey is given of the origin of the immense amount of insanitary property with which Liverpool has been encumbered, as well as the means taken to deal with it. An illustration is given of a method adopted to improve the ventilation and sanitary conditions in some of the wider courts.

The Corporation has been largely assisted in the work of demolition by the natural growth of commercial requirements, which has been the means of removing large insanitary areas.

The Medical Officer again takes occasion to explain why it is desirable that special provision should be made for labourers and their families in the more open areas of the city, rather than in the confined and congested central parts; the methods of transport lend themselves to this.

Various charts, plans, and photographs are made use of throughout the Report to explain the text.

One important event during the year was the opening of the hospital at Fazakerley, and the city is to be congratulated upon the possession of a hospital which is equal in all respects to any institution designed with a similar object.

E. W. HOPE,

Medical Officer of Health.

Public Health Department,

Municipal Offices,

Liverpool, *May 9th*, 1907.

STATISTICS

RELATING TO

BIRTHS, DEATHS, AND CAUSES OF DEATH, &c.,

ZYMOTIC DISEASES AND THEIR INCIDENCE.

SUMMARY

OF

VITAL STATISTICS FOR 1906.

Area of City	**16,619**	**Acres. (26 square miles).**
Population	**739,180**	
***Density**	**44·4**	**Persons per Acre.**
***Births**	**24,123,**	**Birth-rate 32·6.**
***Deaths**	**15,001,**	**Death-rate 20·2.**
***Infantile Mortality**	**4,137**	**Deaths under one year, or 171 per 1,000 Births.**
Zymotic Death-rate (7 principal Zymotic Diseases)	**3·5**	**per 1,000.**
Phthisis Death-rate	**1·5**	**per 1,000.**

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

BIRTHS.

During the fifty-two weeks of the year, terminating on Saturday, December 29th, 1906, the returns of the local registrars recorded 24,123 births within the city. Of the total births 12,245 were males and 11,878 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 1906 the birth-rate was 32·6 per 1,000 of the population; the average of the previous five years (1901-1905) being 33·2. 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.		1906.		Corrected Average Rate per 1000 during the 5 years 1901-1905.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Births.	Rate per 1000	
Scotland	290	268	267	288	271	281	241	231	2137	40·6	41·4
Exchange	140	185	153	143	173	147	152	134	1227	29·4	29·5
Abercromby	228	208	221	196	229	191	206	185	1664	32·7	32·5
Everton	560	589	578	571	564	593	497	470	4422	35·6	35·7
Kirkdale	326	292	291	302	289	261	285	277	2323	32·9	33·8
West Derby—West	390	337	376	373	357	320	362	338	2853	31·6	33·2
Toxteth	448	414	460	434	410	427	396	426	3415	32·4	33·0
Walton	237	239	255	253	260	225	238	254	1971	31·7	32·8
West Derby – East	202	189	179	183	191	167	179	201	1491	30·9	30·0
Wavertree	131	146	140	140	138	144	139	123	1101	31·6	34·0
Sefton Park (late Toxteth Rural)	70	81	85	94	92	80	99	88	689	19·6	19·4
Garston	78	77	101	82	101	72	107	92	710	34·5	35·8
Fazakerley	15	17	17	20	13	11	18	9	120	31·1	28·6
City	3115	3042	3123	3079	3088	2929	2919	2828	24123	32·6	33·2

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 employés 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.
1882	548,065	20,498	37·4
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

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 1906, 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 9,122.

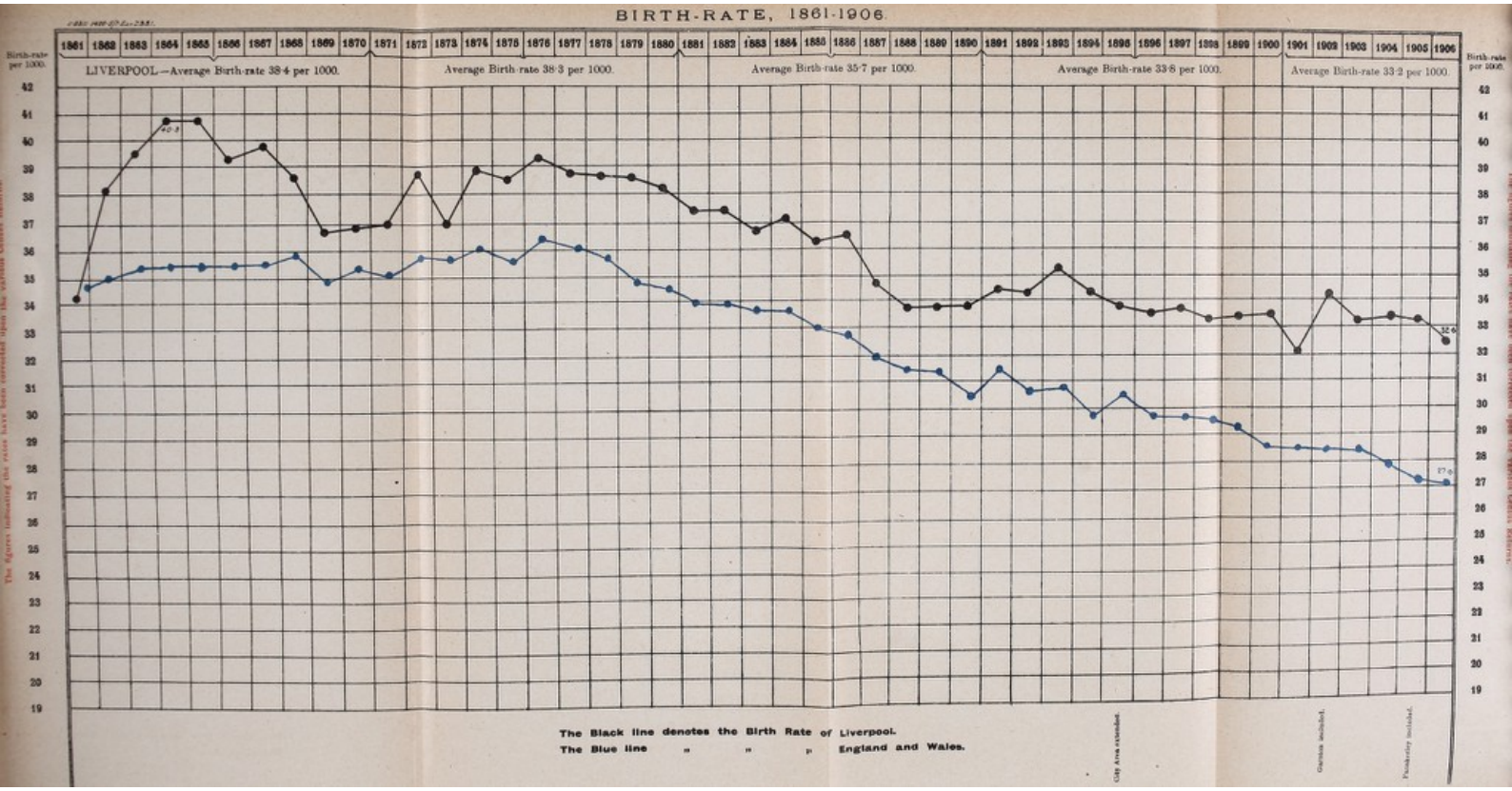
Districts.	Population.	Births.	Deaths.	Number of Births over Deaths.	Number of Deaths over Births.
Scotland	52,621	2,137	1,629	508	—
Exchange	41,619	1,227	1,304	—	77
Abercromby	50,855	1,664	1,029	635	—
Everton	123,940	4,422	2,761	1,661	—
Kirkdale	70,450	2,323	1,364	959	—
West Derby—West	90,081	2,853	1,646	1,207	-
Toxteth	105,162	3,415	2,286	1,129	—
Walton	62,043	1,971	902	1,069	—
West Derby—East	48,112	1,491	873	618	—
Wavertree	34,832	1,101	488	613	—
Sefton Park ... ... (late Toxteth Rural)	35,079	689	342	347	—
Garston	20,530	710	337	373	—
Fazakerley	3,856	120	40	80	—
City	739,180	24,123	15,001	9,122	—
Deaths of persons brought into the City Hospitals from outside the City	—	—	744	—	—
Total ...	739,180	24,123	15,745	—	—

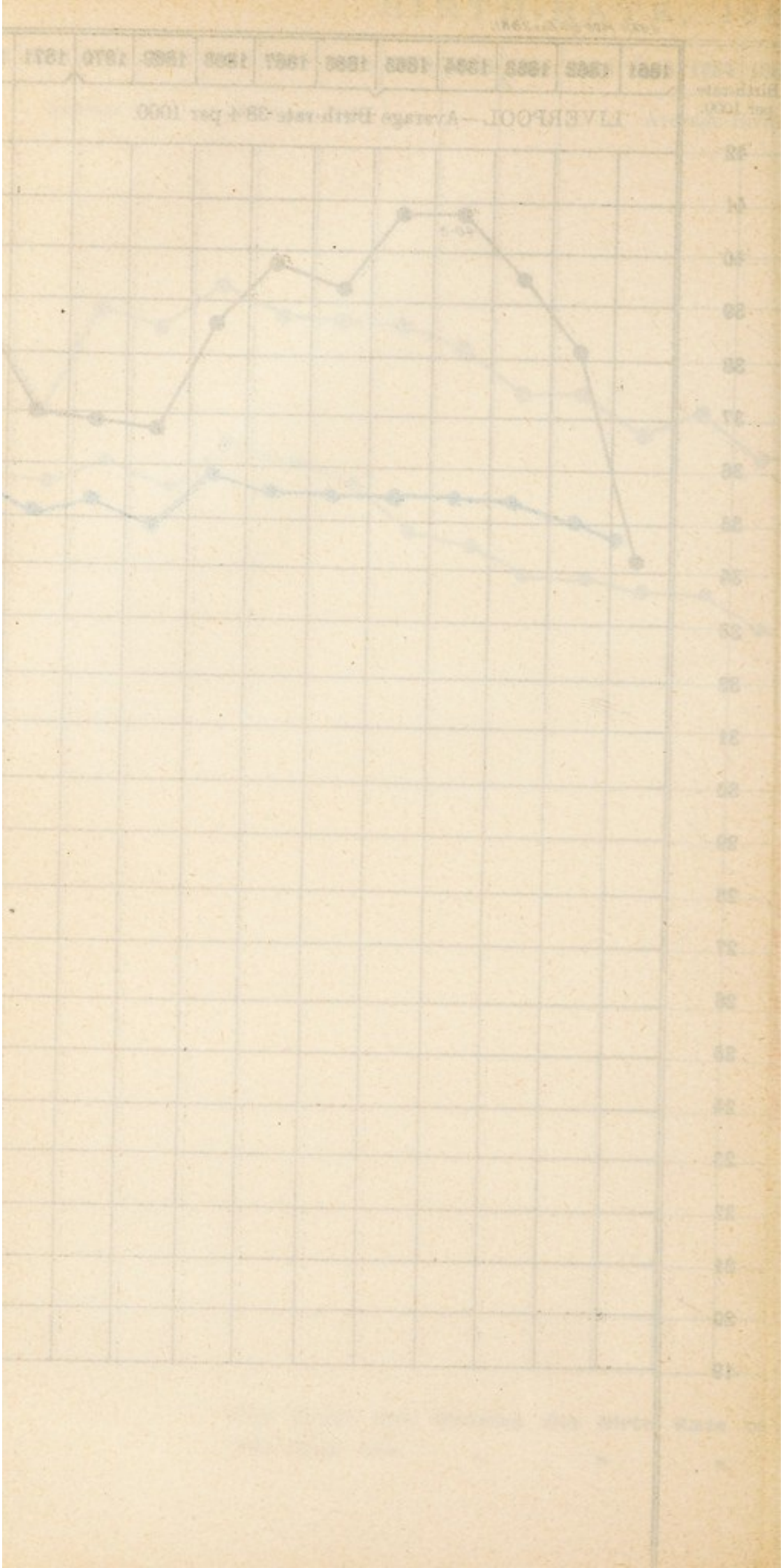
The following tables give the estimated population, number of births recorded, and birth-rate of eighty-two of the large towns of the United Kingdom.

TOWNS.	Estimated Population in the middle of the year 1906.	No. of Births.	Annual Rate to 1,000 of population.
London	4,721,217	124,880	26·5
Croydon	151,011	3,866	25·7
Willesden	143,622	4,160	29·0
Hornsey	86,935	1,593	18·4
Tottenham	119,503	3,640	30·5
West Ham	301,617	9,212	30·6
East Ham	129,886.	3,629	28·0
Leyton	118,287	3,318	28·1
Walthamstow	121,334	3,541	29·3
Hastings	67,144	1,091	16·3
Brighton	128,095	2,848	22·3
Portsmouth	205,118	5,870	28·7
Bournemouth	67,702	1,192	17·7
Southampton	117,312	2,913	24·9
Reading	78,987	1,877	23·8
Northampton	93,749	1,988	21·3
Ipswich	71,809	1,900	26·5
Great Yarmouth	52,613	1,423	27·1
Norwich	117,958	3,086	26·2
Plymouth	118,014	2,821	24·0
Devonport	78,405	2,135	27·3
Bristol	363,223	9,380	25·9
Hanley	66,360	2,250	34·0
Burton-on-Trent	52,922	1,270	24·1
Wolverhampton	100,729	2,761	27·5
Walsall	94,577	2,789	29·6
Handsworth	63,819	1,496	23·5
West Bromwich	68,469	2,180	31·9
Birmingham	548,022	16,046	29·4
King's Norton	72,608	1,853	25.6
Smethwick	64,531	2,027	31·5
Aston Manor...	82,288	2,259	27·5
Coventry	76,374	2,404	31·6
Leicester	232,111	5,827	25·2
Grimsby	69,359	2,065	29·9
Nottingham	254,563	6,759	26·6
Derby	123,981	3,106	25·1
Stockport	99,646	2,677	26·9
Birkenhead	117,292	3,728	31·9
Wallasey	64,578	1,708	26·5

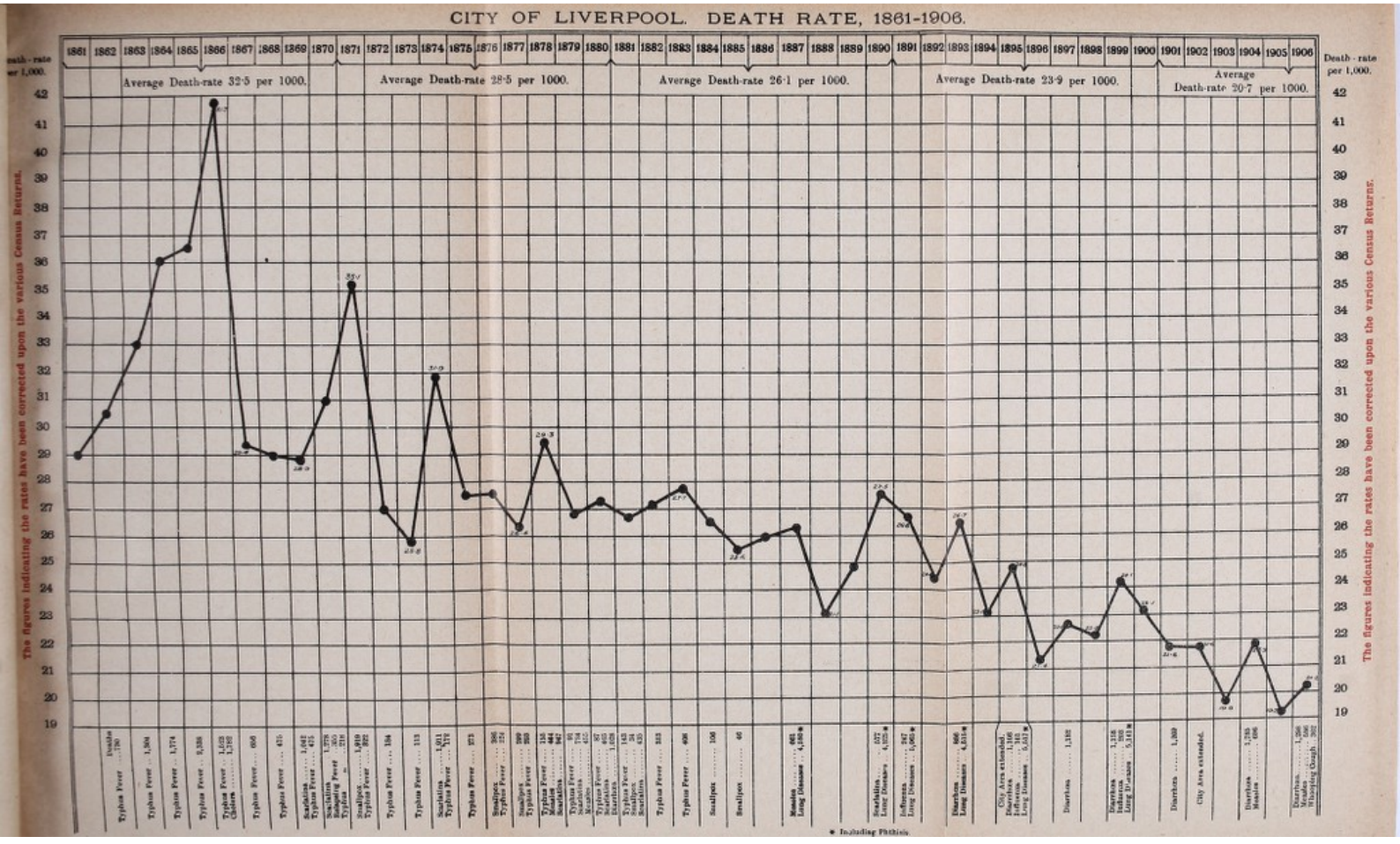
TOWNS.	Estimated Population in the middle of the year 1906.	No. of Births.	Annual Rate to 1,000 of population.
Bootle	65,989	2,172	33·0
St. Helens	91,153	3,031	34·0
Wigan	87,588	2,924	33·5
Warrington	69,280	2,248	32·5
Bolton	180,502	4,569	25·4
Bury	58,744	1,324	22·6
Manchester	637,126	18,629	29·3
Salford	234,077	7,059	30·2
Oldham	140,969	3,787	26·9
Rochdale	87,189	2,033	23·4
Burnley	102,808	2,847	27·8
Blackburn	134,015	3,384	25·3
Preston	116,399	3,326	28·7
Barrow-in-Furness	60,967	1,878	30·9
Huddersfield	94,851	2,301	24·3
Halifax	109,272	2,061	18·9
Bradford	288,544	5,936	20·6
Leeds	463,495	12,092	26·2
Sheffield	447,951	13,337	29·9
Rotherham	61,098	1,936	31·8
York	83,467	2,216	26·6
Hull	262,426	7,807	29·8
Middlesbrough	100,069	3,549	35·6
Stockton-on-Tees	52,664	1,773	33·8
West Hartlepool	73,387	2,162	29·5
Sunderland	154,385	5,375	34·9
South Shields	111,402	3,531	31·8
Gateshead	123,191	3,919	31·9
Newcastle-on-Tyne	268,721	8,209	30·6
Tynemouth	54,138	1,741	32·2
Newport, Mon.	74,227	2,408	32·5
Cardiff	183,823	5,000	27·3
Rhondda	127,684	4,751	37·3
Merthyr Tydfil	74,961	2,722	36·4
Swansea	96,848	3,192	33·0
Edinburgh	341,035	7,651	22·4
Glasgow	835,625	24,560	29·4
Dundee	165,007	4,522	27·4
Aberdeen	171,022	4,711	27·5
Dublin	378,994	11,144	29·4
Belfast	366,220	11,355	31·0
LIVERPOOL	**739,180**	**24,123**	**32·6**

BIRTH-RATE, 1861-1906.





CITY OF LIVERPOOL. DEATH RATE, 1861-1906.



DEATHS.

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 20·2 per 1,000; the average rate during the preceding ten years since the extension of the city boundaries (1896-1905) was 21·8. The deaths in public institutions of 744 non-residents, equal to 1·0 per 1,000, have been eliminated from the total deaths.

On comparing the death-rates of one locality with those 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 4·3 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 75·2 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:—

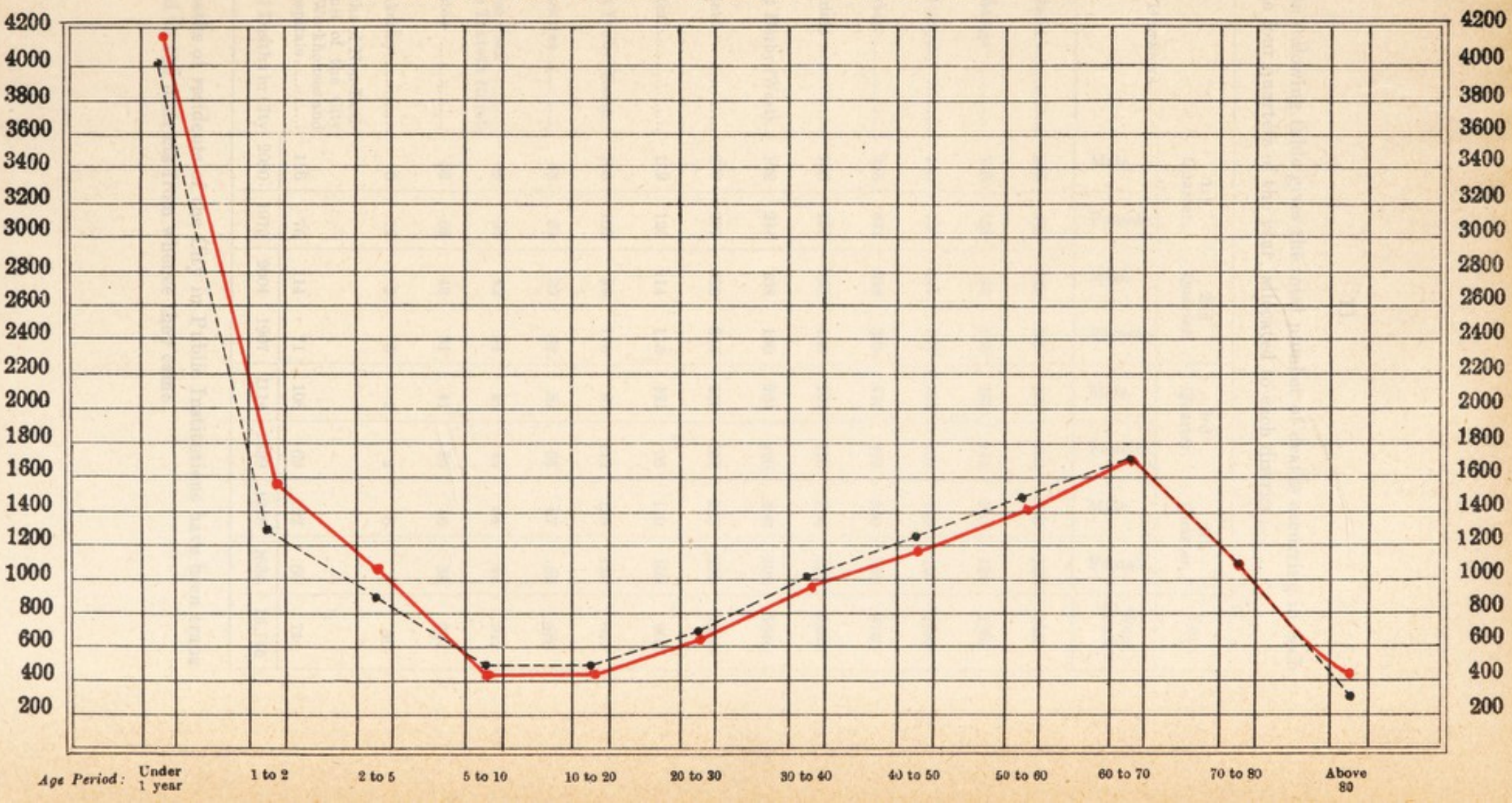
1906.	Under 1 year.	1 to 2	2 to 5	5 to 10	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 and upwards.	Total at all Ages.
Rate of Mortality per 1,000 living at ages indicated.	171·4	86·9	19·2	5·1	2·9	4·3	9·1	15·0	28·7	57·4	100·2	196·0	20·2
Total Number of Deaths at each Age Period.	4137	1551	998	407	436	627	981	1166	1467	1721	1088	422	15001

(See Comparative Chart on next page).

* Excepting in Column I. which indicates the rate of mortality per 1,000 births during the year.

CITY OF LIVERPOOL.

Comparative view of the total number of Deaths at twelve different age periods during the year 1906 shown in Red, the average for the preceding five years (1901-1905), being shown in the Black dotted line.



Comparative variations of Deaths at twelve different periods of the total number of Deaths at all ages for the
same period during the year 1901 shown in Red, the average for the
same period during the years 1901-1905, being shown in the Black dotted line.

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	204	182	220	209	236	203	186	189	1629
Exchange	196	158	185	145	167	141	181	131	1304
Abercromby	145	123	141	127	132	101	140	120	1029
Everton	358	342	358	308	416	379	300	300	2761
Kirkdale	193	176	151	138	192	173	176	165	1364
West Derby (West)..	192	214	198	190	234	220	206	192	1646
Toxteth	299	292	300	344	266	257	229	299	2286
Walton.....	112	126	114	115	121	95	110	109	902
West Derby (East)...	103	107	98	118	87	112	125	123	873
Wavertree	58	61	39	62	82	67	67	52	488
Sefton Park ..... (late Toxteth Rural)	46	58	42	44	29	45	34	44	342
Garston	52	52	42	31	41	35	46	38	337
Fazakerley	6	12	2	5	3	2	6	4	40
Deaths of Non-Residents of the City in Workhouses and Hospitals.....	116	76	114	71	108	69	122	68	744
Total Deaths in City	2080	1979	2004	1907	2114	1899	1928	1834	15,745

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 4,985 persons occurred in the undermentioned Institutions for the treatment of the sick:—

	Total Deaths.	Non-Residents of City.
Parish Workhouse	1194	75
Royal Infirmary	382	97
Children's Infirmary	51	12
Lying-in Hospital	15	—
Consumption Hospital	10	2
Hahnemann Hospital	23	1
David Lewis Northern Hospital	198	32
Stanley Hospital	130	29
Royal Southern Hospital	198	32
Mill Road Infirmary	840	102
Hospital for Women	29	16
City Hospital North	84	10
Do. South	48	4
Do. Parkhill	138	9
Do. East, Mill Lane	68	3
Do. Fazakerley	16	—
Walton Workhouse	751	166
Belmont Road Workhouse	109	72
Highfield Infirmary	173	17
St. Joseph's Home	25	16
Toxteth Workhouse	377	7
Home for Incurables	9	2
House of Providence	8	5
Tuebrook Villa Asylum	9	3
Turner Memorial Home	6	4
St. Augustine's Home	16	3
Kirkdale Home	29	1
Grove Mount Home	9	—
Walton Gaol	13	9
Garston Accident Hospital	4	2
Other Institutions	23	13
	4985	744

From the returns made as to the residences of these persons 4,241 of the deaths in these establishments are classified in the districts from whence the patients were removed, viz.:—543 under Scotland district,

657 under Exchange district, 390 under Abercromby district, 752 under Everton, 325 under Kirkdale, 434 under West Derby (West), 587 under Toxteth, 183 under Walton, 159 under West Derby (East), 94 under Wavertree, 45 under Sefton Park (late Toxteth Rural), 69 under Garston and 3 under Fazakerley; 565 were non-residents, who had sought relief in Liverpool Institutions, and of the remainder, 179 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 5 years, 1902-1906, in the great towns of Birmingham, Leeds, Manchester and Liverpool:—

	1902.	1903.	1904.	1905.	1906.	Average.
Birmingham	24·6	23·9	22·4	22·2	21·8	23·0
Leeds	14·5	14·8	14·6	15·0	15·0	14·8
Manchester	23·2	24·5	24·1	23·2	24·6	23·9
Liverpool	28·5	30·8	27·8	33·0	31·6	30·3

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.	1906.		Corrected Average Rate per 1000 during the five years 1901-1905.
		Deaths.	Rate per 1000	
Scotland	52,621	1,629	30·9	31·8
Exchange	41,619	1,304	31·3	32·3
Abercromby	50,855	1,029	20·2	21·1
Everton	123,940	2,761	22·2	22·2
Kirkdale	70,450	1,364	19·3	20·5
West Derby (West)	90,081	1,646	18·2	18·9
Toxteth	105,162	2,286	21·7	21·2
Walton	62,043	902	14·5	15·1
West Derby (East)	48,112	873	18·1	16·3
Wavertree	34,832	488	14·0	15·0
Sefton Park	35,079	342	9·7	11·2
(late Toxteth Rural) Garston...	20,530	337	16·4	17·1
Fazakerley	3,856	40	10·3	11·5
City	739,180	15,001	20·2	20·8

The District Registrars' Returns show that there were 14 deaths (9 of women and 5 of men) at the age of 90 and upwards, viz., 1 male and 3 females at 90, 1 male at 91, 2 males and 4 females at 92, 1 female at 93, 1 female at 95, and 1 male at 96.

The death-rate per 1,000 for 1906 in each of the districts of the city is indicated upon the appended map. 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 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.
1882	548,065	14,818	27·0
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

* City area extended. ** Garston included. *** Fazakerley included.

The following tables give the estimated population, the number of deaths recorded, and the death-rate of eighty-two of the large towns of the United Kingdom:—

TOWNS.	Estimated Population in the middle of the year 1906.	No. of Deaths.	Annual Rate to 1000 of Population.
London	4,721,217	71,155	15·1
Croydon	151,011	2,015	13·4
Willesden	143,622	1,658	11·6
Hornsey	86,935	766	8·8
Tottenham	119,503	1,648	13·8
West Ham	301,617	4,721	15·7
East Ham	129,886	1,504	11·6
Leyton	118,287	1,410	12·0
Walthamstow	121,334	1,543	12·8
Hastings	67,144	904	13·5
Brighton	128,095	1,878	14·7
Portsmouth	205,118	3,049	14·9
Bournemouth	67,702	930	13·8
Southampton...	117,312	1,530	13·1
Reading	78,987	1,001	12·7
Northampton	93,749	1,047	11·2
Ipswich	71,809	1,065	14·9
Great Yarmouth	52,613	910	17·3
Norwich	117,958	2,084	17·7
Plymouth	118,014	1,911	16·2
Devonport	78,405	1,026	13·1
Bristol	363,223	5,239	14·5
Hanley	66,360	1,239	18·7
Burton-on-Trent	52,922	636	12·6
Wolverhampton	100,729	1,487	14·8
Walsall	94,577	1,381	14·6
Handsworth	63,819	694	10·9
West Bromwich	68,469	1,061	15·5
Birmingham	548,022	9,176	16·8
King's Norton	72,608	691	9·5
Smethwick	64,531	902	14·0
Aston Manor...	82,288	1,121	13·7
Coventry	76,374	1,223	16·1
Leicester	232,111	3,306	14·3
Grimsby	69,359	1,021	14·8
Nottingham	254,563	4,084	16·1
Derby	123,981	1,760	14·2
Stockport	99,646	1,883	18·9
Birkenhead	117,292	2,020	17·3
Wallasey	64,578	869	13·5

TOWNS.	Estimated Population in the middle of the year 1906.	No. of Deaths.	Annual Rate to 1000 of Population.
Bootle	65,989	1,200	18·2
St. Helens	91,153	1,566	17·2
Wigan	87,588	1,584	18·1
Warrington	69,280	1,264	18·3
Bolton	180,502	2,731	15·2
Bury	58,744	974	16·6
Manchester	637,126	12,179	19·2
Salford	234,077	4,261	18·3
Oldham	140,969	2,636	18·8
Rochdale	87,189	1,515	17·4
Burnley	102,808	2,004	19·5
Blackburn	134,015	2,143	16·0
Preston	116,399	2,226	19·2
Barrow-in-Furness	60,967	852	14·0
Huddersfield	94,851	1,638	17·3
Halifax	109,272	1,627	14·9
Bradford	288,544	4,638	16·1
Leeds	463,495	7,222	15·6
Sheffield	447,951	7,336	16·4
Rotherham	61,098	1,009	16·6
York	83,467	1,138	13·7
Hull	262,426	4,431	16·9
Middlesbrough	100,069	2,030	20·3
Stockton-on-Tees	52,664	846	16·1
West Hartlepool	73,387	1,021	14·0
Sunderland	154,385	2,859	18·6
South Shields	111,402	1,952	17·6
Gateshead	123,191	2,005	16·3
Newcastle-on-Tyne	268,721	4,595	17·1
Tynemouth	54,138	1,017	18·8
Newport, Mon.	74,227	1,203	16·3
Cardiff	183,823	2,569	14·0
Rhondda	127,684	2,044	16·1
Merthyr Tydfil	74,961	1,426	19·1
Swansea	96,848	1,767	18·3
Edinburgh	341,035	5,463	16·0
Glasgow	835,625	14,889	17·8
Dundee	165,007	3,738	19·6
Aberdeen	171,022	2,575	15·1
Dublin	378,994	8,495	22·4
Belfast	366,220	7,379	20·1
LIVERPOOL	**739,180**	**15,001**	**20·2**

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.

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 pointed out. 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 made itself very apparent amongst all classes of the public.

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 high mortality amongst infants, however good their surroundings and however intelligently maternal care is exercised, arises from many causes; a certain proportion are premature, and cannot all survive, some are born with malformations and other defects which soon terminate their existence; others, the offspring of weakly parents, cannot long survive, and, in spite of all care, there is a large proportion who will succumb to one or other of the many ailments to which infancy is susceptible. Making due allowance for these, it may be taken that an annual death-rate amongst infants of 80 per thousand is unavoidable, and if this be granted, it follows that anything above this is preventible, although the necessary means to prevent it are so extremely difficult to apply that even in the best 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.

In the course of an inquiry into infantile mortality, 874 families in which the death of an infant had occurred were taken consecutively, and certain particulars concerning them ascertained. The total number of children born in these families had been 3,801, but out of that number 1,895 had died, practically all in infancy, representing 498 deaths out of every 1,000 born, a waste of life six times as great as the standard

alluded to. These deaths, it must be remembered, are occurring in families in which, so far as municipal sanitation is concerned, there is very little to choose between them and many of the families who rear all, or nearly all their children, nor can it be shown or inferred that there was any inherent weakness in the offspring, since those who have survived are of fair physique, not, as a class, suffering under any inherited conditions likely to terminate their lives, but it is in the personal and domestic circumstances that the contrasts are most marked.

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

The removal of insanitary slums, 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 small sanitary ashbins for large and foul ashpits.

The provision of an unrestricted water supply.

Hospital accommodation is available for infants suffering from measles and whooping cough, the benefit of which is not only to the immediate sufferer, but the spread of the disease is checked by the removal of the source of infection.

Arrangements have been come to by which the earliest possible notification of births shall be received, and a staff of Female Inspectors is employed to visit districts where it is advisable that instruction, both verbally and by card, should be given as to the way in which the infant should be fed and cared for. Many thousands of cards of instruction on these points 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 160).

As in the preceding year, it was again the experience of Liverpool, and no doubt of all other large centres of population, that the rate of infant mortality during the year varies very widely in different wards or districts, as well as at different seasons; thus in 1906 the rate in two adjoining districts of Liverpool, viz., Abercromby District, with a

population of 50,800, was 120 per thousand born; and Exchange District, with a population of 41,600, was 260 per thousand born. In other districts of the built-up parts of the City there were various ranges between these two extremes, yet a very much closer analysis is available than this. It has been found, for example, that in the worst districts there are many instances in which parents have successfully reared every member of a large family, whilst side by side with these there are examples too numerous in which all, or nearly all, of the infants born have perished before attaining the age of twelve months. Broadly speaking, the distinction would appear to lie in the amount of intelligence, attention, and care, which the mother is able and willing to bestow upon her offspring. Clearly, if the mother is drunken, either usually or even occasionally, the prospects of life for the infant are small. If she is exceptionally lacking in intelligence, or is dirty and indolent, or reduced in circumstances to very extreme poverty, the prospects of rearing the infant are lessened; but whilst these extreme cases are happily rare, it does seem that want of knowledge, or want of intelligence, are most commonly associated with excessive waste of infant life.

An interesting Conference on Infant Mortality was held in London in June. 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.

Much stress was laid upon the necessity for teaching the subject of Hygiene in the schools, and amongst other resolutions which received unanimous approval was one stating the necessity for legislation to permit Sanitary Authorities to open Milk Depôts where pure or modified or sterilised milk could be supplied at a cheap rate.

The necessity for an earlier notification of births received general approval, while the insurance of the lives of infants below twelve months of age met with strong disapproval.

The obvious necessity for a stringent application of the Dairies, Cowsheds and Milkshops Order, and the provision of means to maintain the cleanliness of milk during transport, was confirmed.

Other resolutions were designed to meet the difficulty in the case of women who had to go to work in factories shortly before and shortly after the birth of a child.

The following are the resolutions of the Conference in question :—

1.—That the Education Department be urged to add instruction in elementary hygiene with reference to the dietary and rearing of infants to their present scheme for systematically training girls in the senior classes in the practice and principles of personal hygiene and the elements of dietary.

2.—That, in the opinion of this Conference, immediate legislation is required enabling Sanitary Authorities to establish or support depôts for the supply of pure, or modified, or sterilised milk, and to defray any cost out of the monies available for public health purposes.

3.—That, in view of the information submitted, the Conference is of opinion that all still-births should be notified within 48 hours to the medical officer of health of the district in which they occur, and that no burial should take place without a medical certificate.

4.—That notification of all births be given within 48 hours to the medical officer of health of the district in which they occur.

5.—That, in the opinion of this Conference, the question of the insurance of infant lives under twelve months is one demanding serious consideration, and, with a view to receiving reliable information, the Government should be asked to appoint a Departmental Committee of Inquiry on the whole question.

6.—(*a*) That the period of one month's abstention from factory work away from home now imposed on mothers be extended to at least three months, and that, on their return to work, evidence must be produced satisfactory to the Local Authority that proper provision has been made for the care of the child.

(*b*) That no employer of labour shall permit a woman advanced in pregnancy to engage in factory labour unless her ability therefor has been certified to the satisfaction of the Local Authority.

7.—(*a*) That, having regard to the ascertained fact that in centres of industries where women are largely employed away from their homes, an excessive number of deaths of infants takes place, and that this is contributed to by the improper conditions existing at the houses in which infants are placed out to nurse, it is necessary that the persons by whom and the places into which infants are received should be under supervision by the Local Sanitary Authority.

(*b*) That the Infant Life Protection Act be amended to remedy abuses which are not at present provided against.

8.—That all preparations offered or sold as food for infants should be certified by a Government analyst as non-injurious, and that each packet should contain its analysis.

9.—That the Dairies, Milkshops, and Cowsheds Order is defective, and that any amendment should extend the definition of disease as applied to animals, and should make the provision of regulations by Local Authorities compulsory. That the scope of the regulations should be extended to cover dirty milk, and should enable Local Authorities to prohibit the sale of any milk which fails to comply with the conditions of purity agreed upon.

10.—That in the opinion of this Conference the appointment of qualified women specially trained in the hygiene of infancy is necessary as an adjunct to public health work.

11.—That in the opinion of this Conference the Midwives Act, 1902, should be extended to Scotland and Ireland.

Although these recommendations have not been confirmed by legislation, it is confidently believed that the warm approval of the Prime Minister and of the President of the Local Government Board will ensure that some measures will be taken to ensure legislation in some at least of the directions indicated.

The steady increase in the number of deaths per 1,000 births attributed to premature birth must again be noted; during 1906 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 uncleanliness; 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 as 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 sought 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.

The Prime Minister and the President of the Local Government Board received a deputation on 22nd November concerning the matter, and on the subject of infant mortality generally.

The lines of suggested legislation were as follows:—

1.—The provision of teaching Elementary Hygiene in the schools, and training of the girls in senior classes in the principles of personal hygiene.

2.—To enable Sanitary Authorities to establish and support milk depôts for the feeding of infants whose mothers are unable to suckle them.

3.—The compulsory notification of all still-births.

4.—The notification of all births within 48 hours to the Medical Officer of Health of the district in which they occur.

5.—The appointment of a Departmental Inquiry into the question of infants' insurance.

6.—Compulsory abstention from factory work of mothers until three months after confinement, and for a certain period prior to confinement.

7.—The closer supervision of places to which infants are sent whilst their mothers are at work in factories and elsewhere.

8.—The certification by a Government Analyst of the suitability of all patent foods for infants.

9.—The amendment of the Dairies, Cowsheds and Milkshops Order to ensure greater purity and cleanliness of the milk supply.

10.—The legalisation of the appointment of Female Inspectors who are familiar with the Hygiene of Infancy.

11.—The extension of the provisions of the Midwives Act to Scotland and Ireland.

On 23rd November, the Medical Officer suggested for the consideration of the Health Committee that the title of the Sub-Committee which deals with the supervision of midwives, and with the sterilized milk depôts, should be altered to "Infant Life Preservation Sub-Committee." This suggestion was approved of, as it was thought that this title would indicate more clearly the objects of the committee, and more correctly describe the comprehensive nature of its work.

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	175	241	277	195	888	1,629	54·5	24·7
Exchange	132	114	157	135	538	1,304	41·2	26·0
Abercromby	68	101	91	80	340	1,029	33·0	12·0
Everton	329	315	500	262	1,406	2,761	50·9	20·3
Kirkdale	165	120	202	134	621	1,364	45·5	16·2
West Derby (West).	156	162	237	153	708	1,646	43·0	15·4
Toxteth	260	307	280	192	1,039	2,286	45·4	17·9
Walton	85	72	111	77	345	902	38·2	12·2
West Derby (East) .	82	74	85	81	322	873	36·9	14·1
Wavertree	50	39	73	56	218	488	44·7	12·7
Sefton Park ..... (late Toxteth Rural)	26	21	27	19	93	342	27·2	9·0
Garston	42	34	43	32	151	337	44·8	13·2
Fazakerley	6	3	2	6	17	40	42·5	10·0
Workhouses & Hospitals (Residences outside City)	19	25	25	31	100	744	13·4	—
City	1,595	1,628	2,110	1,453	6,786	15,745	43·1	17·1

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.	1902.		1903.		1904.		1905.		1906.	
	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	47·1	22·1	47·5	21·5	57·7	25·8	49·6	22·7	54·5	24·7
Exchange	37·4	24·5	32·8	21·2	43·3	28·1	36·0	24·0	41·2	26·0
Abercromby	31·6	12·5	31·1	13·2	34·5	13·3	31·8	12·4	33·0	12·0
Everton	44·2	15·7	44·5	17·6	55·0	21·3	45·7	15·9	50·9	20·3
Kirkdale	42·7	16·7	40·0	14·3	51·7	21·4	44·5	17·4	45·5	16·2
West Derby (West)	41·4	15·0	41·6	15·4	45·2	18·1	40·7	14·5	43·0	15·4
Toxteth.....	41·9	17·1	39·9	16·8	51·2	19·1	37·7	14·8	45·4	17·9
Walton	42·6	13·1	39·4	11·9	46·3	15·7	40·1	10·5	38·2	12 2
West Derby (East).....	31·5	11·2	36·0	12·4	38·5	14·6	33·1	11·2	36·9	14·1
Wavertree	42·8	12·8	43·9	11·8	46·6	15·1	42·7	11·2	44·7	12·7
Sefton Park	30·4	14·6	27·3	8·8	30·8	13·8	22·2	9·5	27·2	9·0
(late Toxteth Rural) Garston	38·6	10·7	43·1	12·0	55·2	18·3	40·1	11·7	44·8	13·2
Fazakerley	32·0	7·9	32·3	14·1	33·3	13·0	32·0	8·4	42·5	10·0
Workhouse and Hospitals (Residences outside of City)	12·1	...	10·2	...	14·8	...	10·8	...	13·4	...
City	39·8	16·2	38·8	15·9	47·3	19·6	39·1	15·4	43·1	17·1

CAUSES OF DEATH.

Full details as to the causes of death are set forth in table *F* in the Appendix; in this table the age at which each death took place and the district in which it occurred will also be found.

The following table gives a classification of the causes of death during the four quarters of the year, grouped under 16 classes:—

CLASSES.	Quarters.				Year 1906.
	March	June.	Sept.	Dec.	
1. Zymotic and Septic Diseases	498	663	1267	569	2,997
2. Diseases of Uncertain or Variable Seat	189	178	189	166	722
3. Constitutional Diseases	48	52	41	38	179
4. Tubercular Diseases	438	422	344	429	1,633
5. Diseases of the Nervous System	437	384	360	365	1,546
6. ,, ,, Circulatory ,,	301	296	256	291	1,144
7. ,, ,, Respiratory ,,	1,042	900	465	794	3,201
8. ,, ,, Digestive ,,	183	186	270	215	854
9. ,, ,, Lymphatic ,,	2	6	5	6	19
10. ,, ,, Urinary ,,	106	110	91	101	408
11 ,, ,, Reproductive ,,	16	22	16	28	82
12. ,, ,, Joints, &c.	11	4	12	6	33
13. ,, ,, Integumentary System	15	19	15	10	59
14. Dietetic Diseases	3	2	5	3	13
15. Developmental Diseases	494	454	436	508	1,892
16. Causes investigated at Coroner's Inquests	272	211	240	233	956
Causes not specified	4	2	1	...	7
All Causes	4,059	3,911	4,013	3,762	15,745

ZYMOTICS.

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 1906:—

DISTRICTS.	Deaths from all causes.	ZYMOTICS.				
		Quarters.				Per-centage of Zymotic Deaths to Deaths from all causes.
		March.	June.	Sept.	Dec.	
Scotland	1,629	39	111	174	90	25·4
Exchange	1,304	30	36	94	46	15·8
Abercromby	1,029	22	39	45	35	13·7
Everton	2,761	111	122	309	96	23.1
Kirkdale	1,364	44	44	130	40	18·9
West Derby (West)	1,646	38	57	145	70	18·8
Toxteth	2,286	95	154	142	59	19·7
Walton	902	42	28	79	26	19·4
West Derby (East)	873	24	30	52	38	16·5
Wavertree	488	20	10	41	23	19·2
Sefton Park	342	9	9	20	13	14·9
(late Toxteth Rural) Garston	337	11	9	18	12	14·8
Fazakerley	40	1	1	1	2	12·5
Workhouses and Hospitals (Residences outside City)	744	12	13	17	19	8·2
City	15,745	498	663	1,267	569	19·0

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

Zymotic diseases occasioned 2,997 deaths during the year 1906, and accounted for 19·0 per cent. of the total mortality within the city during this period. The death-rate from zymotic diseases per 1,000 was 4·0. The average rate for the preceding 5 years (1901-1905) was 3·6. The deaths during 1906 were as follows:—

	Quarters.				Year 1906.
	March.	June.	Sept.	Dec.	
Total Zymotics	498	663	1,267	569	2,997
Smallpox	—	—	1	—	1
Measles	133	291	66	96	586
Scarlet Fever	82	47	30	34	193
Diphtheria	43	23	24	47	137
Membranous Croup	7	2	5	2	16
Whooping-cough	109	164	53	36	362
Diarrhœa	26	53	1,001	218	1,298
Influenza	18	18	6	21	63
Fever — Typhus	—	2	4	2	8
Fever — Typhoid	10	13	11	51	85
Fever — Simple Continued	—	—	1	—	1
Other Zymotics	70	50	65	62	247

Note.—Influenza, Measles, and Whooping-cough appear to have been predisposing causes in the case of many deaths primarily ascribed to Respiratory Disease (page 27), inasmuch as one or other of these Zymotics had preceded the fatal illness. See also notes to succeeding tables.

SMALL-POX.

Small-pox was introduced into the city on six separate occasions. In five instances the patients, seven in number, were brought by ships, two of the cases being removed to hospital direct on arrival, and five, who arrived apparently well, developed the disease at their homes. The sixth instance was that of two Russian emigrants who arrived overland. Besides these there were ten cases removed from their homes. One of these was an interpreter engaged in the emigration trade; two—one a brother and the other a barman at a public-house frequented by seamen—were infected by one of the ship cases above referred to; four (children) in one family in Fletcher Street were supposed to have been infected through the interpreter's case, as a member of each family worked at the same place of business. One was the wife of a person employed at the Cottage Homes, Fazakerley. This case was at first attributed to infection from Fazakerley Hospital, owing to the proximity of her residence to the hospital, but it was subsequently found that a child of the family, aged nine, was convalescent from the disease, having suffered from a mild attack. This child had been staying with friends in the south end of the city at the time the four cases occurred in Fletcher Street, and was probably infected from that source. The remaining case occurred at Magnum Street, Everton. This patient (a woman) visited the Marsden Street Dispensary on the day she was infected, but the actual source of infection could not be traced.

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. (See page 126).

Including the imported cases, there was a total number of 19 cases notified, only one proving fatal (an unvaccinated child).

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

The numbers of cases were not recorded until 1877, and from then up till the period of the passing of the Infectious Disease (Notification) Act it is probable that the numbers recorded do not represent all the cases which occurred. The deaths, however, may be regarded as a more accurate gauge.

In 1877 there were 200,000 fewer people than there were in 1903, hence the relative incidence in 1903 would be very much less than that of 1877.

It will also be observed that the deaths in 1903 were less than half of those which occurred in 1877.

SMALL-POX DURING THE LAST FORTY-FOUR 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

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.

On three separate occasions during 1906, the disease was introduced by Russian emigrants, and two residents were known to have been infected on emigrant vessels.

Of the total number of cases, eight, as the table shows, resulted fatally (the lowest number yet recorded in any one year in Liverpool), 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 52, against 98 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 & upwards.	All Ages.
—	—	1	—	2	—	2	3	—	—	—	8

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. (See page 126.)

The number of deaths during each of the preceding ten years has been as follows:—36, 23, 19, 13, 11, 14, 25, 57, 25, and 28.

List of streets in the city where cases of TYPHUS FEVER occurred during the year 1906.

STREETS.	Cases.	Deaths.	STREETS.	Cases.	Deaths.
Beau	6	...	Great George (an Emigrant)	1	...
Blake (1 an Emigrant)	2	...	Great George Square (an Emigrant)	1	...
Breck Road (The Willows)	1	...	Hornby	2	1
Brownlow Hill Hospital (a Nurse)	1	...	Kitchen	1	...
Bradewell	1	...	Leinster Road	1	1
Burlington	1	...	Mile End	7	...
Comus	1	...	Newsham	2	1
Dale Street, Garston	1	...	Normanby	1	...
Duke	1	...	Penrhyn	3	1
Elwy	1	1	Rockingham	1	...
Epsom	7	2	Scotland Road	1	...
Gildarts Gardens	7	...	Vulcan Street, Garston	1	1

TYPHOID FEVER.

There were 491 cases of Typhoid Fever reported during the year (more than one-half occurring in the last four months of the year) against 325 in the preceding year, 434 in 1904, 681 in 1903, and 1,026 in 1902. The deaths were 85 (51 occurring in the last quarter of the year), being 36 more than in the preceding year.

Upwards of 73 per cent. of the total number of cases notified during the year were removed to hospital. (See page 264.)

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, one of them, no doubt, being the abundant supply of pure water, the greater facility for isolation of the sick, and the greater care taken in the supervision of those food supplies which unquestionably 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 1906, the recrudescence in the late autumn being a usual phenomenon with this form of disease.

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.

The number of deaths from Typhoid Fever during each of the preceding ten years, 1896-1905, has been as follows:—166, 145, 148, 182, 120, 154, 190, 108, 82, and 49.

DEATHS FROM TYPHOID FEVER.

DISTRICTS.	Quarters.								Year.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	1	1	1	...	...	...	3	...	5	1	6
Exchange	...	2	2	1	...	...	4	...	6	3	9
Abercromby	1	...	1	...	...	...	...	5	2	5	7
Everton	..	2	1	1	1	1	5	9	7	13	20
Kirkdale	...	...	...	1	2	1	1	1	3	3	6
West Derby (West)	1	1	...	1	1	...	3	...	5	2	7
Toxteth	...	...	...	1	...	...	3	5	3	6	9
Walton	...	...	1	...	1	1	1	...	3	1	4
West Derby (East)	1	...	...	1	...	...	2	1	3	2	5
Wavertree	...	...	...	...	...	1	2	...	2	1	3
Sefton Park (late Toxteth Rural)	...	...	...	...	...	...	...	...	...	...	...
Garston	...	...	...	...	1	...	1	...	2	...	2
Fazakerley	...	...	...	...	...	...	...	1	...	1	1
Hospitals (Residences outside the City)	...	...	1	...	1	...	4	...	6	...	6
City	4	6	7	6	7	4	29	22	47	38	85

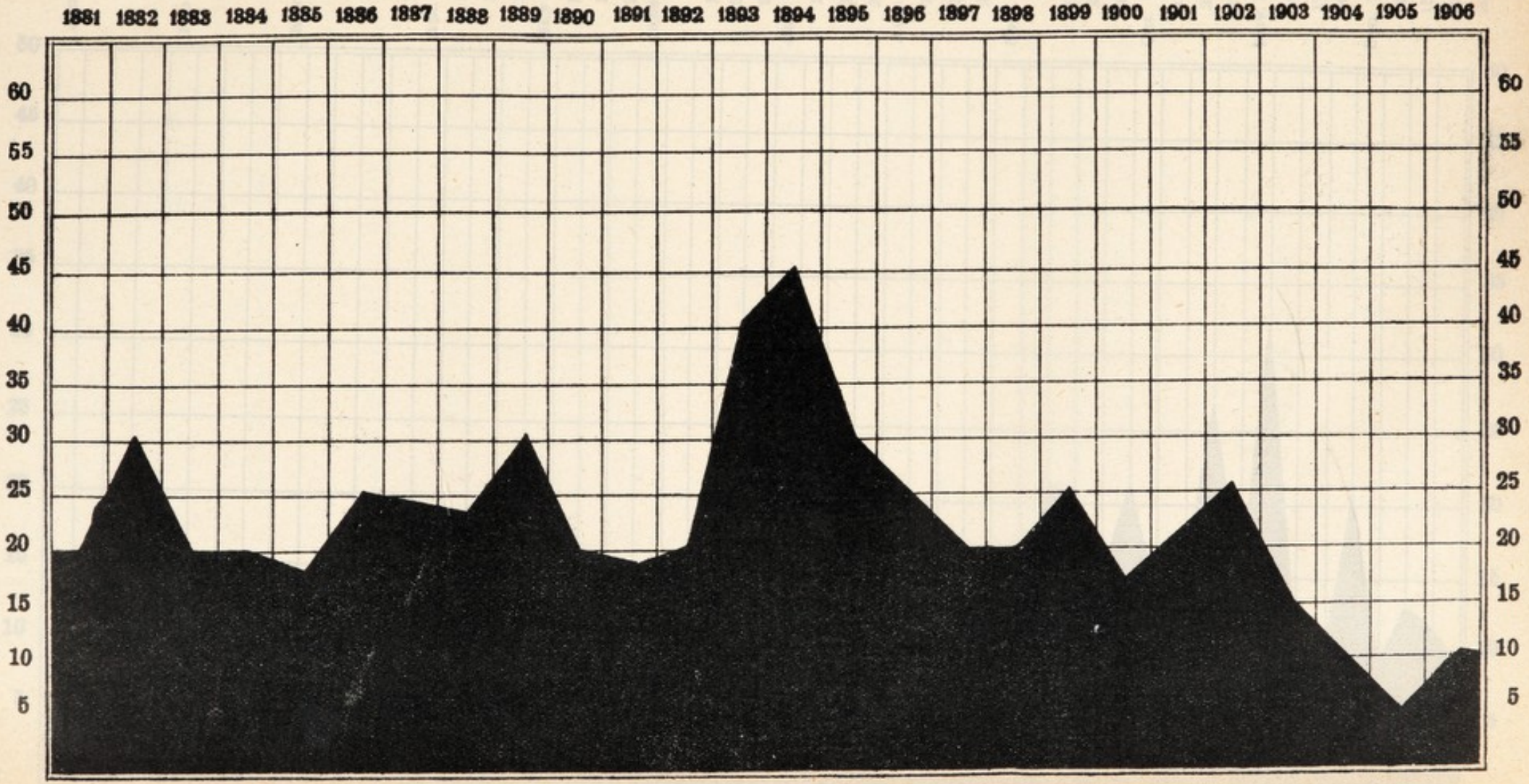
Ages at Death.

Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	60 and upwards.	All Ages.
1	...	...	2	...	5	16	9	24	16	6	5	1	85

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

CITY OF LIVERPOOL.

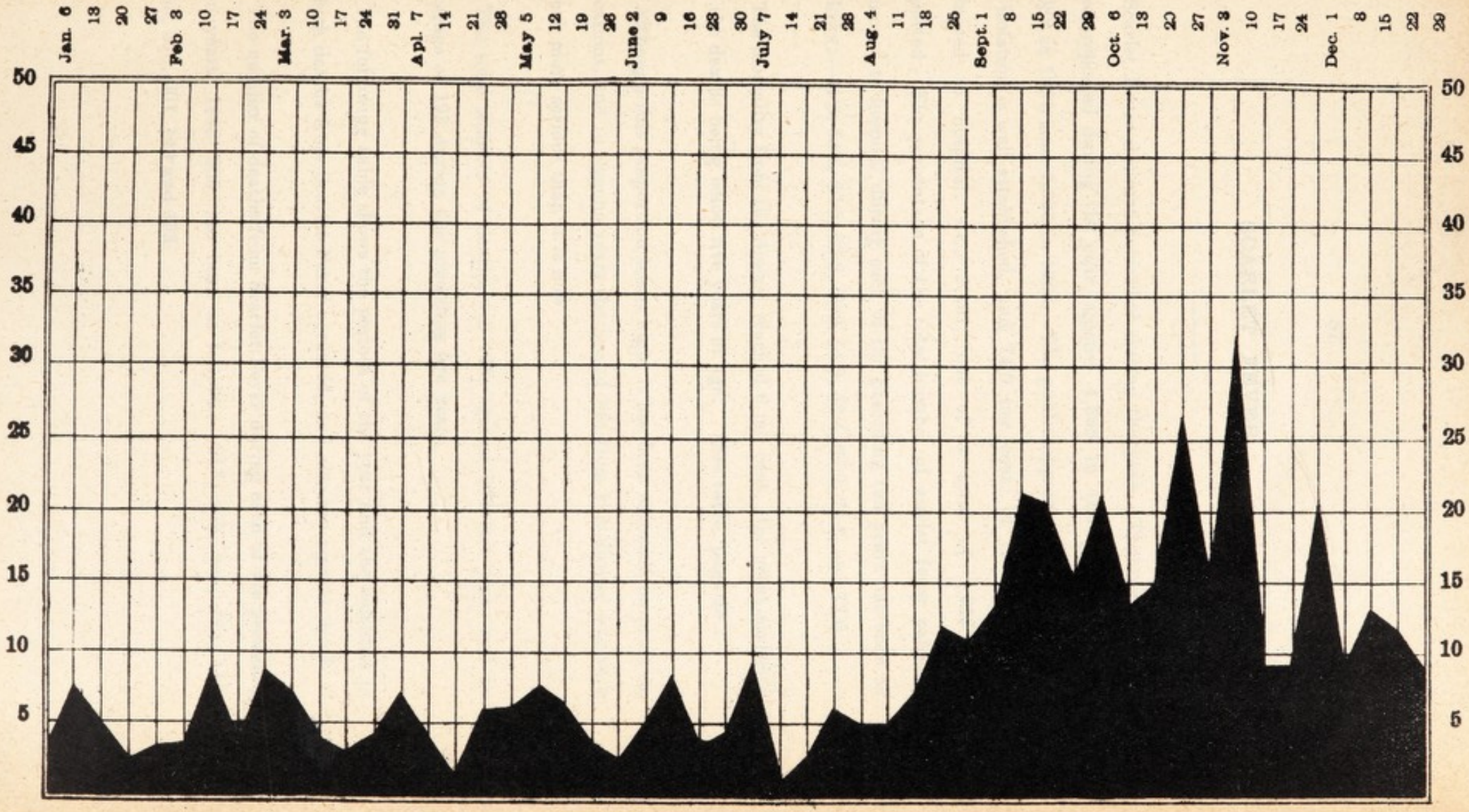
Death Rate per 100,000 of Population from Typhoid Fever, 1881—1906.



Death Rate per 100,000 of Population from Typhoid Fever, 1881–1900.

CITY OF LIVERPOOL.

Cases of Typhoid Fever reported during each week of 1906.



SCARLET FEVER.

Scarlet Fever declined somewhat during the year. There were 2,959 cases reported during the year, against 4,308 in the preceding year, 2,988 in 1904, and 4,053 in 1903. The public appreciation of the value of isolation is well established, and 74·0 per cent. of the cases were removed to hospital, *i.e.*, 2,191, out of a total of 2,959 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:—44·3, 54·6, 60·5, 63·6, 60·8, 54·8, 53·4, 52·9, 74·6, and 73·0.

The mortality from the disease reached 6 per cent., the great majority of the deaths being below five years of age. (See table, page 38.)

Although this proportion seems high, it has been 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 193, against 303 last year, and an average of 195 during the preceding five years.

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.

The number of deaths from Scarlet Fever during each of the preceding ten years, 1896-1905, has been as follows:—217, 209, 145, 164, 113, 195, 318, 201, 149 and 303.

DEATHS FROM SCARLET FEVER.

DISTRICTS.	Quarters.								Year.		
	March		June.		Sept.		Dec				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	4	...	3	...	2	1	1	2	10	3	13
Exchange	1	2	1	2	1	1	...	...	3	5	8
Abercromby	...	...	1	2	1	...	1	1	3	3	6
Everton	6	11	3	4	2	2	4	1	15	18	33
Kirkdale	7	7	5	...	...	2	...	2	12	11	23
West Derby (West)	4	3	3	3	1	...	2	3	10	9	19
Toxteth	6	4	1	4	5	2	...	3	12	13	25
Walton	7	3	1	...	3	...	2	1	13	4	17
West Derby (East)	3	2	4	3	2	...	1	2	10	7	17
Wavertree	...	3	2	1	...	...	...	...	2	4	6
Sefton Park (late Toxteth Rural)	...	3	...	...	2	1	...	3	2	7	9
Garston	2	2	2	...	1	...	3	1	8	3	11
Fazakerley	...	...	...	...	...	1	...	...	...	1	1
Hospitals (Residences outside the City)	1	1	1	1	...	...	1	...	3	2	5
City	41	41	27	20	20	10	15	19	103	90	193

Ages at Death.

Under 1 year.	1—	2—	3—	4—	5	10—	15—	20—	30—	40—	50—	All Ages.
11	27	30	31	24	50	12	3	4	1	...	...	193

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

MEASLES.

Measles showed a considerable increase, as compared with the preceding year, the cases reported reaching 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 586 deaths directly ascribed to it, the great majority of them being of infants below 3 years of age.

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 recurrence of outbreaks of this disease at intervals of about 18 months is well illustrated in the accompanying diagrams.

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

The number of deaths from Measles during each of the preceding ten years, 1896-1905, has been as follows:— 312, 344, 283, 321, 150, 473, 334, 132, 696 and 247.

DISTRICTS.	Quarters.								Year.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	9	3	36	25	8	4	5	6	58	38	96
Exchange	5	4	6	8	7	6	4	5	22	23	45
Abercromby	6	4	10	9	...	2	5	3	21	18	39
Everton	19	12	23	28	4	7	8	10	54	57	111
Kirkdale	8	7	11	7	3	1	3	2	25	17	42
West Derby (West)	1	5	8	12	8	7	9	6	26	30	56
Toxteth	17	23	40	46	...	1	...	5	57	75	132
Walton	...	3	1	3	2	1	...	...	3	7	10
West Derby (East)	1	1	2	3	2	...	5	7	10	11	21
Wavertree	1	...	1	1	...	1	9	2	11	4	15
Sefton Park (late Toxteth Rural)	...	...	2	3	...	1	...	...	2	4	6
Garston	...	...	...	...	...	...	...	1	...	1	1
Fazakerley	1	...	1	...	...	...	...	...	2	...	2
Hospitals (Residences outside the City)	1	2	2	3	1	...	...	1	4	6	10
City	69	64	143	148	35	31	48	48	295	291	586

Ages at Death.

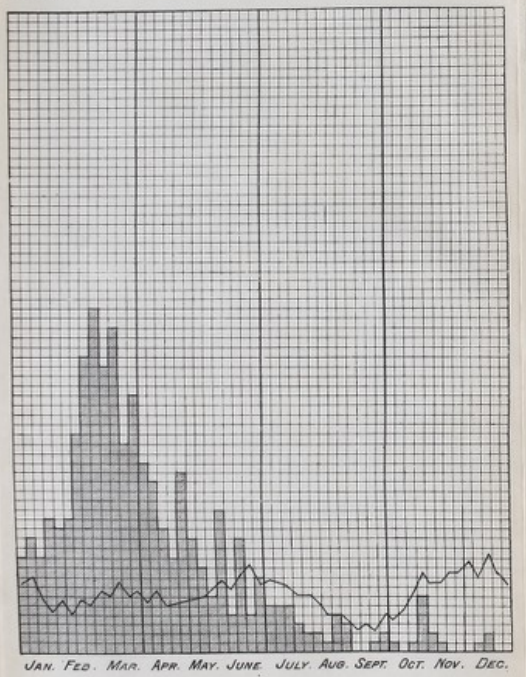
Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	All Ages.
132	256	86	50	30	30	1	...	...	...	...	1	586

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

1902.

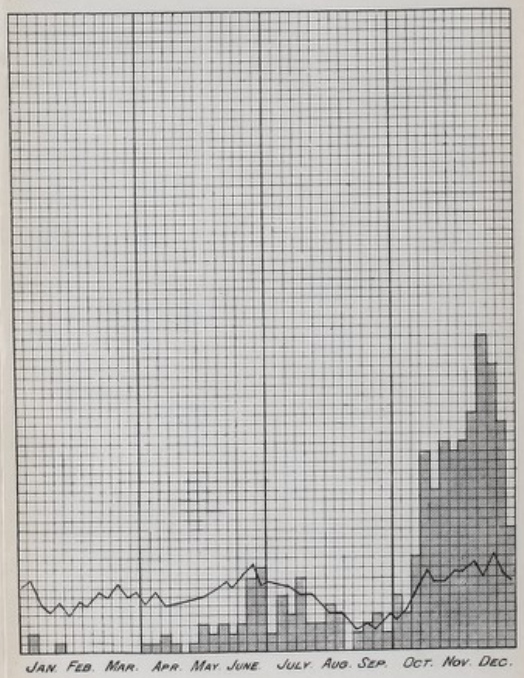
1903.

1901.



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

1902.



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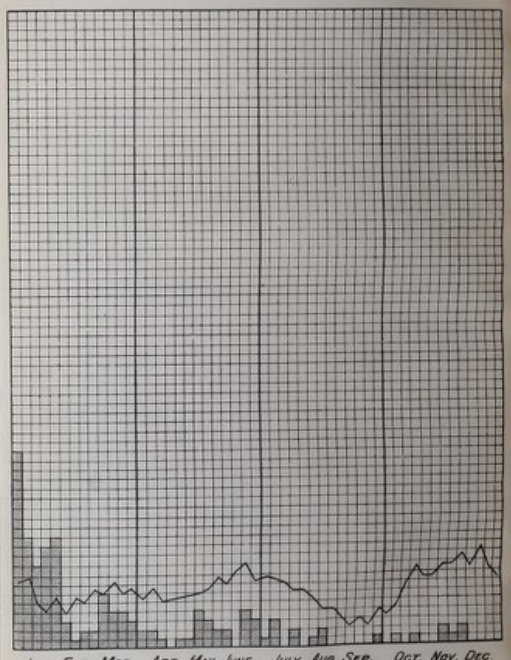
1903.



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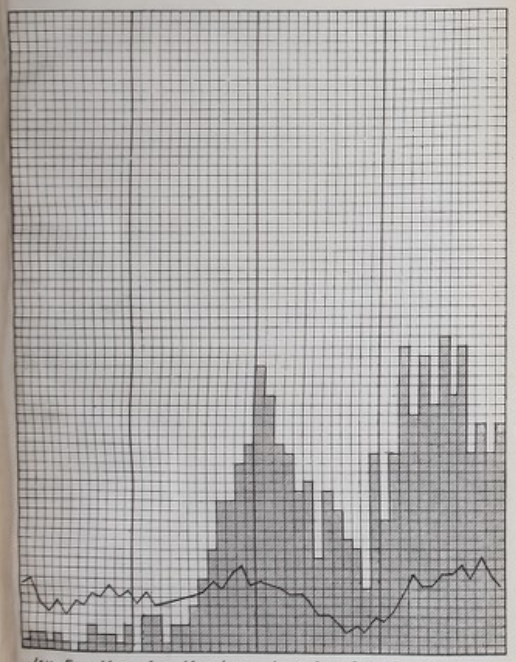
1904.



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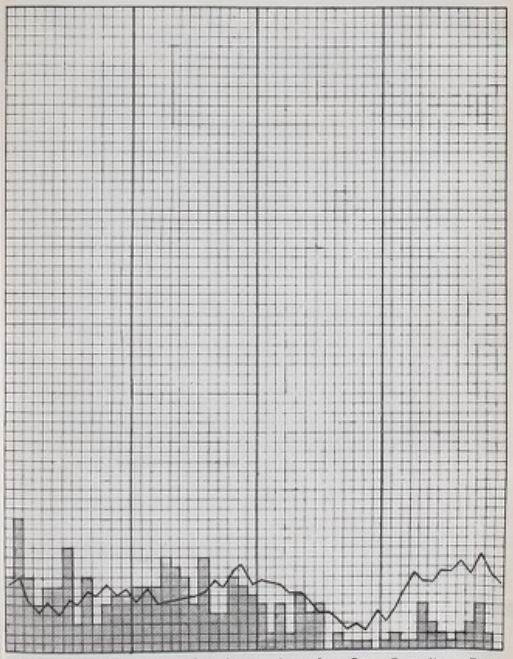
1905.



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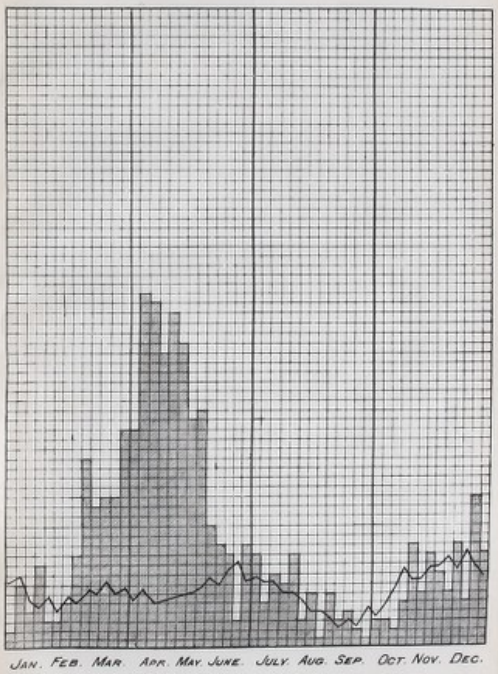
1906.



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

THE BLACK COLUMNS INDICATE THE NUMBER OF DEATHS FROM MEASLES DURING EACH WEEK OF THE YEARS 1901·2·3·4·5 & 6.

THE LINE IN THE DIAGRAM FOR EACH YEAR REPRESENTS THE WEEKLY AVERAGE N.º OF DEATHS IN THE 10 YEARS 1896-1905.

WHOOPING-COUGH.

The remarks relating to measles are equally applicable to 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 occur 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. In a large proportion of cases the patient would have to be accompanied by the mother, and the period of detention in hospital would in the majority of cases be protracted. During last year 362 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, 1896-1905, has been as follows:—298, 356, 333, 314, 538, 166, 407, 318, 426 and 151.

DISTRICTS.	Quarters.								Year.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	2	5	12	10	4	3	3	7	21	25	46
Exchange	1	8	2	7	2	...	...	1	5	16	21
Abercromby	...	...	6	4	...	...	2	...	8	4	12
Everton	17	13	17	17	4	5	1	2	39	37	76
Kirkdale	4	6	6	4	3	6	2	1	15	17	32
West Derby (West)	6	3	6	11	1	2	1	3	14	19	33
Toxteth	7	6	12	28	...	6	1	...	20	40	60
Walton	6	7	3	5	2	1	1	1	12	14	26
West Derby (East)	4	2	3	2	2	3	2	2	11	9	20
Wavertree	5	2	...	4	2	3	1	1	8	10	18
Sefton Park (late Toxteth Rural).	3	1	...	1	...	2	...	...	3	4	7
Garston	...	...	3	...	2	...	...	...	5	...	5
Fazakerley	...	...		...	...	...	...	...	...	...	...
Hospitals (Residences outside the City)	1	...	...	1	...	...	3	1	4	2	6
City	56	53	70	94	22	31	17	19	165	197	362

Ages at Death.

Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	All Ages.
141	125	43	21	14	16	2	...	...	...	...	...	362

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

DIPHTHERIA.

Deaths from Diphtheria attained their maximum during the third quarter of the year. 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:—120, 91, 123, 192, 143, 158, 200, 153, 181 and 138.

DISTRICTS.	Quarters.								Year.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	2	...	...	...	...	...	2	1	4	1	5
Exchange	...	...	1	...	...	...	2	1	3	1	4
Abercromby	2	1	...	...	1	...	2	1	5	2	7
Everton	4	2	2	4	3	1	2	2	11	9	20
Kirkdale	...	1	...	...	...	...	2	1	2	2	4
West Derby (West)	1	1	1	1	2	1	4	1	8	4	12
Toxteth	2	7	2	4	3	4	5	5	12	20	32
Walton	2	4	2	2	...	...	1	...	5	6	11
West Derby (East)	2	2	...	2	...	...	4	2	6	6	12
Wavertree	...	3	...	...	...	1	2	...	2	4	6
Sefton Park (late Toxteth Rural).	1	...	...	...	...	2	2	2	3	4	7
Garston	3	2	...	2	2	1	1	1	6	6	12
Fazakerley	...	...	...	...	...	...	...	...	...	...	...
Hospitals (Residences outside the City)	1	...	...	...	...	3	1	...	2	3	5
City	20	23	8	15	11	13	30	17	69	68	137

Ages at Death

Under 1 year.	1	2—	3 —	4—	5—	10—	15—	20 —	30 —	40—	50 —	60—	All Ages.
17	25	19	20	17	34	1	1	...	2	...	...	1	137

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. Sixteen 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:—82, 58, 41, 50, 40, 51, 41, 24, 33 and 37.

DISTRICTS.	Quarters.								Year.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	1	1	...	...	...	1	...	...	1	2	3
Exchange	...	...	...	...	...	...	...	...	...	...	...
Abercromby	...	...	...	...	...	...	...	...	...	...	...
Everton	2	2	1	...	1	1	...	...	4	3	7
Kirkdale	...	...	...	...	...	...	...	...	...	...	...
West Derby (West)	...	...	2	...	...	1	...	1	2	2	4
Toxteth	2	...	...	1	...	1	1	...	3	2	5
Walton	...	1	...	...	...	...	...	1	...	2	2
West Derby (East)	1	...	...	...	...	...	...	...	1	...	1
Wavertree	...	...	...	...	1	...	...	...	1	...	1
Sefton Park (late Toxteth Rural).	...	...	...	...	...	...	...	...	...	...	...
Garston	...	...	...	...	...	...	1	...	1	...	1
Fazakerley	...	...	...	...	...	...	...	...	...	...	...
Hospitals (Residences outside the City)	...	...	...	...	...	...	...	...	...	...	...
City	6	4	3	1	2	4	2	2	13	11	24

Ages at Death.											
Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	All Ages.
...	9	6	5	2	2	...	...	...	...	...	...	24

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

ZYMOTIC DIARRHŒA.

As is always the case, the mortality from diarrhœa chiefly affected infants, nearly three-fourths of the total number of deaths being those of infants under twelve months old. The disease did not commence to figure prominently in the mortality returns until a later period than usual, namely, early in August, and continued until the end of October. Over 1,100 deaths were registered from it during this brief period, and to these must be added deaths from the closely-allied or identical disease, English cholera.

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.

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.

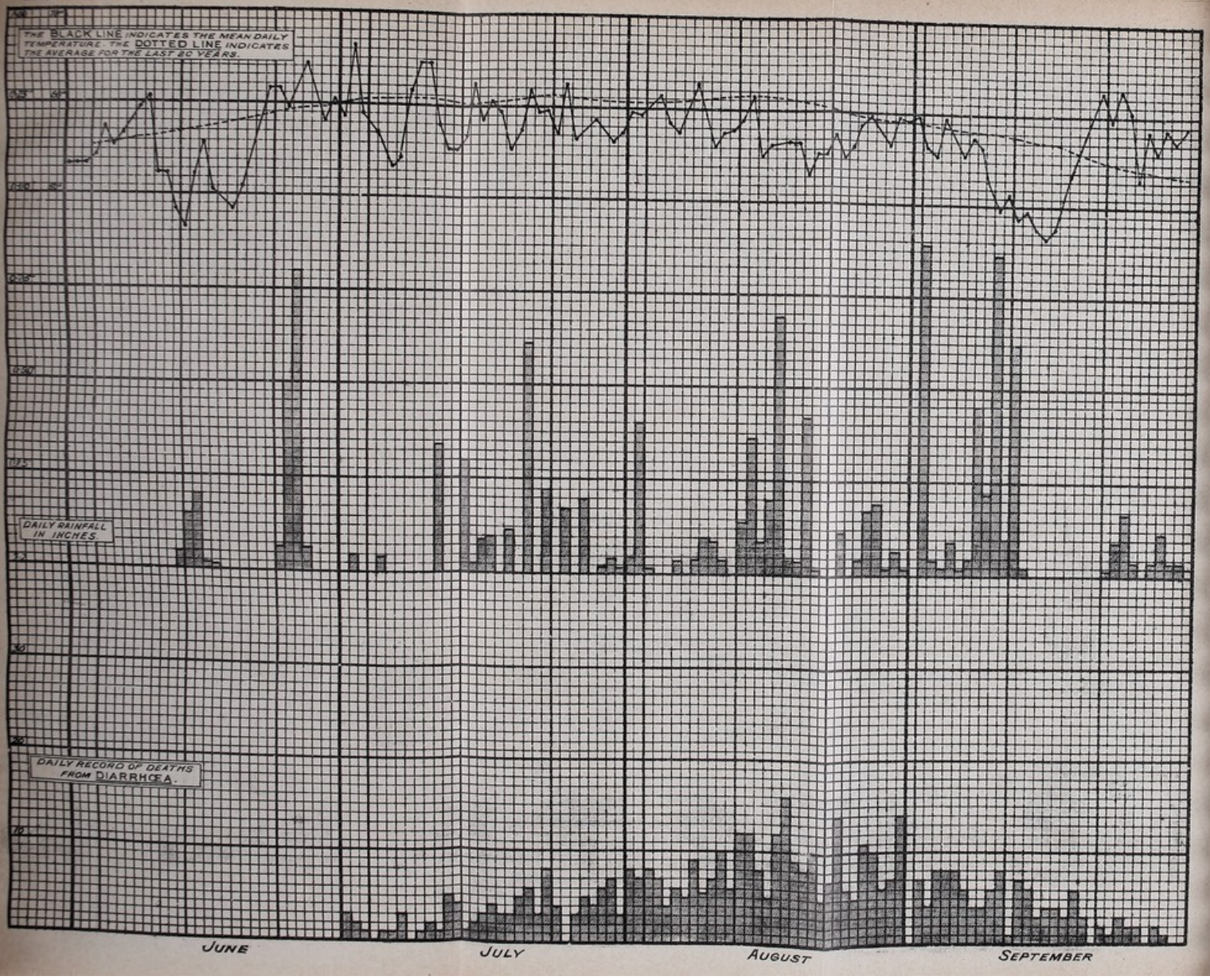
These four diagrams give the daily variations of the rainfall and the mean temperature of the air, during the months of June to September, and the daily deaths from zymotic diarrhœa during July, August, and September, for the years 1903, 4, 5, 6.

In comparing the years 1903 and 1905 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 and 1905 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.

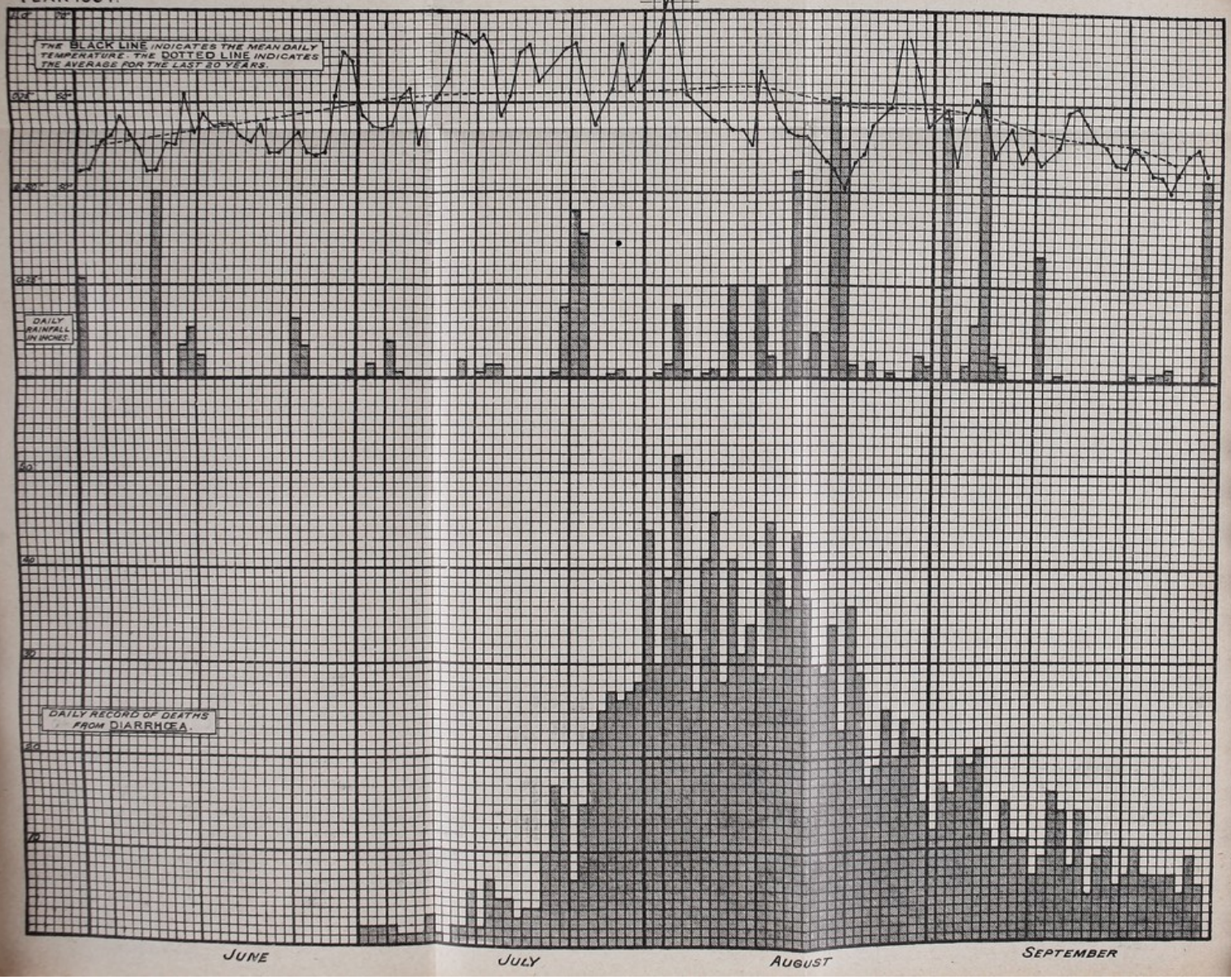
The number of deaths during each of the preceding ten years has been as follows:—851, 1,482, 956, 1,158, 900, 1,269, 611, 657, 1,785, and 960.

Valuable service was rendered by the authorities of the Royal Infirmary and Belmont Road Hospital, a considerable number of patients, all of them infants, having been received into these institutions during the summer months.

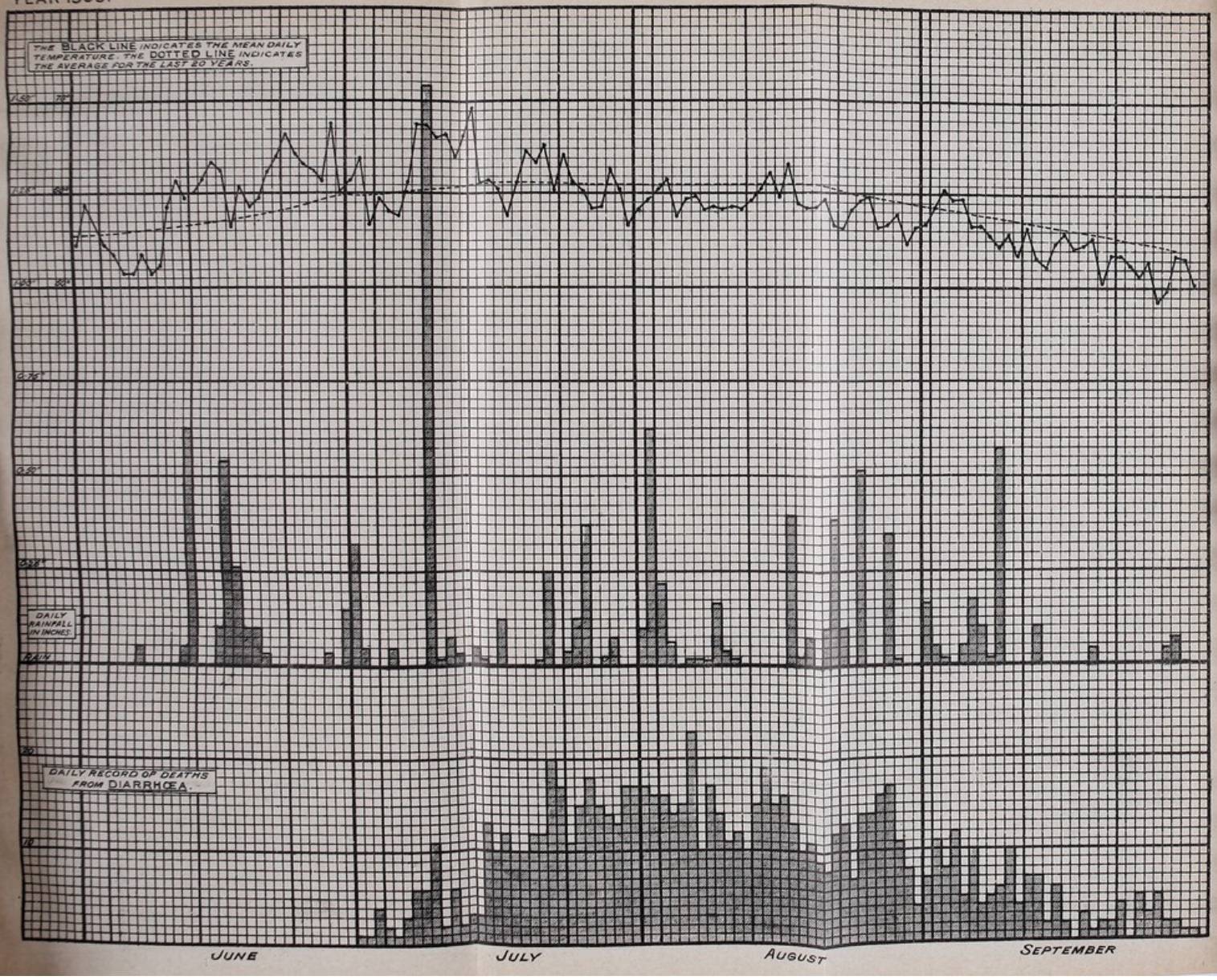
YEAR 1903.


THE BLACK LINE INDICATES THE MEAN DAILY TEMPERATURE. THE DOTTED LINE INDICATES THE AVERAGE FOR THE LAST 20 YEARS.
DAILY RAINFALL IN INCHES
DAILY RECORD OF DEATHS FROM DIARRHŒA.
JUNE
JULY
AUGUST
SEPTEMBER

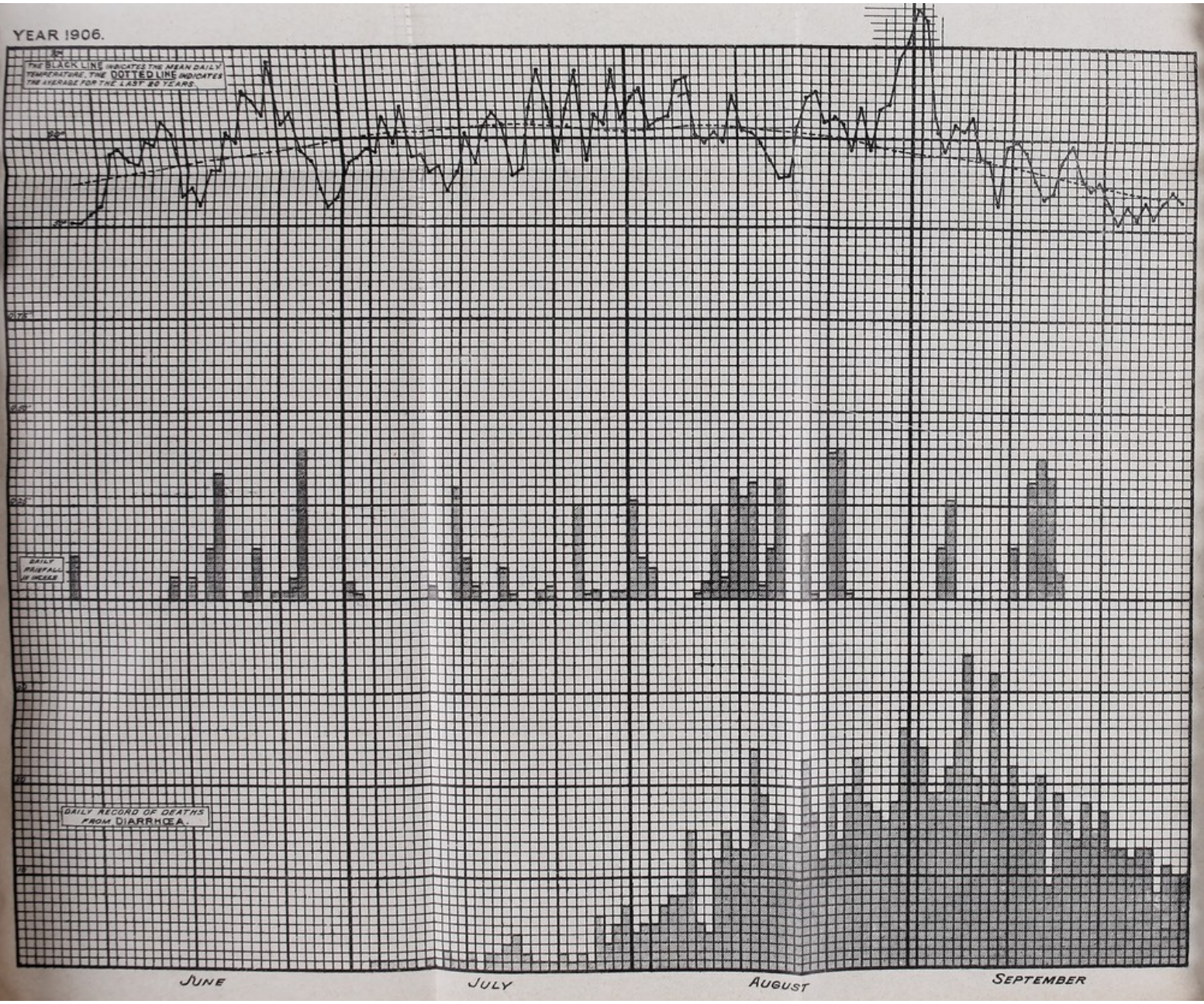
YEAR 1904.


THE BLACK LINE INDICATES THE MEAN DAILY TEMPERATURE: THE DOTTED LINE INDICATES THE AVERAGE FOR THE LAST 20 YEARS.
DAILY RAINFALL IN INCHES
DAILY RECORD OF DEATHS FROM DIARRHŒA.
JUNE
JULY
AUGUST
SEPTEMBER

YEAR 1905.


THE BLACK LINE INDICATES THE MEAN DAILY TEMPERATURE. THE DOTTED LINE INDICATES THE AVERAGE FOR THE LAST 20 YEARS.
DAILY RAINFALL IN INCHES.
DAILY RECORD OF DEATHS FROM DIARRHŒA.
JUNE
JULY
AUGUST
SEPTEMBER

YEAR 1906.


THE BLACK LINE INDICATES THE MEAN DAILY TEMPERATURE, THE DOTTED LINE INDICATES THE AVERAGE FOR THE LAST 50 YEARS.
DAILY RAINFALL IN INCHES
DAILY RECORD OF DEATHS FROM DIARRHŒA.
JUNE
JULY
AUGUST
SEPTEMBER

DEATHS FROM DIARRHŒA.

DISTRICTS.	Quarters.								Year.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	...	...	7	8	78	65	22	25	107	98	205
Exchange	2	2	1	1	36	37	11	12	50	52	102
Abercromby	2	1	2	2	19	18	2	7	25	28	53
Everton	2	3	3	4	143	113	15	23	163	143	306
Kirkdale	...	1	1	4	58	53	8	10	67	68	135
West Derby (West)	2	2	2	2	57	58	17	14	78	76	154
Toxteth	5	1	4	2	55	54	9	12	73	69	142
Walton	...	1	1	5	41	19	4	5	46	30	76
West Derby (East)	...	1	...	2	20	21	5	2	25	26	51
Wavertree	...	...	...	...	17	12	2	3	19	15	34
Sefton Park ... ... (late Toxteth Rural)	...	...	...	...	7	3	2	...	9	3	12
Garston	...	1	1	...	6	3	2	2	9	6	15
Fazakerley	...	...	...	...	...	...	1	...	1	...	1
Hospitals (Residences outside the City)	...	...	1	...	7	1	1	2	9	3	12
City	13	13	23	30	544	457	101	117	681	617	1298

Ages at Death.												
Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	60 & upwards.	All Ages.
893	317	33	7	4	4	2	...	...	2	4	7	25	1298

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 1906.

Streets.	No. of Deaths.	Streets.	No. of Deaths.
Adelaide	3	Conway	3
Adlington	4	County Road	3
Alma	3	Cranmer	3
Arkwright	8	Dalrymple	6
Arlington	4	Deacon	3
Ashfield	5	Denison	3
Aspinall	3	Doncaster	5
Beatrice	4	Edgeware	4
Beaufort	5	Eldon	3
Beau	6	,, Place	4
Bevington	3	Epsom	3
Bidder	3	Everton Terrace...	3
Birchfield	3	Every	3
Birkett	6	Evelyn	6
Bismarck	3	Gerard	9
Blenheim	6	Gildarts Gardens	3
Bond	3	Gordon	6
Boundary	7	Grafton	5
Braemar	3	Great Homer	4
Buckingham	9	Great Richmond	3
Burlington	6	Greig	3
Burnley	3	Haigh	3
Cazneau	3	Hamilton Road	3
Chelmsford	3	Hankin...	3
China	5	Hartnup	3
Clarence Grove	3	Holborn	4
Collingwood...	4	Hopwood	5
Coniston	4	Hornby...	5

List of Streets in the City wherein Three or more Deaths from Diarrhœa occurred during the year 1906—continued.

Streets.	No. of Deaths.	Streets.	No. of Deaths.
Hotspur	3	Penrhyn	4
Howe	3	Phythian	4
Iliad	3	Portland	3
Kilshaw	3	Prince Edwin	4
Lancaster	4	Raymond	4
Latimer	4	Robsart	9
Lavan	3	Rockingham	3
Leadenhall	4	Rose Place	4
Leta	4	,, Vale	5
Leyden	6	St. Anne	4
Limekiln Lane	4	St. Domingo Road	3
Little Woolton	3	Salisbury	7
Louis	4	Silvester	4
Lowwood	3	Sleepers Hill	3
Mould	3	Steel	3
Mile End	3	Strickland	3
Mill	5	Summer Seat	4
Nesfield	3	Taliesin	3
Netherfield Road N.	3	Tatlock	5
Nimrod	3	Teulon	4
North Dingle	3	Tudor	3
Northumberland	4	Upper Pitt	5
Opie	5	Victoria Square	3
Paddington	3	Virgil	3
Pembroke	3	Whittier	3

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

The following Tables A and B are reprinted from a report upon the subject of infantile diarrhœa prepared a number of years ago by the Medical Officer of Health at the suggestion of the late Dr. Ballard of the Local Government Board. The vaccination stations of those days greatly facilitated the inquiry.

Many investigations with a similar object in view have been made in many towns since then, and all of them practically confirm these results.

TABLE A.—Condition of Dwelling, Inmates, and General Surroundings in regard to Cleanliness.

Conditions.	Living in Streets.	Courts.	Cellars.	Total.
Clean	235	8	7	250
Fairly Clean	251	21	8	280
Dirty	214	78	21	313
Filthy	86	64	—	157

Length of illness:—Under 3 days, 242; 3 to 7 days, 320; 7 to 28 days, 362; 1 to 3 months, 76.

Percentage of Illegitimate Children:—English, 6·2; Irish, 5·9; Other, 13·5.

Communicability, or Community of Cause:—In 22·4 per cent. of the total number other members of the household were suffering from Diarrhœa.

Insurance of Infant Lives:—6·39 per cent. of the cases were in Clubs.

"That infantile diarrhœa is communicable seems to me to be very probable; in 224 of these cases, the illness of the infant was accompanied or followed by the illness of other members of the family, usually the children.

"The deductions drawn from the information then obtained may be expressed thus:—

"1. Assuming that 50 per cent. of infants under three months of age are fed entirely upon the breast, for every infant so fed who dies of diarrhœa, 15 die out of the remaining 50 per cent. who receive other food in addition to, or instead of, breast-milk.

"2. Assuming that 15 per cent. of infants under three months are reared exclusively by artificial means, the deaths amongst infants so fed are twenty-two times as numerous as they are amongst equal numbers of partly or entirely breast-fed infants.

TABLE B.—Age, Mode of Feeding, Length of Illness, Mortality, Nationality, and Condition in regard to Cleanliness, &c., of 1,000 of the Fatal Cases which occurred during the Autumn Months of 1883—1884—1886.

Age at Death.	Under 3 Months.			3 and under 6 Months.			6 and under 12 Months.			1 Year and under 2.			2 to 5 Years.			Total.
Nationality.	English	Irish	Other	English	Irish	Other	English	Irish	Other	English	Irish	Other	English	Irish	Other	
How Fed, Previous to and at Commencement of Illness.																
Breast alone	10	4	2	5	1	1	3	4	...	...	...	...	...	...	...	30
Breast and "Food" * ...	30	35	5	22	23	5	31	20	4	20	11	3	...	...	...	209
Breast, Bottle and "Food"*	19	15	6	16	12	7	18	12	...	2	...	2	...	...	...	109
Bottle alone	24	4	5	13	3	3	9	2	2	...	...	...	...	...	...	65
Bottle and "Food"* ...	49	10	10	68	28	19	78	22	15	11	2	3	...	...	...	315
Cow's Milk and "Food"*...	1	3	1	1	2	...	...	3	2	...	...	...	...	...	...	13
Breast, as well as any kind of food. ("Anything that is going")	...	...	...	1	...	...	5	10	1	14	6	...	...	...	...	37
Any kind of food	...	...	...	...	...	...	11	3	...	78	68	10	19	30	3	222
Total	133	71	29	126	69	35	155	76	24	125	87	18	19	30	3	1000

NOTE—* "Food" embraces the variety of things, more or less appropriate, commonly given to infants.
In order that the above table may be correctly estimated, it is necessary that the proportion of Infants fed by the different modes at the various ages, be known.

"Passing to the ages from three to six months, and taking as a basis that 80 per cent. of such infants get *some* breast-milk, and 20 per cent. get *none*, we conclude that for every infant dying of diarrhœa who got breast-milk as a diet or *part of its diet*, there are six who die amongst an equal number getting no breast-milk at all.

"This brings us to another well-known peculiarity of infantile diarrhœa, viz., its increase during the summer and autumn months. It is by no means confined to this season, for cases as sudden and as severe occur at all seasons; but at other times of the year they are much less frequent, and their numbers present a tolerable uniformity. It is only under conditions which arise in the hot weather that the epidemic character of the disease becomes manifest.

"The majority of these recorded cases were acute, the illness lasting less than a week; in these, the account commonly given was, that the child, which had previously been in good health, or perhaps had had some tendency to looseness of the bowels, was seized suddenly with violent diarrhœa, lasting 'off and on' until the illness terminated in death, which in many instances was preceded by convulsions. In these cases it frequently happened that some other persons in the house, most commonly the children, were also affected to a greater or less degree with vomiting and diarrhœa.

"In other cases, in which the fatal issue was deferred, the onset was less sudden, the premonitory diarrhœa being more marked, and leading gradually up to the more serious condition; not infrequently some temporary improvement would take place, to be, however, speedily followed by a recurrence of the severe symptoms, resulting in the death of the patient,—death in these cases also, being frequently preceded by convulsions.

"In the more chronic cases, the diarrhœa seems to have been merely a symptom of some other disease.

"The mode in which these infants were fed up to the time of illness is of the utmost importance, for it is beyond question that the method of feeding exercises a great influence on the diarrhœa mortality.

"It is generally considered that differences exist among people of different nationalities in the mode of rearing infants; and as it is important to find out if the method employed by one class has any advantage over that employed by another class, I have ascertained the nationality of the mother in each case. This line of inquiry is necessarily cut down to a comparison of two, viz., the English and the Irish, who are estimated to be in the proportion of two English to one Irish; inhabitants of other nationalities are numerically insufficient to furnish a reliable basis of information.

"Artificial feeding of infants is, I believe, much more common amongst the poorer English than amongst their Irish neighbours of the same social scale. If this be so, it is a distinct advantage on the Irish side, and goes far to counterbalance disadvantages arising from their less satisfactory hygienic conditions. Above twelve months of age, the total number of deaths of English infants coming to my notice was only slightly in excess of the total deaths of Irish infants of the same age. (See Table B.) Whatever be the mode of feeding employed, we must not forget that it is the same, more or less, all the year round; in all likelihood it is the putrefactive changes which take place in the food, rather than the food itself, which are prejudicial; these changes must be familiar to anyone who has ever seen a foul, uncleansed feeding-bottle."

Infantile Diarrhœa treated in the Royal Infirmary.

The following report on the work in the ward set apart for the treatment of children suffering from Summer Diarrhœa was submitted from the Royal Infirmary:—

"During the period from July 28th to September 28th, 1906, inclusive, 92 cases were admitted to the ward of 20 beds. Of these 46 died, a death rate of exactly 50 per cent. This high rate of mortality, however deplorable, can hardly be considered excessive when it is borne in mind that summer diarrhœa is the chief cause of death in children during the months of July, August and September, and that as a rule only cases of more than ordinary severity were admitted to the ward. Many of the children had been ill for several days, in some cases for weeks, before they came under treatment in the hospital; five died within 24 hours of admission, two within 48 hours, and four within 72 hours.

If we subtract the cases dying within 72 hours of admission, cases which manifestly were already too ill to be amenable to treatment, we find that the mortality in the remaining 81 patients was 43·2 per cent.

The experience of the physicians in charge of the ward confirms the view generally accepted that severe summer diarrhœa is rarely met with in infants fed by the breast alone, and that faulty conditions of the food are the principal causes of the disease.

Many of the children were already the subjects of disease or chronic ill-health before they were attacked by diarrhœa, but at the same time it was evident that children apparently healthy and well nourished were by no means exempt from the liability to be attacked.

In the treatment of the disease the most difficult problem was to find out the kind of food which the children could assimilate. Food which was well taken by one child was at once rejected by another, and sometimes by the same child at a different time, and the search for the kind of food suitable to each individual case called for the exercise of considerable patience and ingenuity on the part of the Medical and Nursing Staff. In many cases in which the diarrhœa yielded to treatment, death took place from inanition.

Vomiting was the most unfavourable symptom.

There can be little doubt that one reason why children of the poorer classes succumb so readily to diarrhœa, whether treated in hospital or in their own homes, is the want of constant nursing by the mother. Four beds were provided by the committee for the use of mothers who were willing to come into the ward with their babies, but in no instance was advantage taken of this provision.

The physicians in charge of the ward wish to express their high appreciation of the valuable services rendered by the sister and the other nurses. Their work was arduous and exacting in the extreme, and the high mortality among their patients, in spite of all their efforts on their behalf, must have tended to dishearten and depress them. To their patient and self-denying labours the restoration to health of the 42 children who recovered is in a great measure due.

Two features which stand out with greatest prominence in the report are (1) the excessive mortality amongst the infants, and (2) the unwillingness of the mothers to remain with their babies."

The hospital treatment of infantile diarrhœa, whether undertaken in the Stanley Hospital, Royal Infirmary, West Derby Union Hospital, or the Northern Hospital, shows practically the same results, and the experience serves once more to emphasise the fact that the natural guardian of the baby is its mother, and if the baby is taken from its mother it will suffer, however much care and skill are exercised in its preservation.

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	3	1	...	1	10	9	1	1	...	5	1	3	35
Exchange	2	1	...	2	3	4	1	1	...	1	1	1	17
Abercromby	2	1	1	3	3	1	1	...	...	1	3	1	17
Everton	9	7	1	...	12	10	8	2	...	6	8	3	66
Kirkdale	1	6	1	...	1	1	...	1	...	3	2	...	16
West Derby (West)..	2	1	1	2	2	5	2	...	...	2	7	2	26
Toxteth	4	6	2	7	2	5	6	3	...	5	6	1	47
Walton	3	...	...	...	5	2	3	6	...	3	3	5	30
West Derby (East)...	3	5	1	...	1	...	1	1	...	3	...	1	16
Wavertree	...	1	...	...	2	...	...	1	...	...	7	...	11
Sefton Park..... (late Toxteth Rural)	1	3	1	...	...	1	2	1	...	1	...	...	10
Garston	...	...	...	...	1	...	...	...	...	1	...	1	3
Fazakerley	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospitals(Residences outside the City)..	1	...	1	1	1	1	1	1	...	2	6	2	17
City	31	32	9	16	43	39	26	18	...	33	44	20	311

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.	Diarrhœa.
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
Year 1906.....	1	8	193	586	362	1,298

* 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·	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
Year 1906 ...	1	—	7	1	70	123	32	554	18	344	44	1,254

* 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 annual average death-rate, per 100,000 of the population, during each of the last four decennial periods, and the death-rate during 1906, from the undermentioned Zymotic Diseases:

Diseases.	1866 to 1875.	1876 to 1885.	1886 to 1895.	1896 to 1905.	1906.
Typhus	132·1	53·	6·9	3·6	1·1
Small Pox	48·1	16·8	1·6	2·8	·1
Scarlet Fever	159·9	78·1	47·9	29·1	25·4
Measles	86·2	96·1	74·3	47·5	77·9
Whooping Cough ...	100·6	87·6	60·	47·7	48·1

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 year 1906, indicates:—

	1866 to 1875.	1876 to 1885.	1886 to 1895.	1896 to 1905.	1906.
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	220·9
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	186·5
Annual Average Death-rate per 100,000 of the population below 5 years of age from: Tabes Mesenterica Hydrocephalus ... Scrofula	637·1	597·3	539·1	339·5	272·

Number of Deaths from the undermentioned forms of disease during the decades 1856 to 1905, together with the rates per 100,000 of the average population, and the average populations for the same periods.

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.
Scarlet Fever	Total Deaths.....	5,994	7,894	4,212	2,575	2,013
	Rate per 100,000	1,350	1,599	781	479	291
Typhus Fever	Total Deaths.....	7,482	6,527	2,855	371	251
	Rate per 100,000	1,685	1,322	530	69	36
Measles	Total Deaths.....	3,215	4,257	5,178	3,995	3,290
	Rate per 100,000	724	862	961	743	475
Whooping Cough	Total Deaths.....	4,779	4,968	4,723	3,224	3,304
	Rate per 100,000	1,076	1,006	876	600	477
Smallpox	Total Deaths.....	1,673	2,374	908	88	195
	Rate per 100,000	376	481	168	16	28
Phthisis	Total Deaths.....	15,572	16,476	13,754	11,436	12,632
	Rate per 100,000	3,507	3,339	2,553	2,129	1,827

* City Boundaries extended in 1895.

The Group of Tubercular Diseases includes Phthisis, Scrofula, Tabes Mesenterica, and Hydrocephalus. They occasioned 1,633 deaths in the City of Liverpool during the year 1906.

DEATHS FROM PHTHISIS.

The number of deaths from Phthisis during the year was 1,235. The number of deaths during each of the preceding ten years, 1896-1905, has been as follows:—1,198, 1,220, 1,209, 1,313, 1,287, 1,302, 1,347, 1,258, 1,282 and 1,245.

DISTRICTS.	Quarters.								Year.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	17	10	11	7	19	5	21	12	68	34	102
Exchange	27	13	24	11	10	11	15	9	76	44	120
Abercromby	24	8	16	9	13	3	18	10	71	30	101
Everton	33	24	40	23	24	15	46	25	143	87	230
Kirkdale	13	10	15	5	13	11	16	10	57	36	93
West Derby (West)	11	23	31	10	16	7	25	17	83	57	140
Toxteth	23	18	23	18	19	11	20	23	85	70	155
Walton	6	10	9	9	6	5	9	3	30	27	57
West Derby (East)	6	7	11	13	7	5	14	11	38	36	74
Wavertree	3	5	4	1	10	5	6	6	23	17	40
Sefton Park ... . (late Toxteth Rural)	5	2	4	3	1	3	6	2	16	10	26
Garston	3	7	5	3	1	3	3	3	12	16	28
Fazakerley	—	2	—	1	—	—	—	1	—	4	4
Hospitals (Residences outside the City)	12	3	13	3	15	2	9	8	49	16	65
City	183	142	206	116	154	86	208	140	751	484	1,235

Ages at Death.

Under 1 year.	1—	2—	5—	10—	15—	20—	30—	40—	50—	60 & upwards.	All Ages.
6	9	10	22	24	82	221	331	292	183	55	1,235

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

DEATHS FROM OTHER TUBERCULAR DISEASES.

Viz. :—Scrofula, Tabes Mesenterica, and Hydrocephalus.

DISTRICTS.	Scrofula.		Tabes Mesenterica.		Hydrocephalus.		Year.		
	M.	F.	M.	F.	M.	F.	M.	F.	T.
Scotland	5	4	3	2	5	5	13	11	24
Exchange	11	3	2	1	8	4	21	8	29
Abercromby...	8	2	3	3	4	1	15	6	21
Everton	15	20	7	6	9	11	31	37	68
Kirkdale	9	10	4	2	5	1	18	13	31
West Derby (West)	11	11	13	9	8	6	32	26	58
Toxteth	11	11	18	12	15	7	44	30	74
Walton	5	4	2	3	3	3	10	10	20
West Derby (East)	4	3	1	2	2	3	7	8	15
Wavertree	2	1	6	3	2	4	10	8	18
Sefton Park	1	2	1	...	2	1	4	3	7
(late Toxteth Rural) Garston	1	2	...	1	3	2	4	5	9
Fazakerley...	...	...	1	...	...	...	1	...	1
Hospitals (Residences outside the City)	8	8	4	1	...	2	12	11	23
City	91	81	65	45	66	50	222	176	398

Ages at Death.

Under 1 year.	1—	2—	5—	10—	15—	20—	30—	40—	50—	60 & upwards.	All Ages.
98	76	72	55	24	13	15	22	11	5	7	398

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

NOTIFICATION OF PHTHISIS.

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.

A table of statistics relating to the work is set forth below.

PHTHISIS.

During the year 1906, the cases reported numbered	1,950	
Of this number	108	were duplicates.
Leaving a total of.....	1,842	Cases.
Deaths from the Disease totalled	1,170	
Rooms, Bedding, &c., disinfected in	696	instances.
Bedding, &c., removed for special disinfection in the apparatus in	39	,,

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.

The age period at which the greatest number of cases were reported is from 25 years upwards, 906 males and 496 females being reported. 185 males and 115 females were reported between the ages of 15 and 25 years.

Total number of Males reported	1,257
Total number of Females reported	662

There were 77 cases of Tuberculosis other than of the lungs reported.

Dirty Houses were reported in ..... 16 cases.

