

[Report 1914] / Medical Officer of Health, Liverpool City.

Contributors

Liverpool (England). City Council.

Publication/Creation

1914

Persistent URL

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

License and attribution

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

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

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



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

HEALTH DEPARTMENT.

REPORT

ON THE HEALTH OF THE

CITY OF LIVERPOOL

DURING

1914

BY

E. W. HOPE, M.D., D.Sc.,
Medical Officer of Health.
Professor of Public Health, University of Liverpool.
President of the Liverpool Medical Institution.
Late President of the Society of Medical Officers of Health.



Ordered by the Health Committee to be printed, 6th May, 1915

LIVERPOOL :

C. TINLING & CO., LTD., PRINTING CONTRACTORS, 53, VICTORIA STREET.

1915

DISPOSED OF BY
ATHENÆUM,
LIVERPOOL.



Digitized by the Internet Archive
in 2017 with funding from
Wellcome Library

INDEX.

	PAGE
Abattoirs	168, 169, 170, 236
Abuse of Alcohol	47
Actinomycosis	222, 225
Age Period, on Mortality, Influence of	9, 10
Alcoholism	47
Ambulance and Disinfecting Staff	161 to 163
Analyses of Beer, Wines and Spirits	198, 200, 203, 207, 209
Analysis, Samples of Food and Drugs taken for	197 to 213
,, Bacteriological	214 to 225
Animals Killed in City Slaughterhouses	168, 169
Anthrax	44, 45, 184, 223, 225
Area of the City	2, 3
Articles disinfected or destroyed	162, 163
Ashbins	116, 117, 229, 231
Ashpits	116, 117, 229, 231
Bacteriological Examinations and Analyses	214 to 225
,, Diagnosis of Diphtheria and Typhoid Fever	220, 221, 222, 225
Bakehouses	154
Bakehouses, Underground... ..	155
Bedding disinfected or destroyed... ..	163
Belgians, Deaths of	14
Births and Birth Rate	2, 5 to 8
,, during last 25 years	7
Births and Birth Rates in districts	6
Births, percentage Born in Workhouses, &c.	6
Births, Visitation of	59, 63
Blundellsands Cottage Homes	61
Board of Agriculture Orders, Inspection under... ..	166, 181 to 186
Building Surveyor, Returns furnished by	122, 274
Canal Boats	132 to 134
Cancer	48
Canine Animals Order, 1909, Importation of	184
Cattle, Licenses to keep	187, 188
,, &c., imported from Ireland	174, 180
,, Pens and Trucks Inspected	166
,, Inspection of, at Markets... ..	182
,, Inspection of, in Cowsheds	190, 191, 194, 196
,, Slaughtered in City, Returns of	168, 169
,, Carcasses Destroyed at Knacker's Yard	140
Causes of Death	16
	and Table "E" Appendix.
Cellar Dwellings	117 to 119, 255

	PAGE
Cellars filled in	118
Cemeteries	117
Census, Populations	3, 4
Central Slaughterhouses	170
Cerebro-Spinal Fever	46
Charts, illustrating decline in death rate from Typhoid Fever	...facing 26
Chart, illustrating Infant Mortality Rate	...facing 58
" " mortality rate from Scarlet Fever, 1848-1914	...facing 28
" " deaths from Measles... ..	...facing 30
Charters Street Disinfecting Station	163
Child Welfare	55 to 87
Cinematograph Halls	150
City Engineer, Returns furnished by	122, 229 to 239
City Hospitals for Infectious Disease	281 to 303
" " Arrangements with Local Authorities... ..	283
" " Number of Patients removed to	161, 288, 290
" " Returns showing results of treatment in	291 to 303
" " Training of Nurses	283
" " Treatment of Tuberculosis	100, 101, 283 to 287
Cleansing of Infected Houses	162
" Dirty	114, 115
" Verminous Children... ..	61, 62, 64, 65
Cleansing and Scavenging	229 to 239
Closing Orders	243 to 245, 264 to 273
Clothing, &c., disinfected or destroyed	163
Common House Fly	141 to 143
Common Lodging-Houses	123 to 131
" " For Women	62, 117, 124, 126
" " Sanitary Accommodation... ..	127
Comparative view of Death Rate per 1,000 in different districts	...facing 12
" " of Total Deaths at Age periods	...facing 10
" " of principal causes of Death	...facing 16
Complaints by Inhabitants	113
Condensed Milk	202, 215, 216
Continued Fever	49
Corporation Tenements	249 to 262, 275
" " Infant Mortality	261, 262
" " Supervision of	257 to 260
" " Applications for	257, 258
Court and Alley Examinations	120, 121
Cows, examination of	190 to 196
Cows, Licenses to keep	187, 188
Cowshed Inspection, Registration, &c. (Town and Country)	187 to 195
Cream	198, 213
Crematorium	165
Dairies, Cowsheds and Milkshops	187 to 194

INDEX.

v

	PAGE
Day Nurseries	56
Deaths of Infants	2, 55 to 58, 62, 69 to 74
„ and Death Rate	2, 9 to 15, 43, 47, 49
„ Classified causes	16
Deaths non-residents	9, 11, 12, 14
„ in Public Institutions	11 to 14, 47
„ „ „ other Cities	13
„ and Death Rates in the Districts of the City	13
„ „ Death Rate at different Age Periods	10
„ during last 25 years	15
Deaths from Excessive Drinking	47
Death Rate from Phthisis	2, 43, 96, 97
„ „ „ Zymotic Diseases	2, 17 to 45, 49
„ „ of Infants	2, 57, 58, 71
„ „ in Corporation Dwellings	261
Demolition Orders	246, 247, 264 to 273
Density of Population per acre	3
Diagram, illustrating Birth Rate since 1881	facing 6
„ „ Death „ „	„ 14
Diagrams illustrating the Decline of Typhoid Fever	...facing 26
Diarrhoea	18, 37 to 39, 41, 42, 49, 60, 62, 69 to 74
„ List of Streets	39
„ Methods of Feeding	37, 59, 69
„ Mortality	18, 38, 39, 41, 42, 49
„ Treatment in Hospital... ..	37, 60
Diphtheria	18, 36, 65, 66, 220, 222, 225, 288 to 299, 302, 303
Dirty Houses... ..	114, 115
Diseases of Animals Acts, Proceedings under	166
Disinfecting Apparatus	163
Disinfection of Houses	162
„ „ Library Books	162
„ Middensteads	143, 144
„ Schools	32
Disposal of Refuse	229
Dogs Home, Liverpool	185, 186
„ Importation of	184
Dried Milk, Infants fed on, and analysis	74, 202
Drill Sheds and Camps	117, 144, 145
Dust Laying Compositions	235
Employment of Children Act	76
Epidemic Diarrhoea	18, 37 to 39, 41, 42, 49, 60, 62, 69, 72
Erysipelas	40
Excessive Drinking, Deaths from... ..	47
Extension of City Boundary	3, 7

	PAGE
Factory and Workshop Act	151 to 158
" " " Home Work Order of 1901	152, 157, 158
Feeding of Infants	...37, 59, 69 to 74
Fertilizers and Feeding Stuffs Act	212
Female Sanitary Staff	59 to 64, 87
Fever Mortality	49
Fines and Costs—Amount of, in various Sanitary Prosecutions	{ 62, 116, 125, 131, 133, 136 { 161, 179, 188, 189, 210
Fish and Fruit Shops inspected	117
" Platforms	117
" unwholesome, seized and destroyed	175, 178, 179
Flies	141 to 143
Food and Drugs purchased for Analysis	197, 216
Food Hawkers	167
Food—Inspection of Meat, &c.	167
Foot and Mouth Disease	185
Ford Street Mortuary	164
Freshfield Sanatorium	61
Fried Fish Shops	117, 140
Fruit, unwholesome, seized and destroyed	177 to 179
Furniture Removers' Vans	158
Game destroyed, &c.	176 to 179
Grants-in-Aid	55
Glanders and Farcy Order, 1907	181
Home Work Order—Factory and Workshop Act	152, 157, 158
Horse Auctions	182
Horse Boxes	166
Horses, Examination of	182
" Exportation of	183
" Inspection of lungs	181
Hospital Accommodation for Infectious Diseases	281 to 303
Hospital Patients, Average duration of stay	296
Hospitals and Institutions, Deaths occurring in	11, 12, 13, 14, 47
" City... ..	281
House Flies	141
Houses, Dirty	114, 115
" erected	122, 261, 274
" Infected	119, 162
" let in Lodgings	129 to 131
" taken down... ..	122, 246, 254, 264
" Unoccupied	262
Housing (Inspection of district) Regulations	263
" of the Working Classes Acts	252, 254, 264, 276
" Town Planning, &c., Act, 1909	263
" and Demolition, Cost of... ..	276

	PAGE
House-to-House Inspection	62, 113
Ice Cream	190
Illegitimate Births	5
Infants fed on Sterilized Milk	69
,, fed on Dried Milk	74
,, feeding of	37, 69
Infant Welfare Conference... ..	57
,, ,, Centres	69 to 75
,, ,, ,, Expenditure and Income	75
Infantile Mortality	2, 55 to 58, 62, 70 to 74, 262
,, ,, during the last 22 years	58
,, ,, in various Districts of the City	57
,, ,, in weeks and months, see Table D in Appendix.	
,, ,, per 1,000 Births	2, 10, 58
,, Paralysis	46
Infected Houses, Cleansing of	162
,, ,, Inspection of	119
Infectious Disease in Schools	30, 65, 66, 68
,, ,, ,, Notification by parents	32
,, Diseases, Cases of	288, 289
,, Diseases, cases of reported and removed to Hospitals, 1889-1914	290
,, ,, notified during last five years	289
Influenza	18, 40
Inquests	16, 47
Insanitary Property	107, 117, 243 to 277
,, ,, Existing	263 to 273
,, ,, purchased and demolished	246, 264, 273, 276
,, ,, ,, ,, in 1914	272
,, ,, re-housing of dispossessed persons... ..	256, 276
,, ,, death rates	253, 261, 262
Insurance Committee	100
Intemperance	47
Intoxicants, Analysis of	198 to 209
Invalid Children's Association	60, 62, 73, 100
Knacker's Yard Returns	140, 167
Lairages and Sale Yards inspected	166
Laundries	151
Library Books disinfected	162
Liverpool Corporation Act, 1900	191
,, ,, ,, 1913	32, 123
Liverpool Corporation (General Powers) Act, 1908	119, 255
Liverpool Sanitary Amendment Act	248
Local Government Board, Grants-in-Aid	55
Localities of Fatal Prevalence of Diarrhœa	39

	PAGE
Lodging-houses	123 to 131
„ „ for Women	62, 117, 124, 126
„ „ Sanitary Accommodation Improvements in... ..	127-128
Manure Yards and Wharves	117, 236, 237
„ removal from Stables	143, 236
Map, showing Birth Rate in Districts of City	See Appendix
„ „ Death Rate in Districts of City... ..	„ „
„ „ Number of Deaths of Infants under One Year out of every 1,000 Born*	„ „
Map, showing Density of Population in Districts of City	„ „
Margarine Act	211
Marine Stores	117
Market Inspection of Cattle	182
Maternity and Child Welfare	55
Measles 18, 30 to 33, 41 to 43, 65, 66, 288, 290 to 299, 302, 303	
Meat, imported	168-169
„ unwholesome, seized and destroyed	172 to 175
Medical Inspection of School Children	64 to 68
„ Assistance	79 to 82
Meteorological Tables	50, 51
Middensteads, disinfection and spraying	143, 144
Midwives Act, 1902	77 to 87
„ and Medical Assistance... ..	79 to 82
„ Guarantee Fund... ..	81 82
„ Routine Visits	84
„ Unregistered	78
Military Camps and Drillsheds	117, 144, 145
Milk 191 to 195, 198, 205, 210, 211, 213, 215 to 218	
„ Adulteration of	198
„ Analysis of	205, 210, 211, 217, 218
„ Depôts	69, 211
Milk Depôts, Cost of Maintenance	75
„ Infected with Tubercle	191 to 196
„ Supply	191
„ „ Proceedings under Corporation Act, 1900... ..	191
Milk, Condensed	202, 216
„ Dried	74, 202
„ Sterilized	69, 211
„ and Tuberculosis	191, 217
Milkshops	189
Model Lodging-houses	124
Mortality, see Death Rates 2, 9 to 15, 43, 47, 49, 253, 261	
„ Influence of Age Period	10
Mortuaries	164
Mumps	65, 66

INDEX

ix

	PAGE
Natural Increase of Population	8
Notification of Births Act, 1907	59, 63, 78
,, of Infectious Diseases	288, 289
,, of Phthisis	91 to 95
Nuisances prejudicial to Health	114 to 116
Nurses, Training of	283
Offensive Trades	138
Ophthalmia Neonatorum	84 to 87
Overcrowding	125, 131, 258, 259, 260
,, Reduction of	260
Parasitic Mange Order, 1911	182, 183
Parental neglect	59
Patients removed to Hospital	161, 288, 290
Photographs of Designs, Rathbone Street Area	facing 252, &c.
,, illustrating Care of Children	facing 56, &c.
Phthisis	2, 43, 91 to 107, 283 to 287
,, Classification of Patients	101 to 106, 284, 287
,, Deaths	43, 96, 284, 287
,, Death Rate	2, 43, 97, 98
,, Notification of	91 to 95
,, Occupations of Patients	103 to 106
,, Sanitary Inspection of Patients' Homes	101 to 107
,, Treatment of, in Hospital	283 to 287, 301
Piggeries	186
Plague. Arrangements with other Sanitary Authorities	283
,, Observations, etc.	19 to 21, 119, 148, 219
Plummer, Mr. W. E.	50, 51
Poisons and Pharmacy Act, 1908	212
Poliomyelitis, Acute	46
Population at different age periods	10
,, of the City	2, 3, 4, 7, 8, 10
,, ,, 1890-1914	7
,, ,, different Districts of the City	4, 8
,, ,, City, Density per acre	3
Population of the City, Density per acre in different districts (see Plan-Map in Appendix)	
,, of Registration Districts	4
Poultry Depots Inspected	117
,, Destroyed, &c.	175
Premature Births	Tables D and E and 79
Prince of Wales Fund	61
Princes Dock Mortuary	164
Protection of Animals Act... ..	185
Public Health (Milk & Cream) Regulations, 1912	213
,, (Tuberculosis) ,, ,,	95
Public Institutions, Deaths occurring in	11, 12, 13, 14, 47

	PAGE
Puerperal Fever	40, 82, 83
Pulmonary Tuberculosis	2, 43, 91 to 107, 283 to 287, 301
Rabbits and Hares destroyed	176, 179
Rabies... ..	184, 223
Rag Flock, Examination of	211
Railway Carriages Inspected	117
Rainfall and Temperature	50, 51
Rats, Catching and Examination of	19, 146 to 150, 219, 220
Recreation places	255
References to and from other Municipal Departments	62, 68, 113 to 115, 136, 153
Re-housing of Dispossessed Persons	256, 257, 276
Removal of Bodies to Mortuaries	164
Removal of Manure... ..	143, 236, 237
Restaurants, Inspection of... ..	117, 153, 157
Ringworm	64, 65
Sale of Food and Drugs Act	197 to 211, 214 to 216
Sanitary Administration	111 to 225
Sanitary Conveniences, special visits	117
" " used in common	120, 263
Sanitary Notices	{ 113, 115, 116, 118, 130, 135, 151, 154, 158, 162
Scarlet Fever... ..	18, 28, 29, 41 to 43, 65, 66, 288 to 299, 302, 303
Scavenging and Cleansing	229
School Children, homes visited	62, 106
" " Medical Inspection of	64 to 68
" " and Phthisis	105, 106
Schools Closed	30, 66 to 68
" Disinfection of	32
" Infectious Diseases in	30, 65 to 68
" " Notification by parents... ..	32
" " " to teachers	68
" Inspection of	68
Seamen's Licensed Lodging-houses	128
Seats for Shop Assistants	158, 160
Sewer Ventilation	122
Shell-fish	25, 176, 179, 216
Shops Acts	158 to 161
Slaughter-houses	167 to 171
" " closed	171
Smallpox	21, 22, 41 to 43, 119, 288 to 290
" during last 50 years	22
Smithdown Road Disinfecting Station	163
Smoke Abatement	137
" Nuisances	135-137
" " Fines for	136

	PAGE
Smoke Nuisances on the River	135-136
Soldiers' and Sailors' Fund	61
Stables	143
Staff Employed	99, 111, 112, 146, 239
Sterilized Milk Depots	69
Still Births	79
Street Washing and Cleaning	229, 233 to 235
Sub-let Houses	129 to 131, 260
Summary of Vital Statistics	2
„ Houses Demolished	254
Sutton Trust	255
Swine, Licenses to keep	183
Syphilis	40
Tables, shewing Deaths and Death Rates from Zymotic Diseases } during each of the last four decennial periods	41 to 43
Temperature and Rainfall	50, 51
Tinned Meats	215
Tubercular Diseases, Death rates	97, 98
„ „ Diminution in	97
Tuberculosis	2, 43, 91 to 107, 283 to 287, 301
„ Bacteriological Examinations	221, 222
„ and Milk	191 to 196, 217
„ in Cattle	172 to 175, 191 to 196, 222
„ treatment at City Hospitals	283 to 287, 301
„ Institutes and Staff	99 to 101
Typhoid Fever	18, 24 to 27, 41 to 43, 49, 221, 222, 288 to 299
„ „ Importation of	25
„ „ Bacteriological Examinations	221, 222
Typhus Fever	18, 23, 41 to 43, 49, 119
Underground Bakehouses	153 to 155
Unhealthy Areas	249 to 254
Verminous Children, Cleansing of	61, 62, 64, 65
Vital Statistics in Corporation Tenements	261, 262
Vital Statistics, Summary of	2
Voluntary Agencies... ..	56
Water Analyses	218
War Relief Funds	61
Whooping Cough	18, 34, 35, 41 to 43, 65, 66, 291, 295, 297
Wind, Velocity of	50, 51
Women's Lodging-houses	62, 117, 124, 126
Workhouses, Deaths occurring in	11 to 14, 47
Workplaces Inspected	151, 157
Workshops Inspected	151, 155, 156

	PAGE
Zymotic Diarrhœa	18, 37 to 39, 41, 42, 69 to 72
„ Diseases	2, 17 to 45, 49, 65 to 68, 288 to 303
„ „ during last four decennial periods	41 to 42
„ „ for each quarter of the year	16 to 18
„ „ different districts of the City	17
„ „ notified during last five years	289
„ „ „ and admitted to Hospital, 1889—1914	290
„ „ treated in City Hospitals	288 to 303
„ Death Rate (7 principal Zymotics)	2

APPENDIX.

Local Government Board Tables of Population, Births, Deaths, Infantile Mortality and Infectious Sickness. Tables I, II, III and IV.

Plan-Map showing Birth Rate in Districts of City.

„ „ Death Rate „ „	
„ „ Number of Deaths of Infants under one year out of every 1000 born.	
„ „ Density of Population in Districts of City.	

Table of Total Deaths registered in the City.

PREFACE.

With the outbreak of war, wholly unexpected and wholly unprepared War. for, demands of a very unusual and exceptional character were at once made upon the Public Health Department, and a considerable number of the staff, many of whom already held commissions or were members of Territorial battalions were mobilised.

The demand for medical men was at once felt, and a large number of the medical staff employed by the Corporation in public health work found occupation in connection with the military operations. Three assistant medical officers, two tuberculosis officers, four school medical officers, and ten of the Infectious Hospital* resident medical officers, volunteered their services and were accepted. These were replaced by temporary officers some of whom in turn also left the service for military work. To meet the emergency caused by the resignations of so many medical officers arrangements were made with local practitioners to undertake certain duties, a good deal of the school work being done by lady doctors.

In addition to the foregoing, 32 members of the clerical and inspectorial staff joined the forces in various capacities, where their special training would be of advantage.

The city ambulance staff was also placed at the disposal of the War Office and rendered very valuable assistance in removing the wounded, (whether arriving by rail or by sea) to the various institutions in or near the city temporarily used as Military Hospitals. This staff attended each one of the troop trains which arrived with wounded soldiers, mainly at Aintree, but occasionally at Lime Street Station.

A considerable amount of extra work was involved in dealing with soldiers home on leave at whose homes infectious sickness had occurred, and much attention was paid, at the request of the Local Government

* Dr. T. L. G. Stewart, Surgeon-Captain R.A.M.C. (Naval Division), who was Resident Medical Officer at the City Hospital, Grafton Street, and later at Parkhill Hospital, was seriously wounded at the Dardanelles at the beginning of June, 1915, and died shortly afterwards.

Board, to the subject of cerebro-spinal fever, which happily never at any time shewed any increase above the normal.

At the request of the military authorities the disinfection as well as cleaning and drying of clothing, bedding and rugs of various descriptions was carried out from time to time.

Fazakerley Hospital was cleared of infectious cases and prepared for the reception of wounded soldiers, and handed over to the Military Authorities, who thoroughly appreciated the value of a well-equipped institution of this character.

By arrangement with the Local Government Board and the War Office, co-operation between the Sanitary Authorities and the Military Authorities was agreed upon, and the Health Department was enabled to give valuable assistance in regard to the sanitation of the Drill-sheds, Billets, etc., of the troops stationed in Liverpool, as well as in many other directions.

Fortunately arrangements were made which enabled the whole of this military work to be carried out with relatively trifling disorganisation of the city work, and so far as sanitary administration is concerned everything may be said to have been carried out as usual.

The exceptional calls made upon the Department together with the changes caused by so many officers joining H.M. Forces has caused considerable delay in the preparation and printing of this Report.

Woolton
District.

The statistics relating to the newly incorporated areas of Much Woolton, Little Woolton, Allerton and Childwall, have been combined and the whole area will be alluded to in this report as the "Woolton" District.

Area and
Population.

The area of the City is computed at 21,219 acres, and at the middle of the year the population was estimated at 767,992.

Birth Rate.

The birth rate for the year 1914 is 30.0 per 1,000 of the population, and is slightly higher than the previous year.

Death Rate.

The death rate was equal to 19.5 per 1,000 of the population. This rate is high when compared with the year 1913 with a death-rate of 18.0, and the year 1912 with a death rate of 17.7. It coincides with the death rate of 1911.

As might be expected the infant mortality rate is also slightly higher than last year, being equal to 139 per 1,000 births, as compared with 132 per 1,000 in the year 1913. Infant Mortality.

The death rate from the seven principal zymotic diseases was 2.7 per 1,000, as against 2.2 in the previous year. The deaths from all zymotic diseases were higher than the previous year, the increase being specially noticeable in the case of measles, which was very prevalent during the past year. Zymotic Diseases.

Two cases of Smallpox were reported during the year, one being on a ship arriving in the port, and the other an elderly woman living in the north end of the City. Both patients recovered. Smallpox.

No cases of typhus fever were reported during the year, and this fact constitutes a record for the City of Liverpool. Typhus fever has been prevalent in Liverpool ever since statistics relating to infectious diseases have been recorded, and as many as 2,000 persons have died in the City in one year from this disease. The conditions under which typhus fever spread from one family to another were well known, and the energetic measures which were adopted have now resulted in completely preventing a very formidable disease, which every year claimed its victims, and often engulfed whole families in sickness, misery and death. Typhus Fever.

An outbreak of plague occurred in the City during the year. The first case was not recognised and other members of the family developed the disease. In nine cases the disease was definitely confirmed, but the prompt measures adopted speedily terminated the outbreak. Plague.

It was found necessary on two occasions to close all the Infant Schools of the City owing to the spread of measles amongst the scholars. The benefit of this measure has been observed on many occasions, and the subject was dealt with at some length in the 1912 Report. Measles.

On page 283 a reference is made to the difficulties attending the isolation of cases of measles and whooping cough, and a suggestion is made for a modified system of home nursing, under the supervision of a special nursing staff.

On page 55 and following pages a short account is given of the work in connection with child welfare, including the supervision of midwives, Child Welfare.

the treatment of cases of ophthalmia neonatorum, and the provision of a suitably prepared food for those infants whose mothers are unable to suckle them.

An important Conference of the National Association for the Prevention of Infant Mortality and for the Welfare of Infancy was held in this City during the past year, and was largely attended.

Female
Sanitary
Staff.

The work of the Female Sanitary Staff, referred to on page 59, shows the usefulness of these officers in various directions, but notably in the co-operation between the medical inspection of children in the schools and the improvement of the health and care of children in their homes. No doubt much remains to be done, but the evidence is clear that the systematic visiting carried out by the Female Staff is having good results, and children who have suffered for many years are now receiving proper attention and careful supervision.

Tuberculosis.

A detailed account of the work in connection with Tuberculosis is given on page 91 et seq.

Routine
Sanitary
Inspection.

The inspections carried out by the Sanitary Staff are set out on page 113 and other pages, and the figures given will show what a large amount of steady, systematic work is involved.

Rats.

On page 146 will be found an account of the special measures adopted for the extermination of rats. A special staff of rat catchers is now employed by the Department to devote their whole time to dealing with these rodents.

Housing

The Housing Section commences at page 243, and gives a detailed account of the work for the year 1914. Some of the designs which were awarded premiums by the Housing Committee in connection with the laying out of the Rathbone Street Area are reproduced and give some idea of the schemes suggested.

City
Hospitals.

The valuable work of the City Hospitals is set forth on page 281 and following pages, and does not need further comment.

E. W. HOPE,

MEDICAL OFFICER OF HEALTH.

PUBLIC HEALTH DEPARTMENT,

MUNICIPAL OFFICES,

LIVERPOOL, 6th May, 1914.

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

SUMMARY

OF

VITAL STATISTICS FOR 1914.

Area of City	21,219	Acres. (33 square miles)
Population (estimated to the middle of the year)	767,992	
*Births	23,065,	Birth-rate 30·0.
*Deaths	15,046,	Death-rate 19·5.
*Infantile Mortality	3,219	Deaths under one year, or 139 per 1,000 Births.
Zymotic Death-rate (7 principal Zymotic Diseases)	2·7	per 1,000.
All forms of Tuberculosis (including Phthisis)... ..	1·9	per 1,000.
Phthisis Death-rate	1·4	per 1,000.

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

AREA AND POPULATION OF THE CITY.

The population of the City at the middle of the year 1914 was estimated to be 767,992, an increase over the previous year of 11,439. The large increase, however, is accounted for partly by the incorporation on 9th November, 1913, of the districts of Allerton, Childwall, Much Woolton, and Little Woolton. The estimated population of these districts for the year 1913 was 6,882. The balance, viz., 4,557, is estimated to be the natural increase of population of the whole City.

The area of the City was increased by 4,600 acres by the inclusion of the above-mentioned districts, and the area of the whole City is now computed at 21,219 acres, and the density of the population is therefore equal to 36 per acre.

The City extends along the eastern bank of the River Mersey, with a frontage of about eight miles, and its eastern boundary, somewhat irregular in contour, is in several places nearly five miles from the river.

It is divided into twenty registration sub-districts, and these districts are set forth on the following page, with their Census populations for the years 1901 and 1911, as well as their estimated populations for the year 1914.

For the purpose of recording the vital statistics concerning the population, several of the sub-districts are combined, as will be seen in the following pages, and are thus reduced to fourteen districts, the areas of which are well understood by persons with local knowledge of the various parts of Liverpool as at present constituted. The Woolton district comprises Allerton, Childwall, Much Woolton, and Little Woolton.

CITY OF LIVERPOOL.

Population of Registration Districts—Year 1914.

DISTRICTS.	Census, 1911.	Census, 1901.	Difference.		Popula- tion, 1914.
			Minus.	Plus.	
SCOTLAND	46,576	52,966	6,390	...	44,353
EXCHANGE	37,370	41,999	4,629	...	35,760
ABERCROMBY	44,727	52,440	7,713	...	42,044
SOUTH EVERTON	66,629	67,394	765	...	66,363
NORTH EVERTON	54,236	54,075	...	161	54,292
KIRKDALE	67,463	69,386	1,923	...	66,794
WEST DERBY WEST	85,483	86,694	1,211	...	85,062
TOXTETH NORTH-WEST	21,994	24,733	2,739	...	21,042
TOXTETH SOUTH-WEST	35,757	34,861	...	896	36,068
TOXTETH CENTRAL	43,891	46,449	2,558	...	43,001
WALTON	75,591	54,615	...	20,976	82,888
WEST DERBY EAST	63,209	43,856	...	19,353	69,942
WAVERTREE	39,990	25,303	...	14,687	45,099
TOXTETH EAST	34,498	30,187	...	4,311	35,998
GARSTON	23,852	17,289	...	6,563	26,135
FAZAKERLEY	5,155	1,887	...	3,268	6,292
ALLERTON	1,312	1,101	...	211	1,385
CHILDWALL	198	219	21	...	191
MUCH WOOLTON	4,320	4,731	411	...	4,177
LITTLE WOOLTON	1,102	1,091	...	11	1,106
Total	753,353	711,276	28,360	70,437	767,992
		Net increase =	42,077		

BIRTHS.

During the fifty-two weeks of the year, terminating on Saturday, January 2nd, 1915, the returns of the local registrars recorded 23,065 births within the City, equal to a rate of 30·0 per 1,000 of the population, the average of the previous five years (1909-1913) being 30·4. The rates are calculated upon the corrected population as ascertained by the Census Returns of 1901 and 1911. Of the total births 11,738 were males and 11,327 were females. The number of illegitimate births was 831, or 3·6 per cent. of the total births, 408 being males and 423 females.

The Registrar General intimated that 78 of the births registered in the City should be deducted as non-resident, and this has accordingly been done, the above figures being the net numbers after the deduction has been made.

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 6).

The birth rate per 1,000 of the female population, aged 15-45 years, was 118, the same figure as in the Census year 1911, and compared with 124 in the year 1901. The corresponding rates for the whole of England and Wales were 97·8 in 1911, and 114·2 in 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.

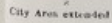
DISTRICTS.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		1914.		Per-centage born in work-houses and other institutions.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Births.	Rate per 1000	
Scotland	224	266	262	235	245	240	230	229	1931	43.5	5.8
Exchange	159	148	138	127	141	147	148	135	1143	31.9	13.1
Abercromby	119	123	109	130	130	115	106	106	938	22.3	11.4
Everton	536	508	562	511	508	518	527	522	4202	34.8	4.1
Kirkdale	279	281	278	283	279	254	279	256	2189	32.7	2.4
West Derby—West	354	330	364	332	343	368	322	350	2763	32.4	5.3
Toxteth	434	377	437	429	426	391	380	423	3297	32.9	2.9
Walton	275	246	258	242	256	242	253	231	2003	24.2	1.8
West Derby—East	228	225	216	214	249	230	205	182	1749	25.0	2.2
Wavertree	153	120	134	136	162	143	163	147	1158	25.6	2.6
Toxteth—East	64	71	80	79	82	76	85	81	618	17.1	1.8
(late Toxteth Rural)											
Garston	110	107	98	86	94	94	106	85	780	29.8	1.2
Fazakerley.....	18	12	19	18	8	22	18	12	127	20.1	0.0
Woolton.....	19	26	23	23	14	20	26	16	167	24.3	0.0
City.....	2972	2840	2978	2845	2937	2860	2848	2785	23065	30.0	4.7

The births in the Maternity Hospital and in the Parish Workhouse (Brownlow Hill), Mill Road Infirmary, Walton Workhouse and Toxteth Workhouse have been transferred to the Districts from whence the mothers were admitted.

It will be noticed that the percentage of births occurring in work-houses and other institutions has diminished considerably, the figure for 1914 being 4.7, as against 4.2 in 1913, and 6.0 in 1912. It is probable that the payment of the Maternity Benefit under the National Insurance Act is accountable in a great measure for this circumstance, as many women have a natural reluctance to leave their homes if assured that they can have adequate help and the necessary attendance of a midwife or doctor at their own residence.

The continued high birth-rate in the older and poorer parts of the City is a noticeable feature, but unfortunately it is accompanied by a death-rate also above the normal.

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



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.
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
¹ 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
² 1902	707,027	24,283	34·2
1903	710,874	23,910	33·6
1904	714,743	24,278	33·9
³ 1905	721,864	24,350	33·7
1906	726,100	24,123	33·2
1907	730,361	23,654	32·3
1908	734,648	23,891	32·5
1909	738,960	23,591	31·9
1910	743,295	23,054	31·0
1911	747,627	22,493	30·0
1912	752,021	22,233	29·5
1913	756,553	22,555	29·8
⁴ 1914	767,992	23,065	30·0

The foregoing table shows the decrease in the birth-rate during the last 25 years.

The decline in the birth-rate which has been a feature in Liverpool, in common with the rest of the country, has been arrested during the past year, a slight increase having taken place in the number of births, as will be seen by reference to the table. The birth-rate of Liverpool is one of the highest in the country, being exceeded by only two towns having a population of over 200,000.

The rates have been calculated upon the corrected population as ascertained by the Census Returns of 1891, 1901, and 1911.

¹ City area extended, a population of 129,045 included.

² Garston included with a population of 17,289.

³ Fazakerley included with a population of 2,892.

⁴ Woolton, Allerton and Childwall included with a population of 6,882.

The following table shows the *natural* increase of population, that is, the increase in the number of births as compared with the number of deaths during the year 1914, in the several districts of the city. The net result in the city shows an increase of births over deaths of 8,019.

DISTRICTS.				Population.	Births.	Deaths.	Number of Births over Deaths.	Number of Deaths over Births.
Scotland	...	...	...	44,353	1,931	1,343	588	—
Exchange	...	...	...	35,760	1,143	1,018	125	—
Abercromby	...	...	...	42,044	938	1,002	—	64
Everton	...	...	...	120,655	4,202	2,866	1,336	—
Kirkdale	...	...	...	66,794	2,189	1,474	715	—
West Derby—West	...	...	...	85,062	2,763	1,595	1,168	—
Toxteth	...	...	...	100,111	3,297	2,084	1,213	—
Walton	...	...	...	82,888	2,003	1,098	905	—
West Derby—East	...	...	...	69,942	1,749	947	802	—
Wavertree	...	...	...	45,099	1,158	620	538	—
Toxteth—East	...	...	...	35,998	618	471	147	—
(late Toxteth Rural)								
Garston	...	...	...	26,135	780	356	424	—
Fazakerley	...	...	...	6,292	127	86	41	—
Woolton	...	...	...	6,859	167	61	106	—
No Address	...	...	...	—	—	25	—	25
Total				767,992	23,065	15,046	8,108	89
				—	—	—	89	—
Natural Increase							8,019	

DEATHS.

The total death-rate of the city during the year was 19·5 per 1,000 ; the average rate of the ten years following the extension of the city boundaries (1896-1905) was 21·8, and that of the last seven years (1907-1913) was 18·5. The deaths in public institutions, nursing homes, &c., of 718 non-residents, equal to 0·9 per 1,000, have been eliminated from the total deaths.

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 5·0 per 1,000 ; if, on the other hand, we could conceive that it consisted entirely of people above 60 years of age, the death-rate would be 75 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 age and sex 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 THE YEAR 1914 IN LIVERPOOL, AS WELL AS THE TOTAL NUMBER OF DEATHS.

THE DIFFERENCES WHICH THE FIGURES SHOW ARE VERY STRIKING:—

1914.	* 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 up- wards.	Total at all Ages.
Rate of Mortality per 1,000 living at ages indicated.	139.5	80.6	17.0	4.7	3.3	5.0	8.3	15.9	28.8	51.8	106.2	214.6	19.5
Total Number of Deaths at each Age-Period.	3219	1427	958	406	480	643	1014	1373	1621	1784	1602	520	15046
Approximate Population	19384	17686	56293	85709	144896	128335	121660	85998	56121	34415	15072	2423	767992

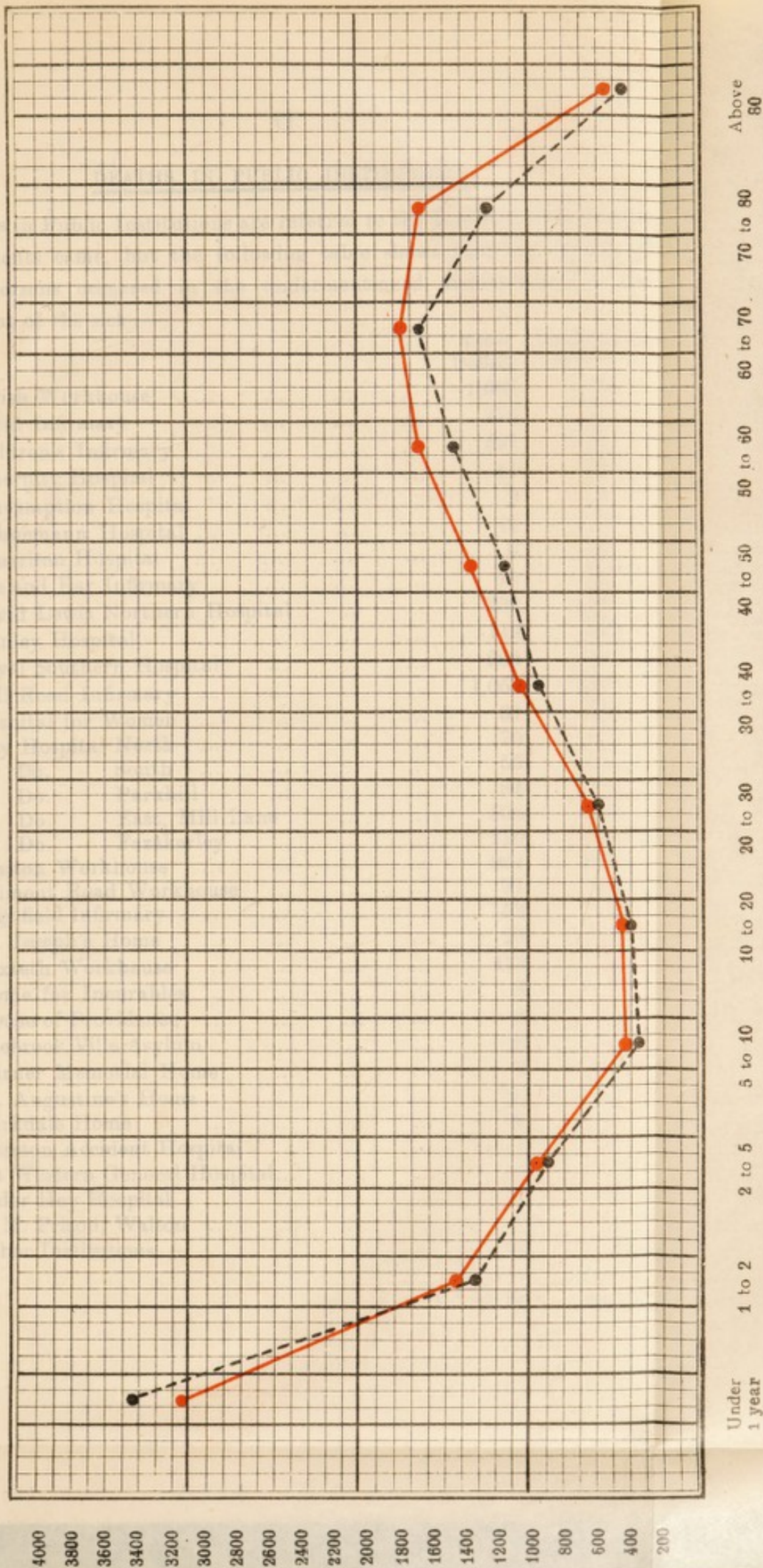
(See Comparative Chart on next page).

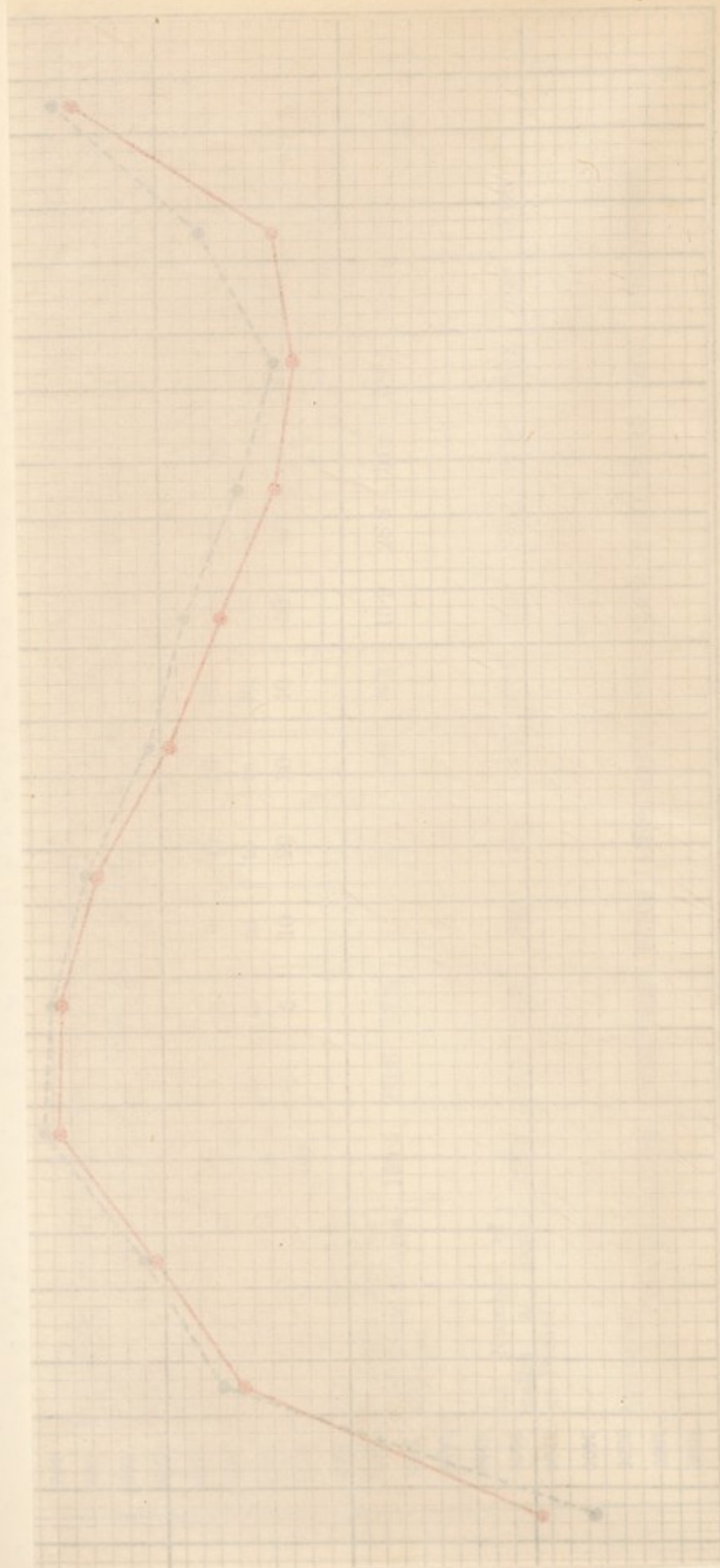
* Column I. indicates the rate of mortality under one year per 1,000 births during the year.

Comparative view of the total number of Deaths at twelve different age periods during the year 1914, shown in Red, the average for the preceding Ten years (1904-1913), being shown in the Black dotted line.

1914

M 20,530, 1550 6/15, 1





Total number of letters in the alphabet (1800-1810) points shown in the black dotted line
 Total number of letters in the alphabet (1810-1820) points shown in the blue dotted line
 Comparison of the total number of letters in the alphabet

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 5,725 persons occurred in the undermentioned Institutions for the treatment of the sick:—

	Total Deaths.	Non-Residents of City.
Parish Workhouse	1,092	8
Royal Infirmary	276	91
Children's Infirmary	337	39
Maternity Hospital	41	9
Consumption Hospital	9	3
Hahnemann Hospital	19	1
Samaritan Hospital	6	1
Eye and Ear Infirmary	14	6
David Lewis Northern Hospital	232	62
Stanley Hospital	119	25
Royal Southern Hospital	269	41
Mill Road Infirmary	1,052	117
Hospital for Women	31	20
City Hospital North	70	2
Do. South	55	1
Do. Parkhill	84	—
Do. East, Mill Lane	108	2
Do. Fazakerley	130	6
Walton Workhouse	864	163
Belmont Road Workhouse	97	10
Highfield Infirmary	152	2
St. Joseph's Home	25	7
Toxteth Workhouse	478	—
Home for Incurables	8	3
House of Providence	2	—
Tuebrook Villa Asylum	10	2
Turner Memorial Home	9	4
St. Augustine's Home	20	1
Kirkdale Home	26	—
Garston Accident Hospital	3	—
1st Western General Hospital... ..	17	4
Alder Hey Hospital	23	3
H.M. Prison, Walton	8	3
Other Institutions	39	4
	5,725	640

From the returns made as to the residences of these persons, 5,085 of the deaths in these establishments are classified in the districts from whence the patients were removed, viz., 458 under Scotland district, 492 under Exchange district, 436 under Abercromby district, 1,103 under Everton, 367 under Kirkdale, 504 under West Derby West, 707 under Toxteth, 350 under Walton, 226 under West Derby East, 188 under Wavertree, 128 under Toxteth East (late Toxteth Rural), 91 under Garston, 33 under Fazakerley, and 2 under Woolton; and the remaining 640 were non-residents, who had sought relief in Liverpool Institutions. In addition to the foregoing 640 non-residents, 78 others who were only temporarily resident in the City have been excluded from the total deaths, and the deaths of 444 persons belonging to the City who died elsewhere have been included in the returns. Of this latter number the great majority died in the County Asylums, many of them after prolonged periods of residence, extending to 15, 20, or 30 years or more. The populations of these Institutions are not included in the Liverpool estimates. The addresses given in many cases were insufficient to trace the deceased persons as Liverpool residents, and in 25 instances no address at all beyond "Liverpool" could be obtained. In the absence of other information, however, the deaths have been included, and this addition results in a slightly increased death-rate in comparison with previous years.

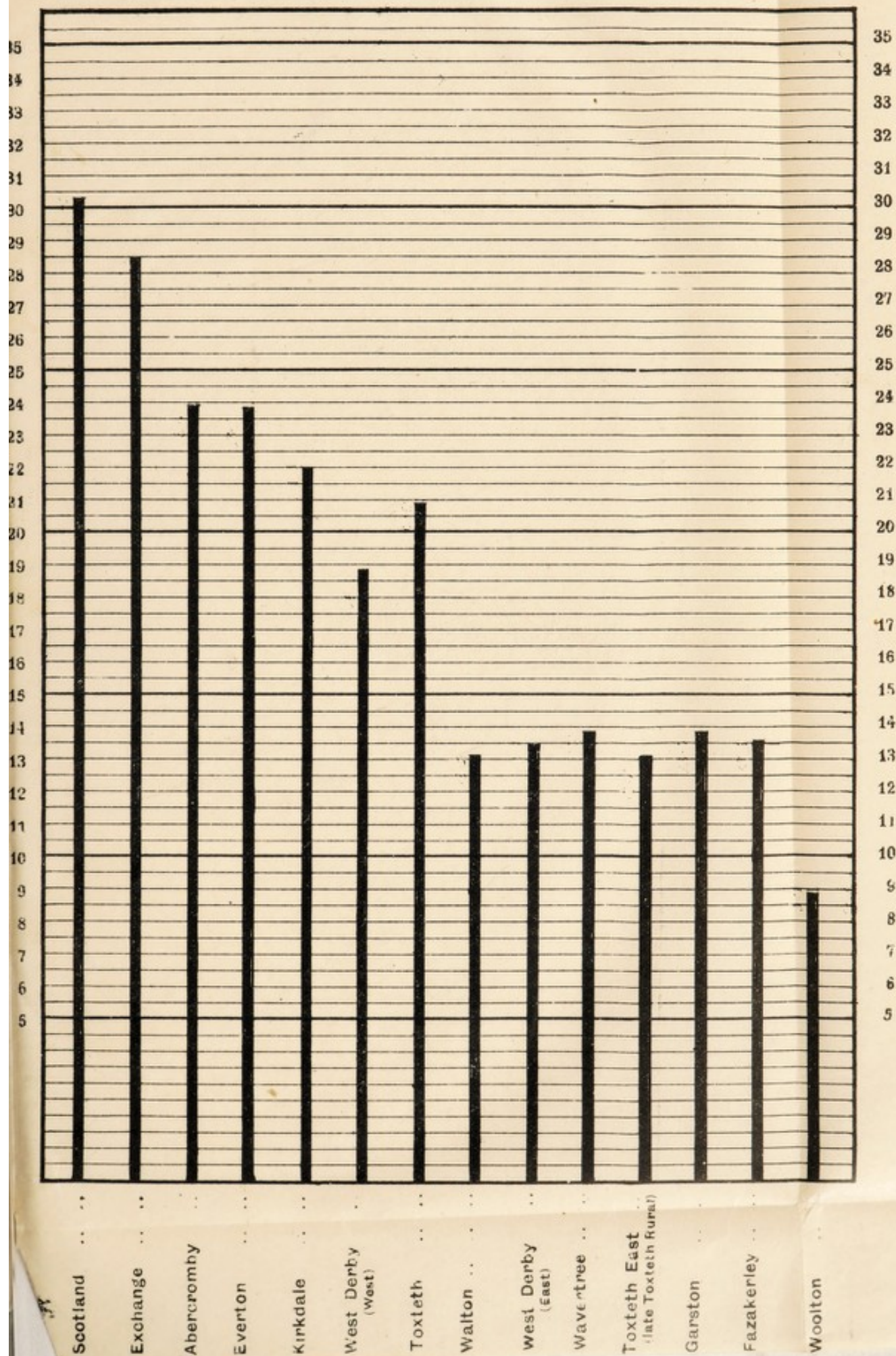
In Liverpool the proportion of deaths which takes place in Public Institutions is larger than is the case in other towns, and the fact is an interesting one, as something may be learned of the social conditions of a locality when so large a proportion in times of sickness seek refuge in public institutions, 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.

The following table shows the percentage of deaths which have occurred in public institutions during the five years, 1909-1913, in the great towns of Birmingham, Leeds, Manchester and Liverpool:—

CITY OF LIVERPOOL.

Comparative view of the Death Rate per 1000 in the different districts
of the City during the year 1914.

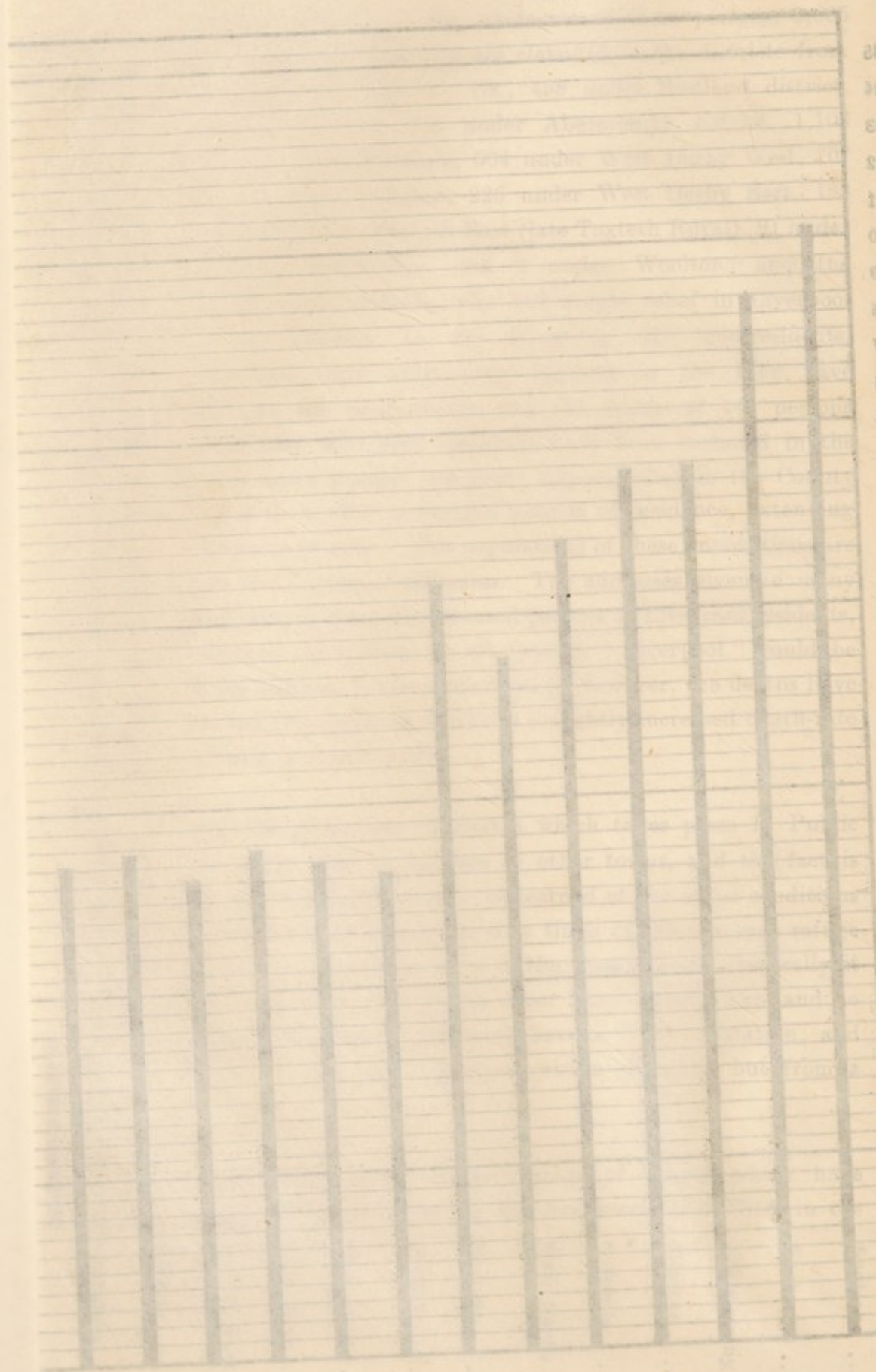
M 20532. 1500. 6/15 () 696.



CITY OF LIVERPOOL

Comparative view of the Death Rate per 1000 in the different districts of the City during the year 1914

M. 2000. 1000. 1000. 1000.



	1910.	1911.	1912.	1913.	1914.	Average.
Birmingham	27·1	24·9	24·5	24·3	25·6	25·2
Leeds	18·9	20·1	23·9	22·0	23·0	21·5
Manchester	28·5	28·1	29·8	30·0	31·6	29·6
Liverpool	37·8	36·5	38·4	39·1	35·5	37·4

DEATHS IN DISTRICTS.

The deaths in public institutions in the City have been allocated to the districts from whence the patients were removed, and added to the deaths of residents in those districts. The results 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 Returns of 1901 and 1911.

DISTRICTS.	Population.	1914.		Corrected Average Rate per 1000 during the five years 1909-1913.
		Deaths.	Rate per 1000	
Scotland	44,353	1,343	30·2	29·3
Exchange	35,760	1,018	28·4	29·7
Abercromby	42,044	1,002	23·8	19·4
Everton	120,655	2,866	23·7	20·7
Kirkdale	66,794	1,474	22·0	19·2
West Derby West	85,062	1,595	18·7	17·7
Toxteth	100,111	2,084	20·8	19·2
Walton	82,888	1,098	13·2	12·5
West Derby East	69,942	947	13·5	13·9
Wavertree	45,099	620	13·7	11·8
Toxteth East (late Toxteth Rural)	35,998	471	13·1	11·2
Garston... ..	26,135	356	13·7	13·4
Fazakerley	6,292	86	13·6	10·2
Woolton	6,859	61	8·9	14·0
No Address	—	25	—	—
City	767,992	15,046	19·5	18·3

The District Registrar's Returns show that there were 53 deaths (39 of women and 14 of men) at the age of 90 and upwards, viz., 4 males and 8 females at 90, 3 males and 7 females at 91, 1 male and 10 females at 92, 2 males and 4 females at 93, 2 males and 2 females at 94, 2 females at 96, 1 male and 1 female at 97, 1 male and 2 females at 98, 1 female at 100, 1 female at 101, and 1 female at 107.

The death-rate per 1,000 for the year 1914 in each of the districts of the City is indicated upon a map at the end of the volume. Attention must be called to the fact that Liverpool's position as a great seaport attracts a large number of indigent and broken-down persons of casual and migratory habits, who drift to the docks presumably in search of employment, and find temporary refuge in the common lodging-houses in the Exchange, Scotland and Abercromby districts, from whence they are removed to the Parish Infirmary. Broken in health, a number of these persons die in that or other charitable medical institutions, and in the absence of any other address their deaths are put down to these districts in which they were found. The emigration trade also has its effects; 232,954 emigrants sailed from the Port of Liverpool last year, and this traffic is naturally attended with an appreciable amount of sickness and mortality. A large number are found on arrival to be suffering from diseases which would cause their rejection at their destinations, and some of these persons, unable to pass the Emigration doctors, and being without money and friends, eventually find their way to the Parish Hospitals.

The seafaring population of the Port of Liverpool is considerable, and comprises men of all nationalities, such as Lascars, Chinese, West Africans, Malays and others. Most of these men are employed as stokers or trimmers, and many are in indifferent health, being subject to phthisis and other lung diseases. On arrival in Liverpool a number of these men enter the Parish Infirmary, and in some cases die there.

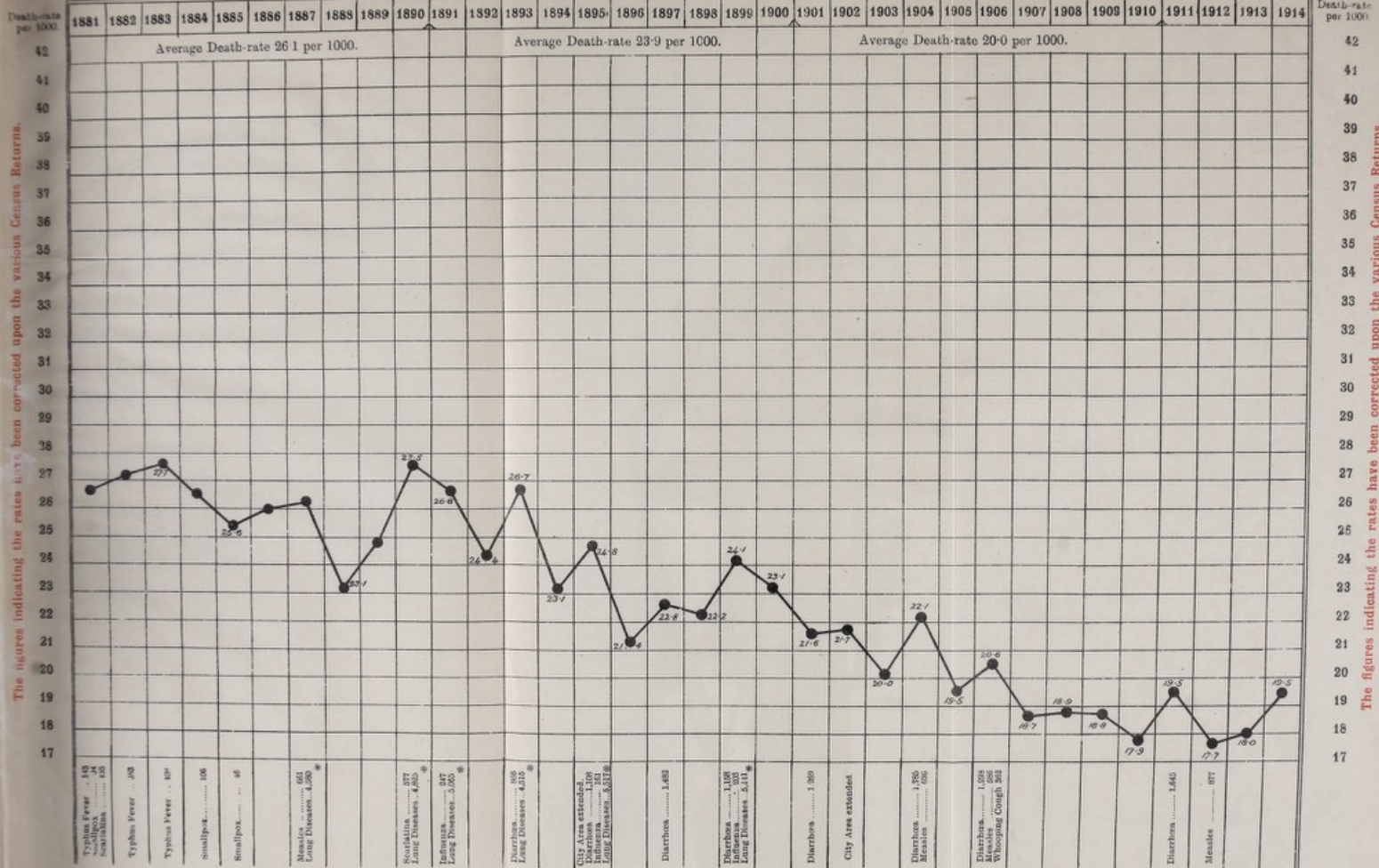
The points mentioned may be illustrated by the following cases occurring during the year:—

Thirty-one emigrants (23 males and 8 females) died whilst journeying through the City; 13 sailors with no known address died in public institutions; and 68 males and 42 females also died in hospitals and had no known address in Liverpool, being either wanderers or persons arriving from abroad and unable to travel further.

The bodies of five newly-born infants were found in back passages or other places, and these deaths are included in the mortality returns.

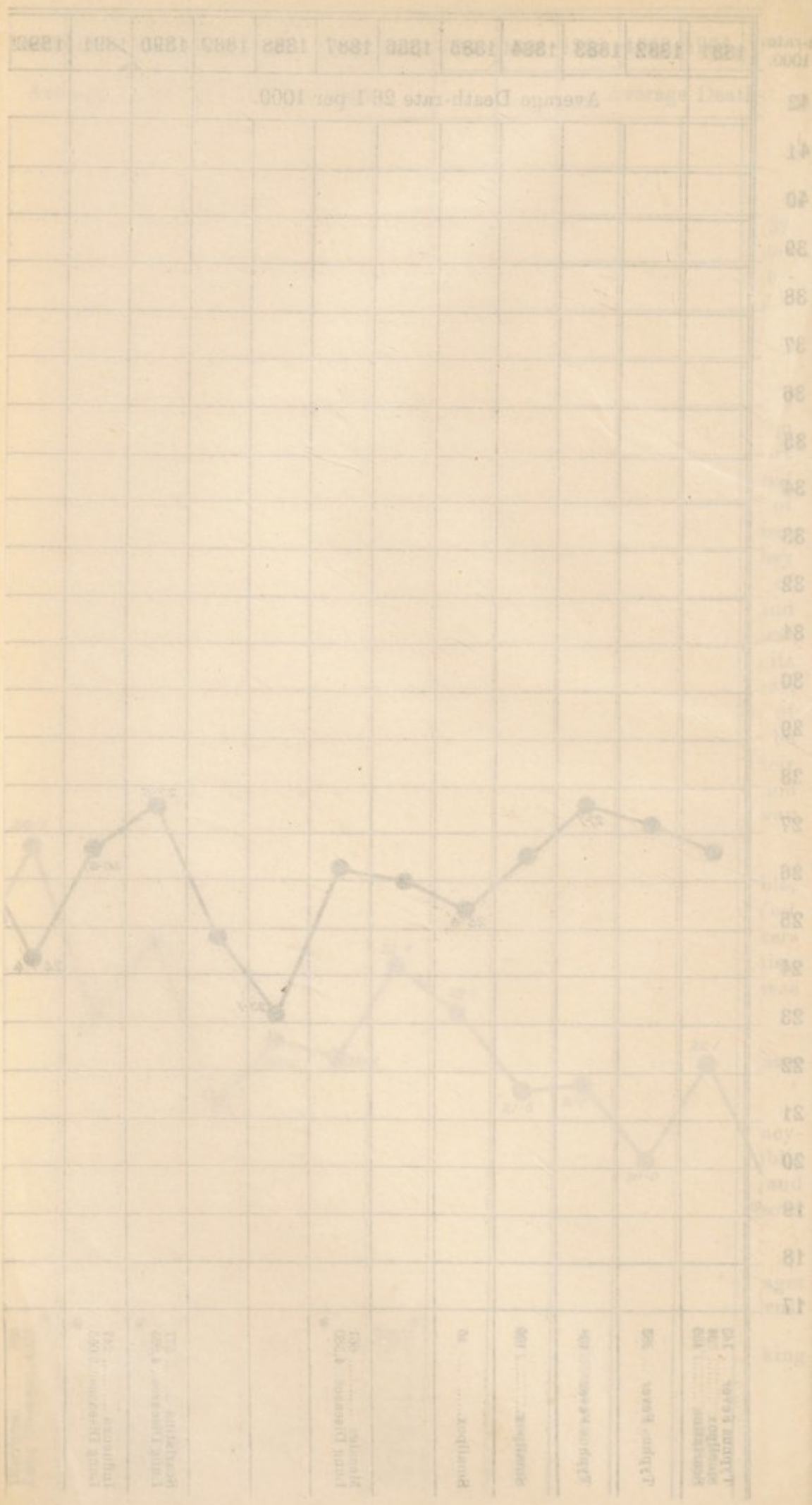
The deaths of 7 Belgians are also included in the returns, 3 taking place in the Military Hospital.