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

Labourers	541	Cases.
Carters	53	,,
Seamen	47	,,
Domestic Servants	47	,,
Hawkers	39	,,
Charwomen	36	,,
Painters and Plumbers	31	,,
Marine Firemen	28	,,
Bookkeepers	22	,,
Shop Assistants	18	,,
Sackmakers	15	,,

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 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.

The accompanying diagrams are extremely valuable and interesting; they illustrate the changes which have been taking place during the last twenty to thirty years:—

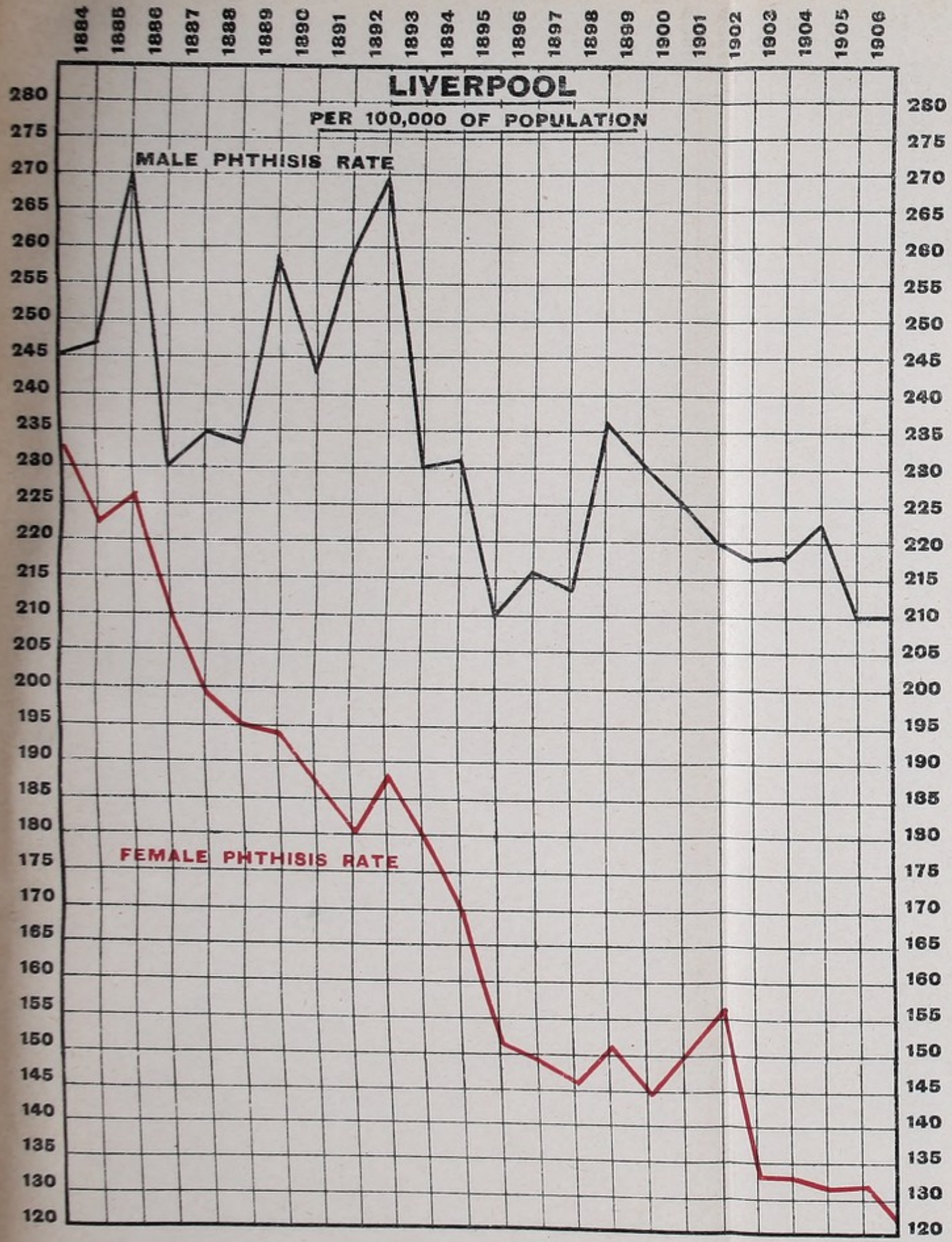
(*a*) In the City of Liverpool;

(*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.


LIVERPOOL
PER 100,000 OF POPULATION
MALE PHTHISIS RATE
FEMALE PHTHISIS RATE
1884
1885
1886
1887
1888
1889
1890
1891
1892
1893
1894
1895
1896
1897
1898
1899
1900
1901
1902
1903
1904
1905
1906
280
275
270
265
260
255
250
245
240
235
230
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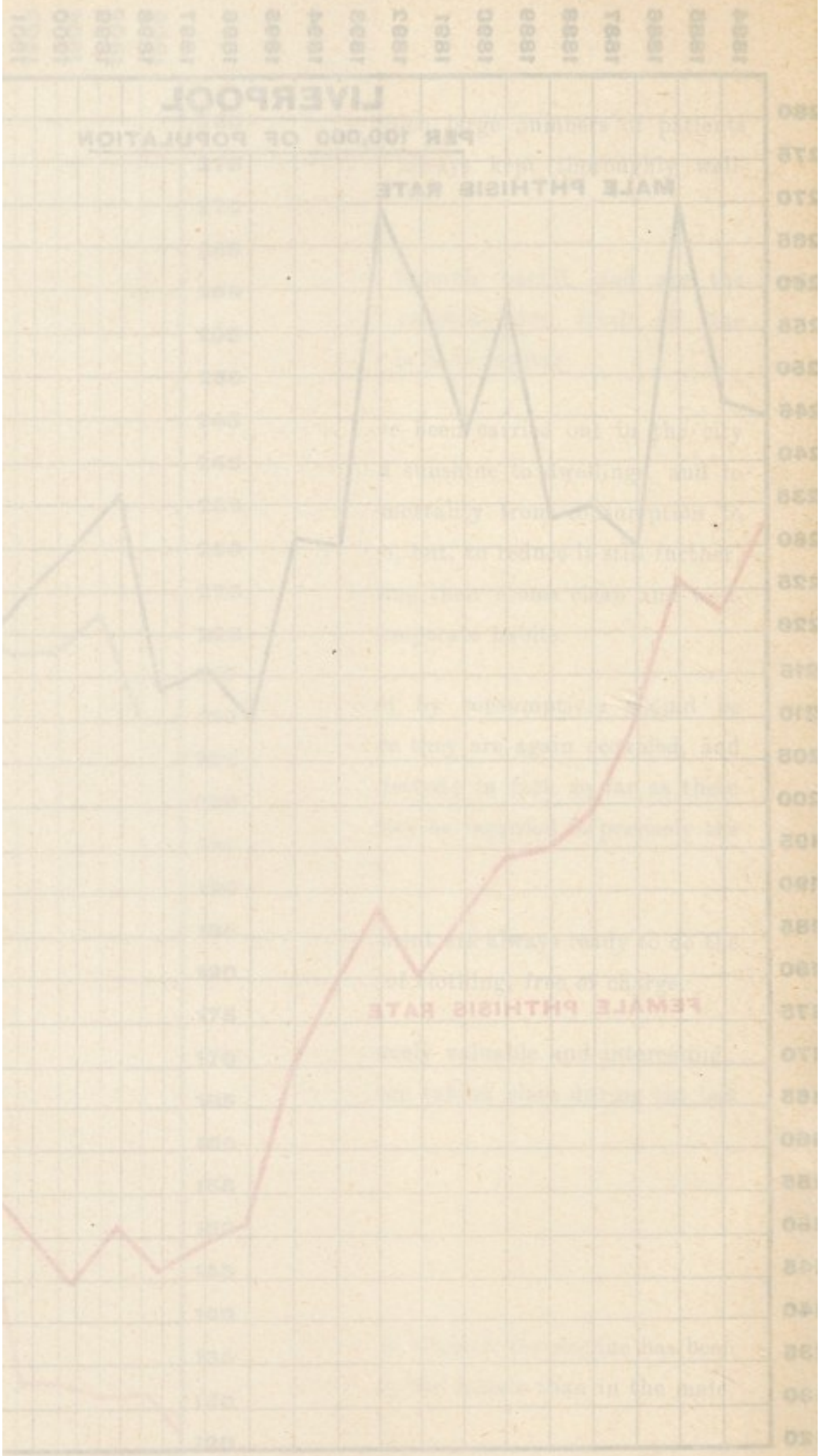
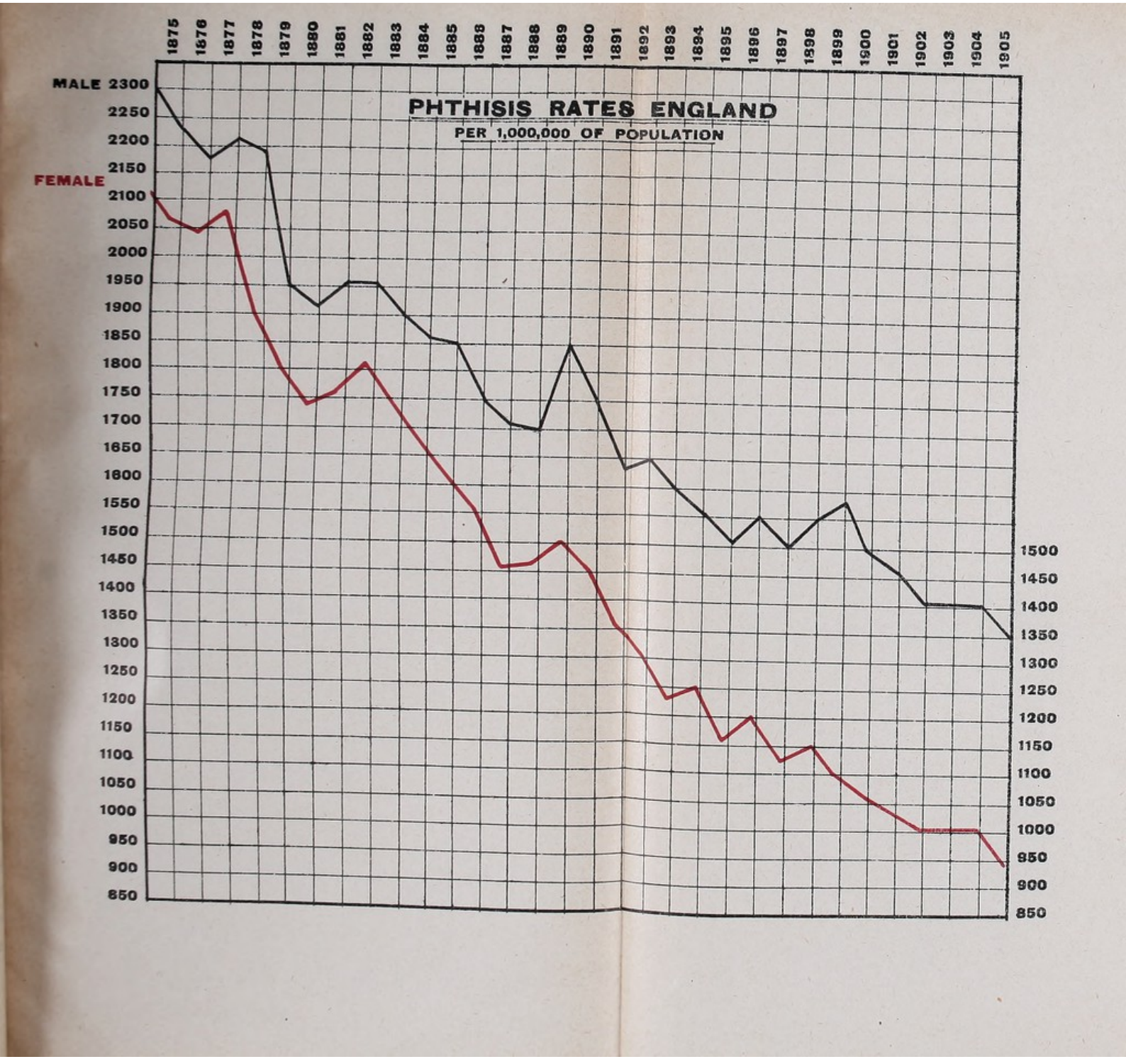
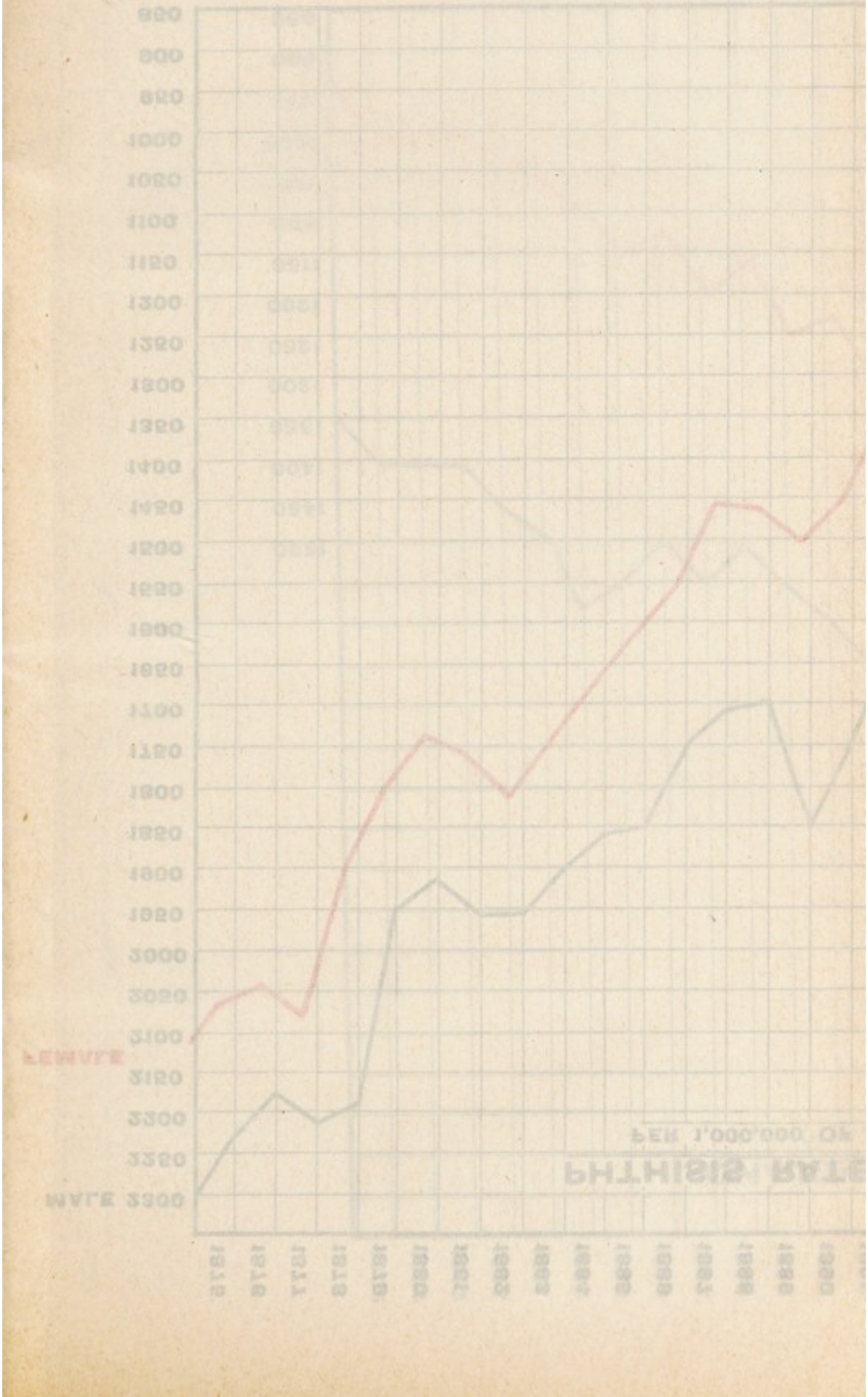
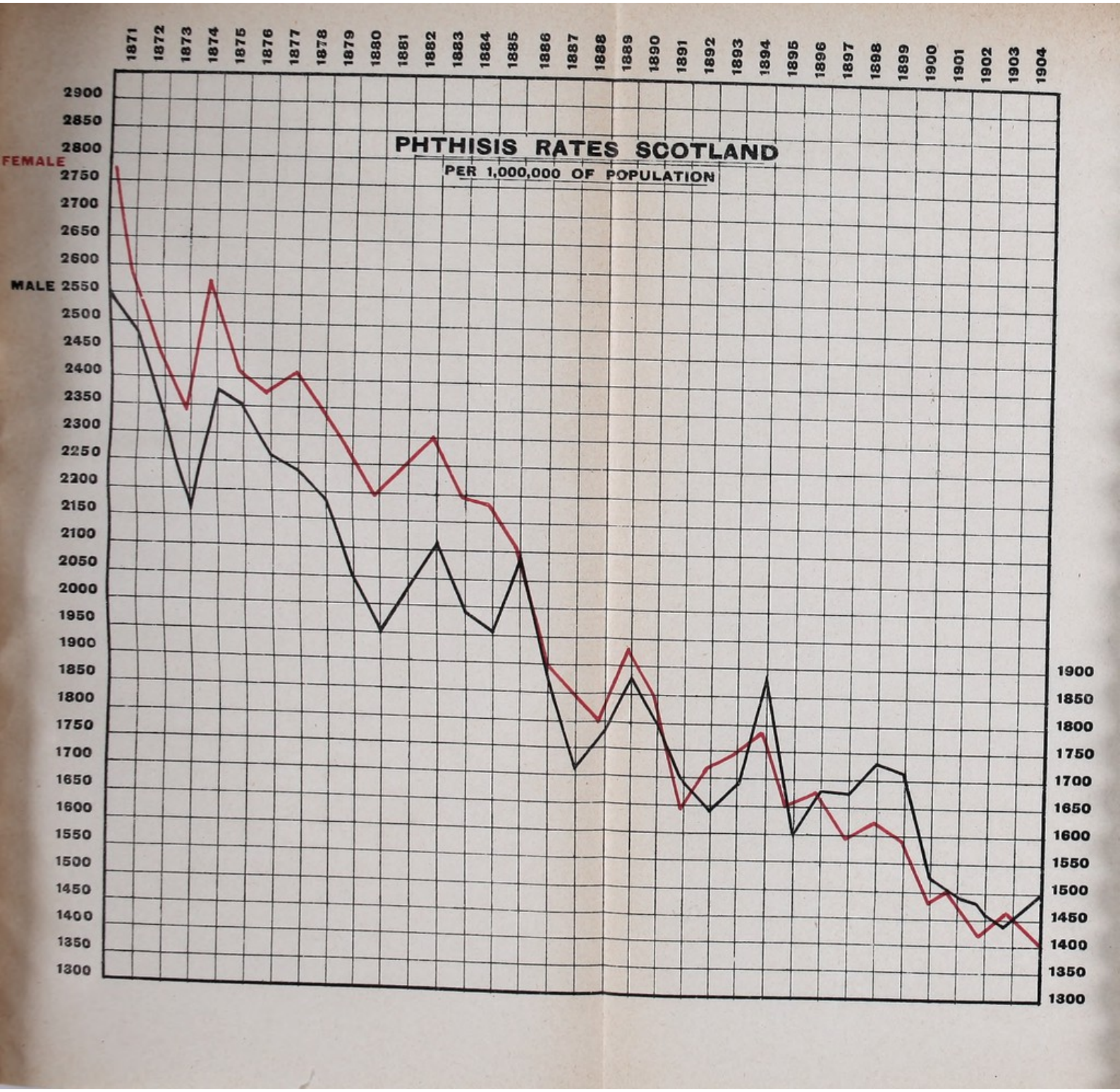
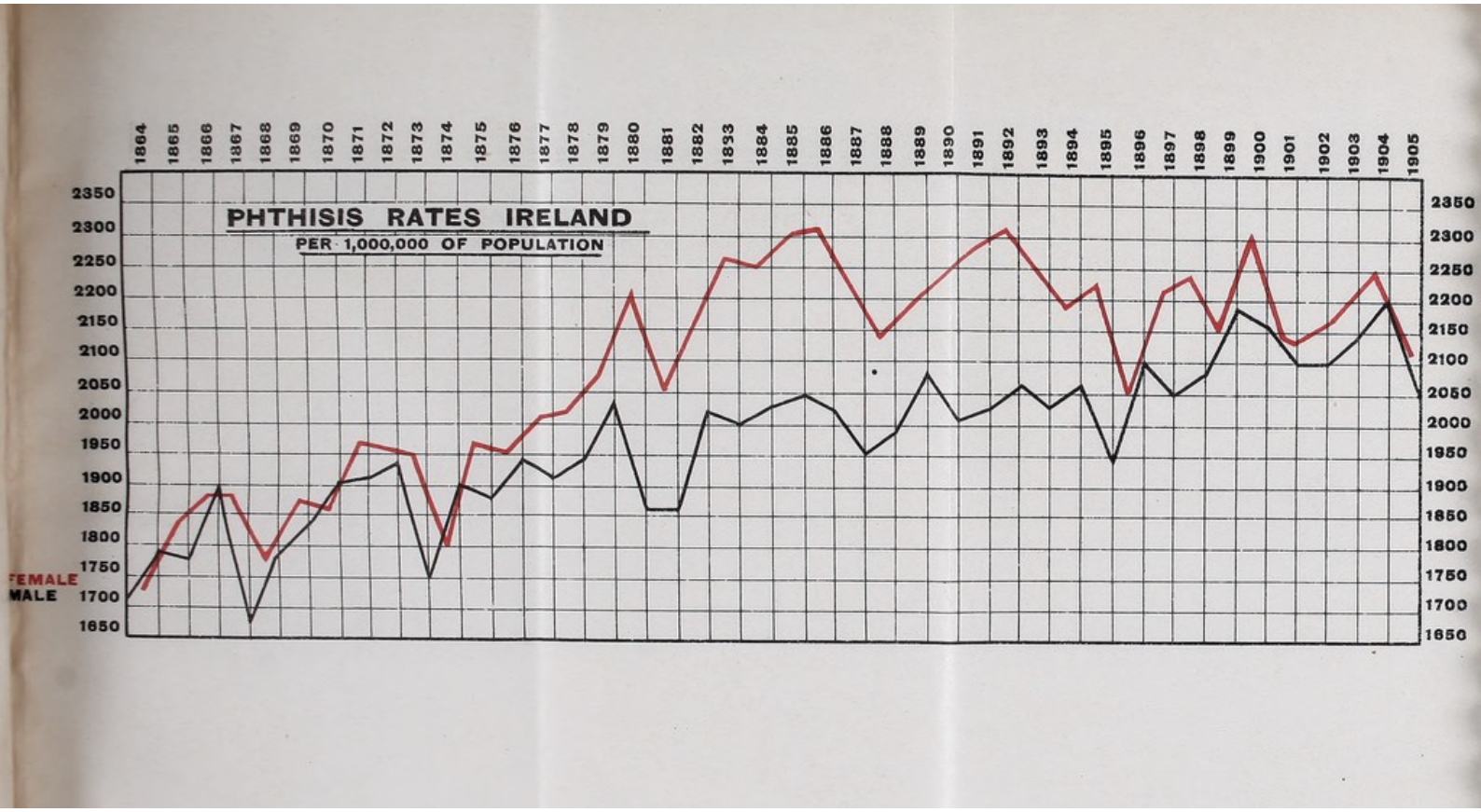
140
135
130
120




PHTHISIS RATES ENGLAND
PER 1,000,000 OF POPULATION
MALE
FEMALE
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 1901 1902 1903 1904 1905
2300 2250 2200 2150 2100 2050 2000 1950 1900 1850 1800 1750 1700 1650 1600 1550 1500 1450 1400 1350 1300 1250 1200 1150 1100 1050 1000 950 900 850
1500 1450 1400 1350 1300 1250 1200 1150 1100 1050 1000 950 900 850




PHTHISIS RATES SCOTLAND
PER 1,000,000 OF POPULATION
FEMALE
MALE
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 1901 1902 1903 1904
2900 2850 2800 2750 2700 2650 2600 2550 2500 2450 2400 2350 2300 2250 2200 2150 2100 2050 2000 1950 1900 1850 1800 1750 1700 1650 1600 1550 1500 1450 1400 1350 1300
1900 1850 1800 1750 1700 1650 1600 1550 1500 1450 1400 1350 1300


PHTHISIS RATES IRELAND
PER 1,000,000 OF POPULATION
FEMALE
MALE
1864 1865 1866 1867 1868 1869 1870 1871 1872 1873 1874 1875 1876 1877 1878 1879 1880 1881 1882 1833 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901 1902 1903 1904 1905
2350 2300 2250 2200 2150 2100 2050 2000 1950 1900 1850 1800 1750 1700 1650

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.	1902.			1903.			1904.			1905.			1906.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Cancer of Stomach and Bowels..	103	93	196	102	108	210	111	96	207	139	115	254	114	121	235
,, Liver	32	50	82	33	55	88	21	40	61	26	34	60	34	48	82
,, Urinary and Generative Organs	16	116	132	14	119	133	16	96	112	18	107	125	22	100	122
,, Breast	...	54	54	...	67	67	...	44	44	...	54	54	...	66	66
,, Head and Face	29	4	33	27	9	36	19	5	24	21	6	27	24	13	37
,, Tongue, Neck, and Throat.....	51	13	64	68	15	83	48	5	53	51	13	64	62	20	82
,, Other parts of the Body	16	10	26	17	9	26	16	16	32	15	6	21	20	14	34
,, Parts not specified ...	11	15	26	8	10	18	4	9	13	8	7	15	6	14	20
Total	258	355	613	269	392	661	235	311	546	278	342	620	282	396	678

ABUSE OF ALCOHOL.

There are, in many directions, gratifying evidences that the abuse of alcohol, at all events in the grosser extremes, still tends to decline, as the facilities for obtaining drink are diminished by magisterial action. That the subject is still one of extreme gravity in this city is shown by the circumstance that the number of deaths certified by Coroner's juries to be the result of excessive drinking during last year was 144.

With regard to these 144 cases, the inquests showed that the deaths of 35 men and 25 women were directly caused by excessive drinking; the deaths of 51 men and 24 women were accelerated by excessive drinking; 4 men and 5 women were fatally injured by accidents whilst under the influence of drink. In addition to the foregoing, one man was suffocated by a piece of meat lodging in the windpipe whilst he was under the influence of drink; one man poisoned himself by taking carbolic acid whilst suffering from the effects of drink; one man hanged himself, and two men cut their throats whilst in a state of intoxication. One man committed suicide by placing himself in front of a train whilst in a state of temporary insanity brought on by excessive drinking. 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.

In three inquests in which death was found to be the result of violence, the person committing the deed was under the influence of drink at the time, and in two cases both the person who inflicted the injuries and the injured person were under the influence of drink at the time.

"Alcoholism" is given as the cause of death of three women.

A vast amount of poverty and misery are caused by the great waste of money in drink. For example, in one limited area, the main characteristic of which was its extreme squalor, a sum of approximately £5,000 was annually expended in drink in three public-houses alone. These facts were proved by the circumstance that the area was dealt with as an insanitary one, and in assessing the compensation for the three public-houses in question, it was ascertained that the annual receipts amounted

to this large sum of money. There were also at the time 48 other public-houses within a radius of 200 yards of the area. The three above mentioned were demolished.

Lamentable as the mortality from drinking is, it is relatively insignificant in comparison with the suffering of children entailed by the drunkenness of those in whose custody they are. Not only do the observations of the Sanitary Staff confirm this, but the records of the Society for the Prevention of Cruelty to Children reveal the melancholy fact that thousands of cases of neglect and brutality are caused during the drunken bouts of parents, or arise from the consequent unfitness of the parents to attend to their work. That it is drink, and drink alone, which is so largely responsible for this condition of affairs, is shown by the generally admitted circumstance that parents are in many instances good parents when they are sober, and it is only when they are under the influence of drink, or when suffering from its consequences, that the injury is inflicted upon the children.

The last Report of the Society for the Prevention of Cruelty to Children contains the following significant 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."

It is not without good reason that the Health Committee, in dealing with cases under the Public Health Act in which clothing or bedding requires to be destroyed, no longer give money as compensation, but replace the articles of clothing or bedding with new goods, since it was found that the money was too often spent in drink.

This also would appear to be the experience of the Police Aided Clothing Association, an organisation which provides clothing for ill-clad children. The clothing which this organisation distributes is stamped in such a way, and given under such conditions, as will prevent it being pawned.

The general effect of intemperance is indicated by the facts, which speak for themselves, that it is in the districts where there is most intemperance that the general death-rate is highest and the proportion of deaths in workhouses is greatest.

Three districts are contrasted in these particulars:—

	Population.	General Death-rate per 1,000.	Proportion of Deaths in Workhouses and Hospitals.	Proportion of Deaths due to Excessive Drinking.
Exchange	41,619	31·3	50·3 per cent.	2·0 per cent.
Walton	62,043	14·5	20·2 ,,	0·4 ,,
Wavertree	34,832	14·0	19·2 ,,	0·6 ,,

A poster in the following terms was authorised by the City Council to be drawn up and posted on the various advertising stations in the town:

CITY OF LIVERPOOL.

ABUSE OF ALCOHOL

AND ITS CONSEQUENCES.

The City Council desires most urgently to call the attention of the citizens to the following facts:—

By order of His Majesty the King, a Report of a Special Committee was presented to both Houses of Parliament upon questions of health.

The enquiries of this Committee had proved that the abuse of alcohol is a most deadly agent. It lessens the strength and impairs the power for work of any kind. Everyone knows that all persons training for football or other athletics avoid alcohol.

Rum or other spirits in the early morning are most injurious.

Beer, wine or spirits should never be given to children or to infants.

The habit of drinking to excess leads to the ruin of families, disgust for work; poverty, misery, theft, and crime.

Thousands of instances of cruelty to children occur annually in this City from the neglect and brutality of parents, often reduced to poverty through wasting their money on drink. These children in fact would be without clothes and without food, were it not for the action of charitable people.

Alcohol is not in any sense a food, nor does it nourish the body in any way.

The following amended Resolution of the Health Committee of the 27th September, 1906, was passed by the City Council on the 24th October, 1906 :—

> 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.

The following Resolution was passed at a Meeting of Citizens held at St. George's Hall on 22nd October, 1906 :—

> That this Meeting of Citizens, whilst recording its hearty appreciation of the past efforts of the Liverpool Bench of Magistrates to curtail the drinking facilities of the city, is deeply impressed with the conviction that it is hopeless to expect any real or permanent improvement in the areas selected by the Corporation for their re-housing operations so long as there are maintained in those areas, public-houses which are a constant drain on the resources of the resident population :
>
> The Meeting, therefore, respectfully urges upon the Justices the desirability of concentrating their reduction operations for a period upon such areas, in order to effect that diminution in the drinking facilities of these localities which their lamentable social condition shows to be so much and so urgently needed.

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-three years :—

Year.	*Death Rate per 1,000 of Population from all causes.	Deaths from Diarrhœa.	Deaths from Fever.		
			Typhus.	Typhoid.	Continued.
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

* 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° 24′ 5″ N. Longitude 3° 4′ 20″ W.

Height above the Mean Level of the Sea 202 feet.

1906.	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	29·866	42·3	4·380	19	86
February	29·738	38·5	1·839	19	82
March	29·993	41·6	1·990	14	79
April	30·085	45·3	·856	10	69
May	29·827	51·	2·686	22	79
June	30·126	57·8	1·380	11	75
July	30·009	60·2	1·018	15	73
August	29·934	62·2	3·208	18	77
September	30·203	57·3	1·628	7	75
October	29·771	51·2	4·798	26	84
November	29·849	45·9	1·485	16	85
December	29·940	39·9	2·808	19	87

Difference From the Average Quantities observed during the last 40 years.

1906.	Barometer.		Temperature.		Rainfall.	
	Above Average.	Below Average.	Above Average.	Below Average.	Above Average.	Below Average.
	Inches.	Inches.	Degrees.	Degrees.	Inches.	Inches
January	...	·069	3·	...	2·186	...
February	...	·194	...	1·8	·118	...
March	·101	...	...	·5	·232	...
April	·187	...	...	1·7	...	·755
May	...	·138	...	1·	·771	...
June	·134	...	...	—	...	·650
July	·062	...	...	·5	...	1·668
August	·020	...	2·1	...	·220	...
September	·254	...	1·	...	...	1·278
October	...	·101	1·9	...	1·210	...
November	...	·050	2·	...	...	1·144
December	·067	...	...	.1	·234	...

Observations of Velocity of Wind.

1906.	Average Hourly Velocity for Month.	Maximum Hourly Velocity.	Date of Maximum Velocity.	Minimum Hourly Velocity.	Date of Minimum Velocity.
	Miles.	Miles.		Miles.	
January	20·5	47	Jan. 18	1	January 22.
February	18·7	54	Feb. 9	1	February 6, 18, 23.
March	18·	55	March 11	1	March 2, 13.
April	13·	38	April 22	0	April 24.
May	13·1	29	May 16, 30, 31	1	May 1, 8, 10, 19.
June	12·1	32	June 26	1	June 7, 19.
July	11·5	36	July 16	1	July 2, 3, 4, 6, 22.
August	13·3	50	August 25	1	Aug.5,6,7,11,21,22,23,31
September	10·	45	Sept. 16	0	September 1.
October	13·9	43	Oct. 29	1	October 3, 24, 25, 31.
November	17·6	56	Nov. 30	1	November 11, 12.
December	21·1	61	Dec. 12	1	December 1, 22.

SANITARY ADMINISTRATION.

SANITARY ADMINISTRATION.

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	33
*Female Inspectors for General Sanitary Purposes ...	11
*‖ ,, ,, of Midwives	1
* ,, Superintendent of Sterilized Milk Depôts ...	1
§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
,, , Ambulance	4
,, , Disinfecting and removing Bedding, &c.	7
‡Superintendents of Ambulance and Disinfecting Staff	1
,, Disinfecting Apparatus	2
* ,, Wall Paper Stripping Staff ...	1
Men engaged on ,, ,, ,, ,, ...	18
*Chief Inspector of Common Lodging and Sub-let Houses	1
***Inspectors of Common Lodging and Sub-let Houses...	13
*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 increased during the year. These applications fluctuate slightly year by year; in 1902 they were 9,699, in 1903 10,144, in 1904 9,218, in 1905 8,365, and in 1906 8,703. 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.

A very large number of sanitary notices are served upon owners in respect to what is well known as "insanitary property." 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:—

		1905.	1906.
Number of Complaints made by Inhabitants		8,365	8,703
,, Nuisances discovered on above complaints...		13,513	13,682
,, ,, ,, ,, house to house inspection ...		84,625	72,289
	Total ...	98,138	85,971
,, Notices issued	Owners	44,557	39,283
	Occupiers	1,618	1,669
	Total ...	46,175	40,952
,, Notes to Complainants		1,754	1,608
,, ,, sent to comply with notices		6,844	5,581
,, Re-inspections of Nuisances...		165,004	153,408
,, Nuisances abated on re-inspection		88,931	78,593
,, Visits to Premises under observation ...		1,461	1,734
,, Incidental calls		42,278	37,216
,, Informations laid for nuisances		544	374
,, Fined		139	98
,, of Magistrates' Orders		243	163
,, Acquitted or Withdrawn		162	113
Amount of Fines and Costs . .		£141 1 10	£94 14 6

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.

WATER CLOSET CONVERSIONS.

No. of Privies reported for conversion	21
,, converted	9

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

	1905.	1906.
No. of defective Ashpits reported	4,271	2,502
,, Notices	4,604	3,189
,, Improved Sanitary Ashbins supplied	7,758	6,673
,, Ashpits reduced in size and cemented	1,935	128

The number of improved sanitary ash-bins supplied in place of old insanitary ashpits is 6,673. In addition 1,726 improved bins have been placed in new property.

REFERENCES FROM OTHER DEPARTMENTS.

	1905.	1906.
Received from the Education Department ...	16,176	21,993
,, City Engineer	10,379	8,904
,, Water Engineer	4,017	1,859
,, Lodging-house Inspectors..	7,737	6,437

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:—

	1905.	1906.
Referred to City Engineer	9,210	10,186
,, Building Surveyor...	2,158	1,871
,, Water Engineer	7,387	5,817
,, Education Department	26,986	29,048

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 120.)

HOUSE TO HOUSE VISITATION.

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

	1905.	1906.
Number of Inspections of Street Houses	47,111	43,752
,, Street Houses found Clean...	45,300	42,364
,, ,, ,, ,, Dirty...	1,811	1,388
,, Apartments in Street Houses Examined	218,500	218,089
,, Inspections of Court Houses	3,119	2,867
,, Court Houses found Clean...	2,789	2,575
,, ,, ,, ,, Dirty...	330	292
,, Apartments in Court Houses Examined ...	9,277	8,710
Total Number of Houses Examined	50,230	46,619

DIRTY HOUSES.

	1905.	1906.
Number of Dirty Street Houses Inspected	1,811	1,388
,, ,, Court ,, ,, ...	330	292
,, ,, Cellars Inspected	397	375
,, ,, Houses and Cellars cleansed on Re-inspection	997	875
,, Notices to Owners to Cleanse Dirty Houses	2,312	1,880
,, Notices to Occupiers to Whitewash Dirty Houses	139	122
,, Notices to Owners to Whitewash Exteriors of Courts	1,276	1,141
,, Informations	20	12
,, Fined	12	5
,, Acquitted or Withdrawn	8	7
Amount of Fines and Costs ...	£7 7 6	£3 13 0

INFECTED HOUSES.

	1905.	1906.
Number of Infected Street Houses reported	4,961	3,977
,, ,, Court ,, ,, ...	254	145
,, ,, Cellars reported	61	41
,, visits to infected Houses and Cellars (notifiable diseases)	5,276	8,826
,, ,, ,, ,, ,, (school cases)	8,273	11,454

EXAMINATION OF CELLARS AND CELLAR DWELLINGS.

	1905.	1906.
Number of Inspections of Street Cellars	11,478	13,807
,, Street Cellars found disused	245	223
,, ,, ,, used for Lumber, &c. ...	4,897	5,688
,, ,, ,, used as Kitchens	4,580	6,296
,, ,, ,, found illegally occupied ...	73	117
,, ,, ,, ,, legally ,, ...	1,683	1,483
,, Notices issued to Owners	150	204
,, ,, ,, Occupiers	97	154
,, Inspections of Court Cellars	739	710
,, Court Cellars found disused	106	38
,, ,, ,, used for Lumber, &c. ...	489	525
,, ,, ,, used as kitchens	106	145
,, ,, ,, illegally occupied	38	2
,, ,, and Street Cellars found dirty ...	397	375
,, Informations against Street Cellar Owners	0	3
,, ,, ,, Court ,, ,,	4	1
,, Fined	4	2
,, of Informations against Street Cellar Occupiers	0	1
,, ,, ,, Court ,, ,,	5	1
,, Fined	4	1
Amount of Fines and Costs ...	£4 7 0	£2 4 6

The number of cellars filled in by the Health Committee, free of charge to the owners, during the year is 41, and the total filled in during the last ten years is 479.

The total number of cellars let as separate dwellings at present upon the Register is 2,016.

About 6,337 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.

A CELLAR DWELLING OF THE BETTER CLASS.

CELLAR DWELLINGS OF AN AVERAGE TYPE.

COURT AND ALLEY EXAMINATIONS.

	1905.	1906.
Number of Inspections of Courts and Alleys... ...	48,200	44,705
,, Closets found Dirty, but cleansed by Officer's Instructions	43,553	40,694
,, Informations	2	1
,, Fined	1	1
Amounts of Fines and Costs	£0 2 0	£0 2 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:—

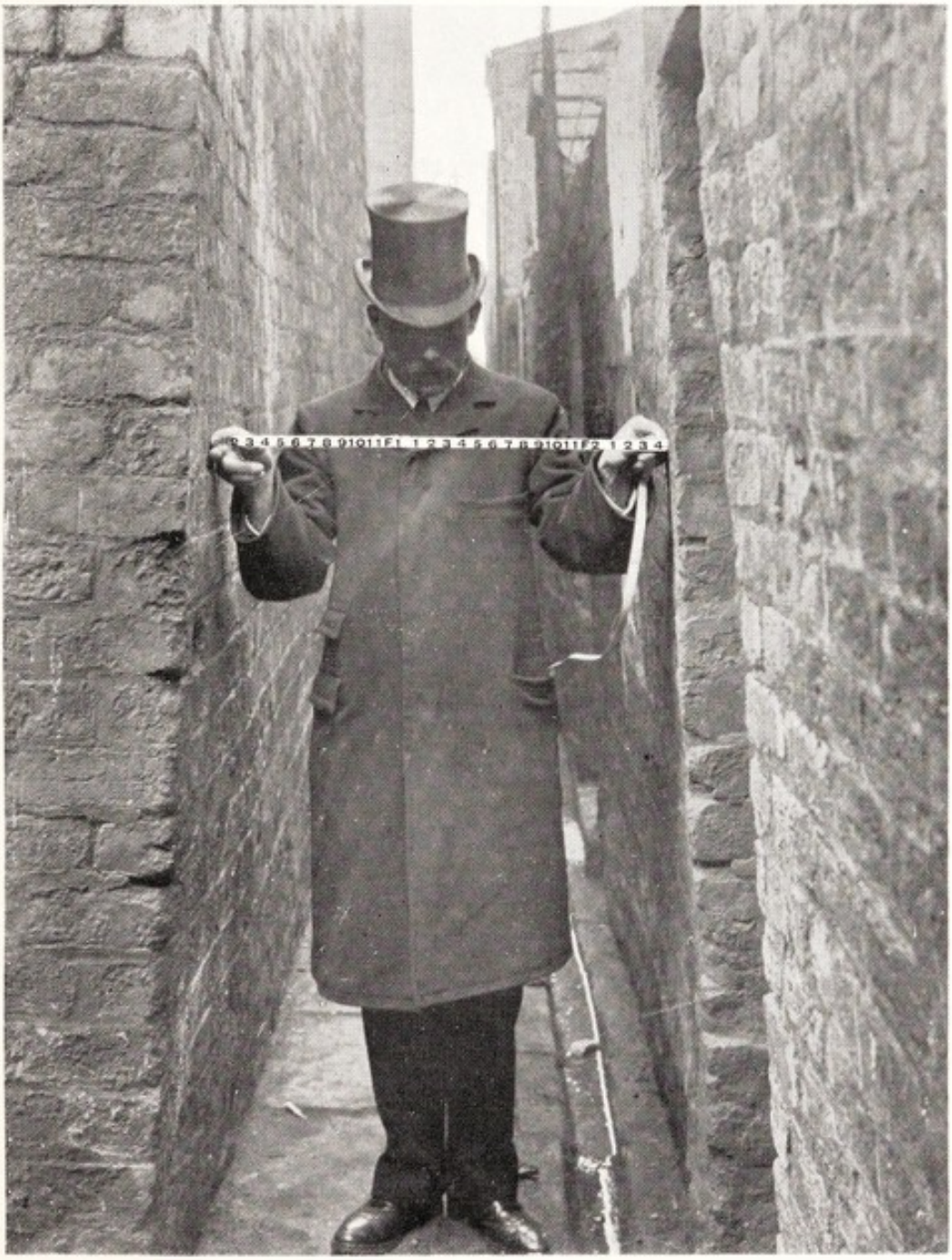
"With respect to any sanitary conveniences used in common by the occupiers of two or more separate dwelling-houses, or by other persons, the following provisions shall have effect:—

(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:

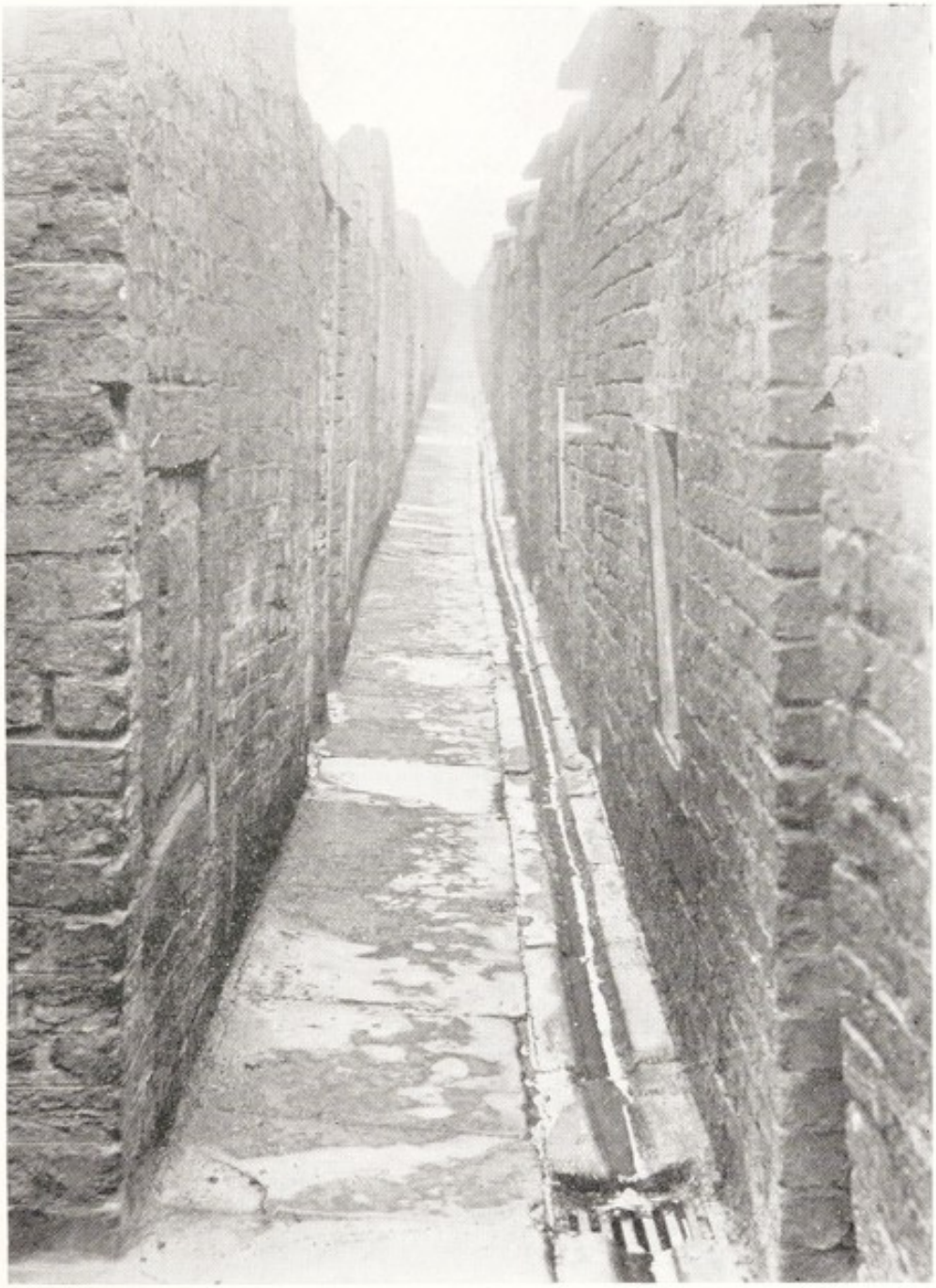
(2) If any sanitary convenience or the approaches thereto, or the walls, floors, seats, or fittings thereof is, or are, in the opinion of the urban authority or of the inspector of nuisances or medical officer of health of such authority in such a state or condition as to be a nuisance or annoyance to 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, and in 1906 it was 857, showing a diminution in sixteen years of 1,308 courts and alleys, of which 302 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 1906 was 742, representing approximately 4,477 houses.



To illustrate the insufficient width of the back passages and open spaces at the rear of houses.



To illustrate the length of the back passages.

COMMON LODGING-HOUSES.

The Bye-laws require that every case of infectious sickness in a lodging-house should be at once reported to the Medical Officer of Health. Forty-six cases of infectious sickness occurred in lodging-houses; with the exception of one case, where the patient, a daughter of one of the keepers, died, 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 22 deaths from non-infectious diseases in lodging-houses; 10 of the deceased persons belonged to the keepers' families, and 12 were lodgers.

At the end of 1905 there were on the register a total (including emigration houses) of 436 lodging-houses, and at the end of 1906 the total number was 439, which furnished accommodation for 13,371 lodgers, besides 1,137 members of the keepers' families.

During the year 125 houses were given up and removed from the register, and 128 new houses added, leaving the number on the register 439.

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 152, and these are registered to accommodate 6,651 lodgers, as well as 273 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 746 lodgers, in addition to 39 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 661 visits paid during the year to such houses, and in three cases, where the suspicion was confirmed, night visits were paid, and the tenants summoned and fined by the magistrate for receiving lodgers without having the premises registered.

Persons harbouring lodgers in unlicensed premises receive a notice to apply to have the rooms measured and licensed. There were 25 such notices issued during the year.

The number of day visits paid during the year was 19,793, and the night visits 878. During the preceding year the day visits were 20,537, and the night visits 616.

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

	1905.	1906.
Not sweeping floors	29	14
Not washing floors	22	13
Overcrowding	17	12
Receiving lodgers in unlicensed rooms ...	10	5
Mixing sexes	3	1
Not applying to register	1	3
Total	82	48

Convictions followed in each case, the total amount of fines amounting to £24 17s. 6d., and ranging from 1s. and 1s. costs to 40s. and costs. During the preceding year there were 82 convictions, and the fines amounted to £23 11s. 6d.

The number of lodging-houses found dirty was 66; in each case notices were served to limewash and cleanse the premises. All the notices were complied with.

Consequent upon a serious fire occurring in a common lodging-house in Glasgow, closer attention was paid to the means of escape in the event of fire occurring at any of the common lodging-houses in Liverpool.

These houses, however, are of an entirely different character to those in Glasgow, but the owners of the principal common lodging-houses and emigrant houses carried out a number of suggestions which rendered additional staircases available in the event of an emergency, and some also in addition provided external platforms, and upright iron ladders from the roofs to the ground.

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.

There are 30 houses registered for women, which accommodate altogether about 700 lodgers.

Several of the philanthropic homes are insufficiently patronised.

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 74 seamen. Three houses were given up during the year.

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, one or more rooms of which are let off in each case by the chief tenant or owner of the house to members of one or more other families. 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 1906 was 397, and the number returned as demolished 1,201, making the total on the register on the 31st December, 19,714.

The number of visits paid to sub-let houses during the day was 82,473, and during the night 18,838, with the result of finding 1,175 rooms overcrowded. In addition to overcrowding, 255 cases of indecent occupation came under the notice of the inspectors, as against 306 last year. The character of the indecent occupation may be judged of from the following facts:—In 108 instances one man and two women were found in the same bedroom; in 82 instances two men and one woman; in 28 instances two men and two women; in 13 instances one man and three women; in 9 instances three men and one woman; in 2 instances three men and two women; in 1 instance two men and three women; in 3 instances three men and three women; in 2 instances one man and four women; in 2 instances two men and four women; in 1 instance four men and one woman; in 2 instances four men and two women; in 1 instance one man and six women; and in 1 instance six men and one woman. 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.

Informations were laid against 1,709 chief tenants and lodgers (room-keepers for breach of the bye-laws, viz.:—

Overcrowding	941
Floors not washed	299
Floors not swept	96
Not cleansing stairs, &c.	314
Mixing sexes	59
Total	1,709

Four cases were withdrawn, and in thirty-four 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 fined 1s.; 1,128 fined 1s. and 1s. costs; 283 fined 1s. 6d. and 1s. 6d. costs; 93 fined 2s. and 2s. costs; 61 fined 2s. 6d. and 2s. 6d. costs; 4 fined 3s. and 3s. costs; 1 fined 3s. 6d. and 3s. 6d. costs; 39 fined 5s. and 4s. 6d. costs; 49 fined 10s. and 4s. 6d. costs; 11 fined 20s. and 4s. 6d. costs; 1 fined 40s. and 4s. 6d. costs; making a total of fines levied during the year of £260 9s. 0d. Offences against the bye-laws have been less than in the preceding year. There were 355 less inspections by night than in the preceding year; the day visits were 2,033 more.

Twenty-seven cases of overcrowding were in respect of premises in the recently incorporated district of Garston, compared with 47 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 six years, *i.e.*, since the application of the new bye-laws:—

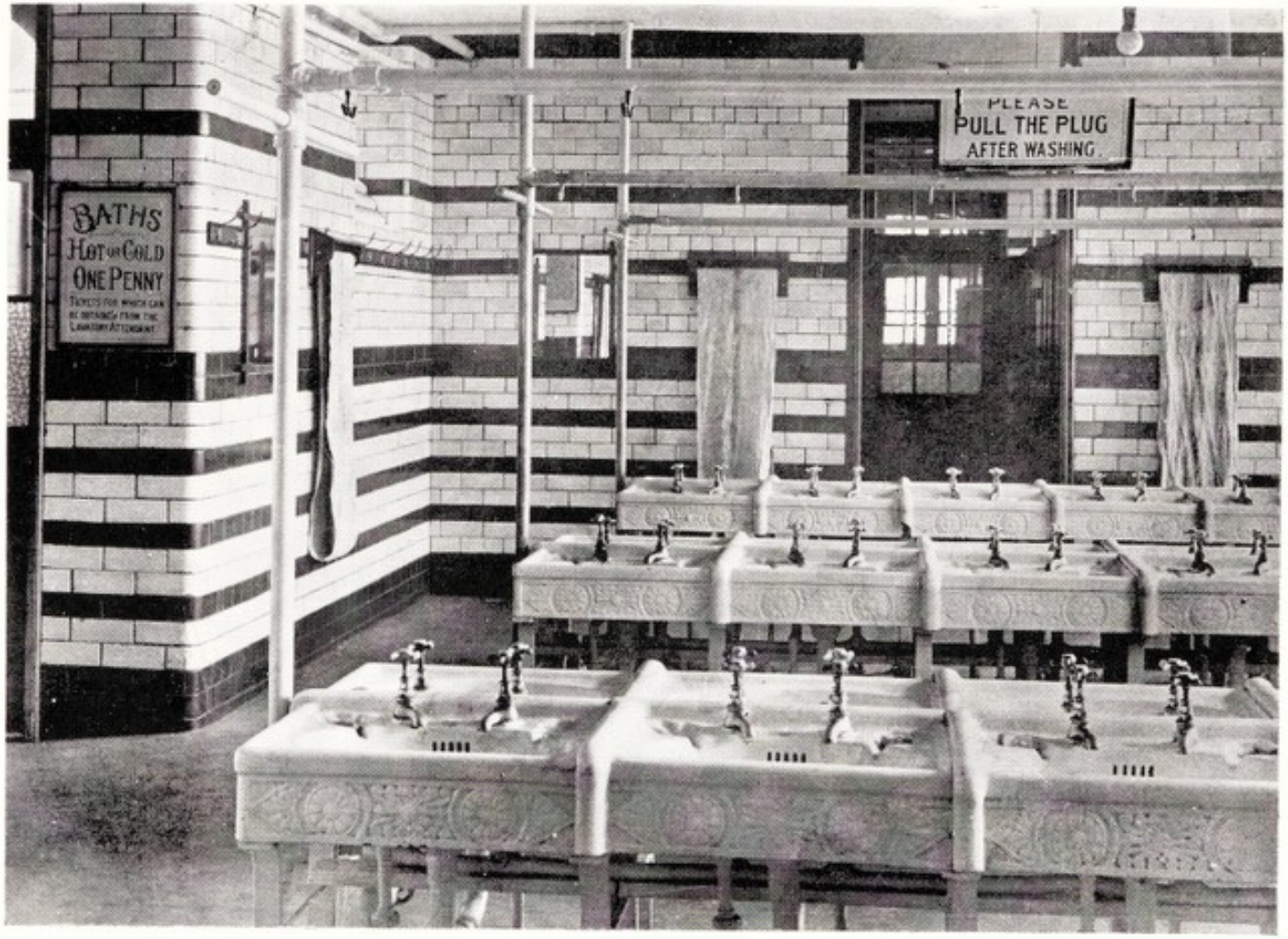
Year.	No. of Sublet Houses.	No. of night visits for detection of overcrowding.	No. of convictions for overcrowding.	Per centage of cases to number of visits.
1901	18,917	17,863	1,351	7·56
1902	19,976	17,274	1,150	6·65
1903	21,719	18,438	1,264	*6·85
1904	22,488	17,886	1,148	6·41
1905	20,518	19,193	1,326	6·90
1906	19,714	18,838	920	4·88

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

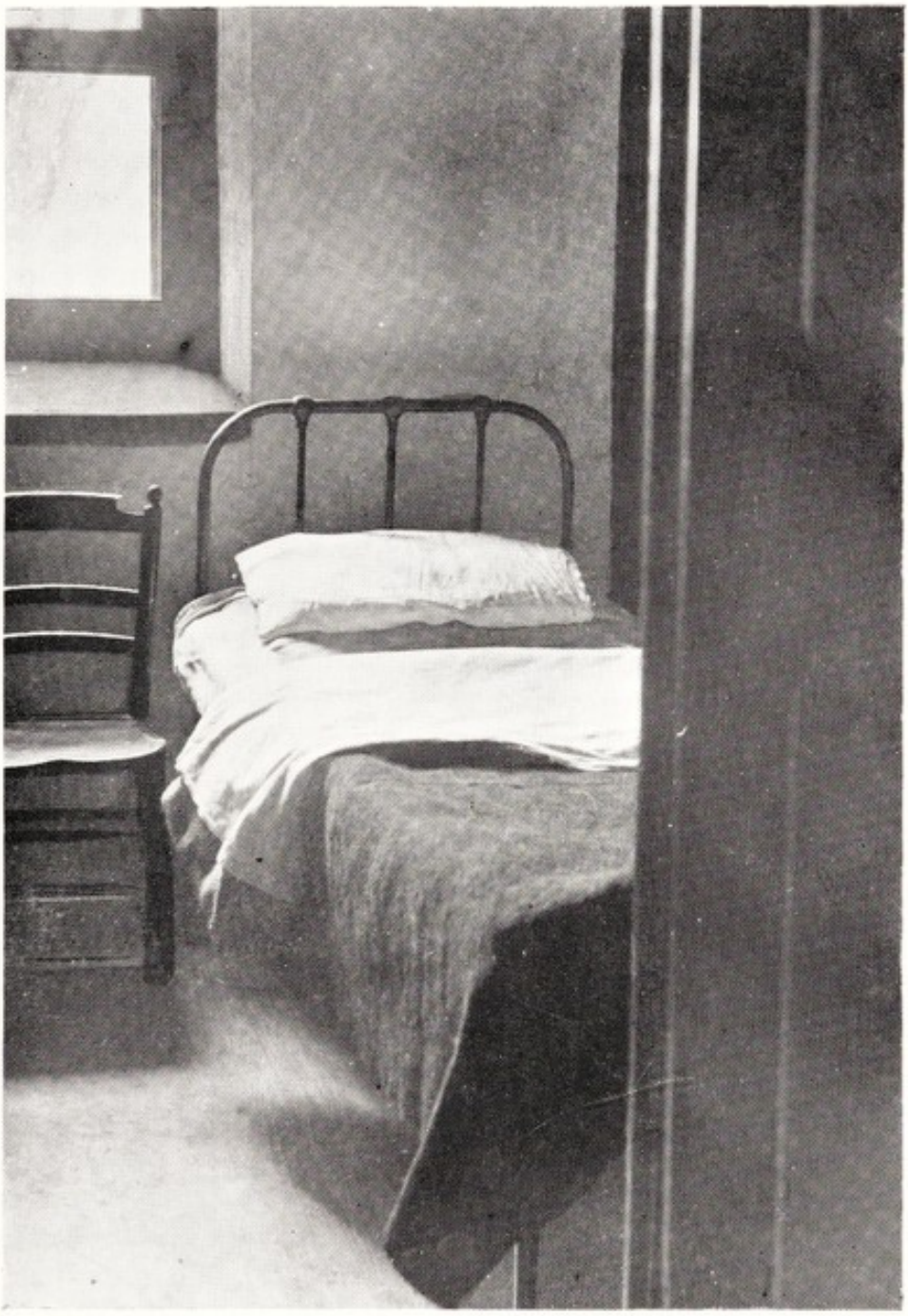
* This includes the added area of Garston.

BEVINGTON BUSH LODGING HOUSE.
Interior View showing a Corridor with entrances to Cubicles.

BEVINGTON BUSH LODGING HOUSE. READING ROOM.



LAVATORY ACCOMMODATION AT BEVINGTON BUSH LODGING HOUSE.



BEVINGTON BUSH LODGING HOUSE. INTERIOR OF CUBICLE.

READING ROOM IN A COMMON LODGING HOUSE.

BEDROOMS OF AN AVERAGE COMMON LODGING HOUSE.

The Building Surveyor has kindly supplied the following table :—

NUMBER OF HOUSES ERECTED AND TAKEN DOWN DURING THE YEAR ENDING DECEMBER, 1906.

DISTRICTS.	Number erected.	Number taken down
Scotland	192	239
Exchange	24	165
Abercromby	9	94
Everton	6	16
Kirkdale	2	28
West Derby (West)	18	39
Toxteth	331	210
Walton	494	8
West Derby (East)	594	3
Wavertree	318	4
Sefton Park	286	—
Garston...	163	12
Fazakerley	14	—
Total	2,453	818

The City Engineer has kindly supplied the following :—

Number of cellars filled in and bricked up during 1906 41
,, ,, ,, ,, the last 10 years ... 479

SEWER VENTILATION TO END OF 1906.

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 1,639

Number of Street Ventilating Manhole Covers and Gratings 6,660

CANAL BOATS.

The number of inspections of canal boats during the year was 5,822, 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 :—

Six boats, not registered by their present owners, were found to be used as dwellings. Written notices were sent to the owners in three cases, and three verbal notices were given. The notices were complied with in all cases.

Eighteen boats were found without certificates on board. Notices were sent to the owners in each case, and all were complied with.

Seventeen 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 was rectified in each case.

In seven cases defective second bulkheads were reported. Notices were sent in each case, and all were complied with. In two 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 13 boats the cabins required repainting. Notices were sent to the owners in each case, and 12 were complied with. One boat has not been seen in the district since.

Dirty cabins were reported in 20 cases. In 18 cases verbal notice was given to the masters, and in others written notices were sent to the

owners. In 12 cases the notices were complied with, and 8 not being complied with, informations were laid against the masters and small fines inflicted, except in one case, which was withdrawn. The cabins were subsequently cleaned.

Besides the foregoing, there were 50 instances of infringements of the Acts and Regulations, caused by leaky decks (14), general leaky condition of boats (2), broken doors to lockers (3), broken scuttle covers (3), defective ventilation (3), broken floors (4), no water casks on board (13), defective stoves (6), removal of bilge water (2). In each case notices were sent to the owners. Forty-six of the notices were complied with, and two have not been re-inspected.

Informations were laid in 11 cases, viz., dirty cabins (8), overcrowding (2), mixing sexes (1). In 10 cases fines were inflicted, varying from 1s. and 1s. costs, to 10s. and 4s. 6d. costs. One information was withdrawn, owing to the death of the defendant. The total amount of fines was £1 15s. 6d.

One case of erysipelas occurred on a canal boat during the year. The patient, the wife of the master, 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 94 boats, in several instances the offence being repeated on the same boat.

Fifteen notices were sent to the Education Committee of 19 children living on canal boats and not attending any school.

The number of boats on the register is 625. Four boats have been removed from the register, as it was ascertained that 2 had left the district, and 2 have ceased to be used as dwellings. 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 9 re-registered on account of changes of owners, 1 re-registered on account of structural alterations, and 2 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 five boats, owing to the original ones being worn out. There were 60 changes of masters reported, and the fact duly recorded on the register.

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. Fourteen 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 497 visits, which are included in the foregoing report. The number of contraventions for which notices were served on the owners was 26 on 21 boats.

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:—

	1905.	1906.
Number of reports of excessive smoke from Manufactories ...	315	266
,, ,, ,, Steamers in river	273	302
,, ,, ,, ,, dock	29	44
Total	617	612

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

	1905.	1906.
Manufacturers	5	1
Steamship Owners	5	23
Total	10	24

	1905.		1906.	
Chief Inspector and Assistants gave	M'facturers	511 Cautions	420 Cautions	
,, ,, ,,	Steamship Owners	136 ,,	105	,,
Total... ...		647 ,,	525	,,
Number of enquiries respecting Owners		468	462	

	1905.	1906.
Informations against Manufactories	308	271
,, ,, Steamers in river...	241	261
,, ,, ,, dock...	29	44
Total	578	576
Acquitted or withdrawn, Manufactories	5	15
,, ,, Steamer cases	5	14
Total	10	29

	1905.	1906.
Fined, Manufactories	303	256
,, Steamers	265	291
Total	568	547

	1905.	1906.
Amount of Fines, Manufactories ...	£635 16 0	£517 10 0
,, ,, Steamers ...	539 8 9	562 2 3
Total ...	£1,175 4 9	£1,079 12 3

Nuisances arising from the firing of domestic chimneys are controlled by the Police.

SMOKE INSPECTION.

The falling off in the number of reports relating to excessive smoke still continues. This is accounted for chiefly by the greater care exercised by the owners of furnaces, as well as by the heavier fines which are now imposed.

It is also owing to the fact, that the system of concentrating the work in one large building, with all the newest appliances for smoke prevention, instead of having it carried on in a number of small factories scattered over the City, has been further adopted by manufacturers during the year.

Out of 302 cases of excessive smoke from Steamers in the river which were observed, 34 vessels were bound for foreign ports, the owners of 4 Steamers could not be traced, and 1 was towing another vessel in emergency, and consequently no proceedings were taken.

Complaints received of smoke from defective house flues,	1905.	1906
and from low chimneys	152	128
Visits relating thereto	798	699
Chimneys raised in consequence of complaints	50	24
Flues altered and repaired	27	26
Attention promised	69	63
Referred to other departments	2	4
Frivolous complaints	4	11
Total complaints dealt with... ...	152	128

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, 1906.
Corner of Paisley and Glasgow Streets	Soap Manufacture	1	—	15th Feb.
Grantham Street	,, ,, ...	—	1	26th April
149, Grafton Street.....	,, ,, ...	1	—	10th May
15, Shaw's Alley.....	Dipping Hides	1	—	23rd May
121/3 Burlington Street.	Sulphurous Acid Manufacture	—	1	20th Sept.
68, Kingslake Street ...	Bone Boiling.....	—	1	15th Nov.
,, ,, ...	Fat Melting	—	1	29th Nov.
141, Vauxhall Road.....	Soap Manufacture	1	—	6th Dec.
	Total.....	4	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 1,541, as against 1,438 in 1905.

		1905.	1906.
Total No. of Visits to	Bone Boilers	151	153
,,	Fell Mongers	44	46
,,	Soap Boilers	247	239
,,	Fat and Tallow Melters	275	289
,,	Tripe Boilers	195	199
,,	Gut Scrapers	113	141
,,	Ham Cooking and Potted Meat Works	58	63
,,	Manure Manufacturers	10	17
,,	Tanneries	83	95
,,	Knackers' Yards	157	162
,,	Paint and Resin Works	18	18
,,	Palm Oil Works	25	22
,,	Cotton Seed Oil Works	37	36
,,	Sulphuric Acid Works	24	23
,,	Liver Boilers	1	—
,,	Butter Substitute Manufacturers ...	—	17
,,	Preserved Skin Works	—	21
	Total...	1,438	1,541

KNACKERS' YARD, CARRUTHERS STREET.

THE ANIMAL SLAUGHTERING CO.

The Company has provided special tanks, and made arrangements with the Local Authority to destroy carcases of animals affected with contagious disease in accordance with the Orders of the Board of Agriculture and Fisheries.

Five carcases of cattle affected with anthrax and two carcases of horses affected with glanders were destroyed during the year 1906.

The carcases are placed in tanks intact, sulphuric acid added, steam pressure applied, and an effectual destruction takes place.

The following are the Returns for 1906 :—

Horses Destroyed.	Horses taken in Dead.	Asses Destroyed.	Cows Destroyed.	Other Beasts.	TOTAL.
158	1,525	19	80	1	1,783

MARINE STORES.

	1905.	1906.
Number of Visits by District Sanitary Inspectors ...	706	1,155

(For visits by Workshop Inspectors, see page 108).

STABLES.

	1905.	1906.
Number of Visits by District Sanitary Inspectors...	5,512	5,035

RAILWAY CARRIAGES.

	1905.	1906.
Number of Carriages Inspected	1,033	1,046
,, found dirty	—	—

FEMALE SANITARY STAFF.

The work of the Female Sanitary Staff has in the main been carried on upon the same lines as in former years, although special circumstances have from time to time arisen which made considerable demands upon the time and attention of the staff. In the house-to-house visitation the Corporation dwellings received special attention, the whole being systematically visited. These dwellings are largely tenanted by the people who have been dispossessed owing to the demolition by the Corporation of insanitary houses, or on account of overcrowding, and it is encouraging to find on the whole a distinct improvement in the habits of those who are placed in more sanitary surroundings. They keep themselves and their houses cleaner, and the bedding, though often poor, is much better than that found in the old court houses. Some of the money formerly spent on drink is expended on their families, though there is room for great improvement here. The facilities for drinking still left in or in the neighbourhood of the re-built areas are too numerous to be resisted.

With regard to the general question of infant mortality, efforts have been persevered with to visit the mothers as soon after the birth of the infant as possible. Over 20,000 newly-born infants have been visited during the year, the majority subsequent to, but many before, registration; the information of the birth having been ascertained either by personal enquiry or when visiting for other purposes, the mother being interviewed and the child seen wherever possible. A card containing information on the feeding of infants is left at each house. It is gratifying, as well as important, to note that in many instances, instructions which had been given to the mother when seen after the birth of one child are carried out on the birth of another.

Less difficulty than formerly is experienced in overcoming the prejudices of the women with regard to infant feeding; the use of long-tubed bottles is less frequent, and the younger mothers are beginning to understand the danger of giving anything but the breast to very young infants. Unhappily many of them do not yet realise the deleterious effects of giving gin, paregoric, and other sedatives, as well as with regard to the giving of "pobs," biscuits, and other unsuitable things. In this they are often badly advised by their own mothers. On a Saturday night visit to certain districts, the Female Inspectors found a number of infants and young children in the streets between the hours of 9-30 and 12 o'clock p.m., often sitting uncared for on the doorstep till the parents returned from the market or the public-house. Infants in arms are taken into the public-houses by their mothers. Parents have subsequently been remonstrated with for these practices.

Adverting to the work done in connection with the Schools, it may be stated generally that school children suffering from sore heads, sore eyes, skin disease and general neglect, reported from the Education Authority and other sources, have been visited as before. In the more severe cases, the parents are recommended to obtain medical advice, simple treatment being suggested by the Inspectors for the slighter ailments. The good and useful work done in this connection by the District Nurses as well as by the teaching staff deserves recognition. Where sore heads are due to the neglected and verminous condition, the mother is prevailed on to cut off the child's hair which usually results in a speedy recovery. If the clothing is infested with vermin it is insisted that it shall be thoroughly cleansed and, where possible, boiled. In a number of cases it has been necessary to have it destroyed by the Sanitary Authorities and replaced by new, obtained through the agency of the Police Aided Clothing Association.

Many cases of systematic neglect have been reported to the Liverpool Society for the Prevention of Cruelty to Children.

Families have again been visited on behalf of the Police Aided Clothing Association and special inquiries made into the circumstances and habits of the parents. A number of cases investigated by other visitors for the Association, where the children appeared to be neglected, were also referred to the Inspectors, and to these further visits were paid.

A number of instances of infants suffering from epidemic diarrhœa were reported by the doctors at the Dispensaries, in which apparent neglect furnished grounds for close inquiry and supervision.

Many cases of poverty and sickness, and needy families, have been reported to the Charity Organisation Society and the Relieving Officer. Persons suffering from illness have been referred to the District Nursing Association.

Many old and infirm persons, reported to the Inspectors from different quarters, have been visited and those who were destitute, or unable to look after themselves, have been induced to go into the Workhouse.

The special duties here outlined have absorbed a great amount of the time of the Female Staff; this work to an extent has taken the place of the routine house-to-house work.

Much useful work has been done through the instrumentality of the Police Aided Clothing Association in cases where the clothing of children was found to be in such a condition that it should be destroyed, the clothes being replaced through the agency of the Police Aided Clothing Association, the re-clothing being effected at the small cost of 7s. per child.

The advantage of providing clothing in this way is that the clothing is stamped, and pawnbrokers are prohibited from receiving it.

The Public Health Act authorises the repayment of the amount for clothing destroyed to prevent the extension of disease, and is applicable in these cases.

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.

	1905.	1906.
Number of Street Houses visited	8,992	7,192
,, Court ,, ,, ...	3,000	772
,, Cellars	3,208	1,036
,, Families found dirty	552	554
,, Re-visits to Families	4,214	2,403
,, Houses found dirty...	4,054	2,497
,, Cellars ,, ,, ...	949	356
,, Notices issued to cleanse dirty premises...	9	8
,, ,, ,, floors and woodwork	28	27
,, References to District Sanitary Inspectors	1,626	1,494
,, ,, ,, Lodging-house Inspectors...	69	94
,, ,, ,, Artizans' Dwellings Dept....	—	5
,, ,, ,, City Engineer	30	120
,, ,, ,, Water Engineer	158	117
,, ,, ,, Education Committee ...	7,222	11,059
,, ,, ,, The Shelter, Islington ...	66	78
,, Sterilised Milk Depôt Visits	225	—
,, Visits to School Cases	9,068	12,336
,, ,, Schools	63	70
,, Police Aided Association Visits	123	97
,, Central Relief Society Visits	—	13
,, Visits in Diarrhœa Cases	934	1,377
,, ,, Whooping Cough Cases... ...	—	88
,, Enquiries in Phthisis Cases	—	35
,, ,, in cases of Verminous children	—	21
,, Visits relative to Births registered ...	23,391	20,409
,, SpecialVisits	—	1,565

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.

Thirty-four bakehouses were added to the Register during 1906; 5 are new ground-floor bakehouses for bread-bakers and confectioners; the remaining 29 are confectioners only.

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

Number of Bakehouses on Register, 31st December, 1906...	...	856
,, Bakehouses added to Register during 1906 ...	...	34
,, Bakehouses struck off Register during 1906 ...	...	93
,, Visits paid to bakehouses	...	4,323
,, Bakehouses found dirty (walls and ceilings) ...	...	329
,, Notices issued for lime-washing	...	149
,, Bakehouses lime-washed without notice ...	...	180

Number of Notices issued to remove drains from within bakehouse	2
,, ,, ,, to repair defective floors and walls ...	3
,, ,, ,, to cleanse floors, windows, areas, tables and troughs	12
Number of Notices issued to discontinue using bedroom opening directly into bakehouse	3
,, ,, ,, for deficient ventilation	3
,, ,, ,, to cease to use as bakehouses places underground not in conformity with Act, 1901	5
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 or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories ... ... (Including Factory Laundries.)	72	63	—
Workshops ... ... (Including Workshop Laundries.)	14,153	2,161	32
Workplaces ... ... (Other than outworkers' premises included in Part 3 of this Report.)	755	101	4
Total	14,980	2,325	36

2.—Defects Found.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied	Referred to H.M. Inspector.	
*Nuisances under the Public Health Acts :—**				
Want of cleanliness	908	726	—	4
Want of ventilation	35	30	—	1
Overcrowding	3	3	—	—
Want of drainage of floors	3	3	—	—
Other nuisances	2,181	1,855	—	26
Sanitary accommodation (insufficient	43	37	—	—
Sanitary accommodation (unsuitable or defective	16	13	—	—
Sanitary accommodation (not separate for sexes..	40	21	—	5
Offences under the Factory and Workshop Act :—				
Illegal occupation of underground bakehouse (S. 101)	5	5	—	—
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)	344	344	—	—
Other offences ... ... (Excluding offences relating to outwork which are included in Part 3 of this Report).	—	—	—	—
Total	3,578	3,037	—	36

* 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.								Number of Inspections of Outworkers' premises.	OUTWORK IN UNWHOLESOME PREMISES. SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
	Lists received from Employers.				Numbers of Addresses of Outworkers received from other Councils.	Numbers of Addresses of Outworkers forwarded to other Councils.	Prosecutions.			Instances.	Notices served.	Prosecutions.	Instances.	Orders made (S. 110).	Prosecutions (Sections 109, 110).
	Twice in the year.		Once in the year.				Failing to keep or permit inspection of Lists.	Failing to send Lists.							
	*Lists.	* Outworkers	Lists.	Outworkers.											
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Making, &c., of Wearing Apparel....	418	2,665	55	187	27	73	—	19	1,222	—	—	—	3	2	—

* The figures in columns 2 and 3 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.

Workshops on the Register (S. 131) at the end of the year.	Number.
Workshops	3,302
Cooking Kitchens of Restaurants	356
Bakehouses	830
Total number on Register	4,488

5.—Other Matters.

Class.	Number.
Matters notified to H.M. Inspectors of Factories:—	
Failure to affix Abstract of the Factory and Workshop Act (S. 133)	70
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory and Workshop Act (S. 5) ... ... — Notified by H.M. Inspector ...	86
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory and Workshop Act (S. 5) ... ... — Reports (of action taken) sent to H.M. Inspector	86
Other	385
Underground Bakehouses (S. 101)	
Certificates granted during the year	—
In use at the end of year	184

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.

	1905.	1906.
Bamboo Workers	15	4
Basket Makers	25	23
Block Makers	12	5
Boot Makers	213	595
Bottlers	24	51
Bottle Washers	2	3
Box Makers	5	26
Brass Founders	5	—
Brush Makers	24	42
Cabinet Makers and Joiners	351	764
Canned Goods	43	76
Cap Makers	17	23
Card Gilders	4	16
Carvers and Gilders	67	60
Chair Makers	53	35
Chemists' Sundries Manufacturers	12	19
Coach Builders	25	87
Confectioners	97	116
Coopers	33	121
Cork Cutters	11	60
Cotton Sorters	87	126
Cycle and Bassinette Makers	38	90
Dentists	—	6
Dressmakers	685	745
Drysalters	38	60
Electricians	5	5
Engravers	56	71
Firewood Manufacturers	38	17
Fish Curers	13	8
Flag Makers	6	19
French Polishers	74	83
Furriers	23	17
Galvanisers	7	8
Hairdressers	93	—
Image Makers	18	5
Knitters	14	21
Laundries	843	800
Leather Goods Manufacturers	5	—
Marble Masons	25	36
Marine Stores	663	733
Mattress and Bed Makers	30	23
Metal Polish Makers	9	18
Milliners	213	209
Mineral Water Manufacturers	1	23
Musical Instrument Makers	9	10
Paint and Varnish Manufacturers	8	47
Paper Cutters, &c.	43	53
Perfume Manufacturers	5	—
Photographers	9	75
Pickle and Sauce Manufacturers	31	63
Picture Framers	18	54
Pipe Mounters	13	13
Plumbers	42	87
Preserve Manufacturers	5	2
Relief Stampers	7	6
Restaurants	1,129	754
Rubber Goods Manufacturers	39	12
Sack and Bag Makers	72	116
Saddlers	40	99
Sailmakers	10	36
Sign Writers	26	36
Smiths	143	508
Tailors	2,855	2,301
Tarpaulin Makers	48	73
Trunk and Portmanteau Makers	61	67
Umbrella Makers	47	18
Underclothing Makers	165	189
Upholsterers	69	155
Watchmakers and Jewellers	90	155
Wheelwrights	11	36
Wig Makers	11	24
Wire Workers	—	29
Various	51	318
Total	9,045	10,585

FACTORY AND WORKSHOP ACT, 1901.

FACTORIES.

The 72 Factories referred to in the foregoing tables were inspected by the District Sanitary Inspectors, as a result of complaints being received, principally from the Government Inspectors. The duty devolving upon the Health Department in connection with Factories is the enforcement of the provision of suitable and sufficient sanitary conveniences.

WORKSHOPS.

The Workshop Inspectors made 9,830 inspections of Workshops, and on 3,396 occasions the premises were found to be incorrect. The number of inspections in 1905 was 7,824. This does not include bakehouse workshops visited by the Bakehouse Inspector. In addition there were 1,284 visits paid to premises which were not workshops.

WORKPLACES.

The cooking kitchens of Restaurants now come under the head of Workplaces, and 755 visits were paid during the year by the Workshop Inspectors; on 267 occasions the premises were incorrect. The number of visits in 1905 was 1,129. 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 £15 2s. 0d. were inflicted. The fines in the previous year amounted to £22 8s. 6d.

A large number of new workshops were discovered by the Inspectors and added to the Register. One hundred and seventeen workrooms have been measured during the year, as compared with 719 in 1905.

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, 473 lists of outworkers were received (209 in February and 264 in August) giving the names and addresses of 2,852 employees. The number of lists received in 1905 was 330, containing the names of 2,434 employees.

On examination of the lists they were found to contain 1,630 Workshops or Domestic Workshops already on the Register (773 in February and 857 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, and a number were found to be Domestic Workshops 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 the other 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 19 cases. Fines amounting to £18 12s. 6d. were inflicted.

FURNITURE REMOVERS' VANS.

Number of Visits	101
,, found correct	64

In each case where the vans were found dirty, they were afterwards cleansed or painted.

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 1906, under the above Acts there have been 6,338 visits paid to shops during the day, and 2,498 re-visits made after six o'clock; in 353 instances the hours were found to be incorrect, and in 898 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 police proceedings during the last two years is small.

	1905.	1906.
Number of day visits to Shops	6,492	6,338
,, Shops found without copy of Act exhibited	949	898
,, re-visits to Shops during day ...	—	336
,, Shops found incorrect	—	83
,, re-visits to Shops after 6 p.m... ...	2,376	2,498
,, Shops found incorrect	382	353
,, copies of Act supplied	511	692
,, Informations for excessive hours ...	10	8
,, Convictions	4	6
,, Informations for not exhibiting Notice of Acts and Requirements as to hours of work	2	15
,, Convictions	2	12
Total number of Informations	12	23
,, ,, Convictions	6	21
Total Amount of Fines and Costs	£8 7 0	£19 5 6

SEATS FOR SHOP ASSISTANTS ACT, 1899.

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

	1905.	1906.
Visits for the purposes of the Act	310	393
Found correct	273	334
Number of Informations	—	1
,, Convictions	—	1
Total Amount of Fines and Costs	—	£0 14 6

EMPLOYMENT OF CHILDREN ACT, 1903.

This Act is intended for the protection of child labour, and affects those 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.

Bye-laws are in course of preparation.

	1906.
Number of Visits for the purposes of the Act	41

MIDWIVES ACT, 1902.

At the end of the year 1905 there were 361 midwives certified by the Central Midwives Board under the Midwives Act, 1902, resident in Liverpool

During 1906, 103 midwives left the City, and two died. Against these numbers nine midwives came into the City from other districts, and 30 passed the examination of the Central Midwives Board and were placed on the Roll. There was therefore a total of 295 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 two years, respectively, viz. :—

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

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

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

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 295 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.

Another point to be noticed is the decrease in the number of midwives resident in Liverpool at the end of 1906, as compared with 1905, namely, 66. The decrease, however, occurs amongst women who were not practising as midwives, and in all probability the exodus from Liverpool was due to certified women leaving Liverpool to take up positions in other districts not so well supplied with trained midwives.

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

Ages—Between 20 and 30 years of age	7
,, 30 ,, 40 ,, ...	35
,, 40 ,, 50 ,, ...	48
,, 50 ,, 60 ,, ...	40
,, 60 ,, 70 ,, ...	26
,, 70 ,, 80 ,, ...	3
	159

No. of Years in Practice—	under 1 year	10
,, ,,	Over 1 and under 10 years	49
,, ,,	,, 10 ,, 20 ,, ...	54
,, ,,	,, 20 ,, 30 ,, ...	31
,, ,,	,, 30 ,, 40 ,, ...	12
,, ,,	,, 40 ,, 50 ,, ...	2
,, ,,	,, 50 ,, 60 ,, ...	1
		159

Single Midwives...	15
Married ,, ...	95
Widowed ,, ...	49
	159

Devoting whole time to the work	87
Partially employed	72
	159

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

The number of births attended by the 159 midwives in practice was 12,784, 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...	1
,, ,, 300 ,, ...	4
,, ,, 250 ,, ...	3
,, ,, 200 ,, ...	4
(The above-mentioned 12 midwives attended 3,285 cases.)	
Midwives who attended over 150 cases each...	16
,, ,, 100 ,, ...	17
(The above-mentioned 33 midwives attended 4,836 cases.)	
Midwives who attended over 50 cases each...	36
(The above-mentioned 36 midwives attended 2,622 cases.)	
Midwives who attended under 50 cases each...	75
(The above-mentioned 75 midwives attended 2,041 cases.)	

In addition to the above there were 1,645 births attended by midwives connected with the District work of the Ladies' Charity, making a total of 14,429 attended by midwives out of 24,123 births in Liverpool during the year.

In the last Annual Report 15,080 births were estimated to have been attended by midwives. This number was merely an estimate owing to the fact that there were no records to show the actual number that each midwife attended.

The number of still births notified by midwives was 368: this is at the rate of 2·9 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 0·9 per cent., in the practice of midwives attending over 50 confinements in the year.

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

Fourth month	1
Fifth month	8
Sixth month	48
Seventh month	59
Eighth month	60
Ninth month	146
Not specified	46
Total of Still Births	368

In 8 cases the child was illegitimate.

Medical assistance was required in 735 cases, which is 5·7 per cent. of the total confinements attended. The highest rate at which any one midwife required medical assistance was in 22 per cent. of her cases. In 211 cases, namely, 1·6 per cent. of the births attended by midwives, the patients were so poor as to be unable to pay, 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 to midwives who, in times of emergency, are unable to obtain medical assistance for their patients. 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 more common complications for which medical assistance was required:—

Abnormal Presentation—	
Brow or Face Presentation	23
Occipito-posterior Presentation	20
Transverse Presentation	33
Breech Presentation	19
Foot Presentation	6
Cord Presentation	6
Placenta Prævia	2
Deformed Pelvis	48
Anti-partum Hæmorrhage	27
Post-partum Hæmorrhage	35
Retained Placenta or Membranes	64
Ruptured Perinæum	25
Multiple Births	12
Prolapse of Uterus	2
Malformation of Child	5
Death of Child	3
Abortion or Premature Birth	13
Septicæmia	2
Pyrexia	11
Epileptic Convulsions	1
Eclampsia	5
Obstructed Labour, Uterine Inertia, or requiring Instrumental Assistance	196
Various or not specified	177
Total	735

PUERPERAL FEVER.

The number of cases of Puerperal Fever notified to the Medical Officer of Health during the year was 83, with 27 deaths. All of them were investigated, and 39 with 13 deaths were found to have occurred in the practice of midwives. In these cases the midwives were interviewed and measures taken to prevent them spreading the infection. The same procedure was adopted with regard to four cases with two deaths which occurred in the practice of unregistered women.

In five 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.

In five cases the child was born before the arrival of the midwife; and in four cases the house surroundings were filthy and the patient suffered from want of nourishment and suitable clothing.

The midwives in active practice have been visited periodically, as in the previous year, 942 visits being paid. Case books, bags and appliances are carefully examined, and from time to time it has been deemed necessary to inspect the houses occupied by the midwives. Some difficulty has been experienced with regard to the case book and the filling up of certain forms. There is, however, a marked improvement in this, which indicates their anxiety to conform with the Rules of the Central Midwives Board.

During the year arrangements have been made with reference to the reporting of dirty houses and bedding by midwives, and postcards have been left with each midwife for that purpose. It has been found necessary in many cases to destroy the bedding owing to its insanitary and verminous condition, the bedding being replaced by the Corporation. This arrangement has been much appreciated by the midwives whose work lies in the poorer districts.

UNREGISTERED WOMEN.

Although every opportunity was taken to advise the midwives of the requirements of the Act, there are still 13 women in active practice in Liverpool who failed to apply for registration. 789 births were attended by these women during the year.

The Medical Officer has therefore arranged for the supervision of their work in common with the midwives on the Roll.

The visits to these women have been much appreciated and satisfactory results have been obtained, as a record of cases is now kept by each woman, and bags suitably equipped have taken the place of "pockets" and "Dorothy" bags containing rusty scissors, dirty bottles and unsuitable appliances.

INFECTIOUS DISEASE IN SCHOOLS.

Owing to the severity of an outbreak of measles in the earlier part of the year, considerable attention was again given to the subject of the medical supervision of schools.

For many years past, the important part liable to be played in the spread of infectious disease by the public elementary schools has been recognised alike by the Education Committee and by the Health Committee, and on different occasions, as circumstances permitted, successive steps have been taken with a view to minimise as far as possible the dissemination of these diseases. In the earlier years greater stress was laid upon the more formidable forms of infection, such as scarlet fever, typhus fever, diphtheria, &c., and it is only within comparatively recent years that close attention has been paid to measles and whooping cough, as well as the zymotic diseases mentioned; also to other communicable disorders such as parasitic diseases of the skin.

About twenty years ago, namely, in May, 1887, the then School Board made arrangements with the Liverpool Dispensaries, North, South and East, by which the Medical Officers of the Dispensaries issue the certificates or visit the homes of children in cases where, for their own satisfaction, the Education Authority require evidence as to the cause of children's non-attendance at school. With the extension of the city boundaries, namely, in 1896, this system was extended, and four medical men were nominated to perform similar duties in the out-townships. The honoraria paid were: £60 per annum to be divided between the dispensaries, and fifteen guineas per annum each in the case of medical men in the out-townships. In 1903 the School Board appointed a medical officer for each of the four Day Industrial Schools to supervise the general health of the scholars, both in regard to infectious and non-infectious ailments, and to report the causes of absences from these schools.

In 1901 the Medical Officer of Health reported generally upon the system of co-operation at that time in vogue between his staff and the headmasters, headmistresses and principals of schools, in respect to the health of pupils, also the isolation of the sick child, and of disinfection, and the methods taken generally to prevent the extension of disease. This report, together with detailed instructions to staff, was carefully reconsidered by the Health Committee.

Since 1901 material changes have taken place which facilitate and not only render possible, but necessary, a closer sanitary supervision of the schools and of the health of the scholars, so far, at least, as communicable diseases are concerned. During the last three years all the school premises throughout the city have been visited and reported upon by the Medical Officer of Health, the Corporation Surveyor, and the Director of Education, and such remedies suggested as would, if carried out, place the premises in a sanitary condition.

The Education Authority and the Sanitary Authority are now the same body, a circumstance which must render co-operation between the two important departments of health and education easier. But, apart from this union, there is an improvement in administration in both departments, and for some years past the value of this improving administration has become more apparent by the closer and more frequent communications between them.

In 1906 there were no less than 29,048 references sent from the Health Department to the Education Department relating to children who were attending school, and who came either from infected houses, or were themselves suffering from some form of communicable disease. There were also during the same period 21,993 references received from the Education Department relating to children believed to be suffering from measles, whooping cough, ringworm, itch, or other communicable disease. In all cases these communications resulted in action designed to limit the spread of infection, and to hasten the return of the absentees to school.

Of recent years a good deal of the work incidental to these matters has fallen upon the female staff. This has very frequently happened in the case of measles and whooping cough, where the parents appear to have neglected to send for medical assistance, and have failed to realise the gravity of the illness. Another important branch of their work is the visitation of the children suffering from ringworm, sore and verminous heads, and also in cases of ailments to the eyes resulting from dirt and inattention. Notifications regarding these children are usually received from the teachers and school visitors, but in addition sometimes from the parents or general public, or they are met with in the course of the day's duties.

It is found in a large number of cases that the parents are perfectly willing to do what they are told—to cut the hair of verminous children (chiefly female) and to adopt measures of cleanliness, even in regard to the head gear.

The total number of skin diseases (mostly communicable) occurring amongst school children, and which were referred to and reported upon by the Female Sanitary Staff, was very large, viz., 10,420. Twelve hundred and eighty represented aggravated cases of ringworm, some of which necessitated the exclusion of the scholars for protracted periods. The loss of school attendance on account of ringworm is considerable.

Verminous diseases of the head accounted also for a very large number, whilst those ascribed to skin affections, many the result of neglect and dirt, were also numerous.

Contagious ophthalmia occurred in several schools shortly after the summer holidays, chiefly in the boys' departments. A considerable number of scholars were affected, but it was not found necessary to close any schools in consequence of these outbreaks.

It is not easy to classify the 10,420 cases, but they have been arranged by the staff as follows:—

Ringworm...	1,280
Itch	93
Sore Eyes	4,191
Sore Heads	1,828
Impetigo, Eczema and other Skin Diseases	3,028

In very aggravated cases of these forms of disease, as well as in cases of measles and whooping cough, the parents are urged to obtain the necessary medical advice.

There are other directions in which this section of the staff has been of use to the teachers in schools in the poorer neighbourhoods, but the Health Committee felt that the time was ripe to supplement the existing system of *medical* inspection with a view to minimise the spread of infectious disease.

The appointment of an additional Assistant Medical Officer was decided upon, not primarily with a view to investigate such physical conditions as chest measurement, height, weight, eyesight, hearing, &c., but with a view to make more efficient the system already in vogue to check the spread of disease from child to child, whether the ordinary forms of infection, or whether the trouble arises from verminous conditions or infectious skin diseases due to neglect and want of cleanliness.

It was felt that a closer record of the health history, so far as infection is concerned, of each child would be valuable, *e.g.*, in the event of an outbreak of measles in the school, the knowledge of how many of the children had already suffered from measles would be a valuable guide in deciding such questions as school closure, &c.

Towards the close of the year Dr. Kingsford was appointed in accordance with the recommendations of the Medical Officer, and no doubt the appointment will result advantageously to the health of the pupils in the city schools.

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 Closure.	School.	Department or Departments.	Period.	Nature of Disease.
1906.				
Feb. 15	St. Alphonsus' R.C., Back Great Mersey Street	Infant.....	Three Weeks	Measles, &c.
20	St. Simon's, Bronte Street	,, ...	,, ...	,,
March 8	St. Polycarp's, Gordon Street	,, ...	,, ...	,,
9	Our Lady of Mt. Carmel, Chipping Street	,, ...	,, ...	,,
16	St. Nicholas' R.C., Copperas Hill	,, ...	,, ...	,,
31	Do.	Whole School	Until after Easter Holidays	,,
22	Council School, Lawrence Road	Infant.....	Three Weeks	Mumps, &c.
24	St. Paul's, West Derby	Whole School	,, ...	Measles, &c.
27	Wesleyan H.G., Windsor Street	Infant	Until after Easter Holidays	,,
27	St. Patrick's, Robertson Street	,, ...	,, ...	,,
April 2	St. Paul's, Princes Road	,, ...	Three Weeks	,,
4	St. Philemon's, Windsor Street	,, ...	Until after Easter Holidays	,,
4	St. Michael's, Upper Frederick Street	,, ...	,, ...	,,
4	Bankhall (Temporary), Stanley Road	Whole School	,, ...	Mumps, &c.
10	St. Sylvester's, Silvester Street	Infant	Three Weeks	Measles, &c.
10	Council, Ashfield Street	,, ...	,, ...	,,
10	St. Anne's, Derby Lane, Old Swan	,, ...	,, ...	,,
12	Brunswick Wesleyan, Erskine Street	,, ...	,, ...	,,
18	A communication from the Medical Officer of Health to the Director of Elementary Education, requesting that the Easter Holidays be extended until May 7th, at the Schools (Infant Departments only) in the undermentioned districts, viz. :— Parish of Liverpool, West Derby, Kirkdale, Everton, Toxteth. Several Infant Departments remained closed until 14th May.			
May 16	Council, Northcote Road	Infant	Three Weeks	Measles, &c.
25	Higher Grade, Aspen Grove	,, ...	,, ...	,,
30	Council, Birchfield Road ..	,, ...	,, ...	,,
Oct. 19	Council, Boaler Street.....	,, ...	,, ...	,,
Nov. 23	Council, Butler Street.....	,, ...	Until after Christmas Holidays	,,
Dec. 13	Holy Trinity, Wavertree...	,, ...	,, ...	,,

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. 12,775 cards were sent last year, as against 12,712 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, 126 schools have been fully reported upon during the last three years.

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

All the Public Elementary Schools in the City are visited once each fortnight and a full 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 :—

	1905.	1906.
No. of Visits to Schools	3,350	3,138
,, found incorrect	91	180
,, Water-closets and Latrines found dirty or defective	100	233
,, Notices issued for defects	60	121
,, ,, ,, dirty closets	16	—

THE AMBULANCE AND DISINFECTING STAFF.

The following table shows the number of patients removed to Hospitals during 1906, 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.
7	677	552	1230	91	639	1	6	7	12	3	363	18	5	11	106	3,728

PRECEDING YEAR.

—	891	680	1789	86	816	1	10	6	9	3	—	11	1	93	111	4,507

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.

As in previous years all cases of Smallpox and all cases of Typhus Fever, with very rare exceptions, are removed to hospital, and a special inspector revisits the house from whence the patient was removed to ascertain whether any further sickness has developed. These inquiries are made daily for 14 days and at intervals of a day or two during the following fortnight, and any case of sickness, however trifling it may appear to be, is at once reported and visited by a medical man. Friends of the patient, and others who are known to have been directly or indirectly in contact with him are also visited at their homes. By these inquiries, persons who may be incubating the disease are discovered and removed to the hospital at the earliest possible stage, and often before any serious risk of infection has arisen. Without these inquiries, which have occasioned no inconvenience to anyone, the patients would have remained at home for a longer period, constituting centres of infection to the neighbourhood, and it is largely owing to systematic inquiry and supervision, and the promptness of action taken upon available information, that the continued immunity of the City from formidable kinds of infectious disease is due. The absence of friction indicates the care and intelligence exercised by the inspectors in carrying out this system.

Under the Liverpool Corporation Act of 1902, a penalty is incurred by any person knowingly and wilfully giving false answers to these inquiries. The clause of the Act in question is as follows:—

> (1) The occupier of any building in the City which is used for human habitation, and in which there is or has been any person suffering from a dangerous infectious disease, shall, on the application of the Medical Officer of Health or the Deputy or Assistant Medical Officer of Health for the City, at any time during the illness of such person or within six weeks from the occurrence of such illness, furnish such information within his knowledge as the Medical Officer of Health or the Deputy or Assistant Medical Officer of Health may reasonably require for the purpose of enabling measures to be taken to prevent the spread of the disease.
>
> (2) Any occupier refusing to furnish such information or knowingly furnishing false information shall be liable on summary conviction to a penalty not exceeding forty shillings.

The collection, removal, disinfection and return of infected bedding has been carried on as hitherto by the ambulance staff.

It has been found that in many instances in which compensation for clothing had been given in money to the poorer classes of people, that the money was spent in drink, and the people left without clothing. As a consequence of this, an arrangement was made with a firm of repute, to supply articles equivalent in value to those which had been destroyed, thus preventing an improper use of the money. There were difficulties incidental to this method, since the articles asked for were frequently those which could most readily be pawned, such as umbrellas, &c., and not the articles needed for the home. The present plan is to keep at the depôt a stock of mattresses, bedding, and such articles, and to give it out to suitable applicants, whose clothing or bedding have been destroyed on account of infection, under the Public Health Act.

Owing to the delays and difficulties which arose from time to time in causing compliance with notices served upon owners to strip the wall-paper from the walls of infected rooms, this work has been undertaken by the disinfecting staff.

As soon as the infected wall-paper has been stripped, and the house is ready for re-papering or other work, an intimation of the fact is sent to the owner.

No house is considered properly disinfected until sulphurous gas, or some equivalent, has been used, and the wall-paper, previously sprayed with solution of perchloride of mercury, stripped. The wall-paper is conveyed in sacks, specially provided for the purpose, to the refuse-destructor and burnt. The existence of infectious sickness necessitates many visits by the persons in charge of disinfection, as the householder frequently omits to send information when the premises are ready. The number of rooms completely disinfected with sulphurous gas in 1906 was 6,947. There were in all 8,522 visits paid during the year to houses for the purpose of making enquiries respecting disinfection.

In 1906 there were 931 Library books taken from infected houses and disinfected, afterwards being returned to the Library from which they were originally borrowed, excepting those books which were in such a dirty and dilapidated condition that it was thought necessary to destroy them. Compensation was paid for all books destroyed.

INFECTED PREMISES STRIPPED AND DISINFECTED BY STRIPPING STAFF.

	1905.	1906.
Houses	7,837	6 630
Rooms	21,746	17,406
Number of Notes to Owners after stripping and cleansing	3,525	2,818
,, Visits by Superintendent of Staff	2,012	1,877

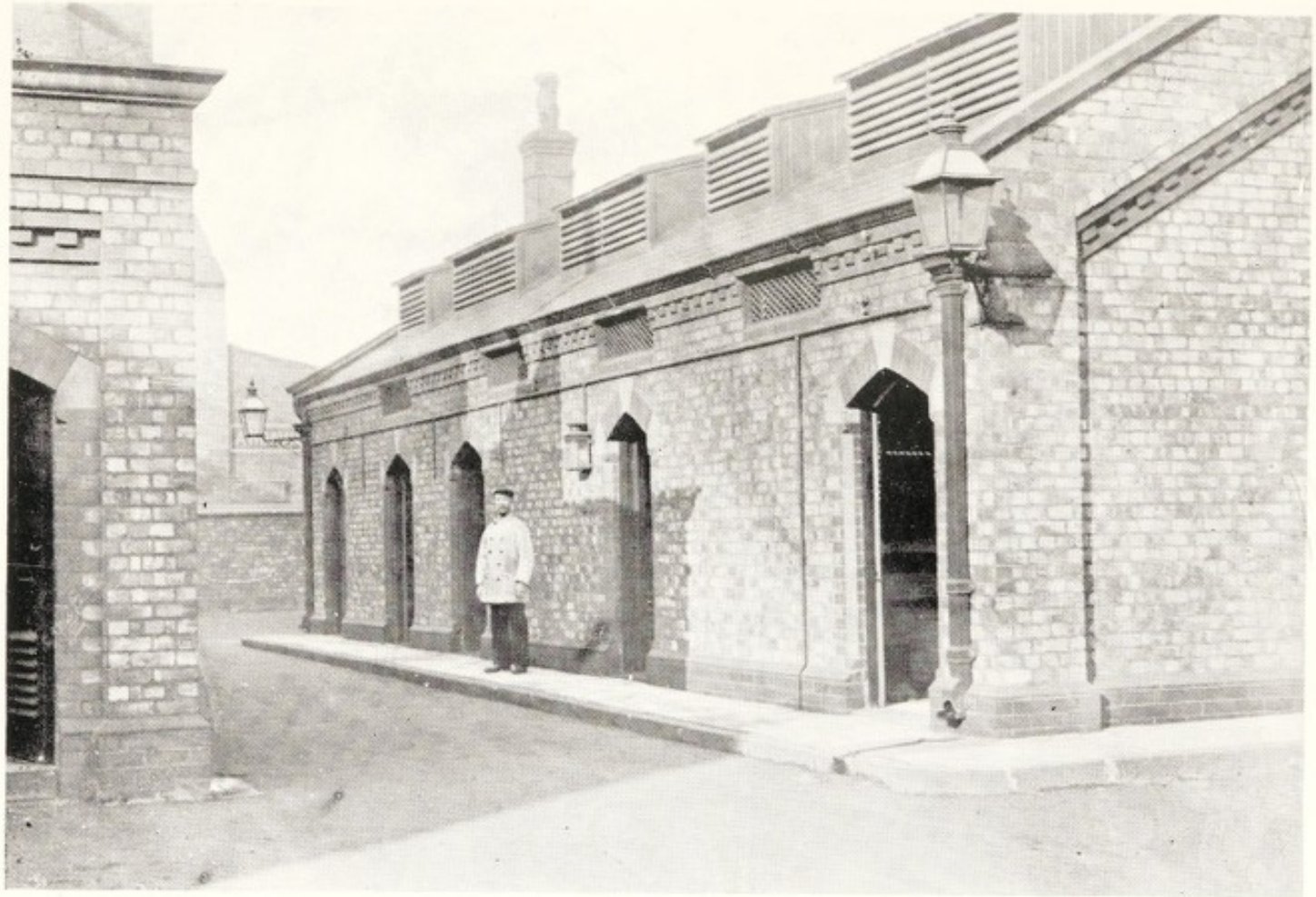
THE DISINFECTING APPARATUS.

The number of articles disinfected at the various apparatus during the year amounted to 63,860.

Date. 1906.	Number of Beds.	Number of Mattresses.	Number of Pieces of Bedding.	No. of Pieces of Wearing Apparel.	Total Number of Articles.
January	533	165	3,795	1,482	5,975
February	543	134	7,286	3,663	11,626
March	462	145	3,445	1,228	5,280
April	363	104	2,459	1,502	4,428
May	356	123	2,254	828	3,561
June	538	115	3,204	1,750	5,607
July	361	95	2,050	723	3,229
August	284	78	1,523	448	2,333
September	456	240	2,533	1,348	4,577
October	540	133	3,258	995	4,926
November	485	111	3,143	1,413	5,152
December	595	164	4,094	2,313	7,166
Totals	5,516	1,607	39,044	17,693	63,860

The number of articles destroyed at the various apparatus during the year amounted to 427, compensation being paid in conformity with the provisions of the Public Health Act.

Date. 1906.	Number of Beds.	Number of Mattresses.	Number of Pieces of Bedding.	No. of Pieces of Wearing Apparel.	Total Number of Articles.
January	12	14	12	—	38
February	7	16	2	—	25
March	12	8	14	—	34
April	9	16	3	—	28
May	5	14	11	—	30
June	7	11	10	1	29
July	5	10	20	9	44
August	7	8	5	7	27
September	14	15	14	4	47
October	13	16	20	—	49
November	12	14	13	3	42
December	8	20	6	—	34
Totals	111	162	130	24	427



FORD STREET MORTUARY.

27 JUL

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.
10	209	219

FORD STREET MORTUARY AND DISTRICT MORTUARIES.

BODIES REMOVED TO MORTUARIES.						
Green Lane.	Lark Lane.	Wavertree.	Ford Street.	Park Hill.	Smithdown Road.	Total.
—	2	—	201	—	—	203

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 depôt 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.

BURIAL ACCOMMODATION.

The difficulty of securing burying ground adequate to the requirements of the districts of Toxteth, Garston and Wavertree was becoming an exceptionally pressing one, but was overcome during the year by the selection of a good and suitable cemetery site at Allerton.

Garston, with a rapidly increasing population of about 20,000, was without any burial ground excepting a parish churchyard, which is practically full.

Wavertree also was without accommodation, with an increasing population of about 34,000.

The Smithdown Road Cemetery had hitherto served the requirements of the Toxteth district, but this Cemetery was rapidly becoming filled.

It is believed that the want of burial accommodation in these districts has led to a more extensive use of St. James' Cemetery, which is in the heart of the City, a position altogether unsuited for a burying ground.

Allerton Burial Ground.

The new burial ground at Allerton not only will meet the requirements of the districts mentioned, but will also be available for Walton and Fazakerley. The area, which comprises a little over 233 acres, consists of a moderate declivity sloping generally from north to south. The geological formation of the area consists, as the numerous test-holes show, of an admixture of soil, clay, and sand, also sandstones of varying hardness.

THE CREMATORIUM, ANFIELD.

27 JUL

These different strata vary considerably in depth, the clay and the sand or sandstone predominating. Generally speaking, the depth of the surface soil is from 1 foot 6 inches to 2 feet, and is usually succeeded by one to two feet of varying mixture consisting chiefly of soil. The clay which forms the bulk of certain parts of the site, has in several parts a considerable admixture of sand. The area in its constitution is very similar to that of the area generally within a few miles of Liverpool, and practically the same conditions have been encountered when trial holes were made in a site of 130 acres at Fazakerley at the extreme north of the town, purchased by the Corporation for another purpose. Taken on the whole, therefore, the area is the most suitable which can be found in the neighbourhood of Liverpool. A very careful inquiry was made into the suitability of the site from all points of view, and it was found that there were no objections to it either on sanitary or other grounds.

With regard to the administration of the various burial grounds, the functions of the various Burial Boards (with the exception of West Derby) have been transferred to the City Council.

The advantages of placing the control of cemeteries under the body which is responsible for the public health is obvious.

CREMATORIUM.

The Crematorium in Anfield Cemetery is availed of by an increasing number of persons as a means of reverent disposal of the dead by cremation, but the system has not yet found the favour which it does in many important centres of population throughout Europe and America. The building is of attractive appearance, and the surroundings are appropriate..

As long ago as 1890, the subject of providing a Crematorium was under consideration in Liverpool, and amongst other places where the matter

was discussed was the Medical Institution, the members of that Institution passing a formal resolution in favour of the provision of a place of this character.

In the autumn of 1891 the movement acquired greater strength, and the project received substantial support from Mr. Alfred Holt, Mr. Bushell, and a number of other gentlemen. Plans were drawn out and suitable ground acquired from the spare lands of Anfield Cemetery. The first stone of the Crematorium was laid August 24th, 1894, by Alderman W. B. Bowring, and on September 11th, 1896, the building was formally opened by the Earl of Derby, each being Lord Mayor in those years respectively. Cremations began a few weeks after the opening, and in the ten and a half years which have elapsed since then there has been a total of 367 cremations, the number for last year being 45.

The suggestion has now been mooted that the Crematorium should be transferred to the control of the Burials Committee, which would be a very desirable step to take.

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 carcases 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 that 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, dated 22nd November, 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:—

	1905.	1906.
Number of Visits to Railway Stations, including inspections made on Sundays	3,080	2,993
,, Inspections of Pens	104,746	104,158
,, found clean	75,445	74,388
,, ,, dirty and cleansed before being used...	29,301	29,770
,, Inspections of Trucks...	47,813	47,366
,, found clean	40,937	40,642
,, ,, dirty and cleansed before being used...	6,852	6,724
,, ,, leaving the City before being cleansed	24	—
,, Inspections of Horse Boxes	286	290
,, found clean	103	106
,, ,, dirty and cleansed before being used	183	182
,, ,, ,, not ,, ,, ,, ,,	—	2
,, Inspections of Vessels	8,845	8,406
,, found clean	3,533	3,482
,, ,, dirty and cleansed before being used	5,231	4,853
,, ,, going to Sea before being cleansed without cattle or cargo	81	71
,, Inspections of Gangways	9,317	9,166
,, found clean	7,988	7,932
,, ,, dirty and cleansed before being used...	1,329	1,234
,, Inspections of Lairage and Sale Yards ...	5,200	5,688
,, found clean	3,048	3,430
,, ,, dirty and cleansed before being used...	2,152	2,258
,, Carts used to convey Pigs, inspected ...	2,500	2,412
,, found clean	2,030	2,002
,, dirty and cleansed before being used.. ...	470	410
,, of visits to Manure yards and wharves ...	515	516

INSPECTION OF SLAUGHTER-HOUSES, &c.	1905.	1906.
Number of Visits to Slaughter-houses made by Meat Inspectors	7,333	7,121
Number of Visits to Butchers' Shops made by Meat Inspectors	63,390	66,081
Number of Visits to Fish and Fruit Shops made by Fish Inspectors	61,117	59,087
Number of Visits to Fruit Shops made by Fruit Inspector	16,830	18,192

FISH PLATFORMS.

	1905.	1906.
Number of Visits made by District Sanitary Inspectors...	22	23

POULTRY DEPOTS.

Number of Visits made by District Sanitary Inspectors...	422	565

RETURNS OF ANIMALS KILLED IN THE CITY SLAUGHTER-HOUSES, AND OF MEAT IMPORTED FOR SALE.

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

There is a slight decrease in the number of sheep slaughtered, and a large decrease in the number imported, as compared with the year 1905.