CITY OF LIVERPOOL. DEATH RATE, 1881-1914



* Including Phthisis.

The figures indicating the rates have been corrected upon the various Census Returns.



Line graph showing Average Death-rate per 1000 from 1927 to 1932

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.
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
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
² 1902	707,027	15,396	21·7
1903	710,874	14,240	20·0
1904	714,743	15,851	22·1
³ 1905	721,864	14,103	19·5
1906	726,100	15,001	20·6
1907	730,361	13,676	18·7
1908	734,648	13,930	18·9
1909	738,960	13,945	18·8
1910	743,295	13,343	17·9
1911	747,627	14,607	19·5
1912	752,021	13,364	17·7
1913	756,553	13,658	18·0
⁴ 1914	767,992	15,046	19·5

¹ City area extended. ² Garston included. ³ Fazakerley included.

⁴ Woolton, Allerton and Childwall included.

NOTE.—The rates have been calculated upon the corrected population as ascertained by the Census Returns of 1891, 1901, and 1911.

CAUSES OF DEATH.

Full details as to the causes of death are set forth in Table *E* in the Appendix; in the same 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:—

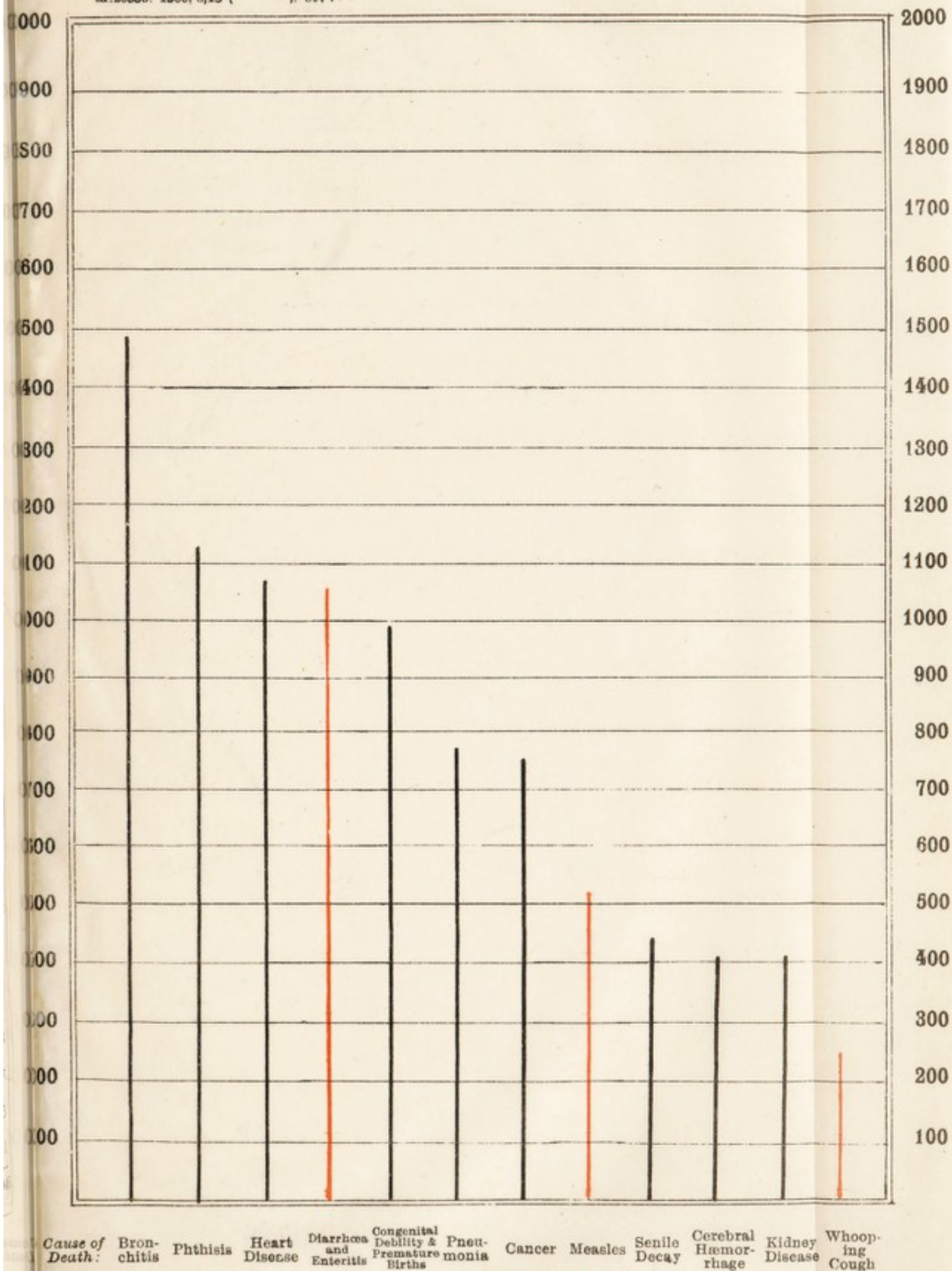
CLASSES.	QUARTERS.				YEAR 1914.
	March	June.	Sept.	Dec.	
1. Zymotic and Septic Diseases	626	1015	470	312	2,423
2. Diseases of Uncertain or Variable Seat.....	216	197	233	172	818
3. Constitutional Diseases.....	74	50	66	66	256
4. Tubercular Diseases	345	333	401	429	1,508
5. Diseases of the Nervous System	330	319	311	329	1,289
6. „ „ Circulatory „	407	322	426	462	1,617
7. „ „ Respiratory „	1058	554	717	976	3,305
8. „ „ Digestive „	165	202	155	150	672
9. „ „ Lymphatic „	3	4	2	6	15
10. „ „ Urinary „	116	95	133	117	461
11. „ „ Reproductive „	14	10	14	11	49
12. „ „ Joints, &c.	7	5	4	4	20
13. „ „ Integumentary System	11	10	11	19	51
14. Dietetic Diseases.....	2	1	2	3	8
15. Developmental Diseases	386	361	339	381	1,467
16. Causes investigated at Coroner's Inquests ...	294	238	269	275	1,076
Causes not specified	10	...	1	...	11
All Causes	4,064	3,716	3,554	3,712	15,046

CITY OF LIVERPOOL.

Comparative view of twelve of the principal causes of Death during the year 1914.

M.20580. 1500, 6/15 (

). 697V



Deaths from Zymotic Diseases. —

Deaths from other Diseases. —

Comparative view of twelve of the principal causes
Death during the year 1914

M 20220. 1200, 612 1 1914

16

CAUSES OF DEATH.

The table in the margin shows the number of deaths in the twelve principal causes of death during the year 1914. The table also shows the number of deaths in each of the twelve principal causes of death during the year 1914. The table also shows the number of deaths in each of the twelve principal causes of death during the year 1914.

The table gives a summary of the causes of death in the twelve principal causes of death during the year 1914. The table also shows the number of deaths in each of the twelve principal causes of death during the year 1914. The table also shows the number of deaths in each of the twelve principal causes of death during the year 1914.

CLASSES.	QUARTERS.				1914.
	March.	June.	Sept.	Dec.	
Septic Diseases	470	470	470	470	1,880
Uncertain or Various	233	233	233	233	932
Heart Diseases	66	66	66	66	264
Brain Diseases	101	101	101	101	404
The Nervous System	111	111	111	111	444
Circulatory	426	426	426	426	1,704
Respiratory	717	717	717	717	2,868
Digestive	150	150	150	150	600
Lymphatic	1	1	1	1	4
Urinary	111	111	111	111	444
Endocrine	11	11	11	11	44
Integumentary	11	11	11	11	44
Other	1	1	1	1	4
Total	1,880	1,880	1,880	1,880	7,520

Deaths from Zymotic Diseases.
Deaths from other Diseases.
Deaths from Septic Diseases.
Deaths from Heart Diseases.
Deaths from Brain Diseases.
Deaths from Nervous System Diseases.
Deaths from Circulatory Diseases.
Deaths from Respiratory Diseases.
Deaths from Digestive Diseases.
Deaths from Lymphatic Diseases.
Deaths from Urinary Diseases.
Deaths from Endocrine Diseases.
Deaths from Integumentary Diseases.
Deaths from Other Diseases.

ZYMOTIC DISEASES.

This class of disease is one calling for special attention, and is dealt with in some detail in the following tables, the first of which shows the localities and the periods of the fatal prevalence of zymotic diseases, and the subsequent tables deal specifically with each form of zymotic disease during 1914:—

DISTRICTS.	Deaths from all causes.	ZYMOTICS.					Per- centage of Zymotic Deaths to Deaths from all cause
		Quarters.				Total.	
		March.	June.	Sept.	Dec.		
Scotland	1,343	29	39	158	110	336	25·0
Exchange.....	1,018	27	28	80	59	194	19·0
Abercromby.....	1,002	17	27	64	42	150	15·0
Everton	2,866	44	111	229	103	487	17·0
Kirkdale	1,474	22	59	119	34	234	16·0
West Derby West	1,595	46	48	114	54	262	16·5
Toxteth.....	2,084	49	71	128	100	348	16·7
Walton.....	1,098	19	27	32	28	106	9·6
West Derby East	947	26	23	34	32	115	12·1
Wavertree	620	17	20	22	24	83	13·4
Toxteth East	471	5	9	11	5	30	6·4
(late Toxteth Rural)							
Garston	356	9	6	19	32	66	18·5
Fazakerley	86	—	2	5	3	10	11·6
Woolton	61	1	—	—	1	2	3·3
No address	25	—	—	—	—	—	0·0
City	15,046	311	470	1,015	627	2,423	16·1

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

Zymotic diseases were the cause of 2,423 deaths during the year 1914 and accounted for 16·1 per cent. of the total mortality within the City during this period. The total death-rate from zymotic diseases per 1,000 was 3·1. The average rate for the preceding five years (1909-13) was 2·7. The death-rate from the seven principal zymotic diseases was 2·7 per 1,000. The deaths during 1914 were as follows:—

	QUARTERS.				YEAR 1914.
	March.	June.	Sept.	Dec.	
Total Zymotics	311	470	1015	627	2,423
Smallpox	...	...	...	...	...
Measles	28	150	142	197	517
Scarlet Fever.....	27	38	23	35	123
Diphtheria	26	26	21	37	110
Whooping-cough	70	83	61	34	248
Diarrhoea	63	86	686	226	1,061
Influenza	26	21	6	25	78
Fever {					
Typhus	...	...	...	...	...
Typhoid	12	8	13	11	44
Other Zymotics.....	59	58	63	62	242

NOTE.—Influenza, Measles, and Whooping-cough appear to have been predisposing causes in the case of many deaths primarily ascribed to Respiratory Disease (page 32) inasmuch as one or other of these Zymotics had preceded the fatal illness. See also notes to succeeding tables.

PLAGUE.

As in the case of all large ports, the close association of Liverpool with other parts of the world has rendered it liable to the importation of various forms of infectious disease, such as Smallpox, Plague and Cholera, diseases which, however, in the case of properly applied modern sanitary methods, can gain only a temporary footing in this country.

The outbreaks of plague which have occurred in this City since the year 1901, when it made its first appearance, have been extremely limited; this is due to the precautionary measures which have been at once adopted on its appearance.

The importance of the rat as a carrier of plague has been realised for many years and a thorough and continued system of rat-catching and examination has been carried out in the City and Port during the past ten years.

During the year 1914, 13,868 rats were caught in the City. Of this number 3,430 were sent to the City Bacteriologist for examination for evidences of plague infection, the remainder being drowned and destroyed in the Destructor furnaces.

Extensive operations have also been carried out in the Port in connection with rat-catching, and the combined returns show that the total number of rats caught by shipping firms, rat-catching companies and the Port Sanitary Authority was 77,460.

Towards the end of July, a medical practitioner in the City reported to the Health Department that he had several cases of illness of a suspicious nature in a family under his care. The cases were removed to hospital and on further clinical examination showed suspicions of plague. Material taken from each was forwarded to the City Bacteriologist and a specimen was also sent to the Local Government Board. The report on these cases was positive as to the existence of plague bacillus.

The history of the outbreak was as follows:—

The father of the family was one of thirteen men employed by a cattle food milling firm in the City, and he was principally engaged at the crushing machine used to crush linseed, grain, manioc root, etc.

On Monday, July 13th, he came home unwell, was medically attended, but becoming gradually worse, died on July 20th. About July 30th his wife and several of the children began to be ill with somewhat similar symptoms. The occurrence of these cases in one family caused the doctor in attendance to report the circumstances to the Health Department, and at once the usual measures required in cases of this nature were adopted. The whole family and one contact were removed to hospital for isolation. A little boy, a neighbour, who was frequently in the house also contracted the disease, and was taken to hospital.

In this family there occurred nine cases of plague, father, mother and seven children, and three of these children died. The tenth case, the little boy who played with the other children, recovered.

The outbreak is interesting as the infection was evidently brought home by the workman to his family. The presumption is that he was infected at his work by a flea derived from rats in some bags of material from abroad.

The material in this mill was traced to the vessels concerned and each inquired into. All the vessels had been systematically searched for dead rats and rat-catching was carried out in every case. The bacteriological results were negative as regards plague.

Extensive precautions were taken to locate the infection, guinea pigs, as flea traps, were also utilised for some days in the mill and premises, but the results were entirely negative, the animals remaining in perfect health and clear of fleas.

The usual disinfection of the premises and articles likely to contain infection was carried out.

It will be seen that the disease was limited to one household, with the exception of the little boy who had mixed with the family, and no further extension of the disease took place.

Dr. Wilkinson, an Inspector of the Local Government Board, visited Liverpool and made a full investigation into the circumstances of the outbreak. About the same time Dr. Petters, of the U.S. Public Health Service, also visited the affected district and made enquiries regarding the source of infection, and the precautionary measures adopted in the Port in regard to shipping trading with American ports.

Suitable sanitary measures, therefore, as on previous occasions, at once placed the disease under control and the outbreak was limited. The localised character of the disease in this City has not, however, obscured the necessity for the continuance during the absence of the disease of the usual precautionary measures.

SMALLPOX.

The situation of Liverpool as a seaport has rendered the City and its neighbourhood very liable to importations of Smallpox from abroad. On March 17th one case was removed from a vessel arriving within the district of the Port Sanitary Authority, and was taken to the Port Sanitary Hospital at New Ferry. The vessel had come from the Mediterranean and had called at Syrian ports. The patient was the assistant cook.

In December another case of Smallpox was reported at the north end of the City, and the patient, a woman, 48 years of age, removed to the City Hospital. There was a history of an engineer coming from sea having spots on his arms, coming into close contact with the patient, but this man had returned to sea and was not traced. No further extension of the disease resulted. Both patients recovered.

A table, showing the incidence of the disease in the City during the last fifty years, will be found on the next page.

SMALL-POX DURING THE LAST FIFTY YEARS.

Years of Increase.	No. of Cases.	Deaths.	Years of Subsidence.	No. of Cases.	Deaths.
1865	Unrecorded	459			
1866	"	102			
			1867	Unrecorded	22
			1868	"	18
			1869	"	20
1870	"	174			
1871	"	1,919			
1872	"	50			
			1873	"	10
			1874	"	30
			1875	"	29
1876	"	386			
1877	1,660	299			
			1878	35	3
			1879	12	...
			1880	14	2
			1881	262	34
			1882	67	6
			1883	126	26
1884	832	106			
			1885	375	46
			1886	234	29
			1887	23	1
			1888	27	1
			1889	9	1
			1890	2	...
			1891	21	2
			1892	177	13
			1893	75	9
			1894	229	20
			1895	130	12
			1896	8	...
			1897	6	...
			1898	17	2
			1899	10	1
			1900	156	23
			1901	37	6
1902	560	20			
1903	1720	141			
			1904	27	2
			1905	15	...
			1906	19	1
			1907	19	...
			1908	7	...
			1909	9	...
			1910	10	...
			1911	19	...
			1912	4	1
			1913	13	1
			1914	2	—

The above table includes cases arriving on vessels or importations through other channels.

TYPHUS FEVER.

Of recent years cases of this disease have been imported by trans-migrants, en route to the United States 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.

No cases of typhus fever were reported during the year.

Reports for preceding years sufficiently illustrate the importance of keeping under supervision every person who is known to have been in contact with patients suffering from typhus fever and none of the stringent measures which have been adopted for many years past are in any way relaxed.

The number of deaths during each of the preceding ten years has been as follows:—

1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
25	28	8	18	10	8	—	5	2	—

TYPHOID FEVER.

177 cases of typhoid fever were reported during the year. The deaths numbered 44, as against 33 during the preceding year.

Of the 44 fatal cases, eleven were infected whilst resident outside the City; one was infected from the consumption of cockles and another from contact with a person who had been infected by the consumption of oysters. The proportion of cases removed to Hospital was 79 per cent. (see page 288). In addition, several other cases were isolated in nursing homes.

The results of inquiry into the probable causation of the reported cases is shown in the accompanying table on page 25, those for the two previous years being shown for comparison. The number of imported cases again increased, especially those imported by sea. In seven cases the consumption of shellfish was the probable source of infection, oysters having been responsible in two cases and cockles in five. It is gratifying to note that no cases attributable to the consumption of mussels came under notice. In earlier years mussels were the shellfish principally incriminated and the complete disappearance of mussels as a source of infection points to the efficacy of the steps taken to prevent the importation of mussels from sewage-polluted gathering grounds.

No "creeping epidemics," such as were reported in 1913, occurred, hence there was a very considerable diminution in the number of cases referred to direct infection.

One case was reported as being Paratyphoid fever due to the *Bacillus paratyphosus* B.

A table is given, showing the number of cases and deaths during the last 22 years, which plainly indicates the remarkable decline in the incidence and mortality from this disease.

Enteric Fever, 1912-1914.

	Cases.			Percentage.		
	1912.	1913.	1914.	1912.	1913.	1914.
Imported by Sea	36	38	62	29.0	24.8	35.0
Imported by Land	11	13	11	8.8	8.5	6.2
Shellfish	9	15	9	7.2	9.8	5.0
Milk	—	—	—	—	—	—
Direct Infection	9	24	9	7.2	15.6	5.0
Direct from missed cases.....	—	7	3	—	4.5	1.6
Chronic Carrier	1	—	—	0.8	—	—
Probably not Typhoid	6	5	9	4.8	3.2	5.0
Total ascertained causes	72	102	103	57.8	66.4	57.8
Central Area	20	16	50	16.0	10.4	28.3
Outer Area	32	35	24	24.3	22.9	13.5
Total <i>not</i> accounted for	52	51	74	40.3	33.3	41.8
Total for City and Port	124	153	177			

DEATHS FROM TYPHOID FEVER.

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.

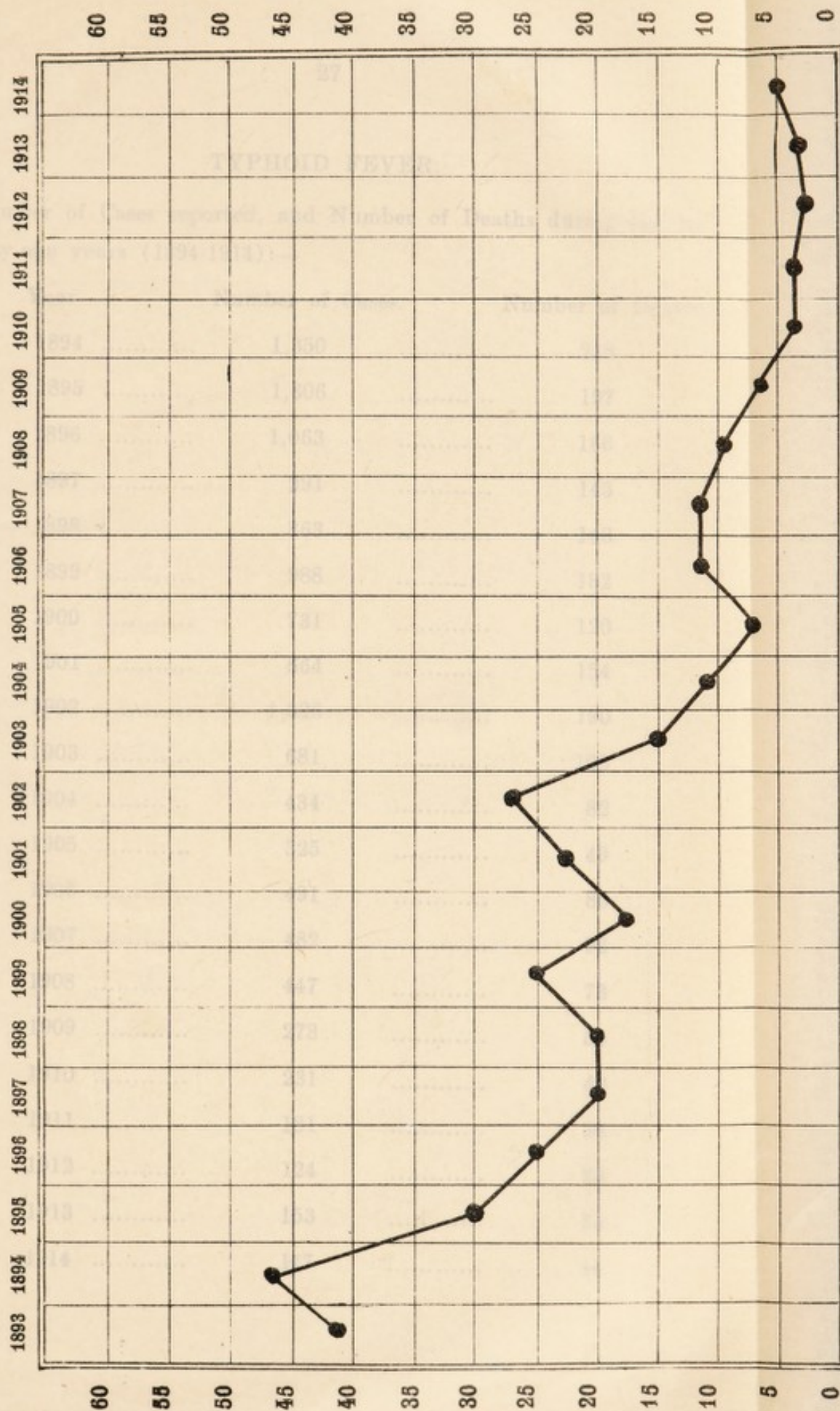
DISTRICTS.	QUARTERS.								YEAR.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	...	1	1	...	1	1	...	...	2	2	4
Exchange	1	...	...	...	2	...	4	...	7	...	7
Abercromby	...	...	...	...	2	...	2	...	4	...	4
Everton	...	1	1	...	1	1	1	...	3	2	5
Kirkdale	...	2	...	...	...	...	...	...	...	2	2
West Derby West	...	1	1	...	1	...	...	...	2	1	3
Toxteth	1	2	1	...	4	...	...	...	6	2	8
Walton	...	...	1	1	...	...	1	...	2	1	3
West Derby East	1	1	...	...	...	...	2	...	3	1	4
Wavertree	...	...	...	...	...	...	...	...	...	...	...
Toxteth East	1	...	...	1	...	...	...	...	1	1	2
(late Toxteth Rural)											
Garston.....	...	...	1	...	...	...	...	1	1	1	2
Fazakerley	...	...	...	...	...	...	...	...	...	...	...
Woolton	...	...	...	...	...	...	...	...	...	...	...
City	4	8	6	2	11	2	10	1	31	13	44

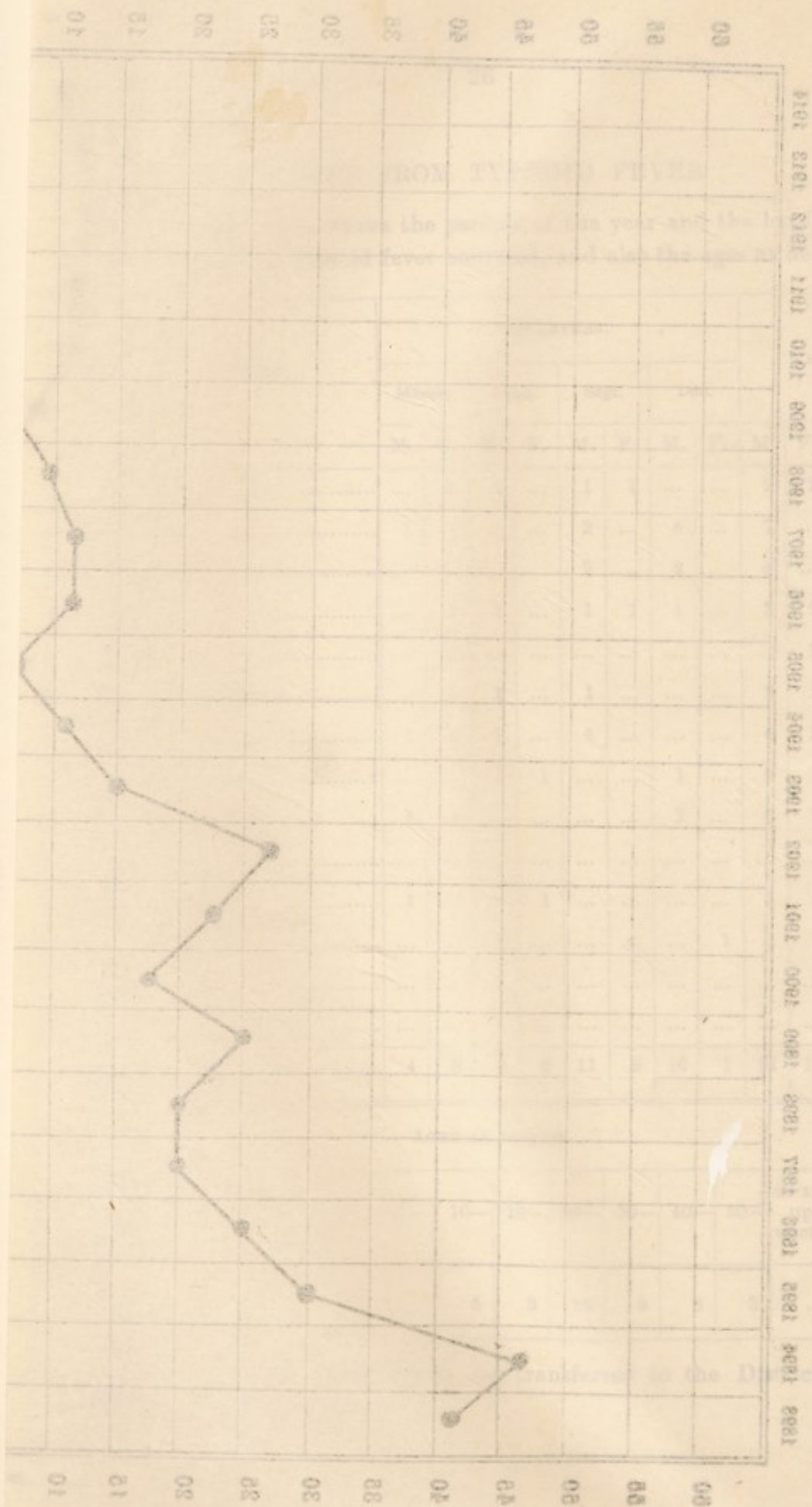
AGES AT DEATH.													
Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	60 and up-wards.	All Ages.
...	...	1	...	1	1	5	3	13	9	8	3	...	44

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

CITY OF LIVERPOOL.

Death Rate per 100,000 of Resident Population
from Typhoid Fever, 1893-1914.





TYPHOID FEVER.

Number of Cases reported, and Number of Deaths during the last twenty-one years (1894-1914):—

Year.	Number of Cases.	Number of Deaths.
1894	1,350	248
1895	1,306	197
1896	1,063	166
1897	991	145
1898	863	148
1899	988	182
1900	731	120
1901	864	154
1902	1,026	190
1903	681	108
1904	434	82
1905	325	49
1906	491	85
1907	482	92
1908	447	73
1909	278	54
1910	231	42
1911	181	36
1912	124	23
1913	153	33
1914	177	44

SCARLET FEVER.

This disease, which had showed a considerable falling off during the years 1912 and 1913, showed a tendency to increase during the year, and 1,525 more cases were notified than in the previous twelve months. The outbreak, however, was not so extensive as those which occurred in other large cities, and every precautionary measure was adopted to check the spread of infection. Schools were specially visited, and careful supervision exercised over any sickness occurring in business premises, especially dairies and establishments likely to favour its extension.

There were 3,712 cases reported, of which 3,035 were removed to hospital, equal to a percentage of 81·8. The number of deaths was 123, the case mortality being 3·3 per cent. Seventy per cent. of the fatal cases were children under five years of age. The average number of deaths during the preceding five years was 134.

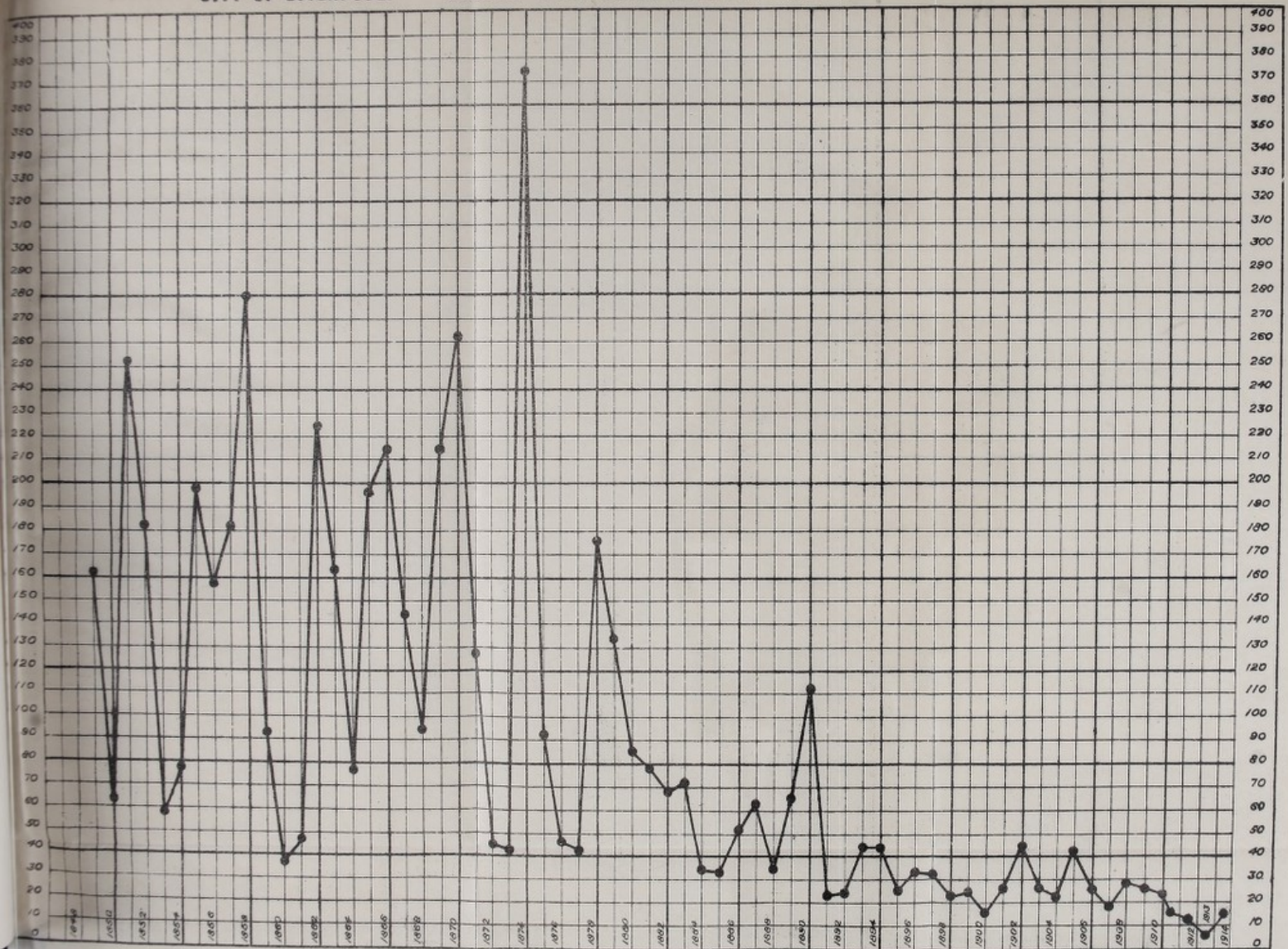
The following table shows the number of cases reported, the number of deaths, and the percentage of cases isolated in hospital during the previous ten years:—

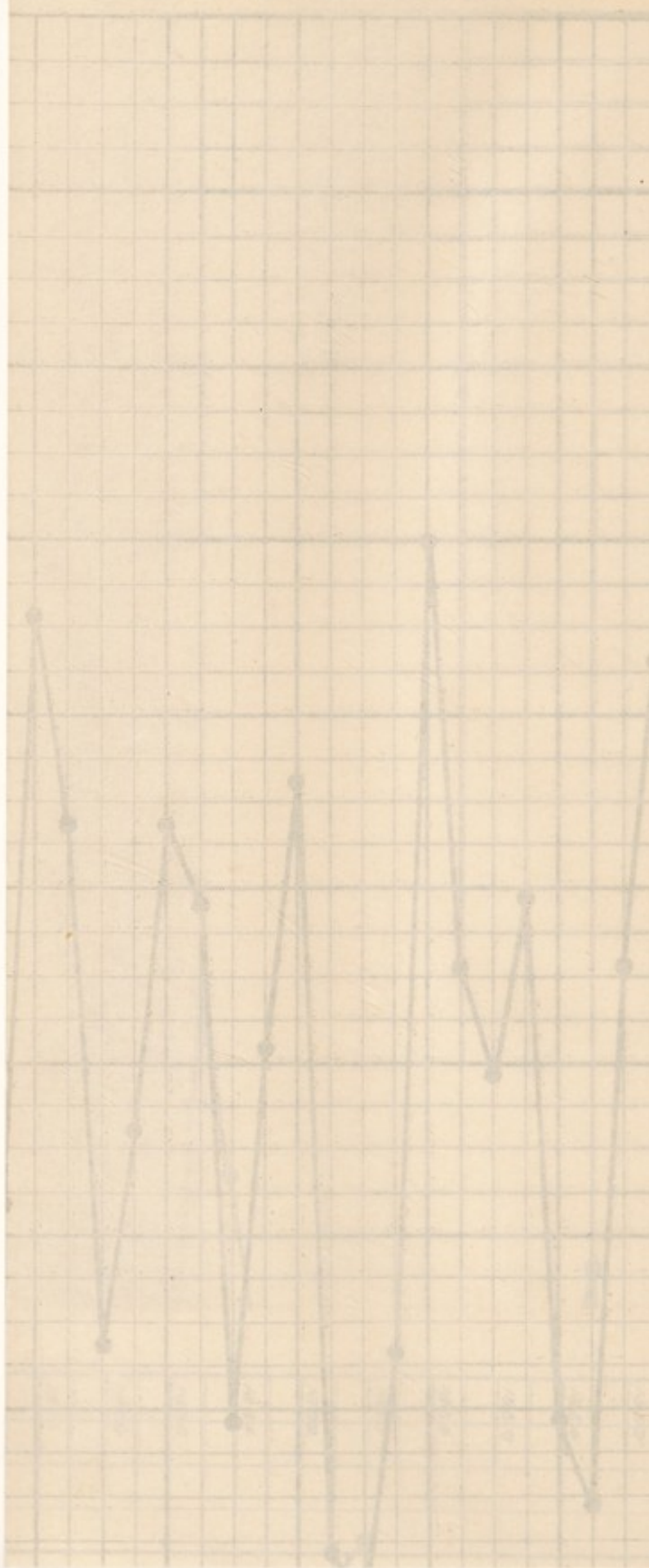
Year.	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Cases reported	2988	4308	2959	2741	4295	4059	4202	3641	2867	2187
Deaths	149	303	193	140	217	219	179	131	87	57
Percentage of cases removed	74·6	73·0	74·0	78·2	82·1	81·0	84·3	83·6	82·5	84·6

CITY OF LIVERPOOL.

SCARLET FEVER DEATH RATE PER 100,000.

1848-1914





DEATHS FROM SCARLET FEVER.

DISTRICTS.		QUARTERS.								YEAR.		
		March.		June.		Sept.		Dec.				
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland		...	3	5	4	1	1	3	1	9	9	18
Exchange		...	...	2	1	1	...	1	1	4	2	6
Abercromby		...	...	1	...	...	...	...	1	1	1	2
Everton		4	1	1	3	3	...	2	3	10	7	17
Kirkdale		1	3	...	...	1	1	...	2	2	6	8
West Derby West.....		2	1	2	1	1	1	3	1	8	4	12
Toxteth		5	1	2	5	1	3	1	3	9	12	21
Walton		...	2	2	2	1	1	4	3	7	8	15
West Derby East		2	...	...	2	2	...	2	1	6	3	9
Wavertree		1	1	1	2	1	...	...	1	3	4	7
Toxteth East..... (late Toxteth Rural)		...	...	...	...	1	1	...	...	1	1	2
Garston		...	...	...	...	1	1	1	1	2	2	4
Fazakerley		...	...	...	1	...	1	...	...	...	2	2
Woolton		...	...	...	...	...	...	...	...	...	...	...
City		15	12	16	21	14	10	17	18	62	61	123
AGES AT DEATH.												
Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	All Ages.
6	16	20	26	19	28	7	...	1	...	...	...	123

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

MEASLES.

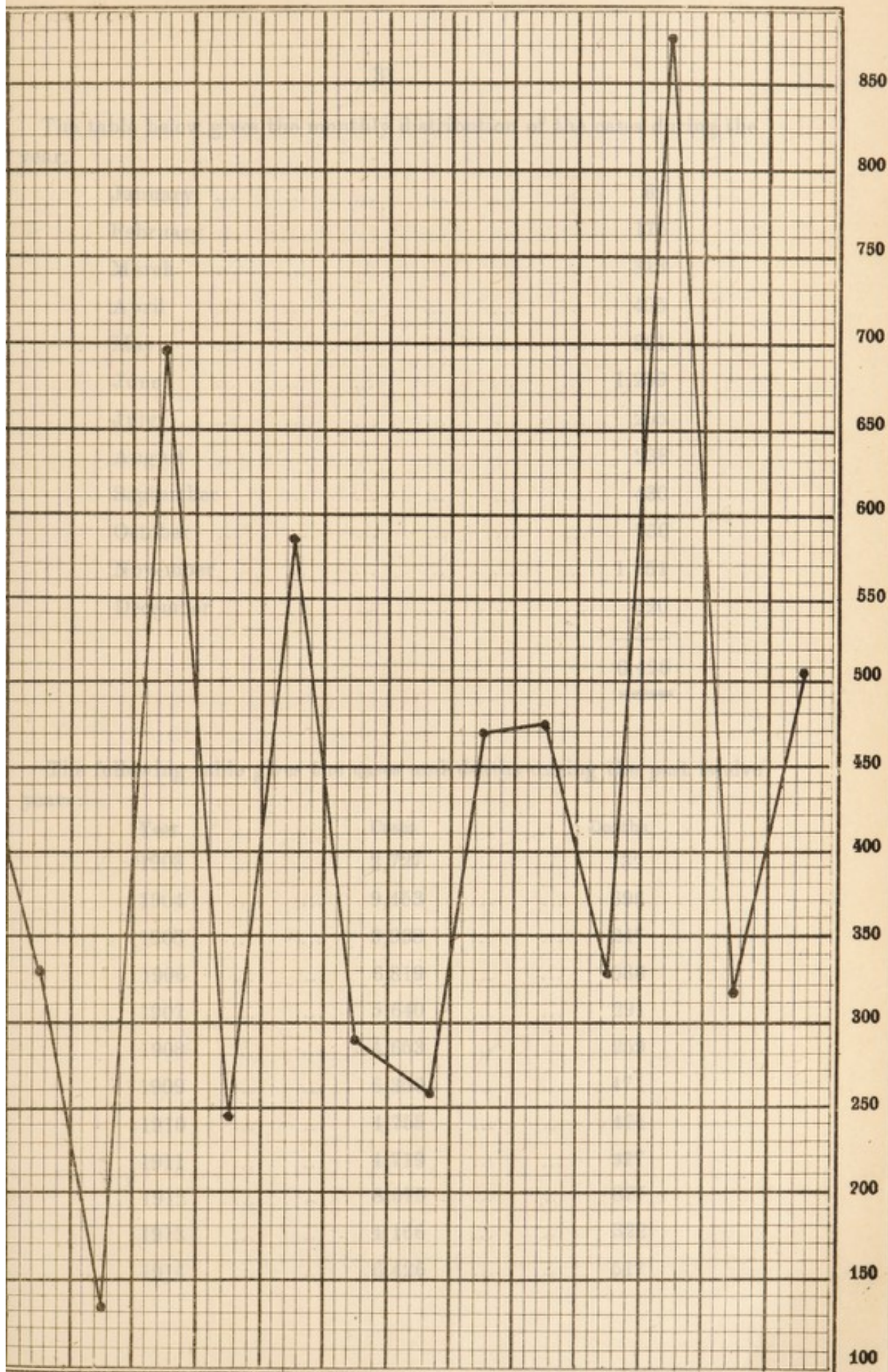
The number of cases of measles showed a considerable increase last year, accompanied by an increase in the number of deaths.

The influence of the Elementary Schools on the incidence of this disease has been commented on in previous Reports, notably in that for 1912.

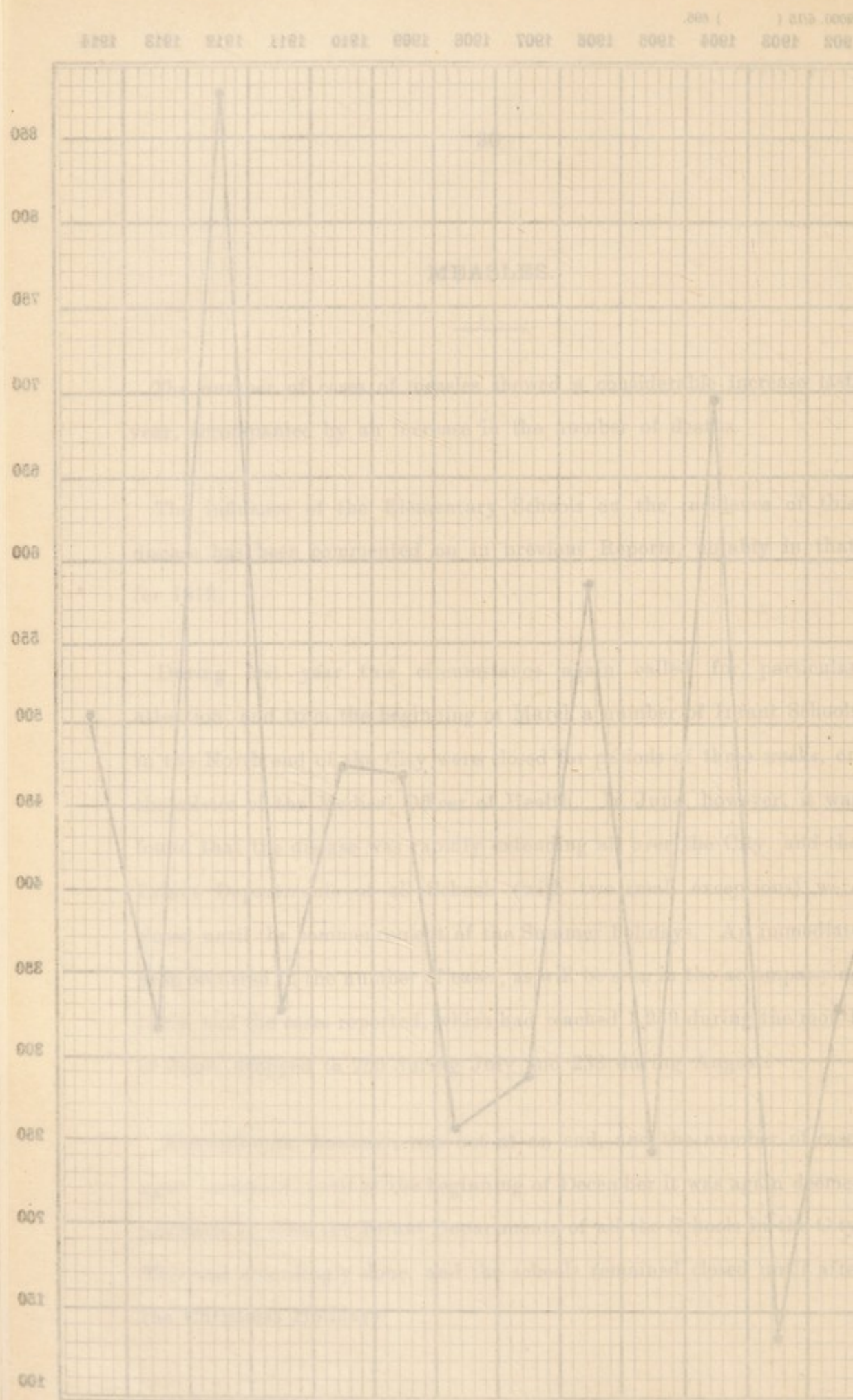
During last year this circumstance again called for particular attention, and from the beginning of March a number of Infant Schools in the North end of the City were closed for periods of three weeks, on the advice of the Medical Officer of Health. In June, however, it was found that the disease was rapidly extending all over the City, and the Infant Departments of all Schools (with two small exceptions) were closed until the commencement of the Summer holidays. An immediate drop occurred in the number of cases, as will be seen in the accompanying table, and the cases reported, which had reached 1,259 during the month of June, dropped to 255 during July and 238 during August.

The outbreak, however, was not at an end, and the number of cases again increased, until at the beginning of December it was again deemed advisable to close the Infant Departments of all the Schools in the City. This was accordingly done, and the schools remained closed until after the Christmas Holidays.

1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913 1914



DEATHS FROM MEASLES DURING THE YEARS
1901 TO 1914.



DEATHS FROM MEASLES DURING THE YEARS 1901 TO 1914

The table below gives the monthly distribution of the cases during the year.

January	...	...	...	...	...	69
February	...	...	...	...	...	175
March	...	...	...	...	...	313
April	...	...	...	...	...	405
May	...	...	...	...	...	861
June	...	...	...	...	...	1,259
July	...	...	...	...	...	255
August	...	...	...	...	...	238
September	...	...	...	...	...	430
October	...	...	...	...	...	750
November	...	...	...	...	...	1,151
December	...	...	...	...	...	520
						6,426

The following table gives the cases and deaths during the past twelve years :—

Year.	Cases		Deaths.	
1903	...	2,727	...	132
1904	...	9,453	...	696
1905	...	3,938	...	247
1906	...	6,819	...	586
1907	...	5,640	...	291
1908	...	4,653	...	259
1909	...	6,356	...	471
1910	...	4,755	...	474
1911	...	4,719	...	327
1912	...	8,075	...	877
1913	...	4,166	...	322
1914	...	6,426	...	517

As has been frequently pointed out, the number of deaths does not fully indicate the destruction of life due to measles, since this disease is commonly associated with bronchitis and pneumonia, and it is beyond any question that deaths primarily due to measles are entered in the returns as due to pulmonary disease. The isolation of the infectious sick in hospital is important and necessary. 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 other forms of infectious disease for which hospital accommodation is available. In the great number of homes in which measles occurs, 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 powers obtained in the Liverpool Corporation Act, 1913, will no doubt prove valuable, when it is widely known amongst parents that every case of infectious disease, including measles and whooping cough, must be notified to the Head Teacher of a school, if any inmate of the house attends that school.

The disinfection of schools is carried out from time to time with the object of minimising the spread of infectious disease, but as a routine practice the method recommended is thorough cleansing of the school premises and furniture with soap and water, followed by the free ventilation of the classrooms.

Reliance is placed on the teachers noticing any child showing symptoms of illness, and immediately sending the child home. Printed postcards are supplied to all schools in order that such cases may be at once reported to the Health Department for investigation.

Many thousands of circulars have been distributed throughout the City in recent years, describing the symptoms of measles and the treatment to be adopted, as well as the precautionary measures to be observed in order to avoid the spread of infection.

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, 1904-1913, has been as follows:—696, 247, 586, 291, 259, 471, 474, 327, 877, and 322.

DISTRICTS.	QUARTERS.								YEAR.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	6	3	6	7	7	7	24	13	43	30	73
Exchange.....	4	6	3	5	6	5	14	10	27	26	53
Abercromby.....	2	1	3	1	4	6	12	3	21	11	32
Everton	...	1	21	18	20	19	13	20	54	58	112
Kirkdale	...	...	24	18	5	5	3	6	32	29	61
West Derby (West)	1	1	4	1	7	7	8	5	20	14	34
Toxteth	2	...	13	18	14	13	17	10	46	41	87
Walton.....	...	...	2	1	3	3	...	...	5	4	9
West Derby (East).....	...	...	3	1	1	2	4	6	8	9	17
Wavertree	...	1	...	...	3	1	7	4	10	6	16
Toxteth (East)..... (late Toxteth Rural)	...	...	1	...	...	1	1	1	2	2	4
Garston	...	...	...	...	...	...	10	6	10	6	16
Fazakerley	...	...	...	...	3	...	...	...	3	...	3
Woolton	...	...	...	...	...	...	...	...	...	...	...
City	15	13	80	70	73	69	113	84	281	236	517

AGES AT DEATH.												
Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	All Ages.
109	222	107	30	28	21	...	...	...	...	...	...	517

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

WHOOPING-COUGH.

This disease, which again showed a considerable prevalence in the City, is one of the most distressing and painful causes of death in very early life; a large number of deaths certified to be primarily due to diseases of the lungs are found on inquiry to have originated in whooping-cough, the great majority of the deaths occurring below two years of age, and about one-third below twelve months of age. It is plain from this circumstance that isolation of the infected infant in hospital presents many difficulties, similar in character to those which arise in the case of Measles. In a large proportion of cases the patient would have to be accompanied by the mother, whilst the period of detention in hospital would in the majority of cases be protracted. During last year 248 deaths were directly attributed to whooping-cough, but this figure is by no means a complete representation of the mischief caused by it. The number of deaths in the preceding year was 232. The total number of cases reported was 4,264.

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 spread of the infection to 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, 1904-1913, has been as follows:—426, 151, 362, 324, 346, 228, 450, 246, 272, and 232.

DISTRICTS.	QUARTERS.								YEAR.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	...	3	1	...	1	1	2	4	4	8	12
Exchange	...	1	2	2	...	...	1	1	3	4	7
Abercromby	3	2	2	7	1	1	2	...	8	10	18
Everton	5	7	12	17	8	13	5	2	30	39	69
Kirkdale.....	2	3	3	1	1	8	1	2	7	14	21
West Derby (West)	9	4	6	7	5	5	3	3	23	19	42
Toxteth	7	6	4	9	3	1	1	2	15	18	33
Walton	3	5	...	...	1	...	1	...	5	5	10
West Derby (East)	3	4	2	1	3	3	2	1	10	9	19
Wavertree	...	3	3	4	2	...	...	1	5	8	13
Toxteth (East)..... (late Toxteth Rural).	...	...	...	...	...	1	...	...	...	1	1
Garston	...	...	...	...	...	3	...	...	...	3	3
Fazakerley.....	...	...	...	...	...	...	...	...	...	...	...
Woolton.....	...	...	...	...	...	...	...	...	...	...	...
City	32	38	35	48	25	36	18	16	110	138	248

AGES AT DEATH.												
Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	All Ages.
88	100	28	17	9	6	...	...	...	...	...	...	248

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

DIPHTHERIA.

Deaths from Diphtheria attained their maximum during the last 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 total number of cases reported was 1,258, of which 1,008 were removed to hospital.

The number of deaths during each of the preceding ten years has been as follows:—181, 138, 137, 95, 124, 112, 100, 125, 111, and 76.

DISTRICTS.	QUARTERS.								YEAR		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	1	1	...	1	...	...	2	1	3	3	6
Exchange	1	...	...	1	...	...	1	...	2	1	3
Abercromby	1	...	4	2	1	...	1	2	7	4	11
Everton	2	1	2	3	1	2	1	2	6	8	14
Kirkdale	1	1	...	...	1	1	...	2	2	4	6
West Derby (West)	2	3	3	1	...	2	3	3	8	9	17
Toxteth	3	...	2	2	2	3	3	4	10	9	19
Walton	1	...	1	1	2	1	1	3	5	5	10
West Derby (East)	1	2	1	...	1	1	1	1	4	4	8
Wavertree	1	2	...	1	...	2	2	2	3	7	10
Toxteth (East)	...	...	...	1	...	...	...	...	...	1	1
(late Toxteth Rural).											
Garston	...	2	...	...	1	...	...	2	1	4	5
Fazakerley	...	...	...	...	...	...	...	...	...	...	...
Woolton.....	...	...	...	...	...	...	...	...	...	...	...
City	14	12	13	13	9	12	15	22	51	59	110

AGES AT DEATH

Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	60—	All Ages.
5	22	19	14	10	32	4	1	2	...	...	...	1	110

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

ZYMOTIC DIARRHŒA.

Zymotic Diarrhœa is one of the most fatal diseases of infants in this City; it is by no means confined to infancy, but during 1914, as in preceding years, more than one-half of the total number of deaths were of infants under twelve months old. The disease did not begin to figure prominently in the mortality returns until the beginning of August, and continued until October. No less than 744 deaths were registered from it, which is much in excess of last year, when a lower temperature prevailed.

Deaths from Enteritis under two years of age are now classified as Diarrhœa, at the request of the Registrar-General. The deaths from Enteritis amounted during the year to 317, making a total of 1,061 deaths attributed to diarrhœa.

Investigation proves incontestably that the deaths of infants from this cause are closely associated with the method of feeding, contaminated food being the medium by which the specific poison is commonly introduced. The deaths amongst children under three months of age, either wholly or partially fed on artificial foods, are fifteen times as great as they are amongst an equal number of infants fed upon breast milk; *e.g.*, investigation has tended to prove that, out of every 1,000 infants under three months of age, naturally fed upon breast milk alone, 20 die of autumnal choleraic disease; but if the same number of infants, at the same age, are artificially fed, then, instead of 20 dying, as many as 300 will die from this cause. It is mainly with a view to meet this excessive mortality that sterilized milk depôts have been established, to ensure a supply of food for infants which is bacteria-free, and which can be given without any exposure to sources of contamination. (See also pp. 55 and 69.)

The numbers of deaths during each of the preceding ten years have been as follows:—1,785, 960, 1,298, 544, 630, 514, 540, 1,645, 509, and 941.

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

Of late years a limited number of infants suffering from diarrhœa were received for treatment at the City Hospital, Fazakerley, but as this Hospital was taken over by the War Office Authorities at the beginning of August, only 22 cases of diarrhœa were received during the year 1914.

DEATHS FROM DIARRHŒA.

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

DISTRICTS.				QUARTERS.								YEAR.		
				March.		June.		Sept.		Dec.				
				M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland				3	1	6	2	67	66	29	20	105	89	194
Exchange				2	4	4	1	33	28	9	12	48	45	93
Abercromby				3	...	...	3	26	18	5	7	34	28	62
Everton				6	1	15	7	69	75	18	16	108	99	207
Kirkdale				3	3	4	3	50	39	8	6	65	51	116
West Derby (West)				4	7	8	4	46	32	10	8	68	51	119
Toxteth				5	3	3	4	37	37	24	23	69	67	136
Walton				3	1	6	2	10	7	3	4	22	14	36
West Derby (East)				2	4	2	7	14	3	6	2	24	16	40
Wavertree				1	1	1	...	5	5	3	1	10	7	17
Toxteth (East) (late Toxteth Rural)				...	1	3	...	3	3	2	1	8	5	13
Garston				4	1	...	...	3	9	5	4	12	14	26
Fazakerley				...	...	1	...	1	...	...	...	2	...	2
Woolton.....				...	...	...	...	...	...	...	...	...	...	...
City				36	27	53	33	364	322	122	104	575	486	1061
AGES AT DEATH.														
Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	60 & up-wards.	All Ages.	
635	322	51	11	4	6	...	...	2	2	1	3	24	1061	

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

List of Streets in the City wherein Three or more Deaths from
Diarrhœa occurred during the year 1914.

STREETS.	No. of Deaths.	STREETS.	No. of Deaths.
Adlington	4	Latimer	3
Anthony... ..	3	Leta	3
Arkwright	6	Leyden	4
Arlington	5	Limekiln Lane	3
Ashfield	6	Llewellyn	3
Athol	10	Luther	5
Avison	3	Maguire	3
Beaufort	6	Milford	3
Bidder	3	Mill	3
Birkett	3	Northumberland	4
Blenheim	3	Opie	3
Bostock	3	Park Road	3
Boundary	9	Phythian	3
Brasenose Road	3	Portland	6
Brighton	3	Poyntz	3
Burlington	17	Prince Edwin	3
Chaucer	4	Queen Anne	3
Christopher	3	Robsart	7
Comus	6	Rockingham	5
Crown	4	Rokesmith	3
Doncaster	3	Roscoe Lane	3
Dryden	6	Roscommon	4
Edge Lane	4	Rose Place	6
Eldon	3	Rose Vale	7
Ellison	6	Rutter	3
Field	6	Saltney	7
Gadsby	3	Seacome	7
Gerard	5	Shand	3
Gildart's Gardens	3	Skirving	3
Great Richmond	4	Slade	5
Haigh	3	Silvester	3
Hankin	3	Springfield	3
Hartnup... ..	3	Taliesin	3
Hook	4	Tatlock	3
Hopwood	10	Thomaston	3
Hornby	7	Towson	4
Howe	8	Upper Beau	3
Hunter	3	Upper Stanhope	3
Johnson Place	3	Wavertree Vale... ..	3
Lamb	3	Westmoreland Place	4
Lambeth Road	5	Wolfe	4

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

OTHER ZYMOTICS.

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

DISTRICTS.	Influenza.		Erysipelas.		Syphilis.		Rheumatic Fever.		Puerperal Fever.	Other Zymotics.		YEAR.
	M.	F.	M.	F.	M.	F.	M.	F.	F.	M.	F.	Total.
Scotland	3	4	1	2	7	3	2	...	1	4	2	29
Exchange	...	...	1	3	5	1	3	2	2	5	3	25
Abercromby	3	3	2	3	3	...	1	3	1	1	1	21
Everton	5	9	3	1	10	10	2	4	5	9	5	63
Kirkdale	4	2	3	2	4	1	1	...	3	...	...	20
West Derby (West) ..	2	5	2	2	8	3	4	2	3	3	1	35
Toxteth	3	3	5	1	6	4	4	6	1	5	6	44
Walton	6	4	...	1	1	1	1	6	2	1	...	23
West Derby (East)...	5	4	...	2	1	...	1	1	4	...	...	18
Wavertree	2	6	2	...	...	1	...	3	5	...	1	20
Toxteth (East)	...	2	...	...	...	1	...	2	2	...	...	7
(late Toxteth Rural)												
Garston	2	...	1	1	1	...	...	...	2	2	1	10
Fazakerley	1	...	...	...	...	1	1	...	...	...	...	3
Woolton	...	...	...	...	...	...	...	...	...	1	1	2
City	36	42	20	18	46	26	20	29	31	31	21	320

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 SEVEN 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.	Typhoid.	Scarlet Fever.	Measles.	Whooping Cough.	Diarrhoea.
1866 to 1875	237·4	652·8	† —	789·4	425·7	496·8	995·3
1876 to 1885	90·8	238·0	126·4	421·2	517·8	472·3	658·4
1886 to 1895	8·8	37·1	153·0	257·5	399·5	322·4	600·6
*1896 to 1905	19·5	25·1	134·4	201·3	329·0	330·4	1,051·9
1906-14.....	·3	5·2	48·0	145·2	450·2	296·7	846·3

* Including extended City area.

† Records not available.

ANNUAL AVERAGE NUMBER OF DEATHS FROM SEVEN 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.		TYPHOID.		SCARLET FEVER.		MEASLES.		WHOOPING COUGH.		DIARRHOEA.	
	Above 5.	Below 5.	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	+190.0	+5.1	+110.3	+12.1	137.0	284.2	35.4	482.4	18.6	453.7	61.9	596.5
1886 to 1895	6.2	2.6	36.2	.9	142.0	11.0	87.6	169.9	28.3	371.2	15.1	307.3	60.2	540.4
**1896 to 1905	14.5	5.0	24.2	.9	128.4	6.0	61.7	139.6	17.1	311.9	11.9	318.5	53.6	1,008.3
1906-13	.3	—	6.1	.2	47.2	1.2	55.6	92.2	24.9	416.7	10.1	298.7	31.5	786.7
1914	—	—	—	—	42	2	36	87	21	496	6	242	38	1,023

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

† During the six years, 1880-1885.

** Including extended City area.

The following table shows the number of deaths, the annual average death-rate per 100,000 of the population from the undermentioned forms of disease during the last five decades, 1856 to 1905; during the last nine years, 1906-1914 and during 1914:—

DISEASE.	Average Population.....	1856 to 1865.	1866 to 1875.	1876 to 1885.	1886 to 1895.	1896† to 1905.	1906-14.	1914.
		443,938.	493,405.	538,651.	536,974.	691,351.	744,173.	767,992
Typhoid fever	Total Deaths.....	5,994	7,894	4,212	2,575	2,013	1,307	123
	Rate per 100,000 per annum.	135·0	159·9	78·1	47·9	29·1	19·5	16·0
Scarlet fever	Total Deaths.....	7,482	6,528	2,380	371	251	47	—
	Rate per 100,000 per annum.	168·5	132·2	44·1	6·9	3·6	·7	—
Diphtheria	Total Deaths.....	*	*	1,264	1,530	1,344	432	44
	Rate per 100,000 per annum.			21·5	28·4	19·3	6·4	5·7
Measles	Total Deaths.....	3,215	4,257	5,178	3,995	3,290	4,050	517
	Rate per 100,000 per annum.	72·4	86·2	96·1	74·3	47·5	60·4	67·3
Whooping cough	Total Deaths.....	4,779	4,968	4,723	3,224	3,304	2,671	248
	Rate per 100,000 per annum.	107·6	100·6	87·6	60·0	47·7	39·8	32·2
Smallpox	Total Deaths.....	1,673	2,374	908	88	195	3	—
	Rate per 100,000 per annum.	37·6	48·1	16·8	1·6	2·8	·04	—
Erysipelas	Total Deaths.....	15,572	16,476	13,754	11,436	12,632	10,177	1,132
	Rate per 100,000 per annum.	350·7	333·9	255·3	212·9	182·7	151·9	147·4

† City Boundaries extended in 1895. * Records not available.