With regard to pigs, it will be noticed that there is a large decrease 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.	3683	172020	—	16480	36045	57779	320486	34056	1056
Allerton Road, Wavertree ...	455	4278	658	73	116	...	...	...	...
Back Butler Street	263	1296	403	17	...	...	...	...	...
Back Castle Street	221	62	...	1708	...	1	...	3	1
Back Commutation Row.....	...	401	82	...	35	...	...	...	...
Back Mount Vernon Green...	230	2158	316	...	...	...	...	...	...
Bevington Hill	738	101	...	80	...	...	...	...	...
Copperas Hill.....	...	...	...	...	5847	...	...	...	...
Corlett Street...	2	2910	788	1	...	...	...	...	...
Cotter Street	...	...	...	...	...	...	...	...	...
Carried forward	1909	11206	2247	1879	5997	1	...	3	1

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 ...	1909	11206	2247	1879	5997	1	...	3	1
Derby Lane, Old Swan.....	...	684	292	...	...	...	...	...	...
Foley Street	8	...	...	...	6111	...	...	...	...
Frederick Street.....	9	514	66	2	346	...	...	...	...
101, High Street, Wavertree..	212	716	350	...	...	...	...	...	...
105, High Street, Wavertree.	16	158	179	1	8	...	...	...	...
Norman Street	...	...	...	...	1435	...	...	...	...
Peel Street	39	899	292	...	29	...	...	...	...
Prescot Road, Knotty Ash ...	24	665	215	30	31	...	...	...	...
Sandown Lane, Wavertree ...	46	198	616	4	2	...	...	...	...
Sidwell Street, Garston	152	...	...	7	89	...	...	...	...
Soho Street.....	...	...	...	...	1577	...	...	4	...
St. Mary s Road, Garston ...	10	1	...	1	2	...	...	...	...
Upper Milk Street.....	...	...	...	...	6413	...	...	...	...
West Derby Road, Tue Brook	120	1575	580	6	208	...	...	...	...
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

PRECEDING YEAR.

Total in Private Slaughter-houses	2722	17398	3921	883	29660	...	...	...	...
Total in the City	5518	188686	3921	16394	69692	55876	336832	39102	1493

UNWHOLESOME MEAT, FISH, FRUIT, &c., SEIZED AND DESTROYED.

	DATE.—1906.	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	20931	92	121	482	2938	1224	144915	132	144	1,200 Oysters. 162 lbs. Venison.
Markets.	St. Martin's	152	...	120	694	...	...	233	...	90	...
Markets.	North Haymarket	...	...	...	...	...	...	...	...	64387	...
Slaughter-Houses.	Abattoir	191169	6015	55491	22414	12	48	...	...	...	...
Slaughter-Houses.	Allerton Road	156	...	60	...	...	...	...	...	...	...
Slaughter-Houses.	Back Butler Street	227	...	...	...	...	...	...	...	...	...
Slaughter-Houses.	Back Castle Street	22127	1298	85	...	...	...	...	...	...	...
Slaughter-Houses.	Bevington Hill	26592	275	40	...	...	...	...	...	...	...
Slaughter-Houses.	Copperas Hill	...	...	...	1243	...	...	...	...	...	...
Slaughter-Houses.	Foley Street	...	...	...	487	...	...	...	...	...	...
Slaughter-Houses.	Norman Street	...	...	...	74	...	...	...	...	...	...
Slaughter-Houses.	Sidwell St., Garston	368	...	...	...	...	...	...	...	...	...
Slaughter-Houses.	Soho Street	...	...	...	7	...	...	...	...	...	...
	Albert Dock (Cold Storage)	...	...	3023	...	...	...	...	...	...	...
	Banastre Street (Cold Storage)	...	...	62650	...	...	...	...	...	...	...
	Blackstone Street	5	...	...	...	...	...	...	...	...	...
	Bronte Street	2219	...	...	125	...	...	...	...	...	...
	Brownlow Hill	...	...	...	...	...	...	...	...	...	948 Eggs.
	Brunswick Road	124	...	...	...	...	...	...	...	...	...
	Brunswick Station	...	...	...	...	...	...	...	...	17920	...
	Brunswick Street	...	...	...	...	...	...	180	...	...	...
	Byrom Street	...	...	...	...	...	...	96	...	...	...
	Castle Street	...	...	...	...	...	...	...	...	60	...
	Cazneau Street	...	...	...	...	...	124	...	...	6632	...
	Carried forward...	264070	7680	121590	25526	2920	1396	145424	132	89233	

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

DATE.—1906.	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...	264070	7680	121590	25526	2920	1396	145424	132	89233	
Church Street	...	...	...	...	...	9	336	...	...	...
Cooper's Row	...	...	...	...	...	...	...	...	1760	...
County Road	35	...	5	35	...	...	...	...	...	...
Cumberland Street	...	...	...	...	...	...	...	...	6680	...
Currie Street	132	...	30	...	...	...	...	...	...	...
Daulby Street	196	...	6	...	4	...	...	...	...	...
Duke's Dock	...	...	...	...	...	...	...	...	600	...
Edge Hill Station	250	...	...	...	...	136	...	...	1430	...
Elliot Street	50	...	...	...	...	...	...	...	...	...
Fairclough Lane.....	...	...	...	...	...	...	72	...	...	...
Falkner Street	150	...	...	...	...	...	...	...	...	...
Gill Street	82	...	...	...	...	...	...	...	...	...
Gt. Charlotte Street	...	...	20	...	3	...	6069	...	4248	...
Gt. Homer Street	1642	60	1350	185	...	...	...	...	...	24 lbs. Jam.
Gt. Howard Street.....	...	100	...	20	...	...	...	...	...	...
Hanover Street	...	...	...	56	...	...	...	...	...	...
High Street, Wavertree...	...	...	25	...	...	...	...	...	...	...
Highfield Street	...	...	...	...	...	...	...	...	...	600 Eggs.
Hood Street.....	1244	...	...	...	...	...	...	...	...	250 Eggs.
Islington	20	...	...	...	...	...	...	...	...	...
Lawrence Road	...	...	...	73	...	...	...	...	...	...
Lime Street Station	...	...	36	...	...	...	120	...	...	...
London Road	...	...	...	45	...	...	...	...	...	...
Carried forward...	267871	7840	123062	25940	2927	1541	152021	132	103951	

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

DATE.—1906.	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...	267871	7840	123062	25940	2927	1541	152021	132	103951	
Low Hill	30	...	...	...	...	...	...	...	...	...
Manchester Street	336	...	...	...	...	...	...	...	...	...
Manesty Lane	...	...	...	...	...	...	448	...	...	...
Market Street	...	...	...	...	...	38	...	...	...	...
Mill Street	257	...	...	...	...	...	...	...	...	...
Moor Place	...	...	...	16	...	...	...	...	...	...
Naylor Street	...	...	...	...	...	...	1872	...	...	...
Paddington	118	...	...	...	...	...	...	...	...	...
Park Road	82	...	...	...	...	...	...	...	...	...
Picton Road	90	...	...	...	...	...	...	...	...	...
Pitt Street	2370	50	100	6	22	...	2352	...	...	...
Prescot Street.....	260	...	...	...	...	...	...	...	...	...
Queen Square	...	...	...	...	...	...	...	...	17729	...
Rainford Gardens	...	...	...	...	...	...	...	...	2640	...
Rainford Square.....	...	...	...	...	...	...	...	...	4120	...
Ranelagh Street	...	...	200	20	...	...	240	...	...	80 lbs. Venison.
Regent Road ..... (Cold Storage)	47946	...	85974	...	...	...	...	...	...	...
Richmond Ro w	...	...	...	...	...	...	140	...	...	...
Roberts Street.....	...	...	...	...	...	...	...	...	1250	...
Roscommon Street.....	45	...	100	...	...	...	...	...	...	...
Roe Street	...	...	...	...	...	...	...	...	400	...
Rose Place	...	...	...	...	...	...	...	...	104	...
Rose Street	...	...	...	...	177	492	62521	...	168	10,000 Oysters.
Carried forward...	319405	7890	209436	25982	3126	2071	219594	132	130362	

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

DATE.—1906.	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...	319405	7890	209436	25982	3126	2071	210594	132	130362	
Scotland Road	1702	150	699	158	...	...	...	...	...	...
Smithdown Road	5	...	...	...	...	...	...	...	...	...
Springfield	6	...	...	...	...	...	...	...	...	...
Stanley Road	...	...	...	...	...	...	1040	...	...	...
,, Street	...	...	...	...	...	...	...	...	50350	...
Temple Court	...	...	...	...	...	...	...	...	18300	...
Tithebarn Street	...	...	...	...	...	...	...	...	2100	...
Trowbridge Street	351	...	...	444	...	...	...	...	...	...
Tryon Street	...	...	...	...	...	...	...	...	720	...
Upper Dawson Street ...	...	...	...	...	...	...	320	...	...	...
Upper Frederick Street...	...	...	125	...	...	...	...	...	...	...
Vernon Street	...	...	...	...	...	...	...	...	3000	...
Victoria Street	...	...	44	...	...	...	...	...	2120	1120 Eggs.
Walton Breck Road	...	...	...	...	29	...	...	...	...	...
Waterloo Station	...	...	336	...	...	...	...	...	...	...
West Derby Road	213	...	40	474	...	...	...	...	...	...
William Henry Street ...	210	...	352	...	...	30	...	...	...	...
Windsor Street	12	...	...	...	...	...	...	...	...	...
Total	321904	8040	211032	27058	3155	2101	220954	132	206952	19,200 Oysters. 242 lbs. Venison. 2,918 Eggs. 24 lbs. Jam.

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 has been thrown into the receptacles intended for it in the process of sorting.

The nuisance has been more efficiently dealt with by the Market constables and the staff of the Health Committee than in preceding years, 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	253	13	3	16
Fish	98	12	3	6
Fruit	92	7	3	4

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 meat 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.

EXPORT OF HAMS TO ARGENTINA.

Towards the close of the 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 in which it is prepared.

ANIMALS SMOTHERED AND INJURED IN TRANSIT ON BOARD SHIP.

Beasts.	Sheep.	Pigs.	Number found good.	Number found bad.	Weight of bad pounds.
35	60	163	207	51	12,049

Police proceedings in respect to meat, poultry and fruit were as follows:—

	1905.		1906.	
Number of informations in respect of diseased poultry ...	—		2	
,, ,, ,, ,, meat ...	5		19	
,, ,, ,, unsound fruit ...	1	7	—	22
,, ,, ,, ,, fish ...	1		—	
,, ,, ,, ,, eggs ...	—		1	
,, Fined...	5		13	
,, Sent to Prison	—		—	
,, Withdrawn or Dismissed	2		9	
Amount of Fines and Costs	£18 8 0		£117 15 3	

	1905.		1906.	
Number of carcases seized during the year by Medical Officer of Health and Inspectors under section 116 of the Public Health Act, 1875 ...	169 Cattle 117 Calves 274 Sheep 83 Pigs. 54 Goats	697	292 Cattle 118 Calves 1,691 Sheep 114 Pigs 18 Goats	2,233
* Number of such carcases condemned by Justices under section 117 of the Public Health Act, 1875	1		4	
Number of carcases so seized in consequence of the animal having suffered from Tuberculosis	106		193	

* The remainder were dealt with under a Local Act, which does not require a Justices' Order.

GLANDERS AND FARCY.

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 since and including the year 1896:—

Year.	No. of Cases.	No. of Cases brought from outside City boundary.
1896	40	5
1897	18	2
1898	9	1
1899	20	4
1900	5	1
1901	5	—
1902	9	3
1903	21	1
1904	7	1
1905	2	—
1906	2	—

The method of procedure adopted in carrying out the requirements of the Act is as follows:—

Immediate notification of actual or suspected cases, 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).

The premises where the disease is said to exist are at once visited on receipt of the information, and the requirements of the Act put into force.

In consequence of the large number of cases of Glanders existing in the country, particularly in large towns, the Local Authority was requested by the Board of Agriculture in 1896 to cause all horses imported into the city or the Port of Liverpool from the North American Continent to be submitted to Veterinary examination, thus ensuring that all animals are free from Glanders.

In 1896, and for several years after, a very large number of horses was imported from the North American Continent, but for the past few years this number has been greatly diminished, although their examination still continues.

In 1906, 374 horses were inspected by Mr. Eaton Jones, Chief Veterinary Surgeon of the Corporation, at various yards throughout the city, but chiefly at the American Horse Repositories, Stanley.

In addition to the above, 505 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, 3,100 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 one of the cases of Glanders the owner was fined £5 and 35s. costs for removing the animal to the Knacker's Yard without having previously reported the existence of the disease.

Total Number of Animals in Stables, &c., where the Disease occurred.	Slaughtered.		Died.
	By Order of Owner.	By Order of Local Authority.	
2	1	—	1

LUNGS OF HORSES EXAMINED AT KNACKER'S YARD, CARRUTHERS STREET.

The Veterinary Superintendent has caused the lungs of all horses sent to the above yard to be submitted to examination, and it is owing to these examinations that the two cases of Glanders already mentioned were 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.
1,646	2	1,644

Two cases of Anthrax were found during the examinations at the Horse Slaughterer's Yard, and dealt with as the Act directs.

At the Liverpool Cattle Market during 1906, the following numbers of animals were inspected by Veterinary Surgeons of the Corporation :—

Cattle	52,634
Sheep	333,546
Calves...	5

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.
537	113	65	48

ANTHRAX IN MAN AND ANIMALS.

There were five cases of anthrax in animals reported during the year. In 3 of the cases the carcases were found in shippons, 1 at the Knacker's Yard, and 1 at the Kirkdale Road Slaughterhouse.

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 shippons and stables attached 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. 1906.	Total number of Animals on premises where disease occurred.	Died.	Killed by order of owner.	Locality.	Remarks.
Feb. 21st..	17	1	—	Smithdown Road	—
Oct. 4th ...	23	1	—	Webster Road	—
,, 7th...	—	1	—	Litherland	Fined £1 and £1 15s. 6d. costs for removing carcase in contravention of the Anthrax Order.
,, 8th...	23	1	—	Walton Breck Road	
Nov. 15th..	—	1	—	Bootle	

The occurrence of cases of this dangerous malady in man and animals in Liverpool has occupied the attention of the Health Department during the past few years.

Anthrax is a disease which is frequently met with amongst cattle, and it is particularly rife in certain foreign countries, such as Russia and the Caucasus, India, &c. Very large numbers of hides and much hair and wool from animals which have died from this disease are imported into this country. It is during the handling, sorting and other manipulations of these imported animal products that infection occurs, owing to the dust, which is the chief harbour for the very resistant spores of the anthrax bacillus, gaining an entrance into the lungs or into a cut or scratch on the skin.

During the past three years 21 cases of this disease, arising and associated with the foregoing animal products, have come to the notice of the department. Thirteen of these were dock labourers and carters, who were engaged in discharging cargoes of ships in dock, and all, with one exception, were infected during the unloading or carting of dry hides or skins. The other cases contracted the disease in a horsehair factory or in handling and sorting wools in wool warehouses, whilst an interesting case was that of a female bag mender who worked amongst second-hand bags. A glance at the accompanying table will show the origin of the material in each case.

As regards preventive measures, much has been done by the Home Office in issuing regulations under the Factory and Workshop Act, 1901, and by the Medical Officer's Department in calling the attention of workmen and others to the risks connected with their occupations, and to induce them to cleanse places where hides and skins are stored, also to the need for personal cleanliness after work, and to the advisability of wearing suitable protective garments for the hands, arms and neck, such as gloves and overalls.

The officers of the department have also followed up infected material and notice has been given to those concerned to have the same disinfected.

No.	Approximate Date of Sickening.	Sex.	Occupation.	Material.	Origin of Material.	Character of Disease and Situation of Pustule.	Severity and Result.	Information elicited at Inquests or Elsewhere.
	1903.							
1	Nov. 9 ...	M	Dock labourer ...	Bales of skins	West Coast of Africa.	Pulmonary anthrax.	Death ...	The deceased assisted in brushing up the holds of the vessel in which the skins had been stored.
	1904.							
2	April 12 ...	F	Hair sorter and washer.	Horse-hair	Source unknown ...	Chin	Death ...	—
3	May 21	M	Dock labourer	Wool	Source unknown ...	Neck	Death ...	The deceased worked amongst wool six days previously.
4	June 3	M	Hair washer	Horse-hair	Russia	Under the ear	Death ...	—
5	July 3	M	Dock labourer ...	Hides, dry	Sierra Leone and Bathurst.	Neck	Death ...	Leather gloves were supplied by the Shipping Co., and worn by the deceased.
6	July 19 ...	M	Wool warehouseman.	Wool	Source unknown	Chin	Death ...	Deceased's duty at warehouse was sweeping up loose wool, and removing same to sorting room.
	1905.							
7	April 30 ...	F	Wool sorter	Wool	East Indian	Forehead	Recovery	—
8	July 3	M	Dock labourer ...	Hides, dry	Pernambuco, Maceio, and Cabadello.	Neck, with rapid generalization.	Death ...	—
9	Oct. 7	M	Dock labourer ...	Hides, dry	Bathurst	Neck	Death ...	—
10	Oct. 30 ...	M	Dock labourer ...	Hides, dry	Source unknown ...	Left cheek	Severe case, recovery.	—
11	Nov. 29.....	M	Dock labourer ...	Hides, dry	Peru	Neck	Death ...	No gloves worn or other precautions taken.

	1906.							
12	Jan. 28 ...	M	Dock labourer ...	Hides, dry	Brazil	Neck	Recovery	—
13	Feb. 22 ...	M	Dock labourer ...	Hides and skins	Lisbon, Oporto, and Mediterranean Ports.	Neck	Death.	It was stated that it was not usual to wear gloves.
14	July 4	M	Dock labourer ...	Hides, dry	Parahyba	Cheek	Recovery	This patient when he took ill was working on a grain ship in B'head, but a few days previously had worked among dry hides.
15	July 25 ...	M	Hide porter	Hides and skins.	Sources unknown	Cheek	Recovery	Gloves are worn in handling hides.
16	Aug. 18 ...	M	Dock labourer ...	Hides, dry	Bathurst	Nose	Recovery	Patient was stated to have worn gloves.
17	Oct. 5	M	Wool warehouse-man.	Goats' hair	Karachi	Cheek	Recovery	No gloves worn, but respirators and overalls supplied to those who sweep up warehouse.
18	Oct. 23	M	Hair heckler.....	Horse-hair	Russia	Neck	Death ...	No gloves worn.
19	Dec. 5	M	Carter at the ..... Docks.	Goat skins, dry.	Marseilles	Neck, extensive ... œdema.	Death ...	No gloves worn
20	Dec. 8	M	Stevedore	Hides, dry	Rangoon	Shoulder	Death ...	Gloves provided but not worn.
21	Dec. 16 or 17	F	Bag-mender in bag and sack warehouse.	Bags	Source unknown ...	Neck	Death ...	The firm dealt in second-hand bags, which prior to coming into their possession contained rice meal, cotton seed, palm kernels, and grain. There was a suspicion that the particular bags on which deceased worked had contained hair.

SWINE FEVER.

The following table shows the number of animals affected with swine fever and the number in the herds slaughtered under the Swine Fever Order.

Total Number in Herds.	Healthy.		Diseased.		Died.	Locality.	Remarks.
	Slaughtered.		Slaughtered.				
	By Order of Owner	By Order of Board of Agriculture.	By Order of Owner.	By Order of Board of Agriculture.			
1	...	...	...	...	1	Woolton Road.	—
13	...	1	...	...	2	Belmont Road	10 remaining healthy when ultimately declared free.
12	...	...	...	...	1	Eaton Road, West Derby...	11 remaining healthy when ultimately declared free.
2	...	...	...	...	1	Lower Lane, Fazakerley ...	1 remaining healthy when ultimately declared free.
13	...	...	...	...	3	Woolton Road.....	10 remaining healthy when ultimately declared free.

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.

RABIES.

In conformity with the requirements of the Board of Agriculture, reports were sent to the Board in respect of three 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 26th September by the Veterinary Inspector, who certified that the animal was not affected with rabies.

PIGGERIES.

	1905.	1906.
Number of applications to keep pigs	29	24
,, , granted	14	22
,, ,, refused	2	2
,, ,, in abeyance	13	—
,, Pigs applied for on above applications	600	292
,, ,, granted	156	213
Total number of licensed piggeries...	77	93
,, pigs	1,112	1,372
Number of visits to piggeries	402	509
,, Informations	1	—
,, Fined	1	—
Amount of Fines and Costs	£5 4 6	£— — —

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.

	1906.
Number of applications to keep cows on premises not previously licensed	7
,, ,, granted	7
,, cows applied for on above applications	158
,, granted	157
,, applications in abeyance pending alterations	—
,, ,, refused	—
,, ,, for transfer to fresh tenants of cowsheds previously licensed	43
,, ,, granted	43
,, ,, to keep more cows than the number for which the license was originally granted	27
,, ,, granted	27
,, ,, refused	—
,, additional cows applied for	71
,, ,, granted	67
,, Cowsheds on the register 31st December, 1905 ...	456
,, ,, ,, ,, ,, 1906 ...	466
Number of cows licensed to be kept within the city area	6,666

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 an attempt has been made to remove all horses which were kept in cowsheds. One hundred and eighty-seven horses have been so removed from one hundred and fifty-eight cowsheds. This has in twenty-seven cases given accommodation for more cows.

COWSHED INSPECTION.

	1905.	1906.
Number of Inspections of Cowsheds	4,160	4,266
,, found Incorrect	*152	*402
,, of Informations	5	7
,, Fined	5	4
,, Withdrawn	—	3
Amount of Fines and Costs	£4 17 6	£6 17 6

One hundred and one notices have been issued to occupiers directing their attention to contraventions of the regulations.

Number of cowsheds in the city during the years 1897 to 1906 inclusive, together with the number of cows licensed to be kept, and the number of applications for new cowsheds:—

	Cowsheds.	Cows.	Applications.	
1897 ...	453 ...	5,650 ...	33	
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	

* The large number of inspections found incorrect is due to visits made to various premises undergoing alterations in Fazakerley.

MILKSHOPS.

	1906.
Number of Applications for registration	146
of which transfers were	89
,, above Applications granted	139
,, ,, ,, in abeyance	—
,, ,, ,, refused	5
,, ,, ,, withdrawn	2

Twelve applications standing over from 1905 have now been granted.

Number of Milkshops on the register at the end of 1902	802
,, ,, ,, ,, 1903	812
,, ,, ,, ,, 1904	790
,, ,, ,, ,, 1905	789
,, ,, ,, ,, 1906	826

DAIRIES AND MILKSHOPS INSPECTION.

	1905.	1906.
Number of Inspections of Dairies and Milkshops	6,708	6,472
,, found incorrect	69	144
,, of Informations	17	13
,, Fined	16	12
,, Withdrawn	1	1
Amount of Fines and Costs	£27 11 0	£20 16 0

Eighty-one 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.
1,508	19,420	19,254	166	165

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.

	1905.	1906.
Number of premises under Inspection	707	827
,, visits made	2,413	2,298
,, caution notices issued	32	47
,, Informations	1	1
,, Fined	1	—
,, Withdrawn on payment of costs ...	—	1
Amount of Fines and Costs	£0 14 6	£0 4 6

LIVERPOOL CORPORATION ACT, 1900.

MILK SUPPLY AND TUBERCULOSIS.

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 shippon 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 Superintendent to make to shippons within the city boundary.

Year.	No. of Visits to Town Shippons.	No. of Cows examined.	No. of Cows not affected.	No. of Cows Suspicions 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	121	97	24	7
1904	305	665	595	70	12
1905	239	298	241	57	1
1906	198	225	211	14	—
Totals ...	855	1381	1183	198	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 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.

The accompanying photographs illustrate a cowshed in Liverpool and two in the country.

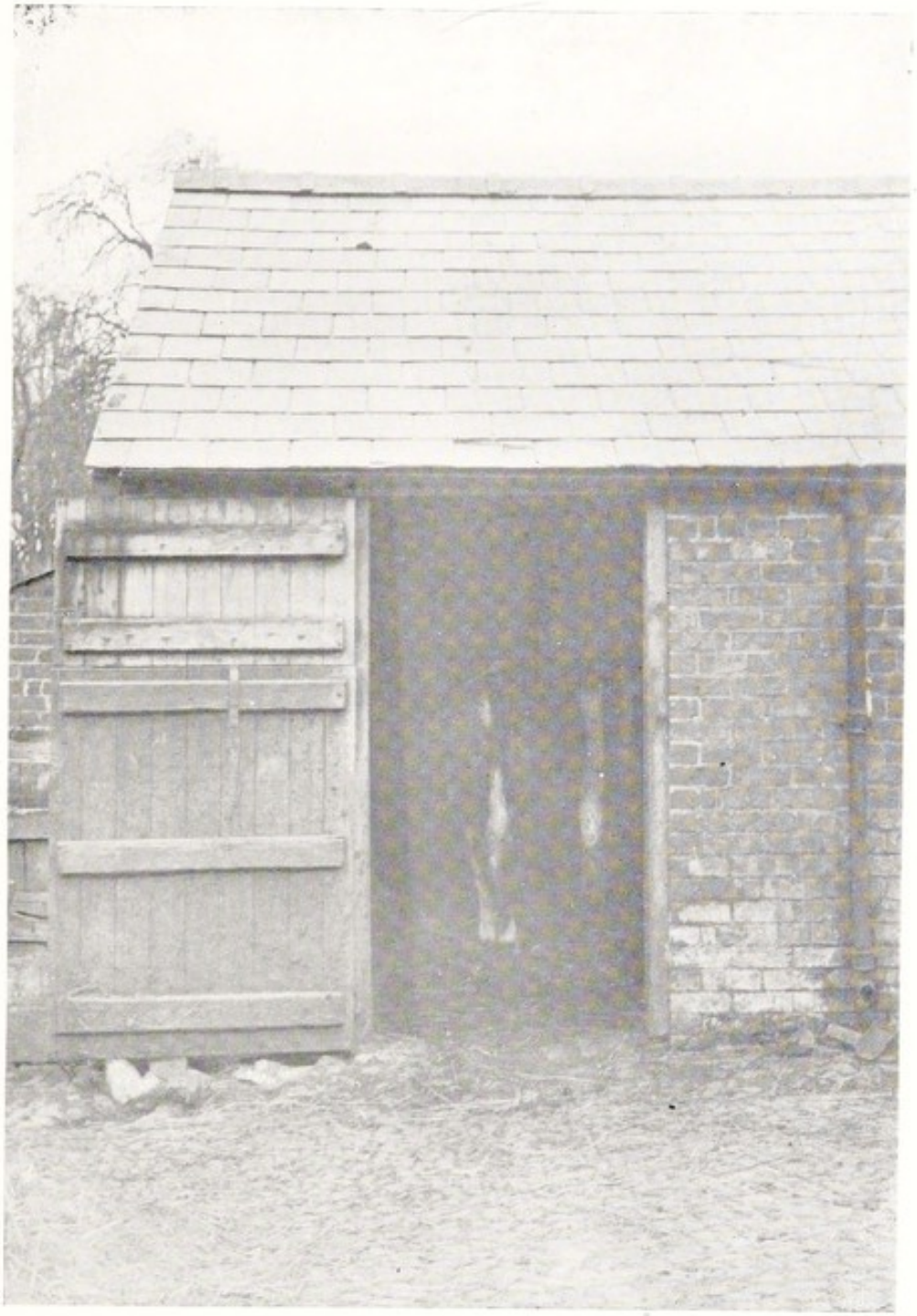
When tuberculosis of the udder is suspected the necessary proceedings are taken as prescribed by the act. They are similar in principle to those adopted within the city. Samples of milk are also taken from suspected animals, and submitted to a further bacteriological test to verify the diagnosis of the 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 on their condition being noticed by the owner, and before the Liverpool Act was put in operation.

A general view of a Farmyard in Cheshire, showing an accumulation of manure on the unpaved surface of the yard, the liquid manure being allowed to soak into the ground, no provision for drainage being made.

A Cheshire 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.

No. 3



A more recent building, on the same premises as No. 2, is even more destitute of light and ventilation. The cow can be dimly distinguished within.

A Lancashire Cowshed deficient in light, ventilation and cleanliness.

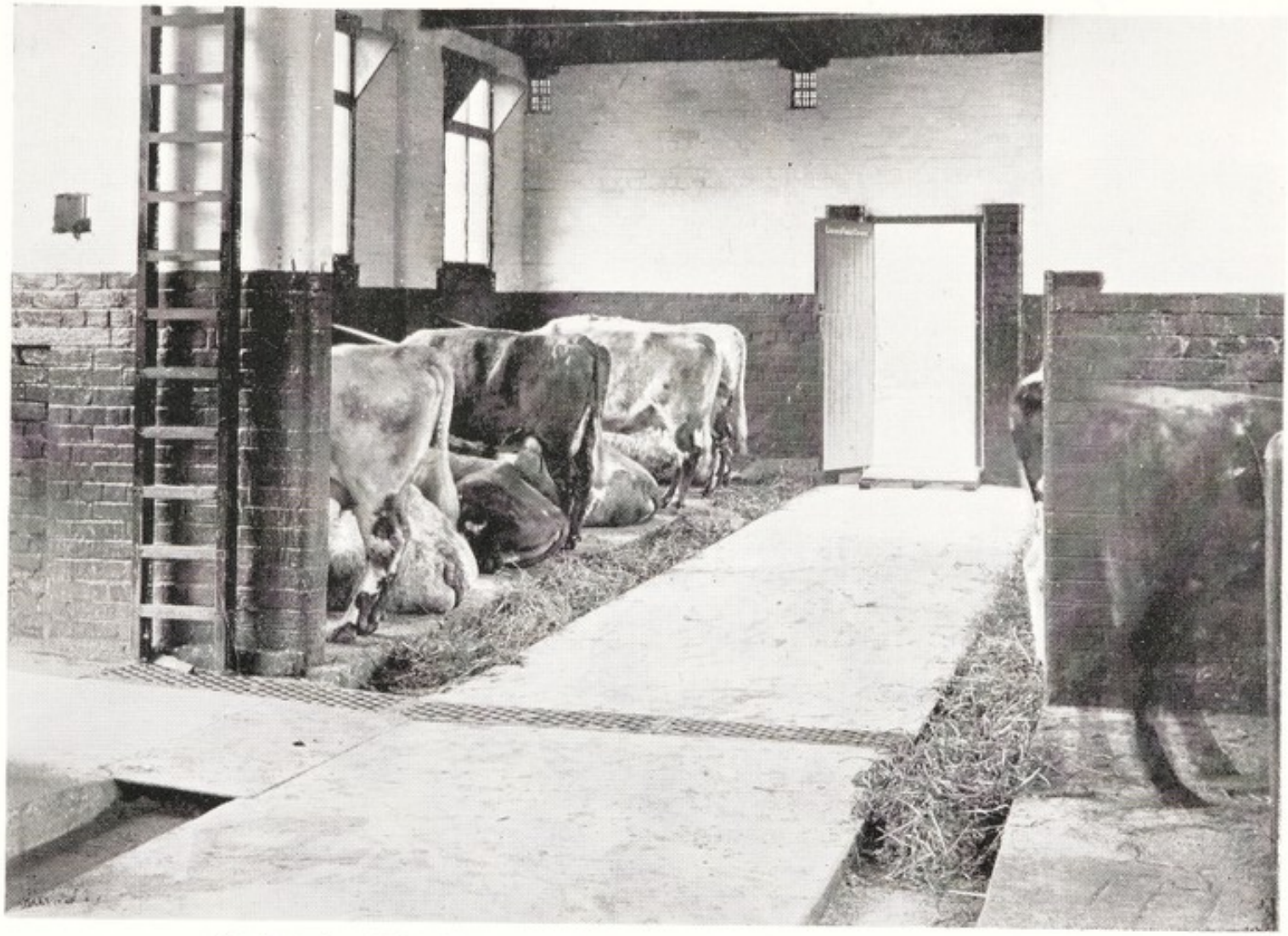
No. 5

Another view of the Cowshed No. 4, showing the Manure Heap.

27 JUL 07

The ill-kept interior of the same Cowshed (Nos. 4 and 5).

A LIVERPOOL COWSHED.



The Interior of the Cowshed No. 7, well-lighted, well-ventilated, and clean.

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 Shippons 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	7	6	1
Totals ...	97	222	2736	83	18	16

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 shippons 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.

MILK DEPÔTS.

As in previous years, the subject of the great waste of infant-life has again received close and continuous attention. The conditions of life with which this loss of life is connected in some of the districts of Liverpool render the subject an exceedingly complex and difficult one. The following table contrasts the death-rate below one year of age with that above one year:—

	Death Rate.	
	Below One Year of Age per 1,000 births.	Above One Year of Age per 1,000 of the population.
Average of the last 3 Years..	174	15·1
During 1906	171	15·1

The most frequent among the causes which contribute to this high infant mortality are shown by medical certificate to be "premature birth" or "atrophy," "diarrhœa," "diarrhœa and convulsions," and similar causes, all pointing to the fact that from some reason or another nutrition is interfered with, and that the infant is unable to live upon the food given it.

It cannot be too fully emphasised that the natural guardian of the infant is the mother, and that it is only with extreme caution that the efforts of the municipality can be successfully directed to the preservation of infant life, in the absence of maternal attention.

The loss of life from diarrhœa and kindred ailments is greatest in the summer and autumn months, and the Medical Officer of Health has found as the result of careful personal observations, carried out in conjunction with other members of the Liverpool Medical Institution, and extending over several years, inquiries which involved the circumsances of upwards of one thousand deaths of infants, that amongst

infants below three months of age, either wholly or partially fed during this season on artificial foods, the deaths are fifteen times as great as they are amongst an equal number of infants fed upon breast milk; in other words, out of every 1,000 infants under three months of age, naturally fed upon breast milk alone, 20 died of autumnal choleraic disease; but of the same number of infants at the same age, artificially fed, then instead of 20 dying, as many as 300 died from this cause.

Similarly between 3 and 6 months, and 6 and 9 months of age, there was an immensely larger proportion of deaths amongst the artificially fed than amongst the breast fed, although this proportion diminished as the age increased. Details of these facts were laid before the Liverpool Medical Institution some years ago. Then, as now, one of the most discouraging features was found to be the lamentable want of maternal care, or of intelligence, or of capability to follow out instructions when they were given by the medical adviser.

The food given to the artificially-fed was almost invariably found to be unsuitable, stale, or even putrescent, and given from a dirty and foul-smelling, long-tubed feeding bottle.

As it is obvious that the staple food of artificially-fed infants must be cows' milk modified in some form or another, it may be well now to recapitulate the steps taken in the city to ensure that the milk supply shall be pure, at least until it is delivered at the house. Nearly 30,000 gallons of milk are consumed in Liverpool every day, but as the Liverpool cows only provide half this quantity it is necessary to deal also with the sources of supply of the other half which comes from country districts. The following is an outline of the steps taken:—

With regard to cows kept within the city, the closest attention has been paid for the past ten or twelve years to the condition of the cowsheds and the health of the animals.

In 1897, with the sanction of the Local Government Board, a fresh series of regulations was made, providing for the routine inspection of the cattle, and, what is of equal importance, providing for the proper lighting, ventilation, cleansing, drainage and water supply for the cowsheds within the city, and for securing cleanliness of stores, shops and vessels, and for precautions against infection or contamination. This close supervision has resulted in bringing the Liverpool cowsheds up to their present standard.

With regard to milk imported from other districts, a Local Act was obtained in 1900 which enabled the Health Authorities to prohibit the importation into the city of milk from any outside dairy or cowshed, if, in the opinion of the Medical Officer of Health, such milk were contaminated in a manner likely to cause tuberculosis—a provision which, whilst guarding specifically against tuberculosis, results incidentally in ensuring that the cows kept in the country shall be under healthy conditions. The investigations undertaken at the instance of the Liverpool Corporation by Professors Boyce, Delepine, Hamilton and Woodhead, contributed to the passing of this salutary Act, and although the application of it is tedious, difficult and cumbersome it has done a great deal of good not only for Liverpool, but for the surrounding country also.

The staff employed in dealing with the milk-supply comprises five inspectors conversant with the Diseases of Animals, and also a Veterinary Surgeon, to whom reference can be made; three inspectors who inspect and report upon the structural and sanitary condition of the cow-sheds, and three inspectors whose business it is to procure samples under the Food and Drugs Act for chemical and bacteriological analysis; about 1,000 samples of milk are taken for chemical analysis annually, and about 600 for bacteriological examination; they are taken from dairies, shops, street carts in the act of delivering, and also from railway stations.

It must be added that every cowkeeper receives careful instructions, and a printed copy of all requirements and regulations affecting his trade. The Cowkeepers' Association, realising the advantages to their own trade of attention to these matters, co-operate with the Health Authorities. Nothing is omitted which can lessen the dangers of contamination to the milk in its many vicissitudes on its way from the cow to the consumer.

But 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 of the mother to the stomach of the infant; its composition, temperature and mixture adapt it to the needs of the offspring; it has neither abstractions, adulterations, preservatives nor uncleanliness; it is, moreover, bacteriologically clean and pure. Nothing the municipality can do can equal this.

It must be added that efforts to improve the methods of domestic sanitation have been unremitting. Details will be found elsewhere. As already stated, all of these measures failed to prevent the domestic contamination of milk after delivery; they made little or no impression upon parents who either failed to realise the necessity of giving pure food, or if they did realise it, they were unable to act upon it.

In France—where the subject of infant life is one of such supreme importance—certain quantities of food are given at the cost of some municipalities, to mothers for their own nourishment, upon the condition that they will suckle their offspring, whilst steps were taken to find some substitute for mother's milk, for those infants whose mothers were unable to suckle them.

The problem of finding a complete substitute for the milk of a healthy mother has not been solved, and probably never will be solved. As the infant grows there may no doubt be variations in the quality of mother's milk which specially adapt it to the infant's need, niceties in nature which cannot be approached artificially.

The use of artificial food is unavoidable under the existing social conditions; the nearest approach to the natural food is derived from cows' milk, which can be so altered as to closely imitate human milk in its composition, and it can also be made to resemble it in another important particular, viz., it can be sterilized, and given free from putrefactive germs.

It is the polluted cows' milk and the unsuitable artificial foods which cause the mischief, and as it is impossible by municipal administration to reach and deal with all the sources of domestic pollution, the humanised milk depôts were established in 1901.

It must not be lost sight of that in preparing infants' food in the homes of the poor, the contamination of milk is not the only source of mischief, even the sugar with which the milk is sweetened may be, and has been seen to be, taken from a sugar basin covered with flies which would be likely to leave filthy contamination of any kind.

In this country the project of humanising the milk, that is to say, making it by the additions of milk-sugar, water and cream, as nearly as possible of the same chemical composition as human milk, and sterilizing

it, and adopting such methods as will enable the infants to receive this milk pure and without contamination, was first carried into effect on a small scale at St. Helens. In Liverpool the project received warm and continuous support from Councillor Shelmerdine, who consented to act as chairman of the sub-committee having control of the introduction of the system into the city.

This committee had many difficulties to encounter, which happily were overcome, and need not be further alluded to now.

It cannot be too strongly emphasised that the milk is intended solely for the use of those infants whose mothers are unable to suckle them, or who can only partially suckle them. This fact is stamped upon every card of instructions and is placed into prominence at every opportunity. There must be no misunderstanding upon this point.

The first Liverpool effort was made at Netherfield Road, in the centre of a very populous district, where during the hot weather the deaths from diarrhœa were always very numerous. When ordering the plant for this depôt, the best was done to find some firm with experience in this class of work, but as no such firm existed a large part of the work was experimental, and had subsequently to be altered. Nevertheless, valuable service has been done by it.

Some two months after, the Cazneau Street Depôt was opened. This is about three-quarters of a mile from Netherfield Road, and is used merely as a distributing depôt.

The number of people anxious to obtain the milk had now increased so much that the committee opened another depôt in the South end, in Earle Road, and also a distributing depôt in Park Road. Many of the difficulties encountered in the former attempt were avoided, and the work at Earle Road is carried out conveniently and expeditiously.

The sale and distribution of the milk from dairies was allowed partly on grounds of economy, and with the hope of interesting the trade in the undertaking.

The advantage is that it saves the expense of opening shops and depôts in all parts of the town; but the disadvantages are that the same close supervision cannot be kept over the customers receiving the milk from the dairies as is kept over those supplied from our own depôts. In the case

of the dairies there is also a likelihood that the bottles are tampered with, or kept too long, and as a matter of fact the only complaints which have arisen have been in connection with milk supplied from the dairies.

The milk is supplied by contract from both town and country shippons, and samples of it are taken on delivery from time to time for chemical and bacteriological analysis. When it arrives at the depôt, as a routine practice, a sample is taken for the purpose of estimating the amount of fat by Gerber's test; a sample is also examined in the cream tube.

As to details, a mixture is prepared consisting of cows' milk, water, cream, salt, and sugar, in such quantities as to make the liquid practically the same as human milk; a sufficient amount for one feed for an infant of stated age is put into each bottle, and the bottle and contents are then sterilized.

The method of use is carefully explained verbally to the person having charge of the infant, and from time to time visits are paid to see that the milk is being used intelligently and in a proper manner. Owing to a common prejudice amongst the more ignorant classes, it is difficult to induce the mothers to bring the infant to the depôt from time to time to be weighed.

It is not necessary to recapitulate the difficulties with which the committee had to contend in bringing the milk supply to its present state of suitability. The successive steps have already been reported upon, and descriptions have been given in Reports of the Medical Officer. What it is desired now to show is how far the experiment has succeeded, how far the Corporation has been successful in the rôle of a foster mother, as shown by extended experience. The method calls for extreme care, much watchfulness and considerable expense.

The fall in infant mortality of recent years is contributed to by many causes, but the following facts now to be considered will enable an opinion to be formed upon the part played by the milk.

From the date of the initiation of this scheme, viz., early in 1901, until 31st December, 1906, 11,857 infants have been fed upon this milk, supplied either at the depôts or through dairies, the average age at the commencement of the feeding being $3\frac{3}{4}$ months; very few (693) 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.

It was possible to keep a much closer supervision over cases supplied from the depôts than over those supplied by the dairies. Of the former, viz., 7,520 in number, there were 722 cases in which the infant died, but of these 142 had been fed on the milk for less than one week, and 31 had been irregularly fed on it; 514 were ill, some of them hopelessly ill when the milk was first supplied. Each death formed the subject of a careful inquiry, and it was found that out of the total number of infants who died only 138 were fairly healthy at the time of admission, and had been properly fed since. In these 138 cases the registered causes of death were as follows:—

Convulsions	25
Diarrhœa	28
Bronchitis	15
Pneumonia	15
Wasting	5
Teething	4
Inflammation of Stomach	5
Whooping Cough	1
Blood Poisoning	1
Effect of operation on throat	2
Disease of Leg	1
Croup	1
Meningitis	3
Various other causes	32
	138

Of those deaths attributed to diarrhœa or convulsions, in several cases the milk had been discontinued prior to the commencement of the fatal illness. Incidental circumstances in connection with one or two of the others may be quoted: In one instance the infant and another were the only survivors out of a family of ten; in another, it was the sole survivor

of a family of six; in another instance, in which death took place at one month of age, there had been within the preceding fortnight deaths of two other elder children in the same family; several, delicate from birth, were tried with the milk as a last resort.

A study of the case books, in which the particulars of each case are entered, and in which the progress of the child, so far as can be ascertained, is recorded, reveals many interesting facts. The first thing that strikes one is the very large number of children who are described as suffering from some form of sickness on admission; in fact, over 50 per cent. of those entered are stated by the mothers to be ill. A history that is frequently given is that almost everything in the way of infants' food has been tried without any satisfactory result, and they have come to the depôt as a last resource. A large number of these infants are recommended to try the milk by the medical attendants both in hospital practice and private practice, and they report excellent results in cases where it is used. The committee are especially indebted to the members of the staff of the Children's Infirmary for their hearty co-operation and many valuable suggestions that they have made from time to time. The distributing depôts are made known at the out-patients' department of the Children's Infirmary, so as to bring the two institutions into closer contact with each other and to be a source of mutual assistance.

When the mother or the person in charge brings the infant with her, it is weighed.

If the child is not brought on the first visit, the milk is supplied on condition the mother brings it to be weighed at the earliest opportunity. The mother or guardian is told how to feed the child, and the card of instructions is explained to her. Every effort is made to induce the mothers to bring their children to be weighed at least once a fortnight. It is difficult, however, for some to do so, owing to the distance at which they live from the depôt, and some are indifferent or have conscientious objection. A considerable number, however, take a keen interest in their children's progress, and bring them more or less regularly to be weighed.

Trouble is occasionally experienced with the very ignorant class, who will persist in decanting the milk out of the sterilized bottle into one with a long tube. For the purpose, therefore, of seeing that the milk is properly used, the female inspectors visit from time to time the houses

where it is likely that the milk is misused. Also in cases where the mother says the child does not like the milk, or does not appear to be thriving on it, a visit is paid, and if a doctor is not in attendance the mother is advised to call one in.

Without attempting to draw too close deductions, the fact stands out that out of the 7,520 infants coming very promiscuously to the depôts, at varied ages and in conditions of health below the average, the mortality was 96* per 1,000, as against 171 per 1,000 for the whole city, and 110 to 113 for the best districts, and 231 to 246 for the worst.

But it must be remembered that in that 171 per 1,000 for the whole city, and 110 to 113 for the best districts and 231 to 246 for the worst districts, are included also breast-fed infants; clearly if breast-fed infants were excluded and artificially-fed infants only taken into account, the rate of mortality amongst them would be enormously higher, and would show even more forcibly the advantages of the sterilized food, which, of course, is an artificial food, over other methods of artificial feeding.

The figures are very valuable, and are clearly and strongly in favour of persevering with the supply of this milk. But the figures are by no means the only evidences of the value of the milk; there is the evidence of parents, of medical men, and of personal observation, all strongly pointing to instances repeated over and over again in which to the use of the milk has been attributed the saving of the child's life. The question appears to narrow itself down to: What would these infants be fed on if they did not get this milk?

Regulations.

1. The milk is supplied in either 9, 7 or 6 bottles in a basket, each bottle containing sufficient milk for one feed according to the age of the child.

2. When all the milk in one bottle is not used, the remainder must not be warmed up again for the infant, but a fresh bottle opened for its next

* The death rate is based upon the number of infants supplied direct from the Corporation Depots only, as some difficulty was experienced in ascertaining the correct number of deaths amongst those supplied by the dairies, but there is no reason to suppose that the rate was exceeded amongst those obtaining milk from the dairies.

meal. On no account must bread be given with the milk. This milk will be found to be quite sufficient if given regularly.

3. The person using the milk must guarantee to continue its use regularly during the needs of the child, and to send for it at the stated hours.

4. Should the milk not be agreeing with the child, the matter should be reported at once.

5. Every person using the milk will be supplied with two teats, which must be kept clean and brought to the depôt for inspection at least once a week. Extra teats will be charged for at the rate of 3d. each.

6. Just before using, each bottle should be placed unopened in a basin or jug of hot water, and warmed to the proper temperature. The bottle should then be opened and the teat inserted. It is recommended that infants under 3 months should be fed every 2 hours, from 3 to 5 months every 2½ hours, and from 5 to 8 months every 3 hours; and that they be fed once or twice during the night.

7. After using, the bottle should be thoroughly rinsed in cold water.

8. The child must be brought once a fortnight to be weighed.

9. If children are sent for the milk, they must be warned not to tamper with the stoppers of the bottles.

10. All bottles, stoppers, baskets, and rubber rings not returned to the depôt will be charged full value.

11. The cost of the full weekly supply of humanised milk for infants is 1s. 6d., payable in advance. If a day's supply only is taken, the charge is 3d.

NOTE.—The depôts are open daily (Sundays and Bank Holidays excepted) from 11 a.m. till 6 p.m. Sundays and Bank Holidays, 11 a.m. till 1 p.m.

Depôts for the sale of milk for use for infants are situated at:—

251, Netherfield Road North.

47, Cazneau Street.

52, Earle Road.

37B, Park Road.

107, Boaler Street.

53A, Hornby Street.

and the milk is also supplied on special terms to a number of dairies in various parts of the city.

Formula used for Modification of Milk.

Age.	Quantity of Pure Milk for Twenty-four Hours.	Water.
	Ounces.	Ounces.
One to two weeks	$4\frac{1}{2}$	$9\frac{1}{2}$
Two to eight weeks	$13\frac{1}{2}$	$13\frac{1}{2}$
Two to three months	$18\frac{3}{4}$	$12\frac{1}{4}$
Three to five months	30	15
Five to seven months	35	14
Seven to eight months	$36\frac{1}{2}$	$12\frac{1}{2}$
Over eight months	$40\frac{3}{4}$	$10\frac{1}{4}$

A proportion of cream, $2\frac{1}{2}$ ounces of sugar, and $\frac{1}{8}$ ounce of salt, to be added to each gallon of mixture.

THE EARLE ROAD STERILIZED MILK DEPOT.

Expenditure and Income for Years 1901 to 1906.

	1901.	1902.	1903.	1904.	1905.	1906.
	£ 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
Rents	79 5 6	141 18 1	128 4 1	143 9 2	151 16 3	170 2 3
Rates and Taxes ..... Water Rent	20 13 4	46 15 6	65 9 0	55 19 5	63 19 11	64 17 8
Gas	39 10 4	100 17 7	79 16 6	66 16 4	84 0 11	67 11 5
Coal	3 12 0	18 6 10	30 8 7	33 2 4	31 4 11	27 6 6
Printing and Stationery	1 19 0	6 2 4	19 11 1	14 1 5	14 18 10	6 17 11
Advertising	...	...	...	...	13 9 4	...
Disbursements	7 3 6	12 18 9	12 13 6	14 1 6	21 7 6	34 16 8
Cleaning Premises, Windows, &c.	3 10 0	10 10 0	29 0 10	14 0 0	...	17 0 0
Travelling and Inspection Expenses.	2 16 2	...	27 12 4	...	...	...
Stores (Milk, &c.)	303 19 10	1,427 2 10	1,604 12 1	1,527 13 8	1,449 11 1	1,148 6 11
Telephone Rent	3 8 0	6 16 0	13 16 10	13 12 0	13 12 0	13 12 0
Furniture and Fittings	333 8 3	84 16 5	9 9 11	7 7 6	43 15 8	15 13 10
Machinery	215 18 1	673 14 1	120 0 10	42 11 5	6 5 10	9 2 1
Bottles, Stoppers, &c. ...	425 19 0	459 16 8	645 9 0	255 9 1	351 1 9	252 6 8
Building Repairs, Alterations, &c.	275 12 0	278 8 5	74 0 10	29 16 5	43 6 4	41 3 8
Horsing Vans, and Hire of Float.	5 12 0	179 16 0	267 13 3	300 6 11	238 3 5	242 7 3
Electric Light Installation.	...	27 16 7	10 5 9	...	...	...
Insurance	...	2 18 7	2 9 3	2 16 3	2 16 3	2 16 3
Medical Attendance—Scalding Case	...	...	25 0 0	10 6	...	...
	1,999 18 9	4,334 18 11	4,259 3 5	3,633 18 6	3,631 12 1	3,205 13 1
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

Observations by Professor P. Budin.

It may be well to refer to an interesting report recently presented to the French Academy of Medicine by Professor P. Budin, showing the result of observations upon a number of specially fed infants.

The observations extended over a period of two years, and dealt with 712 infants treated at the Clinique Tarnier, all of whom were born in the hospital.

As a result of carefully supplementing the mother's milk in cases of insufficiency, or giving sterilized humanised milk solely when the mother was absolutely unable to nurse the child, the mortality was reduced to 36·5 per thousand, as against 178 per thousand below twelve months of age in Paris generally.

In the cases dealt with at this Clinique Tarnier the infants were under constant medical supervision. They were periodically weighed, and were most closely and most carefully watched.

Particular attention was drawn to the fact that the mother's milk and the sterilized humanised cows' milk do not clash in any way, nor give rise to digestion trouble.

The almost universal practice in this country of consuming raw milk is not adopted on the continent, but the milk is usually boiled.

Analyst's Report on Samples of Infants' Patent Foods now on the Market.

No. 504 N. (Neave's)—Consists chiefly of wheat flour, baked, and partly rendered soluble.

No. 509 N. (Dr. Gordon's)—Is made from wheat flour, partly baked, and very imperfectly soluble.

No. 1,827 C. (Benger's)—Is made from wheat flour, digested by pancreatic extract, when the instructions on packages are carried out.

No. 1,828 (Mellin's)—Is made from wheat, and rendered entirely soluble.

No. 1,829 (Allenbury's)—Is made from wheat flour slightly baked, and rendered slightly soluble by malt, when the instructions on the package are carried out.

No. 1,830 (Dr. Ridge's)—Is flour very slightly baked, and not rendered soluble.

No. 1,831 (Angell's)—Is wheat flour with milk, rendered partly soluble.

No. 1,832 (Savory & Moore)—Is made from flour rendered partly soluble.

No. 1,833 C. (Hovis)—Is wheat flour rendered entirely soluble.

No. 1,254 S. (Barco)—Is simply barley flour not altered.

No. 1,266 (Frame)—Is cooked flour.

No. 1,267 S. (Nestle's Milk Food)—Is cooked flour with milk, and rendered half soluble.

No. 1,835 C. (Burnett's)—Is unbaked wheat flour.

No. 1,837 C. (Dr. Allinson's)—Is wheat flour very slightly baked.

No. 533 N. (Robinson's)—Is barley, with a little wheat, and not cooked.

No. 517 N. (Digestive Food)—Is wheat flour very slightly baked.

No. 534 N. (Nichol's)—Is a mixture of wheat flour and bran; not cooked.

No. 1,291 S. (Dr. Jenner's)—Is wheat flour, slightly cooked only, with a little malt.

No. 1,865 C. (Carnick's)—Is flour rendered half soluble with a little skim milk.

SALE OF FOOD AND DRUGS ACT.

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.

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 188).

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, but unfortunately these conclusions have no force beyond that of recommendation, as they have never been incorporated in any Act of Parliament.

Further references to milk analyses will be found on page 189.

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.

PROCEEDINGS UNDER THE FOOD AND DRUGS AND MARGARINE ACTS.

SAMPLES TAKEN FOR CHEMICAL ANALYSIS.

No. of Samples purchased.	Description of Samples.	Adulterated.	Informations.
11	Aerated Waters	1	...
9	Arrowroot	...	...
1	Almonds (Ground)	...	...
1	Ammoniated Tincture of Quinine..	1	1
7	Baking Powder	..	...
11	Barley...	...	...
1	Black Draught	...	...
1	Blanc Mange...	...	...
1	Beef, Potted	...	...
3	,, Dripping	...	...
1	,, Jelly	...	...
88	Beer	2	2
13	Beer, Bitter	...	...
1	Bismuth Lozenges	...	...
2	Bi-carbonate of Soda	...	...
3	Boracic Acid Powder	...	...
2	Boracic Ointment	...	...
16	Brandy	1	1
13	Bread	...	...
255	Butter...	11	4
1	Camphor	...	...
2	Camphorated Oil	...	...

SAMPLES TAKEN FOR CHEMICAL ANALYSIS—CONTINUED.

No. of Samples purchased.	Description of Samples.	Adulterated.	Informations.
3	Castor Oil	...	...
20	Cheese...	...	...
6	Chlorodyne Lozenges	...	...
3	Cinnamon (Ground)...	...	...
1	Citrate of Magnesia	...	...
1	Claret	...	...
18	Cocoa	...	...
5	Cod Liver Oil	...	...
43	Coffee	...	...
6	Coffee and Chicory	...	...
1	Compound Mixture of Senna ...	...	...
5	Compound Liquorice Powder ...	...	...
1	Compound Tincture of Cardomoms	...	...
2	Cornflour	...	...
21	Cream	3	1
12	Cream of Tartar	...	...
1	Currie Powder	...	...
1	Custard Powder	...	...
1	Egg Powder	...	...
1	Essence of Almonds	...	...
1	Extract of Coffee with Chicory ...	...	...
3	Fish (Tinned)	...	...
10	Flour	...	...
3	,, Self Raising	...	...
1	Fluid Extract of Liquorice ...	...	...
30	Fruit Wines	...	...
10	Gin	1	...
18	Ginger (Ground and Whole) ...	...	...

SAMPLES TAKEN FOR CHEMICAL ANALYSIS—CONTINUED.

No. of Samples purchased.	Description of Samples.	Adulterated.	Informations.
2	Glycerine	...	...
2	Gregory Powder	...	...
3	Honey...	...	...
9	Ice Cream	...	...
1	Infusion of Senna	...	...
1	Iodoform Ointment	...	...
23	Jams	1	1
29	Lard	1	...
2	Linseed Oil	...	...
3	Linseed, Liquorice and Chlorodyne Lozenges	...	...
1	Liquid Extract of Ergot	...	...
5	Mace (Ground)	...	...
1	Malt Extract...	...	...
17	Margarine	...	...
11	Marmalade	...	...
37	Meat (Tinned)	2	2
5	Medicine Prescriptions	2	2
901	Milk	143	93
7	,, (condensed)	...	...
17	Mixed Spice	2	2
4	Mustard	...	...
3	Nutmegs (ground and whole) ...	...	...
1	Oatmeal	...	...
5	Olive Oil	...	...
6	Pepper	...	...
2	,, (black)	...	...
10	,, (cayenne)	...	..
21	,, (white)	1	...

SAMPLES TAKEN FOR CHEMICAL ANALYSIS—CONTINUED.

No of Samples purchased.	Description of Samples.	Adulterated.	Informations.
1	Peppermint	...	...
2	Piccalilli	...	...
8	Pickles	...	...
13	Port Wine	...	..
2	Pork and Beans	2	..
17	Preserved Fruits	...	...
6	,, Peas	1	...
4	Rice	...	...
2	,, Ground...	...	...
19	Rum	1	1
2	Sausage	...	...
2	Seidlitz Powder	...	..
11	Sherry...	...	...
2	Shrimps	...	...
6	,, (Potted)	...	..
6	Spiced Milk	5	2
2	Sugar	...	...
1	,, Demerara	...	...
1	Sulphate of Quinine	...	...
3	Soups	...	...
1	Stout	...	...
1	Sweet Cake	...	...
50	Sweetmeats	...	...
6	Syrups (Golden)	...	...
2	Tapioca	...	...
13	Tartaric Acid...	...	...
42	Tea	...	...
1	Tincture of Iodine	1	...

SAMPLES TAKEN FOR CHEMICAL ANALYSIS—CONTINUED.

No. of Samples purchased.	Description of Samples.	Adulterated.	Informations.
1	Tincture of Rhubarb	...	...
1	Vaseline	...	...
8	Vinegar (Malt)	...	...
7	Whisky	1	...
24	,, (Irish)	*12	...
31	,, (Scotch)	*14	...
7	Yeast	...	...
Total 2105	1906	Total ... 208 Adulterated	112
2107	preceding year.	,, ... 203 preceding	year ... 91

*The adulteration in 25 samples consists of the samples having been blended with neutral spirit. No legal proceedings were taken pending the appeal case now under consideration. The remaining sample contained an excess of water.

	1905.	1906.
Number of Informations for Adulterated Food and Drugs ...	91	112
,, ,, for giving a False Warranty ...	2	3
,, ,, for selling milk with no name and address on can	1	—
,, ,, obstructing Inspector	—	1
,, ,, for refusing to sell	1	—
,, ,, for offences under Margarine Act ...	—	2
Total Number of Informations—Food and Drugs Acts ...	95	118
Number Fined	71	76
Acquitted or Withdrawn	24	42
Amount of Fines and Costs	£278 0 0	£244 19 6

Summary of Samples in which legal proceedings were instituted during the year 1906, together with result.

No. of Informations.	NATURE OF SAMPLES.	NATURE OF OFFENCES.	Result of Proceedings.			
			No. of Convictions.	No. withdrawn on payment of costs.	No. acquitted and withdrawn without costs.	Total Amount of Penalties and costs.
						£ s. d.
42	Milk	Deficient in cream	20	22	—	86 19 0
13	,,	Deficient in cream and watered	10	1	2	28 15 0
23	,,	Adulterated with water	20	1	2	53 15 0
2	,,	Deficient in cream and contained Borates	2	—	—	3 14 0
11	,,	Adulterated with Borates	9	2	—	21 19 6
2	,,	Adulterated with Coal-tar-dye	2	—	—	11 14 0
2	,,	For giving a false warranty	—	—	2	—
1	,,	Obstructing Inspector	1	—	—	5 6 6
4	Butter	Adulterated with foreign fat	3	1	—	11 11 0
1	Margarine	Exposed for sale without a label	1	—	—	1 17 0
1	,,	Selling without a proper label	1	—	—	1 9 6
1	Mixed Jam	Containing Fungus spores	—	1	—	0 15 0
1	Mixed Spice	Adulterated with spent ginger	—	—	1	—
1	,, ,,	,, ,, rice	—	—	1	—
1	,, ,,	For giving a false warranty	—	1	—	0 15 0
1	Cream	Containing Borates	—	1	—	0 15 0
2	Meats (Tinned)	,, a trace of lead	—	2	—	1 10 0
2	Medicine	Selling contrary to prescription	2	—	—	3 14 0
2	Beer	Containing $\frac{1}{200}$ of a grain of Arsenic	—	2	—	1 10 0
1	Brandy	,, patent still spirit	1	—	—	1 17 0
1	Jamaica Rum	Consisting of flavoured spirit	1	—	—	1 17 0
1	Ammoniated Tincture of Quinine.	Deficient in Quinine sulphate	1	—	—	2 17 0
2	Spiced Milk	Adulterated with water	2	—	—	2 9 0
118			76	34	8	£244 19 6

The following samples were submitted during 1906 for special examination :—

Nature of Sample	No. of Samples.	Nature of Sample.	No. of Samples.
Cake	1	Mist. Sennæ Co....	1
Compound Liquorice Powder ...	1	Pills	1
Cream of Tartar	1	Salmon (Tinned)...	1
Ham	1	Soda Water	1
Ham (Tinned)	3	Soothing Powder	1
Ham and Chicken (Tinned) ...	1	Sulphuric Acid	1
Liquid Soap	3	Urine	1
Milk	1	Water	2

In the case of the sample of Mist. Sennæ Co. an information was laid against the vendor and subsequently withdrawn on payment of costs, the defendants undertaking to use greater care to supply preparations in accordance with the terms of the British Pharmacopeia.

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 amount of penalties is due to the fact that a greater number of informations were withdrawn in the case of first offenders in relatively unimportant cases on payment of the costs, than in the previous year. The average amount imposed per case during the year is £3 4s. 5½d., against £3 18s. 3d. for the previous year.

DETAILS OF SAMPLES OF MILK OBTAINED FOR CHEMICAL ANALYSIS.

	1905.	1906.
Number of Samples purchased on Week-days in Town..	371	392
,, Informations	28	58
,, Samples taken at Railway Stations on Week-days...	139	174
,, Informations	8	3
,, Samples purchased on Sundays in Town ...	150	120
,, Informations	19	21
,, Samples taken at Railway Stations on Sundays	112	106
,, Informations	—	3
,, Samples taken at City Hospitals	87	87
,, Informations	—	6
,, Samples taken at Corporation Milk Depôts...	26	22
,, Informations	—	2

MARGARINE ACT.

	1905.	1906
Number of Visits to Wholesale Dealers in Margarine ...	893	1298
,, Visits to Shops	9674	11194
,, Informations	2	2
,, Fined	1	2
Amount of Fines and Costs ...	£1 19s. 6d.	£3 6s. 6d.

INVESTIGATION INTO METHODS OF CONTROL OF BUTTER SUPPLY.

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.

They met 17 times and received evidence from 49 witnesses. Upon the evidence thus received the following recommendations were made in a Report submitted to the House of Commons in July, 1906.

The recommendations are chiefly embodied in a Bill now before Parliament:—

Recommendations of the Select Committee on Butter.

1.—That Inspectors of the Board of Agriculture and Fisheries and the Department of Agriculture and Technical Instruction for Ireland should have power to enter any premises where they have reasonable grounds for believing that butter is made, blended, re-worked, treated by any process, adulterated, or stored.

2.—That premises where butter is blended, or re-worked, or treated by any process, or where abnormal butter is habitually produced, shall be registered with the local authority of the district as a butter factory.

3.—That no fat, other than butter fat, and no vegetable or other oils, nor any substance capable of being used as an adulterant of butter, should be brought into or stored or allowed to be in any registered butter factory.

4.—That no substance be added to butter whereby the percentage of moisture in the butter is increased.

5.—That the addition to butter, at any stage of the process of manufacture, of any fat not derived from milk, be expressly and directly prohibited.

6.—That margarine, when sold by retail, should be handed to the purchaser in a wrapper on which the word "Margarine" shall be printed in black solid capital letters, not less than ½in. square, and if more than one wrapper is applied to the margarine, the word "Margarine" shall be printed as above on the inner wrapper; that no fancy name or description shall be permitted which refers to butter or anything connected with the dairy industry; that the outside wrapper, as well as the inside wrapper, should contain nothing but the word "Margarine" in type as aforesaid; and if any fancy name is printed on any other wrapper, the word "Margarine" should be suffixed or affixed to the fancy name in letters of the same size, colour, and type as those in which the fancy name is printed.

7.—That no margarine made in any margarine factory shall, when the process of manufacture is complete, contain more than 16 per cent. of water, and no margarine shall be imported containing more than 16 per cent. of moisture.

8.—That premises where margarine is re-worked or submitted to any process shall be registered as margarine factories.

9.—That Sub-section 3 of Section 20 of the Sale of Food and Drugs Act, 1899, be amended so as to provide that a warranty or invoice given by a person resident outside the United Kingdom shall not be available as a defence to any proceedings under the Sale of Food and Drugs Acts.

10.—That penalties for the importation of adulterated butter should be proportionate to the magnitude of the consignment.

11.—That all practicable steps should be taken to bring about international agreements as to the prevention of adulteration.

12.—That Section 4 of the Sale of Food and Drugs Act, 1899, should be amended so as to give the Board of Agriculture and Fisheries, and the Department of Agriculture and Technical Instruction for Ireland power to fix standards for curd, and to give the Local Government Board power to fix standards for preservatives.

13.—That the Department of Agriculture and Technical Instruction for Ireland should have power to take proceedings under the Merchandise Marks Act.

14.—That nothing shall be sold under the name of butter which contains more than 16 per cent. of moisture.

15.—That substances other than butter (not being margarine) containing butter fat should be sold, with a limit of 24 per cent. of moisture, under a name approved by the Board of Agriculture and Fisheries, provided that such name should not be calculated to prejudice the sale of the article.

16.—That such substances when sold by retail should be delivered to the purchaser in a wrapper, approved by the Board of Agriculture and Fisheries, containing a description of the nature, substance, and quality of the article, and as far as possible under the same conditions as apply to the sale of margarine.

17.—That the provisions of the Margarine Act of 1887, as amended by the Sale of Food and Drugs Act, 1899, should apply to all such substances.

18.—Inspectors acting under the special direction of the local authority should have power to enter butter factories, to inspect any process, and to take samples.

19.—That butter having been treated by any process shall not be allowed to be replaced in the original packages.

Observations on the foregoing Recommendations.

Recommendations 1 to 5 and 10 to 19	Suggest new legislation, and to be administered by Government and local authorities.
Recommendations 6 and 9	Suggest amendment of Section 6 of the Margarine Act of 1887, and also of Sub-section 3 Section 20 of the Sale of Food and Drugs Act, 1899.
Recommendation 7	Strengthens the Regulations of April 2nd, 1902, relating to the Sale of Butter.
Recommendation 8	Appears to be supplementary to Section 9 of the Margarine Act of 1887, and Section 7 of the Sale of Food and Drugs Act, 1899.

Comment.

According to Recommendation 2, it is suggested that the following places be registered as Butter Factories, viz.:—

Where butter is blended.

Where butter is re-worked.

Where butter is treated.

Where abnormal butter is habitually produced.

It might be of interest to point out that places

Where butter is made, and

Where butter is stored,

are not required to be registered.

To a city such as Liverpool, the omission to register places where butter is stored is of material importance.

BACTERIOLOGICAL EXAMINATIONS AND ANALYSES.

The work of the Bacteriologist comprises:—

(*a*) Examination of food stuffs of various kinds.

(*b*) Regular examination of water supplied to the city.

(*c*) Examinations into suspected cases of rabies, anthrax, tuberculosis, &c.

(*d*) Examination for diagnostic purposes in suspected cases of diphtheria, typhoid fever, tubercular sputum, &c.

(*e*) Special investigations.

Every food-stuff and every sample of water is analysed for the presence of (1) *Bacillus coli*; (2) *Bacillus enteritidis sporogenes*.

Every sample of milk is, in addition, examined for the presence of the *Bacillus tuberculosis* by inoculation.

In every sample of water the number of bacteria present in the cubic centimetre is also noted.

To facilitate these operations special apparatus has been constructed in the laboratory, and many of the operations have been simplified by its use.

The total number of samples of food-stuffs taken for bacteriological examinations during the year 1906 was as follows:—

SUMMARY.

Sample.	No.	Sample.	No.
Beans, Baked	1	Meat, Tinned	67
Beef Suet	1	„ Potted	29
Butter	3	Milk	530
Cheese	8	Plum Pudding	1
Condensed Milk	34	Polony	7
Cream	20	Preserved Fruit	13
Fruit Butter	6	„ Ginger	2
Fish Paste	21	Sauces	8
„ Tinned	70	Sausage	10
Fluid Beef	8	Shell Fish	108
Gravy	1	Soda Water	1
Honey	2	Soups	3
Ice	1	Stout	1
Jams	25	Sterilized Milk	14
Jellies	15	Sweetmeat	2
Lard	2	Syrup	2
Lemon Cheese	7	Tomatoes, Tinned	7
Margarine	10	Water	6
Marmalade	6		
Meat Pies	23	Total	1,075

SUMMARY.

Foods	1,075
Waters	75
Typhoid	277
Diphtheria	250
Sputa	5
Rats	4,839
Miscellaneous (animal specimens)	76
Miscellaneous (hospital specimens)	6
	6,603

A very large number of bacteriological examinations were made of suspected Tubercular, Typhoid and Diphtheria cases for the medical practitioners of the district. The total number of such examinations made amounted to 1,519, in addition to the foregoing.

MILK ANALYSES FOR THE YEAR.

The total number of samples examined was 530. These were examined for the presence of—

1. The Bacillus tuberculosis.
2. The Bacillus coli communis.
3. The Bacillus enteritidis sporogenes.
4. Other bacteria.

The *Bacillus tuberculosis* indicates that the animal from which the milk was taken was 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.

The *Bacillus coli* indicates contamination with dirt, of an intestinal origin, or possibly that the cow was suffering from inflammation of the udder.

The *Bacillus enteritidis sporogenes* indicates dust or intestinal contamination.

Presence of the Tubercular Bacillus.

Of the 499 samples examined for tubercle, 66 guinea pigs died from septicæmia before the tubercular test was completed, leaving 433 samples for the completion of the investigation. *Of this number* 25 *proved tubercular*, 12 were *railway* borne, 3 *town*, 8 *hospital* (*railway* borne), and 2 were *depôt* samples (*railway* borne).

Detail Table showing particulars of Samples of Milk for 1906.

1906. Month.	Railway.			Town.			Hospital.			Sterilized Milk Depôt.			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	23	7	—	20	—	2	4	2	—	—	—	—	47	2	—	1	—	3	2	—	2	—	4
February ...	10	5	—	21	2	—	6	3	—	3	2	—	40	—	—	4	—	4	—	2	—	—	2
March	28	21	1	12	1	—	8	2	1	—	—	—	48	3	—	—	—	3	3	2	1	—	6
April.....	37	7	—	11	2	—	6	—	—	4	—	—	58	—	1	1	—	2	6	—	—	—	6
May	12	4	—	30	7	—	3	—	—	2	—	—	47	1	1	—	—	2	1	1	1	—	3
*June	7	6	—	—	—	—	11	6	—	—	—	—	18	—	—	—	—	—	1	—	6	—	7
July	11	7	—	3	2	—	2	2	—	—	—	—	16	—	—	—	—	—	—	2	1	—	3
August	20	11	—	30	11	—	12	10	—	—	—	—	62	—	—	—	—	—	13	3	4	—	20
September...	20	15	—	21	7	—	3	2	—	6	1	1	50	1	1	—	1	3	4	—	—	1	5
October	10	8	—	20	—	—	7	3	—	—	—	—	37	—	—	1	—	1	—	1	1	—	2
November ...	21	19	1	11	9	—	7	4	1	5	4	1	44	3	—	1	1	5	2	—	3	—	5
December ...	16	12	4	10	1	—	6	6	1	—	—	—	32	2	—	—	—	2	1	—	2	—	3
Total.....	215	122	6	189	42	2	75	40	3	20	7	2	499	12	3	8	2	25	33	11	21	1	66

*During the month of June numerous experiments were made with 31 samples of milk (20 town and 11 railway borne), with a view of ascertaining the "freshness" of town milk against that brought in by the railway. These are not included in the above table.

The greater frequency of tubercle in railway borne milk has been noted in previous years. The percentage this year is 6·8 per cent., as compared with 1·4 per cent. in town milk. It is a very serious matter that tubercle is so wide-spread 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 to deal with infected animals cannot be too stringent.

Presence of the Bacillus Enteritidis Sporogenes and the Bacillus Coli.

The Bacillus enteritidis sporogenes was found 11 times in a total of 310 railway borne samples of milk, and twice in a total of 189 samples of town milk.

The Bacillus coli was present 169 times in 310 railway borne milk, and 42 times in a total of 189 town milk.

This is an exceedingly interesting and important result, for it shows that less care is taken in handling the country milk, and therefore that contamination much more frequently occurs.

With regard to the relationship of the Bacillus coli to the Bacillus enteritidis sporogenes, it has been found that very frequently the 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 the Bacillus enteritidis sporogenes was of recent intestinal origin.

Table showing the number of samples of milk examined Bacteriologically for Tubercle Bacilli from 1896, to 31st December, 1906.

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
Totals.....	4,697	1,972	33	2,725	179

RESULTS OF ANALYSES OF BUTTER, CREAM, CONDENSED MILK, CHEESE, TINNED FISH, SHELLFISH, &c.

Butter.—Three samples were submitted for analysis. B. coli communis and B. enteritidis sporogenes were absent in each of the samples.

Cream.—Twenty samples of cream were analysed. B. enteritidis sporogenes was absent in all cases, and B. coli communis was present in eight of the samples. One of the samples was tinned, and was found to be sterile.

Condensed Milk.—Thirty-four samples were examined, and in all cases were found to be not sterile. There is no doubt that condensed milk is a most unsatisfactory product. Bacteria are usually present, and the milk which was originally condensed might 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. Fourteen samples contained staphylococci; a number also contained yeast cells.

Cheese.—Eight samples were examined. B. coli was present in five, B. enteritidis sporogenes being absent in all.

Tinned Foods.—A large number of tinned foods, including fish, were examined during the year; they invariably proved to be free from living bacteria. Some of the potted meats and fish not only were not sterile, but in a few cases there was evidence of contamination.

Shell Fish.—Thirty-four samples of mussels were examined. Evidence of pollution was present in most of the samples. B. enteritidis (Gærtner) was found in one sample, B. enteritidis sporogenes was present in five samples.

Oysters: Thirty-three samples of oysters were examined. Evidence of contamination was absent, with the exception of four samples; B. coli and B. enteritidis (Gærtner) were present in two samples; B. enteritidis sporogenes was also present in two samples.

Cockles: Twenty-five samples were examined. B. coli was present in six samples, but not in excess; B. enteritidis sporogenes was present in 19 samples.

Periwinkles: Sixteen samples were examined. B. coli was present in four samples; B. enteritidis sporogenes present in eight.

Meat Pies.—During the year 23 meat pies were examined, B. coli and B. enteritidis sporogenes being absent in all cases.

The total number of foodstuffs examined bacteriologically up to 1906 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

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, stables, dwellings, &c. This has been done because of the well known fact that rats suffer from plague, and that they very probably 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	1,860
Port	2,979
Total	4,839

In no case was any rat found to be infected.

The total number of Special Examinations made during the year was—

Rabies	2
Anthrax	39
Tubercle	14
Actinomycosis	4
Chronic Mastitis	4
Miscellaneous	8
Tinned Meats	5
Total	76

RABIES.

Neither of the dogs examined were suffering from Rabies.

ANTHRAX.

The following specimens were examined for Anthrax:—

Nature of Specimen.	Total Number.	B. Anthracis.	
		Present in.	Absent in.
Treacle	1	—	1
Cake	3	—	3
Ox Hide	2	—	2
Hay	3	—	3
Meal	8	—	8
Spleen	6	5	1
Dust	3	—	3
Wool	7	—	7
Hair	3	—	3
Feathers	1	—	1
Grass	1	—	1
Sack	1	—	1
Total	39	5	34

The following specimens were examined for Actinomycosis:—

Nature of Specimen.	Total No.	Result of Examination.
Udder	3	Actinomycosis.
Pork	1	Not ,,

The following miscellaneous samples have been examined:—

Nature of Specimen.	Result of Examination.
Pork	Sarcoma.
Lamb	Greyish type of fungus growth.
Veal	Diffuse Melanosis.
Liver Sausage	No evidence of putrefaction.
Cow's Brain	No evidence of Meningitis.
Gland	Inflammatory. No positive evidence of Tubercle.
Ox Cheek	Fibro-mastitis.
Horse Lung	No evidence of Glander structure. No result upon inoculation in male Guinea-pig.

The following were examined for Tuberculosis and Mastitis:—

TUBERCLE.

Nature of Specimen.	Total No.	Result of Examination.
Udder	13	Tubercular.
Spleen	1	Tubercular.

MASTITIS.

Nature of Specimen.	Total No.	Result of Examination.
Udder	4	Chronic Mastitis,

City Hospitals.

During the year 1906 the Fever Hospitals have availed themselves of the facilities of the Municipal Bacteriological Department, and specimens have been submitted for examination.

The following is a summary of the results:—

Cases of Diphtheria	250
,, Typhoid	277
,, Tubercle	5
Miscellaneous	6
Total	538

DIPHTHERIA.

Positive	29	
Negative	43	
Suspicious	9	
No growth	18	
Cocci	10	
Staphylococci	62	
Streptococci	79	
		250

TYPHOID.

Positive Reaction	113	
Negative Reaction	131	
Indefinite Reaction	7	
		251

SPUTA.

Tubercle Bacilli present in	2	
,, ,, ,, ...	2	
Suspicious	1	
		5

and six miscellaneous samples for the examination of Malaria, &c.

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 1906. The samples analysed have been divided into daily and monthly.

DAILY ANALYSES.

The samples were taken from the tap in Ashton Hall, and on a few occasions from the "main" tap of the Johnston Laboratories, the average number of bacteria present per c.c. being 22 and 19 respectively. B. coli communis and B. enteritidis sporogenes being absent in all samples.

The samples were taken with the usual strict precautions, and were plated within a few minutes after being collected. The results are highly satisfactory, and show that the water as delivered finally to the householder maintains a very high degree of purity.

MONTHLY ANALYSES.

A.—Prescot Samples of Filtered Water.

	Average No. of Bacteria.	No. of Examinations made.
Vyrnwy Water...	12	12
Rivington Water	22	12
Mixing Well	31	12
New Reservoir...	25	12

Here the results, as one would expect, correspond to the figures obtained from the daily analyses of the water as distributed to the householder. There is no contamination at Prescot.

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. During 1906 no opportunity offered of going down and taking samples from the various

fissures in the headings, but from analyses of the water as delivered at the surface the quality remains very good. No indication of contamination has been observed.

	Average No. of Bacteria, per c.c.	No. of Examinations made.
Dudlow Lane Well	25	9
George Holt Well, Green Lane	42	9
John Holmes Well ,, ...	55	6
Windsor Well	68	3

Bacillus coli communis and Bacillus enteritidis sporogenes were not found in any of the samples.

Methods of Analyses.—As in previous years, the same standard has been maintained, namely, one cubic centimetre of water is examined for the total number of bacteria and for the Bacillus coli communis. For the estimation of the total number of bacteria, gelatine plates are made, and the incubation is carried on at 20° C. The plates are first counted 72 hours after being poured, and then again after 96 hours. To ascertain the presence or absence of Bacillus coli communis, one cubic centimetre to be analysed is mixed with Bile Salt Lactose Neutral Red Agar and with Bile Salt Glucose Broth. For the further investigation of Bacillus coli numerous secondary tests are employed, and their reaction on the following sugars is systematically tested on every occasion:—Lactose, Glucose, Mannite, Saccharose, and Milk.

PROPOSALS IN REGARD TO ADDITIONAL PARLIAMENTARY POWERS.

Although it was decided by the Parliamentary Committee that no application should be made to Parliament during the ensuing session, the following matters were, *inter alia*, under the consideration of the Health Committee, and received their approval, so that on the next occasion when a Bill is promoted, clauses relating to these subjects will be inserted. It may be remarked in regard to two of them that there are probabilities of general legislation applicable to the whole country being brought forward, in which case, of course, no necessity would arise for Liverpool to take exceptional action. The two matters are, the earlier notification of births, and the provision of powers to inspect food brought into the Port. This latter Bill has been brought forward by the President of the Local Government Board.

Cleansing of Persons and School Children.

1. Powers to deal with the cleansing of persons and the cleansing of children, and to deal with the person and clothing of any child attending school in a verminous or filthy condition, and to deal with the parents or guardians through whose neglect the condition arises.

[NOTE.—To a certain extent this condition can be dealt with under the Prevention of Cruelty to Children Act, but evidences of neglect amounting to cruelty would be required in order to sustain a prosecution.]

Noises.

2. Powers to deal with nuisances, proved to the satisfaction of the Court to be injurious to health, caused by noises.

Rag and Bone Stores.

3. Powers to require the registration or licensing of all rag and bone stores, other than marine stores.

Cellar Dwellings.

4. Powers to prevent the occupation of cellar dwellings after the lapse of four years, and upon payment of certain compensation.

Sale of Milk.

5. Powers to render it an offence for any person to sell milk by retail unless he has suitable premises in which the milk can be stored, and to render the hawking of milk in back passages an offence.

Food and Drugs Act.

6. Powers to extend the provisions of the Food and Drugs Act so as to authorise the inspection of all food stuffs deposited, stored, or in preparation for sale, and to sanitate premises in which such operations are carried on, and to require the Registration and Licensing of premises where potted or preserved foods are prepared.

Gipsies.

7. Powers to deal with gipsies and other persons occupying waste ground, whose presence causes a nuisance to the neighbourhood.

Earlier Notification of Births.

8. Powers to ensure an earlier notification of Births to the Medical Officer of Health.

Resolution of the Health Committee, dated 4th October, 1906:—

That the Parliamentary Committee be requested to include in their next application to Parliament powers to enable the Corporation to deal with the following matters, viz.:—

(1) Nuisances proved to be injurious to health, caused by noises.

(2) To require the registration or licensing of all rag and bone stores, other than marine stores.

(3) To prevent the occupation of cellar dwellings after the lapse of four years, and upon payment of certain compensation.

(4) To render it an offence for any person to retail the sale of milk unless he has suitable premises in which the milk can be stored, and to render the hawking of milk in back passages an offence.

(5) To extend the provisions of the Sale of Food and Drugs Acts so as to authorise the inspection of all food stuffs deposited, stored, or in preparation for sale, and to sanitate premises in which such operations are carried on.

(6) To deal with gipsies and other persons occupying waste ground, whose presence causes a nuisance to the neighbourhood.

(7) To ensure an earlier notification of births to the Medical Officer of Health.

(8) To enable the Corporation to enforce the responsibility of parents and guardians with regard to the cleanliness of their children, with power to punish by fine or imprisonment persons failing to carry out these requirements.

CLEANSING AND SCAVENGING.

CLEANSING AND SCAVENGING.

The extension of the practice of washing streets, courts, back passages, &c., and the improvement in scavenging, prove markedly beneficial. During the hot weather of last year, the extended street washing was continued; 362 streets were washed once a week, 86 streets twice a week, 88 streets three times a week, 143 streets periodically, and all passages and tunnel entrances to courts are also regularly washed.

Owing to the difficulties arising from bad planning of many of the streets of smaller houses, and the absence of adequate back passages, many obstacles have yet to be overcome before the collection and removal of domestic refuse can be regarded as satisfactory; but the concession made by the Health Committee when they decided to give facilities for the substitution of sanitary ashbins for the old insanitary ashpits has been a distinct sanitary improvement, as down to the end of 1906, 17,785 Improved Sanitary Ashbins have been fixed in properties assessed at £10 per year and under, and 19,073 in premises assessed at over £10 per year. The number of brick ashpits in the city has been reduced from 65,000 to 47,000 approximately. The bye-laws which apply to newly-constructed houses will avert any extension of the mischief resulting from defective ashpits.

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 now limited to the removal of domestic and office refuse from the neighbourhood of the Exchange, where it would be impracticable to perform the work during the business hours of the day.

In the year 1900 an Improved Ashbin for fixing in Streets was introduced, and 2,385 of these Bins had been fixed up to the 31st December, 1906.

Notices Received.	Total Number of Collections from Ashpits, etc.	Total Number of Loads of Ashes, etc., Collected.	Depot at which Refuse was Deposited.	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.	
			Chisenhale Street.							Cart Loads.
291	1,922	1,344	1,344	2·98	1·0	·99	·99	1·48	4·46	·69

TABLE No. 2.

SERVICE FOR THE COLLECTION AND REMOVAL OF DRY ASHPIT ASHES.

It will be observed that the number of notices received to empty ashpits is only ·33 per cent. of the total collections. The number of brick ashpits within the Old City and Added Areas is approximately 47,000. From the year 1898 to the 31st December, 1906, 36,858 Sanitary Ashbins have been placed in properties (over £10 assessment 19,073), (£10 assessment and under 17,785). In premises, unsuitable for fixture bins, 12,000 loose bins have been provided. During this period the number of brick ashpits has been reduced from approximately, 65,000 to 47,000. Each ashpit in the City (day and night service) was emptied on the average during the twelve months 9·71 times. From the existing 47,000 pits a total of 78,868 loads were removed, or from each pit at one time of emptying ·17 of a load.

Notices Received.	Total Number of Collections from Ashpits.	Loads of Dry Ashes.									Average Daily Working Staff.			Analysis of Work.		Average quantity removed from each Ashpit at each Collection Loads.
		Total Number of Loads Removed.	Depots at which Refuse was Deposited.								Ashpit Men.	Carts and Wagons.	Horses.	Loads per Man per day.	Loads per Cart per Day.	
			Chisenhale Street.	Rathbone Road Destructor.	Smithdown Road Destructor.	St. Domingo Destructor.	Lavrock Bank Destructor.	Garston Destructor.	Sandhills.	Various Tips, &c.						
1,522	454,833	77,524	8,615	9,870	8,130	14,872	16,827	3,032	2,730	13,448	142·57	40·04	35·38	1·78	6·34	·17

TABLE No. 3

SERVICE FOR THE COLLECTION AND REMOVAL OF BELL-CART ASHES.

The Bell-cart service provides for the daily removal of domestic refuse from shops, business premises, and dwelling-houses where no permanent receptacles exist for the storage of this description of refuse. This service has to be conducted within certain limited hours of the morning to suit the convenience of occupiers, and the exigencies of business.

Total Quantity of "Bell-Cart" Ashes Collected.	Depôts at which Refuse was Deposited.								Average Number of Carts Employed per day.	Average Quantity of Refuse Collected per day.
	Chisenhale Street.	Sandhills.	Rathbone Road Destructor.	Garston Destructor.	Smithdown Road Destructor.	Lavrock Bank Destructor.	St. Domingo Destructor.	Various Tips, &c.		
Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	No.	Loads.
34,254	19,324	1,160	2,092	1,089	2,878	3,967	3,124	620	64·99	109·78

TABLE No. 4.

SERVICE FOR FLUSHING AND CLEANSING TROUGH WATER-CLOSETS, &c.

The frequent flushing of trough water-closets is essentially a sanitary measure, this form of closet being provided principally in the more densely-populated portions of the City.

A large number of the public urinals and trough water-closets are cleansed and disinfected twice daily in the Summer months, 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.	No. and Stalls.	No.	No.	No.
27—220	153—460	1,285	28·68	17·87

TABLE No. 5.

SERVICE FOR THE CLEANSING OF STREETS, COURTS, AND PASSAGES, AND THE COLLECTION OF REFUSE THEREFROM.

Total Quantity of Refuse Removed.	Depôts at which Refuse was Deposited.					Average Daily Staff.				Average Number of Loads Removed Daily per Cart.
	Chisenhale Street.	Sandhills.	Wavertree.	Destructors.	Various Tips.	Sweeping Machines per day.	Average Number of Men Employed per day.	Carts.	Horses.	
Loads.	Loads.	Loads.	Loads.	Loads.	Loads.					
72,334	32,988	4,938	5,547	8,489	20,372	5·87	517	64·26	70·13	3·60

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.		Lavrock Bank Destructor.		Tips.			
			Saleable Refuse.	Unsaleable Refuse.	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.	Loads.	Loads.	No.	No.
2,051	1,511	3,562	1,570	996	429	414	52	—	—	—	—	101	247	37·70

TABLE No. 7.

SERVICE FOR STREET WATERING.

In connection with Street Watering approximately 47 million gallons of Water were distributed during the season, in addition to which a large quantity was used for street washing under certain conditions of weather.

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. Day.	Small Loads. Day.	Watermen.	Carts and Horses.	
167	153,318	25,384	29·39	29·07	31·58

In addition to the figures in above table 7,061 loads of water were distributed on the drives of Newsham and Sefton Parks.

TABLE No. 8.

REMOVAL OF GARBAGE FROM ABATTOIR.

Loads Removed during year.	Where Deposited.		
	Chisenhale Street.	Sandhills.	Collingwood Dock.
1,077	1,077	—	—

TABLE No. 9.

RETURN OF HORSE MANURE COLLECTED FROM FIRE STATIONS AND CORPORATION STABLES, AND DELIVERIES TO CHISENHALE STREET DEPÓT.

Total Quantity dealt with during the year.	DEPÓTS AT WHICH MANURE WAS DEPOSITED.		
	Chisenhale Street.	Sandhills.	Wavertree.
Loads.	Loads.	Loads.	Loads.
1,791	1,277	256	258

Of the above loads 627 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 in Tons.	Average Daily Staff.	
	Street Sweepings	Mixture.	Ordinary Refuse to Farmers.	Total.	Sea.	Destructors.	Tips.	Total.		Foreman.	Labourers
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.			
Chisenhale St., by Flats...	4,143	9,600	36,373	50,116	...	...	...	...	50,116	1	22
Sandhills by Rail ...	...	356	8,148	8,504	...	...	...	...	8,504		2
Wavertree do. ...	7,731	...	...	7,731	...	...	...	...	7,731	...	2
Chisenhale Street and Sandhills, *viâ* Collingwood Dock per Hopper Barges	...	...	...	...	28,456	...	...	28,456	28,456	...	...
Clinker per "Beta"	...	...	...	...	12,660	...	...	12,660	12,660	...	2
Charters Street Destructor.	...	...	...	...	...	61,410					
Rathbone Road ,, ...	...	...	...	...	...	15,596					
Smithdown Road ,, ...	...	...	...	...	...	15,093					
St. Domingo ,, ...	...	...	...	...	...	34,908	...	166,212	166,212	...	...
Garston ,, ...	...	...	...	...	...	7,227					
Lavrock Bank ,, ...	...	...	...	...	...	31,978					
Sundry Tips.....	...	...	1,682	1,682	...	...	43,989	43,989	45,671	...	6
Clinker to Tips	...	...	...	...	...	...	19,054	19,054	19,054		
	11,874	9,956	46,203	68,033	41,116	166,212	63,043	270,371	338,404	1	34

The foregoing Table shows that not less than 338,404 tons of Town's refuse have been disposed of, and this large total 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.	Dry Ashes.	Bell Ashes.	Street Cleansing.	Sweeping Machines.	Markets.	Watering.	Abattoir.	Canals.	Destructors.	Various.	Total Daily Average.
·99	34·70	65·19	65·01	5·44	1·23	16·35	1·45	2·25	6·63	2·69	201·93

TABLE No. 12.

AVERAGE DAILY STAFF OF MEN EMPLOYED.

General.	Inspectors.		6·
	Timekeepers.		7·
	Clerks.		4·
	Total.		17·
Night Service.	Working Foreman.		1
	Middlen Men.		2·98
	Wharf Man.		1·
	Total.		4·98
Day Service.	Inspectors.		22·
	Watchmen.		7·
	Watermen.		15·16
	Sweepers and Casual Men.		268·79
	Cart Followers (Sweepings and Bell and Box Ashes).		116·45
	Passage Men.		51·
	Washing.		20·32
	Gully Men.		9·40
	Washing Courts.		3·3
	Trough Water Closet and Urinal Men.		46·55
	Orderly Boys.		67·
	Ash Men.		142·57
	Boat Men.		10·
	Hopper Barge Crew.		13·
	Total.		792·27
Wharves, Depôts, &c.	Chisenhale St. and Sandhills.	Foreman.	1·
		Labourers.	24·
	Waverтree.	Labourers.	2·
	Various Tips.	Labourers.	9·
	Collingwood Dock.	Labourers.	2·
	Total.		35·
Grand Total.			849·25

INSANITARY PROPERTY.

INSANITARY PROPERTY.

The Housing of the Working Classes.

For many years, either at the cost of the municipality or by commercial expansion, the City has been slowly ridding itself of dwelling-houses which had been constructed and planned in every way inimical to health, and favourable to demoralisation and disease. The mischief began at a very early date and increased during the phenomenal development of the first half of last century, when no knowledge of sanitary science, no public opinion, and no Parliamentary powers were available to stop it.

The following passage in the History of Liverpool, by the Rev. William Enfield, published in 1773, strikes the keynote of the situation:—"The first observation which a stranger makes upon his arrival in Liverpool is generally that the streets are much too narrow, either for convenience or health." This, the writer says, is owing to the want of a regular plan of building, so that each builder builds in whatever place and form best suits his purpose.

He also adds, as the result of inquiries, that in comparing Liverpool with other towns the inhabitants of Liverpool, now upwards of 30,000, live more closely crowded together than in most other towns.

One of the earliest of Liverpool's medical writers, a Dr. Moss, in a Medical Survey of Liverpool, which he addressed to the inhabitants at large in 1784, whilst alluding with satisfaction to the increasing commerce of the town, calls attention very pointedly to difficulties which may arise on account of the manner in which the buildings of the City were developing. He also states that the houses are much too crowded

together and complains of the narrowness of the streets which were being laid out, and suggests that the expense of widening some of the congested streets and removing obstacles to the free circulation of air would be met by the increased value of the new fronts on the improved streets when sold.

There is, unhappily, no reason to think that Dr. Moss' advice to the inhabitants at large had any effect.

The structural evils of the City accumulated without check until 1842. Every green space or backyard of the districts occupied by the labouring classes had houses put upon it, whilst the court-houses erected for the labourers were, owing to the high value of land in these districts, the desire on the part of builders and landlords to secure the most profitable investment for their money, and the total ignorance or neglect of hygienic principles, constructed with absolute inattention to the most elementary needs.

The natural consequences followed; the Report of the Royal Commission which sat in 1841-2 to inquire into the state of large towns and populous places, left little doubt that at that time, with a population of 250,000, Liverpool had a heavier burden to bear, greater difficulties to contend against, and a more complex housing problem to solve than any other great city.

In 1842, and again in 1846, Acts of Parliament were obtained designed to meet the hideous conditions of the times. The latter Act, called "An Act for the Promotion of the Health of the Inhabitants of the Borough of Liverpool, and the better regulation of Buildings in the said Borough," and one of its important sections dealt with the closure of cellars; but it was not until 1854, that a real check was put upon the construction of courts of the most vicious description. In the meantime two things had occurred; one was that this legislation had been anticipated by builders, who seized the opportunity to erect thousands

more of the worst type of court houses; the other matter, equally calamitous, was the failure of the potato crop in Ireland, which had the effect of bringing many thousands of destitute persons to Liverpool, some 80,000 of whom were claimants to the worst class of cellars and courts.

Legislation of 1854 had checked the construction of any more of this class of house, but the difficulty to be overcome was that involved in removing the burden of insanitary property which had been laid upon the City.

The Liverpool Sanitary Amendment Act of 1864 was designed mainly to deal with past mischief, and the great bulk of the work of demolition, so far as effected by the Corporation, had been carried out under this Act.

The Act requires the Medical Officer of Health to report upon houses in courts and alleys, and upon premises unfit for human habitation, injurious, dangerous, and prejudicial to health, and empowers the Council to take such steps as would lead to the demolition of these properties; it empowered the Corporation to acquire the land only if the owners were willing to sell. It will be seen, therefore, that these powers, while facilitating demolition, left the possibility of obstacles being placed in the way of reconstruction of the area by the retention by a single owner of essential parts of the area; but this defect in the Local Act has not, as a matter of experience, interfered greatly with progress; much good has been done under this Act in not only removing insanitary areas, but the sites of those areas, with certain minor exceptions, presently to be referred to, have been purchased, and wholesome cottages of a suitable description erected on them. One of the best, to which reference can be made, is that known as the Adlington Street Area, which was not finally dealt with until 1902, but which had, under the same Act, been improved so long ago as 1866, at which time the needs of the area were very great indeed. This group of streets had always figured as a fever district, and was also conspicuous in every epidemic.

There have altogether been eighteen Presentments of insanitary areas under the Act of 1864. At the time of the passing of the Act, there appear to have been 22,000 houses coming within the definition of "structurally insanitary," *i.e.*, without through ventilation, situated in narrow courts, and without suitable sanitary offices. In 1883 it appears that something like 15,000 structurally insanitary houses remained. This is without reference to the large number of cellar dwellings.

In November of 1883 a Special Committee called the Insanitary Property Committee, under the Presidency of Sir A. B. Forwood, was appointed to deal with the subject, which hitherto had formed part of the duties of the Health Committee.

A forecast made by Sir Arthur Forwood at the time of the cost of dealing with the whole of that property, including the cost of land and buildings, was £750,000, and that to provide accommodation for some two-thirds of those dispossessed, whom it would be necessary to provide for, would be another £660,000, making a total of £1,410,000.

The return in rentals, he estimated, would leave a loss to the Corporation of not more than a fraction over 1d. in the £ on the rates, a loss which he pointed out would be more apparent than real, for the gain to the town in health would mean reduced poverty, diminished drunkenness and better labour.

It may be convenient to mention here that since 1864 the important agency of commercial enterprise has largely helped in the removal of insanitary property. Premises needed for railway, warehouse and industrial companies, for offices and other businesses have led to the removal of from 40 to 50 per cent. of the insanitary dwellings which have disappeared, the balance having been dealt with by the Corporation.

The re-housing of the dispossessed was largely accomplished by private enterprise for a considerable time, the better class of artisan or labourer vacating dwellings which were in turn taken by those whose means or aspirations were more modest.

In 1900 the name of the Insanitary Property Committee was changed to that of Housing Committee with a view to give greater emphasis to the need to rebuild as well as to pull down, since private enterprise was at this time apparently unable to provide the necessary dwellings in the necessary parts of the City at a low enough rental, and the demands upon the ratepayer were increasing.

The Housing of the Working Classes Act of 1890 affords many advantages which the Local Act did not possess. It enables a whole area to be taken compulsorily, whether all the buildings on it are insanitary or not. The area can be compulsorily purchased, cleared of every building upon it, and used for the purpose of erecting dwellings suitable for the artizan or labouring classes. Under this Act nine schemes have been prepared for submission to the City Council, and two have been given full effect to.

However, in operating under both the Liverpool Acts and the Housing of the Working Classes Acts, certain buildings have unfortunately been allowed to remain, owing to the enormous cost in acquiring them. These are the premises licensed for the sale of intoxicating drinks. In one instance at least, they have been so numerous upon the area that the Committee have hesitated to proceed to deal with it at all. This was the case in what was known as the Bevington Street Area.

It is under this general Act that most of the recent re-housing has been accomplished. At the present time the Corporation have in their possession 2,386 dwellings, comprising 5,917 rooms. The rental of the houses varies from 1s. 9d. to 5s. 6d. per week, in accordance with the amount of accommodation and the situation of the house.

Detailed Reports upon these matters have already been in the hands of the Council, and for that reason no further reference to that part of the subject is needed.

With regard to the financial position of these dwellings, the Report for last year shows a receipt for rents of £16,600, and an outlay for upkeep, painting, repairs, wages of attendants, &c., of £7,800, showing a net profit for the year of receipts over outlay of about £9,000. This amount goes towards diminishing the debt, paying interest and sinking fund upon the buildings.. But the cost of compensation and demolition must be added to this. The total impost upon the rates now amounts to nearly 2½d. in the £.

Since the passing of the 1864 Act there has been expended, including liabilities actually incurred in pending cases approved by the Council, for the demolition of insanitary property the sum of ... £415,686

For the erection of dwellings and the acquisition of sites under the Housing of the Working Classes Acts the sum of 503,398

Making a total of... ... £919,084

of which no less than a sum of £495,043 has been so expended since 1895. This does not include the further unascertained cost of dealing with the Brassey and Burlington Street Areas under schemes already approved of by the City Council.

To this must be added the five areas reported by the Medical Officer of Health on 16th November, 1906. The estimated cost of these is about £275,000, and interest and sinking fund repayable in 80 years as regards land, 60 years as regards buildings.

There are provisions in the Housing of the Working Classes Act for dealing with isolated groups of houses upon sites unsuitable for building. These houses may be closed and demolished unless they can be rendered fit for human habitation.

There is now an exceedingly important matter to be referred to. These Corporation dwellings are not let to any applicant. They are reserved exclusively, and very wisely, for those who have been dispossessed by the action of the Corporation, either by the demolition of their houses, by proceedings taken against them on account of breaches of the laws relating to overcrowding in an otherwise sanitary dwelling, or by the closure of an illegal cellar dwelling. Either of these conditions qualifies for admission to a Corporation house, and the only remaining conditions are that the tenant pays his rent and remains sober. A great many of the dispossessed choose to go elsewhere, finding another locality more convenient for them.

On the other hand a great many who have not been dispossessed make application for dwellings, but are refused; some even seek to qualify for a house by deliberately overcrowding, or by deliberately going into an illegal cellar, in the hope that they may be peremptorily ejected by the Health Department, and so obtain a house.

The policy of the Corporation of limiting the tenancies to the bona-fide dispossessed tenants, and the low rentals, results in some temporary financial loss; at the close of the year 1906 something like 100 houses are empty, awaiting tenants. These houses are held in reserve against the next move in the direction of demolition, which is now pending.

The following is the procedure under the Housing of the Working Classes Act, 1890, during 1906:—

BURLINGTON STREET AND BRASSEY STREET—
UNHEALTHY AREAS.

Official Representation of the Medical Officer of Health.

To the Urban Sanitary Authority
of the City of Liverpool.

I, Edward William Hope, Medical Officer of Health for the City of Liverpool, do hereby represent that in my opinion, within certain areas in the district of the Urban Sanitary Authority of the City of Liverpool,

described in the Schedule hereto, there are (*a*) certain houses, courts, and alleys, which are unfit for human habitation, and that (*b*) the narrowness, closeness and bad arrangements and bad condition of the streets and houses, and groups of houses, within such areas, and the want of light, air, ventilation, and proper conveniences, and other sanitary defects, or one or more of such causes are dangerous or injurious to the health of the inhabitants, either of the buildings in the said areas, or of the neighbouring buildings, and that the evils connected with such houses, courts, and alleys, and the sanitary defects in such areas, cannot be effectually remedied otherwise than by an Improvement Scheme for the re-arrangement and re-construction of the streets and houses within such areas, or of some of such streets and houses.

(Signed)

Medical Officer of Health for the City of Liverpool.

Liverpool, 28th September, 1906.

LIVERPOOL (Burlington Street and Brassey Street) IMPROVEMENT SCHEME FOR THE ENSUING YEAR.

SCHEME made by the Lord Mayor, Aldermen, and Citizens of the City of Liverpool, acting by the Council as the Local Authority under Part1 of the Housing of the Working Classes Act, 1890, for the improvement of certain unhealthy areas within the City of Liverpool.

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1. This scheme may be cited as the Liverpool (Burlington Street and Brassey Street) Improvement Scheme, 1907.

2. In this scheme the "City" means the County Borough of Liverpool, the "Corporation" means the Lord Mayor, Aldermen, and Citizens of the City, the "Town Clerk" and the "Surveyor" mean respectively the Town Clerk and Corporation Surveyor of the City for the time being, and the plans referred to as plans A and B mean the plans which accompany this scheme.

3. The unhealthy areas included in this scheme comprise:—Burlington Street, area 8,417 square yards or thereabouts, and Brassey Street,

area 1,900 square yards or thereabouts, total 10,317 square yards, and are as follows:—

1.—BURLINGTON STREET AREA.

An area on the North side of Burlington Street beginning with and including the premises No. 64, Limekiln Lane, which is at the corner of Burlington Street and Limekiln Lane, and thence running northwardly along the East side of Limekiln Lane to Mile End, thence running eastwardly along Mile End to and including the premises No. 12, Mile End, and thence across Mile End to the back of No. 1, Pennington Place, and thence running northwardly along the backs of Nos. 1 to 15, inclusive (odd numbers), Pennington Place, thence turning and running eastwardly in a bevelling line to and including the premises No. 33, Mile End, thence turning and running southwardly along the easterly boundary of No. 33, Mile End to Mile End, and thence across Mile End to and including the premises No. 26, Mile End, thence southwardly along the easterly boundary of the said premises No. 26 and 24, Mile End, to and including No. 12 in 25 court, Burlington Street, thence turning and running eastwardly along the northerly boundary of No. 12 in 25 court and of No. 27 court, Burlington Street, thence turning and running southwardly along the easterly boundary of No. 27 court, Burlington Street, and 269, Burlington Street, to Burlington Street, thence turning and running westerly along Burlington Street to No. 64, Limekiln Lane aforesaid.

2.—BRASSEY STREET AREA.

An area on the East side of Cooper Street beginning with and including the premises No. 15, Brassey Street, and thence running northwardly along the East side of Cooper Street to and including premises No. 12, Cooper Street, thence turning and running easterly along the northerly boundary of the said premises No. 12, Cooper Street and No. 11 in No. 5 court, Brassey Street, thence turning and running northwardly along the westerly boundary of the said No. 5 court, Brassey Street, to the back of premises No. 18, Upper Harrington Street, thence turning and running eastwardly in an irregular line to the easterly boundary of No. 5 court, Brassey Street, thence turning and running southwardly to No. 14 in the said court, thence turning and running eastwardly to the back of No. 14 in the said court, and thence southerly along the backs of Nos. 14, 12 and 10, and part of

No. 8 in the said court, thence turning and running eastwardly along the southern boundary of other land belonging to the Corporation to Gore Street, and then southerly along Gore Street to and across Brassey Street to and including No. 14 court, Brassey Street, and thence southwardly along other premises of the Corporation to the back of No. 14 court, Brassey Street, thence turning and running westwardly along the backs of Nos. 14, 12, 10 and 8 courts, Brassey Street, thence turning and running northwardly along the backs of Nos. 6 and 4 in No. 8 court, Brassey Street, thence running along the westerly boundary of vacant land to Brassey Street, and thence across Brassey Street to No. 15 in the said street.

4. The Corporation may enter upon and take compulsorily and deal with for the purpose of this scheme all or any of the lands referred to in this scheme and coloured pink on the said plan.

5. After obtaining possession of the land authorised to be taken by this scheme the Corporation may remove the whole of the buildings standing thereon, and may make and widen streets and approaches in such lines and situations as the Corporation may prescribe, and the Corporation shall appropriate other parts of the said land to the erection of dwelling-houses for the accommodation of such number of persons of the working class as, in the opinion of the Corporation, may require such accommodation, and any lands not required for the purposes aforesaid may be appropriated to such public purposes as the Corporation may direct, or be sold, leased, or otherwise disposed of, as the Corporation may think fit.

ESTIMATE OF EXPENSE.

The estimated cost of acquiring the lands and buildings shewn upon the deposited plan, including the cost of and incidental to the making and confirmation of the scheme, is the sum of £23,250.

PARTICULARS AND STATEMENTS in pursuance of the Instructions of the Local Government Board dated the 5th day of September, 1906, as to Applications by Urban Sanitary Authorities for Orders under Part I. of the Housing of the Working Classes Act, 1890, which may become provisional in accordance with Section 5 of the Housing of the Working Classes Act, 1903.

The areas affected by the scheme comprise Burlington Street area 8,417 square yards; Brassey Street, area 1,900 square yards. Total 10,317 square yards or thereabouts.

The number of persons of the working class who will be displaced is, as nearly as can be ascertained, including lodgers, in the Burlington Street area 607 persons, and in the Brassey Street area 118 persons. Total 725 persons.

It is intended to provide accommodation for such number of those persons of the working class who will be displaced in the areas affected by the scheme in such place or places either within or without the limits of the said areas as the Local Government Board, being the confirming authority within the meaning of the above Act, may require.

After obtaining possession of the land the Corporation propose to remove the buildings standing thereon and afterwards to appropriate the land for the erection of suitable dwellings or for any other purpose that they may think desirable, or to dispose of the site by a sale in fee simple or by building leases, as they may deem to be most advantageous.

The dwelling-houses or buildings proposed to be constructed for the accommodation of persons of the working class shall be furnished with proper water supply and drainage, and provided with sinks and waste pipes which will be disconnected from the drain or sewer, also water closets, and the proper sanitation of the areas shall, in all other respects, comply with the provisions of the existing Local Acts and Bye-laws.

The areas included in the Official Representation of the Medical Officer of Health are coloured pink on the said plans thereof marked "A" and "B."

No lands not comprised in the areas in respect of which the Official Representation was made have been (*a*) excluded from the areas of the Improvement Scheme by the Corporation, or (*b*) included in such scheme by the Corporation under Section 6 (1) (*a*) of the Act.

All the lands included in the areas of the Improvement Scheme are intended to be taken compulsorily and are coloured pink on the said plans marked "A" and "B."

The plans marked "A" and "B" show the areas included in the Official Representation and in the Improvement Scheme which has been made.

REPORT of the MEDICAL OFFICER OF HEALTH upon Official Representation submitted to the Housing Committee.

On November 16th, 1906, the usual official representation of the Medical Officer of Health was made in respect to the following property, viz.:—Beau Street, Bevington Street, Holly Street, Frank Street, Grafton Street, and Lowwood Street—unhealthy areas.

The Report with reference to the Official Representation submitted to the Housing Committee on the 16th day of November, 1906, was made in pursuance of Part I. of the Housing of the Working Classes Act, 1890, as follows:—

The foregoing areas are situated in such parts of the City, North, South and East, as to admit of progress being made with the work in each of the several areas at the same time. The operations in one District will not interfere with the operations in the rest. Most, if not all, of the areas will be within the recollection of the Committee as having been the subjects of consideration on former occasions. They all present characteristics which are appropriately described in the Official Representation, and, with the exception of Lowwood Street, the treatment of these areas may be regarded as an extension of work already completed in their proximity. Upon some of the sites a number of houses have been already dealt with by Closing Orders, and are either untenanted or have been demolished, the former occupants having taken Corporation or other dwellings. It is probable that in some, at least, of the areas, that after due provision is made for necessary open spaces or playgrounds, that more dwelling accommodation will be provided than is required by those on the site. Should this be so, Closing Orders can be obtained in respect to insanitary dwellings in the vicinity.

The main features of each of the areas may be briefly referred to as follows:—

1.—BEAU STREET AREA.

This area comprises approximately 128 houses, only some half-dozen of which are outside the category of insanitary property with which the

Committee is dealing. It will be necessary, however, to include these in the scheme. The whole area is covered with dwellings, and is consequently very congested.

This area has a population of approximately 576.

2.—BEVINGTON STREET.

The Bevington Street site will be fresh in the recollection of the Committee as being one which was before them for consideration, but which was deferred, owing to the large number of licensed premises upon the site.

The treatment of this area will be practically a further extension of work in progress in the vicinity, and will link up two series of dwellings erected, and in course of erection, by the Corporation, namely, Hornby Street and Gildarts Gardens.

This area is larger than the Beau Street area, but is very much less congested. There are approximately some 238 insanitary dwellings upon it, but there is a considerable amount of waste land and premises used for purposes other than dwellings.

The area is a very squalid one, and contains a population of approximately 952.

3.—HOLLY STREET.

The area designated by the term "Holly Street" presents a compact area, upon which are some 120 dwelling-houses, the great majority of which are insanitary. A small piece of vacant land belonging to the Corporation is contiguous. The whole area lends itself well to an improvement scheme, and will permit a much-needed widening of the streets which surround it. The population of this area is approximately 540.

4.—FRANK STREET.

The Frank Street site is a continuation of the site already dealt with, and upon which the Shelley Street dwellings have been erected. There is a frontage up to Northumberland Street, but the Committee may desire to extend the area also to Mill Street.

Should this be the case, it will be a considerable improvement to the scheme, and although the Medical Officer has not scheduled the property numbering from 188 to 210, Mill Street, he would view with great satisfaction an amendment of the scheme so as to include this property, although it is not in itself insanitary.

The area scheduled comprises some 130 dwellings, the great majority of which are back to back, and contains a population of approximately 585.