ANTHRAX.

Eight cases of Anthrax were notified to the department during the year. The details concerning these cases will be found in the accompanying table. Whilst the majority occurred among dock labourers and other men working amongst hides, bones, or such like animal products, cases have also occurred as in former years amongst those who have handled bags of meal or second-hand bags. These bags have doubtless been contaminated by having contained at one time animal products, and also from having been in contact with such materials probably on board ship. In two cases the patients were clerks, one being employed in a tannery.

Three of the patients lived in districts other than Liverpool, viz., Runcorn and Bootle. The two Runcorn cases were removed to Liverpool hospitals and notified by the medical staff to the Health Department. The information was transmitted to the Runcorn Health Authorities. The case from Bootle was infected at the Liverpool docks. Only one death occurred.

CASES OF ANTHRAX REPORTED DURING THE YEAR 1914 IN CONNECTION WITH THE HANDLING
OF ANIMAL AND OTHER PRODUCTS.

Date.	Sex.	Occupation.	Material.	Origin of Material.	Situation of Pustule.	Severity and Result.
1914.						
January 19	M	Cargo Clerk	Not traced	—	Left side of Neck	Recovered
February 2	M	Labourer	Bags of Meal and Rice	Indian Ports ...	Front of Neck ...	Recovered
March 18	M	Tannery Clerk...	Not traced	—	Left Cheek	Recovered
April 3	F	Housewife	Not traced. Husband employed at a tannery.	—	Back of Neck ...	Recovered
April 10	M	Labourer	Dry Hides	Pernambuco	Back of Hand ...	Recovered
May 10	M	Labourer	Dry Bones	Alexandria	Neck	Death
July 7	M	Labourer	Handling Bags of Meal, brushing up, etc.	Indian Ports ...	Chin	Recovered
December 10	M	Labourer	Probably dust from Hides	China	Right side of Neck.	Recovered

POLIOMYELITIS.

Thirty-seven cases of this disease came under the notice of the Department during the year, and in 7 cases death occurred.

In 20 cases permanent paralysis of one or more groups of muscles was stated to have occurred as a result of the illness.

Practically all the patients were under fifteen years of age, only two being over that age, whilst 23 were between one and five years.

The extension of the disease appears to be favoured by hot and dry weather, and most of the cases were reported during the summer months or early autumn. The cases were mostly confined to the North end of the City. Nineteen of the cases were treated in hospital.

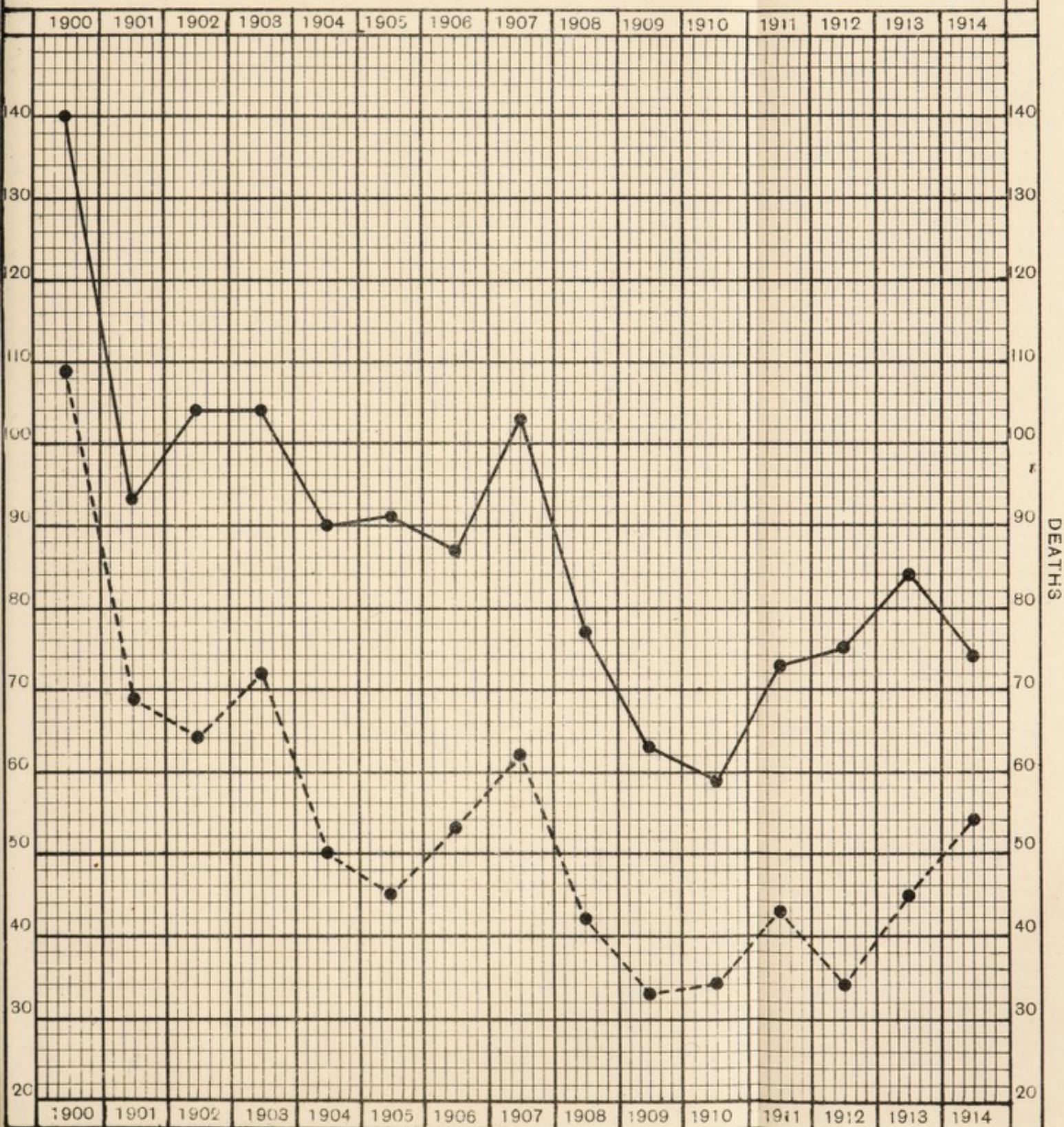
CEREBRO-SPINAL FEVER.

Thirty-three cases of this disease were recorded during the year, with 20 deaths. Eighteen cases were treated in hospital. Only one patient was above fifteen years of age. In one case the patient was an Armenian emigrant. Careful investigation was made into every case, but only in two instances could direct contact with a preceding case be established.

CITY OF LIVERPOOL.

DEATHS FROM EXCESSIVE DRINKING DURING THE 15 YEARS 1900 TO 1914.

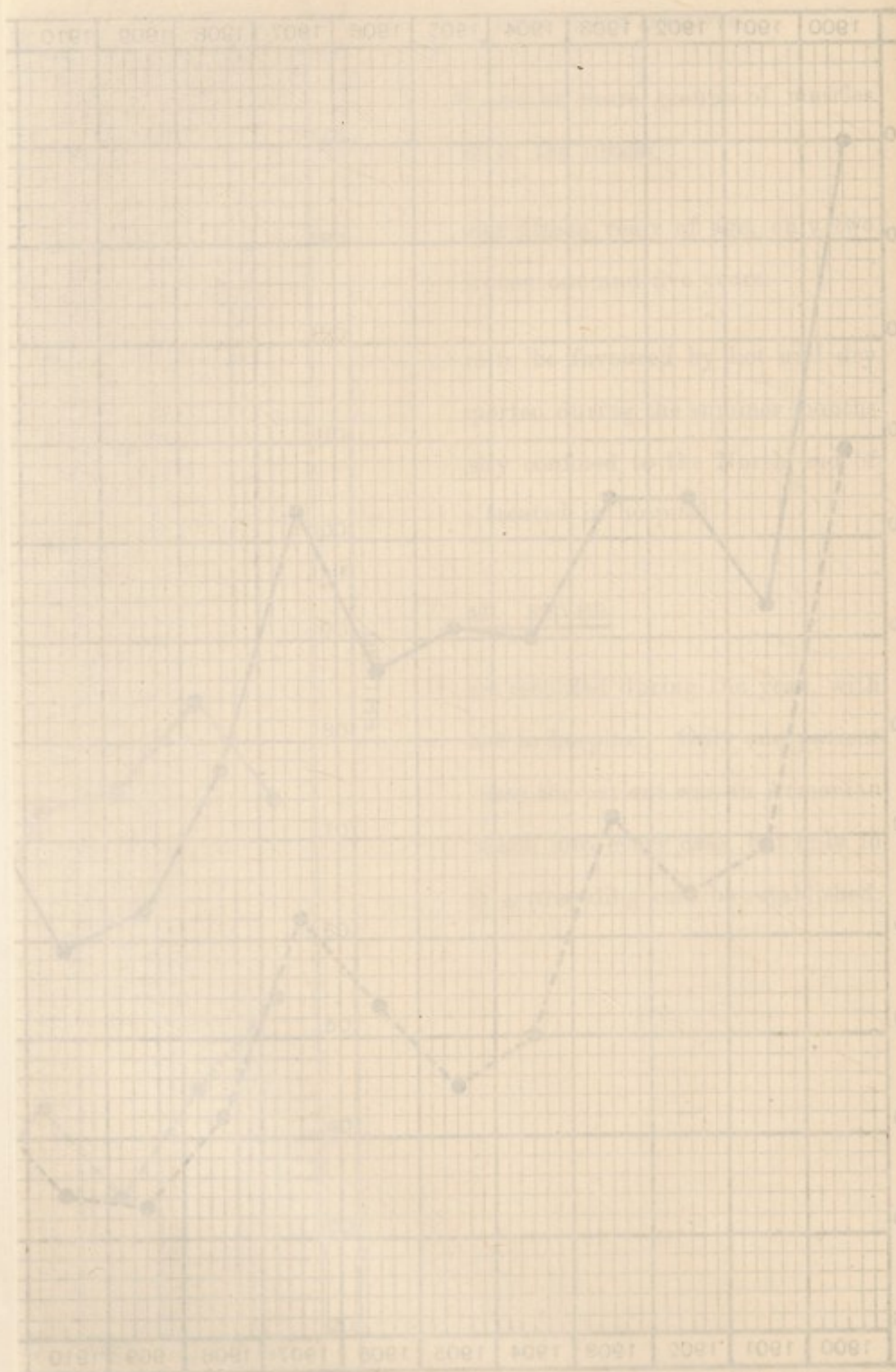
The Black Line denotes Males and the Dotted Lines Females.



CITY OF LIVERPOOL

DEATHS FROM EXCESSIVE DRINKING DURING THE 15 YEARS 1900 TO 1914.

The Black line denotes Males and the Dotted line Females.



ALCOHOLISM.

The total number of deaths certified by Coroner's Juries to be the result of excessive drinking was 125, the number in the previous year being 123. Seventy-three were males and 52 females.

In addition, one man, aged 42, died from injuries to his head caused by an accidental fall downstairs whilst under the influence of drink; a dock labourer, aged 35, cut his throat with broken glass whilst suffering from delirium tremens, and a publican, aged 45, committed suicide by cutting his throat with a razor whilst of unsound mind caused by excessive drinking.

"Alcoholism" was certified to be the cause of death of one man and two women.

It has many times been pointed out that the number of deaths does not indicate the extent of the mischief caused by excessive drinking.

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

	Population.	General Death-rate per 1,000.	Proportion of Deaths in Workhouses and Hospitals.	Proportion of Deaths due to Excessive Drinking.
Exchange	35,760	28·4	48·2 per cent.	1·9 per cent.
Walton	82,888	13·2	31·9 ,,	·4 ,,
Wavertree	45,099	13·7	30·3 ,,	·5 ,,

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

The neglect of children and the degradation and poverty occasioned by drink are too well known to call for comment, but apart from this it will be seen that alcohol has caused more deaths than any other poison available or sold within the City.

CANCER.

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

DISEASE.	1909.			1910.			1911.			1912.			1913.			1914.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Cancer of Stomach and Bowels..	135	149	284	169	132	301	176	149	325	195	142	337	202	156	358	156	147	303
" Liver	33	55	88	46	48	94	32	51	83	31	53	84	30	36	66	42	45	87
" Urinary and Gen- erative Organs	4	121	125	29	112	141	17	104	121	26	118	144	12	79	91	17	105	122
" Breast	...	53	53	...	60	60	...	58	58	...	54	54	...	50	50	3	56	59
" Head and Face	24	8	32	22	3	25	18	3	21	21	6	27	18	2	20	9	4	13
" Tongue, Neck, and Throat	61	6	67	55	10	65	61	4	65	70	7	77	60	13	73	89	26	115
" Other parts of the Body	21	6	27	11	19	30	17	12	29	18	11	29	19	26	45	22	10	32
" Parts not specified ...	9	9	18	10	19	29	8	16	24	10	7	17	6	8	14	13	6	19
Total	287	407	694	342	403	745	329	397	726	371	398	769	347	370	717	351	399	750

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 thirty-one 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	21·7	611	25	190	2
1903	20·0	657	57	108	...
1904	22·1	1,785	25	82	1
1905	19·5	960	28	49	1
1906	20·6	1,298	8	85	1
1907	18·7	544	18	92	...
1908	18·9	630	10	73	2
1909	18·8	514	8	54	...
1910	17·9	540	...	42	...
1911	19·5	¶1645	5	36	1
1912	17·7	|| 509	2	23	...
1913	18·0	**941	...	33	...
1914	19·5	***1061	...	44	...

* Calculated on corrected population as per Census Returns of 1891, 1901 and 1911.

1 City Boundaries extended.

2 Garston included.

3 Fazakerley included.

4 Woolton included.

¶ Including 333 from Enteritis under 2 years of age.

|| 230 " " " " "

** 296 " " " " "

*** 317 " " " " "

METEOROLOGY.

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

LIVERPOOL OBSERVATORY, BIDSTON, BIRKENHEAD.

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

Height above the Mean Level of the Sea 202 feet.

1914.	Barometer.	Temperature.	RAINFALL.		Mean Humidity of the air (Complete Saturation equal 100).
	Mean.	Mean.	Amount.	No. of days on which .01 in. or more fell.	
	Inches.	Degrees.	Inches.		
January	30.128	40.3	1.020	14	85
February	29.600	44.5	1.295	16	81
March	29.566	43.6	2.617	27	83
April	30.051	49.7	0.546	10	73
May	30.096	50.9	1.482	14	79
June	30.071	57.8	2.144	11	74
July.....	29.859	60.8	4.156	22	79
August	29.997	61.5	1.325	12	80
September	30.058	56.9	2.622	13	75
October	30.035	51.5	1.711	9	84
November	29.835	45.7	2.761	19	85
December	29.499	40.6	4.338	23	86

DIFFERENCE FROM THE AVERAGE QUANTITIES OBSERVED DURING THE
LAST 45 YEARS.

1914.	BAROMETER.		TEMPERATURE.		RAINFALL.	
	Above Average.	Below Average.	Above Average.	Below Average.	Above Average.	Below Average.
	Inches.	Inches.	Degrees.	Degrees.	Inches.	Inches.
January	0.180	...	1.1	...	...	1.103
February	...	0.332	3.3	...	...	0.367
March	...	0.319	1.4	...	0.789	...
April	0.149	...	2.4	...	...	1.096
May	0.133	...	...	0.9	...	0.425
June	0.088	...	0.4	...	0.020	...
July	...	0.092	0.0	...	1.470	...
August	0.082	...	1.0	...	...	1.652
September	0.091	...	0.7	...	...	0.162
October.....	0.165	...	1.9	...	...	1.728
November	...	0.057	2.5	...	0.177	...
December.....	...	0.353	0.7	...	1.682	...

OBSERVATIONS OF VELOCITY OF WIND.

1914.	Average Hourly Velocity for Month.	Maximum Hourly Velocity.	Date.	Minimum Hourly Velocity.	Date.
	Miles.	Miles		Miles.	
January	17.7	48	Jan. 6	1	January 10.
February....	18.6	54	Feb. 15	2	February 24.
March.....	19.6	58	March 6	1	March 11, 19, 24.
April	16.2	55	April 6	0	April 21.
May	15.0	43	May 8, 9	0	May 14, 29.
June	13.2	39	June 5	1	June 2, 16, 17, 18, 24.
July	14.9	45	July 25	0	July 29.
August	11.3	32	Aug. 23	0	August 20.
September..	17.0	66	Sept. 14	1	Sept. 3, 4, 21, 22, 30.
October.....	12.5	36	Oct. 25	1	October 10, 17, 18 19, 24.
November...	17.3	60	Nov. 11	0	November 21.
December...	18.6	58	Dec. 5	1	December 14.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY
CHICAGO, ILL., U.S.A.

Subscription price, Five Dollars Per Annum in Advance.
Single Copies, Fifteen Cents.

Entered as Second-Class Matter, May 2, 1912, under Post Office
No. 383, Post Office at Chicago, Ill., under special
authorization of Act of October 3, 1917, approved
October 3, 1917. Accepted for mailing at
special rate of postage provided for in
Act of October 3, 1917, approved October 3,
1917. Postage paid at Chicago, Ill., and at
additional mailing offices.

Acceptance for mailing at special rate of postage provided for in
Act of October 3, 1917, approved October 3, 1917.
Postage paid at Chicago, Ill., and at additional mailing offices.

Copyright, 1918, by American Medical Association
Printed at the Chicago Press, Chicago, Ill.

Volume 17, No. 1, January 1, 1918

CONTENTS

Original Articles

1. The Treatment of the Fractured Femur in the
Infant and Child

2. The Treatment of the Fractured Femur in the
Adult

3. The Treatment of the Fractured Femur in the
Elderly

4. The Treatment of the Fractured Femur in the
Young Adult

5. The Treatment of the Fractured Femur in the
Middle-aged Adult

6. The Treatment of the Fractured Femur in the
Older Adult

7. The Treatment of the Fractured Femur in the
Very Old Adult

8. The Treatment of the Fractured Femur in the
Very Young Adult

9. The Treatment of the Fractured Femur in the
Young Adult

10. The Treatment of the Fractured Femur in the
Middle-aged Adult

11. The Treatment of the Fractured Femur in the
Older Adult

12. The Treatment of the Fractured Femur in the
Very Old Adult

13. The Treatment of the Fractured Femur in the
Very Young Adult

14. The Treatment of the Fractured Femur in the
Young Adult

15. The Treatment of the Fractured Femur in the
Middle-aged Adult

16. The Treatment of the Fractured Femur in the
Older Adult

17. The Treatment of the Fractured Femur in the
Very Old Adult

18. The Treatment of the Fractured Femur in the
Very Young Adult

19. The Treatment of the Fractured Femur in the
Young Adult

20. The Treatment of the Fractured Femur in the
Middle-aged Adult

CHILD WELFARE.

CHILD WELFARE.

INFANT MORTALITY AND ITS PREVENTION.

Although it may not be fully realised, the object of infant welfare is promoted by all sanitary operations great or small.

In large centres of population the problems arising in the actual carrying out of sanitary measures are often in themselves of such magnitude and interest that the ultimate reason for which they were undertaken is apt to be obscured. Take, for example, the housing operations, modern town planning operations, or even the cleansing and scavenging of cities: there are few who fully grasp the bearing of these undertakings on ante-natal hygiene and infant welfare. Commonly, the executive operations are necessarily and properly allocated to executive committees, whose names imply their functions, such as housing committees, cleansing committees, and so forth, and their laudable work is carried forward and accomplished without any consciousness that the ultimate goal is (amongst other things, no doubt) ante-natal hygiene and infant welfare; and the close connection of the action, with the good which has resulted, will at once be assented to by any person to whom the relationship is pointed out.

The work already undertaken by the Health Committee, and the cost thereof, in respect to which the Local Government Board have promised a 50 per cent. grant, may conveniently be summarised as follows, the Voluntary agencies being dealt with subsequently, viz.—

(a) Arrangements for the local supervision of Midwives.

(b) Arrangements for such assistance as may be needed to ensure the mother having skilled and prompt attendance during confinement at home.

No doubt this would include a portion of the payments to medical men called in by midwives to assist in emergency cases, under the Resolution of the City Council dated 1st September, 1904.

(c) The systematic home visitation, following the birth notification, of newly born infants, and the visitation of children below the age of school attendance.

(d) Prevention and treatment of Ophthalmia Neonatorum.

In addition to the administration of the foregoing, *a*, *b*, *c*, and *d*, besides the salaries of the special staff actually and exclusively engaged in the work, there are incidental expenses, arising from

(1) Medical supervision and assistance.

(2) Clerical assistance, and

(3) General administrative expenses, such as rent, printing, stationery, and petty disbursements.

The Medical Officer has carefully considered these points, and has conferred with the City Treasurer thereon. A fair proportion of the cost of the charges of the staff for the purposes of Maternity and Child Welfare has been estimated to be £1,800 for this part of the work for six months, consequently for the whole year it would be approximately £3,600, and the 50 per cent. grant from the Local Government Board would amount to £1,800.

The undermentioned Voluntary Agencies do invaluable work in this connection:—

(1) The Liverpool Ladies' Sanitary Association.

(2) The Women's Co-Operative Guild.

(3) The "Adam Cliff" East Liverpool Day Nursery.

(4) The Children's Aid Society Day Nursery, 46, Juvenal Street.

(5) Toxteth Day Nursery, No. 128, Hill Street.

(6) Dispensary for Women and Children, 334, Netherfield Road North.

(7) Liverpool Central School for Mothers (Abercromby House), 141, Smithdown Lane.





R— family, 21 J— Street. Fifteen children, four living. All children artificially fed after first few weeks.
Father is an iron moulder.



There can be no doubt of the advantages which would accrue by an expansion and co-ordination of the work of the various Voluntary Agencies with the work of the Health Committee.

An important Conference of the National Association for the Prevention of Infant Mortality and for the Welfare of Infancy was held in Liverpool on July 2nd and 3rd, 1914, and many subjects having infant welfare for their object were discussed. The Conference was largely attended.

The relation which the deaths of infants under one year of age has borne to every hundred births in the various districts of the city during the year is shown in the following table:—

DISTRICTS.	Number of Births.	Number of Deaths under 1 year of age.	Percentage of Deaths under 1 year to total Births.
Scotland	1,931	339	17·5
Exchange	1,143	243	21·2
Abercromby	938	154	16·4
Everton	4,202	672	15·9
Kirkdale	2,189	377	17·2
West Derby (West)	2,763	383	13·8
Toxteth	3,297	437	13·2
Walton	2,003	187	9·3
West Derby (East)	1,749	179	10·2
Wavertree	1,158	100	8·6
Toxteth—East	618	46	7·4
(late Toxteth Rural)			
Garston	780	81	10·3
Fazakerley	127	12	9·4
Woolton.....	167	9	5·4
City	23,065	3,219	13·9

The following table shows the number of deaths of infants below one year of age and the rate per 1,000 births during the last twenty years:—

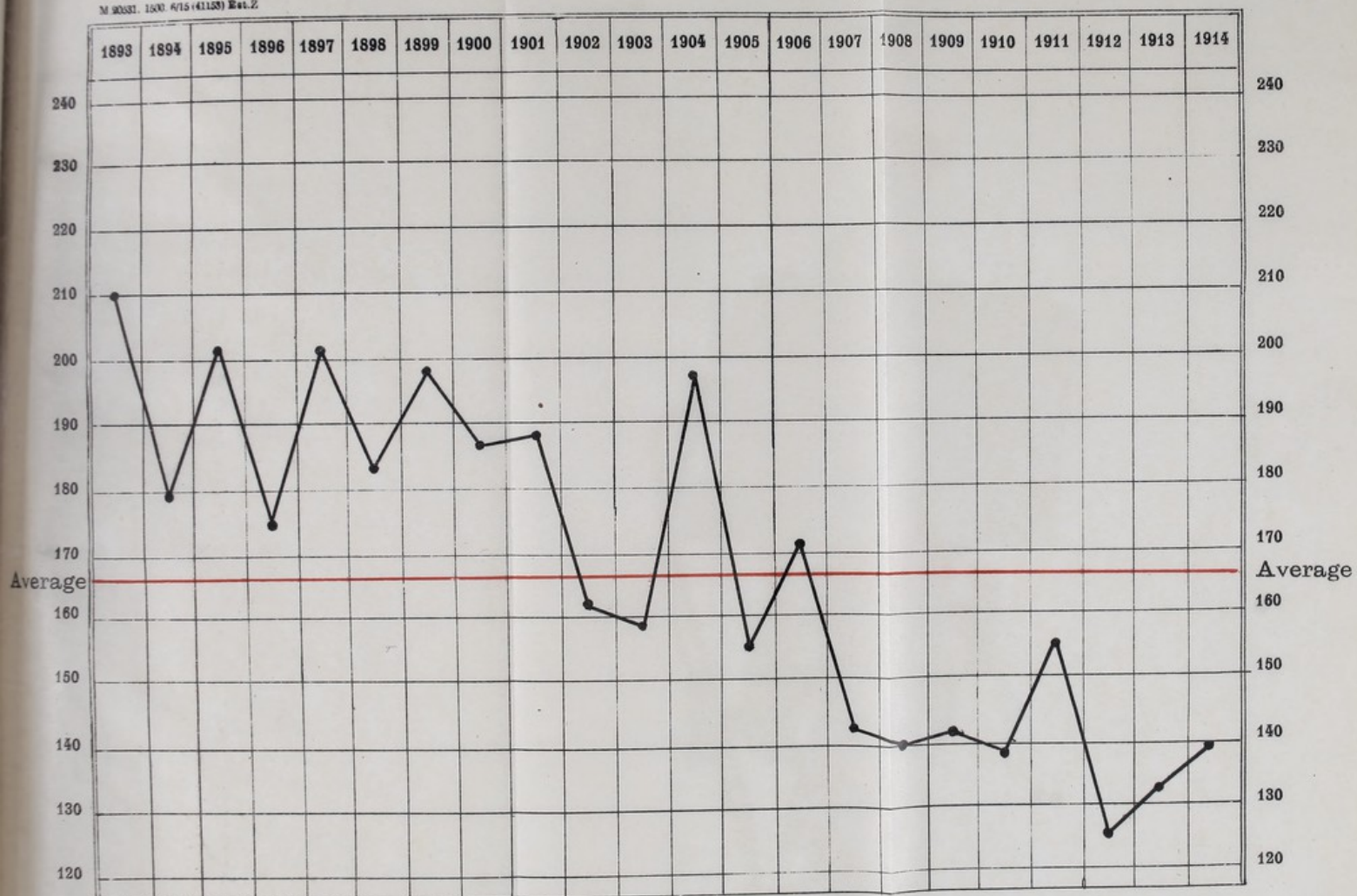
Year.	No. of Deaths below One Year of Age.	Rate per 1,000 Births.
1895	4,441	202
1896	3,833	175
1897	4,488	201
1898	4,111	184
1899	4,481	199
1900	4,203	186
1901	4,089	187
1902	3,899	162
1903	3,775	159
1904	4,735	196
1905	3,710	154
1906	4,137	171
1907	3,383	143
1908	3,355	140
1909	3,377	143
1910	3,216	139
1911	3,466	154
1912	2,778	125
1913	2,987	132
1914	3,219	139

The varying rate of mortality occurring in families similarly circumstanced has received a good deal of consideration, and reports were received from the Female Staff during the year of a large number of cases which had been specially investigated. In last year's report illustrations were given of large families where all the children who were born survived, and other cases where only 4 out of 15, and 2 out of 10 survived. Specimen families are again illustrated.

CITY OF LIVERPOOL.

Infant Mortality per 1000 Births, 1893-1914.

M 900331. 1500. 4/15 (41158) Est. 2

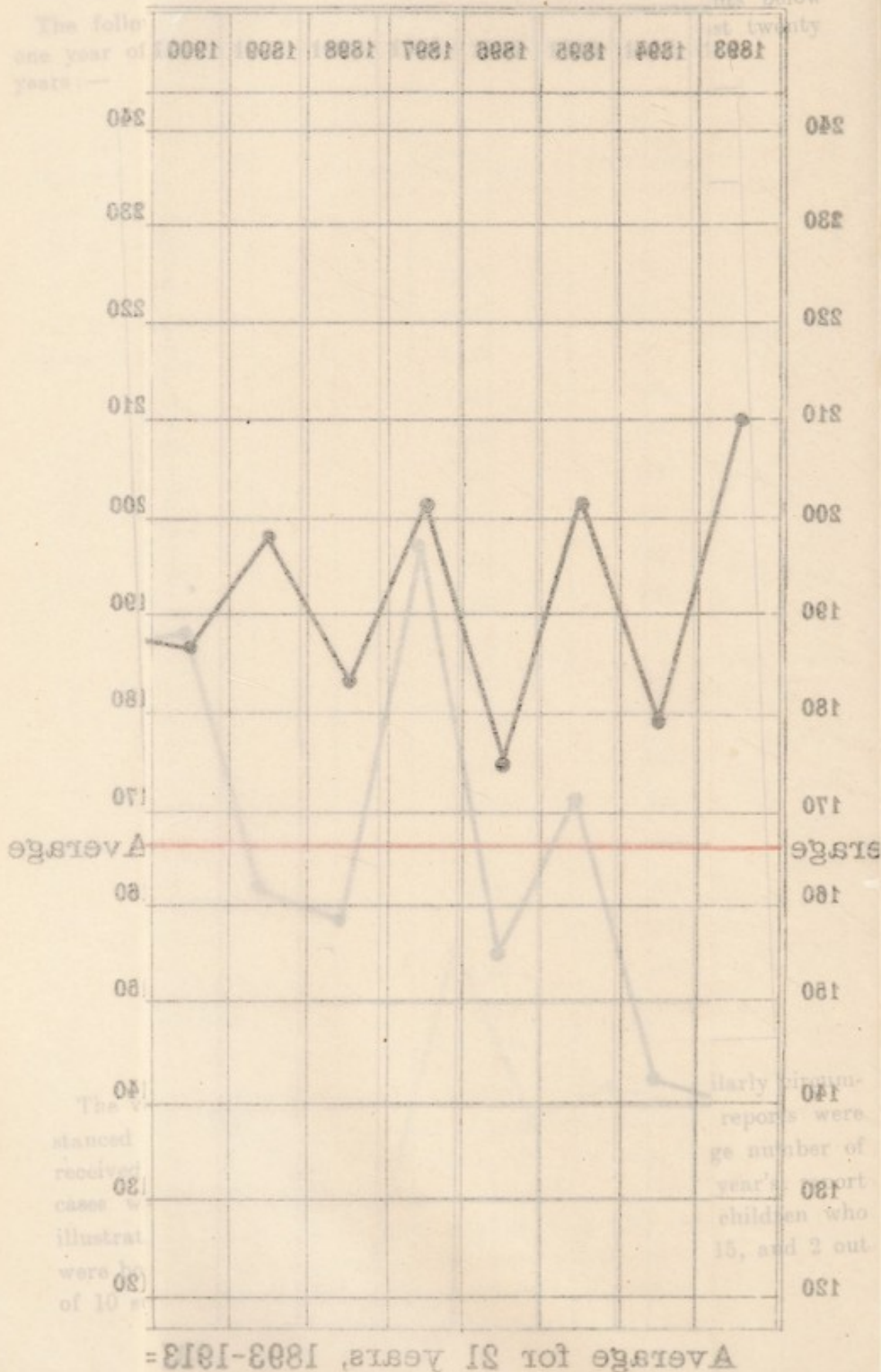


Average for 21 years, 1893-1913=168.

OF LIVERPOOL

to M. 1000 1893-19

below



THE WORK OF FEMALE SANITARY STAFF, 1914.

The work of the Women Inspectors has involved more varied duties even than in former years, the energies of the staff being employed in any direction which is considered likely to help and uplift the people among whom they work.

Their activities embrace the care of infants, older children, and of girls over school age, also of their parents and of old people; applications are received for assistance in numerous ways—for food, clothing, fire-guards, country holidays for children, and for advice in a great variety of domestic difficulties.

The work of the Female Staff is primarily educational, and while in some cases it is necessary to enforce their authority to obtain the desired results, it is usually found that the people respond most readily to an attitude of friendliness, and that when a feeling of confidence is established, they comply as far as they are able with the wishes of the Inspectors.

In connection with the births which have occurred during the year, 29,407 visits have been paid in the poorer parts of the town or in those streets where experience has shown that such visits are necessary.

In the course of these visits special attention is given to the home surroundings and health of the infant, as well as to that of the mother.

It is frequently found that an infant is not receiving the necessary care owing to physical inability on the part of the mother to carry out her duties in her home. Sometimes this inability is due to lack of proper nourishment, and steps are then taken to provide what is necessary at a charge within the means of the person. Excellent results have been obtained by supplying the expectant mother with milk for some weeks before the birth of the child.

In addition to the instructive card which was in use formerly, a small book containing hints on all minor points connected with the rearing of infants has been provided.

This book is greatly appreciated by mothers and fathers, and leads to a more intelligent interest being shown in the children.

It is the aim of the Inspectors to put the mothers, whenever necessary, in touch with the various agencies through which they can obtain help and instruction, and during the year a great number have been induced to attend one or other of the Infant Consultations which are held in various parts of the City, or have been referred to the Ladies' Sanitary Association for visitation, or to the Invalid Children's Association.

The summer months brought with them the usual problem of infantile diarrhoea, and once more special efforts were made, in conjunction with the male staff, to check the spread of this disease. House-to-house visitation was carried on in the poorer and more thickly populated parts of the City, special attention was paid to domestic cleanliness, storage of food, &c., and the people were encouraged to report any cases, by means of stamped addressed postcards which were left at the houses to be forwarded to the Medical Officer of Health.

Visits were paid as usual to cases reported by medical men from the Dispensaries, or from any other source, to ensure the treatment being carried out. Difficulty arose in dealing with those children who required hospital treatment, owing to the City Hospital, Fazakerley, being taken over by the Military Authorities; the beds which in former years have been set apart for such cases were not available during most of the year.

A large proportion of time has been spent in house-to-house visitation in the poorer parts of the City, 21,856 visits having been paid in this connection. These visits enable the Inspectors to obtain an intimate knowledge of the home conditions of the people, to supervise the children under school age, and to foster a feeling of friendliness and goodwill without which a Woman Inspector's work is of little avail,

From the outbreak of the war to the end of the year special work was undertaken in connection with the War Relief Funds. At the request of the Committee of the Prince of Wales' Fund, 285 visits were paid to investigate applications for relief, and a few special visits were paid at the request of the Committee of the Soldiers' and Sailors' Fund. In the course of their usual duties, the Inspectors have found many cases which they have referred to one or other of these Committees.

The work done in the schools during 1914 shows a marked increase; 6,294 hours were spent in school at the medical inspections, against 3,954 in 1913, and 65,340 examinations of children were made, against 58,137 in 1913. The condition of the children as to cleanliness shows improvement, but there are still many families in which the parents show an entire disregard of their obligations, and in which the children are verminous and neglected. When persuasion and encouragement of the parents fail, the Inspectors undertake to supervise the cleansing of such children, but great difficulties are met with in carrying out this branch of the work with any degree of satisfaction, owing to the want of cleansing stations in the outlying parts of the town.

The number of minor ailments (i.e., sore eyes, eczema, impetigo, &c.) reported by school teachers or school attendance officers shows an increase. As these ailments are in most cases connected with unsatisfactory home conditions, the visits paid by the inspectors afford opportunities for investigating the home conditions and for instructing the parents in the proper method of dealing with the ailments.

Children have been sent to Convalescent Homes, as well as to the Country Hospitals, during the year. The Blundellsands Cottage Home and the Freshfield Sanatorium, have again afforded facilities for a number of children who have been greatly in need of change of air and good food. Many children who have been reported by the School Medical Officers as likely to fall into a permanent state of ill-health, have returned from their holiday strong and well.

STATISTICS OF WORK DONE BY FEMALE SANITARY STAFF IN REGARD
TO SCHOOLS, SCHOOL CHILDREN, &c.

	1913.	1914.
Number of Visits to houses <i>re</i> Skin Disease, &c. ...	19,129	24,350
" Re-visits " " " " ...	5,676	4,745
" Special enquiries <i>re</i> school children ...	1,044	4,857
" Visits to Schools ...	2,483	3,645
" Hours spent in schools (medical inspection) ...	3,954	6,294
" Children inspected in schools ...	38,322	43,724
" " re-inspected in schools ...	19,815	21,616
" Notices to parents to cleanse verminous children ...	205	142
" Verminous children cleansed by parents ...	94	31
" " " staff ...	117	756
Special Enquiries <i>re</i> Children.		
" Visits to fatal diarrhoea cases ...	542	482
" " non-fatal " " " " ...	1,496	1,416
" Re-visits to " " " " " " ...	517	643
" Enquiries <i>re</i> cases of burning, scalding or suffocation ...	71	75
" " Infantile Mortality ...	1,173	677
" Special enquiries ...	1,629	607
" Visits <i>re</i> Police-aided Clothing Association ...	87	129
Matters referred to other Departments, etc.		
" References to Education Department ...	9,786	10,511
" " " District Sanitary Inspectors ...	955	1,434
" " " Children's Shelter, Islington ...	99	68
" " " Head Constable ...	1	14
" " " Relieving Officers ...	2	6
" " " Central Relief Society ...	—	8
" " " Invalid Children's Association ...	—	15
Total ...	10,843	12,056
House to House Inspection.		
" Houses visited ...	11,824	17,886
" " found dirty ...	2,841	4,361
" Apartments examined ...	42,349	68,885
" " found dirty ...	6,182	9,351
" Cellars visited ...	1,334	807
" " found dirty ...	242	183
" Families visited ...	13,304	19,718
" " found dirty ...	324	688
" " re-visited ...	1,726	3,163
" " found dirty ...	69	156
" Visits to Women's Lodging Houses ...	174	135
" " <i>re</i> War Relief cases ...	—	285
" Various inquiries and visits ...	1,340	3,316
" Informations ...	1	3
" Fined ...	—	1
" Acquitted or Withdrawn ...	1	2
Amount of Fines and Costs ...	£0 0 0	£0 1 0

A considerable amount of information is summarised in the following table :—

STATISTICS RELATING TO VISITS PAID IN CONNECTION WITH
NOTIFICATION OF BIRTHS ACT.

					1913.	1914.
Number of Births Notified	...	...	...	...	19,357	19,621
„ Visits relative to Births	...	...	...	...	18,977	18,070
„ re-visits „ „ „	...	...	...	...	8,709	11,337
„ Infants seen at addresses given	...	...	...	...	16,316	15,913
„ „ dead	...	...	...	...	764	816
„ „ Not traced owing to removal	...	...	...	...	1,897	1,341
„ „ Found clean	...	...	...	...	14,148	13,518
„ „ „ dirty	...	...	...	...	391	289
„ „ „ unwashed	...	...	...	...	1,774	2,106
„ „ Breast fed	...	...	...	...	14,440	14,080
„ „ Partly breast fed	...	...	...	...	800	722
„ „ Artificially fed	...	...	...	...	1,073	1,111
„ „ Fed on cow's milk	...	...	...	...	677	689
„ „ „ „ tinned milk	...	...	...	...	674	676
„ „ „ „ other foods	...	...	...	...	522	468
„ „ Illegitimate	...	...	...	...	347	301
„ Instances, boat-shaped bottle used	...	...	...	...	1,211	1,360
„ „ long-tube bottle used	...	...	...	...	140	144
„ Mothers healthy	...	...	...	...	15,151	14,708
„ „ delicate	...	...	...	...	1,011	1,205
„ „ working	...	...	...	...	471	570
„ Families, all children born are living	...	...	...	...	5,973	5,827
„ „ half or over born are living	...	...	...	...	6,539	6,485
„ „ under half born are living	...	...	...	...	748	720
„ „ child is first born	...	...	...	...	2,902	2,881
„ Parents are sober and careful	...	...	...	...	11,577	11,222
„ „ drunken	...	...	...	...	765	719
„ „ doubtful	...	...	...	...	3,811	3,972
„ Families living in court houses	...	...	...	...	659	543
„ „ „ cellar dwellings	...	...	...	...	149	74
„ „ „ Corporation dwellings	...	...	...	...	359	479
„ fathers regularly employed	...	...	...	...	8,900	9,008
„ „ casually „	...	...	...	...	7,253	6,905

MEDICAL INSPECTION OF SCHOOL CHILDREN.

The Female Sanitary Inspectors have rendered valuable help to the School Medical Officers during the medical examination of school children. They have examined the condition of each child as far as cleanliness of the head and body, and the sufficiency of clothing are concerned; children whose parents have neglected them in these respects, as well as children who are found to have certain skin and eye affections, are visited at their homes by these Inspectors and kept under observation until the ailments are attended to. Many homes in which children not yet of school age are also neglected, are brought under the observation of the Health Department as the result of these visits.

In addition to the assistance rendered by the staff at the Schools, and in following up cases of gross neglect, a considerable number of children whom the School Medical Inspectors considered more urgently in need of treatment, and whose parents could not be interviewed at the School, were visited at their homes in order that the necessary treatment might be urged. At present the Staff visit 25 to 35 per cent. of the houses of the children inspected in school, and possibly nearly one half of these are on the doctors' lists for various medical defects, which also require to be followed up. Visits are also made by the Female Inspectors to the homes of children suffering from certain communicable skin and eye conditions, as shewn in the following table:—

	1912.	1913.	1914.
Ringworm on the head.....	961	845	812
Ringworm on the body.....	849	742	842
Itch	600	555	512
Sore Eyes.....	2,675	2,496	3,301
Sore Heads, Impetigo, Eczema, &c. ...	6,467	6,723	7,612
Other Skin Diseases	707	431	321
Verminous cases	3,924	2,631	4,080
Neglect cases	5,097	4,706	6,870
Total.....	21,280	19,129	24,350

Most of the communicable defects are reported by the School Attendance Officers or the Head Teachers; the verminous and neglect cases are chiefly brought to light at the medical inspections, though the school nurses and teachers also report cases where the parents have taken no steps to remedy the conditions complained of. It is gratifying to learn that ringworm of the head has been steadily diminishing since the closer supervision of this disease at the schools has been undertaken by the medical officers, and there is also a reduction in some of the other infectious skin diseases. Itch, however, remains a very troublesome condition, and spreads to other members of the family. Probably institutional treatment is the most satisfactory method of dealing with this condition, especially amongst the poor.

INFECTIOUS DISEASE IN SCHOOLS.

The following tables show the age distribution and the monthly distribution of the school cases of infectious disease during the year:—

Table I.—SCHOOL CASES (Infectious Diseases).

AGE DISTRIBUTION—January–December, 1914.

DISEASE.	Under 5.	Under 6.	Under 7.	Total Under 7.	Under 8.	Under 9.	Under 10.	Under 11.	Under 12.	Under 13.	13 and over.	Total 7 years and upwards.	Grand Total.
Scarlet Fever.....	95	307	337	739	286	253	196	181	115	96	122	1249	1988
Diphtheria	25	89	96	210	90	55	67	40	40	19	28	339	549
Measles	441	1590	1108	3139	405	170	91	74	40	25	33	838	3977
Whooping Cough ...	208	1066	631	1905	218	70	42	23	20	16	9	398	2303
Chicken-pox	140	619	479	1238	256	135	84	62	27	26	35	625	1863
Mumps	189	1035	1153	2377	931	493	356	256	224	177	157	2594	4971
Totals	1098	4706	3804	9608	2186	1176	836	636	466	359	384	6043	15651
Per cent. of those on Roll.....	32.5	35.2	23.4	29.1	14.	7.6	5.5	4.3	3.3	2.5	2.9	5.9	11.5

Table II.—SCHOOL CASES (Infectious Diseases).

MONTHLY DISTRIBUTION—January-December, 1914.

DISEASE.	January.	February.	March.	April.	May.	June.	*July.	August.	September.	October.	November.	December.	Total.
Scarlet Fever	149	155	150	142	136	168	100	141	208	256	231	152	1988
Diphtheria	54	47	51	37	35	45	20	38	48	68	58	48	549
Measles	46	121	233	259	558	758	47	73	293	580	725	284	3977
Whooping Cough ...	431	345	410	336	315	185	8	96	41	45	61	30	2303
Chicken-pox	232	225	236	241	209	182	11	29	61	151	169	117	1863
Mumps	736	1289	1420	588	380	252	12	44	48	71	69	62	4971
Totals	1648	2182	2500	1603	1633	1590	198	421	699	1171	1313	693	15651

* Holidays—July 3rd–August 10th.

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

Date of Notice.	School.	Department.	Nature of Disease.	Period of Closure.
1914.				
March 3	St. John's R.C., Sessions Road	Infants'	Mumps, &c.	3 weeks
„ 3	Arnot Street	Infants' (B)	Mumps	3 weeks
„ 5	St. Luke's C.E.	Infants'	Infectious	3 weeks
„ 12	St. Alban's, Boundary St.	„	Mumps, &c.	Until after Easter holidays
„ 12	Knotty Ash C.E.	„	„	„
„ 12	Our Lady's R.C. Eldon Street	„	„	„
„ 12	St. Anthony's R.C., Newsham Street	„	„	„
„ 12	Bishop Goss R.C., Cazneau Street	Infants' and Juniors'	„	„
„ 18	Soho Square C.S.	Infants' and Mixed	„	„
„ 18	Holy Cross School	Infants'	„	„
„ 18	St. Athanasius'	„	Measles, &c.	„

Date of Notice.	School.	Department.	Nature of Disease.	Period of Closure.
1914.				
March 18	St. Peter's C.E., Everton ...	Infants' and Boys'	Mumps, &c.	Until after Easter holidays
" 19	All Souls' R.C.	Infants'	"	"
" 19	St. Francis Xaviers' R.C.	"	"	"
" 24	Holy Cross School	Boys'	"	"
" 25	Holy Cross School	Girls'	"	"
" 25	Christ Church C.E., Christian Street	Infants'	"	"
" 26	Walton R.C. School, Park Vale Road	"	"	"
" 27	St. Sylvester's, Sylvester Street	"	"	"
" 28	St. Peter's R.C., Gilbert Street	"	"	"
" 28	Penrhyn Street C.	"	"	"
" 28	Anfield Road School	"	"	"
" 30	Friary School, Douro Street	Girls'	"	"
April 1	Hebrew School, Hope Place	Infants'	"	"
" 1	St. Paul's, Kirkdale	"	"	"
" 3	Caledonian School, Oldham Street	"	"	"
" 3	St. Mary's School, Lower Milk Street	Whole School	"	"
" 6	All Saints' School, Great Nelson Street	Infants'	"	"
" 6	St. Bridget's School, Limekiln Lane	"	"	"
" 6	All Saints', Oakfield	"	"	"
June 12	Whitefield Road Wesleyan	"	"	Until after Summer holidays
" 19	ALL SCHOOLS (except St. James' the Less Infants' Section, and Lombard Street Department of St. Margaret's C.E. School).	"	Measles and Whooping Cough	"
Nov. 4	Caledonian School, Oldham Street	"	Infectious	3 weeks
" 12	Thingwall Road C.S.	Whole School	Measles	Until 7th Dec.
" 18	Granby Street C.S.	Infants' ...	Measles, &c.	Until 5th Dec.
" 23	St. Cecilia's R.C., Green Lane	"	"	Until 12th Dec.

Date of Notice.	School.	Department.	Nature of Disease.	Period of Closure.
Nov. 27	Aspen Grove H.G. School	Infants'	Infectious	Until after Christmas holidays
" 27	Emmanuel School, Mill Road	"	"	"
" 27	Tiber Street C. School ...	"	"	"
" 27	St. Clement's, Dove Street	"	"	"
" 27	Steers Street C. School...	"	"	"
" 27	Earle Road C. School	"	"	"
" 28	St. Clare's, Garmoyle Road	"	"	"
" 28	St. Sylvester's, Sylvester Street	"	"	"
" 28	Granton Road C. School...	"	"	"
" 28	St. Bridget's C.E. School	"	"	"
" 28	St. Margaret's, Belmont Rd.	"	"	"
Dec. 1	Lawrence Road C. School	"	"	"
" 4	St. Anne's C.E., Stanley...	"	"	"
" 4	Boaler Street C. School...	"	"	"
" 4	Sheil Road C. School	"	"	"
" 4	ALL SCHOOLS	"	"	"

Easter Holidays — 10th April to 20th April.

Summer Holidays — 3rd July to 10th August.

Christmas Holidays — 24th December to 4th January.

The subject of school closure and its influence on the prevalence of measles was fully dealt with in the Annual Report for 1912.

PUBLIC ELEMENTARY SCHOOLS.

The Public Elementary Schools in the City are visited once each fortnight by the District Sanitary Inspectors, and an examination made of the sanitary conveniences. In all cases where the water-closets or latrines are found dirty or defective, an intimation is sent to the School Managers and the Director of Education, and in each case the necessary work has been done. The following table shows the number of visits, also the number of notices issued:—

	1913.	1914
No. of Visits to Schools	2,617	2,153
„ found incorrect	39	70
„ Water-closets and latrines found dirty or defective	57	77
„ Notices issued for defects	46	104

NOTICES TO SCHOOL TEACHERS

The arrangements have been continued with the Education Committee that notice shall be sent to the Education Department and postcards to the Head Teachers of the various schools informing them when children from infected houses attend their schools. 14,691 cards were sent last year, as against 11,277 in the preceding year.

INFANT WELFARE CENTRES.

The high rate of infant mortality, attributable to improper feeding, justifies the continuation of the centres at which a preparation of pure cows' milk is made to resemble human milk as closely as possible. This preparation is intended for the use of infants, whose mothers are unable to suckle them.

Since the initiation of the scheme, in 1901, 28,801 infants have been fed upon humanised milk supplied from these centres. The average age at the commencement of such feeding is $3\frac{3}{4}$ months; very few (2,856) were, from one cause or another, admitted after twelve months of age.

The expenditure and income of the centres during the last five years is shown on the appended table, and the whole subject has been fully dealt with in the Report of 1909. The problem of finding a complete substitute for the milk of a healthy mother has not been solved, and, probably, never will be. As the infant grows, there are, no doubt, variations in the quality of the mother's milk, which specially adapt it to the needs of that particular infant, niceties in nature which cannot be approached artificially; but when artificial feeding becomes necessary, it is obviously important that the best possible substitute for mother's milk should be available.

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 pollution, the justification for the present undertaking arises. The Municipality has spared no efforts to ensure a pure milk-supply.

The infants fed on humanised sterilized milk during the year were 4,140, viz., 878 on the books at the beginning of the year, and 3,262 admitted during the year. Since the commencement of the scheme the numbers which have been supplied are as follows:—

Netherfield Road Centre	5,512
Earle Road do.	3,846
Park Road do.	4,494
Cazneau Street do.	3,957
Boaler Street do.	1,544
Hornby Street do.	361
Total supplied from Centres	19,714
„ supplied from Dairies and Agents	9,087
	28,801

In a limited number of cases, infants have been fed on Dried Milk with satisfactory results.

Of the 28,801 infants supplied through the Centres or Agents, and of whom accurate records are kept, there were 1,667 cases in which the infant died, but of these 106 had been fed on the milk for less than one week, or had been irregularly fed on it; 1,306 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 255 were fairly healthy at the time of admission, and had been properly fed since. In these 255 cases the registered causes of death were as follows:—

Convulsions	61
Diarrhœa	35
Bronchitis	23
Pneumonia	44
Phthisis	1
Marasmus	5
Dentition	10
Inflammation of stomach and bowels	6
Whooping Cough	13
Blood Poisoning	3
Disease of Throat	2
Croup	1
Meningitis	4
Various other causes	47
	255

Out of the 28,801 coming promiscuously to the Centres or Agents, at varied ages and in conditions of health below the average, the mortality was 57 per 1,000, as against an average for the last five years of 138 per 1,000 for the whole City, 83 for the best districts and 219 for the worst.

But it must be remembered that in the rate for the whole City, and for the best and 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 is, of course, an artificial food, over other methods of artificial feeding.

During the year the total number of customers supplied is shown as follows, viz.:—

Number remaining on the books from previous year.....	878
Number admitted during the year	3,262
Total.....	4,140
Number of discharges during the year	3,052
Number remaining on books at end of year	1,088

It will be seen that the above figures show an increase in the number of customers remaining on the books of 210.

Of the 3,262 cases admitted to the Centres during the year, 810 were of children above two years of age, and were referred to the Centres by the Invalid Children's Association. Of the remaining 2,452 infants admitted, the average age was $3\frac{3}{4}$ months, and 1,556 were more or less delicate on admission. Of these 1,556, 971 showed considerable improvement, 312 showed slight improvement, 177 received the milk casually, or for too short a time to gauge the effect, and 96 died.

There were 2,329 infants under twelve months of age admitted during the year, in addition to the 700 remaining on the books at the end of previous year, making a total of 3,029. Of this number 105 died, the causes of death being:—

Convulsions	39
Marasmus	23
Pneumonia	17
Tuberculosis	3
Inflammation of Stomach and Bowels	1
Diphtheria	1
Dropsy	1
Heart Failure	1
Scarlet Fever	1
Diarrhœa	2
Phthisis	1
Whooping Cough	1
Measles	2
Bronchitis	6
Cause not obtainable	6
Total.....	105

Of the foregoing, 79 were ill on admission, 8 were more or less delicate, 7 received less than one week's supply of milk, and 11 were healthy and properly fed.

Over twelve months of age there were 123 children admitted during the year, in addition to 117 remaining on the books from the previous year, making a total of 240. Of these 9 died from the following causes, viz. :—

Convulsions	1
Pneumonia	4
Bronchitis	1
Whooping Cough	1
Meningitis	1
Phthisis	1
	9

All were delicate or extremely ill on admission.

Of the 3,052 customers discharged during the year, 786 were children above two years of age, who received milk through the Invalid Children's Association. The remaining 2,266 were discharged for the following reasons, viz. :—

In satisfactory condition	1,549
Milk said not to agree	125
Ill or gone to Hospital	197
Casual or irregular Customers	223
No reason obtainable	33
Parents will not pay	20
Died	114
Referred to Parish Authorities	5
	2,266

Of the 1,549 discharged in a satisfactory condition, 796 were able to take more general food, 42 left the town, and 578 were cases in which, owing to the milk supplied to the mother, breast feeding was continued.

Eighty mothers obtained a few baskets to supplement the natural supply, which was then found sufficient.

In 53 cases parents preferred other food.

Of the 125 infants with whom the milk was said not to agree, 117 were ill or delicate on admission. In many cases various other foods had been tried unsuccessfully before sterilized milk was used.

Of the 197 discharged ill, 192 were suffering from illness or were delicate on admission, and of this number, 92 cases were taken into Hospital.

Of the 114 who died, 8 were ill on admission, 88 were more or less delicate, 6 received less than one week's supply, and in 12 cases the infants were breast fed.

Number of attendances at the Centres during the year for weighing and advice, etc., 8,113.

Number of visits paid to children in their own homes, 6,424.

DRIED MILK.

The infants fed on dried milk during the year were 154, viz. :—

Thirty-one on the books at the beginning of the year and 123 admitted during the year.

The number of discharges during the year was 104, and the number remaining on the books at the end of the year, 50.

Of the discharged cases, 50 were able to take more general food, 4 showed little or no improvement, 19 were put on food specially prepared by the Corporation, in 14 cases parents preferred other food, 4 received the dried milk casually, 5 died, and in 8 cases mothers received a few feeds daily to supplement the natural supply which was afterwards found sufficient. In 79 cases the children were more or less delicate on admission.

INFANT WELFARE CENTRES.

Expenditure and Income for the 5 years 1910 to 1914.

	1910.	1911.	1912.	1913.	1914.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Wages and Clothing	1,316 8 5	1,353 3 10	1,272 8 9	1,385 0 11	1,529 6 1
National Health Insurance (Corporation Contribution).....	...	...	5 8 9	13 3 6	12 2 6
Rents	176 6 0	167 18 8	164 6 0	156 16 0	156 16 0
Rates, Taxes and Water Rent	67 19 3	67 18 1	73 3 2	71 0 6	81 6 11
Lighting	89 8 3	69 15 1	63 0 8	68 9 6	98 2 3
Fuel	40 10 4	41 4 0	50 2 10	46 7 8	51 10 2
Printing and Stationery	10 1 0	8 2 3	14 19 5	9 16 3	25 15 8
Disbursements, Travelling expenses, &c.	41 15 2	42 6 10	36 13 1	34 14 6	62 16 10
Cleaning Windows, &c.	36 0 2	38 17 1	25 10 11	35 0 7	36 15 8
Milk, &c. (Infants' prepared food).....	1,949 11 10	2,018 17 6	2,074 4 5	2,756 7 1	2,453 13 0
Telephone Rent	13 12 0	13 12 0	13 12 0	32 6 0	23 15 6
Machinery, Fittings and Repairs	134 8 9	61 19 3	75 15 2	228 13 3	422 7 10
Bottles, Stoppers, &c.	375 8 4	274 19 8	382 16 3	396 13 10	530 0 1
Building Repairs, Alterations, &c.	66 10 5	35 15 1	51 7 4	47 15 1	81 3 2
Horsing and repairing Vans, &c., and Hire of Float	161 9 8	454 7 4	310 5 8	322 1 3	315 10 3
Insurance	2 11 0	2 11 0	2 11 0	1 9 9	3 3 9
Professional services (examination of milk).....	...	...	...	...	8 8 0
	4,482 0 7	4,651 7 8	4,616 5 5	5,605 15 8	5,892 13 8
Sale of Infants' Prepared Food	1,554 4 6	1,678 18 0	1,761 1 2	2,072 19 10	2,160 14 8

EMPLOYMENT OF CHILDREN ACT, 1903.

This Act is intended for the limitation and regulation of child labour, and affects children of school age, viz., under 14 years of age. Bye-laws have been made by the City Council by virtue of powers given them by the Act, placing further restrictions on the hours of employment.

The Act 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.

During the course of enquiries in connection with the Shops Act, 1912, the following information was obtained by the Inspectors:—

	1913.	1914.
Number of shops employing children under 14 ...	1,290	2,132
„ children employed ...	1,507	2,679
„ „ under age of 11, employed ...	24	25
„ shops, hours of children incorrect ...	171	276

The following table shows the periods of the day at which visits were made and result of the action taken:—

	No. of Visits. 1914.	No. of Contra- ventions Found. 1914.	No. of Inform- ations. 1914.
Before 7 a.m. or after 8-15 a.m. ..	1,087	40	2
„ 12-30 p.m. or after 1-15 p.m. ...	3,045	5	—
„ 5 p.m. (or 5-30 p.m. to barbers' shops) ...	3,067	21	3
After 8 p.m. (or 8-30 p.m. to barbers' shops)	5,078	128	52
Saturdays before 10 a.m. (to barbers' shops)	121	14	4
Saturday <i>re</i> Maximum Hours (each shop is usually visited 4 times)	7,215	92	34
Saturday after 9 p.m. ...	16	15	11
Sunday after 9 a.m. ...	594	88	9
„ before 3 p.m. or after 4 p.m. ...	213	7	—
Employing Children under age ...	—	5	5
„ „ on Licensed Premises	1	1	1
Total ...	20,437	416	121

Of the 121 Informations laid during the year, the number of convictions was 105, the number acquitted or withdrawn was 16, and the amount of fines and costs was £109 10s. 0d.

In 194 cases written cautions were sent to the occupiers of shops where contraventions were found, and in 101 cases verbal caution was given by the Inspector at the time of the offence being committed.

Of the 20,437 visits made during the year, 817 were in connection with cases of illegal employment discovered during the medical inspection of school children.

During the year 1913, the number of visits was 8,415, the number of contraventions was 357, the number of Informations was 205, and the amount of fines and costs was £169 0s. 0d.

MIDWIVES ACT, 1902.

During the year 1914 two hundred and eight midwives gave the required notice, under Section 10, of their intention to practise midwifery. The qualifications of these women are as follows, viz.:—

	1914.
Central Midwives Board Examination	86
Ladies' Charity and Lying-in Hospital	63
London Obstetrical Society	19
Rotunda Hospital, Dublin	3
Glasgow Maternity Hospital	2
Manchester Maternity Hospital	2
Coombe Lying-in Hospital	1
St. Mary's Hospital, Manchester	1
In bona-fide practice prior to the 31st July, 1901	31
	208

In addition to the above there is a considerable number of women in Liverpool whose names are on the Midwives' Roll but who do not practise midwifery on their own account, being employed as maternity nurses under the supervision of medical practitioners, or in some other way.

A total of 16,126 births were attended by these midwives during the year; in addition to these there were 1,947 attended by the midwives on the Staff of the Ladies' Charity, this is 78·3 per cent. of the total number of births registered in the City. So far as can be ascertained there were no births attended during the year by uncertified women.

The extent of the practice of individual midwives varies very considerably, one midwife having attended over 500 births, while 62 attended less than 50 births each.

The average is 88 births to each midwife in practice.

STATEMENT OF NOTIFICATIONS OF BIRTHS RECEIVED DURING

THE YEARS:—

Notifications Received from	1913.		1914.	
	Births.	Per centage of Births Registered in the City.	Births.	Per centage of Births Registered in the City.
Certified Midwives	16,146	71·58	16,126	69·91
Medical Attendants.....	1,306	5·78	1,257	5·44
Poor Law Institutions	541	2·39	538	2·33
Ladies') Maternity Hospital...	426	1·89	460	1·99
Charity) District Homes	849	3·79	1,191	5·16
Uncertified Women.....	1	0·00	0	0·00
Parents	88	·39	49	0·21
	19,357	85·82	19,621	85·04

Total Number of Births registered in the City	}	1913	—	22,555
		1914	—	23,065

STILL BIRTHS.

The number of still births notified by midwives was 434, which is at the rate of 2·43 per cent. of the births attended. The prevalence of still births in the practice of midwives varies very much, the highest rate being 6·03 per cent., the lowest being 0·70 per cent., in the practice of midwives attending over 20 confinements per year. In no case does a midwife give a certificate of still birth unless she is present at the time of the birth; she is instructed that if the birth should take place before her arrival she must report the matter to the Coroner, who, upon inquiry, grants a certificate for the burial of the body. The Medical Officer of Health has arranged for the bodies of still-born infants to be received at the Mortuary, Ford Street, where, if the parent is unable to pay the fee the body is taken charge of and arrangements made for its burial.

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

	1914.
Sixth month 	21
Seventh month 	90
Eighth month 	101
Ninth month 	221
Not specified 	1
Total	<u>434</u>

MEDICAL ASSISTANCE.

Under the Rules issued by the Central Midwives' Board, a midwife must advise that medical assistance shall be called in where there is any abnormal circumstance connected with the confinement.

The following Table gives the details of the complications for which medical assistance was required during the past two years:—

	<u>1913.</u>	<u>1914.</u>
MOTHER:—		
Abnormal Presentation—		
Brow or Face Presentation	41	54
Occipito-posterior Presentation	17	18
Transverse Presentation	38	46
Breech Presentation	26	41
Foot Presentation	11	6
Cord Presentation	27	16
Placenta Prævia	13	29
Deformed Pelvis	61	80
Ante-partum Hæmorrhage	59	58
Post-partum Hæmorrhage	51	79
Retained Placenta or Membranes	76	107
Ruptured Perinæum	107	163
Multiple Births	10	25
Abortion or Premature Birth	56	52
Pyrexia	51	89
Eclampsia	30	23
Obstructed Labour, Uterine Inertia, or requiring		
Instrumental Assistance	387	462
Various or not definitely specified	82	114
CHILD:—		
Injury at birth	4	1
Malformation	17	13
Feebleness and prematurity	64	68
Other conditions in child	30	32
Total	<u>1258</u>	<u>1576</u>

The steady increase over previous years in the number of notifications of need for medical aid would show that midwives are availing themselves of medical assistance to an increasing extent, and are following closely the requirements of the Rules of the Central Midwives' Board as to sending for medical aid.

Under the Midwives Act certain occasions are specified when the midwife must call in medical aid. As no provision whatever was made in the Act for the payment of a doctor, and as great difficulty was often experienced in obtaining the services of a doctor, the Health Committee, on September 1st, 1904, on the advice of the Medical Officer of Health, consented to pay a fee of one guinea for every case where emergency assistance had been rendered by a medical practitioner at the request of a midwife, and in which the fee could not be recovered either from the patient's friends or from the Board of Guardians. The Maternity Benefit under the Insurance Act involved certain modifications in this procedure; clearly this Act contemplates financial help to the woman to enable her to meet the ordinary demands in cases of confinement; it did not materially lessen the needs arising from exceptional emergency, which still have to be reckoned with.

Briefly, the modified system is as follows: The midwives themselves founded a fund by contributing 1s. for each birth they were engaged to attend. This was pooled, and the doctor's guinea was provided as to 15s. out of this fund, the balance being made up by the Health Committee. The midwife, it will be perceived, has nothing to gain and nothing to lose from the financial standpoint by sending for the doctor as often as she thinks necessary, and the arrangement encourages her to send. To facilitate payment, the doctor renders his account to the Medical Officer of Health, together with vouchers from the midwife, each case being duly verified. During last year, the investigation of accounts involved 1,313 visits, and these were valuable in calling attention to various incidents which otherwise might have escaped notice. This arrangement has proved of the utmost value in assisting the midwife to secure skilled and prompt attention for the mother or infant wherever necessary.

The amount paid to doctors last year was £999; of this £669 was provided by the Midwives' Association, and the balance (£330) by the Health Committee, which is the only financial gainer by the scheme. The following table gives the amounts paid during the previous two years, viz.:—

1912	...	...	...	...	...	£520 17 6
1913	...	...	...	...	...	£619 5 10

All the practising midwives in Liverpool are now fully alive to the supreme importance of ante-natal hygiene. Many of them have attended the same patients in many confinements, and have been able, where necessary, to advise recourse to the doctor or to the hospital. Furthermore, a large number do systematically instruct their patients, some even holding classes of instruction, of a very practical character, in personal hygiene, care of infancy, including clothing, feeding, &c.

PUERPERAL FEVER.

The number of cases of Puerperal Fever notified to the Medical Officer of Health during the year was 56, of which 31 proved fatal. This gives a death-rate of 1·34 per 1,000 births in the City.

Forty-one cases were removed to hospital, viz.:—3 to Brownlow Hill Infirmary; 5 to Mill Road Infirmary; 24 to the City Hospital, Fazakerley; 2 to the City Hospital, Fazakerley Annexe; 1 to Toxteth Infirmary; 1 to the Stanley Hospital; 4 to the City Hospital East, Mill Lane, Old Swan; and 1 to the City Hospital South, Grafton Street.

After the usual enquiries were made, 40 cases (of which 19 died) were found to have occurred in the practice of midwives. Seven midwives had two cases each.

The following table shows the Annual Rate of Mortality per 1,000 of the total births since the year 1907 :—

Year.	Total number of births in the City.	Total number of :—		Death rate per 1,000 births.	Removed to City Hospital, Fazakerley.
		Cases.	Deaths.		
1907	23,654	58	12	0.50	10
1908	23,891	52	16	0.67	19
1909	23,591	62	21	0.89	22
1910	23,054	41	9	0.39	11
1911	22,493	52	21	0.93	27
1912	22,233	37	15	0.68	20
1913	22,555	55	18	0.80	25
1914	23,065	56	31	1.34	26

The first removals to Fazakerley Hospital took place in 1907.

In the month of August the Military Authorities took over the Fazakerley Hospital, and, as a consequence, the beds which had been allocated for cases of Puerperal Fever were no longer available, and it was found necessary to arrange for the admission of cases to other City and General Hospitals, where possible. But for this circumstance a larger number of cases would have been enabled to receive treatment in hospital.

The keeping of charts recording both the temperature and pulse rates during the puerperal period has proved of immense benefit in helping to direct the attention of the midwives to the possibility of puerperal complications, and enables her to recognise the necessity of calling in medical assistance at the earliest indication of danger. These charts are provided by the Public Health Department free of charge to the midwife.

ROUTINE VISITS TO MIDWIVES.

Rule 24 laid down by the Central Midwives' Board states as follows:—
 “The Local Supervising Authority shall make arrangements to secure
 “a proper inspection of the Register of cases, bag of appliances, etc., of
 “every midwife practising in the district of such authority, and when
 “thought necessary, an inspection of her place of residence, and an
 “investigation of her mode of practice.”

The Deputy Medical Officer of Health takes a special interest in the work, assisted by two fully trained Female Inspectors, both of them holding the certificate of the Central Midwives' Board. During the year, 1,455 visits were paid to the homes of practising midwives for the purpose of inspection, and for special enquiries relating to their work.

Eleven hundred and thirty-two visits of enquiry were paid with reference to the conditions and surroundings of patients, and also in connection with the collection of the money received by midwives for the Midwives' Association Doctors' Fee Guarantee Fund.

The midwives of the City are, with very rare exceptions, fully trained women. They have for many years been encouraged by the Medical Officer of Health to form themselves into an Association, which, year by year, has become numerically stronger and more closely cemented, and that Association embraces nearly all, if not quite all, of the midwives in the City. The great advantage of this is, that the midwives as a body are now far more closely linked up with sanitary administration than ever before, and they themselves, as well as their patients, derive considerable advantage from this. For example, they can and do arrange for themselves special courses of instruction, at which they receive much help (from lectures and in other ways) from the gynaecologists of the City.

The adoption of the Notification of Births Act, which renders it obligatory on the part of the medical attendant or midwife, as well as the father of the child, to notify the occurrence of a birth, has been a very valuable aid to the working of the Midwives Act.

OPHTHALMIA NEONATORUM.

This is an extremely serious affection which attacks the eyes of newly-born infants. It is usually caused by the entrance of certain bacteria into the eyes at the time of birth. The symptoms, redness and swelling

of the eyelids, make their appearance in about three or four days after birth, and the disease frequently runs such an acute course that if proper treatment is not applied immediately the eyes are permanently damaged, and the child is rendered blind for life.

The extent to which this disease is prevalent in this country is shown by the statements made by well-known authorities that over one-third of the inmates of schools for the blind have lost their sight as a result of this disease. On the other hand, it is no less certain that if the disease is brought under efficient treatment when the symptoms first make their appearance the eyes can be saved from serious injury and the sight preserved.

Under the Midwives Act, midwives are compelled to inform the Local Supervising Authority (in Liverpool the Health Authority) of such cases, and to call in medical assistance. Much care has been taken to impress upon midwives the serious character of this disease, and they have been very quick to recognise it, so that now the majority of cases have prompt medical advice.

Since 1910 the Health Committee have had a Female Inspector with special Hospital training on the staff of the Medical Officer of Health for the purpose of dealing with this disease. Her duties consist in visiting all the cases which are notified to the Medical Officer and in taking such measures as are available for ensuring that the affected infants have prompt medical attention. An essential point in the treatment of this disease is that of constant and careful nursing, consequently a large portion of the Inspector's time is occupied in carrying out the treatment advised by the Hospital Authorities and by private medical practitioners.

Under the Local Government Board Order the notification of Ophthalmia Neonatorum became compulsory on the 1st April, 1914, and as a result of the increase in the number of cases thus brought to the notice of the Medical Officer it was found necessary to requisition the services of another nurse to assist in dealing with them.

The following figures give some details as to the sources of information and character of the cases dealt with during the year:—

Total number of cases brought to the notice of the Department, 616.

(1)	Reported by Midwives	...	...	...	463
(2)	do. Doctors and Eye Hospital...				51
(3)	do. Female Inspectors	...	...		101
(4)	do. in other ways	...	...		1

The above cases consisted of:—

(1)	Mild cases	...	...	...	...	335
(2)	Severe cases	...	...	...	...	126
(3)	Not Ophthalmia Neonatorum	...	...			155

The following is the age distribution, viz.:—

Under one week	...	...	...	...	333
One week to one month	...	...	...		128

During the year 4,636 visits were paid by the Inspectors as follows:—

311 Cases required less than 10 visits.

109 do. do. between 10 and 20 visits.

39 do. do. do 30 and 40 visits.

2 do. do. required over 40 visits.

18 do. do. more than 1 visit in 24 hours at some period of the disease.

The majority of the cases that went to hospital, either as out-patients or who were admitted as in-patients, were treated at St. Paul's Eye Hospital, and the remainder at the Eye and Ear Infirmary, Myrtle Street.

The Authorities of the St. Paul's Eye Hospital reserve 9 beds and 9 cots for the treatment of this disease, so that infants who require constant supervision and treatment can be admitted with their mothers, and are therefore not deprived of the necessary maternal nourishment and care.

The results of this work have been most satisfactory, as shown by the following figures:—

Number of cases treated in their homes	272
Do. do. sent to hospital as out-patients ...	131
Do. do. admitted to hospital	25
Do. do. requiring supervision only	33

It is interesting to note that in 47 cases previous children in the family had been similarly affected.

Number of cases cured	456
Do. do. sight of both eyes badly affected ...	1
Do. do. do. one eye slightly impaired ...	1*
Do. do. blind in one eye	0
Do. do. not requiring supervision of Inspector	3

* Not under supervision of Health Department.

The decrease in the number of cases admitted to hospital and the increase in the number of out-patients is attributable to the allocation of beds to the requirements of the Military Authorities.

There were three instances in which the parents and the patients removed to other towns; the names and addresses were forwarded to the authorities of their destinations.

The following statement gives the total number of visits made by Female Inspectors during the year 1914 in connection with the Administration of the Midwives Act:—

Routine visits to Midwives	2,526
Enquiries as to cases of Puerperal Fever	51
Special enquiries <i>re</i> dirty bedding and insanitary surroundings	10
Do. do. <i>re</i> Accounts for Emergency Assistance	1,313
Visits and re-visits as to cases of Ophthalmia	4,636
	8,536

THE

THE

THE

THE

THE

THE

THE

THE

THE

THE

THE

THE

THE

THE

THE

TUBERCULOSIS.

TUBERCULOSIS

NOTIFICATION, TREATMENT, AND MORTALITY FROM TUBERCULOSIS.

INTRODUCTORY.

During the year under review the work of the Public Health Department in regard to tuberculosis has increased considerably. This is partly due to the normal expansion of the Department (it will be seen from previous annual reports that such increase has been steadily taking place during the last twenty years) and also to the stimulus afforded by the Sanatorium Benefit Regulations of the National Health Insurance Acts 1911-13.

In conformity with the requirements of the Local Government Board, this section in regard to tuberculosis has been prepared with a view of giving a connected account of the history, present procedure and future action in the matter of tuberculosis.

In Part I, statistics relating to notification, deaths, &c., are given on the lines laid down in previous annual reports of the Medical Officer.

In Part II an account is given of the present administrative procedure of the Department.

A number of charts relating to tuberculosis, and showing the death rates amongst males and females in Liverpool, England and Wales, Scotland and Ireland, will be found in preceding Annual Reports, and it has not been thought necessary to publish them this year.

PART I.

NOTIFICATION OF PHTHISIS AND OTHER FORMS OF TUBERCULOSIS

A 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.

A large number of notifications were received yearly, as will be seen from the tables, and the officers of the Health Department were called upon to carry out numerous duties such as disinfection of bedding, clothing and apartments, sanitary inspection of houses and places of business, and the distribution of cards containing information and advice to consumptive people and those living with them.

In 1908, the Local Government Board issued the Public Health (Tuberculosis) Regulations, which came into force on 1st January, 1909, and required the notification of all cases of tuberculosis coming under the notice of the Poor Law Authorities.

In 1911, the Public Health (Tuberculosis in Hospitals) Regulations were issued, coming into operation on 1st May, 1911, and required the notification of all cases seeking treatment at Public Hospitals and Dispensaries.

These Regulations were further supplemented by the Public Health (Tuberculosis) Regulations, 1911, which came into force on 1st January, 1912, and provided for the compulsory notification of all cases of pulmonary tuberculosis.

A further step was taken in 1912, when the Local Government Board issued the Public Health (Tuberculosis) Regulations, 1912, to come into operation on 1st February, 1913. These Regulations required the notification of all cases of tuberculosis, and superseded all previous requirements, and the need of voluntary notification was at an end.

The present Regulations call for notification under four heads, viz., A, B, C, D, as follows:—

Form A is to be used by a medical practitioner on first becoming aware that a patient is suffering from tuberculosis, unless he has reasonable grounds for believing that the case has already been notified.

Form B is used by School Medical Officers to make a weekly return to the Medical Officer of Health of all cases of tuberculosis

coming under their notice in carrying out the duties of medical inspection of children in Public Elementary Schools.

Form C is for the use of the Medical Officers of Poor Law Institutions and Sanatoria, to make a weekly return to Medical Officers of Health of cases admitted to their Institutions, and applies only to cases which have been previously notified on Form A.

Form D is similar in many respects to Form C, and is to be used for a weekly return of the discharge of patients and their intended destinations.

The notification in all cases is to be sent to the Medical Officer of Health of the district where the patient usually resides, or intends to reside.

The following table sets forth the number of notifications received each year since the commencement of the voluntary system in 1901:—

Year.	Males.	Females.	Total.
1901	1148	649	1797
1902	1469	730	2199
1903	1153	721	1874
1904	1068	641	1709
1905	1257	604	1861
1906	1257	662	1919
1907	1446	784	2230
1908	1373	672	2045
1909	2674	1299	3973
1910	1631	1093	2724
1911	1700	1353	3053
1912	2090	1600	3690
1913	1910	1552	3462
1914	2637	2079	4716

The following table shows the various districts in the City where patients suffering from tuberculosis lived at the date of notification. The table refers to all primary notifications of cases during the year 1914, and differentiates between cases of Pulmonary and Non-Pulmonary Tuberculosis :—

Districts.	Phthisis.	Tuberculosis (non-pulmonary)
SCOTLAND	245	115
EXCHANGE	247	81
ABERCROMBY	152	44
EVERTON	464	151
KIRKDALE	237	71
WEST DERBY WEST	287	143
TOXTETH	321	122
GARSTON	47	23
WALTON	168	66
WEST DERBY EAST	132	53
WAVERTREE	79	38
TOXTETH EAST	36	11
FAZAKERLEY	3	3
WOOLTON	7	3
OUTSIDE THE CITY	46	4
Total	2471	928

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

Summary of Notifications during the period from the 4th January, 1914, to 2nd January, 1915:—

Age-periods.	Notifications on Form A.												Total Notifica- tions on Form A
	Number of Primary Notifications.												
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and up- wards.	Total Primary Notifica- tions	
Pulmonary—													
Males	5	29	74	73	95	129	288	307	263	82	26	1,371	1,519
Females	2	23	55	88	118	121	223	259	156	39	16	1,100	1,269
Non-pulmonary—													
Males	17	123	124	75	50	42	33	15	7	4	1	491	532
Females	16	83	89	74	66	42	36	15	13	2	1	437	471

Age-Periods.	Notifications on Form B.					Number of Notifications on Form C.	
	Number of Primary Notifications.				Total Notifications on Form B.	Poor Law Institutions.	Sanatoria.
	Under 5	5 to 10	10 to 15	Total Primary Notifications			
Pulmonary—							
Males	—	11	16	27	27	398	104
Females	—	16	15	31	36	173	65
Non-pulmonary							
Males	—	18	19	37	39	4	14
Females	—	20	25	45	54	3	8

DEATHS.

The Group of Tubercular Diseases includes Phthisis, Tabes Mesenterica, Hydrocephalus, and other forms of Tuberculosis. They occasioned 1,508 death in the City of Liverpool during the year 1914.

DEATHS FROM PHTHISIS.

The number of deaths from Phthisis during the year was 1,132. The number of deaths during each of the preceding ten years, 1904-1913, has been as follows:—1,282, 1,245, 1,235, 1,183, 1,288, 1,116, 1,072, 1,313, 1,189, and 1,183.

DISTRICTS.	QUARTERS.								YEAR.		
	March.		June.		Sept.		Dec.		M.	F.	Total.
	M.	F.	M.	F.	M.	F.	M.	F.			
Scotland	21	10	19	8	11	6	11	16	62	40	102
Exchange	26	10	16	13	11	6	16	5	71	34	105
Abercromby	24	13	11	9	19	7	12	8	64	37	101
Everton	25	27	36	16	18	21	22	22	101	86	187
Kirkdale	13	14	17	14	7	10	6	18	43	56	99
West Derby (West)	17	17	18	15	20	18	15	19	70	69	139
Toxteth	23	22	21	21	20	12	17	24	81	79	160
Walton	9	6	15	7	6	9	13	7	43	29	72
West Derby (East)	7	6	9	8	7	6	5	14	28	34	62
Wavertree	6	5	4	6	3	5	5	4	18	20	38
Toxteth (East) (late Toxteth Rural)	6	3	1	5	4	5	3	2	14	15	29
Garston	6	1	3	5	5	3	4	...	18	9	27
Fazakerley	1	2	...	...	1	...	2	...	4	2	6
Woolton	1	...	...	1	2	1	...	...	3	2	5
City	185	136	170	128	134	109	131	139	620	512	1,132
AGES AT DEATH.											
Under 1 year.	1—	2—	5—	10—	15—	20—	30—	40—	50—	60 & upwards.	All Ages.
1	6	11	21	41	84	216	279	268	146	59	1,132

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

TABLE SHOWING PROGRESSIVE DECLINE IN TUBERCULAR
DISEASES DURING THE LAST FOUR DECADES;
DURING THE EIGHT YEARS 1906-13 AND DURING THE
YEAR 1914.

	1866 to 1875.	1876 to 1885.	1886 to 1895.	1896 to 1905.	1906-13.	1914.
Annual Average Death- rate per 100,000 of the population, at all ages, from all forms of Tub- erculosis	430·8	349·8	309·8	247·2	201·1	196·3
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	168·9	165·1
Annual Average Death- rate per 100,000 of the population below 5 years of age from : Tabes Mesenterica) Hydrocephalus ...) Other forms of Tuber- culosis.	637·1	597·3	539·1	339·5	229·7	215·3

(The figures for 1914 include deaths of non-resident persons stated
to have belonged to Liverpool.)

DEATHS FROM OTHER TUBERCULAR DISEASES.
Viz.:—Tabes Mesenterica, Hydrocephalus, and other forms of
Tuberculosis.

DISTRICTS.					Tabes Mesenterica.		Hydrocephalus.		Other forms of Tuberculosis.		YEAR.		
					M.	F.	M.	F.	M.	F.	M.	F.	T.
Scotland	...	...	...	...	4	2	4	5	9	4	17	11	28
Exchange	...	...	...	...	1	2	1	5	11	5	13	12	25
Abercromby...	...	...	...	...	2	2	1	4	7	7	10	13	23
Everton	...	...	...	...	4	8	9	12	27	13	40	33	73
Kirkdale	...	...	...	...	6	6	7	8	6	7	19	21	40
West Derby West	...	...	...	...	3	8	10	5	11	12	24	25	49
Toxteth	...	...	...	...	5	4	7	7	13	12	25	23	48
Walton	...	...	...	...	...	2	7	6	9	4	16	12	28
West Derby East	...	...	...	...	3	2	1	4	2	4	6	10	16
Wavertree	...	...	...	...	4	5	2	2	3	9	9	16	25
Toxteth East (late Toxteth Rural)	...	...	...	...	1	1	...	1	2	3	3	5	8
Garston	...	...	...	...	...	...	3	2	4	2	7	4	11
Fazakerley...	...	...	...	...	1	...	...	...	...	...	1	...	1
Woolton	...	...	...	...	...	...	...	1	...	...	...	1	1
City	...	...	...	...	34	42	52	62	104	82	190	186	376
AGES AT DEATH.													
Under 1 year.	1—	2—	5—	10—	15—	20—	30—	40—	50—	60 & up- wards.	All Ages.		
69	52	80	53	32	17	21	15	12	18	7	376		

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

PART II.GENERAL PROCEDURE ON NOTIFICATION.

The basis of the present procedure in regard to tuberculosis is the statutory notification received from the medical practitioner in attendance on the case. Since February 1st, 1913, compulsory notification has been in operation in regard to all forms of disease, irrespective of the social position of the patient.

Persons in better circumstances of life have their medical advisers and appreciate the importance of the precautionary measures and of treatment. The Department, however, has been mainly occupied attending to necessitous cases among the lower middle, working, or more or less destitute classes.

The 1913 Report dealt fully with the opportunities afforded to practitioners to consult with tuberculosis officers, the registers kept in accordance with the directions of the Local Government Board, the visitation of cases by District Sanitary Inspectors, the sanitary inspection of dwellings, disinfection, revisiting, and the distribution of literature.

STAFF.

At the close of the year the following medical staff was engaged in the tuberculosis work of the Corporation:—

Medical Officer of Health (Chief Tuberculosis Officer).

One Assistant to the Medical Officer of Health (Acting Chief Tuberculosis Officer).

Three Assistant Tuberculosis Officers.

In addition to the above, four clerks were provided for the Assistant to the Medical Officer, while each Assistant Tuberculosis Officer was provided with a clerk, nurse, and porter, in connection with his respective Tuberculosis Institute.

TUBERCULOSIS INSTITUTES.

The work of the three Tuberculosis Institutes has been fully described in the 1913 Report. This work has developed on similar lines, and has increased very considerably in extent.

The close co-operation of the Invalid Children's Aid Association on the one hand, and the Corporation and Insurance Committee on the other, continues, and this Association is now responsible for the admission of tuberculous children to the following institutions, viz.:—

Royal Southern Hospital.
 David Lewis Northern Hospital.
 Children's Infirmary.
 Royal Liverpool Hospital for Children, Heswall.
 Children's Convalescent Home, West Kirby.
 Leasowe Sanatorium.
 West Kirby Cottage Homes.

The reports made by the Association to this Department from time to time enable the progress of cases to be closely watched.

The co-operation between the School Medical Officers and Tuberculosis Officers has been developed. The School Medical Officers refer all their doubtful cases for an opinion, and, further, the School Medical Department are informed of all cases of school age examined by Tuberculosis Officers.

Many patients have made direct applications to the Tuberculosis Institutes for treatment and advice, and it is apparent that these depôts are becoming well known and appreciated.

Dispensary treatment, domiciliary treatment, after-care examination, and the keeping of records have followed on similar lines to last year.

During the year upwards of 1,801 new patients have been examined by the Tuberculosis Officers. Of these, 434 proved to be non-tuberculous.

706 persons suffering from pulmonary tuberculosis were admitted to various institutions, and on December 31st 273 remained under institutional treatment. In addition, 461 surgical cases were admitted to institutions, and at the end of the year 124 remained under treatment.

TUBERCULOSIS INSTITUTES.

The three Tuberculosis Institutes which have been established by the Hospitals Committee of the City of Liverpool correspond to the so-called anti-tuberculosis dispensaries mentioned in the Astor Report of 1912. In order that the title of these premises should not clash with the old-established district dispensaries, which have been a prominent

feature in the medical treatment of the poor for many years in Liverpool, it was decided to call the new premises Tuberculosis Institutes.

The establishments are as follows:—

The Central Tuberculosis Institute is in connection with the Out Patient Department of the Liverpool Consumption Hospital in Mount Pleasant. It was opened on 24th February, 1913.

The South Tuberculosis Institute is situate at 365, Park Road, in the Toxteth District, and was opened on 11th June, 1913.

The North Tuberculosis Institute, 330-332, Netherfield Road North, was opened on 4th March, 1914. In this case, two moderately-sized houses have been converted into one. Considerable difficulty was experienced by the Hospitals Committee in finding suitable existing premises in the North end of the City, and the rooms of this Institute are not as large as those in the South Institute. The premises are, however, convenient of access to the inhabitants of Kirkdale, Walton and Everton.

A more detailed account of the Institutes, together with illustrations, appeared in the Annual Report for 1913.

THE SANITARY INSPECTION OF THE HOMES OF PATIENTS.

During the year 1914, 3,507 cases have been under the special observation of the Medical or Sanitary Staffs, 2,202 having been brought forward from 1913.

Of this total, 1,809 were males and 1,698 females. During the year, 428 have died; 295 are not being re-visited by request; 816 removed to new addresses not yet ascertained; 222 were at the time of the last re-visit inmates of various hospitals and institutions; and 1,746 were being visited at their homes at the end of the year.

AGES.

The ages of the patients, together with the percentage in relation to the total number of cases is shown in the following table:—

Under 15 years.	16 to 30 years.	31 to 50 years.	Over 50 years.
977 or 27·9 %	1,062 or 30·3 %	1,193 or 34·0 %	275 or 7·8 %

The 3,507 cases dealt with during the year are housed as follows:—

2,081	Occupy dwellings of six rooms and upwards.
237	„ five roomed dwellings.
746	„ four „ „
238	„ three „ „
28	„ two „ „
58	„ two or more rooms in a sub-let house.
27	„ one room in a sub-let house.
5	„ insanitary cellars, shortly to be closed.
8	Reside in insanitary front houses.
79	„ „ court houses, many of them now under the consideration of the Housing Committee.

3,507

FAMILY HISTORY.

In 988 instances a definite record of the previous existence of the disease was given by other members of the family.

The relatives stated to have been previously affected are as follows:—

Father	Mother	Brother	Sister	Husband	Wife	Paternal Relative	Maternal Relative	Other Relatives	TOTAL
205	174	144	154	35	36	64	87	89	988

EXTENT OF ISOLATION OF THE PATIENT.

1,342	Occupy a separate bedroom.
325	„ „ bed in room shared by others
In 1,258	Cases, bed is shared by an adult.
„ 71	„ the patient sleeps in the living room.
„ 511	„ bed is shared by children.

3,507

In a very large proportion of these cases the disease is not of the "open" variety, and there is no expectoration.

HABITS.

The following tables indicate the result of observations and enquiries into the habits of the patients:—

Over 15 years of Age.

	Temperate	Intemperate	Total
Males	1,276	51	1,327
Females	1,185	18	1,203

CLEANLINESS.

	Clean	Dirty	Total
Males	1,284	43	1,327
Females	1,165	38	1,203

977 patients are under 15 years of age.

OCCUPATIONS.

Actors	3	Bath Attendant	1
Actress	1	Blacksmiths	3
Artificial Flower Maker	1	Bobbin Workers	6
Bagmakers	24	Boiler Makers	11
Bakers	10	Boiler Scalpers	10
Barbers	13	Book Binders	10
Barmen	14	Boot Makers	13

OCCUPATIONS.—*Continued.*

Bottlers	6	Engineers	9
Bottle Washers	4	Errand Boys	21
Box Makers	10	Ex-Policemen	3
Brass Finishers	5	Ex-Soldiers... ..	3
Bricklayers	7	Ex-Seaman... ..	1
Brokers	2	Factory Hand	1
Brush Maker	1	Feather Workers	2
Butchers	12	Fitters	2
Cabdrivers	8	Firelighter Makers	2
Cabinet Makers	13	Fish Salesman	1
Canvasser	1	Flour Mill Hands	7
Caretaker	1	French Polishers	10
Carters	45	Gardeners	5
Cattle Drivers	2	Grocers	7
Charwomen	67	Hawkers	27
Clerks	134	Housewives	590
Coachmen	1	Inspectors, Disinfecting	2
Coalheavers	14	Insurance Agents	10
Commercial Travellers	10	Iron Moulders	2
Confectioners	5	Iron Workers	14
Coopers	7	Joiners	25
Cotton Porters	20	Knockers-up	4
Cotton Sorters	3	Labellers	2
Dock Labourers	189	Labourers	287
Domestic Servants	94	Laundresses	16
Doorkeeper	1	Laundrymen	6
Drapers	5	Lift Attendants	4
Dressmakers	15	Licensed Victuallers	10
Electricians	7	Lithographer	1
Engine Drivers	5	Machinists	30

OCCUPATIONS.—*Continued.*

Marine Firemen	29	School Children	818
Marine Store Dealers	5	School Teachers	9
Match-workers	2	Seamen	30
Messengers	2	Seamstresses	8
Metal polishers	2	Ship Stewards	38
Milk Dealers	3	Shopkeepers	11
Milliners	4	Shop Assistants	59
Night Watchmen	3	Stonemasons	5
No occupation	151	Sugar Boilers	3
Nurses	9	Sweet Packers	2
Oil Cake Workers	4	Tanners	1
Packers	18	Tailors	13
Packing Case Makers	3	Tailoresses	19
Painters	25	Taxi and Motor Men	7
Paint Mixers	2	Telephone Operators	2
Paper Bag Makers	6	Tinsmiths	5
Pattern Makers	2	Tobacco Workers	26
Plasterers	5	Tram Cleaners	2
Plumbers	7	Tram Conductors	5
Policemen	4	Tram Drivers	3
Porters (Railway)	18	Tram Inspectors	4
Porters (General)	45	Upholsterers	6
Porters (Fish and Fruit)	7	Vanmen	4
Postmen	2	Waitresses	9
Printers	11	Warehousemen	20
Rag Sorters	3	Window Cleaners	5
Riveters	3	Wood Turners	3
Rope Workers	11	Children under school age	73
Rubber Workers	4		
Scavengers	9	Total ...	3507

ANALYSIS OF OCCUPATIONS.

Indoor.	Outdoor.	School Children.	Children under School Age.	No Occupation.	Total.
1712	753	818	73	151	3,507

BIRTH PLACE.

2,897 of the patients were born in Liverpool. Of the remaining 610 the great majority, viz., 584 were born in other parts of the United Kingdom, but have been resident in Liverpool for periods ranging from 6 months to 40 years; 102 were natives of Ireland. Persons of foreign birth numbered 26.

MEMORANDA IN RESPECT TO SCHOOL CHILDREN.

On December 31st, 1913, there were 581 school children on the re-visit list.

During the year 1914, 237 new cases have been added, making a total of 818 cases dealt with during the year.

ANALYSIS.

36 deaths (not in all cases from tuberculosis).

90 re-visits are unnecessary, and have been discontinued.

153 have removed from their original addresses and have temporarily been lost sight of.

539 were under observation on December 31st, 1914.

Total 818, 234 of whom were actually in attendance at school.

In 138 instances the child has received the advantage of Sanatorium treatment.

The type of dwelling occupied by the cases under observation at the end of the year varies in character and accommodation as follows:—

In 498 cases the dwellings are sanitary, being provided with through ventilation, yard space, and separate water-closet accommodation, and are maintained in a fairly clean condition, although the isolation in some cases might be improved.

38 cases are housed in insanitary court houses, or cellars, which will shortly be closed.

In 3 cases, although the house was otherwise sanitary, the accommodation was limited to one room.

539

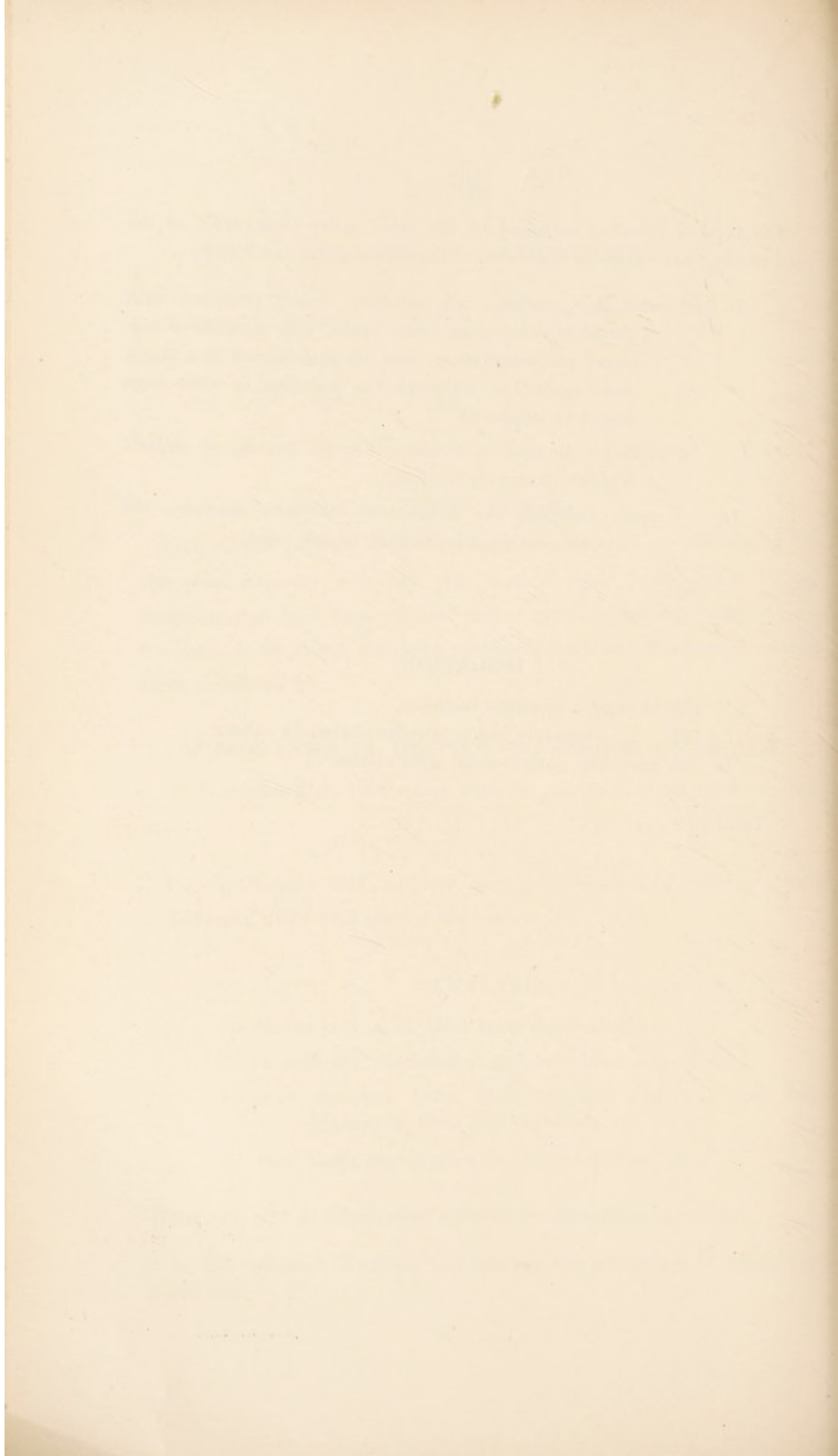
ISOLATION.

173 Occupy a separate bedroom.

121 „, separate bed in a room shared by others.

In 245 cases the patient slept with others.

Total 539



SANITARY ADMINISTRATION.

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:—

	Males.	Females.
*Chief Sanitary Inspector	1	—
*Deputy Chief Sanitary Inspector	1	—
*Prosecuting Sanitary Inspectors	7	—
*Inspectors for General Sanitary Purposes	34	25
(The Female Inspectors also assist at the Medical Inspection of School Children, and visit the homes where births have been notified under the Notification of Births Act, &c.)		
* ¹ Inspectors of Midwives	—	2
* ² Inspectors for Ophthalmia Neonatorum	—	2
Assistants at Infant Welfare Centres	1	10
Temporary Assistants at Infant Welfare Centres	4	13
*Inspectors of Meat and Animals	6	—
Inspectors under the Diseases of Animals Act	1	—
(The six Port Sanitary Inspectors also assist in carrying out the provisions of this Act.)		
*Inspectors of Fish and Fruit	4	—
* „ under the Sale of Food and Drugs Act	3	—
* „ „ „ Shops Acts, and Employment of Children Act	3	1
* „ of Workshops, Workplaces, and Bake-houses	4	—
(These Inspectors are also appointed under the Shops Acts, and the Employment of Children Act.)		
*Smoke Inspectors	3	—
*Inspectors of Common Lodging and Sub-let Houses	16	—
* „ „ Canal Boats	1	—
* „ „ Cowsheds and Milkshops	2	—
* „ „ Food and Drugs, and Cowsheds and Milkshops	1	—
*Notice Servers	3	—
Chief Clerk	1	—
Clerical Staff (Medical Branch)	15	—
„ „ (Sanitary Branch)	14	—
* ⁷ Disinfecting Inspectors, for removing patients and infected bedding, and disinfecting infected houses, &c.	13	—
Persons engaged as Caretaker of Mortuary, and for the cleansing of verminous children	—	3
Motor Ambulance Drivers	4	—
Men engaged stripping walls of infected houses, limewashing middensteads, rat-catching, &c.	26	—
Total No. of Staff	168	56

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 a certificate affording evidence of adequate sanitary instruction. ¹Registered midwives with Sanitary Certificates. ²Fully qualified nurses with special training in Ophthalmia Neonatorum. ³Butchers by trade, specially trained and certificated; candidates are submitted to practical examination upon the lines which have been indicated in the Report of the Royal Commission upon Tuberculosis. ⁴Three are Fishmongers by trade, and one a Fruiterer. ⁵Hold Marine Engineers' First Class Certificates. ⁶Several hold the certificate of the Royal Sanitary Institute, or an equivalent thereto. ⁷The Superintendent holds certificate of St. John Ambulance Association.

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 1910 they were 9,354; in 1911, 9,688; in 1912, 10,451; in 1913, 9,682; and in 1914, 10,390. 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. 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, are 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 the examination.

The District Sanitary Inspectors visit all premises where a nuisance is complained of, at the earliest possible moment, and last year 11,647 nuisances were discovered as the result of complaints. Preliminary notices were served either on the owners or the occupiers to remedy 9,795 nuisances. The remaining 1,852 nuisances came within the province of other departments, and were referred to those departments to be dealt with.

The nuisances for which notices were served were referred to the Prosecuting Inspectors for re-inspection, and where necessary further proceedings were taken to cause the abatement of the nuisance.

Apart from complaints, the Inspectors make a periodical house-to-house inspection of their districts, in the course of which a large number of nuisances are discovered. A number of defects are also referred by other departments.

Preliminary notices were served on the owner or occupier in respect to 59,801 nuisances. Of these, 55,690 were re-inspected by the District Inspectors, the remainder, being in connection with ashpits or ashbins, were referred to the Ashpit Inspectors.

The number found not abated was 6,714, and statutory notices were served to remedy them. These were again re-inspected by the District Inspectors, and those found not abated were referred to the Prosecuting Inspectors for further action. In addition, all nuisances found in progress, or which the District Inspector was unable to gain access to, to re-inspect, were referred to the Prosecuting Inspectors.

The following table shows the number of nuisances found by the District Sanitary Inspectors on routine inspection, on complaints, or as a result of references from other departments, and the character of the proceedings taken by the Prosecuting Sanitary Inspectors to abate the nuisances, and the results:—

					1913.	1914.
Number of Complaints made by Inhabitants	...	...	...	...	9,682	10,390
„ Houses examined	...	...	...	...	7,345	7,886

HOUSE TO HOUSE INSPECTION.

„ Street houses examined	...	...	...	85,180	91,447
„ Court houses examined	...	...	...	4,567	3,947
Total houses examined	...	...	...	89,747	95,394
„ Apartments examined	...	...	...	449,892	526,393

REFERENCES FROM OTHER DEPARTMENTS.

„	Nuisances referred by City Engineer	...	9,972	8,173		
„	„	„	Water „	...	2,064	1,508
„	„	„	Lodging House Insp...	8,660	7,835	
„	„	„	Female Inspectors	...	955	1,434
			Total references	...	21,651	18,950

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.

DETAILS OF NUISANCES.

	Special Inspection.	Routine Inspection.	Total.
Number of defective w.c. drains, basins, traps, putty joints, cisterns, flush pipes, &c.	2,745	15,509	18,254
„ defective w.c. and ashpit walls and doors, and w.c. roofs, floors and seats	515	6,071	6,586
„ defective and choked drains, traps and waste pipes ...	2,052	10,591	12,643
„ defective flagging, paving and cement work	952	8,638	9,590
„ defective and choked rainwater spouts and defective roofs ...	1,121	7,359	8,480
„ defective brickwork, woodwork, ceilings, &c.	209	823	1,032
„ insufficient or no supply of water to houses and defective supply pipes	425	2,806	3,231
„ keeping animals so as to be a nuisance	99	144	243
„ dirty houses and w.c.'s, floors and woodwork, bedding, w.c. basins, and accumulations of offensive matter	564	1,875	2,439
„ dirty houses, walls and ceilings.	127	1,200	1,327
„ defective ashpits to be abolished (double ashpits count as one)...	411	1,919	2,330
„ no ashbins or ashbins defective	231	2,192	2,423
„ other matters	344	674	1,018
Total	9,795	59,801	69,596

REFERENCES TO OTHER DEPARTMENTS.

	Special Inspection.	Routine Inspection.	Total.
Number of matters referred to City Engineer	1,295	20,478	21,773
" " " Water "	214	6,223	6,437
" " " to Building Surveyor	110	2,122	2,232
" " " to others ...	233	232	465
Total ...	1,852	29,055	30,907
Number of nuisances for which statutory notices were served ...	2,019	6,714	8,733
Total nuisances dealt with ...	13,666	95,570	109,236

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.

The references to the City Engineer consist principally of choked main drains and street gullies, and defective street and passage pavements; the references to the Building Surveyor concern dangerous walls, floors, roofs, &c.

<u>NOTICES ISSUED.</u>				Special Inspection.	Routine Inspection.	Total.
Number of preliminary notices for nuisances				5,057	30,103	35,160
" preliminary notices for dirty houses ...			...	88	1,021	1,109
" preliminary notices for defective ashpits or ashbins or no ashbins ...			...	423	3,241	3,664
Total ...			...	5,568	34,365	39,933
" statutory notices for nuisances...				1,320	6,433	7,753
" statutory notices for dirty houses				12	185	197
" statutory notices for defective ashpits or ashbins or no ashbins ...			...	4	139	143
Total ...			...	1,336	6,757	8,093
Total notices issued ...			...	6,904	41,122	48,026
Number of notes to complainants ...			...	370	—	370

RE-INSPECTION OF NUISANCES, &c.

	1913.	1914.
Number of Nuisances referred to Prosecuting Inspectors for re-inspection	37,892	29,284
„ Visits to premises to re-inspect special nuisances	14,893	14,697
„ Visits to premises to re-inspect ordinary nuisances	31,668	27,892
Total visits	46,561	42,589
„ Re-inspections of nuisances	78,920	68,417
„ Nuisances found abated	28,659	25,618
„ Notes sent to comply with notices	2,397	1,653
„ Re-tests of drains	188	138
„ Informations laid for nuisances	147	34
„ Magistrates' Orders made	116	28
„ Fined	21	2
„ Acquitted or withdrawn	10	4
Amount of Fines and Costs	£39 8 6	£8 6 0

IMPROVED SANITARY ASHBINS SUBSTITUTED FOR ASHPITS.

This important work has been steadily continued, and as a result, 1,829 insanitary ashpits have been abolished and improved sanitary ashbins substituted.

	1913.	1914.
No. of defective Ashpits reported by District Inspectors	2,715	2,330
„ Visits to premises by Ashpit Inspectors	24,200	19,018
„ Re-inspections relative to abolition of ashpits and provision of ashbins	10,999	9,005
„ Improved Sanitary Ashbins supplied	5,433	3,141
„ Ashpits abolished	3,207	1,829

The number of improved sanitary ashbins supplied in place of old insanitary ashpits was 3,141. In addition, approximately 480 improved bins have been placed in new property, 1,766 bins have been renewed, and 260 ashbins supplied to premises where neither ashpit or ashbin accommodation existed, making a total of 5,647. There were also 212 ashbins repaired.

There are now 122,314 sanitary ashbins in use in the City, and there are still approximately 10,000 ashpits in the City.

The following tables summarise the special visits made by the Sanitary Inspectors:—

	<u>1913</u>	<u>1914</u>
Special visits to Cellars	—	1,916
„ „ Insanitary houses	—	2,257
„ „ Cemeteries	3	5
Re-visits to premises under observation for suspected nuisances	1,439	1,498
Visits to Offices <i>re</i> W.C., accommodation	113	45
Incorrect	—	—
Visits to Public Lavatories	8	37
„ Women's Lodging Houses <i>re</i> W.C. accommodation	262	118
Incorrect	—	—
Privies reported for conversion	—	4
„ converted	—	4
Railway carriages examined	1,327	1,502
Found dirty	—	—
Visits to Railway Platforms (Fish arrivals)	37	72
Found dirty	—	—
Visits to Poultry depots	526	477
Incorrect	—	—
Visits to Manure depots	—	112
Incorrect	—	—
Visits to Marine stores	1,533	908
Incorrect	—	2
Visits to Restaurants, &c., <i>re</i> removal of swill	162	139
Incorrect	—	—
Visits to Fried Fish Shops	320	583
Incorrect	—	8
Visits to Telephone boxes <i>re</i> cleanliness	20	24
Incorrect	—	—
Various Inquiries and Visits	23,254	24,085
Military camps and Drill sheds	—	73

The special visits to schools will be found on page 68, and the visits to stables on page 143.

EXAMINATION OF CELLARS AND CELLAR DWELLINGS.

		1913.	1914.
Number of Inspections of Street Cellars	... ..	22,980	31,573
„ Street Cellars found disused	... ..	1,706	2,687
„ „ „ used for Lumber, &c.	... ..	13,394	17,660
„ „ „ used as Kitchens	... ..	6,490	8,297
„ „ „ found illegally occupied	... ..	229	1,211
„ „ „ „ legally „	... ..	1,161	1,718
„ Notices issued to Owners	... ..	257	513
„ „ „ Occupiers	... ..	172	424
„ Inspections of Court Cellars	... ..	1,145	914
„ Court Cellars found disused	... ..	28	33
„ „ „ used for Lumber, &c.	... ..	898	740
„ „ „ used as kitchens	... ..	215	137
„ „ „ illegally occupied	... ..	4	4

The number of cellars filled in by the Health Committee, free of charge to the owners, during the last ten years was 166.

The total number of cellars on the register let as separate dwellings is approximately 197, in which some 600 people are housed.

STATEMENT SHOWING THE NUMBER OF CELLAR DWELLINGS, AND POPULATION, FROM THE YEAR 1898 TO 1914.

Year	No. of Cellars let as separate Dwellings.	Approximate Population.
1898.....	3,288	12,000
1899.....	3,288	11,000
1900.....	3,209	10,500
1901.....	3,201	9,400
1902.....	3,178	9,300
1903.....	3,123	9,200
1904.....	3,058	9,160
1905.....	2,558	7,860
1906.....	2,016	6,337
1907.....	1,955	6,154
1908.....	1,793	5,379
1909.....	1,776	5,328
1910.....	1,764	5,292
1911.....	1,685	5,055
1912.....	1,614	5,112
1913.....	932	2,796
1914.....	197	600

Under the provisions of the Liverpool Corporation Act, 1908, the occupation of cellars as separate dwellings, the floors of which are more than two feet below the ground, became illegal after December 31st, 1912.

INFECTED HOUSES.

The following table shows the number of houses visited where notifiable infectious diseases occurred, also the number of visits to these houses, and to houses where cases of non-notifiable infectious diseases had been reported to the department by the Education Department.

	<u>1913.</u>	<u>1914.</u>
Number of Street houses where notifiable infectious diseases occurred	11,841	12,357
„ Court houses where notifiable infectious diseases occurred	308	238
„ Cellars where notifiable infectious diseases occurred	2	3
Total	12,151	12,598
„ Visits to infected houses and cellars (notifiable cases)	12,921	13,224
„ Visits to houses and cellars (non-notifiable cases)	18,724	19,341
„ Visits and re-visits to phthisis cases ...	9,195	9,085
„ Enquiries <i>re</i> small-pox	2,038	821
„ „ suspected typhus fever ...	408	512
„ „ cholera, plague, yellow fever &c.,	—	2,140
„ Visits to dwellings in connection with infantile diarrhoea	19,481	26,180

REFERENCES TO AND FROM EDUCATION DEPARTMENT.

Number of Cases referred by Education Department (measles, chicken-pox, skin disease, &c.)	22,912	33,762
„ Children referred to Education Dept. for exclusion from school (infectious cases)	18,919	33,587
„ „ „ (other cases) ...	9,786	14,691

COURT AND ALLEY EXAMINATIONS.

		<u>1913.</u>	<u>1914.</u>
Number of Inspections of Courts and Alleys...	...	25,662	23,139
„ „ Closets	... ..	49,884	43,312
„ Closets found Dirty, but cleansed by Officer's Instructions	... ..	23,907	20,972

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 a bye-law, made under the Liverpool Sanitary Act, 1846.

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

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.

STATEMENT SHOWING THE NUMBER OF COURTS AND
ALLEYS SCHEDULED FOR INSPECTION
FROM THE YEAR 1890 TO 1914.

Year 1890.....	2,165	Courts	and	Alleys.
1895.....	1,660	"	"	"
1898.....	1,466	"	"	"
1899.....	1,432	"	"	"
1900.....	1,195	"	"	"
1901.....	1,159	"	"	"
1902.....	1,074	"	"	"
1903.....	1,042	"	"	"
1904.....	976	"	"	"
1905.....	927	"	"	"
1906.....	857	"	"	"
1907.....	825	"	"	"
1908.....	782	"	"	"
1909.....	698	"	"	"
1910.....	604	"	"	"
1911.....	566	"	"	"
1912.....	499	"	"	"
1913.....	454	"	"	"
1914.....	425	"	"	"

This shows a diminution in twenty-four years of 1,740 courts and alleys.

In the months of July, August and September many of the water-closets were more frequently visited, and throughout 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 by the owners as often as may be necessary. The number of courts requiring limewashing in 1914 was 498, representing 2,578 houses. The number of notices issued was 512.

The Building Surveyor has kindly supplied the following table:—

NUMBER OF HOUSES ERECTED AND TAKEN DOWN DURING THE YEAR ENDING
DECEMBER, 1914.

DISTRICTS.							Number erected.	Number taken down
Scotland	...	...	...	...	...	...	3	64
Exchange	...	...	...	...	...	...	79	122
Abercromby	...	...	...	..	...	...	—	97
Everton ...	...	...	...	...	...	...	—	46
Kirkdale	...	...	...	...	...	...	2	—
West Derby (West)	...	...	...	...	...	...	—	10
Toxteth ...	...	...	...	...	...	...	1	26
Walton ..	...	...	..	...	...	...	250	3
West Derby (East)	...	...	...	...	...	...	223	11
Wavertree	...	...	...	...	...	...	116	2
Toxteth (East)...	...	...	...	...	...	...	1	6
Garston...	...	...	...	...	...	...	115	—
Fazakerley	...	...	...	...	...	...	29	—
Woolton	...	...	...	...	...	...	16	7
Totals							835	394

The City Engineer has kindly supplied the following:—

Number of cellars filled in and bricked up during 1914	...	...	...	Nil
“ “ “ “ “ the last 10 years	...	...	...	166

SEWER VENTILATION TO END OF 1914.

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	...	...	1,923
Number of Street Ventilating Manhole Covers and Gratings	...	...	4,498

COMMON LODGING HOUSES.

In the year 1866 there were 1,278 Common Lodging Houses on the Register. These houses were registered under the Liverpool Sanitary Act, 1844, and the Common Lodging Houses Acts of 1851 and 1853.

Bye-laws were made in 1848 and 1860 to regulate such houses. These bye-laws were repealed in 1869, when new bye-laws were made under powers given by the Common Lodging Houses Acts of 1851 and 1853, and these remain in force at the present time.

During the year 1867 all Common Lodging Houses not having a separate day room for the use of lodgers, and all houses taking lodgers in and not having this accommodation, were registered as Sub-let Houses. The cubic space required in Common Lodging Houses was 300 cubic feet per head at that time, as against 400 cubic feet at present.

Further powers to deal with Common Lodging Houses are given under Part 5 of the Public Health Acts Amendment Act, 1907 (adopted in (1912) Sections 69 to 75, particulars of which will be found in the Annual Report for 1913.

Twenty-two houses and 33 deputy-keepers were registered and also 15 houses re-registered under this Act during the year.

The Liverpool Corporation Act, 1913, section 36 (details of which will be found in the Annual Report for 1913) deals with cases of Trachoma or other contagious diseases of the eye, in lodgers.

The Annual Report for 1913 contains a list showing the number of Common Lodging-houses added to and removed from the Register since 1866.

INSPECTION OF COMMON LODGING HOUSES.

At the end of the year 1913, there were on the register a total (including emigration houses) of 324 lodging-houses, and at the end of 1914 the total number was 290, which furnished accommodation for 10,989 lodgers besides 606 members of the keepers' families.

During the year, 56 houses were given up and removed from the register, and 22 new houses added. The falling off in the number of houses is caused by the effect of the war on emigration, the Armenian, Syrian, Russian and Jewish houses having been given up.

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 137; and these are registered to accommodate 6,020 lodgers, as well as 203 members of the keepers' families.

There are also 22 registered "model" lodging-houses for the accommodation of women only. These have rooms for 675 lodgers, in addition to 34 members of the keepers' families.

Common Lodging-Houses for Women have been fully dealt with in the report for 1909.

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.

The number of day visits paid during the year was 12,584, and the night visits 734. During the preceding year the day visits were 14,352, and the night visits 869.

During the year 47 informations were laid against keepers of common lodging-houses for offences against the Bye-laws. The following table gives the figures for the last three years:—

	<u>1912.</u>		<u>1913.</u>		<u>1914.</u>
Not sweeping floors	4	...	5	...	22
Not washing floors	4	...	5	...	14
Overcrowding	4	...	12	...	6
Receiving lodgers in unregistered houses or rooms	4	...	5	...	2
Mixing sexes	0	...	1	...	1
Not limewashing	1	...	0	...	2
	—		—		—
Total ...	17	...	28	...	47
	—		—		—

Convictions followed in 46 cases, one case being withdrawn. The total amount of fines in 1914 amounted to £27 3s. 6d., and ranged from 1s. and 1s. costs to 40s. and 4s. 6d. costs. During the preceding year there were 28 convictions, the fines amounting to £18 3s. 6d.

The number of lodging-houses found dirty was 19, and in each case notices were served to limewash and cleanse the premises.

There were 682 special visits and 55 re-visits made to lodging-houses with reference to cases of Phthisis. These visits are included in the total visits for the year.

The following is a list of "Common Lodging-houses" for women now on the register:—

No.	Street.	Keeper.	Registered Deputy Keeper.
	Netherfield Road South, Ann Fowler Memorial Home.	Mrs. Florence Booth	Miss Harriet Weie
163	Islington	Miss Marie Firth.....	Miss Annie Cartwright
46a	Everton Brow	Rev. Herbert Wood	Mrs. Madge Mason
44a	"	"	Miss Gertrude Rogers
45	"	Edward Boreland ...	Mrs. Hannah Brown
79	Kempston Street	Mrs. Margaret Ryan	Mrs. Margaret Gallagher
89	"	Mrs. Emily Baines ...	Mrs. Louisa Owen
94	"	John Kelly	Mrs. Kelly
28	Wilton Street	Mrs. Margaret Ryan	Mrs. Sarah Birch
87	Soho Street	Mrs. Rose Dacy	Mrs. Mary Green
89	"	"	" "
16	Queen Anne Street	Mrs. Sarah Edwards	Mrs. Mary Dalton
8	Prince Edwin Street	Ernest Wight	Mrs. Wight
10	" "	"	" "
121	Richmond Row	Thomas Lancaster ...	Mrs. Lancaster
123	" "	"	Mrs. Emily Hickey
165	" "	Miss Maria Baines ...	Mrs. Elizabeth Wright
36	Circus Street	Martin Carroll	Mrs. Mary Ann Godfrey
31	Baptist Street	"	" "
22	Springfield	Mrs. Catherine Todd	Mrs. Mary E. Smith
3	Trinity Place	" "	Mrs. Grace Hardy
13	Devon Street	Mrs. Elizabeth Buckley	Miss Annie Howley

IMPROVEMENTS IN SANITARY ACCOMMODATION.

The following is a list of "Common Lodging-houses" where structural alterations have been carried out during 1914 with the view of improving the kitchen and washing accommodation as well as the sanitary arrangements:—

11, Mill Street.—Three modern water-closets erected and four wash-basins fixed.

44, St. James Place.—One additional water-closet erected.

58A, Hill Street.—One trough water-closet abolished and three modern water-closets erected.

127 and 129 Islington.—Three additional water-closets erected, also three additional wash-basins with hot and cold water service installed.

107, St. Anne Street.—Three additional wash-basins fixed.

34, St. Anne Street.—Four trough and one hopper water-closets abolished. Seven modern water-closets erected, also one bath and seven wash-basins with hot and cold water service installed.

10, Springfield.—Improved light and ventilation provided to interior water-closet.

5, Springfield.—Three trough water-closets abolished, four modern water-closets erected, and two additional wash-basins fixed.

16, Springfield.—Six trough water-closets abolished, six modern water-closets erected.

22, Springfield.—Two additional wash-basins with hot and cold water service installed.

98, Soho Street.—Two additional water-closets erected and three wash-basins fixed.

1, Everton Brow.—Three trough water-closets abolished, three modern water-closets erected.

29, Everton Brow.—Hot and cold water service provided to bath.

41, Everton Brow.—One additional water-closet erected and one additional wash-basin fixed.

43, Everton Brow.—Four trough water-closets abolished, six modern water-closets erected.

46A, Everton Brow.—Improved light and ventilation provided to cellar kitchen.

- 17, Dundee Street.—One additional water-closet erected.
- 73, Waterloo Road.—One additional water-closet erected.
- 17, Warren Street.—Six trough water-closets abolished, six modern water-closets erected.
- 84, St. James Street.—One additional water-closet erected.
- 17, Suffolk Street.—Two additional water-closets erected, ashpit abolished and suitable bins provided.
- 6, Liver Street.—Three additional wash-basins fixed.
- 122, Duke Street.—Five additional wash-basins fixed.
- 126, Duke Street.—Two additional water-closets erected and five additional wash-basins fixed.
- 74, Nelson Street.—Four trough water-closets abolished, five modern water-closets erected.
- 4, Frederick Street.—Six trough water-closets abolished, three modern water-closets erected.

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 houses now being on the register, providing accommodation for 80 seamen. An application for the renewal of a license was refused, the applicant being an enemy alien.

The number of licenses granted since the adoption of the Seamen's Lodging-House Bye-laws is 33.

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, hence, probably, the small number upon the register.

HOUSES LET IN LODGINGS (SUB-LET HOUSES).

The first bye-laws made to deal with these houses were confirmed by the Secretary of State, November, 1866; and were made under powers given by the Liverpool Sanitary Act of 1866, Section 35. Previous to the adoption of these bye-laws overcrowding was dealt with under the Nuisance Removal Act, 1855. These bye-laws were amended in 1869 under the Act of 1866, and further amended in 1885 and 1886 under the Public Health Act of 1875, Section 90.

New bye-laws were made in 1901 requiring 400 cubic feet for each adult person, and 200 cubic feet for every person below ten years of age. Prior to the adoption of these bye-laws the cubic space required for each adult was 350 cubic feet, and two children below ten years of age counted as one person. Powers were also given to deal with the non-separation of sexes in lodgers' rooms, and to enforce the cleansing of stairs and passages used in common.

These bye-laws were repealed in 1911, and new bye-laws were made giving additional powers to deal with the non-separation of sexes in tenants' and lodgers' rooms, overcrowding, and to enforce the cleansing of rooms, stairs, and passages.

Powers were also given to enforce the provision of water-closet accommodation (one water-closet for every twelve persons) the lime-washing of walls and ceilings of houses, yards and water-closets at stated intervals.

INSPECTION OF HOUSES LET IN LODGINGS.

The supervision of these houses and the prevention of overcrowding and other breaches of the bye-laws constitute an important branch of sanitary administration.

The number of these houses now on the register is 16,492.

The number added to the register during 1914 was 520; the number cancelled, owing to their being no longer sub-let, was 325. The number returned as demolished was 108, making a total on the register, on December 31st, 1914, of 16,492, as against 16,405 at the close of the preceding year.

The systematic visitation by day has been fully maintained, the number of visits being 115,057, and the result has been a general improvement in the cleanliness of the rooms, stairs and passages of these houses.

The steps taken to put a house, intended for the working classes and occupied by members of more than one family, on the register are as follows:—

When the Inspectors on house to house visitation find such a house they serve a copy of the bye-laws as to "Houses let in lodgings" on the tenant of such house, a notice in writing, as required by bye-law No. 6, to furnish to the Council information necessary to register such house, and a form to be filled in and signed by the tenant or his duly authorised agent.

A copy of the form used will be found in the Annual Report for 1913.

Under the Bye-laws the following notices to cleanse walls and ceilings, water-closets, &c., were served:—

Preliminary Notices	...	...	...	...	208
Statutory Notices	...	...	...	...	20
Comply Notes	...	...	...	...	4
Number of rooms cleansed	...	...	...	...	1092
Number of yards and water-closets cleansed	...	...	...	...	13
Number of Notices not complied with at the end of December, 1914	...	...	...	...	8

NIGHT VISITS AND OVER-CROWDING.

The number of convictions for overcrowding was 693, as against 660 in 1913. There has been a steady decline in the offence of overcrowding during the last eight years. The percentage of convictions to the number of visits was 4.88 in the year 1906; during the year under review it was only 2.85.

The number of visits paid to houses let in lodgings during the night was 24,309, with the result that 943 rooms were found overcrowded. In addition to overcrowding, 272 cases of non-separation of sexes came under the notice of the inspectors as against 290 last year. These cases appear to be the outcome of ignorance and indifference, and not of immoral intent. Powers have been given to deal with the offence of non-separation of sexes, with the result that during the year 167 informations were laid. In the remaining cases the offenders were cautioned by the Inspectors.

Informations were laid against 1,411 tenants and lodgers (room-keepers) for breaches of the bye-laws, viz.:—

Overcrowding	...	...	...	...	743
Floors not washed	...	...	...	...	285
Floors not swept	...	...	...	...	131
Not cleansing stairs, &c.	...	...	...	...	85
Non-separation of sexes	...	...	...	...	167
Total					1,411

Two cases were acquitted, four cases were withdrawn, eighty cases were discharged with a caution, and in one case the defendant had left the premises before the summons could be served.

As a result of proceedings before the Stipendiary and other Magistrates, fines were inflicted amounting during the year to £175 17s. 0d.

The table showing the number of houses let in lodgings on the register, together with the number of visits for the detection of overcrowding, for the past 14 years will be found on page 260, in the insanitary property section of the Report.

CANAL BOATS ACTS, 1877 and 1884.

The Leeds and Liverpool Canal Company are the proprietors of the only canal having direct communication with Liverpool, and the length of the waterway within the City, exclusive of the locks which lead to the docks, is about three miles.

The number of inspections of canal boats during the year was 4,685, 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:—

Fourteen 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 nine verbal notices were given. The notices were complied with in eight cases. Two informations were laid. Four boats have not been in the district since.