5.—GRAFTON STREET.

This site is one which the Committee are already familiar with, and is a good one for re-building, having frontages to Grafton Street and Upper Mann Street.

The number of dwelling-houses is approximately 68 and the approximate population 306.

6.—LOWWOOD STREET.

This is a small area on a good elevation, the property upon it being of a squalid description. It comprises about 60 dwellings, some of which face into Holborn Street. The great majority of the houses are back to back, or without through ventilation.

The property does not call for any special observation. The site contains a population of approximately 270.

The whole of these areas will readily admit of being dealt with in such a manner as to occasion a minimum inconvenience to the residents, with the exception of the congested districts of Beau Street, which will, however, need exceptional care. The remaining areas appear to lend themselves to the provision of such open spaces as will ensure a sufficiency of light and air, which, of course, is an extremely important consideration.

LIVERPOOL (Bevington Street, &c.) IMPROVEMENT SCHEME FOR THE ENSUING YEAR.

SCHEME made by the Lord Mayor, Aldermen, and Citizens of the City of Liverpool, acting by the Council as the Local Authority under Part 1 of the Housing of the Working Classes Act, 1890, for the improvement of certain unhealthy areas within the City of Liverpool.

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1. This scheme may be cited as the Liverpool (Bevington Street, &c.) Improvement Scheme, 1907.

2. In this scheme the "City" means the County Borough of Liverpool, the "Corporation" means the Lord Mayor, Aldermen, and Citizens of the City, the "Town Clerk" and the "Surveyor" mean respectively the Town Clerk and Corporation Surveyor of the City for the time being, and the plans referred to as plans "A," "B," "C," "D" and "E" mean the plans which accompany this scheme.

3. The unhealthy areas included in this scheme comprise:—Beau Street area 4,275 square yards or thereabouts, Bevington Street area 22,838 square yards or thereabouts, Holly Street area 6,000 square yards or thereabouts, Frank Street area 5,100 square yards or thereabouts, and Grafton Street area 3,355 square yards or thereabouts. Total 41,568 square yards, and are as follows:—

1.—BEAU STREET AREA.

An area on the North side of Beau Street beginning with and including the premises No. 25, Beau Street, and thence running northwardly along the backs of Nos. 1 to 11 (odd numbers inclusive) in No. 1 court, Beau Street, to Juvenal Place, thence turning and running eastwardly along Juvenal Place to and including No. 12 in No. 7 court, Beau Street, thence turning and running southwardly along the eastwardly boundary of Nos. 12, 10, 8, 6, 4, and 2 in No. 9 court, Beau Street, and the eastwardly side of No. 39, Beau Street, to Beau Street, thence across Beau Street to and including the premises No. 36, Beau Street, thence southwardly along the eastwardly boundary of No. 36, Beau Street, and Nos. 1, 3, 5, 7 and 9 in No. 10 court, Beau Street, to Beau Lane, thence turning and running westwardly

along Beau Lane to No. 2 court, Beau Street, thence turning and running northwardly along the front of Nos. 12, 10, 8, 6 and 4 in No. 2 court, Beau Street, to No. 16, Beau Street, and thence across Beau Street to No. 25, Beau Street, aforesaid.

2.—BEVINGTON STREET.

An area on the South side of Summer Seat beginning with and including the premises No. 2, Summer Seat, thence across Summer Seat to and including the premises No. 3, Summer Seat, thence running northwardly to Back Eldon Street, thence turning and running in an eastwardly direction along the South side of Back Eldon Street to and across Titchfield Street, where it turns and runs in a northwardly direction along the East side of Titchfield Street to and including the premises No. 4, Titchfield Street, thence across Titchfield Street to and including the premises No. 9, Titchfield Street, thence running in a westwardly direction along Back Eldon Street to the westwardly side of a passage at the back of the houses situate in No. 8 court, Eldon Street, thence turning and running in a northwardly direction to and including the premises No. 62, Eldon Street, thence turning and running in an eastwardly direction to and including the premises No. 17, Titchfield Street, thence across Titchfield Street to and including the premises No. 84, Eldon Street, thence across Eldon Street to and including the premises No. 10, Titchfield Street, thence running in a northwardly direction to and including the premises No. 14, Titchfield Street, thence turning and running in an eastwardly direction along Bond Street to and including the premises No. 63, Limekiln Lane, thence turning and running in a southwardly direction to and including the premises No. 15, Limekiln Lane, thence turning and running in a westwardly direction along Gildarts Gardens to the Corporation Dwellings, thence turning and running in a northwardly direction along the passage at the East side of the Corporation Dwellings, thence turning in a westwardly direction along the passage at the rear of the said Corporation Dwellings to Marshall Place, thence turning and running northwardly to Summer Seat aforesaid.

3.—HOLLY STREET AREA.

An area bounded by Holly Street, Christian Street, Birkett Street and Saint Anne Street.

4.—FRANK STREET AREA.

An area on the North side of Rutter Street beginning with and including the premises No. 15, Rutter Street, thence running in a northwardly direction to and including the premises No. 12, Frank Street, thence running in an eastwardly direction along Frank Street to and including the premises No. 5, Southwell Street, thence turning and running in a northwardly direction to and including the premises No. 44, Northumberland Street, thence turning and running eastwardly along Northumberland Street to and including the premises No. 64, Northumberland Street, thence turning and running in a southwardly direction along the eastwardly boundary of No. 64, Northumberland Street, and the houses situate in No. 5 court, Frank Street, to and including the premises No. 37, Frank Street, thence across Frank Street to and including the premises No. 44, Frank Street, thence turning and running in a southwardly direction along the eastwardly boundary of No. 44, Frank Street, and No. 7 court, Rutter Street, to Rutter Street, thence turning and running in a westwardly direction to the premises No. 15, Rutter Street, aforesaid.

5.—GRAFTON STREET AREA.

An area on the East side of Grafton Street beginning with and including the premises No. 123, Grafton Street, and thence running eastwardly to and including the premises No. 106, Upper Mann Street, thence turning and running in a southwardly direction along the West side of Upper Mann Street to and including the premises No. 126, Upper Mann Street, thence turning and running in a westwardly direction to and including the premises No. 147, Grafton Street, thence turning and running in a northwardly direction along Grafton Street to the premises No. 123, Grafton Street, aforesaid.

6. The Corporation may enter upon and take compulsorily and deal with for the purpose of this scheme all or any of the lands referred to in this scheme and coloured pink on the said plan.

7. After obtaining possession of the land authorised to be taken by this scheme the Corporation may remove the whole of the buildings standing thereon, and may make and widen streets and approaches in such lines and situations as the Corporation may prescribe, and may stop up or deviate any street or streets included in any of the areas,

and the Corporation shall appropriate other parts of the said land to the erection of dwelling-houses for the accommodation of such number of persons of the working class as, in the opinion of the Corporation, may require such accommodation, and any lands not required for the purposes aforesaid may be appropriated to such public purposes as the Corporation may direct, or be sold, leased, or otherwise disposed of, as the Corporation may think fit.

ESTIMATE OF EXPENSE.

The estimated cost of acquiring the lands and buildings shown upon the deposited plan, including the costs of and incidental to the making and confirmation of the scheme, is the sum of £122,550.

PARTICULARS AND STATEMENTS in pursuance of the instructions of the Local Government Board dated the 5th day of September, 1906, as to Applications by Urban Sanitary Authorities for Orders under Part I. of the Housing of the Working Classes Act, 1890, which may become provisional in accordance with Section 5 of the Housing of the Working Classes Act, 1903.

The areas affected by the scheme comprise Beau Street area 4,275 square yards; Bevington Street area 22,838 square yards; Holly Street area 6,000 square yards; Frank Street area 5,100 square yards, and Grafton Street area 3,355 square yards. Total 41,568 square yards or thereabouts.

The number of persons of the working class who will be displaced is, as nearly as can be ascertained, including lodgers, in the Beau Street area 532 persons, in the Bevington Street area 1,154 persons, in the Holly Street area 563 persons, in the Frank Street area 627 persons, and in the Grafton Street area 304 persons. Total, 3,180 persons.

It is intended to provide accommodation for such number of those persons of the working class who will be displaced in the areas affected by the scheme in such place or places either within or without the limits of the said areas as the Local Government Board, being the confirming authority within the meaning of the above Act, may require.

After obtaining possession of the land the Corporation propose to remove the buildings standing thereon and afterwards to appropriate the land for the erection of suitable dwellings or for any other purpose that they may think desirable, or to dispose of the site by a sale in fee simple or by building leases, as they may deem to be most advantageous.

The dwelling-houses or buildings proposed to be constructed for the accommodation of persons of the working class shall be furnished with proper water supply and drainage, and provided with sinks and waste pipes which will be disconnected from the drain or sewer, also water closets, and the proper sanitation of the areas shall, in all other respects, comply with the provisions of the existing Local Acts and Bye-laws.

The areas included in the Official Representation of the Medical Officer of Health are coloured pink on the said plans thereof marked "A," "B," "C," "D" and "E."

No lands not comprised in the areas in respect of which the Official Representation was made have been (*a*) excluded from the areas of the Improvement Scheme by the Corporation, or (*b*) included in such scheme by the Corporation under Section 6 (1) (*a*) of the Act.

All the lands included in the areas of the Improvement Scheme are intended to be taken compulsorily and are coloured pink on the said plans marked "A," "B," "C," "D" and "E."

The plans marked "A," "B," "C," "D" and "E" show the areas included in the Official Representation and in the Improvement Scheme which has been made.

Saltney Street.

On 28th September, 1906, the Medical Officer was asked to report on the following Resolution of the Housing Committee, viz.:—

"That, in the opinion of this committee, the district bounded by "Saltney Street, Dublin Street, Great Howard Street, and Regent "Road is one suitable for a Scheme under the Housing of the "Working Classes Act, 1890, and that the Surveyor and Medical "Officer of Health be instructed to consider the best means of

"dealing therewith, and bring up a Scheme and Report for "consideration,"

and he submitted the following observations:—

A part of the area alluded to in the resolution, namely, Saltney Street, has from time to time been under the consideration of the committee when alternative sites have also been considered, and the various areas in question have also been visited. So far as Saltney Street is concerned, it was not regarded as a favourable site on either of these occasions.

In 1899, when the matter was gone carefully into, the site was rejected on account of being closed in, and in a low-lying locality. Meanwhile other more suitable areas in the vicinity were proceeded with, and dwellings within a reasonable distance of Saltney Street were erected upon them. In 1903 the owners of the courts numbered 2, 3, 4, 5, 6 and 7 had, at their own cost, considerably improved these courts by demolishing some of the houses and improving the lighting and ventilation of the remainder. In 1906 two more courts were similarly dealt with. These alterations, although by no means meeting all requirements, yet removed the courts from the category of those urgently needing attention. Two courts became derelict and have been demolished, whilst other houses in the street fell vacant. A circular letter sent out by the Housing Committee in August, 1905, suggesting alterations to the remaining houses, appears to have resulted in the closing up by Messrs. David Roberts, Son & Co. of their property, viz., Nos. 8, 9, 10, 11, 12, 15 and 16 courts, on the grounds that they could get no rents.

The committee in 1905 had made up their minds pretty fully that Saltney Street by itself was not a suitable place for re-building, and on December 8th of that year they resolved to recommend the council to convey the small pieces of land belonging to them in these courts to Messrs. David Roberts, Son & Co. in consideration of that firm demolishing the insanitary property belonging to them, subject to the Medical Officer of Health reporting the same as insanitary under the provisions of the Liverpool Sanitary Amendment Act of 1864.

The Medical Officer accordingly reported the property, but at the meeting of the council on 24th January, 1906, the consideration of the recommendation was postponed for twelve months with a view to give time for further progress in the work which the committee had already

in hand. In the interval 193 houses have been opened in the Hornby area, and 34 elsewhere.

Meanwhile the conditions of Saltney Street have entirely changed; most of the dwellings have been untenanted for a considerable time, the population having left them. The council have approved of still further extension of operations now in progress in continuation of the Hornby area undertaking, and the deferred scheme of the "Bevington Street" area will doubtless be proceeded with.

The proposal, however, now before the committee involves more than Saltney Street, and is designed to include Dublin Street, part of Great Howard Street, and part of Regent Road. The initial difficulty in dealing with the proposed area would arise from the circumstance that the most important block of existing houses upon the site, namely, Dublin Street, comprises 43 houses (facing a street 60 feet wide) containing 4, 5 and 6 rooms, only one of which is without through ventilation, whilst each house has its own water-closet. The houses are not in themselves insanitary, and do not come within the scope of houses described under the terms of the Act. Two points, however, might be urged against them—one is that such yard spaces as exist are too small, close and confined; the other is that, notwithstanding the fact that they face a street 60 feet wide, they are overshadowed by warehouses. It will be obvious that this latter circumstance cannot reasonably be put forward if it is proposed to re-erect houses which will still be open to the same objection.

A further consideration is that to regard Dublin Street as an insanitary street is to largely extend the technical definition of an insanitary house, and greatly increase the scope of the committee's operations. The suggestion therefore involves a proposal to deal with an area as insanitary, which is very far removed structurally from the insanitary areas with which the committee have hitherto dealt, or which still urgently call for attention.

Setting this consideration, however, altogether aside, and turning to the present condition of Saltney Street, here, owing to the circumstances already alluded to, more than half of the houses in the street are no longer tenanted, more suitable provision being made on sites in the vicinity. The court houses which still remain, and which, notwithstanding

their alterations, are to be regarded as insanitary, constitute but a relatively small proportion of the entire area, and it has not hitherto been the practice of the committee to proceed with any scheme involving extensive demolition under the Housing of the Working Classes Act, unless the proportion of insanitary property to be demolished did predominate.

There are some important points to be borne in mind upon the general sanitary aspects of the question. The argument in favour of dealing with this site, as far as the Medical Officer can ascertain, is that the persons resident in Saltney Street must live near their work, and would be put to great inconvenience and extreme trouble unless dwellings are provided for them in Saltney Street, and, furthermore, their presence in Saltney Street is in the interests of shopkeepers in the vicinity. The Medical Officer has from time to time caused careful inquiries to be made, and has himself personally made inquiries, as to the places of occupation of the residents, and the impression which he has got is that inasmuch as many of these residents, perhaps the majority, are either working casually at docks distant from Saltney Street or are employed as firemen at sea or in hawking and kindred occupations, that the inconvenience to the residents which would arise if they were housed, as some of them now are, in corporation dwellings, has been over-estimated.

On the other hand, the site has obvious disabilities from the health point of view, and notwithstanding the fact that if dwellings were erected upon it they would be of a good class, the Medical Officer would view with great concern the replacing of a number of labourers and their families upon a low-lying and relatively closed-in site of this description. Even assuming that the convenience of the labourers would be met by housing them in Saltney Street, yet against it must be put the undesirableness of the locality for the families of the labourers, more especially for the infants and young children. For these the locality is eminently unsuitable, and the rehousing of this class of people upon the Saltney Street area will not lead to the entirely satisfactory results reasonably to be expected elsewhere in an improved class of house, such as that indicated in the plans of the Corporation Surveyor. The Medical Officer, therefore, is of opinion that any of the various sites which the Committee have already got before them are better adapted for rehousing the labouring classes than the area bounded by Saltney Street,

Dublin Street and Regent Road, and he is unable to advise the Committee to vary the recommendation which they made last year in regard to Saltney Street.

List of Owners.	Situation of Property.
David Roberts, Son & Co., Crosshall Street	Courts No. 8, 9, 10, 11, 12, 15 and 16. Courts 15 and 16 have been dealt with by Closing Orders.
W. Boumphrey & Son, 49, Whitechapel	Court No. 1 and half of No. 2.
R. T. & R. Cubbin, Great Mersey Street	Courts No. 3, 4, 5, 6 and 7, and half of No. 2.
W. M. Egan, 3, Lord Street	Court No. 13.
W. J. Glass, 17a, South Castle Street	Court No. 14.

In reference to the question of erecting dwellings for the dispossessed away from the congested areas where so much space is absorbed by offices, warehouses and other commercial buildings, it is plain that sooner or later a limit to the possibilities of rebuilding in the densely populated parts of the City will be reached, and the necessity for the surplus population going elsewhere will arrive.

It must be remembered that the dispossessed are amongst the most prolific section of the population, and increase very rapidly.

Various areas in the more open outskirts of the City present facilities for labourers' dwellings, both as regards site, elevation, and proximity to churches, chapels, schools and shops of the class used by the labouring population and their families, as well as by reason of the great facilities for transport to the workplaces which are afforded by the tramway service or by rail.

These sites are superior in every way from a health point of view to any of the sites in the more densely populated centres.

It is quite true that there is a great amount of building of cottage property in the suburban districts, and it is obvious that there is a gradual moving out of the population, cottages in the City vacated by the occupants of the newly-erected suburban dwellings being occupied by those coming from the lower parts of the town. Congestion no doubt is relieved in this way, but, notwithstanding that, it is still desirable to make some special provision for labourers and their families in the more open areas.

In 1902 the Housing Committee expressed the following views upon this aspect of the question:—

"The Committee consider that for the present, at any rate, their work must be confined to housing the dispossessed within a reasonable distance of their work; they are, however, strongly of opinion that it would be to the material advantage of a considerable section of the labouring classes who are about to be displaced if they and their families could be housed in the suburbs. From the sanitary point of view, there can be no two opinions on this point."

EXISTING INSANITARY HOUSES.

A return of the courts was made by the Sanitary Staff, which showed that there existed on 1st January, 1906, 826 courts, containing 4,787 houses.

Of these courts, 551 are below the minimum width of 15 feet prescribed by the Liverpool Sanitary Act of 1846, and may be considered to have been erected before the passing of that Act.

The following is a summary of proceedings from January 1st to December 31st, 1906, viz.:—

	Courts.		Houses.
Existing on January 1st, 1906	826	containing	4,787
Dealt with by Closing Orders	69	,,	321
Leaving at date	757	,,	4,466
Number of cases in which the Council have authorised proceedings, and which are still pending	55	,,	410
	702		4,056
Number of cases in which arrangements have been made with owners for demolition or improvements	39	,,	231
Leaving for future consideration ...	663	,,	3,825

The foregoing figures do not include front houses abutting on the courts, which, if not at present sanitary, could at a small cost be made so, on the court houses being removed.

CLASSIFICATION OF COURTS.

A classification into districts has been made of these courts, the districts being bounded as follows:—

NORTH.—That portion of the City being on the North side of Dale Street and London Road, with Moss Street and Netherfield Road as the boundary on the East side.

SOUTH.—That portion of the City being on the South side of Dale Street and London Road, with Boundary Place, Crown Street and Kingsley Road as the boundary on the East side.

EAST.—That portion of the City which is within the old City boundary, and being on the East side of Netherfield Road, Shaw Street and Kingsley Road.

OUTLYING DISTRICTS.—The incorporated areas.

With regard to the condition of the courts, they admit of a rough classification into three classes, as follows:—

CLASS A.

In this Class are the courts which have tunnel entrances of a width much less than the width of the court; many of them are narrower than the minimum width of 15 feet as prescribed by the Liverpool Sanitary Act, 1846, and, in addition, the farther end of the court is closed, or partly closed, by a wall or adjoining building.

In Class A there remain for future consideration 174 courts and 835 houses, situate as follows, viz.:—

North	127	South	37
East	9	Outlying Districts	1

Total number of courts with tunnel entrances, 174.

CLASS B.

Embraces all courts to which the entrance is open but is not the full width of the court, the farther end of the court being also closed by a

wall or adjoining building extending in most cases to the level of the first floor of the court houses, and in other instances to above the first floor level.

In Class B there are 322 courts and 2,098 houses, situated as follows, viz. :—

North	189	South	101
East	32	Outlying Districts	nil

CLASS C.

Includes all the courts to which the entrance is the full width of the court. In this Class the courts are generally 15 feet wide and over.

In Class C there are 167 courts and 907 houses, situate as follows, viz. :—

North	79	South	65
East	20	Outlying Districts	3

SUMMARY.

Class A	174 courts.
,, B	322 ,,
,, C	167 ,,
Total for future consideration ...	663 courts.

Of the 55 cases pending—13 are in Class A, 22 in Class B, and 20 in Class C.

Of the 39 cases arranged with owners for demolition or improvement—17 are in Class A, 16 in Class B, and 6 in Class C.

In addition to the courts enumerated in the foregoing Summary, there are a few courts, probably not more than 50, which have not been included, as each house is provided with separate closet accommodation, and, in addition, in many instances, yard space at the rear or side is also provided.

In nearly every instance, as already stated, there are two houses contiguous to each court, but facing the main street. If these houses are included, it will be necessary to add 1,364 houses to get the total

number of houses which in their present condition are without sufficient lighting, ventilation, and general sanitary accommodation. The total number of houses in this category amounts therefore to 5,189.

RETURN OF HOUSES ERECTED 1896-1906.

	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906
Under £12	7	95	63	4	...	222	85	201	258	78	243
£12 to £18.....	...	...	...	821	436	558	590	363	284	394	547
	944	1,138	1,276	...	...	...	...	...	...	...	...
£18 to £25.....	...	...	...	769	602	633	962	1,058	1,067	872	1,039
£25 to £35.....	204	389	539	607	402	441	323	706	449	638	422
£35 and upwards	44	34	99	157	133	109	101	125	116	204	202
	1,199	1,656	1,977	2,358	1,573	1,963	2,061	2,453	2,174	2,186	2,453

It will be seen that, taking the houses of £12 to £25 rental as forming one group, in the above table the figures for such houses built in the years 1896 to 1898 are not sub-divided, as for the later years, owing to the records of the department not showing that distinction for the earlier years. The figures for this class are given below in one view.

HOUSES OF £12 TO £25 RENTAL.

1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906
944	1,138	1,276	1,590	1,038	1,191	1,552	1,421	1,351	1,266	1,586

There was no further Presentment of Insanitary Property during the year, but the Medical Officer certified that the following premises were unfit for human habitation, and ought to be demolished:—

The court known as No. 6 court in Cockspur Street in the City of Liverpool.

The dwelling-house numbered 2 in the said No. 6 court.

The court known as No. 20 court in Upper Milk Street in the City of Liverpool.

The dwelling-house numbered 3 in the said No. 20 court.

The court known as No. 8 Court in Richmond Row 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. 10 court in Richmond Row in the City of Liverpool.

The dwelling-houses numbered 3, 4 and 5 in the said No. 10 court.

The court known as No. 7 court in Burlington Street in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5, 6, 7 and 8 in the said No. 7 court.

The court known as No. 9 court in Burlington Street in the City of Liverpool.

The dwelling-houses numbered 3, 4, 5, 6, 7, 8, 9 and 10 in the said No. 9 court.

The court known as No. 5 court in Burlington 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. 15 court in Burlington Street in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5, 6, 7 and 8 in the said No. 15 court.

The court known as No. 1 court in Bevington Street in the City of Liverpool.

The dwelling-houses numbered 2, 3, 4 and 5 in the said No. 1 court.

The court known as No. 3 court in Bevington Street in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3 and 4 in the said No. 3 court.

The court known as No. 4 court in Bevington Street in the City of Liverpool.

The dwelling-houses numbered 1, 4, 6, 8 and 10 in the said No. 4 court.

The court known as No. 8 court in Bevington Street aforesaid.

The dwelling-houses numbered 1, 2, 3, 4, 5, 6, 7, 8 and 10 in the said No. 8 court.

The dwelling-houses numbered 28 and 30 in Bevington Street aforesaid, contiguous to No. 8 court in the said street.

The court known as No. 1 court in Eldon Street in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5 and 6 in the said No. 1 court.

The court known as No. 28 court in Eldon Street aforesaid.

The dwelling-houses numbered 2 and 3 in the said No. 28 court.

The court known as No. 2 court in Bond Street in the City of Liverpool.

The dwelling-houses numbered 3 and 4 in the said No. 2 court.

The court known as No. 10 court in Bond Street aforesaid.

The dwelling-houses numbered 3 and 4 in the said No. 10 court.

The court known as No. 12 court in Bond Street aforesaid.

The dwelling-houses numbered 3 and 4 in the said No. 12 court.

The court known as No. 14 court in Bond Street aforesaid.

The dwelling-houses numbered 3 and 4 in the said No. 14 court.

The court known as No. 1 court in SALTNEY STREET in the City of Liverpool.

The dwelling-house numbered 2 in the said No. 1 court.

The court known as No. 2 court in SALTNEY STREET aforesaid.

The dwelling-house numbered 3 in the said No. 2 court.

The court known as No. 13 court in SALTNEY STREET aforesaid.

The dwelling-houses numbered 3 and 4 in the said No. 13 court.

The court known as No. 3 court in REGENT STREET in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 in the said No. 3 court.

The court known as No. 2 court in PORTER STREET in the City of Liverpool.

The dwelling-houses numbered 3, 4, 5, 6, 7 and 8 in the said No. 2 court.

The court known as No. 16 court in PORTER STREET aforesaid.

The dwelling-house numbered 2 in the said No. 16 court.

The court known as No. 1 court in GREAT HOWARD STREET in the City of Liverpool.

The dwelling-houses numbered 2, 3 and 4 in the said No. 1 court.

The court known as No. 3 court in GREAT HOWARD STREET aforesaid.

The dwelling-houses numbered 1, 2, 3 and 4 in the said No. 3 court.

The court known as No. 5 court in GREAT HOWARD STREET aforesaid.

The dwelling-houses numbered 1, 2 and 3 in the said No. 5 court.

The court known as No. 7 court in GREAT HOWARD STREET aforesaid.

The dwelling-houses numbered 1, 3 and 5 in the said No. 7 court.

The court known as No. 21 court in Newsham Street in the City of Liverpool.

The dwelling-houses numbered 7, 8, 9, 10, 11 and 12 in the said No. 21 court.

The dwelling-houses numbered 52 and 54 in Kew Street in the City of Liverpool, contiguous to No. 21 court in Newsham Street aforesaid.

The court known as No. 6 court in Rose Place in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3 and 4 in the said No. 6 court.

The court known as No. 8 court in Rose Place aforesaid.

The dwelling-houses numbered 1, 2, 3 and 4 in the said No. 8 court.

The court known as No. 1 court in Hunter Street in the City of Liverpool.

The dwelling-houses numbered 5, 7, 9 and 11 in the said No. 1 court.

The court known as No. 1 court in Lionel Street in the City of Liverpool.

The dwelling-houses numbered 1 and 2 in the said No. 1 court.

The court known as No. 4 court in Lionel Street aforesaid.

The dwelling-houses numbered 3, 4, 5, 6, 7 and 8 in the said No. 4 court.

The court known as No. 2 court in Back Queen Anne Street in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5 and 6 in the said No. 2 court.

The court known as No. 2 court in Cazneau Street 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. 4 court in Cazneau Street aforesaid.

The dwelling-houses numbered 2 and 4 in the said No. 4 court.

The court known as No. 4 court in DENISON STREET in the City of Liverpool.

The dwelling-houses numbered 1, 2 and 3 in the said No. 4 court.

The court known as No. 3 court in DENISON STREET aforesaid.

The dwelling-houses numbered 1 and 2 in the said No. 3 court.

The court known as No. 5 court in VAUXHALL ROAD in the City of Liverpool.

The dwelling-houses numbered 3 and 5 in the said No. 5 court.

The dwelling-houses numbered 1, 3, 5, 7, 9, 11 and 13 in ADELAIDE PLACE in the City of Liverpool.

The dwelling-houses numbered 2, 4, 6, 8, 10 and 12 in CARTWRIGHT PLACE in the City of Liverpool.

The dwelling-houses numbered 4, 5, 10, 15 and 16 in SWAN STREET, Falkner Street, in the City of Liverpool.

The dwelling-house numbered 19 in CORLETT STREET in the City of Liverpool.

The court known as No. 2 court in FALKNER 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 FALKNER STREET aforesaid.

The dwelling-houses numbered 3, 4 and 5 in the said No. 4 court.

The court known as No. 6 court in FALKNER STREET aforesaid.

The dwelling-houses numbered 2, 3, 4, 7, 8 and 13 in the said No. 6 court.

The court known as No. 8 court in FALKNER STREET aforesaid.

The dwelling-houses numbered 2, 3, 4 and 5 in the said No. 8 court.

The court known as No. 10 court in MAYNARD STREET in the City of Liverpool.

The dwelling-houses numbered 3, 4, 6, 9, 11 and 12 in the said No. 10 court.

The court known as No. 12 court in MAYNARD STREET aforesaid.

The dwelling-houses numbered 2, 5 and 6 in the said No. 12 court.

The court known as No. 1 court in BEAUMONT STREET in the City of Liverpool.

The dwelling-houses numbered 1, 3 and 9 in the said No. 1 court.

The court known as No. 3 court in BEAUMONT STREET aforesaid.

The dwelling-houses numbered 3, 4, 5 and 6 in the said No. 3 court.

The court known as No. 2 court in LORTON 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. 2 court in HAMPTON STREET in the City of Liverpool.

The dwelling-houses numbered 2 and 3 in the said No. 2 court.

The court known as No. 2 court in FLETCHER STREET in the City of Liverpool.

The dwelling-houses numbered 1 and 3 in the said No. 2 court.

The court known as No. 4 court in FLETCHER STREET aforesaid.

The dwelling-houses numbered 1, 2, 3 and 4 in the said No. 4 court.

The court known as No. 6 court in FLETCHER STREET aforesaid.

The dwelling-houses numbered 2 and 4 in the said No. 6 court.

The court known as No. 4 court in DEXTER STREET in the City of Liverpool.

The dwelling-houses numbered 3, 5, 6 and 8 in the said No. 4 court.

The court known as No. 1 court in Head Street in the City of Liverpool.

The dwelling-houses numbered 2, 3, 4, 5, 6 and 7 in the said No. 1 court.

The court known as No. 1 court in Chesterfield Street in the City of Liverpool.

The dwelling houses numbered 3, 13 and 18 in the said No. 1 court.

The court known as No. 3 court in Chesterfield Street aforesaid.

The dwelling-houses numbered 1, 2, 7 and 8 in the said No. 3 court.

The court known as No. 1 court in Upper Stanhope Street in the City of Liverpool.

The dwelling-houses numbered 1 and 4 in the said No. 1 court.

The court known as No. 3 court in Upper Stanhope Street aforesaid.

The dwelling-houses numbered 1, 2, 7, 8, 13 and 14 in the said No. 3 court.

The court known as No. 5 court in Laxey Street in the City of Liverpool.

The dwelling-houses numbered 2, 4, 6 and 8 in the said No. 5 court.

The court known as No. 7 court in Laxey Street aforesaid.

The dwelling-houses numbered 1, 3, 5 and 7 in the said No. 7 court.

The court known as No. 10 court in Clive Street in the City of Liverpool.

The dwelling-houses numbered 3 and 5 in the said No. 10 court.

The court known as No. 12 court in Clive Street aforesaid.

The dwelling-houses numbered 3, 4, 5 and 6 in the said No. 12 court.

The court known as No. 2 court in Upper Harrington Street in the City of Liverpool.

The dwelling-house numbered 1 in the said No. 2 court.

The court known as No. 2 court (Forge Place) in Mill Street in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5, 6 and 7 in the said No. 2 court.

The court known as No. 5 court in Brassey Street in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 and 14 in the said No. 5 court.

The dwelling-houses numbered 15, 17 and 19 in Brassey Street contiguous to No. 5 court in the said street.

The dwelling-houses numbered 2, 4 and 6 in Cooper Street in the City of Liverpool, contiguous to No. 5 court in Brassey Street aforesaid.

The court known as No. 7 court in Brassey Street aforesaid.

The dwelling-houses numbered 1, 2, 3, 4, 5, 6, 7 and 8 in the said No. 7 court.

The dwelling-houses numbered 21 and 23 in Brassey Street, contiguous to No. 7 court in the said street.

The dwelling-houses numbered 44, 46, 48, 50 and 52 in Gore Street in the City of Liverpool, contiguous to No. 7 court in Brassey Street aforesaid.

The court known as No. 8 court in Brassey Street aforesaid.

The dwelling-houses numbered 1, 3, 4, 5 and 6 in the said No. 8 court.

The dwelling-house numbered 14 in Brassey Street, contiguous to No. 8 court in the said street.

The court known as No. 10 court in Brassey Street aforesaid.

The dwelling-houses numbered 1, 2, 3, 4, 5 and 6 in the said No. 10 court.

The dwelling-houses numbered 16 and 18 in Brassey Street, contiguous to No. 10 court in the said street.

The court as No. 12 court in Brassey Street aforesaid.

The dwelling-houses numbered 1, 2, 3, 4, 5 and 6 in the said No. 12 court.

The dwelling-houses numbered 20 and 22 in Brassey Street, contiguous to No. 12 court in the said street.

The court known as No. 14 court in Brassey Street aforesaid.

The dwelling-house numbered 2 in the said No. 14 court.

The dwelling-house numbered 24 in Brassey Street aforesaid, contiguous to No. 14 court in the said street.

The dwelling-houses numbered 8 and 10 in Cooper Street in the City of Liverpool.

The court known as No. 1 court in Maghull Street in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4 and 5 in the said No. 1 court

The court known as No. 3 court in Lowwood Street in the City of Liverpool.

The dwelling-houses numbered 4, 5 and 6 in the said No. 3 court.

The court known as No. 5 court in Lowwood Street aforesaid.

The dwelling-houses numbered 3 and 5 in the said No. 5 court.

The court known as No. 7 court in Lowwood Street aforesaid.

The dwelling-house numbered 4 in the said No. 7 court.

The court known as No. 1 court in Hygeia Street in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5, 6 and 7 in the said No. 1 court.

APPLICATIONS FOR CORPORATION TENEMENTS. 1906.

Applications for houses in these buildings have been numerous, there being now about 2,046 tenements completed, with 123 more approaching completion, all under the control of the Corporation.

These tenements, and those in course of erection 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 776. In dealing with these applications, it was found that in 542 instances the circumstances of the applicant did not comply with the Committee's conditions. Of this number 186 applicants gave false addresses, and in 356 cases there was no evidence that the alleged overcrowding existed. Of the remaining 234 cases investigated, 65 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 sixty-nine were claims on account of alleged overcrowding occurring in sub-let houses, of which, in 83 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 86 cases of overcrowding, in 65 of which the applicants were allowed to rent a Corporation house, and in 82 of these instances informations were laid against the chief tenants, and convictions followed.

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.

In some cases the applicants were found to be drunk at the time of the visit of inquiry.

The total number of day visits paid during the year was 923, and 165 night visits were made, the total for the year being 1,088, from which it will be seen that a considerable amount of the Inspectors' time was taken up by investigating these applications.

Dr. Caton was kind enough to modify a small pamphlet he had written, called "How to Live," in such a way as to render it useful to the tenants of the Corporation Dwellings. A number of copies were printed, and distributed gratis amongst the tenants.

The Corporation Surveyor has kindly supplied the following table:—

LIVERPOOL SANITARY AMENDMENT ACT, 1864.

INSANITARY PROPERTY.

INSANITARY PROPERTY PURCHASED, 1906.

Number of houses purchased by Housing Committee included in Reports referred by Council to Committee	51

INSANITARY PROPERTY DEMOLISHED, 1906.

Number of houses in respect of which Compensation for demolition was paid by Housing Committee included in Reports referred by Council to Committee	297

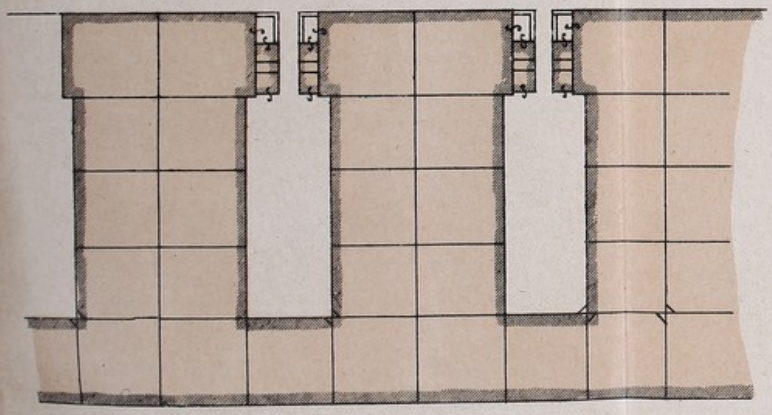
[NOTE.—The demolition of a great number of these houses has been accompanied by structural alterations to adjoining property, resulting in 44 "through" houses and 117 single houses being left standing. The term "through" houses signifies that two insanitary houses have been converted into one house and 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	126
Number of houses demolished under various Improvement Schemes	240

COURTS AS FORMERLY EXISTING

BOND STREET



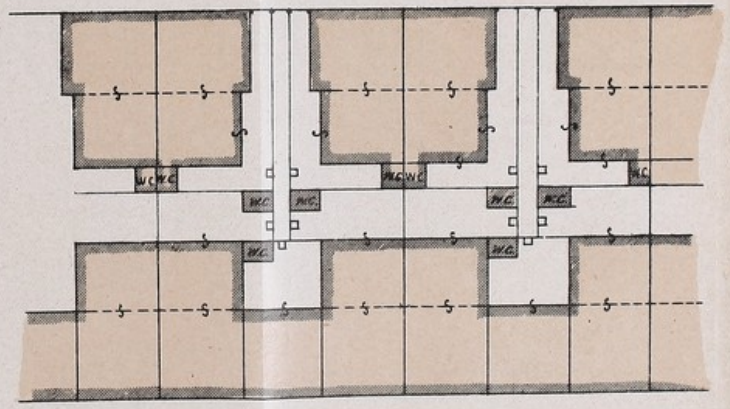
ELDON STREET

SCALE OF FEET.

10 5 0 50 100

COURTS IMPROVED

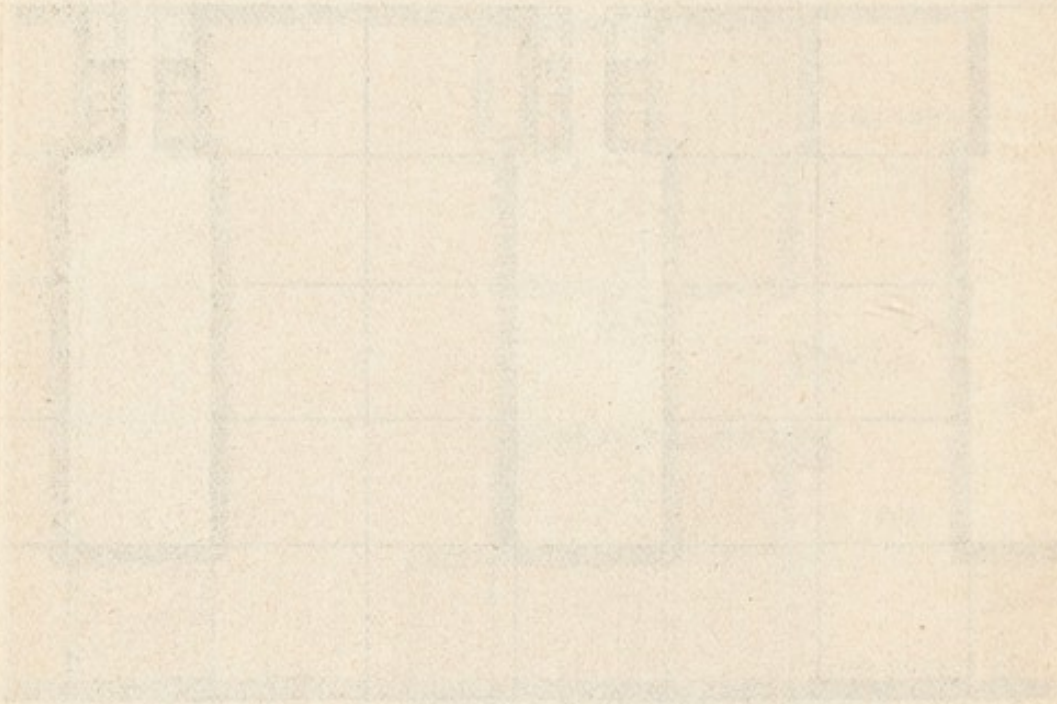
BOND STREET



ELDON STREET

SCALE OF FEET.

10 5 0 50 100



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.	75		75
July, 1865...	2nd ,,	83		83
January, 1866...	3rd ,,	149		149
,, 1869...	4th ,,	40		40
October, 1871...	5th ,,	42		42
August, 1880...	6th ,,	34		34
April, 1884...	7th ,,	305		305
December, 1884...	8th ,,	523		523
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
		5,223		7,162
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		943		943
No. of houses included in Horrby Street and Upper Mann Street Areas		710		—
No. of houses reported on by Medical Officer of Health to Council, 1889-1904		930		
1905		166		
1906		297		
Total		8,269		8,105

HOUSING OF THE WORKING CLASSES ACT, 1890.

PART II.

BUILDINGS UNFIT FOR HUMAN HABITATION.

Number of dwelling-houses in respect of which representations were made to the Local Authority during the year 1906:—

By the Medical Officer of Health	396
Number (if any) of the dwelling-houses above referred to in respect of which the Local Authority decided not to take any action under Part II. of the Act	Nil

Number of dwelling-houses respecting which action had been taken under Part II. of the Act which were satisfactory dealt with by the owner during the year without a closing order being obtained, viz.:—

(*a*) Number made fit for human habitation	33
(*b*) Number closed or demolished voluntarily	21
Number of dwelling-houses in respect of which closing orders were made during the year..... ...	321
Number of dwelling-houses ordered to be demolished by the Local Authority during the year (Section 33)	14
Number of dwelling-houses (if any) in respect of which appeals, under Section 35 (1) made during the year against orders of the Local Authority for demolition, were allowed	Nil.

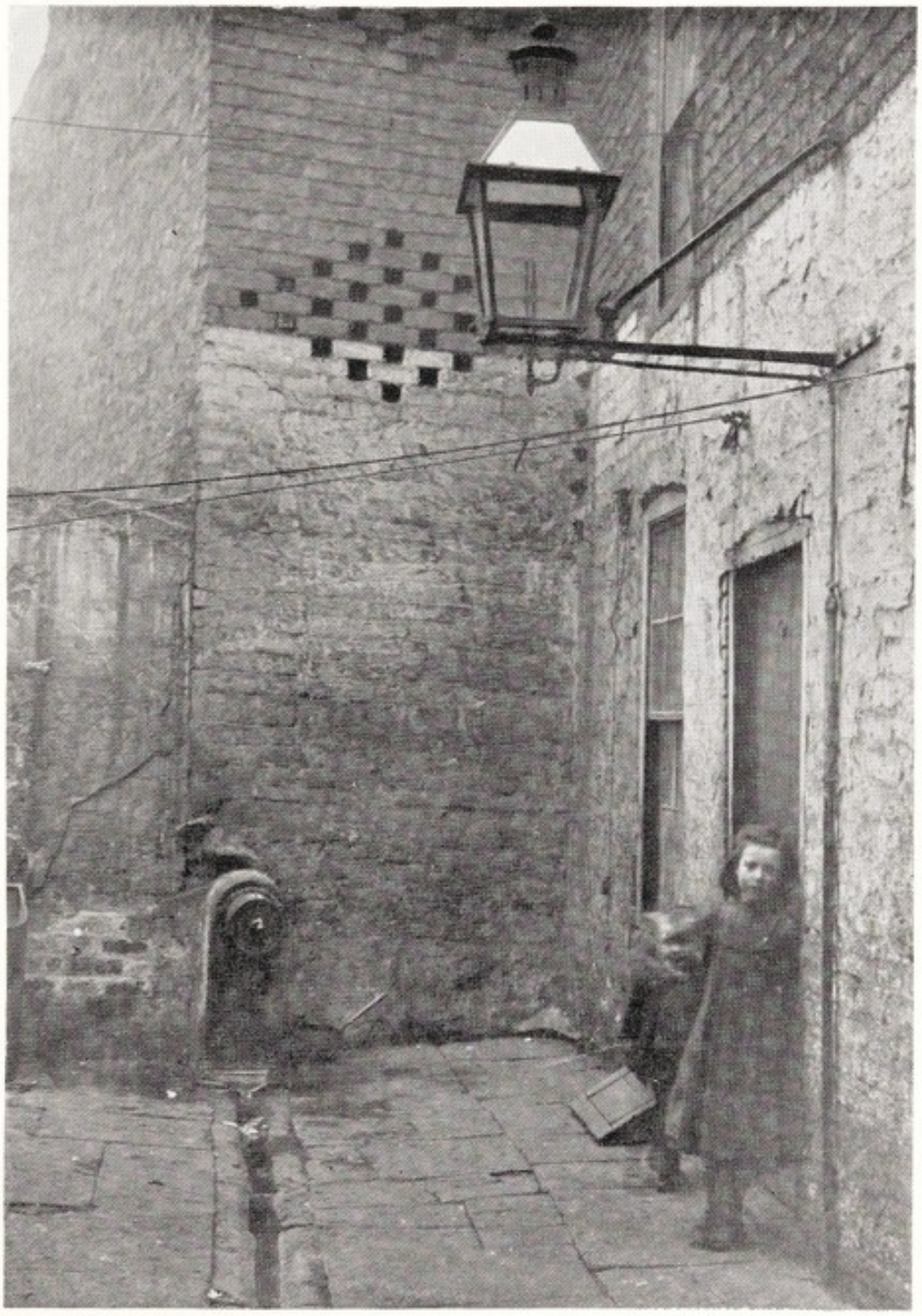
The question of insanitary dwellings received considerable public attention during the year, and at a Meeting of Citizens held at St. George's Hall, on the 22nd October, the following resolutions were passed :—

1.—That this meeting of citizens, whilst gratefully recognising what has already been accomplished by the Corporation, is profoundly impressed with the fact that there yet remain about 7,518 houses in congested areas, occupied by the poor of Liverpool, which are officially declared to be " unfit for human habitation," and urgently calls upon the City Council to remedy, in a bold and drastic way, this condition of things, the continuance of which is a grave discredit to the community and constitutes a constant menace to its health and well-being.

2.—The meeting considers that, at almost any cost, the work of clearing the slums and re-housing the people should be actively proceeded with, costly improvement and other municipal schemes, which are less urgent in character, being so far as necessary postponed for the time being.

3.—The meeting is of opinion that (in addition to enforcing the laws against overcrowding) the Corporation, in order to provide for the excess of population in the congested parts of the City, would be wise in building on the outskirts, and that, to prevent the overcrowding of dwellings, the Corporation should seek powers enabling it to control the laying out and planning of the growth of the City.

The photograph shows the tunnel entrance to No. 9 Court N . . . . . Street. The two houses entered by the open doors are each back-to-back with another house, the entrance to which is in the tunnel.



INTERIOR OF No. 9 COURT, N . . . . . STREET.

These houses were closed during the year under the Housing of the Working Classes Act.

INTERIOR OF No. 5 COURT, QUEEN STREET.

These houses were closed during the year under the Housing of the Working Classes Act.

INSANITARY DWELLINGS.

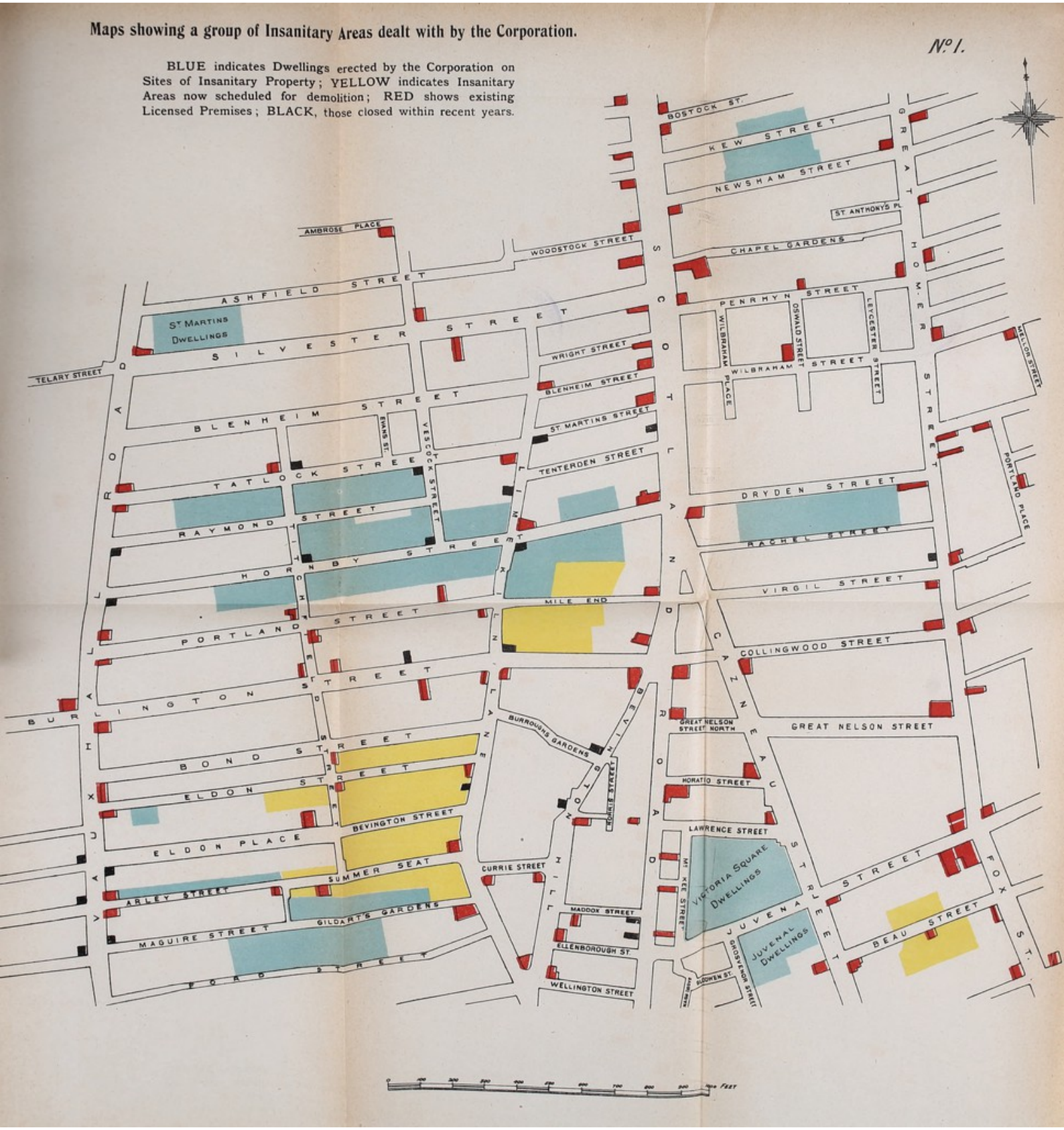
View of part of Upper Mann Street showing entrances to courts leading off it, each containing from 12 to 14 insanitary houses.

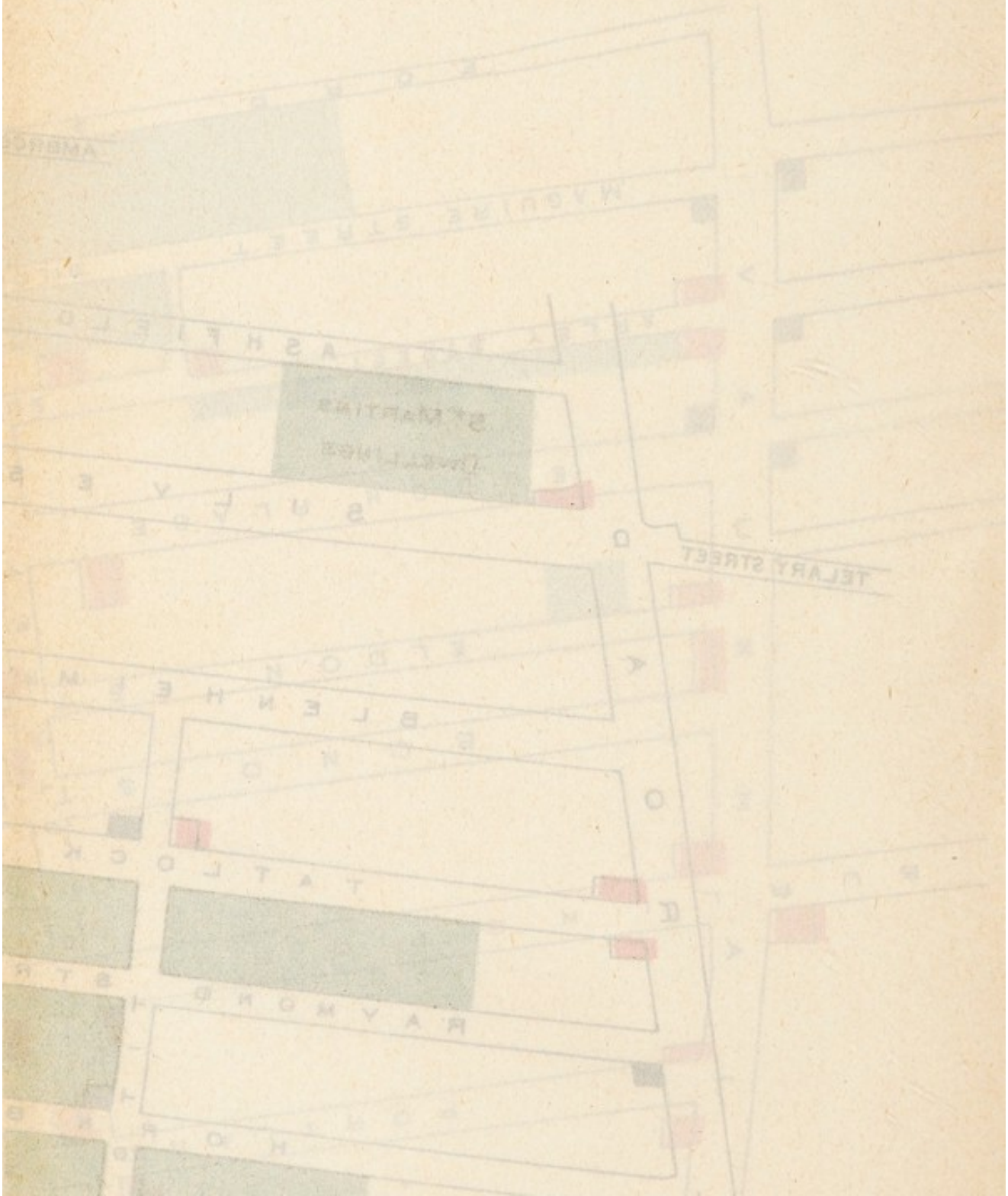
View of some of the Dwellings erected by the Corporation in Upper Mann Street on sites cleared of insanitary property.

Maps showing a group of Insanitary Areas dealt with by the Corporation.

No. 1.