Twenty-six boats were found without certificates on board. Notices were sent to the owners in 20 cases, and six verbal notices were given. The notices were complied with on 16 boats; the other boats have not been seen in the district since.

Fifteen boats were found without the registered number painted on both sides of the boat, and 14 written notices and one verbal notice were given to the owners. The omission was rectified in 12 instances; in the other instances the boats have not been seen in the district since.

On four boats defective second bulkheads were reported. Notices were sent to the owners in these cases. The defects were remedied in three cases, and one boat has not been seen in the district since.

In sixteen boats the cabins required re-painting. Notices were sent to the owners. Fourteen were complied with and two boats have not been seen in the district since.

Dirty cabins were reported in eight cases. In seven cases verbal notices were given to the masters, and in three, written notices were sent to the owners. In five cases the notices were complied with, and in three other instances the boats have not been re-inspected.

Besides the foregoing, there were 53 instances of infringements of the Acts and Regulations caused by:—

Leaky decks	27
Defective scuttle covers	2
Defective floors	4
No water casks on board	12
Defective stoves	4
Defective lockers	4
	—
Total	53
	—

Forty-nine notices were sent to the owners, in respect to the above infringements. In 39 instances the notices were complied with, and in the other cases the boats have not been seen in the district since.

Seven boats were found with the cabin overcrowded or indecently occupied, and five masters were cautioned. In two instances informations were laid and the masters were fined.

The total number of infringements of the Acts and Regulations is 141, occurring on 103 boats.

Informations were laid against two owners and two masters of boats as follows:—

Nature of Contravention.	Penalty.
Overcrowding (Master)	2/- and 2/- costs.
Indecent occupation of Cabin (Master).....	10/- „ 4/6 „
Using unregistered boat as dwelling (Owner and Master)	10/- „ 4/6 „
Do. do. do.	10/- „ 4/6 „

The total fines and costs amounted to £2 7s. 6d.

No cases of infectious sickness were reported during the year as having occurred on any boat visiting this district.

Eleven notices were sent to the Education Department relating to children living on canal boats, and not attending any school.

The number of boats on the register is 575. Twenty-four boats have been removed from the register, as it was ascertained that they had been broken up.

During the year, ten new boats were registered; twenty re-registered on account of change of ownership; three were re-registered on account of change of owners and the name of the boat being changed; and one on account of structural alterations.

A copy of the registration certificate was issued to the owners of 7 boats, owing to the original certificate being worn out or lost.

The number of boats on the register regularly plying in the district is 520. It is probable that the other 55 boats have either been broken up, left the district, or ceased to be used as dwellings, but in the absence of definite evidence of this the boats remain on the register.

There are no motor propelled boats registered by this Authority.

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 Boat Acts, but which had been registered by the Board of Trade under the Merchant Shipping Act. Forty-one 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 959 visits, which are included in the foregoing report. The number of contraventions for which notices were served on the owners was 69 in connection with 49 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, the Liverpool Corporation Act, 1902, section 57, and the Liverpool Corporation (General Powers) Act, 1905, section 7, with the following results:—

	<u>1913.</u>	<u>1914.</u>
Number of reports of excessive smoke from Manufactories ...	91	114
" " " Steamers in river	161	163
" " " " dock	14	21
Total	<u>266</u>	<u>298</u>

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

	<u>1913.</u>	<u>1914.</u>
Manufacturers	6	7
Steamship Owners	30	112
Total	<u>36</u>	<u>119</u>

	<u>1913.</u>	<u>1914.</u>
Chief Inspector and Assistants gave M'facturers	439	Cautions 451
" " " Steamship Owners	119	153
Total... ..	<u>558</u>	<u>604</u>
Number of enquiries respecting Owners	<u>413</u>	<u>411</u>

	<u>1913.</u>	<u>1914.</u>
Informations against Manufactories	85	61
" " Steamers in river...	142	87
" " " dock...	3	5
Total	<u>230</u>	<u>153</u>
Acquitted or withdrawn, Manufactories	3	8
" " Steamer cases	3	9
Total	<u>6</u>	<u>17</u>

							<u>1913.</u>	<u>1914.</u>
Fined, Manufactories	...	...	...	...	...	...	82	5
„ Steamers	...	...	...	...	...	...	142	8
Total	...	...	...	...	...	...	<u>224</u>	<u>13</u>

							<u>1913.</u>	<u>1914.</u>
Amount of Fines, Manufactories	...	£185	7	0	£113	14	0	
„ „ Steamers	...	268	19	10	174	18	0	
Total	...	<u>£454</u>	<u>6</u>	<u>10</u>	<u>£288</u>	<u>12</u>	<u>0</u>	

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

SMOKE INSPECTION.

The falling off previously noted in the number of reports relating to excessive smoke still continues, and is an indication of the additional care exercised by manufacturers and steamship owners.

Out of 163 cases of excessive smoke from steamers in the river which were observed, 20 vessels were bound for foreign ports, four were towing other vessels in emergency, and consequently no proceedings were taken, and the owners of one were not traced.

In 26 cases of excessive smoke from foreign trading steamers in dock no proceedings were taken, but the owners were written to.

							<u>1913.</u>	<u>1914.</u>
Complaints received of smoke from defective house flues and low chimneys, and fumes from gas engines	...	...	...	...	...	...	132	10
Visits relating thereto	...	...	...	...	...	...	<u>870</u>	<u>91</u>
Chimneys raised in consequence of complaints	...	...	...	...	...	...	32	2
Flues altered and repaired	...	...	...	...	...	...	39	1
Attention promised	...	...	...	...	...	...	56	6
Referred to other departments	...	...	...	...	...	...	2	
Frivolous complaints	...	...	...	...	...	...	3	
Total complaints dealt with...	...	...	...	...	...	...	<u>132</u>	<u>10</u>

The smoke in our atmosphere is very largely contributed to 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.

SMOKE ABATEMENT.

A very great improvement in the condition of the atmosphere has been effected in recent years by the reconstruction of the furnaces in many manufactories and the installation, where possible, of automatic appliances for stoking of a type much superior to those previously in use.

In factories where hand-stoking is still adhered to, more intelligent attention is given to the work by the firemen, who are better remunerated, and their employers evince much more interest than formerly in the improved methods of utilising fuel because of the resultant economy as regards the "life" of the furnace as well as its increased efficiency, the consequent combustion of gases, which used to be emitted from the chimneys, conducing to the abatement of the smoke nuisance.

As a result of the increasing use of internal combustion engines many complaints have been received of the smell and noise from them. A new duty has therefore been thrown upon the Inspectors, who have been called upon to give advice as to the methods to be adopted to counteract the smell and noise by the provision of deodorants and silencers; thus making the work of the Inspectors more advisory and less punitive.

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, 1914.
Rear of 90, Soho Street	Tripe Boiling.....	1	—	Feb. 3rd
St. Andrew Street	Gut Scrapping	1	—	„
Corner of Waterloo Rd. and Dundee Street...	Soap Boiling	1	—	Mar. 12th
300, Vauxhall Road ...	Magnesium Chloride Manufacture	1	—	Oct. 8th
	Total.....	4	—	

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

The number of inspections of premises where offensive trades are carried on was 1,990, as against 1,946 in 1913.

					<u>1913.</u>	<u>1914.</u>
Total No. of Visits to Bone Boilers ...	...	...	...	...	168	180
„ Bone Stores ...	...	...	...	...	22	190
„ Cotton Seed Oil Works ...	...	...	...	...	36	34
„ Destructors ...	...	...	...	...	26	24
„ Dripping Factories ...	...	...	...	...	64	51
„ Fat and Tallow Melters ...	...	...	...	...	285	313
„ Fell Mongers ...	...	...	...	...	49	38
„ Fertiliser Works ...	...	...	...	...	23	33
„ Fish Oil Works ...	...	...	...	...	34	34
„ Gut Scrapers ...	...	...	...	...	218	222
„ Ham Cooking and Potted Meat Works ...	...	...	...	...	94	74
„ Hide and Skin Works ...	...	...	...	...	36	56
„ Knackers' Yards ...	...	...	...	...	155	92
„ Lard Refiners ...	...	...	...	...	17	11
„ Liver Boilers ...	...	...	...	...	8	4
„ Magnesium Chloride Works ...	...	...	...	...	—	17
„ Oleo Margarine Works ...	...	...	...	...	16	10
„ Paint and Resin Works ...	...	...	...	...	42	32
„ Palm Oil Works ...	...	...	...	...	14	5
„ Patent Manure Manufacturers ...	...	...	...	...	43	36
„ Preserved Skin Works ...	...	...	...	...	2	—
„ Seed Crushers ...	...	...	...	...	8	1
„ Soap Boilers ...	...	...	...	...	241	252
„ Sulphuric Acid Works ...	...	...	...	...	18	26
„ Tanneries ...	...	...	...	...	119	124
„ Tar and Naphtha Works ...	...	...	...	...	31	27
„ Tripe Boilers ...	...	...	...	...	177	104
Total...	...	...	...	...	<u>1,946</u>	<u>1,990</u>

FRIED FISH SHOPS.

Periodical visits have been paid to Fried Fish shops with a view to minimising the nuisance caused by the smell from the cooking. The sanitation of the premises and the materials used have also been kept under supervision.

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

The Health Committee, in accordance with the Orders of the Board of Agriculture and Fisheries, have licensed the above Company and premises for the purpose of destroying carcasses of animals affected with contagious disease.

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

Unsound meat is destroyed on these premises in a similar manner.

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

The following are the returns for 1914:—

Horses Destroyed.	Horses taken in Dead.	Asses Destroyed.	Cows Destroyed.	Other Beasts.	TOTAL.
88	1,763	34	242	—	2,127

COMMON HOUSE FLY.

During the year observations on the prevalence of the House Fly in various districts were continued on the lines laid down by Professor Newstead, details of which have been given in previous reports.

Charts have been prepared and registers compiled in accordance with the suggestions made by Professor Newstead at the request of the Health Committee in the year 1907.

Observations were made at 42 centres, the majority of the houses being in those areas in which Epidemic Diarrhœa is known to prevail. The investigation commenced in June, and was continued until September, the total number of flies caught being 492,621. As might be expected, flies were found to be most prevalent in August, September coming next with double the number caught in July. Ordinary sticky fly papers, sticky reels, and balloon traps were used, and frequently collected, the best results being obtained from the sticky reels. It was found that flies were most prevalent in those centres, apart from external conditions, where food was left exposed and the habits of the people were dirty. In other centres, where cleanliness prevailed and care exercised in the removal of particles of food, the flies were not so numerous.

It has been found that the use of hot water is very effective in destroying the larvæ and pupæ of flies.

In view of the obvious mischief occasioned by the Common House Fly, a large number of cards containing the following information have been circulated throughout the City during the past few years:—

COPY OF NOTICE.**PUBLIC HEALTH DEPARTMENT.**

FLIES.

Common house flies are well known to be carriers of disease germs. The presence of large numbers of flies clearly indicates filth in the vicinity.

Their chief breeding places are accumulations of manure, but decaying vegetable or animal material and filth of any kind also afford them breeding places. Their food, however, is not limited to filth, and it is this circumstance which renders them dangerous, for after feeding on garbage of the most offensive description, they will convey that filth to foodstuffs used by human beings, and so contaminate that food.

The mischief done by flies is not confined merely to the conveyance of filth; they also carry disease germs from persons suffering from infectious disease to healthy persons. Flies are specially attracted to persons suffering from infectious sickness.

TO AVOID DANGER.

All house refuse should be burnt, or placed in proper receptacles and kept covered. These receptacles should be frequently and completely emptied.

Food of all descriptions should be carefully screened with muslin or with wire covers.

Food offered for sale should be properly screened. Therefore, in buying food give preference to shops where the food is properly protected against flies.

Keep all rooms, especially the kitchen, free from dirt.

Keep flies away from the sick, and kill every fly in the sick room. His body is covered with disease germs.

Sinks and gullies should be well flushed with water, and the drainage system kept in good order

Any nuisance in the neighbourhood should be at once reported to the Medical Officer of Health, at the Municipal Offices, Dale Street, Liverpool.

INSPECTION OF STABLES AND REMOVAL OF MANURE.

The usual attention has been given to the inspection of stables and the necessity for the frequent removal of manure emphasised.

The applications to the City Engineer's Department for the removal of manure have been frequent, and the owners of stables have again been informed of the facilities offered by the Health Committee in the following terms:—

COPY.

NOTICE.

REMOVAL OF MANURE FROM STABLES.

The Health Committee are very desirous that Manure should be removed with as little delay as possible, and with this object in view, arrangements have been made with the City Engineer for its speedy removal.

On application to the City Engineer, Municipal Offices, Dale Street, Manure will be removed from stable yards as often as required, free of charge.

DISINFECTION OF MIDDENSTEADS.

The disinfection of middensteads has proceeded as in the previous year, the middensteads, after being emptied, being disinfected by spraying with lime.

	<u>1913.</u>	<u>1914.</u>
Number of Visits to stables by District Sanitary		
Inspectors... ..	19,451	15,309
Number of disinfections of middensteads	11,379	13,669

SPRAYING OF MIDDENSTEADS.

Systematic spraying of stable middensteads and manure wharves is continued without interruption throughout each year, two machines being in use all the year round employing on an average four men.

During the months of May to September, it is usual to increase the staff, and four additional machines and eight extra men are employed during this period, making a total of six machines and twelve men employed in the spraying of middensteads during the summer months.

During the year 1914, 13,669 middensteads were sprayed with a solution of lime and water. The manure is first removed, and the systematic spraying with limewash appears to have excellent results in preventing the breeding of flies.

The cost of working each machine averages £4 per week; this cost is increased when, as in the case of the outer districts, it is necessary to provide a trap for conveying the machine.

SANITATION OF DRILL SHEDS AND CAMPS.

Following upon the outbreak of war, immediate steps were taken to ensure the closest co-operation between the civil and military sanitary services in the city, and no difficulties of any kind were encountered in securing joint action. On the 31st August, consultations between the War Office and the Local Government Board took place in this connection, and a circular letter was issued from the Local Government Board (dated August 31st), indicating directions in which co-operation could be exercised.

Amongst other things, the advice and co-operation of the Medical Officer of Health was sought in respect to the sanitation of several drill sheds and camps.

These premises, which met the sanitary needs of normal times, required immediate attention owing to the sudden accession of large numbers of recruits who were brought in for the purpose of training, and who in some cases were temporarily housed within the buildings.

In certain cases structural alterations were necessary, and in the following, additional sanitary conveniences were provided:—

Premises.	Corps.	Additional W.Cs.	Additional Wash Basins.	Additional Urinals.	Work done by
65, St. Anne Street ...	5th Bt. the King's Liverpool Regiment	3	6	5	Health Committee
73, Shaw Street	8th Bt. (Irish) Kings Liverpool Regiment	3	3	—	do.
Harper Street and Low Hill	1st Lincs. and Ches. Garrison Artillery 2nd West Lincs. Field Ambulance, R.A.M.C.	3	6	—	do.
Botanic Road and Edge Lane.....	4th West Lincs. R.F.A. (Howitzer) Brigade, T.F.	5 (Also	— new water	6 supply.)	do.
79, St. Anne Street ...	Headquarters, National Reserve	2	1	1	War Office Authority.
H.M.S. "Eagle," Salthouse Dock	Training Ship.....	4	—	6	Mersey Docks and Harbour Board.
19 and 20, Old Haymarket	Recruiting Station...	2	2	2	War Office Authority.

EXTERMINATION OF RATS.

A staff of rat-catchers is systematically employed in the destruction of rats.

All the rats caught are taken to Charters Street Corporation dépôt and drowned in petrol, those not sent for bacteriological examination are subsequently placed in the Destructor furnace.

The premises dealt with are mainly buildings of the warehouse class, and business premises in the City. Trapping has the advantage that it permits of the identification of species, the number of rats destroyed is known with certainty, and a bacteriological examination may be made if necessary.

Where traps and Virus have not been successful, tin trays containing a preparation resembling bird-lime have been successfully used.

The Mongoose is used by a few firms, but while in some instances they appear to be successful, in other cases they are said to have failed.

Rat catching in the public sewers by means of baited traps has been pursued for the past fifteen years with very satisfactory results, 67,109 rats having been caught up to December 31st, 1914, of which 5,514 were caught during the year 1914.

The number of rats caught within the City was 13,868 (including those caught in sewers). Of this total 3,430 rats were sent to the City Bacteriologist at the University for examination.

A large number of rats were also caught on ships, and about the docks and warehouses by the Officers of the Port Sanitary Authority.

Various companies, such as the Zeba Company, perform a very useful work in connection with the destruction of rats, and a large number of rats were destroyed by men employed by these firms during the year.

The removal of the foul deep ashpit from the rear of dwellings and the substitution of suitable covered galvanized bins, whilst providing a sanitary improvement, has also undoubtedly been a material factor in the removal of rats from proximity to dwellings.

The following Memorandum as to the Destruction of Rats has been widely circulated, and the information contained therein has been found helpful:—

The Health Committee invite the careful attention of Owners and Occupiers of Warehouses and other Premises to the following Memorandum, and their co-operation in the measures suggested for dealing with Rats.

INFECTION is liable to be carried by RATS and is to be prevented:—

- (1) By wholesale destruction of rats.
- (2) By their exclusion from dwellings, warehouses, and places of business generally, and by the destruction of their haunts and feeding places in the vicinity of dwellings.

Rats gain access to Buildings chiefly:—

- (1) By burrowing through the earth below the flooring;
- (2) Along the course of drainage and other pipes led through main walls in holes which are too large; and
- (3) By badly fitting doors, doors broken at the foot, and other openings on ground floors.

This is to be met:—

- (1) By cementing or asphaltting earthen basements where these are burrowed.
- (2) By packing loosely fitting holes through which drain or other pipes pass;
- (3) By refitting doorways, protecting the foot if necessary with sheet iron, and by wire-netting openings in basements which cannot otherwise be dealt with. Rat runs in buildings should be discovered and destroyed.

Rats are attracted to buildings in search of food.

Ashpits, collections of garbage, stable yards, &c., afford them food; lumber heaps or disused structures are suitable for nesting.

All household refuse should, as far as possible, be burned by the householder.

The Local Authority rely on the willing co-operation of landlords and householders in these directions, and tenants will forward the work of repression by informing the Sanitary Department of premises which are rat infested.

To Destroy Rats.—Trapping and poisoning are the means most readily available; hunting with dogs, ferrets, or mongoose is practicable in markets, stables, warehouses, &c., but the rat cannot be followed into its burrow. Good cats are serviceable in places where food-stuffs are stored in bulk.

Trapping.—A useful form of trap is a spring trap, baited with ham. Cage traps of various kinds are useful if not too large. They should be handled as little as possible, and with gloved hands to prevent the human scent clinging to the trap and alarming the rat.

Attention is specially called to the various preparations for the extermination of rats, such as the Liverpool Virus, Ratin, Danysz Virus, and others, all of which can be obtained through Chemists.

Although rats are carriers of disease it is possible that other animals may convey it, and it is therefore undesirable to keep animals unnecessarily as domestic pets.

The following memorandum has been circulated by the Port Sanitary Department:—

RATS AND PLAGUE.

Local Government Board (Plague) Regulations, September, 1907, and Order relating to Rats, November, 1910.

SPECIAL INSTRUCTIONS

To Shipmasters and other Officers (including Stewards), Dockmasters, Wharfingers, Warehouse-keepers, Rat-catchers, &c.

Rats are largely responsible for the conveyance of Plague, and it is most important that all persons employed on shipboard, or whose business is in connection with dock quays, sheds, or in warehouses, should co-operate with the Sanitary Authority, and attention is called to the following suggestions:—

1. Any unusual prevalence in the number of rats on vessels, both at sea and in dock, on dock quays, or in warehouses, should be noted and reported.

2. The presence of sick or dead rats is of great importance, and must be at once reported to the Medical Officer at the Offices of the Port Sanitary Authority (Telephone No. Central 5666).

Danger is attached to the handling of dead or sick rats, and any found will be at once carefully removed by the Inspectors of the Port Sanitary Authority on being informed.

3. Encourage the persistent catching and destruction of rats by means of traps, poisons, sulphur fumigation (in vessels), &c.

4. Render each building as far as possible rat-proof, by concrete floors, or the use of sheet iron and other means, and render their harbourage near dwellings or rooms impossible.

5. Prevent the egress of rats from ships in dock by efficient rat guards on ropes, and one gangway only in use when the ship is not working.

6. Do not allow accumulations of waste food or garbage from ships on quays, or any dunnage, ropes, empty cases, barrels, or rubbish to accumulate which might attract and harbour rats.

7. All rats caught on shipboard must be burned in ship's furnace, and those caught on quays or warehouses must be drowned in a disinfecting fluid, such as Carbolic Acid Solution, so as to destroy the rat fleas.

8. No rats (alive or dead) shall be removed from ships for sale or other purposes without the written permission of the Medical Officer.

The following table shows the number of rats caught and examined or destroyed in the City and Port during the fifty-two weeks ending 26th December, 1914:—

RATS CAUGHT.

CITY.

Number of Rats caught in warehouses, stores, etc.	...	...	...	3,423
" " " sewers	...	...	...	5,514
" " obtained from other sources	...	...	...	4,931
Total	...	...	...	13,868

PORT.

Number of Rats caught in ships	...	...	...	10,038
" " " on quays	...	...	...	948
Total	...	...	...	10,986

RATS SUBMITTED FOR BACTERIOLOGICAL EXAMINATION.

City	...	...	...	...	...	...	...	...	...	3,430
Port	...	...	...	...	...	...	...	...	...	6,069
Total									...	9,499

RATS DESTROYED.

City	...	...	...	...	...	...	...	...	...	10,438
Port	...	...	...	...	...	...	...	...	...	4,917
Total									...	15,355

TOTAL RATS DEALT WITH 24,854

CINEMATOGRAH HALLS.

These premises have been systematically inspected; 41 visits were made at night between the hours of 7 and 11 p.m., and 164 during the day.

With few exceptions all the premises are now provided with mechanical means of ventilation, but constant visitation is necessary to secure the means of ventilation being used, and a recent report of the City Analyst confirms this necessity.

The Medical Officer of Health was requested to undertake the following duties by the Licensing Justices:—

To ascertain that the means of lighting and ventilation shown on the plans are sufficient for the purpose for which it is proposed to use the building.

After the building is licensed, to cause an inspection to be made from time to time to see whether the existing means of ventilation are properly used, and that the provisions for the admission of fresh air and sunlight are fully availed of.

To cause samples of the atmosphere in the different halls to be taken from time to time, and to obtain analyses thereof.

To cause inspection to be made of the sanitary conveniences, drainage and water supply, general cleanliness of the premises, and seats for attendants.

Administration of the Factory and Workshop Act, 1901, in
connection with
FACTORIES, WORKSHOPS, WORKPLACES & HOMEWORK.

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

1.—Inspection of Factories, Workshops and Workplaces.

Including Inspections made by Sanitary Inspectors.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (Including Factory Laundries.)	799	193	—
Workshops (Including Workshop Laundries.)	16,119	1,780	—
Workplaces (Other than outworkers' premises included in Part 3 of this Report.)	1,552	194	—
Total /	18,470	2,167	—

2.—Defects Found in Factories, Workshops and Workplaces.

Particulars.	Number of Defects.			Number of Prosecutions.	
	Found.	Remedied	Referred to H.M. Inspector.		
<i>Nuisances under the Public Health Acts :—*</i>					
Want of cleanliness	716	716	1	—	
Want of ventilation	12	12	3	—	
Overcrowding	2	2	—	—	
Want of drainage of floors	—	—	—	—	
Other nuisances	1,475	1,475	—	—	
†Sanitary accommodation { insufficient	43	43	—	—	
	unsuitable or defective	158	158	—	—
	(not separate for sexes..	24	24	—	—
<i>Offences under the Factory and Workshop Act :—</i>					
Illegal occupation of underground bakehouse (S. 101)	3	3	—	—	
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)	3	3	—	—	
Other offences (Excluding offences relating to outwork which are included in Part 3 of this Report).	—	—	—	—	
Total	2,436	2,436	4	—	

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

† Section 22 of the Public Health Act Amendment Act, 1890, has been adopted by the City Council. The standard of sufficiency and suitability of sanitary accommodation for persons employed in Factories and Workshops is in accordance with the Sanitary Accommodation Order of 4th February, 1903.

3.—Home Work.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.													OUTWORK IN UNWHOLESALE PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
	Lists received from Employers.						Prosecutions.						Number of Inspections of Outworkers' premises.	(14)	(15)	(16)	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.												
	a Lists.			b Lists.			Failing to send Notices served on Occupiers as to keeping or sending Lists.												
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(17)	(18)	(19)				
(1)	a Lists.	Con-tractors.	Work-men.	Lists.	Con-tractors.	Work-men.	Numbers of Addresses of Outworkers received from other Councils.	Numbers of Addresses of Outworkers forwarded to other Councils.	Notices served on Occupiers as to keeping or sending Lists.	Failing to keep or permit inspection of Lists.	Failing to send Notices.								
Wearing Apparel	488	1,740	735	18	40	10	63	70	45	—	—	745	—	—	—	—	—	—	—
Linen	4	4	13	—	—	—	—	2	—	—	—	13	—	—	—	—	—	—	—
Furniture and Upholstery ..	2	12	4	—	—	—	—	2	1	—	—	4	—	—	—	—	—	—	—
Feather Sorting	2	1	11	—	—	—	—	4	1	—	—	11	—	—	—	—	—	—	—
Umbrellas, &c.	—	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paper Bags.....	2	3	11	—	—	—	—	1	—	—	—	11	—	—	—	—	—	—	—
Boxmaking	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Brass	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Electro-Plate	—	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Making stuffed toys	—	—	2	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—
Processes incidental to above	—	18	1	—	—	—	—	2	—	—	—	1	—	—	—	—	—	—	—
Total	498	1,799	777	18	42	10	63	81	47	—	—	787	—	—	—	—	—	—	—

* Several Employers give out work of more than one of the classes specified in column 1. The lists are included among those in column 2 against the principal class only, but the outworkers are assigned in columns 3 and 4 into their respective classes.

The figures in columns 2, 3 and 4 are the total number of lists (received from employers who sent them both in February and August as required by the Act) and of the entries of names of outworkers in those lists. They are, therefore, 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 is often repeated.

5.—Other Matters.

4.—Registered Workshops.

4.—Registered Workshops.		5.—Other Matters.	
Workshops on the Register (S. 131) at the end of the year.	Number.	Class.	Number.
Workshops	3,176	Matters notified to H.M. Inspector of Factories:— Failure to affix Abstract of the Factory and Workshop Act (S. 133)	77
Cooking Kitchens of Restaurants	384	Action taken in matters referred by (Notified by H.M. Inspector as remediable Inspector ... under the Public Health Acts, but Reports (of action not under the Factory and Work- taken) sent to shop Act (S. 5) H.M. Inspector	92
Bakehouses	872	Other	—
		Underground Bakehouses (S. 101)	—
		Certificates granted during the year	—
Total number on Register	4,432	In use at the end of year	144

FACTORY AND WORKSHOP ACT, 1901.

BAKEHOUSES.

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

Twenty-nine bakehouses were added to the Register during 1914, six are ground-floor bakehouses for bread bakers and confectioners, the remaining 23 are confectioners only.

During the year five plans were submitted for ground floor bakehouses, of which four were approved and one disapproved. 3,772 visits were paid to bakehouses and 84 visits were paid to premises to ascertain if they were bakehouses.

Number of Bakehouses on Register, 31st December, 1914	...	872
„ „ „ but not in use	... ..	122
„ „ added to Register during 1914	... ..	29
„ „ struck off Register during 1914	... ..	27
„ special visits to Bakehouses on complaints	... ..	52
„ ordinary visits to Bakehouses	... ..	2,664
„ re-inspections of incorrect premises	... ..	1,056
Total visits	... ..	<u>3,772</u>
„ occasions on which Bakehouses were found incorrect	...	949
„ Bakehouses requiring limewashing and cleansing	...	261
„ „ with deficient ventilation	... ..	4
„ „ with unsuitable, insufficient, or defective water-closet accommodation	... ..	3
„ „ with bedroom in direct communication with bakehouse	... ..	2
„ „ underground not in conformity with the Act	... ..	3
„ „ with drain in bakehouse	... ..	1
„ „ where other sanitary defects were found	...	227
„ Notices issued	... ..	387

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

UNDERGROUND BAKEHOUSES.

The number of underground bakehouses on the register at the end of the year was 187. Of this number 144 are in use, 43 are unoccupied, or have been structurally altered and occupied for other purposes. Since the passing of the Act in 1901, two hundred and thirty-nine underground bakehouses have ceased to be used for baking purposes.

FACTORIES.

Factories include all places in which mechanical power is used.

During the year the routine inspection of factories was continued, 799 visits being made. The duty devolving upon the Health Department in connection with Factories is the enforcement of the provision of suitable and sufficient sanitary conveniences, but at the request of H.M. Inspector of Factories, the drainage, &c., of those Factories visited has been examined.

WORKSHOPS.

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

There were 3,176 workshops on the register at the end of the year, the majority of which are bootmakers, cabinet makers and joiners, dress-makers and milliners, laundries, smiths, and tailors; there are also workshops in connection with the following trades:—

Bamboo Workers
Basket Makers
Blindmakers
Block Makers
Bottlers
Bottle Washers
Box Makers
Brush Makers
Canned Goods
Cap Makers
Carvers and Gilders

Chair Makers
Chemists' Sundries
Coach Builders
Confectioners
Coopers
Cork Cutters
Cotton Sorters
Cycle and Bassinette Makers
Dentists
Drysalters
Electricians

Engravers	Photographers
Firewood Manufacturers	Pickle and Sauce Manufacturers
Fish Curers	Picture Framers
Flag Makers	Pipe Mounters
French Polishers	Plumbers
Furriers	Relief Stampers
Galvanizers	Sack and Bag Makers
Glass Blowers	Saddlers
Ham Curers	Sail and Tarpaulin Makers
Hatters	Sign Writers
Image Makers	Trunk and Portmanteau Makers
Knitters	Umbrella Makers
Marble Masons	Underclothing Makers
Marine Stores	Upholsterers
Mattress and Bed Makers	Watchmakers and Jewellers
Metal Polish Makers	Wheelwrights
Musical Instrument Makers	Wig Makers
Opticians	Wire Workers
Paint and Varnish Manufacturers	etc., etc., etc.
Paper Cutters	

Every workshop and workplace is visited at least once each year.

The Workshop Inspectors made 12,347 inspections of workshops, of which 176 were in consequence of complaints, 9,848 were ordinary inspections, and 2,323 re-inspections of nuisances found. On 2,447 occasions the premises were found to be incorrect. The number of inspections in 1913 was 10,039. (The bakehouse workshops visited by the Bakehouse Inspector are not included in the foregoing figures.) In addition, 125 visits were made to premises to ascertain if they were workshops, and measurements were taken of 21 workrooms.

There are approximately 300 basement workshops, but all of them comply with the essential requirements in respect to light and ventilation, and are, in the main, situated in the centre of the City.

Six hundred and sixty-eight new workshops have been added to the Register, and 904 taken off the Register.

WORKPLACES.

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

1,552 visits were paid during the year to the kitchens of restaurants by the Workshop Inspectors, of which 44 were in consequence of complaints, 1,156 were ordinary visits, and 352 re-inspections of nuisances found. On 411 occasions the premises were incorrect. The number of visits in 1913 was 971. Attention is being particularly paid to the nuisances 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. Forty-one new kitchens have been added to, and 39 taken off, the Register.

The nuisances found were in every instance remedied on notices being served, and it was not necessary to take further proceedings.

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

HOME WORK.

In accordance with Section 107 of the Factory and Workshop Act, 516 lists of outworkers were received (257 in February, and 259 in August) giving the names and addresses of 2,628 employees. The number of lists received in 1913 was 534, containing the names of 2,737 employees.

On examination of the lists they were found to contain the addresses of a large number of Workshops or Domestic Workshops already on the Register. The other addresses, excepting those situated outside the City, were visited by the District Sanitary Staff,

and in several instances the premises were found to be new workshops or Domestic Workshops, *i.e.*, where the work done constituted the sole or principal means of living of the family. These were placed on the Workshop Register, to be visited periodically by the Workshop Inspectors. The home work in 787 cases was found to be an additional source of income only. (388 in February and 399 in August.)

FURNITURE REMOVERS' VANS.

	<u>1913.</u>	<u>1914.</u>
Number of Visits	140	127
„ Vans examined	92	83
„ found incorrect	2	—

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

SHOPS ACT, 1912

This Act, which consolidates the previous enactments, came into operation on May 1st, 1912, and ensures that every shop assistant shall have a weekly half-holiday, regulates their meal-times, fixes the maximum number of hours to be worked by persons under the age of 18 employed in or about a shop, and also requires the provision of seats for female shop assistants.

With certain exceptions, every shop is to be closed for the serving of customers not later than one o'clock in the afternoon on one week-day in every week. The Act also enables the Local Authority to make an order fixing the day on which the shop is to be closed, or they may, by Order, exempt any particular class of shops in any area from the provisions of the Act in respect to closing.

In addition to the six Half-Holiday Orders made in 1912 and 1913 four new Orders were made last year, as a result of petitions from traders exempted under the Liverpool (Central Area) Exemption Order. The trades originally exempted in the Central Area and now coming under Half-Holiday Orders made during 1914, are:—

Booksellers, Bookbinders and Librarians.
 Clothing (men's and boys' ready-made).
 Athletic and Sports Goods, Games and Fishing Tackle.
 Jewellers, Silversmiths, Jewellers' Materials, Tools, etc.
 Costumiers, Mantles.
 Blouses.
 Corsets.
 Drapery (Fancy and Heavy) Berlin Wool, Dresses, Dress Materials and Mantle Trimmings.
 Furriers and Feathers.

SHOPS ACT, 1913.

This Act, which came into operation on the 7th March, 1913, applies to premises used for the sale of Refreshments, and its adoption as an alternative to the 1912 Act is optional.

The Act requires that an assistant shall not be employed for more than 65 hours in any week exclusive of meal times, that every assistant shall have 32 whole holidays or 64 half-holidays on a week-day in every year (including a holiday on full pay of not less than 6 consecutive days), and 26 whole holidays on Sundays in every year; the meal times are also regulated.

This Act also brings within its scope any person wholly or mainly employed in any capacity at the premises in connection with the business.

SHOPS ACT, 1912 AND 1913.

Day Visits.						1913.	1914.
Number of Shops visited	...	...	...	...	...	14,201	16,167
„ Shops employing young persons	...	...	...	...	...	2,547	3,823
„ Young persons employed	...	...	...	...	...	3,438	6,186
„ Shops employing assistants	...	...	...	...	...	4,584	6,057
„ Male assistants employed	...	...	...	...	} Including any under 18 years of age. {	6,640	10,522
„ Female „ „	...	...	...	...		3,400	9,237

Contraventions.

Number of Young persons' hours incorrect	...	...	28	34
„ No extract of Act exhibited	...	...	993	1,076
„ Seats incorrect	...	...	15	37
„ Notices <i>re</i> assistants' half-holiday incorrect	...	...	1,246	1,413
„ Assistants' half-holiday incorrect	...	...	284	95
„ Meal times incorrect	...	...	23	40
„ Notices <i>re</i> closing incorrect	...	...	902	273
Total	...	...	3,491	2,968

Re-visits.

„ Shops re-visited (day)	...	...	9,117	8,450
„ Shops re-visited (after 6 p.m.)	...	...	11,106	9,503

Contraventions.

„ Young persons' hours incorrect	...	...	29	15
„ No extract of Act exhibited	...	...	424	508
„ Seats incorrect	...	...	2	10
„ Notices <i>re</i> assistants' half-holiday incorrect	...	...	1,141	753
„ Assistants' half-holiday incorrect	...	...	279	65
„ Meal times incorrect	...	...	67	8
„ Closing incorrect	...	...	36	9
„ Notices <i>re</i> closing incorrect	...	...	206	57
Total	...	...	2,184	1,425

Special Visits *re* Closing Orders.

„ Shops visited	...	...	71,589	94,747
-----------------	-----	-----	--------	--------

Contraventions.

„ Shops not closed	...	...	753	420
„ Notices incorrect	...	...	1,861	1,103
Total	...	...	2,614	1,523

Hawkers.

„ Persons found hawking on weekly half-holiday	...	...	71	76
„ Found correct	...	...	50	23
„ Found incorrect	...	...	21	53

INFORMATIONS LAID UNDER THE SHOPS ACT, 1912.

	1913.	1914
Number of Informations:—		
Not giving Assistants Half-Holiday	19	—
Not exhibiting notice <i>re</i> Assistants' Half-Holiday...	44	19
Not specifying day of Assistants' Half-Holiday ...	—	11
Not exhibiting notice <i>re</i> hours of young persons ...	5	—
Trading elsewhere than in shops on Weekly Half-Holiday	5	6
Not covering up non-exempted goods when shop was open for sale of exempted goods on either Wednesday or Saturday	1	—
Under Half-Holiday Order No. 1 for not closing either Wednesday or Saturday	36	17
Under Half-Holiday Order No. 2 for not closing either Wednesday or Saturday	14	5
Under Half-Holiday Order No. 3 for not closing either Wednesday or Saturday	1	—
Under Half-Holiday Order No. 9 for not closing either Wednesday or Saturday	—	1
Number fined	121	44
Number acquitted or withdrawn	4	15
Fines and costs... ..	£142 14 9	£33 9 0

Written cautions were sent in 121 cases. In all other cases where informations were not laid verbal cautions were given by the Inspectors.

THE AMBULANCE AND DISINFECTING STAFF.

The following table shows the number of patients removed to Hospitals during 1914, by Officers of the Ambulance Staff, and the Hospitals to which they were taken:—

City Hospital, Fazakerley.	Fazakerley Annexe.	City Hospital North, Netherfield Road.	City Hospital South, Grafton Street.	City Hospital East, Mill Lane.	City Hospital, Park Hill.	Brownlow Hill Hospital.	Chest Hospital, Mount Pleasant.	David Lewis Northern Hospital.	Mill Road Infirmary.	Royal Infirmary.	Southern Hospital.	Walton Workhouse.	Total.
941	1080	1226	754	1169	104	8	12	52	2	2	3	3	5356

Details of the methods employed have been given in previous Annual Reports, in which also the general procedure in disinfection has been explained.

In 1910 and again in 1914, the Health Committee provided a 20 horse-power Motor Ambulance for the removal to hospital of patients suffering from infectious disease.

Since the introduction of these two motor ambulances, patients have been removed much more speedily and comfortably to the City Hospitals than would have been the case had they been removed by horse ambulances.

These ambulances are in use both by day and night and are doing the work of not less than eight horses, and they have given such satisfaction that an additional motor ambulance of a similar type has been ordered.

INFECTED PREMISES STRIPPED AND DISINFECTED BY
STRIPPING STAFF.

	<u>1913.</u>	<u>1914.</u>
Number of Infected Houses dealt with	8,642	10,678
„ Rooms Stripped or sprayed with solution of Perchloride of Mercury or Formalin ...	23,151	28,782
„ Rooms Disinfected with sulphurous gas ...	8,029	9,482
„ Notes to Owners after stripping and cleansing	2,021	2,518
„ Visits by Superintendent of Staff	1,965	1,968
„ Enquiries respecting disinfection	8,684	10,585

LIBRARY BOOKS FOUND IN INFECTED HOUSES.

	<u>1913.</u>	<u>1914.</u>
Number of Library Books disinfected	1,501	2,238
„ „ „ destroyed	9	—

Compensation was paid for all Books destroyed.

For a number of years it has been the practice to inquire for library books at every house where infectious disease is reported, and to remove from the house any books found. The inquiry also determines whether or not the books have been used by the patient, or have been in the sick room, and incidentally the character of the house and of the occupants is reported upon, and further information for other purposes ascertained.

The manner in which the books are dealt with is explained in the Report for 1909.

DISINFECTION OF BEDDING CLOTHING &c.

Two Disinfecting Stations have been established in the City for a number of years, each well equipped to deal with large quantities of material. The North End of the City is served by the Charters Street Station and the South End by the Smithdown Road Station. The Depot in New Bird Street is now disused. When necessary the disinfecting apparatus attached to each of the City Hospitals can be utilised.

Statistics relating to the quantities of bedding, clothing, &c., disinfected during last year, also the number of articles destroyed, are as follows:—

DATE. 1914.	Number of Beds.	Number of Mattresses.	Number of Pieces of Bedding.	No. of Pieces of Wearing Apparel.	Total Number of Articles.
January	595	41	2,956	2,115	5,707
February	493	45	2,727	1,562	4,827
March	479	68	2,566	1,872	4,985
April	462	74	2,449	1,340	4,325
May	627	90	3,389	1,753	5,859
June	520	46	2,720	1,766	5,052
July	465	44	2,396	871	3,776
August	555	41	3,616	1,460	5,675
September	427	37	4,112	1,555	6,131
October	702	46	5,249	1,442	7,439
November	565	44	5,410	1,612	7,631
December	502	61	3,798	2,063	6,424
Totals	6,392	640	41,388	19,411	67,831

The number of articles destroyed at the various apparatus during the year amounted to 956, compensation being paid in conformity with the provisions of the Public Health Act. Details are as follows:—

DATE. 1914.	Number of Beds.	Number of Mattresses.	Number of Pieces of Bedding.	No. of Pieces of Wearing Apparel.	Total Number of Articles.
January	18	20	62	—	100
February	9	26	30	—	65
March	14	30	44	—	88
April	16	32	54	7	109
May	12	48	42	—	102
June	17	26	32	—	75
July	8	8	26	—	42
August	8	8	24	2	42
September	12	14	45	—	71
October	20	11	72	—	103
November	14	18	73	—	105
December	6	14	34	—	54
Totals	154	255	538	9	956

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, or found dead, 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 practitioner 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.
11	268	279

FORD STREET MORTUARY AND DISTRICT MORTUARIES.

BODIES REMOVED TO MORTUARIES.						
Green Lane.	Lark Lane.	Wavertree.	Ford Street.	Park Hill.	Smithdown Road.	TOTAL.
—	2	—	257	—	—	259

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 112, Whitefield Road.

The District Mortuaries are, it will be seen, 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.

The Health Committee have authorised 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 plan is expeditious, inasmuch as only short distances have to be travelled by the hearse to the place where the body is lying; it is working well.

CREMATORIUM.

The Crematorium in Anfield Cemetery is available 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.

When the Corporation became the Burial Authority for the City, the suggestion which had been previously made of transferring the Crematorium to the control of the Burials Committee was carried out. Subsequently, in October, 1908, the administration was taken over by the Crematorium Sub-Committee.

Since 1896, when the Crematorium was opened, until the end of 1914, 718 cremations have taken place. The following table gives the number for each year.

1896.....	2	1906.....	46
1897.....	10	1907.....	34
1898.....	27	1908.....	32
1899.....	23	1909.....	46
1900.....	40	1910.....	37
1901.....	40	1911.....	50
1902.....	54	1912.....	52
1903.....	35	1913.....	66
1904.....	40	1914.....	49
1905.....	35		
			718

The charge for a Cremation is £5 5s., and arrangements can be made for the retention of the ashes in a suitable receptacle in the Columbarium attached to the building, or they can be disposed of by burial or in other ways to meet the wishes of those concerned.

The Crematorium buildings are open to the Public from 9.30 a.m. to 4 p.m. on Week-days, and from 2 p.m. to 5 p.m. on Sundays. All information, with the necessary forms, may be obtained from the Manager at the Crematorium, by letter or telephone (Telephone No. 267, Anfield), and at the Public Health Department, Municipal Buildings.

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

The duties of the Inspectors under the Diseases of Animals Acts, 1894 to 1903 have been explained in the Report for 1909.

The accompanying table gives the result of the visits made under the Acts or under the Orders of the Board of Agriculture:—

	<u>1913.</u>	<u>1914.</u>
Number of Visits and revisits to Railway Stations, including inspections made on Sundays ...	2,842	2,858
„ Inspections and reinspections of Pens ...	93,538	89,794
„ found clean	75,906	79,140
„ „ dirty and cleansed before being used...	17,632	10,654
„ Inspections and reinspections of Trucks ...	37,242	32,596
„ found clean	30,442	25,100
„ found dirty and cleansed before being used...	6,241	7,049
„ „ leaving the City before being cleansed,	559	447
„ Inspections and reinspections of Horse Boxes	1,714	1,715
„ found clean	1,423	1,383
„ „ dirty and cleansed before being used	272	319
„ „ „ not „ „ „ „	19	13
„ Inspections and reinspections of Vessels ...	5,672	4,684
„ found clean	3,266	3,167
„ „ dirty and cleansed before being used	2,288	1,486
„ „ going to Sea before being cleansed, without cattle or cargo ...	118	31
„ Inspections and reinspections of Gangways...	5,921	*528
„ found clean	3,298	377
„ „ dirty and cleansed before being used...	2,623	151
„ Inspections and reinspections of Lairages and Sale Yards	5,458	5,542
„ found clean	4,591	5,001
„ „ dirty and cleansed before being used...	867	541
„ Inspections of Manure Yards and Wharves..	718	1,813

* The reduction in the number of inspections of gangways is consequent upon the stoppage of the landing of Cattle in Liverpool.

<u>INSPECTION OF SLAUGHTER-HOUSES, &c.</u>							<u>1913.</u>	<u>1914.</u>
Number of Visits to Slaughter-houses made by Meat								
Inspectors	...	...	...	...	...	...	5,775	6,722
Number of Visits to Butchers' Shops made by Meat								
Inspectors	...	...	...	...	...	...	89,191	76,423
Number of Visits to Fish and Fruit Shops made by								
Fish Inspectors	...	...	...	...	...	...	49,181	48,004
Number of Visits to Fruit Shops made by Fruit								
Inspectors	...	...	...	...	...	...	20,929	23,115

SPECIAL VISITS BY MEAT, FISH AND FRUIT INSPECTORS.

						<u>1913.</u>	<u>1914.</u>
Number of Visits to Food Hawkers' premises ...						1,941	2,351
"	"	Jam Factories	...	...	...	4	4
"	"	Pickle Factories	...	...	...	7	33
"	"	Knackers' Yards	...	...	...	98	106
Total ...						<u>2,050</u>	<u>2,494</u>

INSPECTION OF MEAT, FISH, FRUIT AND GENERAL FOOD STUFFS.

The methods adopted have been explained in the Report for 1909.

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

The number of fat cattle from local dairies slaughtered in the City during 1914 was 3,158, as compared with 2,424 in 1913.

The number of cattle slaughtered in the City has increased during the year, and there is a corresponding decrease in the number imported.

There is a decrease in the number of sheep slaughtered, and in the number imported, as compared with the year 1913.

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

PLACE.	Beasts.	Sheep.	Lambs.	Calves.	Pigs.	Dead Meat Imported for		
						Beasts.	Sheep and Lambs	Calves.
Abattoir.	13353	*159776	...	20833	21294	20691	49135	1 10
Gill Street Market.	...	...	...	...	...	31274	403634	578
60a, Allerton Road, Woolton	25	4	...	4	107	...	...	...
66, Allerton Road, Woolton ..	35	183	...	6	34	1	35	...
Back Castle Street	300	172	1	4	...	2	...	...
Copperas Hill.....	...	...	...	...	12169	...	...	...
Corlett Street.....	368	4393	1645	16	88	...	...	...
Carried forward	728	4752	1646	30	12398	3	35	...

* This figure includes Lambs.

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

PLACE.	Beasts.	Sheep.	Lambs.	Calves.	Pigs.	Dead Meat Imported for Sale.			
						Beasts.	Sheep and Lambs	Calves.	Pigs.
Brought forward	728	4752	1646	30	12398	3	35	...	3368
Derby Lane, Old Swan.....	...	426	234	7	...	...	...	...	...
Edgeware Street	...	9	...	...	...	...	...	...	...
Wiley Street	...	...	...	...	...	...	...	...	...
105, High Street, Wavertree.	...	2	90	1	20	...	...	...	3
Norman Street	...	...	...	...	1061	...	...	...	66
Peel Street	...	...	...	...	...	...	...	...	...
Prescot Road, Knotty Ash ...	5	451	193	4	10	...	...	...	...
Handown Lane, Wavertree ...	...	29	95	1	1	...	...	...	...
Midwell Street, Garston	64	33	8	...	142	1	...	...	7
Boho Street.....	...	...	...	...	1113	...	...	...	44
St. Mary's Road, Garston ...	2	...	...	...	3	...	...	...	...
Upper Frederick Street	1	...	...	...	362	...	...	...	...
Upper Milk Street.....	...	...	...	...	2579	...	...	...	586
West Derby Road, Tue Brook	...	440	11	...	78	...	...	...	...
Woolton Street, Woolton ...	44	193	...	4	79	3	32	...	2
Total in Private Slaughter-houses	844	6335	2277	47	17846	7	67	...	4076
Total in the City	14197	166111	...	20880	39140	51972	452836	579	16488

PRECEDING YEAR.

Total in Private Slaughter-houses	907	8259	1734	34	21865	...	...	...	...
Total in the City	10069	178900	...	19690	43961	56714	474521	679	758

	1913.	1914.
Number of boxes and bags of various organs or cut-up pieces imported for sale ... Abattoir ...	3,329	7,892
Number of boxes and bags of various organs or cut-up pieces imported for sale ... Gill Street Market	19,007	36,537
Total ...	22,336	44,429

CENTRAL SLAUGHTER-HOUSES.

The position in regard to the slaughtering of animals throughout the City is practically the same as at the close of last year.

In the interests of public health, the Health Committee have during the last 10 or 15 years declined to renew or transfer licenses for private slaughter-houses, and a gradual decline in the number of the eminently unsuitable places has, therefore, taken place. The central abattoir and the associated offensive trades remain in the condition which has been so frequently commented upon. Every effort is made to palliate the nuisances inseparable from the conduct of businesses of this kind in situations which are cramped, confined, and unsuitable, but these efforts result in very little real good, as the nature of the operations must necessarily cause nuisance, when the premises are situated as these are. The subject has been fully dealt with in previous reports.

PRIVATE SLAUGHTER-HOUSES WHICH HAVE CEASED TO BE USED.

PREMISES.	DATE.	REASON.	REMARKS.
180, Scotland Road (in "Wheat Sheaf" yard)	27th March, 1890	Licence refused. Situation unsuit- able; too near dwelling-houses.	
Byles Street	8th Nov., 1892	" "	
Benledi Street	June, 1894	" "	
Hodson Street	28th March, 1895	" "	
Lydia Ann Street ...	28th May, 1896	" "	
Embledon Street	12th Nov., 1896	" "	
1, Back Commutation Row	August, 1897	Lease expired. Licence surrendered.	
Gelling Street	24th Nov., 1897	" "	
Salisbury Road, Walton	May, 1898	Licence refused. Situation unsuit- able; too near dwelling-houses.	
Town Row, West Derby	28th July, 1900	(Registered) Premises vacated.	Now used as a Laundry.
West Derby Village ...	10th Oct., 1900	Licence surrendered.	
Norfolk Street	13th May, 1902	Licence refused. Situation unsuit- able; too near dwelling-houses.	
Finch Place	5th July, 1902	Licence surrendered.	
Darnley Street	25th Feb., 1903	" "	
Bolton Street	12th June, 1903	" "	
Crown Street	31st Jan., 1905	" "	
Cotter Street	1st April, 1905	(Registered) Premises sold to St. James' Church Mission.	Now used as Ironworker's store.
2, Back Commutation Row	30th June, 1906	Lease expired. Licence surrendered.	Now used as a Motor Garage
101, High Street, Wavertree	31st Dec., 1907	(Registered) Bought by Corporation.	Not used.
Byrom Street.....	12th Sept., 1908	Lease expired. Licence surrendered.	
Bevington Hill	30th April, 1909	Licence surrendered.	Premises sold to W. Moore, Wheelwright.
Back Mount Vernon Green	31st Jan., 1912	Licence surrendered.	Premises now used as a Marine Stores.
Allerton Road	1st July, 1912	" "	Premises now used for storing Agricultural Implements.
Brecon Street.....	26th Oct., 1912	" "	Premises demolished.
73, St. Mary's Road...	30th Nov., 1913	Premises given up.	

MEAT AND OFFAL FOUND TO BE UNFIT FOR HUMAN FOOD.

UNWHOLESOME MEAT.

Cause of seizure or surrender.	Beef.	Mutton and Lamb.	Veal.	Pork.	Goats.	Total.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Tuberculosis	69,227	—	998	9,517	—	79,742
Abscesses	100	52	—	386	—	538
Actinomycosis ...	—	—	—	3	—	3
Arthritis	3,425	—	108	66	—	3,599
Damaged	8,937	2,630	406	1,539	—	13,572
Dropsy	6,382	1,264	392	30	—	8,068
Emaciation	11,534	4,962	3,158	430	66	20,150
Immaturity	—	—	3,325	12	—	3,337
Inflammation ...	10,906	86	1,511	1,390	—	13,893
Jaundice	615	—	655	286	—	1,556
Pneumonia	—	130	—	—	—	130
Putrefaction	31,092	4,935	546	8,666	—	45,239
Suffocation	1,414	2,779	1,061	2,087	—	7,341
Septicæmia	604	—	—	—	—	604
Swine Fever	—	—	—	80	—	80
Total	144,236	16,838	12,220	24,492	66	197,852

UNWHOLESOME OFFAL.

Cause of seizure or surrender.	Beef.	Mutton and Lamb.	Veal.	Pork.	Goats.	Total.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Tuberculosis	10,708	—	6	71	—	10,785
Inflammation and Congestion	15,835	274	55	977	—	17,141
Putrefaction	51,665	6,511	290	29,141	—	87,607
Distomatosis	37,531	2,651	—	50	—	40,232
Hydatid	8,709	26	2	101	—	8,818
Anæmic	2,698	644	18	25	—	3,385
Emphysema	662	4	—	—	—	666
Cirrhosis	10,796	—	3	573	—	11,372
Necrosis	132	—	—	12	—	144
Abscesses	4,559	17	24	1	—	4,601
Cysts	11,283	62	—	243	—	11,588
Actinomycosis ...	322	—	—	53	—	375
Damaged	26	—	—	—	—	26
Total	154,926	10,199	398	31,247	—	196,770

Refuse consisting of Pigs' intestines, &c., 30,952 lbs.

CARCASES OF DISEASED OR INJURED ANIMALS SURRENDERED
OR SEIZED.

The following table shows the number of carcasses surrendered to, or seized by, the Medical Officer of Health and Inspectors:—

					<u>1913.</u>	<u>1914.</u>
Cattle	...	...	...	...	212	203
Sheep and Lambs	...	...	...	...	412	379
Calves	...	...	...	...	236	250
Pigs	...	...	...	...	108	121
Goats	...	...	...	...	12	2
Totals	...	...	...	...	<u>980</u>	<u>955</u>

The following table shows the result of the examination of above carcasses of diseased or injured animals:—

	Beasts.	Sheep.	Calves.	Pigs.	Goats.	Total.
Swine Fever ...	...	...	...	5	...	5
Arthritis ...	7	...	2	3	...	12
Damaged ...	...	53	5	1	...	59
Dropsy ...	14	32	3	...	...	49
Emaciation ...	33	166	82	26	2	309
Immaturity ...	...	...	89	3	...	92
Inflammation ...	21	...	25	11	...	57
Jaundice ...	1	...	14	2	...	17
Pneumonia ...	...	1	...	...	...	1
Putrefaction ...	2	66	4	11	...	83
Suffocation ...	2	61	18	16	...	97
Tuberculosis ...	122	...	8	43	...	173
Septicæmia ...	1	...	...	...	...	1
Total ...	203	379	250	121	2	955

	<u>1913.</u>	<u>1914.</u>
Number of carcasses condemned by Justices under Section 117 of the Public Health Act, 1875 ...	—	—
Number of carcasses dealt with under a Local Act which does not require a Justices' Order ...	980	955

The following table shows the district *via* which the Tuberculous carcasses came :—

Where from.	Cattle.	Calves.	Pigs.	Total.
Bootle	7	—	—	7
Bromborough.....	1	—	—	1
Chester	—	—	1	1
Crosby.....	1	1	1	3
Ellesmere	—	—	3	3
Formby	3	—	—	3
Halewood	1	—	—	1
Ireland	33	—	5	38
Isle of Man	2	—	1	3
Litherland	1	—	—	1
Llangollen	1	—	—	1
Manchester.....	—	—	1	1
Market Drayton	—	—	1	1
Neston.....	1	—	—	1
Ormskirk	—	—	1	1
Prescot	1	—	2	3
Preston	1	7	6	14
Queen's Ferry	—	—	1	1
Seaforth	1	—	—	1
Speke	1	—	—	1
Sutton Weaver	—	—	1	1
Upton	2	—	—	2
Wales	—	—	1	1
Whitchurch	—	—	2	2
Whiston	—	—	1	1
Wiltshire.....	—	—	1	1
Wrexham	—	—	1	1
Local Cowsheds and Piggeries	65	—	13	78
Totals	122	8	43	173

The number of carcasses condemned in 1913 in consequence of the animal having suffered from Tuberculosis was as follows:—

Cattle	...	...	...	...	...	128
Calves	...	...	...	...	...	10
Pigs	...	...	...	...	...	32
Total						170

FISH, POULTRY, &c., FOUND TO BE UNFIT FOR HUMAN

FOOD.

						<u>1913.</u>	<u>1914.</u>
						lbs.	lbs.
Fish:—							
Wet Fish	...	...	...	...	...	100,811	182,763
Dried Fish	...	...	...	...	...	7,746	16,970
Crabs	...	...	...	...	...	1,352	2,930
Lobsters	...	...	...	...	...	2,150	2,582
Prawns	...	...	...	...	...	738	1,166
Crayfish	...	...	...	...	...	644	580
Total	...	...	...	...	...	113,441	206,991

						Head.	Head.
Poultry:—							
Fowls	...	...	...	...	...	696	1,121
Ducks	...	...	...	...	...	379	344
Geese	...	...	...	...	...	62	250
Turkeys	...	...	...	...	...	18	70
Other Birds	...	...	...	...	...	—	485
Total	...	...	...	...	...	1,155	2,270

						<u>1913.</u>	<u>1914.</u>
Game :—						Head	Head
Pheasants	...	...	...	...	...	10	129
Partridges	...	...	...	...	...	31	251
Grouse	...	...	...	...	...	17	86
Other Game	...	...	...	...	...	—	56
Total						58	522

Rabbits	...	...	...	...	...	10,171	8,571
Hares	...	...	...	...	...	44	9
Total						10,215	8,580

Shellfish :—						Bags	Bags
Cockles	...	...	...	...	...	43	45
Mussels	...	...	...	...	...	153	160
Winkles	...	...	...	...	...	10	36
Total						206	241

Various :—							
Eggs	...	...	...	...	...	588	—
Wild Birds	...	...	...	...	...	245	196
Tinned Fish	...	...	...	...	...	tins, 34	tins, 60
Oysters	...	...	...	...	...	11,850	13,330
Venison	...	...	...	...	...	lbs., 432	lbs., 257
Pigeons	...	...	...	...	...	725	—
Condensed Milk (tins)	...	...	...	...	...	lbs., 150	lbs., 406
Escallops	...	...	...	...	...	—	lbs., 400

VEGETABLES.

					1913.	1914.
					lbs.	lbs.
Artichokes	...	...	...	...	1,560	—
Beans	...	...	...	...	2,720	7,318
Carrots	...	...	...	...	58,007	20,806
Cabbage	...	...	...	...	—	362
Cauliflowers	...	...	...	...	—	560
Cucumbers	...	...	...	...	—	440
Gherkins	...	...	...	...	560	—
Lettuce	...	...	...	...	2,792	942
Mushrooms	...	...	...	...	266	64
Onions	...	...	...	...	38,409	12,108
Parsley	...	...	...	...	80	—
Parsnips	...	...	...	...	18,420	2,966
Peas	...	...	...	...	280	500
Potatoes	...	...	...	...	4,812	4,824
Sage	...	...	...	...	540	—
Shallots	...	...	...	...	50	—
Spinach	...	...	...	...	280	20
Sprouts	...	...	...	...	1,622	—
Turnips	...	...	...	...	3,360	4,818
Watercress	...	...	...	...	600	876
Total	...	...	...	...	134,358	56,604

MEAT, FISH AND FRUIT, &c., FOUND TO BE UNFIT FOR HUMAN FOOD

The following table summarises the amount of unsound food which was either seized or surrendered during the year, and which was destroyed:—

	MEAT.				OFFAL.				TOTAL.			
	Tons	cwts.	qrs.	lbs.	Tons	cwts.	qrs.	lbs.	Tons	cwts.	qrs.	lbs.
Beef	64	7	3	8	69	3	1	2	133	11	0	10
Mutton and Lamb	7	10	1	10	4	11	0	7	12	1	1	17
Veal	5	9	0	12	—	3	2	6	5	12	2	18
Pork	10	18	2	20	13	18	3	27	24	17	2	19
Venison	—	2	1	5	—	—	—	—	—	2	1	5
Goats	—	—	2	10	—	—	—	—	—	—	2	10
Total	88	8	3	9	87	16	3	14	176	5	2	23

PREVIOUS YEAR 1913.

Total..... 81 12 0 1 | 50 17 2 24 | 132 9 2 25

Fish, Fruit, etc.—	1913.				1914.			
	Tons.	cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.
Fish	50	12	3	13	92	8	0	15
Fresh Fruit	73	18	2	25	193	7	1	13
Dried Fruit	—	2	0	0	2	0	3	21
Vegetables	59	19	2	14	25	5	1	16
Tinned Fruit	712 lbs.				90 lbs.			
Tinned Fish	34 „				60 „			
Condensed Milk (tins)	150 „				406 „			
Poultry	1,155 head.				2,270 head.			
Game	58 „				522 „			
Wild Birds	245 „				196 „			
Pigeons	725 „				— „			
Rabbits and Hares	10,215 „				8,580 „			
Mussels, Winkles and Cockles	206 bags.				241 bags.			
Oysters	11,850				13,330			
Eggs	588				—			
Escallops	—				400 lbs.			

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

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

The quantity of fish condemned includes both fresh fish and salt fish which had become tainted during transit or storage.

	1913.	1914.
Number of informations in respect of diseased meat	3	3
Number of informations in respect of unsound fruit	4	1
Total number of informations	7	4
Number Fined	6	3
„ Withdrawn or Dismissed...	1	1
Amount of Fines and Costs...	£17 2 0	£13 5 0

RETURN OF THE NUMBERS OF CATTLE, SHEEP AND SWINE
EXPORTED FROM IRELAND TO LIVERPOOL DURING
THE YEAR 1914, SHOWING THE PORTS IN IRELAND AT
WHICH THE ANIMALS WERE SHIPPED.

	Cattle.	Sheep.	Swine.
Ballina	285	12,637	1,737
Belfast	8,706	1,676	—
Cork	32,946	12,931	5,265
Drogheda	33,015	35,040	1,908
Dublin	137,653	160,023	17,250
Dundalk	51,400	63,144	20,451
Londonderry	9,412	8,879	210
Newry	8,919	15,049	1,489
Sligo	233	7,204	10,010
Waterford	49,340	24,829	5,837
Westport	706	16,142	1,163
Total	332,615	357,554	65,320

RETURN SHOWING THE TOTAL NUMBERS OF THE SEVERAL
KINDS OF CATTLE, SHEEP AND SWINE EXPORTED FROM
IRELAND TO LIVERPOOL, DURING THE YEAR 1914.

CATTLE.	No.	SHEEP.	No.
Fat	262,005	Fat	155,596
Stores (for fattening)	55,449	Stores	1,459
Milch Cows	6,953	Lambs	200,499
Springers	2,326		
Other Cattle	286	Total Sheep	357,554
Calves	5,596		
Total Cattle	332,615	SWINE.	
		Fat	64,855
		Stores	465
		Total Swine	65,320

THE GLANDERS AND FARCY ORDER OF 1907.

The provisions of the Diseases of Animals Acts and the Glanders and Farcy Order of 1907 have been circulated amongst the horse owners of the City. Accompanying these regulations were notices indicating the means of combating the disease, and the necessary precautions to be taken.

During the year several Russian ponies which had been in contact with animals suffering from Glanders were traced to Liverpool. They were detained and tested with Mallein by the Veterinary Department, and found to be free from the disease.

The following table indicates the number of affected animals during the last six years. It will be noticed that in 1914 the City was again entirely free from the disease.

Year.					No. of cases.
1909	...	...	...	...	1
1910	...	...	...	...	—
1911	...	...	...	...	—
1912	...	...	...	...	—
1913	...	...	...	...	—
1914	...	...	...	...	—

Immediate notification of suspected cases of Glanders is received either from the owner, police, or the veterinary surgeon who may be called in to the case. As a further safeguard, the Veterinary Department examine the lungs of all equines sent to the horse slaughterer's yard (there is only one in the City), and it is by these inspections that unreported cases can be discovered.

This precaution is also taken to ensure owners being notified of the existence of the disease which may be in a latent state, and to detect unscrupulous persons who may not conform to the requirements of the Order.

The following table gives the number examined during the last three years—

Year	Lungs Examined.	Affected.	Not Affected.
1912	1,946	—	1,946
1913	2,711	—	2,711
1914	1,900	—	1,900

INSPECTION OF HORSE AUCTIONS.

The sale yards in the City have been regularly visited, and the animals exposed for sale therein examined for the presence of any contagious disease, under the Glanders Order, 1907, Parasitic Mange Order, 1911, and the Epizootic Lymphangitis Order, 1905; and as to their fitness to travel in accordance with the Animals (Transit and General) Order of 1912, and the Protection of Animals Act of 1911.

MARKET INSPECTION.

At the Liverpool Cattle Market during 1914, the following animals were inspected by the Veterinary Department. The figures for 1913 are also given for comparison:—

	1913	1914
Cattle	9,012	6,047
Sheep	204,477	56,321
Other animals	—	—
Total	213,489	62,368

THE PARASITIC MANGE ORDER OF 1911.

Under this Order, immediate notification of actual or suspected cases of mange in horses is received from the owner, police, horse slaughterers, or veterinary surgeons who may be called in to the case. The suspected animals are then examined by the Veterinary Department, and also the entire stud when at rest. Affected animals are immediately isolated and kept under observation until the disease has disappeared. Thorough disinfection of the premises, harness, utensils, feeding troughs, &c., is carried out under the supervision of the veterinary inspectors.

Owing to the outbreak of hostilities this Order, with the exception of regulations relating to prohibition to expose or move affected animals, was repealed by the Board of Agriculture and Fisheries on August 6th. Owing, however, to the beneficial results obtained during the past years, the veterinary surgeons and horse owners have continued

to report the disease. In this way, although having no legal power, the Veterinary Department have been able to keep the disease in check wherever it was reported.

Prosecutions were instituted in two cases and convictions obtained in each.

The total number of outbreaks or premises where the disease was found to exist was 182, and the number of visits paid to these premises was 1,092.

The following table shows the figures for 1914, with previous years for comparison:—

Year.	Number of Animals and Carcases Examined.	Number not affected.	Number affected.	Recovered.	Died or Slaughtered.
1911	8,223	1,397	251	183	68
1912	11,686	4,900	553	421	132
1913	9,376	2,539	338	244	94
1914	8,443	2,322	284	214	70

THE EXPORTATION OF HORSES ORDER OF 1910.

Under this Order of the Board of Agriculture and Fisheries, no horse, ass, or mule can be shipped from any port in Great Britain to the Continent of Europe unless accompanied either by a veterinary or Jockey Club certificate, or a special permit issued by the Board of Agriculture.

All horses intended for shipment from Liverpool are inspected before going on board by the officers of the Veterinary Department, and if in their opinion any horse, ass, or mule, which, through old age, infirmity or sickness, might undergo unnecessary suffering in transit, they have power under the Order to stop shipment.

This Order was instituted to control the trade of old worn-out horses between this country and the Continent. Owing to the outbreak of hostilities, the Order has been repealed.

THE ANTHRAX ORDER OF 1910.

A number of suspected cases of Anthrax were investigated by the Health Department under this Order. Of these, 53 were referred to the Veterinary Department, and, on microscopical examination, anthrax was suspected to exist in 11 cases. These were reported to the Board of Agriculture and Fisheries in accordance with the Order and 10 cases were confirmed.

In connection with the spread of anthrax to farm animals owing to the contamination of cattle food products with the spores of the bacillus during shipment in foreign parts and during the voyage, the staff of the city and port have kept this matter constantly before them, and systematic enquiries have been made as to the possibility of the contamination of cattle food products. In addition, the Board of Agriculture and Fisheries have issued a notice to shipowners and others concerned, pointing out that special precautions should be adopted when cargo containing animal products likely to be infected (such as hides, hair, wool, etc.) is carried in the holds and other parts of vessels before such places are used for carrying any cargo to be utilised as cattle food.

THE RABIES ORDER OF 1897.

Six suspected cases of rabies were dealt with under this Order. These were examined by the Veterinary Department and Corporation Bacteriologist, and certified to be free from rabies.

THE IMPORTATION OF CANINE ANIMALS ORDER OF 1909.

This Order was issued by the Board of Agriculture in 1909 to control the importation of animals such as wolves and jackals, and so prevent the introduction of rabies by animals other than dogs whose importation was already controlled by the Importation of Dogs Order of 1901. No examinations were made under this Order during the year.

THE PROTECTION OF ANIMALS ACTS, 1911.

Under this act the police have power to call in a veterinary surgeon in cases of cruelty and act upon his advice. The Veterinary Department is consulted under the Act.

THE FOOT-AND-MOUTH DISEASE ORDER OF 1895.

Foot-and-Mouth Disease unfortunately made its appearance again during the year. The first case in this outbreak was reported on February 23rd by a veterinary surgeon called in by a cowkeeper. The existence of the disease having been confirmed by the Veterinary Department and preliminary measures enforced, the Board of Agriculture and Fisheries were communicated with, who immediately announced the existence of the disease. Other cases occurred, and in all eight premises were involved in different parts of the City. All the affected and in-contact animals were slaughtered, 106 being so treated. A ninth shippoon which had been in intimate contact with one of the infected cowsheds, contained four animals and these were also destroyed, making 110 in all.

The various local orders issued by the Board of Agriculture and Fisheries first of all prohibited the movement of any cattle within a wide area around the City. Afterwards cattle were allowed to be brought in on licence, and gradually, as the disease appeared to be under control, the restrictions were withdrawn. Numerous licences were issued, and numbers of cattle imported from outside the City were periodically examined under the Local Orders.

LIVERPOOL DOGS' HOME, EDGE LANE.

During the year 1914 the number of Stray Dogs seized by the Police and duly collected by and received at the Home in Edge Lane was 2,995, over 200 more than for 1913. The statutory period of detention, seven

days, is generously allowed to every animal unless in a diseased condition and this provision permitted no fewer than 269 owners to discover and claim their lost animals. Of the rest 441 were sold to good homes, every purchaser being required to sign a declaration as to the reason for their wanting a dog as well as an undertaking not to utilise it for improper purposes, while a minimum charge of 5s. must be paid in each case. No fewer than 1,220 "not-wanted" dogs were brought to the Home by their owners for painless destruction, and of these 271 were from poor people from whom no fee was required. This arrangement certainly minimises the number of unfortunate animals who otherwise would be turned out on to the streets. Many "boarder" Dogs also were received and the excellent arrangements provided for all the animals is sufficiently indicated by the fact that there was no outbreak of disease of any kind whatever during the year. During the last 11 years 48,662 dogs have been received from all sources. The work of the Home strongly emphasises the need for much greater care on the part of the public in respect of the needless bringing up of superfluous puppies which practice provides the principal source of the continual stream of vagrant animals which the Home seeks to diminish.

PIGGERIES.

There were thirty-two applications, for licenses to keep pigs, made during the year.

In six cases a transfer of license was requested, the other twenty-six being new applications. These twenty-six applications involved the keeping of 1,006 pigs. Five of these applications were refused, and six are under consideration.

There are now within the City Area, as extended, 120 premises where pigs are kept. The approximate number of pigs kept is 2,249. Most of these premises are in added areas, in which pigs may at present be kept without infringement of requirements.

		<u>1913.</u>	<u>1914.</u>
Number of visits to Piggeries ...	...	456	694
Number found incorrect ...	...	15	267

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.

	1914.
Number of applications to keep cows on premises not	
previously licensed	21
„ „ granted	13
„ „ in abeyance	8
„ cows applied for	312
„ „ granted	183
„ applications for transfer to fresh tenants of cowsheds	
previously licensed	23
„ „ granted	23
„ „ to keep more cows than the number for	
which the license was originally	
granted	3
„ „ granted	3
„ „ in abeyance	—
„ additional cows applied for	7
„ „ granted	7
„ Cowsheds on the register 31st December, 1913 ...	415
„ „ „ „ „ 1914 ...	429
Number of cows licensed to be kept within the city area ...	6,734

COWSHED INSPECTION.

					<u>1913</u>	<u>1914.</u>
Number of Inspections of Cowsheds	...	...	...	...	4,238	4,063*
„ found Incorrect	...	...	..	..	65	456†
„ of Informations	...	...	...	...	1	—
„ „ „ Withdrawn	...	...	...	...	1	—
Amount of Fines and Costs	...	...	...	...	—	—

Thirty notices were issued to occupiers directing their attention to minor contraventions of the regulations.

The number of cowsheds in the City during the years 1905 to 1914, inclusive, together with the number of cows licensed to be kept, and the number of applications for new cowsheds are shewn in the following table :—

Years.		Cowsheds.		Cows.		Applications.	
1905	...	456	...	6,426	...	17	Incorporation of Fazakerley
1906	...	466	...	6,666	...	7	
1907	...	462	...	6,734	...	11	
1908	...	466	...	6,768	...	3	
1909	...	466	...	6,778	...	2	
1910	...	447	...	6,691	...	4	
1911	...	436	...	6,428	...	0	
1912	...	432	...	6,589	...	3	
1913	...	415	...	6,431	...	4	
1914	...	429	...	6,734	...	21	Incorporation of Allerton, Woolton, Little Woolton and Childwall.

* From February 28th to April 7th no visits were made to cowsheds owing to an outbreak of Foot and Mouth Disease.

† Premises undergoing alterations in the newly added districts.

MILKSHOPS.

						1914.
Number of Applications for registration	...	...	...	...	...	*97
„ „ granted	...	...	...	...	...	92
„ „ withdrawn	...	..	...	...	...	2
„ „ in abeyance	...	...	...	...	...	3
Number of Milkshops on the register at the end of 1910	...	...	...	...	...	821
„ „ „ „ 1911	...	...	...	...	...	847
„ „ „ „ 1912	...	...	...	...	...	838
„ „ „ „ 1913	...	...	...	...	...	802
„ „ „ „ 1914	...	...	...	...	...	797

* Sixty-four of these applications were transfers.

DAIRIES AND MILKSHOPS INSPECTION.

					<u>1913.</u>	<u>1914.</u>
Number of Inspections of Dairies and Milkshops					7,153	7,555
„ found incorrect	...	...	...	...	15	162*
„ of Informations	...	..	...	...	0	0
„ Fined	...	...	...	...	0	0
„ Withdrawn	...	...	...	...	0	0
Amount of Fines and Costs	...	...			Nil	Nil

Twenty caution notices were issued to occupiers of milkshops, and six notices were sent to farmers for minor contraventions of the Regulations.

* Premises undergoing alterations in the newly added districts.

LEAVELOOKERS' VISITS TO COWSHEDS 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 Superintendent.
1,771	22,395	22,224	171	169

ICE CREAM MAKERS AND VENDORS.

The usual inspections have been made of the premises utilised by 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 has it been found that ice cream has been made or stored in or about these dwellings.

A systematic inspection has also been made of shopkeepers' premises which are used for the manufacture or sale of ice cream.

				<u>1913.</u>	<u>1914.</u>
Number of premises under Inspection	...	...	...	1,022	1,008
„ visits made	...	...	...	3,125	3,758
„ caution notices issued	...	...	...	15	21
„ Informations	...	...	...	—	—

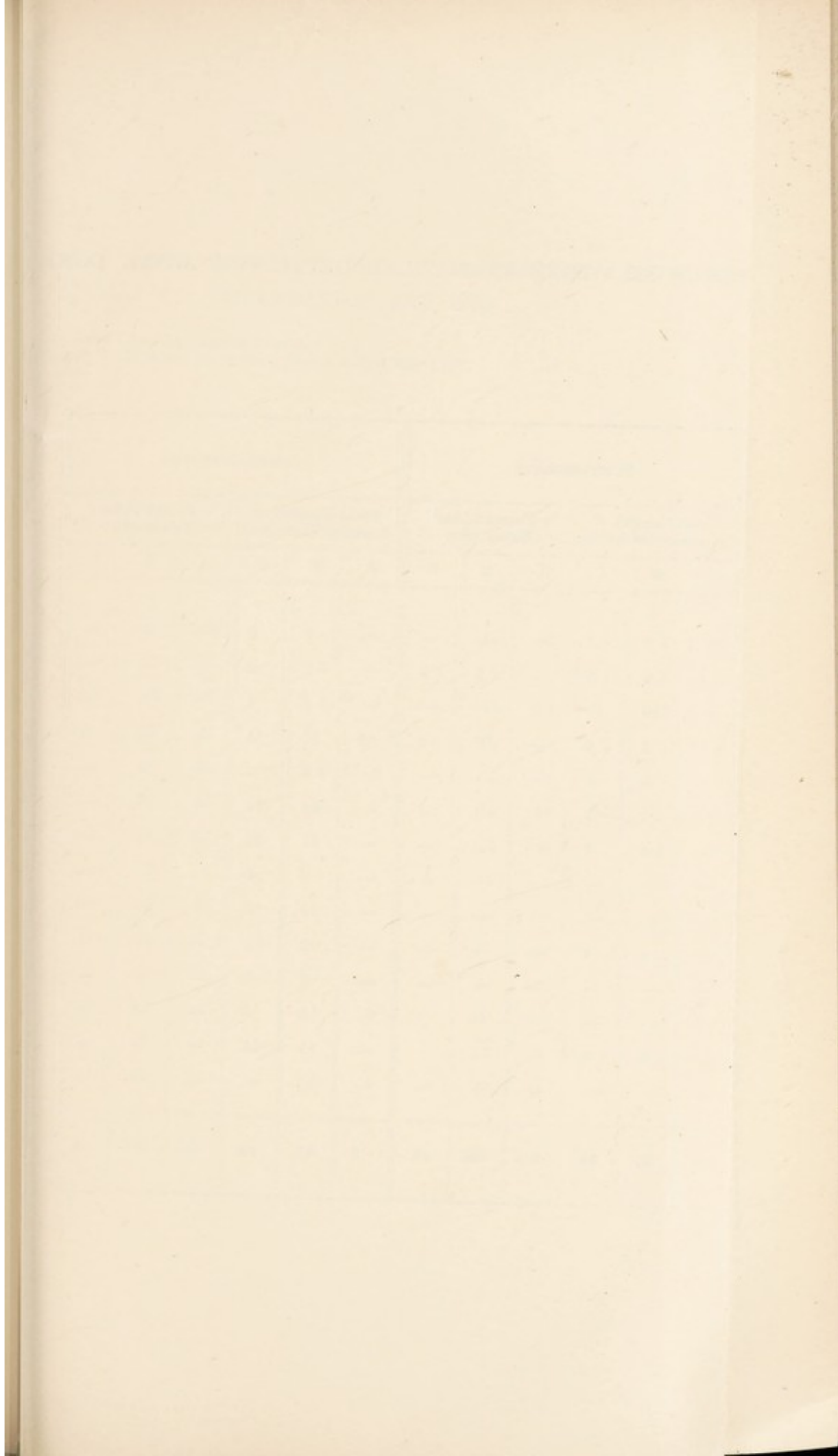


TABLE SHOWING THE VARIOUS COUNTIES FROM WHICH MILK HAS BEEN SENT INTO THE CITY FROM JANUARY, 1901, TO DECEMBER, 1914, TOGETHER WITH OTHER STATISTICAL DETAILS OF WORK DONE UNDER THE LIVERPOOL CORPORATION ACT, 1900.

A—Samples direct from Cows at affected Farms.
B—Samples of mixed Milk taken at various places within the City.
C—Combined Totals.

Year.	CHESHIRE.						SHROPSHIRE.						DERBYSHIRE.						LANCASHIRE.						FLINTSHIRE.						STAFFORDSHIRE.						OTHER COUNTIES.							
	Total Number of Samples Examined.			Found to be Tubercular.			Total Number of Samples Examined.			Found to be Tubercular.			Total Number of Samples Examined.			Found to be Tubercular.			Total Number of Samples Examined.			Found to be Tubercular.			Total Number of Samples Examined.			Found to be Tubercular.			Total Number of Samples Examined.			Found to be Tubercular.			Total Number of Samples Examined.			Found to be Tubercular.				
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C					
1901.....	10	200	216	2	13	15	3	42	45	—	2	2	2	6	8	—	2	2	—	29	29	—	—	—	10	10	—	1	1	—	2	2	—	—	—	—	2	2	—	—	—			
1902.....	18	247	263	2	13	15	4	52	56	—	5	5	6	14	20	3	5	8	—	27	27	—	—	—	1	6	7	1	—	1	4	5	—	3	3	—	2	2	—	—	—			
1903.....	4	194	198	1	10	11	3	60	63	—	6	6	—	23	23	—	1	1	1	44	45	—	1	1	—	11	11	—	—	—	—	10	10	—	—	—	—	1	1	—	—			
1904.....	5	203	208	1	12	13	6	58	64	1	9	10	3	27	30	2	8	10	—	27	27	—	—	—	25	25	—	1	1	—	2	2	—	2	2	2	12	14	—	1	1	—	—	
1905.....	10	205	215	1	8	9	—	44	44	—	—	—	—	44	44	—	3	3	—	31	31	—	2	2	—	6	6	—	—	—	—	3	3	—	—	—	—	5	5	—	—	—		
1906.....	4	165	169	1	12	13	3	47	50	—	4	4	3	28	31	—	1	1	2	34	36	—	2	2	2	16	18	—	1	1	—	1	1	—	1	1	—	16	16	—	—	—		
1907.....	4	142	146	1	7	8	—	39	39	—	—	—	—	20	20	1	4	5	—	21	21	—	—	—	16	16	—	1	1	—	4	4	—	—	—	—	11	11	—	—	—	—		
1908.....	3	203	206	1	4	5	1	48	49	—	4	4	1	5	6	—	—	—	—	2	2	—	1	1	—	3	3	—	—	—	—	—	—	—	—	—	6	6	—	—	—	—		
1909.....	5	213	218	1	5	6	3	48	51	3	1	4	—	37	37	—	—	—	—	15	15	—	—	—	10	10	—	—	—	—	—	—	—	—	—	—	10	10	—	—	—	—		
1910.....	3	199	199	2	6	8	1	69	70	—	6	6	—	19	19	—	—	—	—	22	22	—	—	—	1	12	13	—	1	1	—	4	4	—	—	—	—	2	2	—	—	—	—	
1911.....	7	247	254	2	14	16	—	26	26	—	—	—	1	24	25	1	1	2	2	16	18	—	—	—	20	20	—	—	—	—	—	—	—	—	—	—	3	3	—	—	—	—		
1912.....	70	217	287	6	19	25	—	79	79	—	—	—	—	6	6	—	—	—	3	17	20	—	1	1	—	17	17	—	—	—	—	—	—	—	—	—	6	6	—	—	—	—		
1913.....	27	247	274	6	20	26	—	90	90	—	6	6	4	26	30	—	1	1	—	22	22	—	—	—	18	18	—	1	1	—	3	3	—	—	—	—	11	11	—	—	—	—		
1914.....	89	255	335	6	31	37	11	100	111	2	2	4	10	51	61	—	6	6	2	23	25	—	2	2	4	13	17	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
Totals.....	250	2081	2184	33	174	207	35	802	837	6	45	51	30	330	360	7	22	29	10	320	340	—	9	9	8	183	191	1	7	8	1	33	34	—	6	6	2	87	89	—	1	1	—	—

TUBERCULOSIS AND THE MILK SUPPLY.

LIVERPOOL CORPORATION ACT, 1900.

The examination of cows and cowsheds within the city has been duly carried on throughout the year, and all cases of sickness found by the Leavelookers reported to the Veterinary Department. In cases where the cows are reported to be suffering from any disease of the udder the Medical Officer of Health directs that the animal be submitted to Veterinary examination, and if it is found to be affected with disease likely to be inimical to the public health, the milk supply from the affected cow is stopped.

Should symptoms of Tuberculosis of the udder, tuberculous emaciation, or a chronic cough with definite signs of tuberculosis be in evidence, the animals are dealt with under the Tuberculosis Orders of 1913 and 1914. (See page 195.)

Apart from notifications, the Veterinary Department have submitted a great number of cows in the town to annual inspection.

The following is a table showing the number of visits made by the Veterinary Inspectors to cowsheds within the city boundary.

YEAR.	No. of Visits to Town Cowsheds.	No. of Cases notified by Owners.	Other Visits.	No. of Cows examined.	No. of Cows not affected.	No. of Cows Suspicious of Tuberculosis of the Udder.	No. of Convictions for Offences under the Act.
1902	12	—	—	13	7	6	1
1903	61	27	34	121	97	24	7
1904	305	168	137	665	595	70	12
1905	239	176	63	298	241	57	1
1906	198	172	26	225	211	14	—
1907	188	137	51	238	235	3	—
1908	171	121	50	255	252	3	—
1909	177	114	63	203	200	3	—
1910	144	103	41	189	188	1	—
1911	128	85	43	215	213	2	—
1912	207	78	129	1755	1738	17*	—
1913	505	102	403	4732	4704	18*	—
1914	386	92	294	4043	4008	21*	—
Totals	2721	1375	1334	12952	12689	239	21

* Cases of tuberculosis of the udder, all of which were confirmed either by bacteriological or post-mortem examination.

It has been necessary during the routine examination for the Veterinary Inspectors to take 71 samples of milk for bacteriological examination. Thirteen of these were control samples, and 58 were direct. Of the control samples, two proved tubercular, and the remainder non-tubercular. The explanation of the tubercular control samples is that obscure cases of tubercular milk in herds were encountered, but were

ultimately traced. Of the direct samples from abnormal udders, 17 were tubercular and 41 non-tubercular. The reason for the great number of non-tubercular direct samples is that in several instances it was necessary to take samples from all the cows in a herd in order to trace the tubercular contamination. All the above figures are included in the table of samples submitted for bacteriological examination within the city.

MILK SUPPLIED FROM OUTSIDE THE CITY BOUNDARIES.

Under the Liverpool Corporation Act, 1900, Inspectors systematically visit various places supplied with milk from the country, including the railway stations and hospitals, and there take samples. These samples are then submitted to bacteriological examination. Should they be found to contain tubercle bacilli (the germs of consumption), the Veterinary Superintendent or his Assistant, accompanied by the Medical Officer of Health or his representative, and furnished with an Order signed by a magistrate resident within the county from which the milk is consigned (as prescribed by the Act), visits the farm or dairy and examines the stock therein. The cowsheds from which the affected supplies have been derived during the last twelve years are situated in the counties included in the following tables:—

NUMBER OF FARMS FROM WHICH MILK WAS FOUND TO BE AFFECTED WITH TUBERCLE.

	CHESHIRE.	SHROP-SHIRE.	DENBIGH-SHIRE.	LANCA-SHIRE.	FLINT-SHIRE.	STAFFORD-SHIRE.	DERBY-SHIRE.
Year.	Affected Farms.	Affected Farms.	Affected Farms.	Affected Farms.	Affected Farms.	Affected Farms.	Affected Farms.
1902...	11	2	2	—	1	1	—
1903...	7	3	1	1	—	—	—
1904...	7	6	1	—	1	1	1
1905...	7	—	1	1	—	—	—
1906...	7	2	2	2	1	—	—
1907...	6	1	2	—	—	1	—
1908...	2	1	1	1	—	—	—
1909...	4	2	—	—	—	—	—
1910...	4	4	—	—	1	—	—
1911...	6	—	1	—	—	—	—
1912...	6	—	—	1	—	—	—
1913...	7	4	1	—	1	—	—
1914...	6	4	4	2	1	—	—
Totals	80	29	16	8	6	3	1

The cows housed in the City cowsheds yield approximately 17,000 gallons per day; the daily consumption of milk amounts to more than 35,000 gallons, or over seven ounces per head per day of the population.

The quantity of milk sent into the City from the different counties included in the foregoing table also amounts to between 17,000 and 18,000 gallons per day: of this quantity upwards of 60 per cent. comes from Cheshire. It may be mentioned that over 100,000 cows are in milk within the county of Cheshire, which is the largest dairy district in the United Kingdom.

The country cowsheds 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, a large number 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.

Many of the cattle also are neither so good, nor are they kept in the same cleanly condition, as those of the city.

When tuberculosis of the udder is suspected the necessary proceedings are taken as prescribed by the Act. They are similar in principle to those adopted within the city. Samples of milk are also taken from suspected animals, and submitted to a further bacteriological test to verify the diagnosis of the case. In the meantime the animals are isolated, and the milk dealt with as in the city.

It is not possible in all cases to find evidence of disease of the udder in the herd, the explanation usually being that the infected animals have been sold during the time which elapses between the taking of the sample in Liverpool and the visit of the Corporation officials to the farm.

Affected animals are usually disposed of for slaughter, but, it has been found that they are occasionally 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 Farms Visited.	No. of Re-Visits to Farms.	Total No. of Visits to Farms.	No. of Cowsheds 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.
1902	17	5	22	66	760	18	3	3
1903	13	2	15	32	364	10	3	2
1904	17	1	18	39	604	19	1	5
1905	9	1	10	20	266	9	4	1
1906	14	—	14	25	391	10	6	1
1907	12	1	13	31	462	7	1	1
1908	11	1	12	31	568	5	3	1
1909	12	8	20	76	1153	6	—	—
1910	13	5	18	60	871	4	1	2
1911	10	13	23	71	1365	3	2	1
1912	12	7	19	54	1121	4	2	2
1913	11	6	17	62	784	4	—	—
1914	21	8	29	—	1302	6	—	—
Totals ...	172	58	230	567	10011	105	26	19

During the examination of cattle outside the city, it has been necessary for the veterinary department to take 102 samples of milk for bacteriological examination. Of these, 55 were control samples, and 47 were direct samples. Of the control samples, two proved tubercular, and 53 non-tubercular.

The explanation of the tubercular control samples is that obscure cases of tubercular milk in herds were encountered, but these were ultimately traced. Of the direct samples from abnormal udders, six were tubercular and 41 non-tubercular. The reason for the great number of non-tubercular direct samples is that in several instances it was necessary to take samples from all the cows in the herds in order to trace the tubercular contamination.

All the above figures are included in the table of samples of country milk submitted for bacteriological examination.

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 expense to the Liverpool Corporation and takes up a good deal of the time of 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 cowsheds in the most healthy and sanitary condition, so that the benefits of the Act are by no means limited to the purchasers of milk in the City of Liverpool.

TUBERCULOSIS ORDERS OF 1913 AND 1914.

On July 1st, 1914, the Tuberculosis Order of 1913, which had been in operation about a year, was superseded by the Tuberculosis Order of 1914. The provisions of the second Order are very similar to those of the first, save that it provides for the inclusion of clinical tuberculosis with a chronic cough, a single valuation of affected animals, and a more liberal grant from the Board of Agriculture to the local authority.

Under its provisions, owners of cattle are compelled to notify to the local authority the suspected existence of tuberculosis of the udder and tuberculous emaciation in their herds. Veterinary surgeons attending such animals are also required to give notice of the existence of the disease.

When an animal is reported, the whole herd is examined by a Veterinary Inspector, and if the disease in either of its forms exists, the animals are slaughtered, after a valuation for compensation has been made. The valuation is based on the sum the animal would be worth in the open market in its actual condition, and not the sum the animal would be worth if it were free from disease or suspicious symptoms.

If on post-mortem examination the carcase is found to be free from tuberculosis, the owner becomes entitled to the sum of the valuation, plus £1. If, on the other hand, the carcase is diseased he becomes entitled to three-quarters of the valuation, provided the animal is not suffering from advanced tuberculosis. If advanced tuberculosis exists, he is entitled to only one quarter of the valuation, with a minimum of 30s.

The definitions of diseased and advanced tuberculosis are laid down in the Order. In the event of a slaughtered animal realising more than the assessed compensation, that amount goes entirely to the owner. If the carcase does not realise the amount of compensation, this is made up by the local authority. Of the gross compensation paid during each quarter by the local authority, three-quarters is refunded by the Board of Agriculture.

In the detection of the disease, a number of tuberculin tests have been applied, and microscopical examinations of the milk carried out. Provision is also made in the Order for the detention and isolation of suspected animals, and for prohibiting the sale of suspected milk. The following table shows the number of cases dealt with, &c., during 1914:—

No. of premises where disease was found to exist.	No. of animals examined on these premises.	Number not affected.	Total number slaughtered.				Total amount of compensation paid to owners.	Total amount realized by sale of carcasses.	Amount actually paid by Local Authority.
			Tuberculosis of the udder.	Tuberculous emaciation.	Definite clinical evidence of tuberculosis.	Not affected.			
30	418	388	17	11	2	—	£148 19 9	£102 18 10	£46 0 11 *

* Under the Order of 1913, half of this amount is refunded to the Local Authority by the Board of Agriculture and Fisheries, but under the Order of 1914, three fourths of the total amount of compensation paid to owners is refunded to the Local Authority.

SALE OF FOOD AND DRUGS ACTS.

During the year, 3,029 samples purchased under the above Acts were analysed and reported upon.

The number of samples which were adulterated or not up to the standard was 314 (10·3 per cent).

When compared with the percentage of adulteration in other places, this figure of 10·3 per cent. appears somewhat high, but attention should be drawn to the fact that in some cases as many as eight samples are purchased in connection with one adulterated sample.

The following comparative statement indicates how the percentage of adulteration in Liverpool compares with the last available figures for other districts:—

	Number of Samples Analysed.	Per cent of Adulteration.
Liverpool	3,029	10·3
Metropolitan Borough ...	24,964	9·3
County of Lancaster ...	5,018	10·6
Birmingham	4,845	7·2
Manchester	3,020	2·1
England and Wales ...	103,200	8·7

The practice of taking samples “informally” (*i.e.*, without any intimation to the vendor that samples are to be analysed) has been continued throughout the year. This practice is very valuable, as it saves time and trouble whilst causing no annoyance to honest shopkeepers, whose objections to the taking of samples, with all the formalities required by the Act, are that the counter space is occupied for the

division of the samples into three parts, and, in addition, the action excites curiosity and possibly suspicion on the part of regular customers.

The tables on the following pages give a summary of the samples analysed during the year.

Milk.

The number of milk samples found to be materially adulterated was 128, equal to 10·8 per cent. In 1913 it was 119, equal to 10·6 per cent.

Cream and Preserved Cream.

Under the Sale of Milk and Cream Regulations, cream, containing 35 per cent. and over of fat, may be preserved with either borates or hydrogen peroxide as long as it is sold under the designation of "Preserved Cream," and it is distinctly stated which of these preservatives is used. Definite sizes of label and type have been prescribed by the regulations

These regulations are at present under consideration by the Local Government Board, owing to the fact that in some of the Metropolitan Boroughs proceedings were instituted, and convictions obtained, against vendors of Preserved Cream, labelled correctly in accordance with the regulations, which contained more than 0·25 per cent. of borate preservative.

The Local Government Board, pending the result of their further experiments and enquiries, have requested Local Authorities not to take action in cases of Preserved Cream properly labelled under the Sale of Milk and Cream Regulations.

BEER AND STOUT.

The analysis of Beer and Stout includes estimations of the amount of Alcohol and Salt in each sample. Arsenic, poisonous metals and preservatives, if present, are also estimated.

The following table gives the percentages of Alcohol and the amount of Salt in the samples of Beer examined:—

ALCOHOL.		SALT.	
Per cent by weight.	No. of Samples.	Grains per Gallons.	No. of Samples.
2.0—2.5	1	5—10	8
2.6—3.0	3	11—15	5
3.1—3.5	9	16—20	19
3.6—4.0	13	21—25	11
4.1—4.5	21	26—30	7
4.6—5.0	23	31—35	11
5.1—5.5	9	36—40	6
6.6—7.0	1	41—45	5
		46—50	5
		51—55	1
		56—60	1
		61—70	1
	80		80

The quantities of salt above 50 grains per gallon are excessive.

All the samples were free from arsenic and poisonous metals.

The four samples of beer reported as not genuine contained sulphurous acid gas as a preservative, the amounts varying from 2.1 to 3.0 grains per pint.

The presence of the gas was stated to be due to excessive "fining" in the beer.

Summary of Samples Submitted for Analysis from January 1st, 1914, to December 31st, 1914, and other statistical details.

INFORMAL SAMPLES.				FORMAL SAMPLES.			
Number taken.	Number genuine.	Adulterated.		Number taken.	Number genuine.	Adulterated.	
		Schedule A.	Schedule B.			Schedule A.	Schedule B.
							Informations.
1	1	—	—	—	—	—	—
1	1	—	—	12	12	—	—
—	—	—	—	17	17	—	—
—	—	—	—	13	13	—	—
1	1	—	—	—	—	—	—
25	25	—	—	60	56	4	4
—	—	—	—	4	4	—	—
1	1	—	—	—	—	—	—
3	3	—	—	—	—	—	—
3	3	—	—	2	2	—	—
—	—	—	—	1	—	—	1
22	22	—	—	—	—	—	—

SUMMARY OF SAMPLES, &c.—continued.

INFORMAL SAMPLES.				Nature of Sample.	FORMAL SAMPLES.				Infor- mations.
Number taken.	Number genuine.	Adulterated. Schedule A.	Schedule B.		Number taken.	Number genuine.	Adulterated. Schedule A.	Schedule B.	
435	416	18	1	Butter	63	58	5	—	1 2
—	—	—	—	Buttermilk	2	1	1	—	1 —
4	4	—	—	Camphorated Oil.....	—	—	—	—	— —
5	5	—	—	Castor Oil	—	—	—	—	— —
—	—	—	—	Cayenne Pepper	5	4	—	1	— —
1	1	—	—	Champagne Cider	—	—	—	—	— —
1	1	—	—	Cheese	7	7	—	—	— —
—	—	—	—	Chocolate Powder	1	1	—	—	— —
1	1	—	—	Cider	—	—	—	—	— —
2	2	—	—	Ciderette	—	—	—	—	— —
2	2	—	—	Citric Acid	—	—	—	—	— —
3	3	—	—	Claret	—	—	—	—	— —
1	1	—	—	Co-lineal	—	—	—	—	— —
—	—	—	—	Cocoa	54	54	—	—	— —

SUMMARY OF SAMPLES, &c.—continued

INFORMAL SAMPLES.				Nature of Sample.	FORMAL SAMPLES.				
Number taken.	Number genuine.	Adulterated.			Number taken.	Number genuine.	Adulterated.		
		Schedule A.	Schedule B.				Schedule A.	Schedule B.	
10	10	—	—	Cod Liver Oil	—	—	—	—	—
19	15	4	—	Coffee	47	46	1	—	1
—	—	—	—	Coffee and Chicory	1	1	—	—	—
—	—	—	—	Compound Liquorice Powder	1	1	—	—	—
—	—	—	—	Condensed Milk	8	8	—	—	—
92	92	—	—	Confectionery	7	7	—	—	—
1	1	—	—	Cornflour	9	9	—	—	—
1	1	—	—	Cotton Seed Oil	—	—	—	—	—
7	4	3	—	Cream	27	23	4	—	4
2	2	—	—	Cream Soda	—	—	—	—	—
1	1	—	—	Cream of Tartar	13	13	—	—	—
1	1	—	—	Custard Powder	4	4	—	—	—
—	—	—	—	Desiccated Coconut	2	2	—	—	—
6	6	—	—	Dried Milk	—	—	—	—	—

SUMMARY OF SAMPLES, &c.—Continued.

INFORMAL SAMPLES.				Nature of Sample.	FORMAL SAMPLES					
Number taken.	Number genuine.	Adulterated.			Number taken.	Number genuine.	Adulterated		Number caught.	Informations.
		Schedule A.	Schedule B.				Schedule A.	Schedule B.		
—	—	—	—	Dripping	1	1	—	—	—	—
—	—	—	—	Epsom Salts.....	1	1	—	—	—	—
—	—	—	—	Essence of Coffee.....	1	1	—	—	—	—
1	—	1	—	Essence of Rennett.....	—	—	—	—	—	—
3	3	—	—	Extract of Malt	—	—	—	—	—	—
2	2	—	—	Extract of Malt with Cod Liver Oil	—	—	—	—	—	—
11	11	—	—	Flavouring Essences	—	—	—	—	—	—
10	10	—	—	Flour	—	—	—	—	—	—
18	18	—	—	Flour, Selfraising	2	2	—	—	—	—
1	1	—	—	Flowers of Sulphur	—	—	—	—	—	—
23	23	—	—	Gin	—	—	—	—	—	—
1	1	—	—	Ginger Ale	—	—	—	—	—	—
2	2	—	—	Ginger Beer	—	—	—	—	—	—
10	9	1	—	Ginger Wine	4	1	1	2	—	—

SUMMARY OF SAMPLES, &c.—Continued.

INFORMAL SAMPLES.				Nature of Sample.	FORMAL SAMPLES.					
Number taken.	Number genuine.	Adulterated.			Number taken.	Number genuine.	Adulterated.		Number cautions.	
		Schedule A.	Schedule B.				Schedule A.	Schedule B.		
—	—	—	—	Glycerine	5	4	1	—	1	—
7	7	—	—	Golden Syrup	1	1	—	—	—	—
—	—	—	—	Grape Wine	1	—	1	—	—	—
—	—	—	—	Green Ginger Wine.....	1	1	—	—	—	—
—	—	—	—	Ground Almonds.....	3	3	—	—	—	—
—	—	—	—	Ground Cinnamon	1	1	—	—	—	—
—	—	—	—	Ground Ginger	34	32	2	—	2	—
—	—	—	—	Ground Mace	5	5	—	—	—	—
—	—	—	—	Ground Nutmegs	1	1	—	—	—	—
1	1	—	—	Herrings in Tomato Sauce	—	—	—	—	—	—
3	3	—	—	Honey	1	1	—	—	—	—
1	1	—	—	Infants' Food	—	—	—	—	—	—
6	6	—	—	Jam	33	30	1	2	—	—
2	2	—	—	Jelly	1	1	—	—	—	—

SUMMARY OF SAMPLES, &c.,—Continued.

INFORMAL SAMPLES.				Nature of Sample.	FORMAL SAMPLES.				
Number taken.	Number genuine.	Adulterated.			Number taken.	Number genuine.	Adulterated.		Number cautions.
		Schedule A.	Schedule B.				Schedule A.	Schedule B.	
—	—	—	—	Mustard	7	7	—	—	—
8	8	—	—	Oatmeal	2	2	—	—	—
14	14	—	—	Olive Oil	1	1	—	—	—
—	—	—	—	Orange Wine	3	1	1	1	—
1	1	—	—	Peas	—	—	—	—	—
2	2	—	—	Pepper	34	30	3	1	2
6	6	—	—	Piccaililli	—	—	—	—	—
11	10	—	1	Pickles	1	1	—	—	—
17	17	—	—	Port Wine	4	4	—	—	—
1	—	1	—	Preserved Beans	—	—	—	—	—
2	—	2	—	Preserved Peas	—	—	—	—	2
2	2	—	—	Quinine Tonic	—	—	—	—	—
—	—	—	—	Raisin Wine.....	2	1	—	1	—
—	—	—	—	Raspberry Syrup.....	1	1	—	—	—

SUMMARY OF SAMPLES, &c.—continued.

INFORMAL SAMPLES.				Nature of Sample.		FORMAL SAMPLES.			
Number taken.	Number genuine.	Adulterated.				Number genuine.	Adulterated.		Number Infor- mations.
		Schedule A.	Schedule B.				Schedule A.	Schedule B.	
—	—	—	—	Rice		39	2	12	2
22	21	1	—	Rum		5	—	—	—
—	—	—	—	Sago		3	—	—	—
1	1	—	—	Salad Oil		—	—	—	—
6	5	—	1	Sauce.....		—	—	—	—
—	—	—	—	Sausages		3	1	2	—
1	1	—	—	Sarsaparilla		—	—	—	—
—	—	—	—	Scidlitz Powders		8	—	—	—
8	8	—	—	Sherry Wine		—	—	—	—
1	1	—	—	Soda Water		—	—	—	—
1	1	—	—	Soya Oil		—	—	—	—
7	7	—	—	Stout		—	—	—	—
—	—	—	—	Sugar.....		41	—	—	—
—	—	—	—	Tapioca		6	—	—	—

SUMMARY OF SAMPLES, &c.—*continued*.

INFORMAL SAMPLES.				FORMAL SAMPLES.						
Number taken.	Number genuine.	Adulterated.		Nature of Sample.	Number taken.	Number genuine.	Adulterated.		Number caut'nd.	Infor- mations
		Schedule A.	Schedule B.				Schedule A.	Schedule B.		
1	1	—	—	Tartaric Acid	2	2	—	—	—	—
9	9	—	—	Tea	61	61	—	—	—	—
1	1	—	—	Tee-Nut	—	—	—	—	—	—
2	2	—	—	Tinned Apricots	—	—	—	—	—	—
1	1	—	—	Tinned Crayfish	—	—	—	—	—	—
1	1	—	—	Tinned Damsons.....	—	—	—	—	—	—
2	2	—	—	Tinned Fruit Salad.....	—	—	—	—	—	—
1	1	—	—	Tinned Greengages.....	—	—	—	—	—	—
1	1	—	—	Tinned Peaches	—	—	—	—	—	—
3	3	—	—	Tinned Pears	—	—	—	—	—	—
3	2	—	1	Tinned Pineapple	—	—	—	—	—	—
1	1	—	—	Tinned Rabbit.....	—	—	—	—	—	—
5	5	—	—	Tinned Salmon	—	—	—	—	—	—
1	1	—	—	Tinned Strawberries	—	—	—	—	—	—

Summary of Samples in which legal proceedings were instituted during the year ending December 31st, 1914, together with result.

No. of Informations.	Nature of Samples.	Nature of Offence.	RESULT OF LEGAL PROCEEDINGS.					Costs.
			No. of Convictions.	No. with- drawn on payment of costs.	No. with- drawn and without costs.	Fines.	£ s. d.	
43	Milk	Deficient in cream	27	14	2	£ 51 10 0	37 4 6	
3	"	Deficient in Cream & adulterated with water	2	1	—	6 0 0	2 11 0	
28	"	Adulterated with water	22	6	—	40 10 0	25 7 6	
1	"	Adulterated with water and boracic acid ...	1	—	—	3 0 0	0 17 0	
1	Skimmed Milk	Adulterated with water	1	—	—	3 0 0	0 17 0	
2	Butter	Selling Margarine for Butter	2	—	—	4 0 0	1 19 0	
3	Margarine	Contained an excessive quantity of water ...	1	2	—	2 0 0	3 10 0	
1	Coffee.....	Adulterated with chicory	1	—	—	5 0 0	0 17 0	
2	Beer	Contained 2.9 grains of sulphurous acid gas (SO ₂) per pint	—	1	1	—	0 17 0	
2	Bitter Beer	Contained 3.0 grains of sulphurous acid gas (SO ₂) per pint	—	—	2	—	—	
2	White Pepper	Adulterated with the husks of black pepper	2	—	—	20 0 0	1 14 0	
88			59	24	5	£135 0 0	£75 14 0	

DETAILS OF SAMPLES OF MILK OBTAINED FOR CHEMICAL ANALYSIS.

	<u>1913.</u>	<u>1914.</u>
Number of Samples purchased on week-days in Town ..	399	410
„ Informations	41	41
„ Samples taken at Railway Stations on week-days... ..	270	288
„ Informations	8	9
„ Samples purchased on Sundays in Town ...	180	208
„ Informations	19	22
„ Samples taken at Railway Stations on Sundays	215	178
„ Informations	2	4
„ Samples taken at City Hospitals	57	85
„ Informations	—	—
„ Samples taken at Corporation Infant Welfare Centres	31	43
„ Informations	—	—

MARGARINE ACT.

	<u>1913.</u>	<u>1914.</u>
Number of Visits to Wholesale Dealers in Margarine ...	821	867
„ Visits to Shops	6332	6916
„ Informations	—	—

SPECIAL EXAMINATIONS.

The following samples were submitted during 1914 for special examination:—

Nature of Sample	No. of Samples.	Nature of Sample.	No. of Samples.
Apple Tart	1	Medicine	1
Bread	2	Milk	2
Butter	1	Mis. Senaæ Co.	1
Buttermilk	1	Olive Oil	1
Cheese	1	Preserved Peas	1
Compound Liquorice Powder... ..	1	Rag Flock	6
Dandelion and Burdock Stout... ..	1	Raisins	3
Dates	1	Sarsaparilla	1
Deposit on gas grill	1	Seaweed	1
Dripping	2	Tea	1
Dust	1	Water	30
Ham	3		
Jute Flock	1	Total	65

FERTILISERS AND FEEDING STUFFS ACT, 1906.

On 1st January, 1907, a Fertilisers and Feeding Stuffs Act, which replaced the old Act of 1893, came into operation.

Under it the City Analyst was appointed official agricultural analyst, and the three inspectors under the Sale of Food and Drugs Act were appointed official samplers.

A certain remuneration was agreed to in respect of the work done under the Act.

The following table shows the number of samples procured during the year :—

Nature of Sample.	No. of Samples.	Nature of Sample.	No. of Samples.
Barley Meal	1	Linseed Cake	5
Bran	2	Linseed Cake Meal	5
Crushed Oats	4	Pea Meal	2
Dairy Meal	2	Poultry Food	1
Decorticated Cotton Cake	5	Rice Meal	2
Decorticated Cotton Cake Meal	1	Undecorticated Cotton Cake	1
Indian Meal.....	1	Total.....	32

POISONS AND PHARMACY ACT, 1908.

The Poisons and Pharmacy Act, 1908, came into operation on the 1st April, 1909.

The object of the Act is to regulate the sale of certain poisonous substances, and to amend the Pharmacy Acts. It is fully referred to in the Annual Report for 1909.

During the year 24 licenses were renewed under this Act.

PUBLIC HEALTH (MILK & CREAM) REGULATIONS, 1912.

Report for the year ending 31st December, 1914:—

1. MILK AND CREAM NOT SOLD AS PRESERVED CREAM.

Number of samples examined for the presence of a preservative:—

Milk 1,212; Cream 21.

Number in which a preservative was reported to be present:—

(a) Milk	1
(b) Cream	7

Nature of preservative—Boracic Acid.

ACTION TAKEN.

(a) Information laid under the Sale of Food and Drugs Act, 1875 (Section 6). Result: Vendor fined 60s. and 17s. costs.

(b) Vendors cautioned.

2. CREAM SOLD AS PRESERVED CREAM.

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct:

Number of samples taken ...	...	...	13
Correct statements made ...	...	...	13

(b) Determinations made of milk fat in cream sold as Preserved Cream:—

Above 35 per cent. ...	...	...	13
------------------------	-----	-----	----

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of Preserved Cream in Article V (1), and the proviso in Article V (2) of the Regulations were not observed:—

1 and 2.—The requirements of the Regulations were observed at the places visited.

3. THICKENING SOLUTIONS.

None found.

REPORT OF CITY BACTERIOLOGIST, 1914.

During the year 1914, 13,000 specimens were submitted for bacteriological examination as compared with 10,743 for 1913.

These may be grouped under the following heads:—

1. Foodstuffs (milk, butter, meat, fruits, preserves, etc.).
2. Water.
3. Rats for possible infection with the bacillus of plague.
4. Material from infectious diseases in man (diphtheria, typhoid fever, tuberculosis, etc.).
5. Material from infectious diseases in animals (tuberculosis, anthrax, rabies, etc.).
6. Miscellaneous.

SUMMARY OF FOOD-STUFFS.

The details of these are included in the following table:—

Butter	...	...	...	...	...	8
Margarine	...	...	...	...	...	7
Cheese—Cream	...	...	...	...	...	10
Ordinary	...	...	...	...	...	4
Cream—Ordinary	...	...	...	...	...	16
Ice	...	...	...	...	...	11
Milk—Fresh	...	...	...	...	...	831
Humanised	...	...	...	...	...	10
Condensed	...	...	...	...	...	51
Shell Fish—Cockles	...	...	...	...	...	28
Mussels	...	...	...	...	...	40
Oysters	...	...	...	...	...	34
Escallops	...	...	...	...	...	2
Periwinkles	...	...	...	...	...	15
					—	119
Fish—Paste	...	...	...	...	...	36
Potted	...	...	...	...	...	14
Tinned	...	...	...	...	...	82
Preserved Fruits	...	...	...	...	...	13
Vegetables—Tinned Tomatoes	...	...	...	...	...	2
Preserves—Ginger	...	...	...	...	...	1
Jams	...	...	...	...	...	17
Jellies	...	...	...	...	...	37
Marmalade	...	...	...	...	...	13
Meats—Extract	...	...	...	...	...	2
Pies	...	...	...	...	...	30
Potted	...	...	...	...	...	25
Tinned	...	...	...	...	...	18
Mincemeat	...	...	...	...	...	2
Sauces	...	...	...	...	...	27
Soups	...	...	...	...	...	15
Gravy Granules	...	...	...	...	...	1
Polony	...	...	...	...	...	4
Brought forward						1406

	Carried forward...	...	1406
Syrup	...	...	4
Treacle	...	...	2
Honey	...	...	3
Lemon Cheese	...	...	19
Miscellaneous:—			
Apple Tart	...	...	1
Bread	...	...	2
Burdock Stout	...	...	1
Tea	...	...	1
Sweetmeats	...	...	4
Nut Paste	...	...	3
		—	12
	Total	...	1446
Water	...	...	6

RESULTS OF ANALYSES OF BUTTER, CONDENSED MILK AND SHELL FISH.

Butter.

Eight samples of butter were examined, the *Bacillus coli* not being found in any case, and all samples proved to be non-tuberculous.

Condensed Milk.

A very large number of bacteria was present in the samples of condensed milk. Fifty-one samples were examined, and the average number of bacteria per gram was 7,746.

Shell Fish.

One hundred and nineteen samples of shell fish of various kinds were submitted for examination, and most of the samples showed evidence of contamination with *B. coli*.

This contamination may take place in the beds and in transit, but particularly in the storing of the fish, and therefore the significance of the contamination cannot be estimated. There was no evidence of infection with *B. typhosus*.

BACTERIOLOGICAL EXAMINATION OF MILK.

TABLE SHOWING NUMBERS OF SAMPLES OBTAINED FROM DIFFERENT SOURCES.

Year.	TOWN MILK.										COUNTRY MILK.								Total number of samples taken during the year.
	SAMPLES.					TUBERCULAR.					SAMPLES.				TUBERCULAR.				
	Mixed milk taken at the dairy.	Milk taken direct from cows.	Milk taken direct from suspicious cows.	Control samples of milk.	Total.	Mixed milk.	Direct from cows.	Direct from suspicious cows.	Control samples of milk.	Total.	Mixed milk from country cows.	Direct from suspicious cows at farms.	Control samples from cows at farms.	Total.	Mixed milk from country cows.	Direct from suspicious cows at farms.	Control samples from cows at farms.	Total.	
1901.....	39	215	—	—	254	—	2	—	—	2	297	15	—	312	18	2	—	20	566
1902.....	33	180	—	—	213	—	1	—	—	1	352	30	—	382	26	6	—	32	595
1903.....	28	202	1	—	231	—	2	—	—	2	344	7	—	351	18	1	—	19	82
1904.....	38	160	3	—	201	2	1	1	—	4	354	16	—	370	33	4	—	37	571
1905.....	16	188	8	—	212	—	1	—	—	1	338	10	—	348	13	1	—	14	560
1906.....	66	143	—	—	209	—	3	—	—	3	307	14	—	321	21	1	—	22	530
1907.....	104	86	4	—	194	1	3	—	—	4	252	5	—	257	12	2	—	14	451
1908.....	115	132	9	—	256	4	1	—	—	5	267	5	—	272	9	1	—	10	528
1909.....	112	135	12	—	259	—	—	4	—	4	333	8	—	341	6	4	—	10	600
1910.....	115	167	7	—	289	3	1	—	—	4	318	5	—	323	13	2	—	15	612
1911.....	122	190	3	—	315	1	2	—	—	3	336	10	—	346	15	3	—	18	661
1912.....	171	54	65	30	320	9	—	10	—	19	342	*62	11	415	20	6	—	26	735
1913.....	173	65	68	3	309	18	—	12	1	31	412	14	17	443	28	2	4	34	752
1914.....	206	—	58	13	277	11	—	17	2	30	452	47	55	554	42	6	2	50	831
Totals.....	1,338	1,917	238	46	3,539	49	17	44	3	113	4,704	248	83	5,035	274	41	6	321	8,574

* 48 samples of this number were taken direct from cows not suspicious.

REPORT ON THE PROGRESS OF THE WORK DURING THE YEAR 1900

By the Hon. the Secretary of the Board of Education

No.	Name	1900				Total
		Jan.	Feb.	Mar.	Apr.	
1	John Smith	100	120	110	130	460
2	James Brown	110	130	120	140	500
3	William Jones	120	140	130	150	540
4	Robert Taylor	130	150	140	160	580
5	Thomas White	140	160	150	170	620
6	Charles Black	150	170	160	180	660
7	George Green	160	180	170	190	700
8	Henry Hill	170	190	180	200	740
9	Samuel King	180	200	190	210	780
10	David Lee	190	210	200	220	820
11	John Miller	200	220	210	230	860
12	James Wilson	210	230	220	240	900
13	William Moore	220	240	230	250	940
14	Robert Davis	230	250	240	260	980
15	Thomas Evans	240	260	250	270	1020
16	Charles Baker	250	270	260	280	1060
17	George Clark	260	280	270	290	1100
18	Henry Adams	270	290	280	300	1140
19	Samuel Baker	280	300	290	310	1180
20	David Brown	290	310	300	320	1220
21	John Clark	300	320	310	330	1260
22	James Evans	310	330	320	340	1300
23	William Green	320	340	330	350	1340
24	Robert Hill	330	350	340	360	1380
25	Thomas King	340	360	350	370	1420
26	Charles Lee	350	370	360	380	1460
27	George Miller	360	380	370	390	1500
28	Henry Wilson	370	390	380	400	1540
29	Samuel Moore	380	400	390	410	1580
30	David Taylor	390	410	400	420	1620
31	John White	400	420	410	430	1660
32	James Black	410	430	420	440	1700
33	William Brown	420	440	430	450	1740
34	Robert Clark	430	450	440	460	1780
35	Thomas Evans	440	460	450	470	1820
36	Charles Green	450	470	460	480	1860
37	George Hill	460	480	470	490	1900
38	Henry King	470	490	480	500	1940
39	Samuel Lee	480	500	490	510	1980
40	David Miller	490	510	500	520	2020
41	John Wilson	500	520	510	530	2060
42	James Moore	510	530	520	540	2100
43	William Taylor	520	540	530	550	2140
44	Robert White	530	550	540	560	2180
45	Thomas Black	540	560	550	570	2220
46	Charles Brown	550	570	560	580	2260
47	George Clark	560	580	570	590	2300
48	Henry Evans	570	590	580	600	2340
49	Samuel Green	580	600	590	610	2380
50	David Hill	590	610	600	620	2420
51	John King	600	620	610	630	2460
52	James Lee	610	630	620	640	2500
53	William Miller	620	640	630	650	2540
54	Robert Wilson	630	650	640	660	2580
55	Thomas Moore	640	660	650	670	2620
56	Charles Taylor	650	670	660	680	2660
57	George White	660	680	670	690	2700
58	Henry Black	670	690	680	700	2740
59	Samuel Brown	680	700	690	710	2780
60	David Clark	690	710	700	720	2820
61	John Evans	700	720	710	730	2860
62	James Green	710	730	720	740	2900
63	William Hill	720	740	730	750	2940
64	Robert King	730	750	740	760	2980
65	Thomas Lee	740	760	750	770	3020
66	Charles Miller	750	770	760	780	3060
67	George Wilson	760	780	770	790	3100
68	Henry Moore	770	790	780	800	3140
69	Samuel Taylor	780	800	790	810	3180
70	David White	790	810	800	820	3220
71	John Black	800	820	810	830	3260
72	James Brown	810	830	820	840	3300
73	William Clark	820	840	830	850	3340
74	Robert Evans	830	850	840	860	3380
75	Thomas Green	840	860	850	870	3420
76	Charles Hill	850	870	860	880	3460
77	George King	860	880	870	890	3500
78	Henry Lee	870	890	880	900	3540
79	Samuel Miller	880	900	890	910	3580
80	David Wilson	890	910	900	920	3620
81	John Moore	900	920	910	930	3660
82	James Taylor	910	930	920	940	3700
83	William White	920	940	930	950	3740
84	Robert Black	930	950	940	960	3780
85	Thomas Brown	940	960	950	970	3820
86	Charles Clark	950	970	960	980	3860
87	George Evans	960	980	970	990	3900
88	Henry Green	970	990	980	1000	3940
89	Samuel Hill	980	1000	990	1010	3980
90	David King	990	1010	1000	1020	4020
91	John Lee	1000	1020	1010	1030	4060
92	James Miller	1010	1030	1020	1040	4100
93	William Wilson	1020	1040	1030	1050	4140
94	Robert Moore	1030	1050	1040	1060	4180
95	Thomas Taylor	1040	1060	1050	1070	4220
96	Charles White	1050	1070	1060	1080	4260
97	George Black	1060	1080	1070	1090	4300
98	Henry Brown	1070	1090	1080	1100	4340
99	Samuel Clark	1080	1100	1090	1110	4380
100	David Evans	1090	1110	1100	1120	4420

Milk.

The total number of samples submitted for examination was 831. All samples were examined microscopically with the object of determining the amount of dirt, of cellular debris, and whether bacteria were present in excess, and the type of these bacteria. Special attention has been directed to the presence of acid-fast bacteria and their relation to tuberculosis. The evidence obtained shows that the presence of acid-fast organisms does not necessarily mean that the milk is from a tuberculous animal, and that very frequently in a tuberculous milk no acid-fast organisms can be found after very careful microscopical examination. In all cases, therefore, the milk has been tested by inoculation methods.

Cultural examination has also been made in the majority of cases to determine the number of intestinal organisms present (particularly *B. coli*, but also *B. enteritidis sporogenes*). Many of the samples which have been examined have been very dirty, and this is specially evidenced by the presence of *B. coli* in minute quantities of the milk. This bacterium in milk mainly results from contamination with the intestinal contents of the cattle during the milking process, but the dust from the roads and streets is also an important factor. Acid-fast bacilli of the type of *B. tuberculosis* may be derived from the udder, or from the intestinal contents of an infected cow, or from a milker who is a victim of tuberculosis, but other organisms of a similar type, quite indistinguishable by ordinary microscopical methods, may be derived from the intestinal contents of animals which are apparently quite healthy. In direct examination of the faeces from non-infected cattle, acid-fast organisms, both cocci and bacilli, have been found.

B. tuberculosis and acid-fast organisms.

Acid-fast organisms were found in 93 samples, and of these 10 proved to be tubercular. *B. tuberculosis* was proved by inoculation to be present in:—

	1914.			1913.		
Railway Milks	19	samples, or	5%	...	23	samples, or 8%
Town Milks	30	„ „	11%	...	30	„ „ 9%
Hospital Milks	18	„ „	11%	...	9	„ „ 8%
Depôt Milks	13	„ „	16%	...	3	„ „ 5%

It should be pointed out that this does not represent the percentage of tuberculosis among the cows in dairies supplying the City with milk, for two or more tuberculous samples may be from one cow.

Water.

The quality of the water as supplied to Liverpool, as is shown by the monthly and daily examinations, demonstrates that its bacterial purity has been well maintained during 1914.

Comparative Table for the years 1907 to 1914.

Year.	Highest Number.	Lowest Number.	Average.
1907	37	19	28
1908	29	10	19
1909	31	17	23
1910	50	16	30
1911	37	17	27
1912	34	8	20
1913	28	15	20
1914	54	18	31

The total number of water analyses were :—

365 daily samples.

72 monthly „

158 special „

Total ... 595

The *B. coli* was entirely absent from both the Vyrnwy and Rivington supplies at Prescott, but was present in the Mixing Well and in the New Reservoir. I have gone very fully into this matter, and I have carried out a considerable number of special observations, and I am perfectly satisfied that the occasional presence of *B. coli* is due to the presence in the reservoirs of sea birds, and that no sewage contamination of any kind is taking place. I attach no importance, from the public health point of view, to the occasional presence of these organisms when the source has been clearly established.

3.—Rats for Possible Infection with the Bacillus of Plague.

Table illustrating the number of rats examined during each month of the year for the presence of the plague bacillus:—

Month.	Port.	Town.	Total.	Remarks.
PLAGUE.				
January*	389	249	638	* <i>B. pestis</i> was isolated from two of the rats on the 'Sailor Prince,' January 21st, 1915.
February	632	238	870	
March	444	295	739	
April	574	66	640	
May	576	121	697	No evidence of plague was found in any of the other rats.
June	356	312	668	
July	202	359	561	
August	509	381	890	
September	482	332	814	
October	945	457	1,402	
November	421	321	742	
December	539	299	838	
Total—1914	6,069	3,430	9,499	
Total—1913	3,907	4,006	7,913	

Special Examinations for the Presence of *B. Pestis*.

Description.	Sent by.	Number	Result
PLAGUE.—Cont.—			
Cats	Health Department	4	No evidence of plague found.
Guinea-pig	Port Authority	1	No evidence of plague found.
Glands from Patient	Port Authority	2	<i>B. pestis</i> present.
Flea	Port Authority	1	<i>B. pestis</i> was not found
		8	

Total examinations for Plague	...	Rats	9,499
		Special	8
Total	...		<u>9,507</u>

During the year *B. pestis* (the bacterium causal of Bubonic plague) was found in some rats from the "Sailor Prince" which had come from a plague-infected port. A guinea-pig from the same vessel was examined, but the guinea-pig died 26 days after it was placed under observation, and a prolonged investigation proved eventually that *B. pestis* was not present, but that the cause of death was infection with *B. Gäertner*, one of the food-poisoning organisms which are not uncommonly the cause of diarrhoea and death in guinea-pigs and rabbits. Three other rats (two from Toxteth Dock and one from Oriel Street Dépôt) were at first regarded with considerable suspicion. A bacterium very much resembling *B. pestis* was isolated, and this proved fatal to rats and guinea-pigs. A very prolonged investigation was carried out in relation to these organisms, but my final conclusion was that these rats were not typical cases of plague infection.

Provisional reports were made on these cases, so that all precautionary measures could be taken, and other rats from the same places were carefully examined, but none of these proved even suspicious.

All the other rats were entirely free from any suspicion of plague.

The glands were from a man who died of plague.