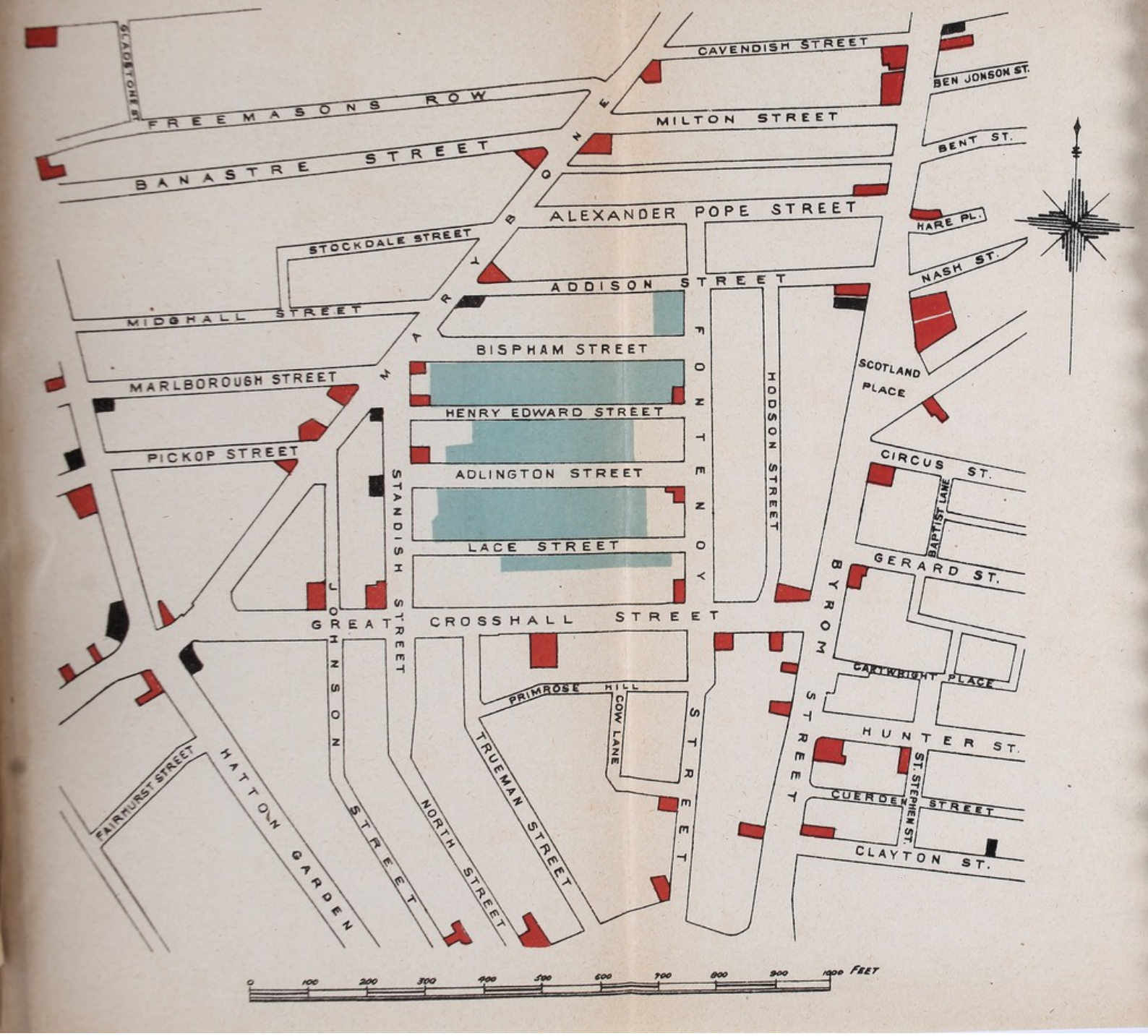
BLUE indicates Dwellings erected by the Corporation on Sites of Insanitary Property; YELLOW indicates Insanitary Areas now scheduled for demolition; RED shows existing Licensed Premises; BLACK, those closed within recent years.

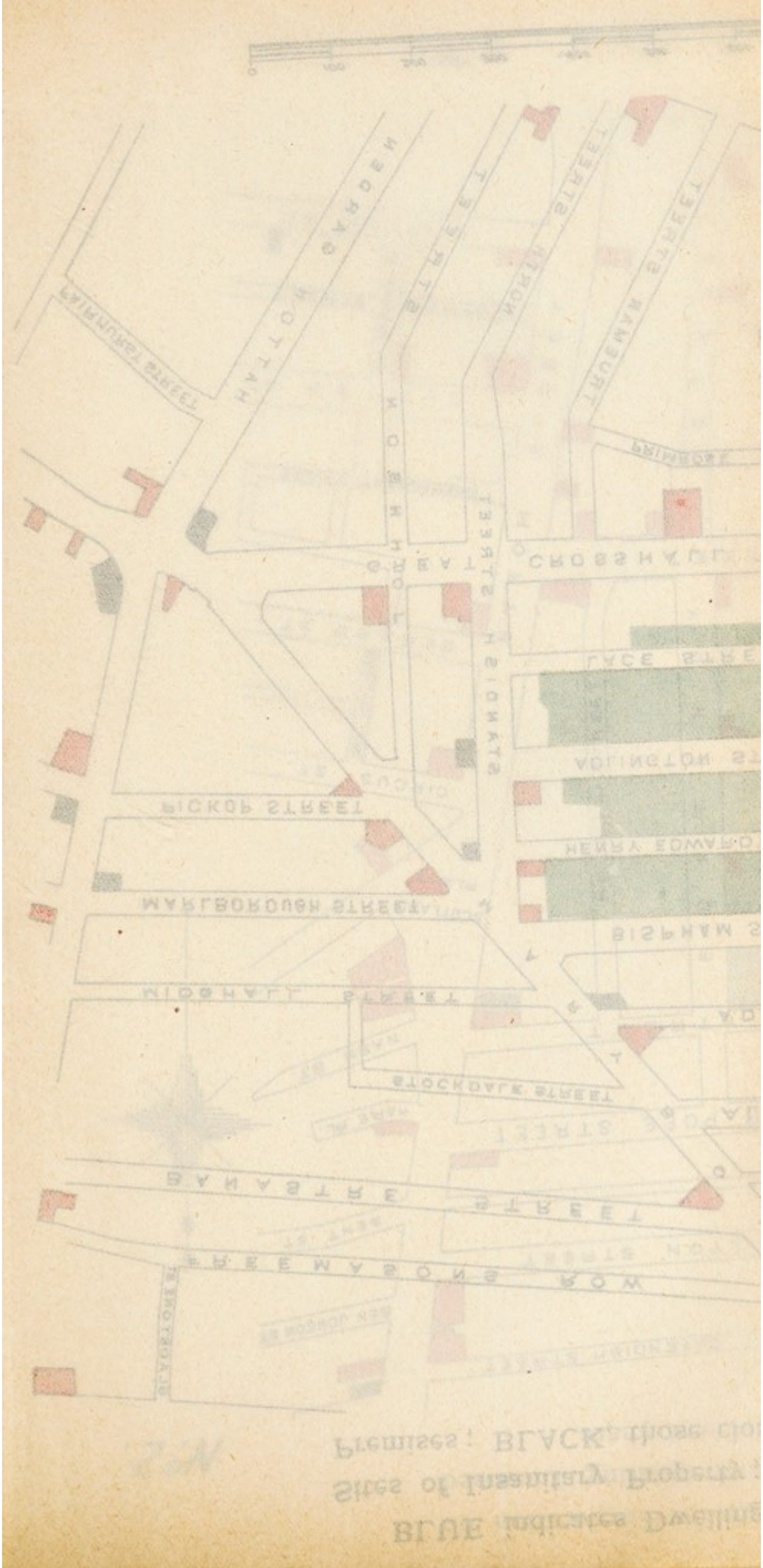




BLUE indicates Dwellings erected by the Corporation on Sites of Insanitary Property; RED shows existing Licensed Premises; BLACK, those closed within recent years.

N.º 2.




HATTON GARDEN
GREAT
CROSS HALL
PICKOP STREET
MARLBOROUGH STREET
MIDDHALL STREET
STOCKDALE STREET
BANASTRE STREET
THREE MARIONS ROW

CITY HOSPITALS.

HOSPITAL ACCOMMODATION.

The Hospital at Fazakerley was completed towards the early part of the year, and the Institution was opened for the reception of patients on April 25th, 1906.

As the Chairman of the Committee, Dr. Utting, pointed out:—

"In designing and constructing the Hospital the Committee have been actuated by a desire to erect for the city an Institution which should be replete with every modern arrangement for the comfort and welfare of the patients committed to their care. Consideration has been paid in planning the Institution to the facilities for working and general administration. The staff have been provided for upon lines which have been well considered, and due regard has been paid to the fact that the staff of an Infectious Diseases Hospital have a very high claim upon the consideration of their fellow-citizens. The dangerous nature of their calling, the great measure in which they are, by nature of that calling, cut off from the usual amenities of any social life are subjects which ought to be seriously considered; no institution exclusively confined to the treatment of infectious diseases can be regarded as properly equipped if it fails to make adequate provision for the staff.

"Many recent institutions of a similar character in the country have been visited and carefully inspected with a view of obtaining information regarding the equipment of the Hospital, and our thanks are due to the Managers and Directors of the Metropolitan Asylums Board Hospitals, Edinburgh, Glasgow, and of other hospitals in the country, who have placed their knowledge and experience at our disposal.

"The plan, general scheme, and construction of the Hospital have been entirely in the hands of Mr. Thomas Shelmerdine, Corporation Architect and Surveyor."

A description of the Hospital, published as a separate report, has been placed in the hands of every member of the Council.

The opening of this Hospital has enabled the Hospitals Committee to dispense with two small institutions, namely, the Priory Road Hospital and the Garston Infectious Hospital, and it is anticipated that some, at least, of the temporary pavilions at Parkhill will be dispensed with.

At the present time the number of beds available is as follows:—

City Hospital	North	147	beds
,,	South	88	,,
,,	East	140	,,
,,	Parkhill	350	,,
,,	Fazakerley	350	,,
,,	Fazakerley Annexe ...	160	,,
		1,235	,,

The approximate apportionment of beds is as follows, but the arrangement is modified as circumstances necessitate:—

Smallpox	160	beds
Typhus Fever	40	,,
Typhoid Fever	140	,,
Scarlet Fever	580	,,
Diphtheria	80	,,
Measles	60	,,
Isolation	175	,,
	1,235	,,

The value of the hospitals, and the immense amount of useful work performed, is shown by the fact that no less than 4,503 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 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 1906 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 to deal with any case of cholera, yellow fever, or plague which may arise in any of the neighbouring urban or rural districts, and in regard to several of them, this arrangement is also extended so as to include all of the ordinary forms of infectious disease, any cases of which would be received into the City Hospitals. 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.

Patients have also been received from the Children's Convalescent Home at West Kirby.

Steps have been taken by the committee during the year 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.

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 1906, including those reported under the Notification Act.

Year—1906.	FEVER.				Smallpox.	Scarlet Fever.	Measles.	Diphtheria.	Membranous Croup.	Puerperal Fever.	Erysipelas.	Chicken-pox.	Total.
	Typhus.	Typhoid.	Simple.	Relapsing.									
January	—	22	...	...	2	369	335	89	2	6	115	192	1,132
February ...	1	22	2	...	...	221	791	77	4	6	76	147	1,347
March.....	1	22	...	...	3	218	1,205	85	3	11	109	177	1,834
April	1	20	...	...	1	220	996	56	3	4	65	...	1,366
May.....	3	26	...	...	2	207	1,109	48	...	8	58	...	1,461
June	4	28	1	...	4	192	677	78	...	8	73	...	1,065
July	3	25	1	...	4	167	167	62	1	9	55	...	494
August	7	38	2	...	2	186	171	42	1	3	67	...	519
September...	4	80	3	...	1	230	150	64	3	6	87	...	628
October	11	87	2	...	...	334	373	99	2	10	95	...	1,013
November ...	8	77	...	...	...	332	469	99	2	6	107	...	1,100
December ...	9	44	...	...	...	283	376	89	1	11	100	...	913
Total.....	52	491	11	...	19	2,959	6,819	888	22	88	1,007	516	12,872
Removed to hospital	49	360	2	...	19	2,191	389	563	4	58	257	9	3,901

The number of patients removed to hospital includes those taken to general hospitals as well as those taken to the City Hospitals. (See page 125).

INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

With the complete disappearance of small-pox from the city, and having regard to the means available for the detection of any case which might arise, it was not deemed necessary to retain chicken-pox upon the list of diseases requiring compulsory notification.

The notification of chicken-pox is of importance during the prevalence of small-pox, inasmuch as cases of small-pox modified by vaccination are frequently so mild as to simulate and be mistaken for chicken-pox, and thus be passed over.

The advantages which attend the compulsory notification of erysipelas have been doubtful, but it is not at present proposed to remove it from the list.

Another form of disease which occasions considerable apprehension and disturbance of trade, as well as some loss of life, is anthrax. There are great difficulties under the present system in the way of obtaining a sufficiently early notification of anthrax, and it would be a distinct advantage to the public health if anthrax were scheduled as a notifiable disease.

The present system is that any medical practitioner called to visit a patient whom he believes to be suffering from anthrax, contracted in any factory or workshop, is required to send particulars of the case to the Chief Inspector of Factories at the Home Office, London. The employer of the patient or the occupier of the factory or workshop is also called upon to send written notice of the case to the Factory Inspector and to the certifying surgeon for the district.

The Medical Officer of Health receives a notification of each case which comes to the knowledge of the Medical Inspector of Factories at the Home Office, but the process of notification involves considerable delay, and very often the earliest notification which the Medical Officer receives is the report in the daily press of a coroner's inquest on the deceased person. Meantime the suspected material may have been distributed far and wide, rendering inquiries or disinfection extremely difficult.

The Common House Fly.

Towards the close of the summer Professor Ross and Mr. Newstead kindly undertook to make further investigations into the life history of the house fly.

There is no doubt that a part is played by flies in the propagation of disease of various kinds, more especially in infantile diarrhœa, typhoid fever, small-pox, and no doubt in other forms of sickness.

The Health Committee warmly approved of the project, and voted an amount towards the expenses of the investigation.

The investigators had not reported at the close of the year.

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:—

	1902.	1903.	1904.	1905.	1906.
January ...	828	1,288	576	632	803
February	707	1,115	624	592	583
March ...	690	1,221	573	712	634
April ...	813	1,072	556	633	410
May ...	837	1,128	609	827	365
June ...	791	1,082	679	862	409
July ...	727	940	491	643	335
August ...	779	632	487	606	368
September	1,016	743	629	810	475
October ...	1,210	884	839	1,068	674
November	1,093	691	846	1,101	655
December	1,220	561	704	938	550
	10,711	11,357	7,613	9,424	6,261

The diseases were specified as follows:—

	1902.	1903.	1904.	1905.	1906.
Smallpox	429	1,548	27	11	110
Chickenpox	883	2,631	1,792	2,254	636
Scarlet Fever	5,885	4,110	2,995	4,299	2,765
Typhoid Fever	1,069	740	496	378	510
Typhus Fever	104	177	82	84	46
Continued Fever	52	56	36	19	29
Remittent Fever	—	—	1	—	2
Relapsing Fever	2	7	1	2	1
Fever ...	2	2	2	2	1
Puerperal Fever	79	62	67	79	116
Diphtheria	1,052	876	1,015	1,021	915
Membranous Croup	65	39	67	48	36
Erysipelas	1,086	1,107	1,030	1,225	1,087
Anthrax ...	2	2	2	2	7
Choleraic Diarrhœa	1	—	—	—	—
	10,711	11,357	7,613	9,424	6,261

NUMBER OF CASES REPORTED AND NUMBER REMOVED TO HOSPITALS, 1889-1906.

	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

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 1906:—

CITY HOSPITAL NORTH, NETHERFIELD ROAD.

Visiting Physician, Dr. R. I. RICHARDSON.

Resident Physician, Dr. D. B. MANDHLE.

Diseases.	Remaining Dec. 31st, 1905.	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.	83	497	—	580	247	—	237	64	4	32	6·4
Enteric Fever.	14	124	1	139	—	—	105	16	—	18	14·5
Typhus Fever.	6	46	—	52	—	—	33	14	—	5	10·8
Diphtheria ...	—	11	—	11	—	—	5	4	2*	2	18·1
Measles.....	—	6	—	6	1	—	4	—	—	1	16·6
Other Diseases	...	42	—	42	—	—	37	—	—	5	11·9
Isolation and Observation Cases.	5	13	—	18	—	—	12	6	—	—	—
Totals..	108	739	1	848	248	—	433	104	6	63	8·5

* 1 died in 6 hours—1 died in 48 hours.

SCARLET FEVER.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases	260	150	80	7	—	—	—	497
No. of Deaths	25	4	3	—	—	—	—	32
Percentage of Deaths	9·6	2·6	3·7	—	—	—	—	6·4

ENTERIC FEVER.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases.....	11	24	35	29	20	4	1	124
No. of Deaths	1	4	4	6	2	1	—	18
Percentage of Deaths	9·09	16·6	11·4	20·6	10·	25·	—	14·5

TYPHUS FEVER.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases	—	2	28	20	16	2	—	46
No. of Deaths.....	—	—	—	3	1	1	—	5
Percentage of Deaths	—	—	—	18·7	16·6	50·	—	10·8

DIPHTHERIA.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases.....	4	6	1	—	—	—	—	11
No. of Deaths	1	1	—	—	—	—	—	2
Percentage of Deaths	25·	16·6	—	—	—	—	—	18·1

OTHER DISEASES.

Disease.	Admitted.		Died.
Measles	6	.....	1
Lobar Pneumonia	15	.....	—
Broncho Pneumonia	8	.....	1
Influenza	3	.....	—
Pulmonary Tuberculosis	3	.....	1
Bronchitis	3	.....	—
Tubercular Meningitis	1	.....	1
Puerperal Septicaemia	1	.....	1*
Dyspepsia	1	.....	—
Cellulitis of Neck	2	.....	—
Tonsillitis	1	.....	—
Syphilis	2	.....	—
Gastro Enteritis	1	.....	1
Isolation and Observation Cases	13	.....	—
	60		6

Mortality=10·0%.

* Died within 48 hours of admission.

CITY HOSPITAL SOUTH, GRAFTON STREET.

Visiting Physician, Dr. N. E. ROBERTS.

Resident Physician, Dr. H. L. HAMILTON.

Diseases.	Remaining Dec. 31st, 1905.	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	74	375	—	449	241	—	132	50	6	26	6·93
Enteric Fever	7	104	1	112	—	—	95	13	—	4	3·84
Typhus Fever	—	3	—	3	—	—	2	—	—	1	33·33
Diphtheria	—	3	—	3	—	3	—	—	—	—	—
Measles	—	7	—	7	—	5	—	—	—	2	28·57
Other Diseases	1	54	—	55	—	—	40*	2	1	13	24·07
Isolation & Observation Cases	—	9	—	9	—	—	9	—	—	—	—
Totals	82	555	1	638	241	8	278	65	7	46	8·28

* Of this class, 2 were transferred to General Hospitals.

SCARLET FEVER.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases	189	117	45	20	4	—	—	375
No. of Deaths	16	6	3	1	—	—	—	26
Percentage of Deaths	8·46	5·12	6·6	5·0	—	—	—	6·93

ENTERIC FEVER.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases	9	15	28	28	19	4	1	104
No. of Deaths.....	1	—	1	1	1	—	—	4
Percentage of Deaths..	11·1	—	3·57	3·57	5·26	—	—	3·84

TYPHUS FEVER.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases.....	1	1	—	—	1	—	—	3
No. of Deaths.....	1	—	—	—	—	—	—	1

DIPHTHERIA.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases	1	—	2	—	—	—	—	3
No. of Deaths	—	—	—	—	—	—	—	—

OTHER DISEASES.

Disease.	Admitted.		Died.
Alcoholism and Pneumonia	1	.....	—
Infective Endocarditis	2	.....	2
Malaise	16	.....	—
Malaria	1	.....	—
Meningitis	5	.....	5
Parturition	1	.....	—
Peritonitis	2	.....	—
Pneumonia	18	.....	4
Remittent Fever (Ship Cases)	2	.....	2
Tubercle of Lung	1	.....	—
Varicella	5	.....	—
	54		13

Mortality=24·07 %.

One child born in the hospital has not been included in the Report.

CITY HOSPITAL, PARK HILL.

Visiting Physician, Dr. N. E. ROBERTS.

Resident Physicians, Dr. P. GRAY-MARSHALL, Dr. L. HUTCHINSON.

Diseases.	Remaining Dec. 31st, 1905.	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	255	730	126	1111	47	856	165	9	43	5·9
Diphtheria	25	189	—	214	—	166	9	20	39	20·6
Measles	6	299	12	317	—	246	31	1	40	13·3
Other Diseases	—	10	—	10	—	5	—	3	5	50·
Isolation and Observation Cases	6	43	3	52	—	44	5	—	3	6·9
Totals	292	1271	141	1704	47	1317	210	33	130	10·2

SCARLET FEVER.

	Age Periods.							
	Under 5	5–10	10–20	20–30	30–40	40–50	50 upwards	Total.
No. of cases	302	297	97	24	7	2	1	730
No. of deaths	35	7	—	—	1	—	—	43*
Percentage of deaths	11·5	2·3	—	—	14·3	—	—	5·9

* One of the deaths from Scarlet Fever occurred in a patient who was transferred from another City Hospital.

DIPHTHERIA.

	Age Periods.							
	Under 5	5–10	10–20	20–30	30–40	40–50	50 upwards	Total.
No. of cases	74	63	33	12	5	1	1	189
No. of deaths	24	12	1	1	1	—	—	39
Percentage of deaths	32·4	19·	3·	8·3	20·	—	—	20·6

N.B.—Of 24 deaths under 5 years of age, 18 died within 48 hours of admission.
The relatively high mortality in Diphtheria this year was due to the large number of very severe cases admitted.

OTHER DISEASES.

Disease	Admitted		Died
Measles	299	.....	40 (1 within 48 hours).
Chronic Bronchitis	1	.....	—
Pneumonia	1	.....	1
Empyema	2	.....	—
Phthisis	1	.....	—
Malarial Fever	1	.....	—
Epidemic Diarrhœa	1	.....	1 (within 48 hours).
Acute Laryngitis	1	.....	1 (within 48 hours).
Meningitis	2	.....	2 (1 within 12 hours).
Isolation and Observation Cases	43	.....	3
	352		48

Mortality = 13·6 %.

CITY HOSPITAL EAST, MILL LANE.

Visiting Physician, DR. H. A. CLARKE.

Resident Physician, DR. A. E. HODGSON.

DISEASES.	Remaining Dec. 31st, 1905.	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...	84	329	—	413	28	2	315	40	6	28	8·51
Enteric Fever..	—	1	—	1	—	—	1	—	—	—	—
Diphtheria	20	285	—	305	—	2	249	24	12	30	10·52
Measles	—	8	—	8	—	1	5	—	—	2	25·
Other Diseases.	—	32	—	32	—	—	28	—	—	4	12·5
Isolation and Observation Cases.....	—	12	—	12	—	—	12	—	—	—	—
Totals.....	104	667	—	771	28	5	610	64	18	64	9·59

SCARLET FEVER.

	AGE PERIODS							
	Under 5	5 –10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases.....	112	159	43	9	4	1	1	329
No. of Deaths.....	23	5	—	—	—	—	—	28*
Percentage of deaths	20·53	3·14	—	—	—	—	—	8·51

* Of these four died within 24 hours, and two within 48 hours of admission.

DIPHTHERIA.

	Age Periods.							
	Under 5	5–10	10–20	20–30	30–40	40–50	50 upwards	Total
No. of Cases	109	92	68	13	1	2	—	285
No. of Deaths.....	24	6	—	—	—	—	—	30*
Percentage of Deaths	22·01	6·52	—	—	—	—	—	10.52

*Of these eight died within 24 hours, and four within 48 hours of admission.

OTHER DISEASES.

Disease.	Admitted.		Died.
Tonsillitis	25	.....	—
Septicæmia	2	.....	2
Tubercular Meningitis	1	.....	1
Laryngitis.....	1	.....	1
Pharyngitis	1	.....	—
Ulcer of Pharynx.....	1	.....	—
Pneumonia	1	.....	—
Gastric Catarrh	1	.....	—
Isolation and Observation Cases	12	.....	—
	—		—
	45		4

Mortality= 8·8 %.

CITY HOSPITAL, FAZAKERLEY.

Medical Superintendent, C. RUNDLE.

Resident Physician, J. C. MOTTRAM.

Diseases.	Remaining Dec. 31st., 1905.	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	29	282	203	514	5	357	145	2	7	2·48
Enteric Fever.....	—	16	—	16	—	12	3	—	1	6·2
Diphtheria	—	48	—	48	—	18	29	1	1	2·08
Measles	—	2	1	3	—	1	1	—	1	50·
Other Diseases	—	23	3	26	1	21	2	—	2	8·6
Isolation and Observation Cases	—	11	1	12	—	12	—	—	—	—
Totals	29	382	208	619	6	421	180	3	12	3·1

SCARLET FEVER.

	Age Periods.							
	Under 5	5–10	10–20	20–30	30–40	40–50	50 upwards	Total
No. of Cases.....	103	118	50	9	1	1	—	28·2
No. of Deaths.....	5	—	2	—	—	—	—	7
Percentage of Deaths	4·8	—	4·	—	—	—	—	2·48

ENTERIC FEVER.

	Age Periods.							
	Under 5	5–10	10–20	20–30	30–40	40–50	50 upwards	Total
No. of Cases	2	5	2	4	2	1	—	16
No. of Deaths	—	—	—	1	—	—	—	1
Percentage of Deaths	—	—	—	25·	—	—	—	6·2

DIPHTHERIA.

	Age Periods.							
	Under 5	5–10	10–20	20–30	30–40	40–50	50 upwards	Total
No. of Cases	13	12	12	6	5	—	—	48
No. of Deaths	1	—	—	—	—	—	—	1
Percentage of Deaths	7·6	—	—	—	—	—	—	2·08

OTHER DISEASES.

Disease.	Admitted.	Died.
Varicella	13th June	—
,,	16th ,,	—
,,	13th September	—
,,	18th ,,	—
,,	19th ,,	—
,,	21st ,,	—
,,	21st ,,	—
,,	27th ,,	—
,,	2nd October	—
,,	8th ,,	—
,,	12th ,,	—
Whooping Cough	17th September	—
,,	3rd October	13th October
,,	6th ,,	—
Vaccinia	2nd November	—
Ulcerative Stomatitis	23rd October	—
Eczema	19th September	—
Scabies	18th ,,	—
,,	21st ,,	—
Lymphadenitis	25th September	—
Acute Miliary Tuberculosis	3rd ,,	17th September
Rötheln	17th December	—
Rötheln	31st ,,	—
Observation Cases, 11	—	—

CITY HOSPITAL, FAZAKERLEY ANNEXE.

Medical Superintendent, C. RUNDLE.

Diseases.	Remaining Dec. 31st, 1905.	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...	139	29	145	313	—	47	264	—	—	2	6·8
Diphtheria.....	—	1	—	1	—	—	—	—	1	1	100·
Smallpox	—	7	—	7	—	—	6	—	—	1	14·2
Measles	—	6	—	6	—	—	5	—	—	1	16·6
Other Diseases.	—	68	—	68	—	3	61	3	—	1	1·4
Isolation and Observation Cases	—	24	—	24	—	—	24	—	—	—	—
Totals	139	135	145	419	—	50	360	3	1	6	4·4

SCARLET FEVER.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases	7	15	7	—	—	—	—	29
No. of Deaths	1	1	—	—	—	—	—	2
Percentage of deaths	14·2	6·6	—	—	—	—	—	6·8

SMALL POX.

	Age Periods.							
	Under 5	5–10	10–20	20–30	30–40	40–50	50 upwards	Total
No. of Cases	—	3	2	—	—	2	—	7
No. of Deaths	—	—	1	—	—	—	—	1
Percentage of Deaths	—	—	50·	—	—	—	—	14·2

OTHER DISEASES.

Disease.	Admitted.	Died.
Tonsillitis	9th February	—
Syphilis	8th March	—
Vaccinia	28th June	—
Impetigo	30th June	—
Acute Exfoliative Dermatitis	28th November.....	—
Purpura	27th May	—
Eczema	24th April	—
Eczema	12th July	—
Whooping Cough—7 cases)	—	—
Varicella—(53 cases)	1 fatal	24th April.
Isolation Cases—(24 cases)	—	—

APPENDIX.

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.	
				Under 1 year of age.		At all ages.						
		Number.	Rate.*	Number.	Rate per 1000 Births regist'd.	Number.	Rate.*				Number.	*Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1896.....	658050	21943	33·3	3833	175	14476	22·0	3457	416	...	14060	21·4
1897.....	663633	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
Averages for years 1896-1905.	691708	23050	33·3	4159	180	15640	22·6	4224	594	16	15062	21·7
1906.....	739180	24123	32·6	4194	173	15745	21·3	4985	744	60	15061	20·3

* 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 covered by water). 16,619.

At Census of 1901.
Total population at all ages.....704,134
Number of inhabited houses 126,835
Average number of persons per house .....5·5

A

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.
Parish Workhouse, Brownlow Hill.	County Asylums.	Epileptic Hospital.
Royal Infirmary.		Leyfield Poor Law Schools.
Children's Infirmary.		Grove Mount Home.
Hahnemann Hospital.		Branch Workhouse, Luton Street.
Consumption Hospital.		Cottage Homes, Fazakerley.
Eye and Ear Infirmary.		Children's Rest.
David Lewis Northern Hospital.		Claremont Home.
Stanley Hospital.		Walton Gaol.
Royal Southern Hospital.		
Mill Road Infirmary.		
Hospital for Women.		
City Hospital North.		
,, South.		
,, Parkhill.		
,, East.		
,, Fazakerley.		
Walton Workhouse.		
Belmont Road Workhouse.		
Toxteth Workhouse.		
Highfield Infirmary.		
Turner Memorial Home.		
St. Augustine's Home.		
Kirkdale Home.		
House of Providence.		
St. Joseph's Home.		
Home for Incurables.		
Tuebrook Villa Asylum.		
Samaritan Hospital.		
Accident Hospital, Garston.		

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.			
Year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
	a.	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*
1896.....	53336	2053	1609	417	44634	1433	1451	291	53874	1740	1127	203	114964	4335	2697	778
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	1830	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
Averages of Years 1896 to 1905.	53006	2152	1725	488	42550	1286	1442	312	52492	1681	1161	228	120471	4289	2805	818
1906.....	52621	2137	1633	528	41619	1227	1304	319	50855	1664	1032	201	123940	4422	2770	897

Note.—Population of each district corrected as per Census Returns of 1891 and 1901.

B

TABLE II.—*continued.*

Names of Localities.	5.—Kirkdale District.				6.—West Derby (West) District.				7.—Toxteth District.			
Year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
	a.	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*
1896	67818	2359	1333	400	81311	2950	1698	486	106655	3522	2231	550
1897	68144	2423	1509	457	82434	3040	1827	557	106525	3527	2456	712
1898	68472	2377	1368	408	83670	3099	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
Averages of Years 1896 to 1905.	69214	2376	1452	429	85997	2989	1736	503	106001	3497	2339	630
1906	70450	2323	1373	378	90081	2853	1657	439	105162	3415	2299	614

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).			
Year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
	a.	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*
1896	47270	1542	704	200	40166	951	685	162	18949	460	226	63	25433	598	299	60
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	997	486	151	33441	664	389	92
1905	61127	2075	870	218	47428	1503	749	169	32774	1101	453	124	34530	654	374	62
Averages of Years 1896 to 1905.	54139	1769	830	241	43707	1203	723	170	25301	795	371	112	29933	629	342	75
1906	62043	1971	909	242	48112	1491	875	211	34832	1101	488	140	35079	689	342	62

Note.—Population of each district corrected as per Census Returns of 1891 and 1901.

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.
	a.	*b.*	*c.*	*d.*
1896	Statistics not	available		
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
Averages of Years 1897 to 1905...	17490	589	293	91
1906	20530	710	339	94

Names of Localities.	**13.—Fazakerley District.**			
Year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.
	a.	*b.*	*c.*	*d.*
1896—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
Averages of Years 1900 to 1905...	2584	73	29	8
1906	3856	120	40	12

Note.—Population corrected as per Census Returns of 1891 and 1901.

C

TABLE III.

Cases of Infectious Disease notified during the Year 1906.

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.	Kirkdale.	West Derby (West).	Toxteth.	Walton.	West Derby (East).	Wavertree.	Sefton Park (late Toxteth Rural).	Garston.	Fazakerley.			Scotland.	Exchange.	Abercromby.	Everton	Kirkdale	West Derby (West).	Toxteth.	Walton.	West Derby (East).	Wavertree.	Sefton Park (late Toxteth Rural).	Garston.	Fazakerley.			
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.																																			
Small-pox	19	...	1	5	7	6	...	...	...	(w) 4	(H) (w) 1	...	...	(H-H) 5	(H) (w) ...	...	...	...	(H) ...	(H) 2	...	7	...	...	4	1	...	...	5	...	...	...	...	...	2	...	7
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	888	29	386	336	77	60	...	34	20	42	153	56	103	126	106	59	83	63	30	3	9	1	26	16	29	112	35	64	87	61	34	47	27	16	3	6	...
Membranous croup	22	1	17	4	...	...	...	4	1	...	9	2	1	2	1	...	2	...	...	...	...	...	1	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...
Erysipelas	1007	27	46	93	107	671	63	118	111	54	197	88	75	152	65	54	25	18	15	2	27	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet fever	2959	73	1376	1314	134	62	...	118	67	88	518	253	352	365	282	231	146	173	280	6	73	7	97	57	72	378	181	266	290	177	160	88	106	246	4	63	6
Typhus fever	52	...	6	17	12	17	...	36	1	6	1	2	...	2	...	1	...	...	2	...	1	...	36	1	6	1	2	...	2	...	...	...	...	...	...	1	...
Enteric fever	491	2	33	145	122	186	3	31	24	42	95	36	66	66	21	23	12	13	15	3	9	35	12	9	10	51	13	29	30	7	8	4	6	7	3	2	31
Relapsing fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever	11	...	3	3	2	2	1	2	...	3	...	...	...	3	...	1	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Puerperal fever	88	...	...	...	32	56	...	20	10	5	14	6	11	8	4	6	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
*Chicken-pox	516	103	264	145	3	1	...	65	34	13	83	34	48	67	14	15	52	32	12	5	41	1	1	2	3	2	...	...	...	...	...	...	...	...	...	1	1
†Tuberculosis	1919	9	46	162	300	1392	10	298	388	239	365	98	164	181	71	38	20	31	13	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	7972	244	2178	2224	796	2453	77	726	656	496	1436	575	820	977	564	428	342	331	369	21	160	71	173	85	124	546	231	359	414	246	202	139	139	270	12	73	46

(H) The localities in which the Isolation Hospitals are situated.
(w) The localities in which Workhouses are situated.
* Notification compulsory during first 3 months of the year.
† Notification voluntary since February, 1901.

D

TABLE IV.

Causes of, and ages at, Death during Year 1906.

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 not belonging to the Sanitary District in 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	Exchange.	Abercromby	Everton.	Kirkdale	West Derby. (West).	Toxteth.	Walton.	West Derby. (East).	Wavertree.	Sefton Park.	Garston.	Fazakerley.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Small-pox	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Measles	576	128	418	29	...	1	...	96	45	39	111	42	56	132	10	21	15	6	1	2	137
Scarlet fever	188	11	111	60	3	3	...	13	8	6	33	23	19	25	17	17	6	9	11	1	153
Whooping-cough	356	140	199	17	...	...	...	46	21	12	76	32	33	60	26	20	18	7	5	...	26
Diphtheria and membranous croup	148	17	95	32	1	2	1	8	4	7	26	4	15	33	12	13	7	7	12	...	88
Croup	8	...	7	1	...	...	...	...	...	...	1	.	1	5	...	...	...	...	1	...	1
Fever (Typhus	8	...	1	2	1	4	...	5	...	...	...	...	...	1	...	1	...	...	1	...	6
Fever (Enteric	79	1	2	21	16	38	1	6	9	7	20	6	7	9	4	5	3	...	2	1	68
Fever (Other continued	1	...	...	1	...	...	...	...	.	1	...	...	...	...	...	...	...	...	...	...	...
Epidemic influenza	62	1	3	1	1	36	20	4	3	3	16	7	3	10	3	8	1	4	...	...	3
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
*Diarrhœa	1526	1124	356	6	...	17	23	227	115	62	360	144	188	175	89	72	46	16	31	1	147
*Enteritis	154	...	81	3	2	46	22	18	12	12	30	11	21	27	5	5	1	5	7	...	32
*Puerperal fever	31	...	...	...	11	20	...	5	1	1	6	3	2	5	3	3	...	1	1	...	24
Erysipelas	23	5	...	...	...	10	8	1	2	4	1	1	3	9	...	1	...	1	...	...	15
Other septic diseases	85	18	10	19	7	27	4	6	4	3	19	3	9	13	14	3	7	3	1	...	38
Phthisis (Pulmonary Tuberculosis)	1180	6	18	46	175	914	21	102	120	103	232	93	142	159	57	74	40	26	28	4	590
Other tubercular diseases	376	97	144	72	18	41	4	24	29	21	68	31	58	74	21	15	18	7	9	1	130
*Cancer, malignant disease	609	...	2	1	8	425	173	38	46	43	84	53	72	102	48	53	23	25	18	4	269
Bronchitis	1503	312	202	7	8	508	466	219	171	124	267	121	155	220	74	66	37	19	26	4	457
Pneumonia	1358	265	407	55	63	463	105	179	128	99	228	125	150	222	66	56	38	25	37	5	365
Pleurisy	46	...	2	2	2	37	3	6	5	3	9	3	4	8	2	3	2	1	...	...	19
Other diseases of Respiratory organs	168	24	46	4	5	61	28	23	18	6	33	25	12	23	9	9	3	3	4	...	21
Alcoholism and Cirrhosis of liver	200	...	...	...	2	184	14	19	31	22	36	16	16	22	10	15	3	6	4	...	87
Venereal diseases	80	69	5	...	1	5	...	19	7	4	22	2	7	7	7	1	2	1	1	...	26
Premature birth	489	489	...	...	...	...	...	41	29	25	102	69	44	77	33	37	17	8	5	2	32
Diseases and accidents of parturition	48	...	...	...	6	42	...	5	5	2	7	4	5	6	6	5	1	1	1	...	9
Heart diseases	942	...	8	43	56	560	275	81	86	71	155	94	102	146	72	67	30	19	18	1	382
Accidents	537	113	81	63	32	191	57	78	85	47	66	65	53	77	27	16	13	2	8	...	280
Suicides	51	...	...	...	6	43	2	2	5	4	7	4	7	8	5	1	3	3	2	...	21
All other causes	4228	1318	351	116	92	1246	1105	362	317	301	755	392	473	643	289	288	154	137	105	14	1563
All causes	15,061	4138	2549	601	517	4924	2332	1633	1304	1032	2770	1373	1657	2299	909	875	488	342	339	40	4985

* See notes at back.

NOTES TO TABLES IV. AND V.

(*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-column 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."

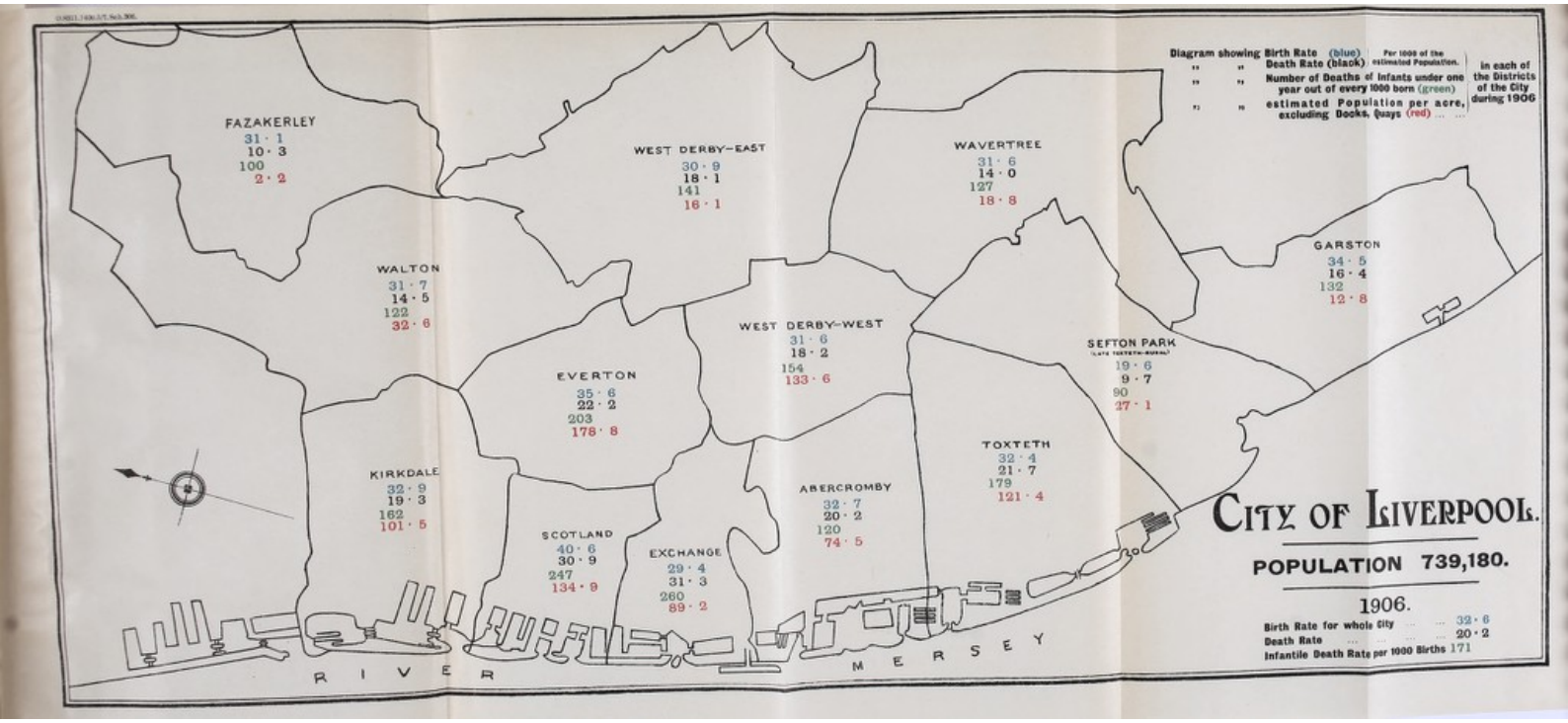
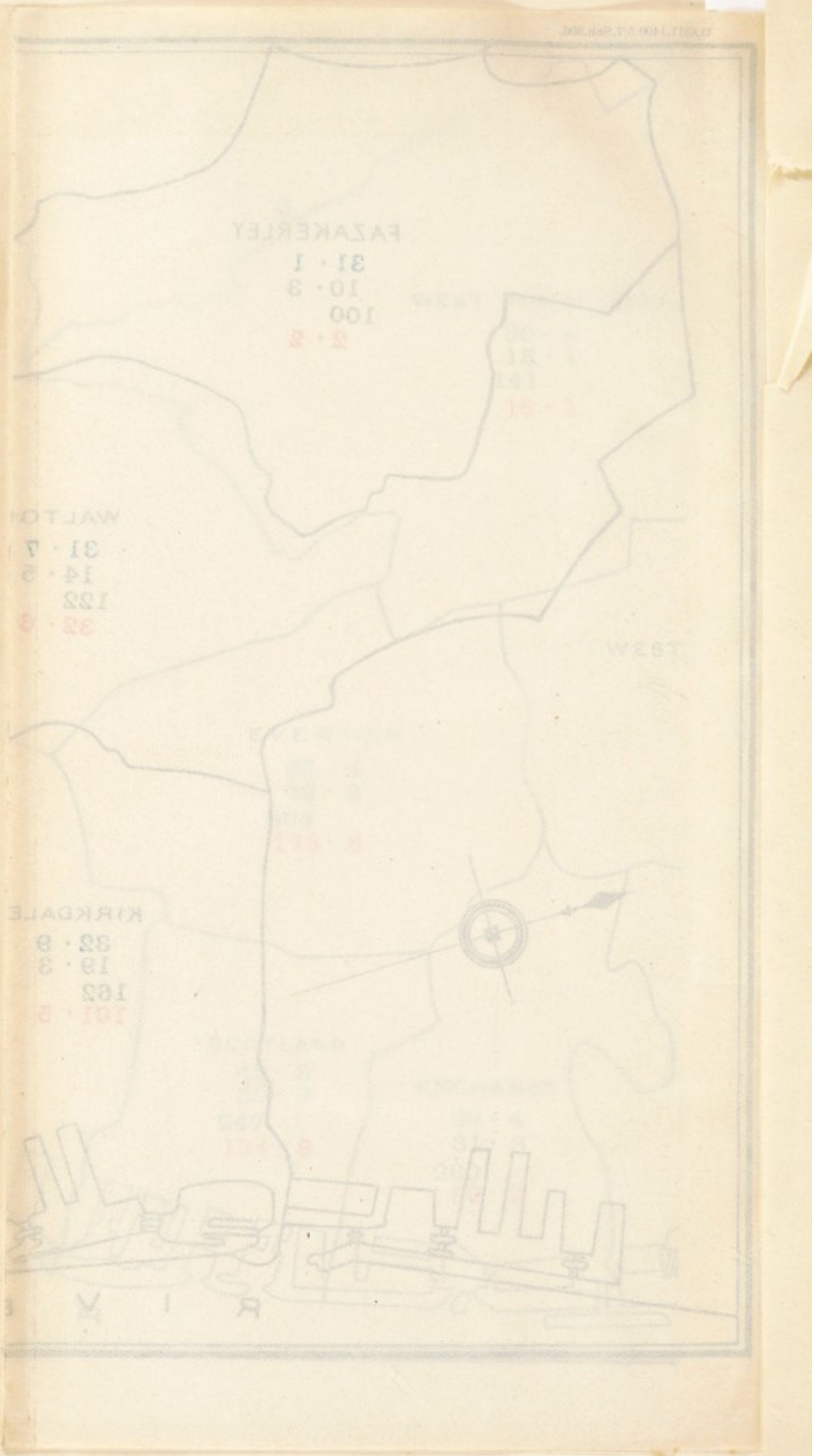


Diagram showing Birth Rate (blue) Per 1000 of the estimated Population.
" " Death Rate (black)
" " Number of Deaths of Infants under one year out of every 1000 born (green)
" " estimated Population per acre, excluding Docks. (quays (red) ... ...
in each of the Districts of the City during 1906
FAZAKERLEY
31 · 1
10 · 3
100
2 · 2
WEST DERBY–EAST
30 · 9
18 · 1
141
16 · 1
WAVERTREE
31 · 6
14 · 0
127
18 · 8
WALTON
31 · 7
14 · 5
122
32 · 6
GARSTON
34 · 5
16 · 4
132
12 · 8
WEST DERBY–WEST
31 · 6
18 · 2
154
133 · 6
SEFTON PARK
19 · 6
9 · 7
90
27 · 1
EVERTON
35 · 6
22 · 2
203
178 · 8
TOXTETH
32 · 4
21 · 7
179
121 · 4
KIRKDALE
32 · 9
19 · 3
162
101 · 5
ABERCROMBY
32 · 7
20 · 2
120
74 · 5
SCOTLAND
40 · 6
30 · 9
247
134 · 9
EXCHANGE
29 · 4
31 · 3
260
89 · 2
RIVER MERSEY
CITY OF LIVERPOOL.
POPULATION 739,180.
1906.
Birth Rate for whole City ... ... 32 · 6
Death Rate ... ... 20 · 2
Infantile Death Rate per 1000 Births 171



F

DEATHS REGISTERED IN THE CITY OF LIVERPOOL,

DURING THE YEAR ENDING SATURDAY, 29TH DECEMBER, 1906.

CAUSE OF DEATH.	SEX	AGE—YEARS	DISTRICTS	PUBLIC INSTITUTIONS	CITY OF LIVERPOOL
	Males / Females	0 1 2 3 4 5 10 15 20 25 35 45 55 65 75 85 95 97	Central / Exchange / Abercromby / Everton / Kirkdale / North Toxteth / South Toxteth / Wavertree / Fairfield / Walton / West Derby / Garston / Childwall / Allerton	Workhouse / Infirmary / Asylum / Lunatic Asylum / Fever Hospital / Small-pox Hospital / Consumption Hospital / Hospitals / Children's Hospitals / Lying-in Hospitals / Eye Hospitals / Asylums / Other Institutions	
ALL CAUSES	8126 8459	4134 1373 521 275 201 359 368 381 736 998 1070 1152 1102 990 814 1139 435 34	994 847 841 1069 1009 1214 1703 713 716 996 847 781	1170 387 31 13 29 10 170 130 66 135 61 28 140 766 1109 31 63 377 306	16745
I.—Zymotic and Septic Diseases	1023 1072	1264 270 157 108 91 104 44 20 29 35 60 26 45 34 19 20 11	207 153 202 167 119 164 206 141 109 75 33 31	146 28 10 3 6 1 75 74 91 2 1 6 63 65 90 33 66 20 3	2095
II.—Diseases of Uncertain or Variable Seat	209 225	9 6 7 2 2 1 1 4 5 22 15 19 20 28 32 41 34 21 16 14	34 12 23 42 35 40 32 41 34 21 16 14	10 67 3 2 2 13 16 2 1 1 1 13 23 13 4 2 1	222
III.—Tubercular Diseases	973 880	384 85 31 26 25 17 46 35 108 120 103 109 108 57 17 8	93 55 55 103 72 107 130 66 79 49 25 30	121 53 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1853
IV.—Constitutional Diseases	71 103	22 14 3 3 4 2 4 7 6 5 11 16 18 12 9 13 10 7 2	4 9 6 13 14 9 13 19 19 8 7 3	10 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	174
V.—Diseases of the Nervous System	790 756	364 95 46 35 37 36 16 31 18 34 40 45 113 124 119 131 57 6	136 55 51 106 107 103 102 83 74 33 26 32	66 21 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1546
VI.—Diseases of the Circulatory System	930 548	84 33 4 1 3 3 12 27 33 28 32 103 123 229 311 195 155 61 4	206 104 143 209 232 254 403 156 229 67 48 28	100 27 9 1 4 3 29 15 4 3 1 26 165 130 34 1 47	2091
VII.—Diseases of the Respiratory System	1635 1566	959 410 155 68 36 27 26 32 56 66 105 157 303 296 193 123 47 1	351 206 243 409 316 329 457 183 204 98 56 46	300 37 9 1 4 3 29 15 4 3 1 26 165 130 34 1 47	3201
VIII.—Diseases of the Digestive System	413 447	304 98 38 31 4 11 30 43 16 25 41 53 107 95 45 26 6	51 36 35 139 41 93 98 39 45 24 23 26	26 42 17 3 1 2 1 1 1 1 1 1 1 1 1 1 1	860
IX.—Diseases of the Lymphatic System	5 14	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19
X.—Diseases of the Urinary System	340 168	5 4 1 2 1 1 1 1 2 10 35 63 104 69 31 10 9	31 13 13 27 20 18 37 13 19 9 11 1	25 21 1 1 8 1 30 7 1 1 1 1 1 1 1 1 1	488
XI.—Diseases of the Reproductive System	82	1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 2 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	92
XII.—Diseases of the Joints, &c	17 10	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	27
XIII.—Skin Diseases	8 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11
XIV.—Developmental Diseases	326 266	246 68 13 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	592
XV.—Diseases of the Integumentary System	1 27	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	28
XVI.—Violence, &c	178 173	136 39 31 17 16 16 20 25 32 40 121 133 191 52 46 34 17 1	31 33 44 76 56 48 63 35 34 33 18 6	32 13 1 1 1 60 58 2 1 1 1 37 22	305
Causes ill defined or not specified	4 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7
Class I.—Small Pox	1 2	1 1	1		4
Chicken Pox	10 4	10 4	1		14
Measles	295 291	110 236 95 53 30 14 1 1 1 1	34 10 16 95 34 61 103 1 19 13 6 1	47 1 1 2 10 2 1 1 2 14 1 1 2 13 1	586
Scarlet Fever	103 90	11 27 15 21 24 10 12 1 1 3 7 1 1 1 1	1 1 3 4 8 2 3 3 4 2 2 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	102
Whooping Cough	165 149	141 133 13 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5 10 6 19 11 13 18 21 12 5 5 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	181
Membranous Croup	8 6	6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	14
Diarrhœa	56 63	7 49 1 1 1 4 2 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	120
Dysentery	1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2
English Cholera & Cholera Infantum	3 3	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6
Typhus Fever	4 4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8
Typhoid Fever	47 39	1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	86
Puerperal Fever (Confinement)	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Erysipelas	5 10	5 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	15
Syphilis	43 39	30 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	82
Gonorrhœa	1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2
Glanders	5 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6
Hydrophobia	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Rheumatism	12 10	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	22
Purpura	3 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5
Rickets	17 17	17 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	34
Diabetes	24 25	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	49
Scurvy	1 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3
Leucocythæmia	3 6	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9
Hæmophilia	2 2	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4
Class V.—Inflammation of Brain, &c	136 147	106 48 10 11 14 13 1 1 1 1 1 1 1 1 1 1 1	26 7 1 43 10 13 16 11 11 6 9 6 1	14 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	293
Meningitis	6 6	3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12
Apoplexy	297 235	1 1 1 1 1 1 1 1 1 1 42 52 95 75 77 86 24 3	25 15 21 45 21 17 61 34 26 15 16 14 5	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	532
Paralysis	90 85	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 4 2 3 1 3 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	175
Chorea	4 5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9
Epilepsy	19 19	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	38
Spasm	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Locomotor Ataxy	2 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4
Paralysis Agitans	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Hemiplegia	3 2	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5
Class VI.—Convulsions	239 213	204 46 17 4 3 2 1 1 1 1 1 1 1 1 1 1 1	36 7 1 43 10 13 16 11 11 6 9 6 1	14 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	452
Croup	34 12	3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	46
Tetanus	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Trismus	34 5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	39
Neuralgia	6 15	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	21
Cerebro-Spinal Meningitis	1 5	3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6
Locomotor Ataxy	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Other Diseases of Brain	54 38	8 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	92
Disease of Heart	498 325	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	823
Angina Pectoris	7 5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12
Valvular Disease	175 180	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	355
Pericarditis	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Aneurism	25	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	25
Thrombosis	5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5
Embolism	10 7	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	17
Hæmorrhage	3 5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8
Disease of Blood Vessels	70 29	1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	99
Class VII.—Bronchitis	580 599	114 161 60 15 11 8 1 1 1 1 23 24 83 115 103 119 151 65 67 30 18 20 5	108 75 77 193 160 139 191 65 67 30 18 20 5	168 24 5 1 1 2 1 4 3 1 1 1 1 1 1 1 1	1284
Pneumonia	745 644	473 236 105 48 23 15 14 20 41 63 134 196 144 97 55 57 6	186 61 61 156 106 119 166 58 82 31 31 20 5	170 24 5 1 1 2 1 4 3 1 1 1 1 1 1 1 1	1389
Asthma	25 13	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	38
Disease of Lungs, &c	6 4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10
Congestion of Lungs	56 63	13 16 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	119
Croup	5 4	3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9
Pleurisy	13 17	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	30
Emphysema	13 4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	17
Laryngitis	15 15	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	30
Hemiplegia	2 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5
Class VIII.—Diarrhœa	33 19	32 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	52
Inflammation of Stomach & Bowels	43 50	31 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	93
Peritonitis	96 74	108 16 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 2 3 4 8 3 3 2 4 2 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	170
Disease of Stomach, &c	8 23	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 2 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	34
Liver	65 70	30 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9 3 6 16 13 5 12 3 3 2 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	135
Gall Stones	1 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4
Jaundice	3 4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7
Hæmahæsis	1 4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5
Disease of Œsophagus	2 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3
Gastric Enteritis	47 52	37 10 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 6 5 14 5 15 8 5 5 2 4 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	99
Hernia	27 30	5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 1 2 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	57
Ileus	30 17	12 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	47
Appendicitis	19 19	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	38
Stomatitis	3 4	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7
Class IX.—Hydrocephalus	3 3	3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6
Lymphadenoma	2 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3
Rheumatoid	2 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3
Disease of Supra Renal Capsule	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Cretinism	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Class X.—Disease of Kidneys, &c	301 161	5 4 1 2 1 3 5 5 1 13 30 60 93 66 26 30 7	18 12 13 36 20 21 25 12 20 7 11 4 3	16 22 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1	364
Nephritis	94	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	94
Bladder	13 1	1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	14
Retention of Urine	3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3
Stricture of Urethra	2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2
Calculus	2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2
Class XI.—Childbirth	31	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	31
Male Puerperal Accidents	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Disease of Uterus	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Ovary	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Class XII.—Disease of Bones and Joints	17 18	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	35
Class XIII.—Want of Breast Milk	6 3	9	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9
Alcoholism	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Scurvy	1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2
Class XIV.—Premature Birth	305 309	610	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	614
Malformation	35 44	76 4	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	79
Injury at Birth	2	2	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2
Atrophy	154 105	109 36 15 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	259
Old Age	193 133	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	326
Class XV.—Ulcer	7 6	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	13
Disease of Skin	11 11	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	22
Cellulitis	5 4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9
Carbuncle	6 6	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12
Class XVI.—Natural Causes	309 178	21 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	487
Intemperate Drinking	32 28	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	60
Drowned	29 13	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	42
Suffocated	56 51	34 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	107
Burns	16 15	5 3 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	31
Scalds	20 10	5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	30
Accidentally Killed	147 80	6 6 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	227
Injuries, no evidence	15 6	3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	21
Excessive Smoking	10 10	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	20
Accidentally swallowing Foreign Body	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Choked	1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2
Drowned	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
Shot	1

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