The flea was brought from the house in which the plague had occurred. No evidence of infection with *B. pestis* was found.

4.—Material from Infectious Diseases in Man (Diphtheria, Typhoid Fever, Tuberculosis, etc.)

a. SUSPECTED DIPHTHERIA CASES.

Sent by	No Growth.	Positive.	Negative.	Total.
Practitioners	3	100	216	319
City Hospitals	—	1	11	12
	3	101	227	331

b. BLOOD FROM SUSPECTED TYPHOID CASES.

Sent by	REACTIONS.			Total.
	Indefinite.	Positive.	Negative.	
Practitioners	5	14	30	49
City Hospitals	7	33	50	90
	12	47	80	139
Faeces from suspected typhoid cases	—	—	2	2

c. SPUTA FROM SUSPECTED TUBERCULOSIS CASES.

Sent by	Positive.	Negative.	Total.
City Practitioners	199	513	712

d. MISCELLANEOUS SPECIMENS SUBMITTED BY PRACTITIONERS FOR EXAMINATION.

Nature of Specimen.	Number.
Urines for deposit	19
Pus ? Gonococci	4
Films ? Spirochaetes	1
Total	24

Table shewing Total Number of Infectious Diseases in
Man received in 1913 and in 1914.

Year.		Practitioners	Hospitals.	Total
1913	Diphtheria	188	22	210
1914	„	319	12	331
1913	Typhoid	92	143	235
1914	„	49	90	139
1913	Tuberculosis	270	—	270
1914	„	712	—	712
1913	Miscellaneous specimens	53	—	53
1914	„	24	—	24

5.—Material from Infectious Diseases in Animals (Tuberculosis
Anthrax, Rabies, etc.)

Description of Sample.	Number.	RESULT.	
		Positive.	Negative.
TUBERCLE.—			
Udders (Health Department)	98	33	65
Glands (Health Department)	13	4	9
Glands (Port Sanitary Authority) ...	6	3	3
Total	117	40	77
ACTINOMYCOSIS.—			
Udders (Health Department)	1	—	1
Glands (Port Sanitary Authority) ...	9	6	3
Tongue (Port Sanitary Authority) ...	5	3	2
Roots (Port Sanitary Authority) ...	8	2	6
Total	23	11	12

Description of Sample.	Number.	RESULT.	
		Positive.	Negative.
ANTHRAX.—			
Blood	9	3	6
Seeds	1	—	1
Meal	26	—	26
Hay	10	—	10
Oats.....	2	—	2
Grain	1	—	1
Beans	1	—	1
Bran	4	—	4
Peat Moss Litter	1	—	1
Hide	4	—	4
Oilcake	1	—	1
Dust	1	—	1
Thirids	1	—	1
Total	62	3	59

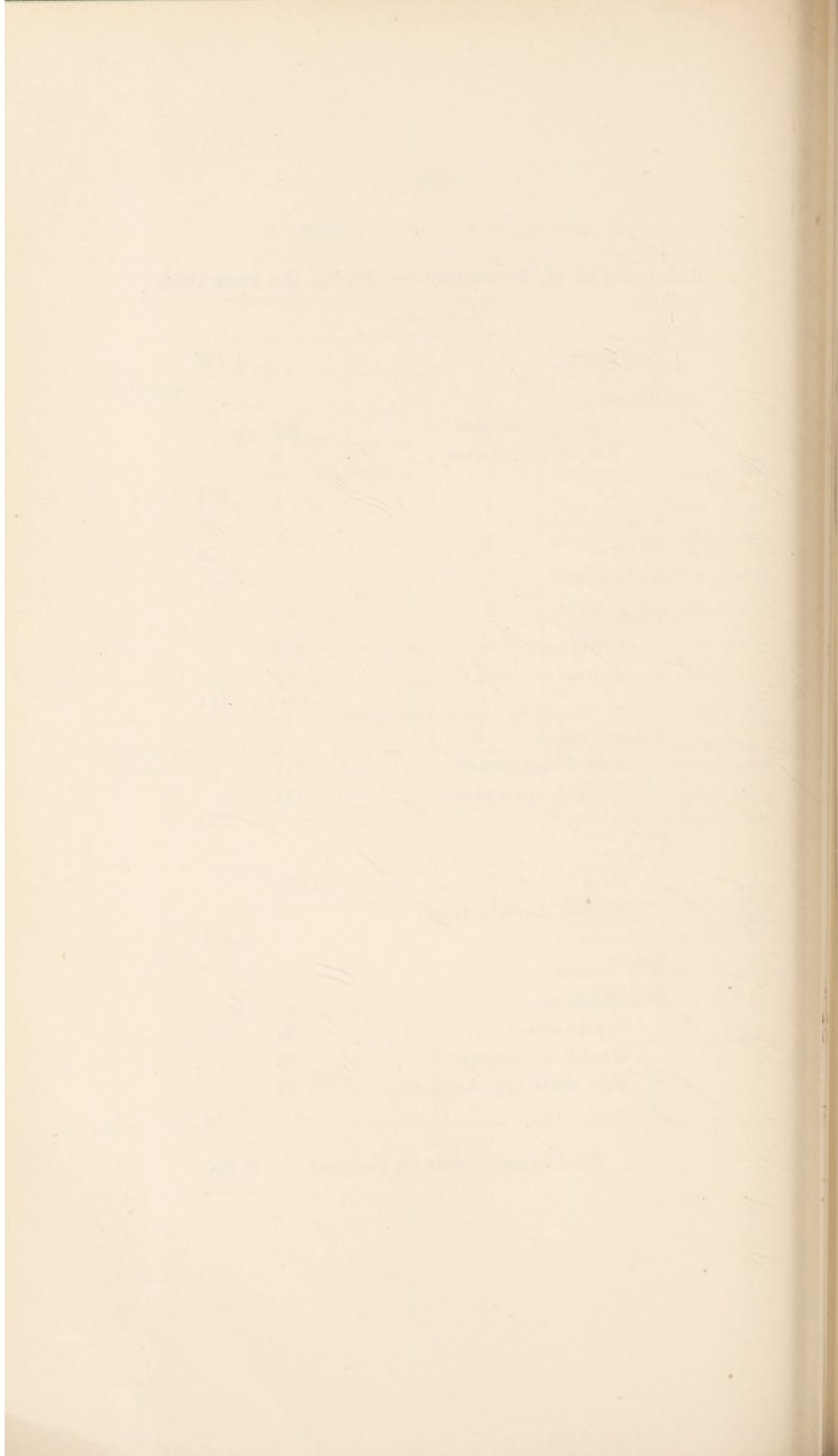
Description of Specimen.	Number.	Result.
RABIES.—		
Dog's head	4	No evidence of rabies found

6.—Miscellaneous Investigation.

Sent by	Description. of specimen	Number	Result.
Health Department	Udder	1	<i>Subacute mastitis</i>
	Udder	1	Acute inflammation
	Sheep's lungs	2	Pneumonia
	Tumour—calf's head	1	Appears to be inflammatory
	Sheep's liver	1	Case of Liver fluke
	Pig's cheek	1	Lesion of traumatic origin
	Ham	6	<i>B. coli</i> was absent in all cases
	White Bait	2	No evidence of preservative found
	Total	15	
Port Sanitary Authority	Glands	6	6 were tubercular and in 5 evidence of actinomycosis was found
	Tongue	2	2 were tubercular and evidence of actinomycosis was found in one
	Roots	1	Tubercular
	Rice ? Beri-beri	2	Owing to the variable results obtained, this investigation is being continued
	Grapes	3	Distinct evidence of gross sewage contamination found
	Cork Packing, etc.	3	
	Total	17	

Summary of all Examinations during the year 1914.

Foodstuffs	...	...	...	...	1,446
Waters—					
Water Committee	.	...	595		
Health Committee	...	...	6		
			—	601	
Actinomycosis	...	...	...	23	
Anthrax	...	...	...	62	
Diphtheria	...	...	...	331	
Typhoid—					
Blood	...	...	...	139	
Faeces	...	...	...	2	
			—	141	
Tuberculosis—					
City Practitioners	...	...	712		
Animal specimens	...	...	117		
			—	829	
Plague—					
Rats	...	...	...	9,499	
Special Investigations	...	...	8		
			—	9,507	
Rabies	...	...	...	4	
Miscellaneous—					
Practitioners	...	...	...	24	
Health Committee	...	...	15		
Port Sanitary Authority	...	...	17		
			—	56	
Total examinations for the year	...	...	...	13,000	



CLEANSING AND SCAVENGING.

THE UNIVERSITY OF CHICAGO

CLEANSING AND SCAVENGING.

The washing of streets, courts, back passages, &c., and the improvements in scavenging have been extended during the past year with beneficial results.

During the summer season the street washing was continued:—

211 streets	were washed once a week,
185 streets	„ „ twice a week,
41 streets	„ „ three times a week, and
242 streets	„ „ as occasion required,

and all passages and tunnel entrances to courts were also regularly washed.

Owing to the defective planning of many minor streets and the absence of adequate back passages some difficulties have yet to be overcome before the collection and removal of domestic refuse can be regarded as satisfactory. The concessions which have been made by the Health Committee in the substitution of sanitary ashbins for old insanitary ashpits have resulted in a distinct advantage to the public health.

The following is a statement of the number of improved sanitary ashbins which were fixed at the 31st December, 1914:—

In properties assessed at over £10 per annum and new properties	43,298
In properties of £10 assessment and under.....	35,016
Total.....	<u>78,314</u>

The number of brick ashpits has been reduced from 65,000 to approximately 10,000.

Under the Bye-laws now in force, all newly-erected houses must be provided with suitable ashbins.

All private, domestic and office drains are flushed by the City Engineer's Staff twice a year, and there can be no question that a more frequent and very thorough flushing would be attended with great advantage.

The City Engineer has kindly supplied the following tables, which indicate the operations carried out by the Cleansing Staff under his control:—

TABLE No. 1.

NIGHT SERVICE
 FOR EMPTYING COURT, &c., ASHPITS AND MIDDENS.

Middens have been practically abolished in the Old City, and consequently the operations of the night service are limited to the removal of domestic and office refuse from the neighbourhood of the Exchange, where it is impracticable to perform the work during business hours.

In the year 1900 an Improved Sanitary Ashbin was introduced, and 2,427 of these Bins have been fixed for the use of Courts, some of which have been removed owing to property being demolished.

Notices Received.	Collec- tions from Ashpits, etc.	Quantity of Ashes Collected.	Quantity of Refuse Deposited at Chisenhale Street Depot.	Average Working Staff per night.				Analysis of Work.		Average quantity removed from each Ashpit at each Collection
				Ashpit Men.	Wharf Men.	Carts.	Horses.	Loads per Man per Night.	Loads per Cart per Night.	
No.	No.	Loads.	Loads.	No.	No.	No.	No.			Cart Loads.
118	1,441	1,141	1,141	3-0	1-0	1-0	1-0	1-47	4-38	79

TABLE NO. 2.

SERVICE FOR THE COLLECTION & REMOVAL OF DRY ASHPIT & ASHBIN ASHES, & COLLECTIONS BY BELL CART.

The number of notices received to empty ashpits during the year 1914 was 350 or 0.35 per cent. of the total collections.

The number of brick ashpits within the City is approximately 10,000.

From the year 1898 to the 31st December, 1914, Improved Sanitary Ashbins have been fixed as follows:—

In properties of over £10 assessment, and new properties	...	...	43,298
In properties of £10 assessment and under ...	...	...	35,016

78,314

During this period the number of brick ashpits has been reduced from approximately 65,000 to 10,000. In premises unsuitable for fixture bins, 44,000 loose bins have been provided.

During the year 1914 each ashpit was emptied on an average 9.94 times. The total quantity of refuse collected was 113,376 loads.

No.	Dry Ashes.										Average Daily Working Staff.			Analysis of Work.	
	Total Quantity of Refuse Collected from Ashpits.	Depots at which Refuse was Deposited.								Ash Men.	Carts and Wagons.	Horses.	Loads per Man per day.	Loads per Cart per Day.	
		Total Quantity of Refuse Removed from Ashpits & Ashbins	Chiaenhale Street.	Rathbone Road Destruct.	Smithdown Road Destruct.	St. Domingo Destruct.	Lavrock Bank Destruct.	Garston Destruct.	Sandhills.						Various Tips, &c.
99,473	113,376	33,907	6,475	12,756	14,170	15,529	4,966	3,952	21,621	325.44	96.45	79.62	1.12	3.78	

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

TABLE No. 3.

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

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

A large number of the public urinals and trough water-closets are also cleansed and disinfected twice daily during the Summer season, and once daily during the remaining part of the year.

Underground Urinals.	Overground Urinals.	Trough Water-Closets.	Average Working Staff per day.	
			Trough W. C. Men.	Urinal Men.
No. and Stalls. 32—272	No. and Stalls. 150—534	No. 883	No. 19·33	No. 17·16

TABLE No. 4.

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

Total Quantity of Refuse Collected.	Depôts at which Refuse was Deposited.					Average Daily Staff.				Average Number of Loads Removed Daily per Cart and Motor.
	Chisenhale Street.	Sandhills.	Waverree.	Depôts.	Various Tips, &c.	Sweeping Machines.	Average Number of Men Employed.	Carts.	Horses.	
Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Per day.	Per day.	No.	No.	No.
41,474	18,978	4,555	3,690	5,421	8,830	2.44	435	35.68 Motors 1.76	38.12	3.27

TABLE No. 6.

SERVICE FOR STREET WATERING.

In connection with Street Watering approximately 32 million gallons of Water were distributed during the season, in addition to which a large quantity was used for street washing.

Number of Days on which Carts were out during year.	Quantity of Water Distributed.		Average Daily Staff employed during the Season.			Average No. of Loads distributed Daily per Cart.
	Large Loads.	Small Loads.	Watermen.	Motor Tank.	Carts and Horses.	
160	101,190	24,760	18.49	—	19.33	Motor Tank ... — Horse-cart ...32.71 Hand-cart ...40.00

DUST LAYING.

During the season 861,458 sq. yards Carriageways were treated with Dust Laying Compositions
 Of which 126,372 " " " in Sefton and Newsham Parks.

TABLE No. 7.

REMOVAL OF GARBAGE FROM ABATTOIR. *Discontinued March 31st, 1914.*

Loads Removed during year.	Where Deposited.		
	Chisenhale Street.	Sandhills.	Collingwood Dock.
235	235	—	—

TABLE No. 8.

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

TOTAL QUANTITY DEALT WITH DURING THE YEAR.	DEPÔTS AT WHICH MANURE WAS DEPOSITED.		
	CHISENHALE STREET.	SANDHILLS.	WAVERTREE.
Loads.	Loads.	Loads.	Loads.
1,796	1,050	359	387

Of the above 608 loads were collected from Fire Stations.

TABLE No. 9.

DESPATCHES OF MANURE AND REFUSE.

DEPÔTS.	Quantity of Saleable Refuse.				Quantity of Unsaleable Refuse.				Clinker to Works.	Grand Total.
	Street Sweepings	Mixture.	Ordinary Refuse to Farmers.	Total.	Sea.	Destructors.	Tips.	Ordinary Refuse to Farmers.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Chisenhale St., by Flats...	6,048	2,928	29,645	38,621	...	...	...	...	...	38,621
Sandhills Flats & Rail ...	...	159	6,536	6,695	...	...	...	...	...	6,695
Wavertree do. ...	3,668	...	...	3,668	...	...	...	...	...	3,668
Chisenhale Street and Sandhills, via Collingwood	...	...	...	...	23,414	...	...	...	...	23,414
Dock per Barge "Beta"	...	...	...	...	8,142	...	...	...	...	8,142
Clinker per "Beta"	...	...	...	...	...	52,169	...	...	...	...
Charters Street Destructor.	...	...	...	...	...	11,017	...	...	...	...
Rathbone Road "	...	...	...	...	...	23,198	...	...	...	...
Smithdown Road "	...	...	...	...	...	31,012	...	...	...	154,214
St. Domingo "	...	...	...	...	...	7,449	...	...	...	...
Garston "	...	...	...	...	...	29,269	...	...	...	...
Lavrock Bank "	...	...	...	...	...	...	31,048	11,210	...	44,840
Sundry Tips.....	2,582	...	...	2,582	...	...	5,230	...	...	5,230
Clinker to Tips	...	...	...	...	...	...	...	...	21,933	21,933
Ground Clinker to Works...	...	...	...	...	...	...	...	...	11,359	11,359
Rough Clinker to Works ...	...	...	...	...	...	...	...	...	...	...
Totals	12,298	3,087	36,181	51,566	31,556	154,214	36,278	11,210	33,292	318,116

The foregoing Table shows that not less than 318,116 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.

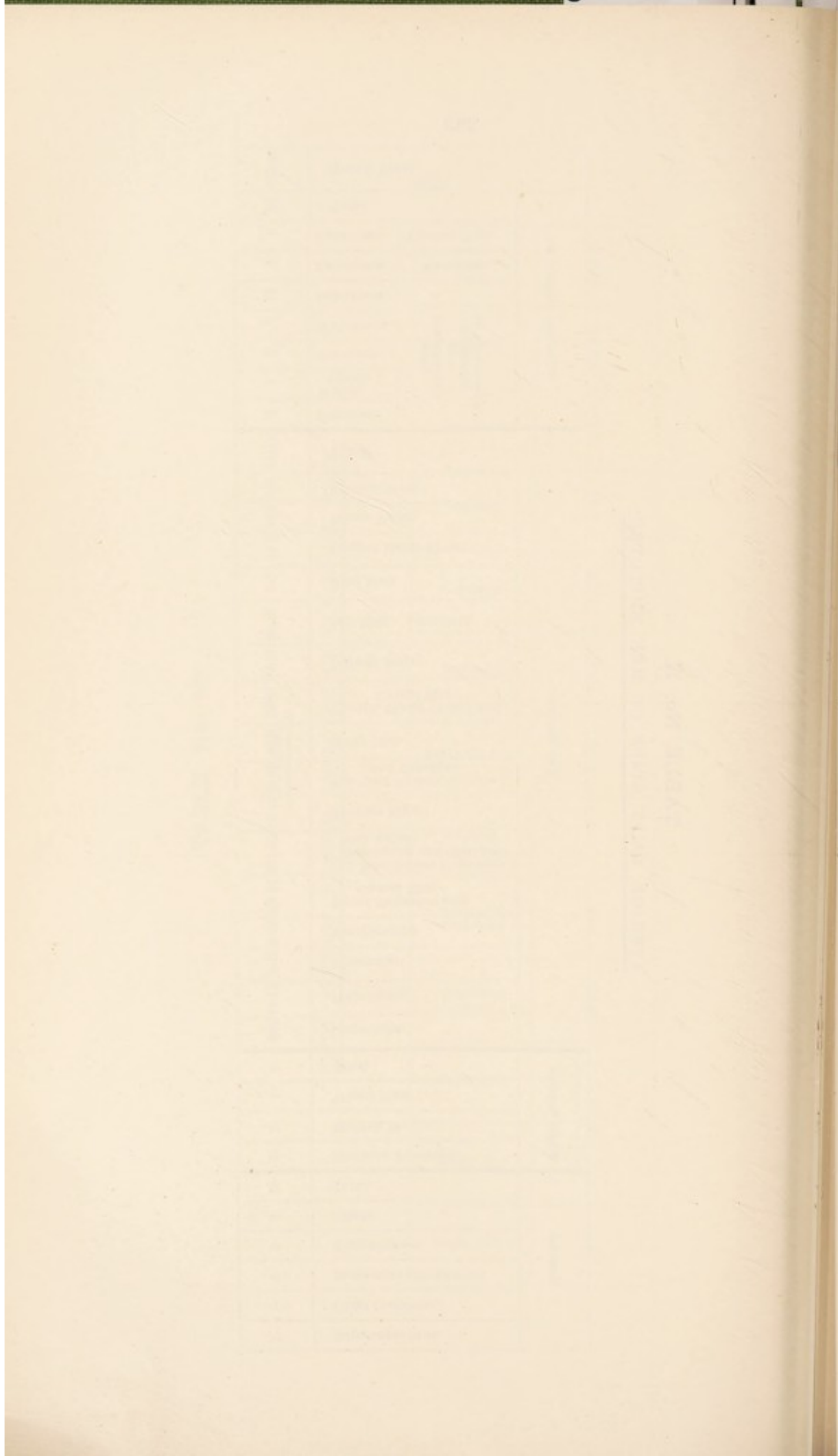
TABLE No. 10

HORSES.DAILY AVERAGE NUMBER EMPLOYED ON CLEANSING WORK.

Night Ashes.	0.76	73.26	Dry Ashes.		Bell Ashes.	35.68	Street Cleansing.	2.44	Sweeping Machines.	1.87	Tar Spraying.	9.15	Watering.	0.19	Canals.	10.09	Destructors.	2.82	Various.	Daily Average. Total
																				139.37

TABLE No. 11.
AVERAGE DAILY STAFF OF MEN EMPLOYED.

[illegible]



INSANITARY PROPERTY.

PROPERTY OF THE

INSANITARY PROPERTY AND HOUSING OF THE WORKING CLASSES.

Previous Annual Reports contain detailed descriptions of the types of insanitary dwellings in Liverpool and of their general arrangement and situation.

These Reports also deal with the prevalence of sickness, and the excessive mortality rates in connection with insanitary areas, notwithstanding all the administrative efforts made to sanitise these areas. Obviously nothing short of entire demolition and reconstruction could meet the necessities of these conditions, and the lack of initiative on the part of owners in submitting schemes for the improvement or removal of insanitary property showed that they also recognised that the task was beyond their powers.

The Housing Committee have up to the present erected 2,792 tenements, together with 32 shops, and in their re-building schemes have, where possible, provided open spaces and children's play-grounds fitted with the usual gymnasia. The operations of the Housing Committee have also led to the opening up of the districts concerned, and the widening of adjacent streets.

During the year Closing Orders were made by the Housing Committee in respect to the following 206 dwelling-houses. The majority are the usual type of insanitary house, situated in confined courts, without through ventilation, yard space, separate closet accommodation, or water supply. Closing Orders were also made in respect to a number of houses facing the street which were in a derelict condition and quite unfit for human habitation.

Date of Meeting of Housing Committee.	Premises.	Number of Houses.
1914. 23rd Jan.	Clayton Street— Nos. 1, 2, 3, 4, 5, 6 in 1 Court No. 5 in 3 Court	6 1
„	Cuerdon Street— Nos. 24, 26 (fronts)	2
		<u>9</u>

Date of Meeting of Housing Committee.	Premises.	Number of Houses.
1914. 23rd Jan.	Forward	9
	Birkett Street—	
	Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 in 5 Court	10
	No. 49 (front)	1
"	Parr Street—	
	Nos. 2, 4, 6 in 7 Court	3
"	Back Seel Street—	
	No. 12 (front)	1
"	Pembroke Street—	
	Nos. 1, 3, 5, 7, 9 in 2 Court	5
	No. 4 (front)	1
1st May	Rathbone Street—	
	Nos. 95, 97, 99, 101 (fronts)	4
	Nos. 1, 2 in 13 Court	2
	Nos. 1, 2, 3, 4 in 15 Court	4
"	Back Nile Street—	
	Nos. 2, 4 (fronts)	2
"	Gilbert Street—	
	Nos. 1, 2, 3 in 12 Court	3
	Nos. 2, 4 in 18 Court	2
"	Blake Street—	
	No. 4 in 7 Court	1
	Nos. 1, 2, 3, 4 in 11 Court	4
	Nos. 1, 2, 3, 4 in 13 Court	4
"	Back Blake Street—	
	Nos. 10, 12, 14 (fronts)	3
"	Dale Street—	
	Nos. 1, 2, 3 in 1 Court	3
"	Trueman Street—	
	No. 1 in 4 Court	1
	No. 1 in 6 Court	1
"	Back Queen Anne Street—	
	No. 20, 22 (fronts)	2
	Nos. 1, 2 in 4 Court	2
"	Duckworth Street—	
	Nos. 1, 3 in 2 Court	2
	No. 6 (front)	1
"	Graham Place—	
	Nos. 3, 5 (fronts)	2
"	Fontenoy Street—	
	Nos. 2, 3 in 4 Court	2
	Nos. 1, 2, 3 in 6 Court	3
	Nos. 68, 70 (fronts)	2

Date of Meeting of Housing Committee.	Premises.	Number of Houses.
1914. 1st May	Forward Primrose Hill— No. 1 in 9 Court Nos. 1, 2, 3, 4, 5 in 11 Court Nos. 1, 2, 4 in 13 Court Nos. 1, 3 in 15 Court Nos. 17, 18, 21, 25, 27, 29 (fronts)	80 1 5 3 2 6
27th Nov.	Mason Street, Woolton— Nos. 6, 7, 8, 9, 10, 11, 12 in 3 Court Nos. 1, 2, 3, 4, 5 in 3 Court	7 5
"	Waterloo Street, Wavertree— Nos. 13 to 25—31 and 33	13
"	St. Stephen Street— Nos. 1, 2, 3 in 2 Court Nos. 2, 4, 6, 8, 10 (fronts)	3 5
"	Cuerdon Street— No. 16 (front)	1
"	Clayton Street— No. 15 (front)	1
"	Brown Street— Nos. 1, 2, 3, 4, 5, 6 in 2 Court	6
"	Pembroke Place— Nos. 1, 2, 3, 4, 5, 6, 7, 8 in 1 Court Nos. 1, 3, 5, 7 in 3 Court	8 4
"	Denison Street— Nos. 4, 5, 6, 7 in 1 Court Nos. 9, 11 (fronts) Nos. 1, 2, 3, 4, 5, 6 in 6 Court	4 2 6
"	Batchelor Street— Nos. 1, 2, 3, 4, 5, 6, 7 in 1 Court	7
"	Juvenal Place— Nos. 1, 2 in 3 Court No. 5 (front)	2 1
28th May	Quarry Mount, Woolton— Nos. 2, 4, 6	3
"	Chapel Place— Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16	13
"	Quarry Street, Woolton— Nos. 2, 4, 6	3
"	Rose Street— Nos. 1, 2, 3, 4 Nos. 18, 20, 22, 24	4 4
"	Bear Cottages— Nos. 1, 2, 5, 16, 18, 20, 22	7
Total		206

Demolition Orders were made by the Housing Committee, on the report of the Medical Officer of Health, in respect to the undermentioned insanitary dwelling-houses, which had previously been closed as unfit for human habitation:—

Date of Meeting of Housing Committee.	Premises.	Number of Houses.
1914. 22nd April	Union Street— No. 1 in 2 Court	1
"	Worfield Street— No. 1 in 6 Court	1
"	Gay Street— Nos. 1, 2, 3, 4 in 8 Court Nos. 1, 2, 3 in 10 Court	4 3
"	Clare Street— Nos. 1, 2, 3, 4, 5, 6, 7 in 6 Court	7
"	Birkett Street— Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9 in 3 Court No. 39 (front)	9 1
"	Pembroke Street— Nos. 2, 4, 6, 8, 10 in 4 Court No. 6 (front)	5 1
"	Back Seel Street— No. 1 in 6 Court No. 6 (front) Nos. 1, 2, 3, 4 in 8 Court	1 1 4
"	Parr Street— Nos. 1, 2, 3 in 5 Court No. 29	3 1
"	Cropper Street— Nos. 1, 2 in 3 Court No. 3 in 3 Court	2 1
"	College Lane— Nos. 1, 2, 3, 4 in 4 Court	4
"	Northumberland Street— Nos. 1, 2, 3 in 2 Court Nos. 1, 2, 3 in 4 Court	3 3
"	Henry Street— Nos. 1, 2 in 1 Court	2
29th May	Clare Street— Nos. 1, 2, 3, 4, 5, 6 in 2 Court Nos. 1 to 6 in 4 Court	6 6

Date of Meeting of Housing Committee.	Premises.	Number of Houses.
	Forward	69
1914. 26th June	Clayton Street— Nos. 1, 2, 3, 4, 5, 6 in 1 Court No. 5 in 3 Court	6 1
"	Cuerdon Street— Nos. 24, 26 (fronts)	2
"	Birkett Street— Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 in 5 Court No. 49 (front)	10 1
"	Parr Street— Nos. 2, 4, 6 in 7 Court	3
"	Back Seel Street— No. 12 (front)	1
25th Nov.	Back Nile Street— Nos. 2, 4 (fronts)	2
"	Rathbone Street— Nos. 95, 97, 99, 101 (fronts) Nos. 1, 2 in 13 Court Nos. 1, 2, 3, 4, in 15 Court	4 2 4
"	Gilbert Street— Nos. 1, 2, 3 in 12 Court Nos. 2, 4 in 18 Court	3 2
"	Blake Street— No. 4 in 7 Court Nos. 1, 2, 3, 4 in 13 Court	1 4
"	Dale Street— Nos. 1, 2, 3 in 1 Court	3
"	Back Queen Anne Street— Nos. 1, 2 in 4 Court Nos. 20, 22 (fronts)	2 2
"	Duckworth Street— Nos. 1, 3 in 2 Court No. 6 (front)	2 1
"	Quarry Street— Nos. 4, 6, 8 in 5 Court	3
"	Rose Street— Nos. 18, 20, 22, 24 (fronts) Nos. 1, 2, 3, 4 in 6 Court	4 4
Total		136

LIVERPOOL SANITARY AMENDMENT ACT, 1864.

Under the provisions of the above Act, the Medical Officer of Health certified that the following premises were unfit for human habitation, and ought to be demolished:—

The Court known as No. 1 court, Westminster Road, in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3 and 4 in the said No. 1 Court.

Unhealthy Areas.

PRINCE EDWIN STREET, RATHBONE STREET, MASON STREET, SALTNEY STREET,
 BLENHEIM STREET, PENRHYN STREET.

The above unhealthy areas, embracing 646 houses, are fully described in the Medical Officer of Health's Annual Report for the year 1912.

The official representation was made in June, 1912, and following the usual public inquiry by the Local Government Board on February 6th, 1913, the formal approval of the Board to the proposed scheme of reconstruction was received on the 1st August, 1913.

In view of certain necessary street improvements, these areas have received the careful consideration of a Special Committee, consisting of members of the Health and Housing Committees. The Special Committee agree that as regards the following areas, viz., Saltney Street, Blenheim Street, Penrhyn Street, Mason Street, and Rathbone Street, the schemes of reconstruction should be proceeded with. The best methods of dealing with Prince Edwin Street and Beau Street areas, and the properties contiguous thereto, are still under consideration of the Special Committee.

With regard to the new dwellings to be erected on the Rathbone Street area, the Housing Committee decided to have a competition, and offered three premiums, namely, £100, £50, £25, for the best designs. The conditions of the competition may be briefly stated as follows:—

The dwellings were to comprise self-contained, two-roomed, and three-roomed tenements, together with keeper's house, office and store, and a recreation ground of at least 1,400 superficial yards.

The first premium design and report was to become the property of the Committee, and the Committee did not bind themselves to carry out any of the designs.

Economy in construction, and avoidance of unnecessary outlay in architectural detail was urged upon all competitors, and consideration would be given to any special form of construction or material which commended itself to them.

Accommodation was to be provided for not less than 500 persons, based on a calculation of two persons for each habitable room, and due provision was to be made for the usual sanitary conveniences. The construction of the building, and the laying out of the site was to comply with the Building Bye-laws and Local Acts.

The competition produced 88 sets of designs, 13 of which were from local architects, and by permission of the Library, Museums and Arts Committee, all the designs were exhibited in the Walker Art Gallery, and after the assessor had made his award the designs were open to public inspection.

The Assessor, Mr. Henry Hartley, F.R.I.B.A., F.S.I., submitted his award as follows:—

The first premium to Messrs. Biram & Fletcher, George Street, St. Helens.

The scheme provides for the clearance of the site, and for laying out the cleared site with tenements and self-contained dwellings to accommodate 500 people, also the provision of a large recreation ground and the widening of Mount View.

The recreation ground, planned as a central feature, backed by the self-contained dwellings and flanked by tenements, is the keynote of the scheme, giving spaciousness, light and air, to both front and rears of tenements.

The accommodation is as follows:—

42 three-roomed tenements, accommodating 252 persons.	
42 two-roomed tenements, accommodating 168 persons.	
10 self-contained dwellings, accommodating 80 persons.	
	Total 500.

The plans shown give a perspective view, and also indicate the arrangement of the dwellings and floor plans.

The two-room and three-room tenements contain living room, bedroom, and scullery; the self-contained dwellings contain three bedrooms, living room, and scullery.

All the tenements are provided with the usual wash boiler, bath, and sink, together with hot and cold water.

The second premium was awarded to Mr. F. E. G. Badger, Stoneycroft, Liverpool.

This scheme suggests the closing of a portion of Back Rathbone Street, also the closing of Rathbone Place, but Back Rathbone Street at the north end is shown to be continued at its present width into Rathbone Street.

Mount View is retained in its present position, but slightly increased in width to conform to the Regulations.

The main tenement blocks are placed on the higher ground towards Back Rathbone Street, partly with the object of screening the unsightly property abutting thereon.

Separate recreation grounds for boys and girls are placed in front.

All the self-contained houses are placed in three separate blocks in Rathbone Street, these again being flanked on either side by tenement blocks.

The Georgian style of architecture has been adopted for the buildings, and the general treatment has been so arranged to reduce the cost to a minimum.

The accommodation is as follows:—

51 three-roomed tenements, accommodating 306 persons.

63 two-roomed tenements, accommodating 252 persons.

12 self-contained houses, accommodating 96 persons.

1 keeper's house, accommodating 8 persons.

Total 662.

Every room has an external window open to the sky, and the various blocks are arranged in such a manner as to secure a perfect circulation of air.

The plans give a perspective view, and also indicate the arrangement of the dwellings and floor plans.

Front balconies are omitted altogether from this design on account of the serious reduction of light in the lower storeys.

All rooms are provided with separate fireplaces and flues, and each dwelling has a separate external water-closet, together with sink, bath, boiler, and hot and cold water supply.

In connection with the refuse disposal, the architect suggests that in lieu of the dust-shoots a special system of bins, lowered and raised by means of simple gearing, might be adopted. The details are shown in the plans.

The third premium was awarded to Messrs. Halliday & Paterson, and Mr. G. Gustave Agate, of 14, John Dalton Street, Manchester.

The recreation ground is placed in a central position with three blocks of tenements grouped around it on three sides of a quadrangle, the remaining block of tenements faces the small open space on the north side of Mount View.

The tenements are planned on the balcony system, with staircases from the front streets.

Each tenement is provided with separate closet, sink, wash boiler, hot and cold water supply, also the usual food locker.

The accommodation is as follows:—

53 three-roomed tenements, accommodating 318 persons.

29 two-roomed tenements, accommodating 116 persons.

15 self-contained cottages, accommodating 120 persons.

Keeper's flat, office and store, 2 shops with cottages attached, and lock-up shop. Total 554.

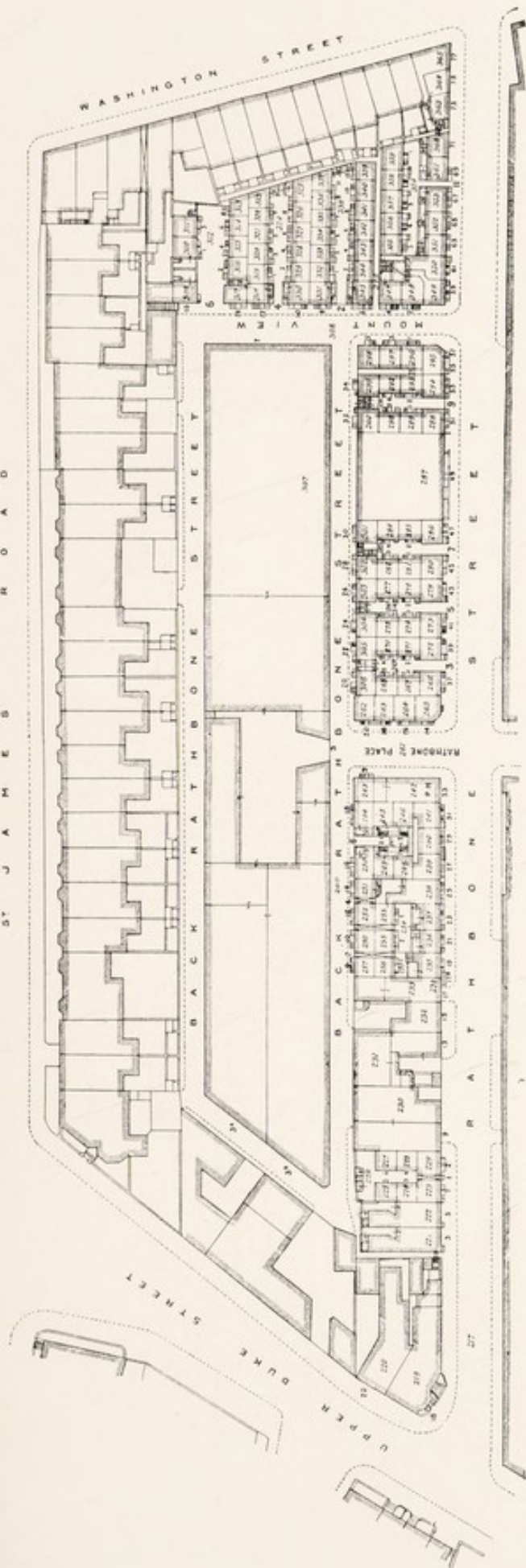
Perspective view and floor plan is shown on the plans.

GORE STREET, SPARLING STREET, JORDAN STREET AREAS.

A detailed description of these Areas, in respect to which proceedings were taken under Part 3 of the Housing of the Working Classes Act, will be found in the Medical Officer of Health's Report for 1912.



ST JAMES ROAD



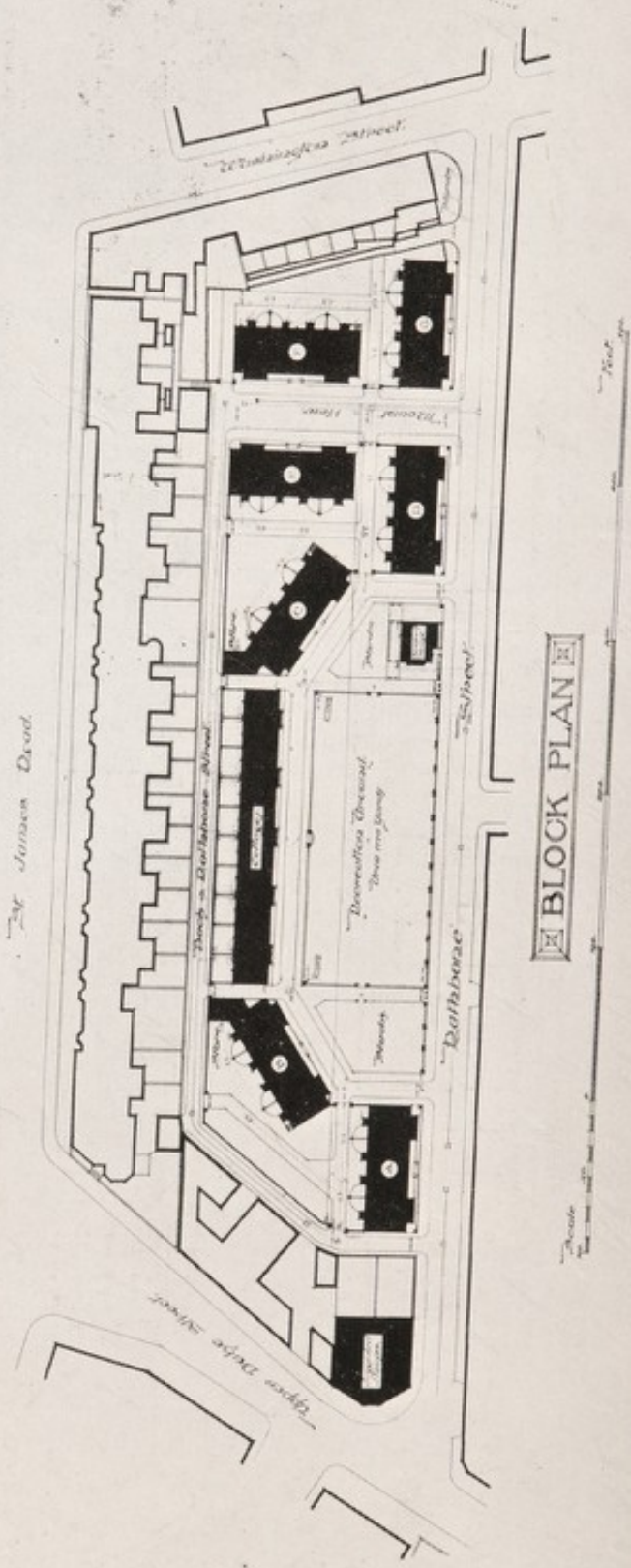
INSANITARY PROPERTY.
Rathbone Street Area.

CITY OF LIVERPOOL PROPOSED HOUSING SCHEME IN RATHBONE STREET AREA

Notes -
 1. Existing Buildings shown in Shaded
 2. New Buildings shown in Black
 3. Existing Buildings shown in White
 4. New Buildings shown in Black
 5. Existing Buildings shown in White
 6. New Buildings shown in Black

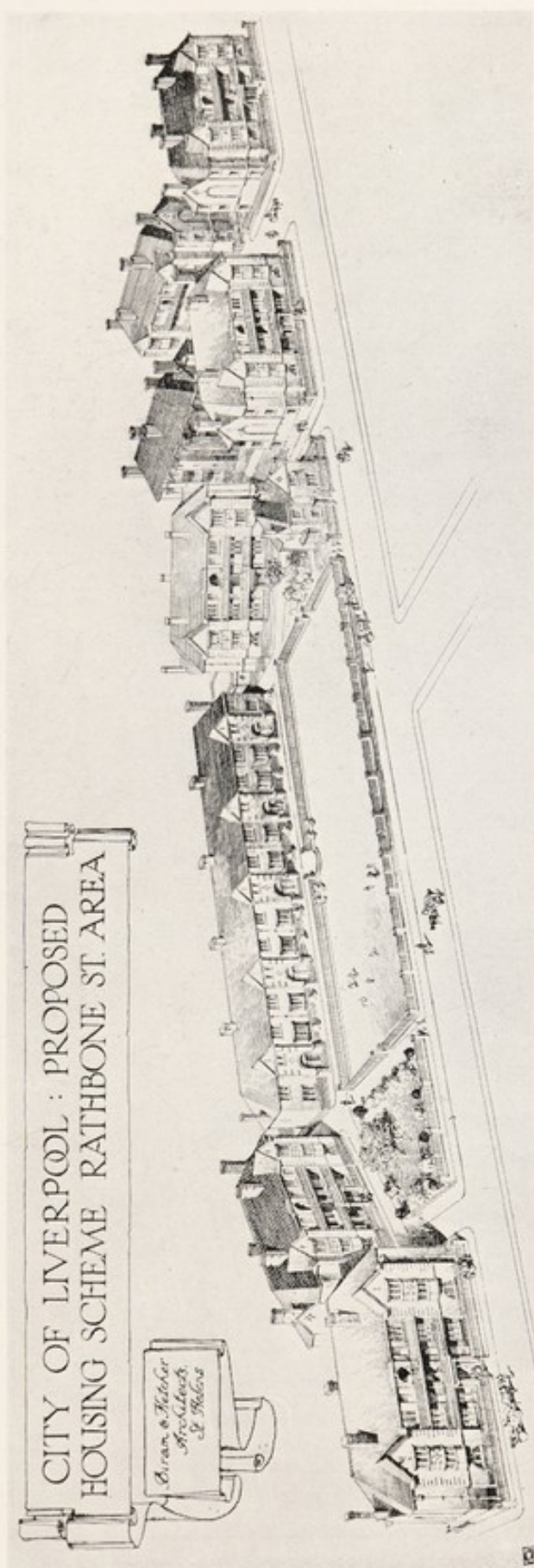


St James Road



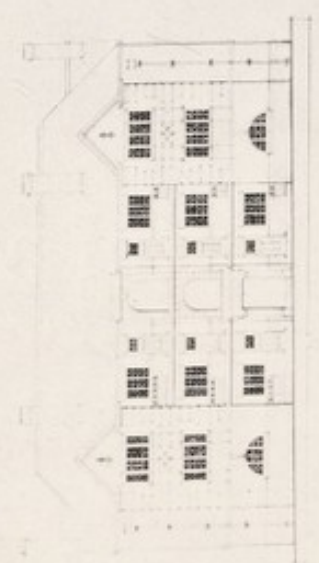
BLOCK PLAN

Design No. 1 (Block plan).

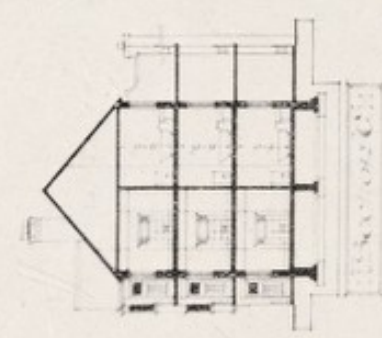


Design No. 1 (Perspective View).

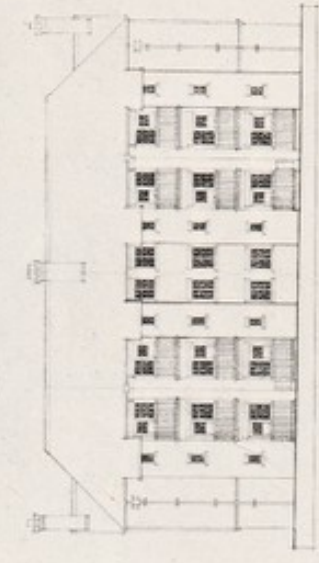
THE CITY OF LIVERPOOL PROPOSED HOUSING SCHEME IN RATHBONE STREET AREA



Front Elevation



Side Elevation

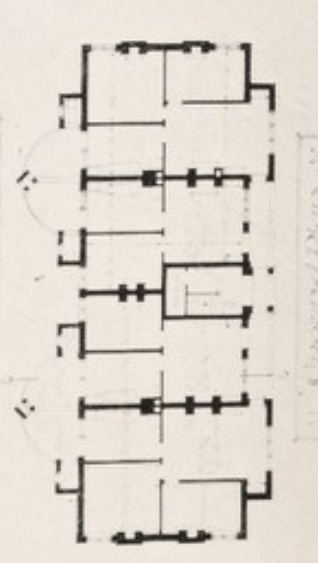


Back Elevation

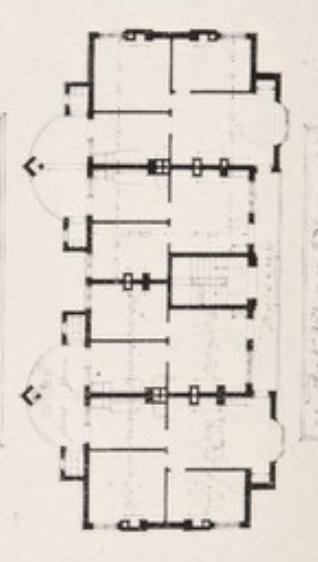
These elevations are intended to show the general appearance of the proposed buildings and are not to be taken as a guarantee of the actual design.

These elevations are intended to show the general appearance of the proposed buildings and are not to be taken as a guarantee of the actual design.

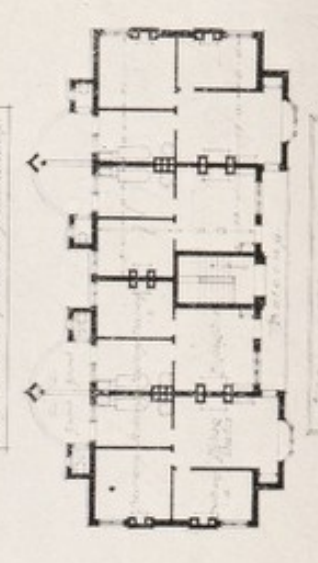
These elevations are intended to show the general appearance of the proposed buildings and are not to be taken as a guarantee of the actual design.



Ground Floor Plan



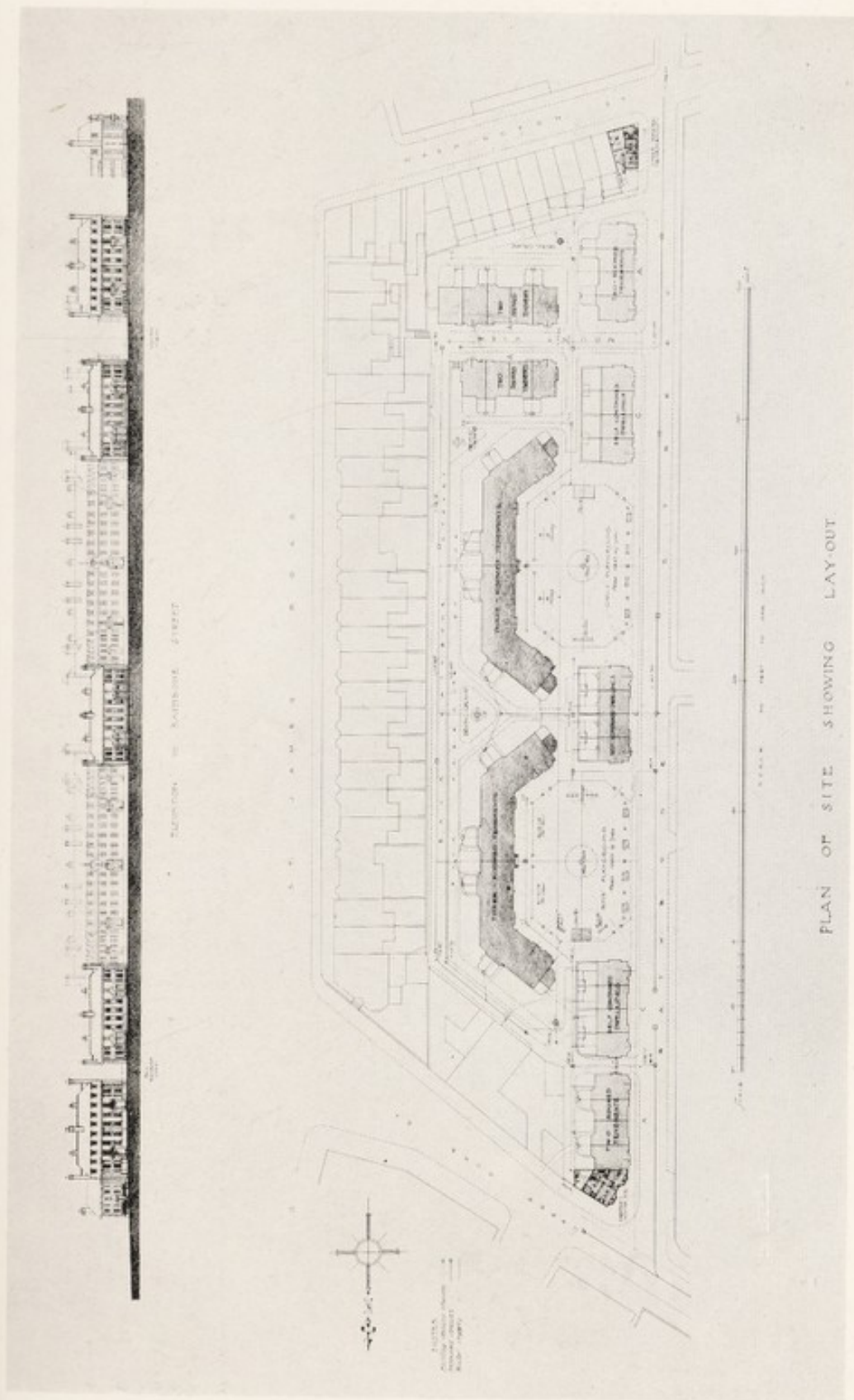
First Floor Plan

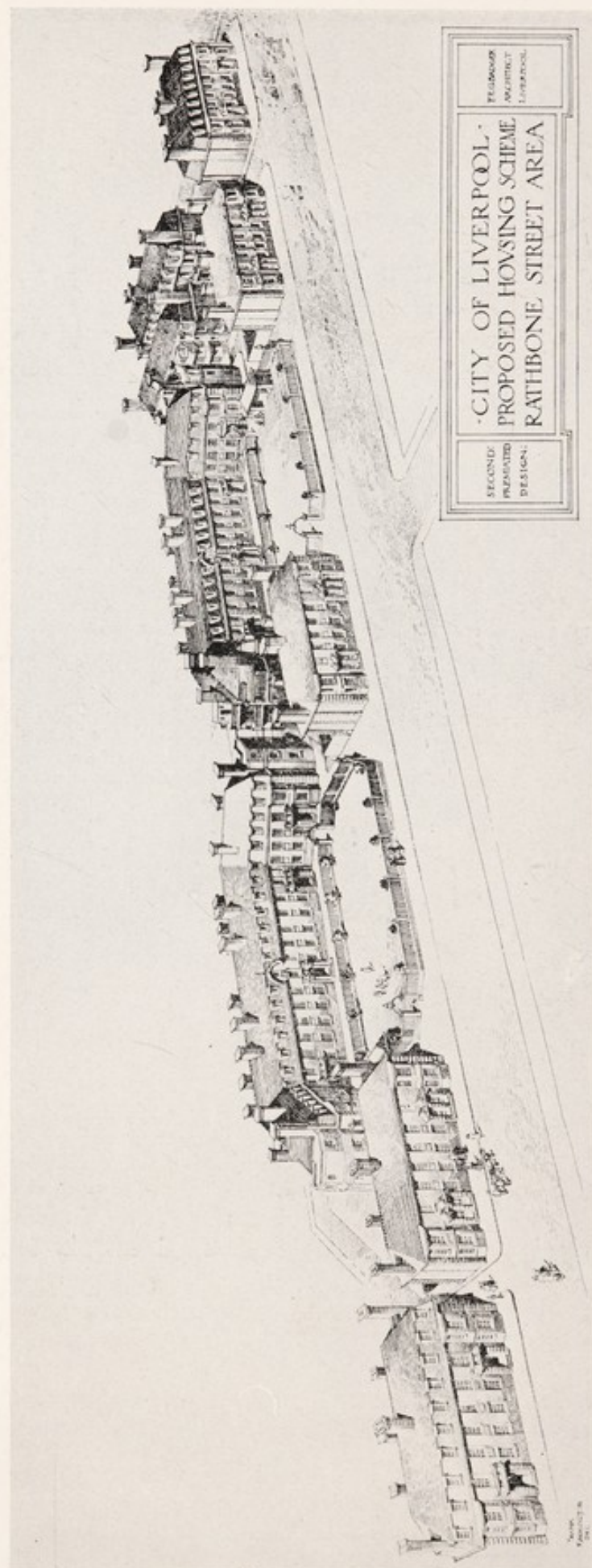


Second Floor Plan

Design No. 1 (detail plans).

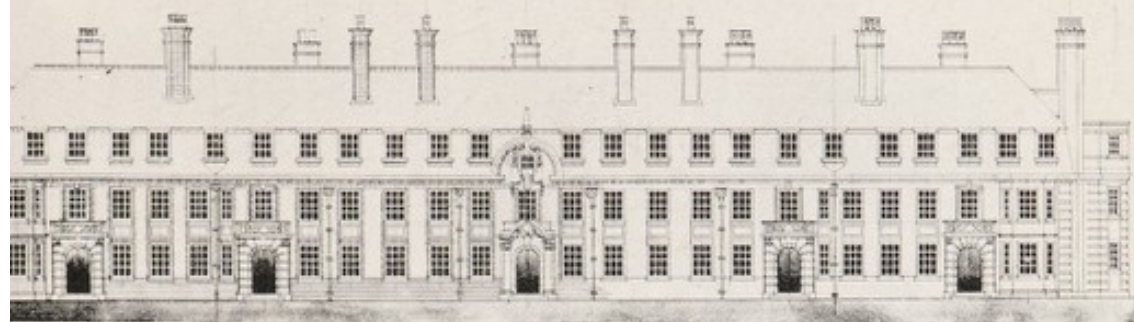
Drawn by J. H. B. and J. H. B.



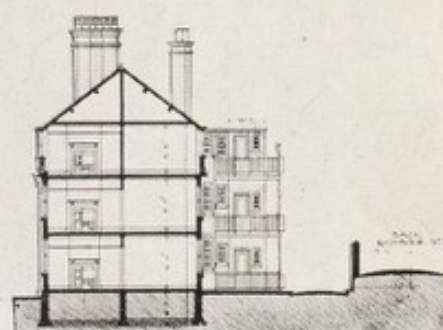
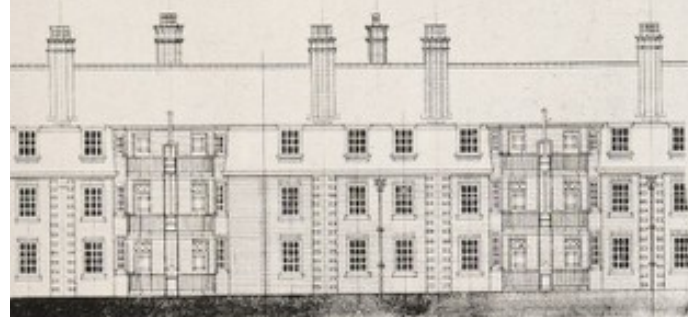


Design No. 2 (Perspective View).

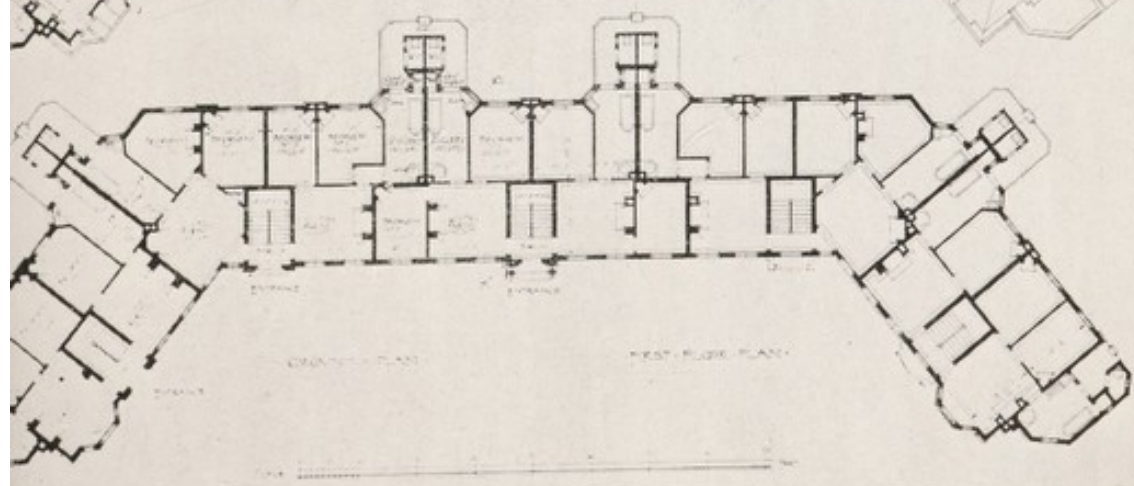
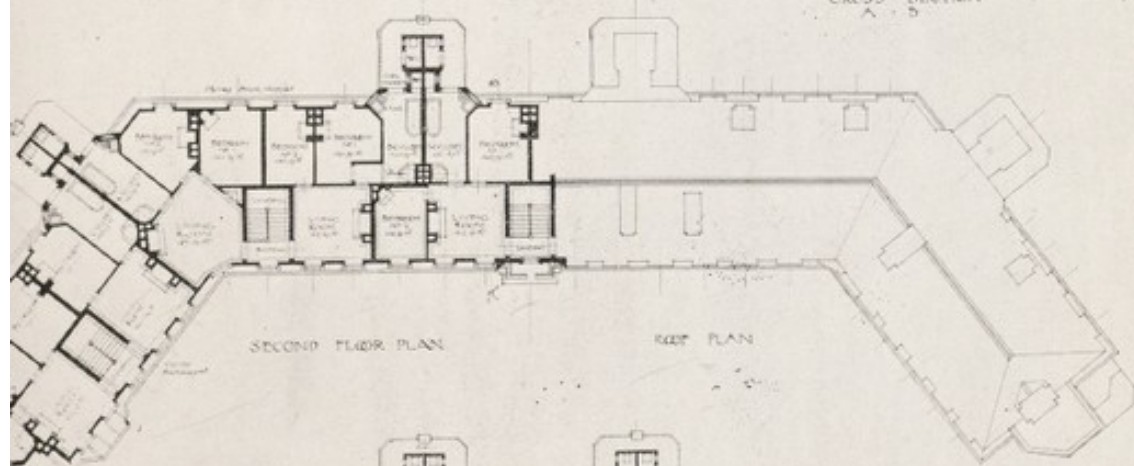
THREE - ROOMED TENEMENTS



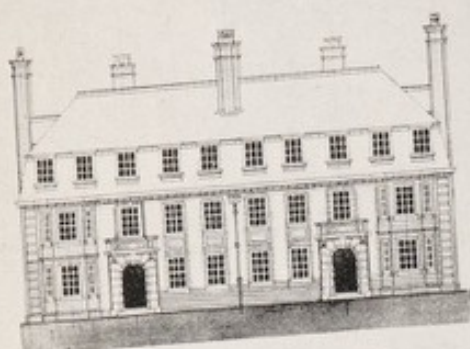
FRONT ELEVATION
(DEVELOPED)



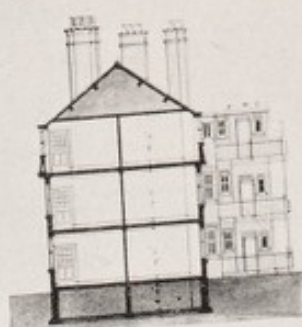
CROSS SECTION
A - D



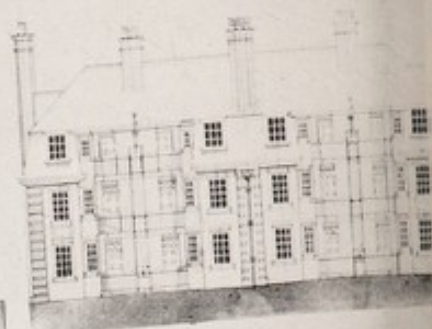
Design No. 2 (detail plans and elevations).



FRONT ELEVATION
TO EASTBURY ST.

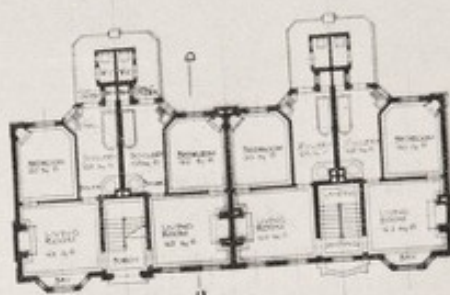


CROSS SECTION C-D



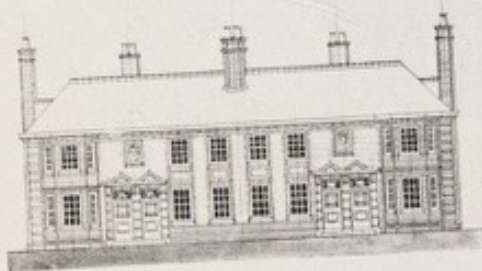
BACK ELEVATION

TWO-ROOMED
TENEMENTS.
BLOCK A-A :

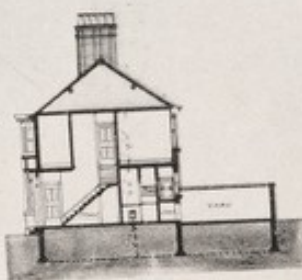


GROUND
PLAN :

FIRST FLOOR
PLAN :



FRONT ELEVATION
TO EASTBURY ST.

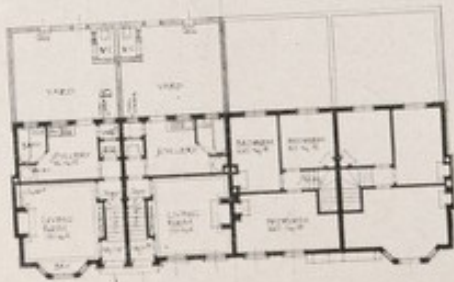


CROSS SECTION
TA-B :



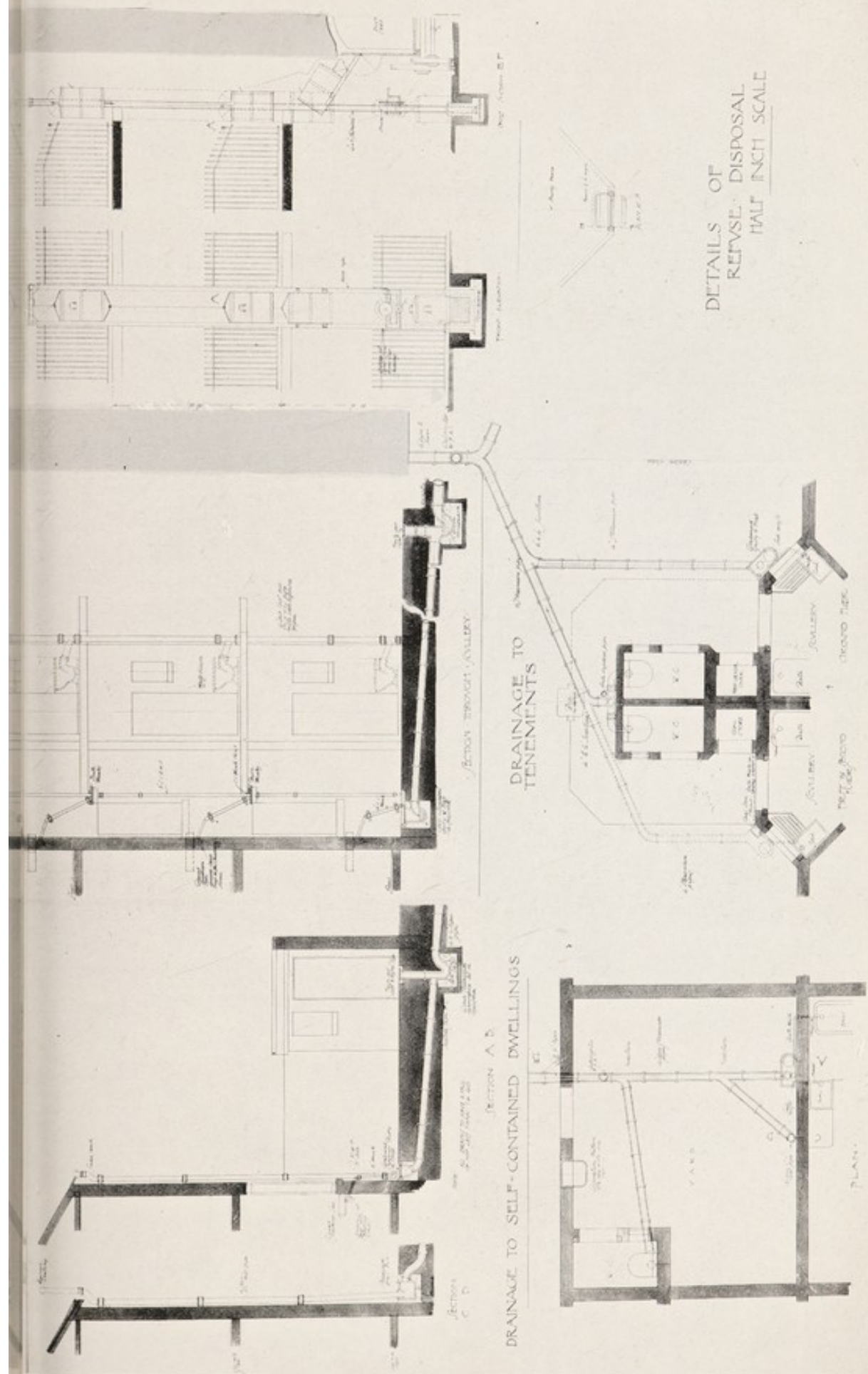
BACK ELEVATION

SELF CONTAINED
DWELLINGS
BLOCK C-C :



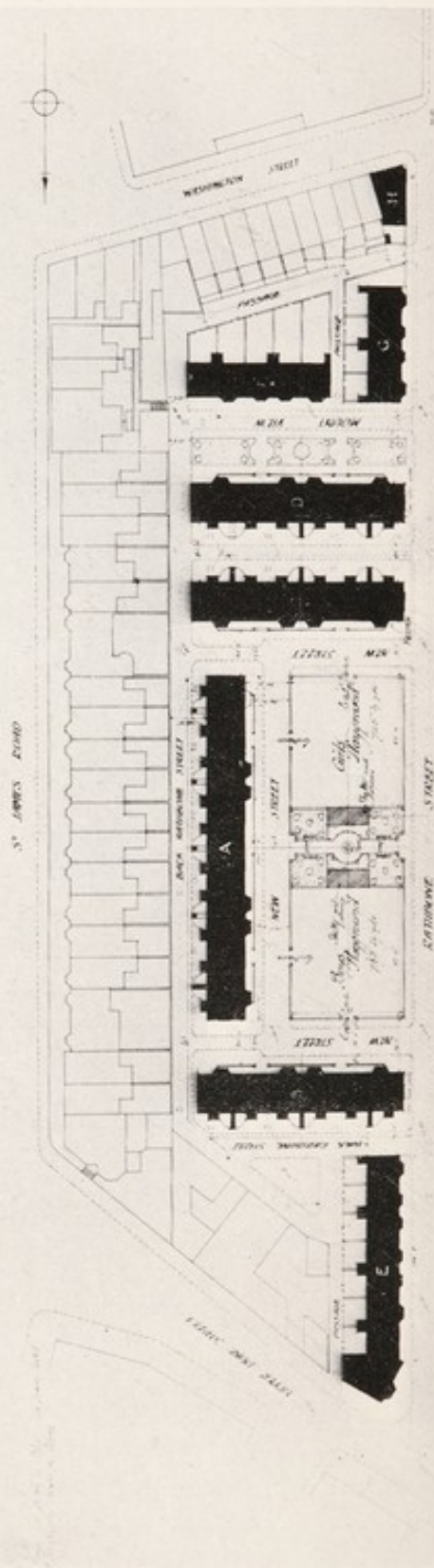
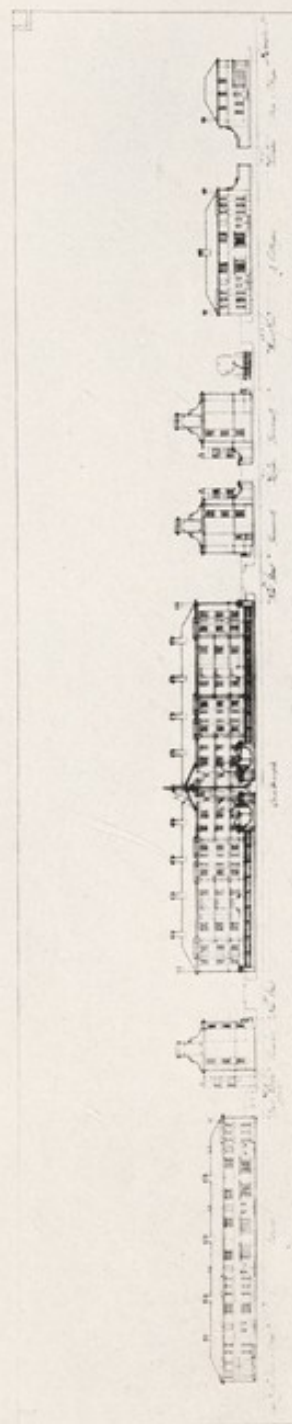
GROUND
PLAN :

FIRST FLOOR
PLAN :



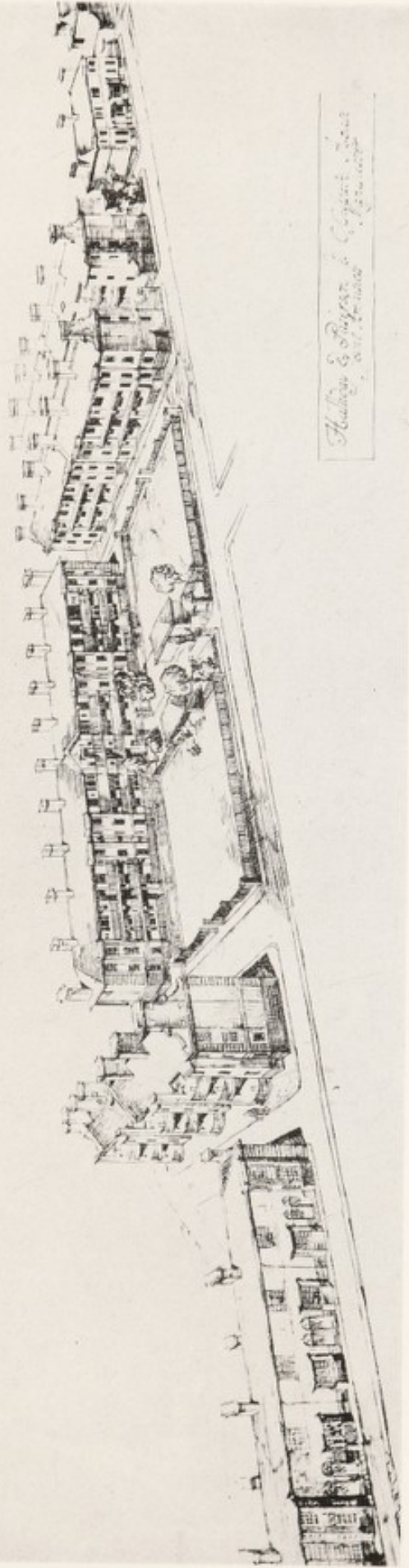
Design No. 2 (details).

CITY OF LIVERPOOL RATHBONE STREET AREA



BLOCK FLAN Soda 30 gals. to 1 bushel

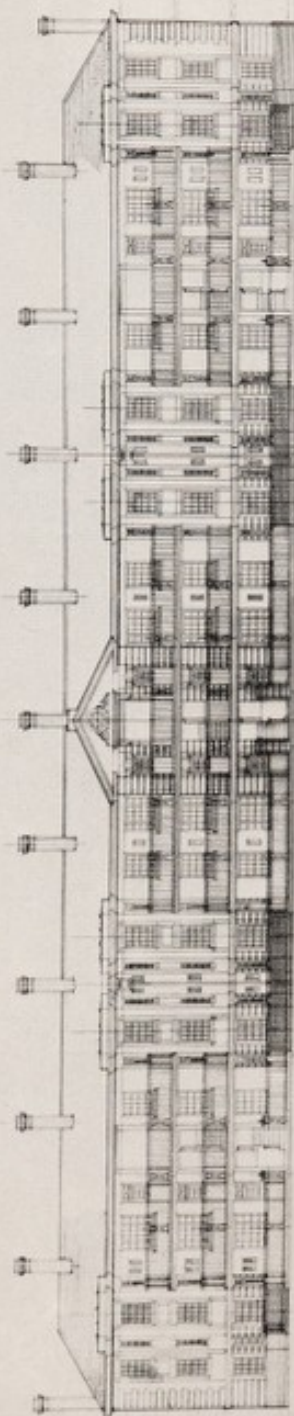
PERSPECTIVE VIEW



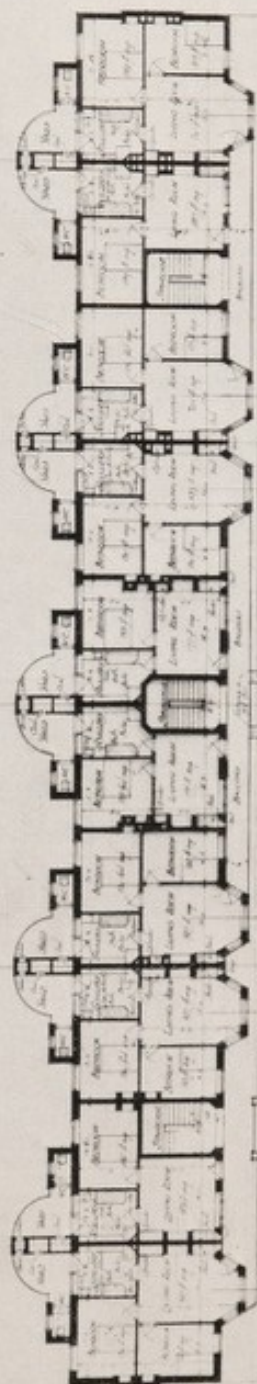
H. D. & P. Rogers, Architects, New York

Design No. 3 (Perspective View).

CITY OF LIVERPOOL RATHBONE STREET AREA

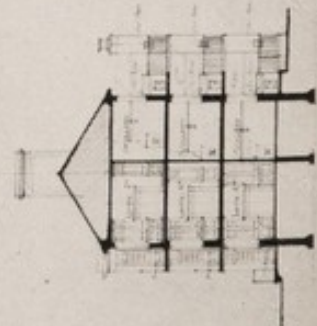
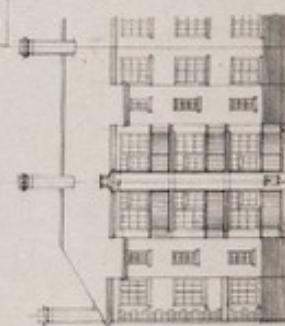


See also Block A, Diagram of Block A, Part A, in Block B, 1898.



See also Block A, Diagram of Block A, Part A, in Block B, 1898.

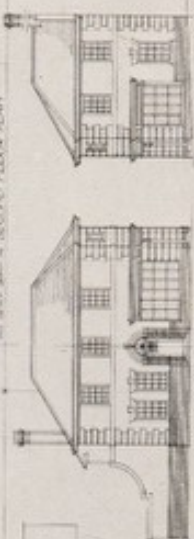
BLOCK 'A'



BLOCKS A, B, C & D

See also Block A, Diagram of Block A, Part A, in Block B, 1898.

See also Block A, Diagram of Block A, Part A, in Block B, 1898.



See also Block A, Diagram of Block A, Part A, in Block B, 1898.

BLOCK 'H'



See also Block A, Diagram of Block A, Part A, in Block B, 1898.



See also Block A, Diagram of Block A, Part A, in Block B, 1898.

The formal inquiry was held by the Local Government Board on the 7th January, 1913, and the necessary confirmation of the Board was received on the 18th February, 1913.

The above sites have now been cleared, contracts have been let, and the work of building the new dwelling-houses has been commenced, and when completed the accommodation will be as follows:—

Gore Street	18 three-roomed tenements.
Gore Street	6 two-roomed tenements.
Sparling Street	16 five-roomed cottages.
Jordan Street	24 three-roomed tenements.
Jordan Street	7 four-roomed tenements.

BAPTIST STREET AREA.

No definite conclusions have been arrived at in respect to this area, but a number of insanitary houses have been demolished during the year.

To effectually remove the gross evils which exist on this area a very comprehensive scheme will be necessary, involving the clearance of a number of insanitary houses and the abolition of the existing narrow streets, as, for example, Baptist Street and Lionel Street, and the complete opening up of the locality.

The death rates for 1914 in several of the streets in this area were exceedingly high, and affected the general rate of the district. The following are illustrations:—

Hunter Street	45·4
Gerard Street	78·4
Circus Street	43·3
Lionel Street	43·8
Baptist Street	76·9
ThurLOW Street	54·0

SALTNEY STREET SCHEME.

Plans are being prepared for the erection of suitable dwellings on this area, but up to the close of the year no demolition had taken place.

PITT STREET (ST. PETER'S WARD).

The suggestion in regard to a Housing Scheme in this locality was referred to in the Medical Officer of Health's Report for 1913, and the position is unchanged.

The sale of several properties in the possession of the Estate Committee was postponed at the request of the Housing Committee, in view of the possibility of a Housing Scheme being pursued.

ST. ANNE STREET AREA.

The above dwellings were formally opened by the Lord Mayor on 4th July, 1914. They contain 72 tenements, 36 with three rooms, and 36 with two rooms, let at rentals ranging from 3s. 6d. to 5s. 6d. There are also six shops with dwellings attached.

These dwellings are provided with gas, hot water supply, and bath.

AREAS INCORPORATED IN 1913.

The completion of the house-to-house inspection has enabled a return to be obtained of all the insanitary houses in the recently-added areas, and these have been included in the Office Record.

Thirty-four insanitary and unoccupied houses, in respect to which the proceedings had not been completed by the late Urban District Council, have been dealt with.

Closing Orders have also been made in respect to twelve other unoccupied insanitary houses, and eleven houses have been ordered to be demolished.

SUMMARY OF HOUSES DEMOLISHED DURING THE YEARS
1865 TO 1914 BY THE COMMITTEES OF THE
CITY COUNCIL.

Houses included in Presentments under the Liverpool Sanitary Amendment Act, 1864, during the period from 1865 to 1904.	6,300
Houses included in representations under the Housing of the Working Classes Act, from 1901 to 1907.....	1,666
Houses dealt with by Closing Orders, circular letters to owners, and owing to private improvements, from 1906 to 1914.....	1,887
Total.....	9,853
Approximate numbers demolished by business extensions, or for other reasons	11,000

SUTTON TRUST.

The Trustees of the Sutton Trust have not decided upon any site upon which they would erect dwellings.

They have inspected certain areas in the North end of the City, which are at the present time under consideration.

PROVISION OF PLACES OF RECREATION FOR THE POOR.

This question was fully considered by a Sub-Committee of members of the Finance and Housing Committees, who had before them the views of a Deputation of Citizens anxious to promote a scheme; after carefully considering the question in every detail, the Sub-Committee finally decided upon the following Resolution:—

“That this Committee, while deeply sympathising with the
“object in view, regret that they cannot see their way to recommend
“the City Council to erect People’s Halls or Places of Recreation
“for the Poor, as proposed by the Deputation from the Committee
“of the Scheme, but this Committee would suggest that the
“promoters of the Scheme should first erect and maintain a building
“as an experiment, and, if successful, the Corporation would
“probably be prepared to again consider the matter from a public
“point of view.”

CELLAR DWELLINGS.

In December, 1912, there were 1,614 cellars let and occupied as separate dwellings. These occupied cellars have been kept under observation, and the attention of owners and occupiers has also been directed to the provisions of the Liverpool Corporation Act, 1908, which prohibits the occupation, after 1912, of a cellar as a separate dwelling if the floor is more than two feet below the level of the adjoining ground.

The owners have recognised the necessity for closing these insanitary dwellings, and in December, 1914, the number of occupied cellars had been reduced to 197.

During the year, 211 applications for Corporation tenements had been received from occupiers of cellar dwellings. These applications were subjected to the usual investigation by officers of the Public Health Department. Of the total number of applications received, 166 were recommended for a house, and 45 were not recommended.

RE-HOUSING.

The number of dwellings provided by the Corporation up to the present is 2,792, and their situations, dates of opening, and number of rooms, are as follows:—

Situation.	Date Opened.	Number of Tenements.
St. Martin's Cottages	1869	124
Victoria Square	1885	270
Juvenal Dwellings	1891	101
Arley Street	{ 1897 } { (1902/3) }	46
Gildart's Gardens	{ 1897 } { 1904 }	229
Dryden Street	1901	181
Kempston Street	1902	79
Kew Street.....	1902/3	114
Adlington Street Area	1902/3	272
Stanhope Cottages	1904	60
Mill Street	1904	55
Hornby Street	{ 1904 } { 1906/7 }	449
Clive Street and Shelley Street	1905	84
Eldon Street	1905	12
Upper Mann Street	1905/6	87
Combermere Street	1909	49
Burlington Street	1910	114
Saltney Street	1911	48
Grafton Street	1911	60
Bevington Street Area.....	1912	218
Northumberland Street Area	1913	68
St. Anne Street Area	1914	72
Grand Total		2,792

In addition to the above there are also 32 shops.

The census of the population of the above dwellings, excluding St. Anne Street Dwellings, was taken in the middle of the year, and was found to be 10,545. At the time the census was taken 73 tenements were unoccupied.

The improvement in the health and habits of the occupiers continues, and although the infantile mortality of the dwellings is still high, there is nevertheless a continued improvement in the condition of the children who reside in these dwellings.

DESCRIPTION OF TENEMENTS.

Number of 1 roomed dwellings	...	...	...	193
„ 2 „ „	...	...	...	1,276
„ 3 „ „	...	...	...	1,066
„ 4 „ „	...	...	...	257

(61 of which are self-contained.)

2,792

Number of shops	...	...	...	...	...	32
-----------------	-----	-----	-----	-----	-----	----

RENTALS.

The rentals of the tenements vary from 1s. 9d. to 5s. 6d., and those of the self-contained cottages range from 6s. to 7s. per week.

RESTRICTED DWELLINGS

The great majority, namely, 2,193 of these dwellings are reserved for persons who have been dispossessed, and before an application is granted the Housing Committee is satisfied that the applicant formerly resided in an insanitary house or insanitary cellar, or was dispossessed from an overcrowded sub-let house. All applications from overcrowded or insanitary houses and cellars are referred in the first instance to the Medical Officer of Health for report, and careful investigation is made to verify the claims of the applicant.

The total number of applications investigated during the year 1914 was 531, and particulars concerning them are not without interest, as showing an appreciation of the advantages offered by the Corporation dwellings.

It was found that in 369 instances the circumstances of the applicant did not comply with the Committee's conditions. Of this number 74 applicants gave false addresses, and in 295 cases there was no evidence that the alleged overcrowding existed. Of the remaining 162 cases investigated, 18 were found to be cases of one family overcrowding a

house. These were dealt with under the Public Health Act. 144 were claims on account of alleged overcrowding in sub-let houses, of which, in 114 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 30 cases of overcrowding found in sub-let houses, and in 25 of these instances informations were laid against the tenants, and convictions followed.

The total number of cases of overcrowding in ordinary dwellings and sub-let houses was 48, arising out of 531 applications investigated, and in 19 instances the applicants were allowed to rent a Corporation dwelling. In a considerable number of cases the overcrowding was of a very recent date, and the offence had evidently been committed with the intention of qualifying for a Corporation house. For instance, in 18 cases the length of the tenancy ranged from five days to three weeks before the application was made.

As further evidence of the desire to obtain a Corporation dwelling, and as showing the necessity for investigating the applicants' claims, it is interesting to note that out of 4,672 applications dealt with during the past seven years, in 3,332 instances the circumstances of the applicants did not comply with the Committee's conditions.

The total number of day visits paid during the year was 557, and 30 night visits were made, the total for the year being 587, from which it will be seen that a considerable amount of the Inspectors' time was taken up by investigating these applications.

It must not be forgotten that many of the tenants of the Corporation dwellings have hitherto been accustomed all their lives to insanitary surroundings and insanitary habits, and have always relied upon the friendly services of the Sanitary Inspectors. To their new surroundings many of them carry their old customs, and the evidence is overwhelming that if the occupiers of the new dwellings are to maintain the necessary standard of personal and domestic sanitation, the caretakers appointed to supervise the dwellings must themselves be persons trained to understand and to appreciate the elements of hygiene, and so be able to

influence the poorer class of tenants in the right direction. This matter has a very serious bearing upon the future of these dwellings; obviously if the official caretaker himself is ignorant of the objects of sanitation and sets the example of overcrowding or condones other conditions prejudicial to health, his influence for good is nil.

From time to time the Medical Officer has received requests to allow the Lodging House Inspectors to visit Corporation Tenements for the purpose of ascertaining if overcrowding or sub-letting exists. During the past six years, 288 tenements have been visited at night, with the result that in 148 cases the tenements were found occupied contrary to the Committee's regulations; in some instances rooms were grossly overcrowded, or even indecently occupied. Many of these infringements would have been avoided had the inmates been differently distributed in the sleeping rooms, a condition quite easily complied with.

During the year the Director of Housing referred 32 Corporation tenements to the Medical Officer's Department for night visitation, as against 30 referred during the year 1913.

Night visits were paid to these tenements, with the result that 7 tenements were found to be sub-let, of which number 3 were also found overcrowded. There were also 9 tenements found overcrowded, but not sub-let, i.e., occupied by one family and their relations (or friends in some instances), and 4 cases of indecent occupation of sleeping rooms, viz., in both cases one man and two women were found in the same bedroom. One tenement was found in a filthy condition, where the occupants (women) were recovering from a drunken orgy.

During the year, 25 cases of improper or irregular occupation were found in 19 Corporation tenements out of 32 visited, compared with 18 cases in 14 tenements out of 30 the preceding year.

Although many persons have been temporarily displaced as the result of the operations of the Housing Committee, it has not resulted in overcrowding in other parts of the City. The following facts in regard to houses let in lodgings bear out this statement :—

In December, 1885, the Local Government Board allowed Bye-laws which provided for 350 cubic feet per adult (two children below 12 years of age to count as one adult). In January, 1901, the Bye-laws were further amended, requiring 400 cubic feet per adult, and 200 cubic feet per child below 10 years of age.

Although the requirements in respect to cubic space have materially increased, and two additional Inspectors have been appointed (making a total number of 17), and the number of night visits increased, the cases of overcrowding have decreased. The following figures are a sufficient answer to the suggestion that the removal of slum areas resulted in an increase of sub-letting and overcrowding:—

Year.	No. of Sublet Houses.	No. of night visits for detection of overcrowding.	No. of convictions for overcrowding.	Per centage of convictions 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	18,439	1,264	6.85
1904	22,401	17,886	1,148	6.41
1905	20,518	19,193	1,326	6.90
1906	19,714	18,838	920	4.88
1907	19,832	22,982	962	4.18
1908	19,776	23,074	738	3.19
1909	19,654	23,534	576	2.44
1910	19,436	23,273	414	1.77
1911	18,873	21,788	526	2.41
1912	16,475	22,173	612	2.76
1913	16,405	22,938	660	2.87
1914	16,492	24,309	693	2.85

* Garston included in the City on 9th November, 1902.

CORPORATION TENEMENTS.

VITAL STATISTICS, 1914.

Population (taken at middle of year) 1912	...	...	8,885
Population (taken at middle of year) 1913	...	...	10,223
Population (taken at middle of year) 1914	...	...	10,545

	1912.		1913.		1914.	
	Total Number.	Rate per 1,000	Total Number.	Rate per 1,000	Total Number.	Rate per 1,000
Births.....	476	53.5	590	57.7	601	56.9
Deaths	274	30.8	294	27.7	304	28.8
Infantile Mortality (deaths under one year)	85	178.5 per 1,000 births	86	145.7 per 1,000 births	106	176.3 per 1,000 births.
Phthisis	21	2.3	21	2.0	13	1.23

The above does not include St. Anne Street dwellings, which were not occupied until July, 1914.

At the time the census was taken in June, 1914, 73 houses were unoccupied.

VITAL STATISTICS, FOR UNRESTRICTED DWELLINGS.

Population (taken at middle of year) 1913	...	...	1,799
Population (taken at middle of year) 1914)	...	...	1,829

	1913.		1914.	
	Total Number.	Rate per 1,000.	Total Number.	Rate per 1,000.
Births	124	68.9	111	60.6
Deaths	40	22.2	34	18.5
Infantile Mortality. (Deaths under one year)	12	96.7 per 1,000 births.	14	126.1 per 1,000 births.
Phthisis	2	1.1	Nil	Nil

The birth rate in the Corporation tenements is high, being almost twice the rate for the City.

The infantile mortality for the past five years is as follows:—

1910	...	87 deaths under one year, or 228 per 1,000 births.		
1911	...	93	do.	212 do.
1912	...	85	do.	178·5 do.
1913	...	86	do.	145·7 do.
1914	...	106	do.	176·3 do.

UNOCCUPIED HOUSES.

The Head Constable's return of unoccupied houses within the City, dated 4th January, 1915, intimated that there were 679 unoccupied houses to let at a rental of 6s. per week.

All of the above houses were inspected, and out of the total of 679, 439 were sanitary and 240 were insanitary; of the 240 insanitary houses 95 were closed as the result of the operations of the Housing Committee.

HOUSING (INSPECTION OF DISTRICT) REGULATIONS, 1910.

The following Return is made in pursuance of Article 5 of the above Regulations:—

Number of dwelling-houses inspected for general sanitary administration, and for the purposes of Section 17 of the Housing, Town Planning, etc., Act, 1909	91,447 front houses 3,947 court houses
--	---

95,394

Number of dwelling houses remaining to be dealt with, and which are in a state so dangerous or injurious to health as to be unfit for human habitation	1,693 court houses 952 front houses
---	--

2,645

Number of representations made to the Local Authority with a view to obtaining Closing Orders	206
Number of Closing Orders made	206
Number of dwelling-houses, the defects in which were remedied without the making of Closing Orders	Nil.
Number of dwelling-houses in respect of which Closing Orders were made, and which have been rendered fit for human habitation	6

The houses dealt with on the representation of the Medical Officer of Health were the usual type of insanitary houses, mainly situated in confined courts, each house being without through ventilation, yard space, and suitable sanitary conveniences. The sanitary conveniences in these courts consist of the usual type of foul trough water-closet, badly situated, and unsuitable for children, with the result that faecal matter is retained in the houses until it can be disposed of.

In many instances the closet faces the entrance to the court, and persons entering are in full view from the public thoroughfare.

REMOVAL OF INSANITARY PROPERTY.

The following tables indicate the progress of work during the last nine years:—

Table 1.

Statement showing the number of houses dealt with during the year 1906, and indicating the action taken:—

FRONT HOUSES.

Total No. of front houses dealt with during year 1906.	No. of Houses.	Demo-lished.	Ren-dered Sanitary.	In Schemes but still Occupied.	Closed.
" A " Closing Orders.....	19	18	1	—	—
" B " By Schemes.....	102	89	—	—	13
" C " By Circular letter	72	13	59	—	—
Total	193	120	60	—	13

COURT HOUSES.

How Dealt With.	Total No. of Houses dealt with.	Demo-lished.	Ren-dered Sanitary.	In Schemes but still Occupied.	Closed.
" A " Closing Orders	329	298	30	—	6
" B " By Schemes.....	517	409	—	—	108
" C " By Circular letter	170	99	71	—	—
Total	1,016	801	101	—	114
Less houses dealt with by Closing Orders, and included in Schemes ...	50	44	—	—	6
Total No. of Court Houses dealt with during the year 1906	966	757	101	—	108

Table 2.

Statement showing the number of houses dealt with during the year 1907, and indicating the action taken:—

FRONT HOUSES.

Total No. of Front Houses dealt with during the year 1907.	No. of Houses.	Demo-lished.	Ren-dered Sanitary	In Schemes but still occupied	Closed.
"A" By Closing Orders	23	21	2	—	—
"B" By Schemes	14	14	—	—	—
"C" Cases in which summonses have been issued, but for which Closing Orders were not obtained up to 31st December, 1907	21	—	21	—	—
"D" Alterations and improvements authorised on circular letter or on action of Health Committee in asking for more closet accommodation.	55	14	41	—	—
Total	113	49	64	—	—

COURT HOUSES.

How Dealt With.	Total No. of Houses Dealt with.	Demo-lished.	Ren-dered Sanitary	In Schemes but still occupied	Closed.
"A" By Closing Orders	111	90	16	—	5
"B" By Schemes	54	54	—	—	—
"C" Cases in which summonses have been issued, but for which Closing Orders were not obtained up to 31st December, 1907	67	29	38	—	—
"D" Alterations and improvements authorised on circular letter, or on action of Health Committee in asking for more closet accommodation.	60	26	34	—	—
Total	292	199	88	—	5
Less Houses included in Schemes, but also dealt with by Closing Orders.	5	—	—	—	5
Total No. of Court Houses dealt with during year 1907.	287	199	88	—	—

Table 3.

Statement showing the number of houses dealt with during the year 1908, and indicating the action taken:—

FRONT HOUSES.

Total No. of Front Houses dealt with during the year 1908.	No. of Houses.	Demo-lished.	Ren-dered Sanitary.	Closed.	Occupied.
"A" By Closing Orders	3	2	1	—	—
"B" By Schemes	—	—	—	—	—
"C" Alterations and improvements authorised on circular letter or on the action of the Health Committee in asking for more closet accommodation	32	4	28	—	—
"D" Dealt with by owners for private improvements	11	11	—	—	—
Total.....	46	17	29	—	—

COURT HOUSES.

How Dealt With.	Total No. of Houses dealt with.	Demo-lished.	Ren-dered Sanitary.	Closed.	Occupied.
"A" By Closing Orders	104	72	25	7	—
"B" By Schemes	—	—	—	—	—
"C" Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation	117	42	75	—	—
"D" Dealt with by owners for private improvements	53	53	—	—	—
Total No. dealt with during 1908	274	167	100	7	—

Table 4.

Statement showing the number of houses dealt with during the year 1909, and indicating the action taken:—

FRONT HOUSES.

Total No. of Front Houses dealt with during the year 1909.	No. of Houses.	Demo-lished.	Ren-dered Sanitary.	Closed.	Occupied
"A" By Closing Orders	6	3	3	—	—
"B" By Schemes	—	—	—	—	—
"C" Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation	16	2	14	—	—
"D" Dealt with by owners for private improvements	6	6	—	—	—
Total	28	11	17	—	—

COURT HOUSES.

How Dealt With.	Total No. of Houses dealt with.	Demo-lished.	Ren-dered Sanitary.	Closed.	Occupied
"A" By Closing Orders	206	159	40	7	—
"B" By Schemes	—	—	—	—	—
"C" Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation	51	30	21	—	—
"D" Dealt with by owners for private improvements	95	95	—	—	—
Total No. dealt with during 1909	352	284	61	7	—

Table 5.

Statement showing the number of houses dealt with during the year 1910, and indicating the action taken:—

FRONT HOUSES.

Total No. of Front Houses dealt with during the year 1910.	No. of Houses	Demo-lished.	Ren-dered Sanitary	Closed.	Occupied
"A" By Closing Orders	15	15	—	—	—
"B" By Schemes	—	—	—	—	—
"C" Alterations and Improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation.....	10	10	—	—	—
"D" Dealt with by owners for private improvements.....	8	8	—	—	—
Total	33	33	—	—	—

COURT HOUSES.

How Dealt With.	Total No. of Houses dealt with.	Demo-lished.	Ren-dered Sanitary	Closed.	Occupied
"A" By Closing Orders	216	162	45	9	—
"B" By Schemes	—	—	—	—	—
"C" Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation.....	42	25	17	—	—
"D" Dealt with by owners for private improvements.....	45	38	7	—	—
Total No. dealt with during 1910	303	225	69	9	—

Table 6.

Statement showing the number of houses dealt with during the year 1911, and indicating the action taken:—

FRONT HOUSES.

Total No. of Front Houses dealt with during the year 1911.	No. of Houses.	Demo-lished.	Ren-dered Sanitary.	Closed.	Occupied
" A " By Closing Orders	30	6	24	—	—
" B " By Schemes	—	—	—	—	—
" C " Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation.	—	—	—	—	—
" D " Dealt with by owners for private improvements.....	1	1	—	—	—
Total	31	7	24	—	—

COURT HOUSES.

How Dealt With.	Total No. of Houses dealt with.	Demo-lished.	Ren-dered Sanitary.	Closed.	Occupied
" A " By Closing Orders	157	123	23	11	—
" B " By Schemes	—	—	—	—	—
" C " Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation	—	—	—	—	—
" D " Dealt with by owners for private improvements.....	5	5	—	—	—
Total No. dealt with during 1911	162	128	23	11	—

Table 7.

Statement showing the number of houses dealt with during the year 1912, and indicating the action taken:—

FRONT HOUSES.

Total No. of Front Houses dealt with during the year 1912.	No. of Houses.	De-molished	Rendered Sanitary.	Closed.	Occupied
"A" By Closing Orders	6	6	—	—	—
"B" By Schemes	81	8	—	35	38
"C" Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation.....	—	—	—	—	—
"D" Dealt with by owners for private improvements	—	—	—	—	—
Total.....	87	14	—	35	38

COURT HOUSES.

How Dealt With.	Total No. of Houses dealt with.	De-molished	Rendered Sanitary.	Closed.	Occupied.
"A" By Closing Orders	141	136	4	1	—
"B" By Schemes	437	69	—	210	158
"C" Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation.....	—	—	—	—	—
"D" Dealt with by owners for private improvements.....	17	17	—	—	—
Total No. dealt with during 1912...	595	222	4	211	158

Table 8.

Statement shewing the number of houses dealt with during the year 1913, and indicating the action taken:—

FRONT HOUSES.

Total No. of Front Houses dealt with during the year 1913.	No. of Houses.	Demo-lished.	Ren-dered Sanitary.	Closed.	Occupied
"A" By Closing Orders	20	13	5	2	—
"B" By Schemes	—	—	—	—	—
"C" Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation	—	—	—	—	—
"D" Dealt with by owners for private improvements	—	—	—	—	—
Total	20	13	5	2	—

COURT HOUSES.

How Dealt With.	Total No. of Houses dealt with.	Demo-lished.	Ren-dered Sanitary.	Closed.	Occupied
"A" By Closing Orders	119	94	17	8	—
"B" By Schemes	—	—	—	—	—
"C" Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation	—	—	—	—	—
"D" Dealt with by owners for private improvements	29	29	—	—	—
Total No. dealt with during 1913...	148	123	17	8	—

Statement showing the number of houses dealt with during the year 1914, and indicating the action taken.

Table 9.

			Courts.	Court houses.		Approx. No. of front houses.
Approximate number of insanitary houses existing on 1st January, 1914, including added areas			356	1868		1013
Proceedings authorised by the City Council during the year 1914, in regard to houses not previously referred to ...	Courts.	Court houses.			Front houses.	
" A " By Closing Orders ...	37	149			57	
" B " By schemes under the Housing of the Working Classes Acts, (Parts 1 and 3.)	—	—			—	
" C " Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation	—	—			—	
D " Dealt with by owners for private improvements ...	5	26			4	
Total No. dealt with during 1914	42	175			61	
Leaving for future consideration			314	1693		952

Of the above 175 Court houses and 61 Front houses dealt with in the year 1914, 103 have been demolished, 6 rendered sanitary, 103 closed, and 21 are occupied.

Table 10.
SUMMARY.

Showing the total number of houses dealt with during the years 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913 and 1914.

FRONT HOUSES.

Year.	Total No. of Houses dealt with.	Demo-lished.	Ren-dered Sanitary.	In Schemes but still Occupied.	Closed.	Occu-pied.
1906	193	120	60	—	13	—
1907	113	49	64	—	—	—
1908	46	17	29	—	—	—
1909	28	11	17	—	—	—
1910	33	33	—	—	—	—
1911	31	7	24	—	—	—
1912	87	14	—	38	35	—
1913	20	13	5	—	2	—
1914	61	27	3	—	26	5
Total	612	291	202	38	76	5

COURT HOUSES.

Year.	Total No. of Houses dealt with.	Demo-lished.	Ren-dered Sanitary.	In Schemes but still Occupied.	Closed.	Occu-pied.
1906	966	757	101	—	108	—
1907	287	199	88	—	—	—
1908	274	167	100	—	7	—
1909	352	284	61	—	7	—
1910	303	225	69	—	9	—
1911	162	128	23	—	11	—
1912	595	222	4	158	211	—
1913	148	123	17	—	8	—
1914	175	76	3	—	80	16
Total	3,262	2,181	466	158	441	16

The nett result shows that during the nine years 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913 and 1914, 2,472 insanitary dwellings have been demolished, 517 have been closed and await demolition or reconstruction, and 668 have been reconstructed and rendered sanitary, making a total for the nine years of 3,657 (excluding those still occupied) dealt with as follows:—

1906	1159
1907	400
1908	320
1909	380
1910	336
1911	193
1912	486
1913	168
1914	215
Total	<u>3657</u>

The Building Surveyor has kindly furnished the following Return of Houses erected in the City :—
RETURN OF HOUSES ERECTED 1900-1914.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
Under £12 ...	...	222	85	201	258	78	243	115	...	149	...	182	...	68	37
£12 to £18 ...	486	558	590	363	284	394	547	609	418	283	119	151	41	92	38
£18 to £25 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
£25 to £35 ...	402	441	323	706	449	638	422	444	195	191	168	109	64	43	147
£35 and upwards ...	133	109	101	125	116	204	202	152	135	157	144	74	56	27	74
	1,573	1,963	2,061	2,453	2,174	2,186	2,453	2,342	1,850	2,149	1,710	1,234	878	767	835

YEAR.	No. of DWELL- INGS.	GROSS RENTAL.	COLLECTION OF RENTS.										NUMBER OF TENANTS WHO HAVE LEFT THE DWELLINGS.			
			CASH COLLECTED.		EMPTYES.		BAD DEBTS.		ARREARS FORWARD.		Total No. of Tenants who left during year.	No. of Tenants who left under Notice.				Per- centage of Tenants who have left.
			Amount.	Per- centage.	Amount.	Per- centage.	Amount.	Per- centage.	Amount.	Per- centage.						
1905	1,820	£ s. d. 17,799 12 8	£ s. d. 14,302 18 2	95.40	£ s. d. 1,694 13 0	9.80	£ s. d. 483 16 0	2.79	£ s. d. 975 3 4	5.4	678	348	31.76			
1906	2,046	20,154 3 8	16,339 18 2	96.02	1,373 8 3	6.81	477 16 3	2.37	1,198 7 1	5.9	577	225	28.20			
1907	2,170	21,301 4 4	18,031 19 0	95.75	1,224 12 0	5.73	608 1 9	2.84	1,384 10 4	6.5	696	251	32.05			
1908	2,184	21,295 14 8	18,793 11 3	93.21	1,332 11 8	6.25	732 3 9	3.43	2,020 13 0	9.2	710	252	32.71			
1909	2,233	21,711 19 0	19,050 4 1	95.50	1,464 14 0	6.74	874 11 4	4.02	2,031 10 4	9.5	797	342	35.93			
1910	2,347	22,952 12 0	20,471 2 1	96.75.	1,894 9 0	8.25	967 15 6	4.25	1,757 2 3	7.7	711	228	30.29			
1911	2,455	23,411 17 0	21,370 7 3	98.20	1,822 12 1	7.78	601 18 3	2.57	1,546 15 4	6.5	646	213	26.31			
1912	2,679	25,437 16 3	23,001 10 9	98.96	2,238 3 4	8.78	512 2 3	2.01	1,274 18 5	5.1	630	205	23.51			
1913	2,747	27,435 6 4	25,226 12 10	98.30	1,839 2 8	6.70	472 3 1	1.72	1,238 12 2	4.5	576	172	20.96			
1914	2,824	27,969 18 9	26,355 19 8	97.54	1,032 13 3	3.69	401 10 9	1.43	1,500 6 2	5.3	535	158	18.94			

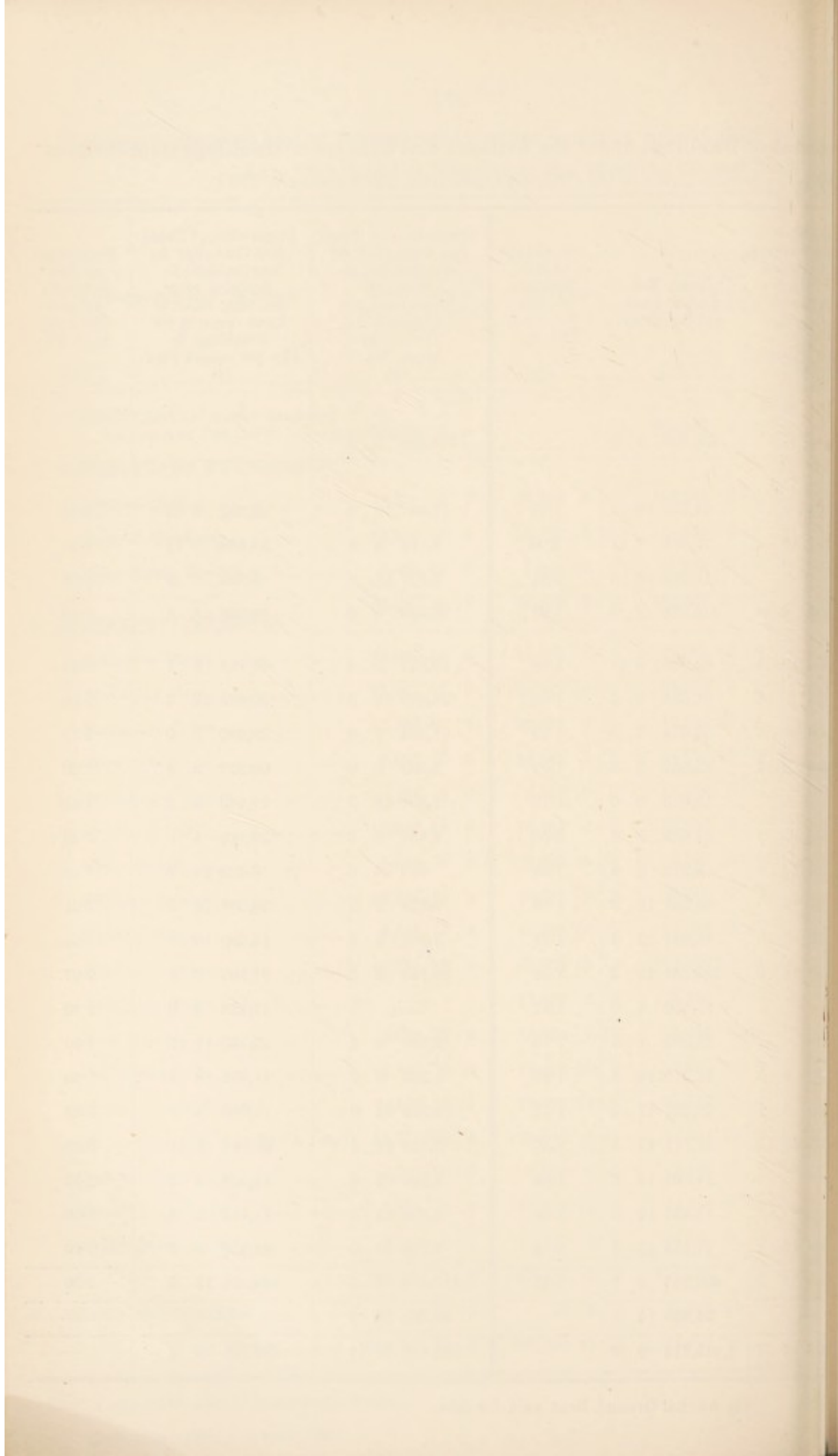
**Statement showing cost of Presentments under Sanitary Amendment Act, 1864,
Act, 1875, and the Housing of the Working Classes Acts, 1890**

Presentments and Dwellings.	Cost of Land (after deducting Receipts from Sales of Surplus Lands).	Cost of Buildings.	Total Cost of Land and Buildings 31st December, 1914.	Percent of Receipts (Total Cost)
	(1)	(2)	(3)	
	£ s. d.	£ s. d.	£ s. d.	
1.—PRESENTMENTS under Sanitary Amendment Act, 1864	306,803 9 5	—	306,803 9 5	
2.—UNRESTRICTED DWELLINGS—				
Victoria Square	52,391 18 7	57,952 6 11	110,344 5 6	1
Juvenal Dwellings	14,854 18 4	13,121 7 11	27,976 6 3	1
Arley Street Dwellings.....	3,405 19 0	7,610 19 5	11,016 18 5	3
	70,652 15 11	78,684 14 3	149,337 10 2	1
3.—RESTRICTED DWELLINGS—				
Adlington Street	22,091 14 8	41,973 9 7	64,065 4 3	1
Bevington Street	51,922 19 0	54,629 10 2	106,552 9 2	1
Burlington Street	17,642 18 1	22,822 0 0	40,464 18 1	1
Clive Street	5,895 8 1	18,549 3 8	24,444 11 9	1
Combermere Street	3,724 0 0	9,186 0 0	12,910 0 0	1
Dryden Street	8,949 14 8	26,602 8 9	35,552 3 5	1
Eldon Street	1,015 0 0	3,080 18 8	4,095 18 8	1
Gildart's Gardens	16,251 10 0	30,607 2 3	46,858 12 3	1
Grafton Street	6,641 5 4	12,555 14 5	19,196 19 9	1
Hornby Street	58,214 16 5	82,736 13 9	140,951 10 2	1
Kempston Street	(a) —	17,430 6 0	17,430 6 0	1
Kew Street.....	5,074 13 6	19,955 7 10	25,030 1 4	1
Mill Street	2,766 0 0	10,512 19 3	13,278 19 3	1
Northumberland Street	14,129 11 1	13,423 11 0	27,553 2 1	1
St. Anne Street (opened 13th July)	15,174 11 4	22,047 3 11	37,221 15 3	1
Saltney Street	5,761 16 8	8,836 0 0	14,597 16 8	1
Stanhope Cottages	4,261 2 6	10,073 13 6	14,334 16 0	1
Upper Mann Street	9,938 6 1	18,747 5 7	28,685 11 8	1
	249,455 7 5	423,769 8 4	673,224 15 9	1
4.—WORKS IN PROGRESS	56,266 5 6	29 9 3	56,295 14 9	1
Totals	£683,177 18 3	502,483 11 10	1,185,661 10 1	1

Cost of Dwellings under the Artizans' and Labourers' Dwellings Improvement Act, 1899
(As per Resolution of the Housing Committee, 23rd January, 1914).

Product from 3 amount portioned Director Street denings, and n Spaces. (5)	Total Net Cost of Land and Buildings. (6)	Percentage of Net Receipts on the Net Cost. (Col. 6). (7)	Proportion of Total Net Cost (Col. 6) attributable to Sanitary Improvements, Demolition of Insanitary Areas, &c. (8)	Proportion of Total Net Cost (Col. 6) attributable to Housing after reducing value of Land required for Dwellings to 12/- per square yard. (9)	Percentage of Net Receipts on the Net Cost (Col. 9). (10)
s. d.	£ s. d.		£ s. d.	£ s. d.	
—	306,803 9 5	—	306,803 9 5	—	—
004 8 7	84,839 16 11	1.76	21,487 10 0	63,352 6 11	2.36
057 18 4	20,418 7 11	2.14	5,774 4 0	14,644 3 11	2.98
—	11,016 18 5	3.31	2,077 11 0	8,939 7 5	4.08
062 6 11	116,275 3 3	1.97	29,339 5 0	86,935 18 3	2.64
026 15 4	62,038 8 11	1.84	13,847 3 4	48,191 5 7	2.38
068 9 0	91,384 0 2	1.55	28,510 10 0	62,873 10 2	2.26
090 10 7	38,674 7 6	1.22	11,694 7 6	26,980 0 0	1.75
012 8 1	23,532 3 8	1.07	2,607 0 0	20,925 3 8	1.20
—	12,910 0 0	1.18	2,366 16 0	10,543 4 0	1.45
026 13 8	34,625 9 9	2.19	4,457 5 0	30,168 4 9	2.53
023 12 0	3,972 6 8	1.64	643 12 0	3,328 14 8	1.95
021 13 0	45,236 19 3	1.76	9,228 1 0	36,008 18 3	2.21
052 0 0	18,944 19 9	1.21	4,464 9 4	14,480 10 5	1.59
099 12 0	133,251 18 2	1.51	36,146 8 5	97,105 9 9	2.07
—	17,430 6 0	1.42	—	17,430 6 0	1.42
—	25,030 1 4	1.73	2,736 9 6	22,293 11 10	1.95
060 0 0	13,218 19 3	1.44	1,353 0 0	11,865 19 3	1.60
015 5 1	26,237 17 0	1.11	10,392 14 0	15,845 3 0	1.83
053 18 10	33,767 16 5	0.57	9,326 12 6	24,441 3 11	0.78
—	14,597 16 8	1.64	4,290 12 8	10,307 4 0	2.32
—	14,334 16 0	1.56	2,556 13 6	11,778 2 6	1.90
029 16 1	27,155 15 7	0.48	5,396 10 0	21,759 5 7	0.60
080 13 8	636,344 2 1	1.43	150,018 4 9	486,325 17 4	1.90
—	56,295 14 9	—	56,295 14 9	—	—
043 0 7	1,115,718 9 6	—	542,456 13 11	573,261 15 7	—

(a) Annual Ground Rent paid for Site.



CITY HOSPITALS.

CITY HOSPITALS

HOSPITAL ACCOMMODATION.

The normal accommodation provided at the City Hospitals in the early part of last year amounted to 1,019 beds, not including the Port Sanitary Hospital at New Ferry, Cheshire, which is reserved for sea-borne cases of infectious disease arriving in the Port.

The beds were located as follows:—

City Hospital North	...	...	...	151 beds.
„ South	...	...	...	91 „
„ East	...	...	...	152 „
„ Parkhill	...	...	...	158 „
„ Fazakerley	...	...	...	300 „
„ Fazakerley Annexe	...	...	...	167 „
				1,019 „

The approximate apportionment of beds is as follows, but the arrangement is modified as circumstances necessitate:—

Smallpox	...	...	...	...	48	beds.
Typhus Fever	...	...	...	...	6	"
Typhoid Fever	...	...	...	...	20	"
Scarlet Fever	...	...	...	...	418	"
Diphtheria	...	...	...	...	130	"
Measles	...	...	...	...	45	"
Tuberculosis	...	...	...	...	236	"
Isolation	...	...	...	...	116	"
					1,019	"

On the outbreak of war in August, however, the Military Authorities asked for the use of the Fazakerley Hospital, and preparations were at once made to clear and disinfect this Hospital. The establishment was taken over on 15th August, and for some little time considerable pressure occurred in dealing with the isolation of infectious cases. Negotiations were opened with the West Derby Board of Guardians with respect to Deysbrook Hospital, which was about to be vacated, and arrangements were made for the Corporation to take over the

entire establishment, furniture, and equipment, as from 22nd October. Accommodation was thus provided for 120 convalescent cases, and the situation, which had been causing some anxiety, was at once relieved. The number of infectious cases also diminished slightly towards the close of the year, and no difficulty was then experienced in dealing with such cases of infection as required isolation.

Further assistance was also obtained through the Committee of the David Lewis Northern Hospital placing 30 beds at the disposal of the Hospitals Committee for the treatment of cases of typhoid fever, anthrax, etc., which could safely be admitted into the wards of a general hospital.

The City Hospital, Parkhill, formerly used for cases of infectious disease, has undergone considerable alteration, and is now equipped as a Sanatorium for the treatment of cases of phthisis. The open situation and extensive grounds render it well fitted for this purpose.

The accommodation at the other Hospitals was extended wherever possible, and at the end of the year the available number of beds was as follows:—

City Hospital North	...	...	...	203 beds.
„ South	...	...	...	115 „
„ East	...	...	...	152 „
„ Fazakerley Annexe	...	...	...	208 „
„ Parkhill...	...	...	...	200 „
Deysbrook Hospital	...	...	...	120 „
David Lewis Northern Hospital	...	...	...	30 „
				1,028 „

Temporary accommodation for 10 patients was provided in addition at Sparrow Hall. These beds have been kept in reserve for any case of smallpox which might arise, and were only in commission on one occasion for a short period. The nursing and medical staff is provided from the Fazakerley Annexe Hospital.

The value of the hospitals, and the immense amount of useful work performed is shown by the fact that no less than 6,125 patients were treated within their walls during the year.

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 more strongly marked.

The Medical Officer has on many occasions called attention to the great difficulties in dealing with cases of Measles and Whooping Cough, owing to the tender age of the patient, and to the difficulties of inducing the mother to accompany it to the Hospital when accommodation is available, which is by no means always the case.

The Regulations of the Queen Victoria District Nursing Association preclude their district nurses from attendance upon cases of infection of any kind, but possibly a special Nursing Section of that Association could be established without difficulty to enable some nursing to be given to the patients suffering from Measles and Whooping Cough, in their own homes, or, alternatively, the Health Committee might appoint a staff for the purpose.

The matter is receiving consideration, but there can be no doubt whatever as to the value of such a procedure.

Arrangements have been made between the Hospitals Committee and various Local Authorities to receive cases of infectious disease from districts beyond the city boundary, namely, Sefton Rural District, Waterloo and Seaforth, Great Crosby, Little Crosby, and the Children's Convalescent Home, West Kirby.

Arrangements have also been made to deal with any case of cholera, yellow fever, or plague which may arise in any of the neighbouring urban or rural districts. A suitable charge is made in each case.

With regard to the facilities offered by the Hospitals for the Training of Nurses, probationers are received at some, but not all, of the city hospitals, and under the arrangements now made for their training the course of instruction is a very full and complete one.

CITY HOSPITAL, FAZAKERLEY.

TREATMENT OF TUBERCULOSIS.

During the year 1914, 61 patients were admitted to the Fazakerley Sanatorium suffering from tuberculosis of the lungs, alone or combined with tuberculosis of other organs. The discharges during the year

numbered 103. There were 11 deaths. No patients remained under treatment at the end of the year.

In 5 cases the pulmonary lesion was accompanied by definite infection of the larynx, in 2 cases by tuberculous disease of glands, and in 8 cases by fistula in ano. Bones or joints were alone involved in 10 cases.

Classified in accordance with the system of Turban-Gerhardt, the cases on admission fall into the following groups:—

1.—11.

2.—25.

3.—25.

CONDITION OF PATIENTS ON DISCHARGE.

Disease arrested, 29.

*Disease quiescent, 46.

*Disease unimproved, or worse, 27.

One case was prematurely discharged for disciplinary reasons.

Of 58 adult males (aged 17 and over) discharged, the presence of tubercle bacilli was demonstrated in the sputum of 21, at the time of their leaving the Sanatorium. The corresponding figures for females are 26 and 5 respectively.

Of those patients admitted in Stage 1 of their disease, with tubercle bacilli present in their sputum, approximately two-thirds were free from bacilli at the time of their discharge.

In Stages 2 and 3, the sputum gave a negative result, after repeated examination, in approximately one-third, when leaving the Institution.

The stages of active work and exercise attained by the patients have been graduated in accordance with the system described in detail in previous reports. The following figures show the working capacity attained by patients at the time of their discharge from the Sanatorium during the year:—

* 19 Patients from these groups were transferred during treatment to Parkhill Sanatorium.

MALES (over 10 years of age).

Stage A	...	...	...	...	18
„ B	...	...	...	...	10
„ C	...	...	...	...	10
„ D	...	...	...	...	21

FEMALES (over 10 years of age).

Stage A	...	...	...	...	3
„ B	...	...	...	...	4
„ C	...	...	...	...	6
„ D	...	...	...	...	5

In the case of 12 males and 4 females, the stage of disease was sufficiently advanced to preclude the probability of their being able to resume active work.

CLINICAL METHODS.

Under this heading the most marked feature has been the greater importance which has been attached to the method of treatment by induced pneumothorax, and the tendency of most observers to hope for permanent arrest of disease as the result of the continued application of this measure, rather than upon the exhibition of the tuberculins.

At this Sanatorium it has become a recognised practice to adopt this treatment in all cases where the combined effect of rest, fresh air and adequate feeding has failed to produce obvious improvement after a few weeks' stay. The only exceptions to this rule have been those cases exhibiting a considerable involvement of both lungs, or a complicating disease of other organs.

In all, approximately 1,000 injections of nitrogen gas have been made, and it is satisfactory to note that on no occasion has a complication of a serious character resulted from the operation. The number of cases treated is sufficiently large to justify a positive opinion of the utility of the method by those physicians who have practised it during the past year.

The diminution in the number of cases treated with tuberculin noted in recent years has been still more marked in 1914. From time to time cases occur in which the customary sanatorium measures—with or without the induction of artificial pneumothorax—have failed to bring about improvement. In some selected subjects from this group tuberculin has been administered. The varieties of tuberculin used have included the majority of the newer preparations which have been provided from private sources, or placed upon the market.

PARKHILL SANATORIUM.

At the beginning of the year the accommodation in the Sanatorium was increased by the opening of three wards which were being altered in 1913 by the addition of verandahs and by improvements inside the wards. A verandah has also been added to one of the other wards during the year, and the beds in the Sanatorium thereby increased from 135 to 201. The treatment by means of graduated exercises and labour has been continued, the plan adopted being to commence with short walking exercises and increasing slowly, a part of the grounds being measured out for this purpose.

The graduated labour consists of light work to begin with, such as hoeing, raking, and chopping wood, whilst the further stages include sawing wood, digging, &c., this being carried out under medical supervision.

A large plot of grass-land has been brought under cultivation during the year by the patients, who take a great interest in the work.

A croquet green is provided for the recreation of the patients, and a bowling green is in the course of construction.

Tuberculin is given to selected cases, and encouraging results have been obtained.

Patients have been admitted in all stages of the disease. The average length of stay of patients who were discharged during the year was 16 weeks.

Of the 422 patients who were admitted during the year 301 were "Insured" under the provisions of the National Insurance Act, 83 were "Dependants," and 38 were "Non-Insured and Non-Dependant."

CLASSIFICATION ON ADMISSION.

This is the classification adopted in the last Annual Report, and is based on the extent of lung involvement combined with the working capacity of the patient.

INTERIM REPORT CLASSIFICATION, based largely on probable restoration of working capacity to be attained by treatment.	INTERNATIONAL COMMITTEE CLASSIFICATION, based on extent of lung involvement.			
	I. Less than volume of half lobe.	II. Up to volume of one lobe.	III. More than volume of one lobe, or any cavities.	Totals.
1. Working capacity unimpaired	—	—	—	—
2. Working capacity slightly impaired	15	19	5	39
3. More marked impairment, but probable permanent restoration to full working capacity	25	22	11	58
4. Permanent arrest may be looked for, but in majority only temporary restoration to full working capacity	3	59	73	135
5. Permanent loss of full working capacity	—	17	84	101
6. Probable fatal termination within six months.....	—	2	87	89
Total	43	119	260	422

CONDITION ON DISCHARGE

Disease Arrested	...	...	...	48
Improved and Much Improved	...	...	...	178
Unimproved or Worse	...	...	...	41
Deaths	...	...	...	84
				351

INFECTIOUS DISEASE.

The following table shows the number and nature of cases of Infectious Disease coming under the notice of the Medical Officer of Health during the year 1914, including those reported under the Notification Act.

YEAR—1914.	FEVER.			Smallpox.	Scarlatina.	Measles.	Diphtheria and Membranous Croup.	Puerperal Fever.	Erysipelas.	TOTAL.
	Typhus.	Typhoid.	Relapsing.							
January	...	17	...	...	302	69	126	7	89	610
February	...	10	...	...	301	175	114	2	69	671
March	...	9	...	...	285	313	99	6	107	819
April	...	5	...	...	287	405	103	6	46	852
May	...	9	...	...	278	861	82	4	72	1,306
June	...	16	...	...	296	1,259	114	7	58	1,750
July	...	16	...	...	231	255	68	7	69	646
August	...	16	...	...	255	238	95	5	60	669
September	...	31	...	...	337	430	98	1	49	946
October.....	...	16	...	...	444	750	129	3	103	1,445
November	...	12	...	...	400	1,151	129	5	97	1,794
December.....	...	20	...	1	296	520	101	3	79	1,020
TOTAL	...	177	...	1	3,712	6,426	1,258	56	898	12,528
Removed to hospital	...	141	...	1	3,035	390	1,008	41	302	4,918

The number of patients removed to hospital includes those taken to the general hospitals as well as those taken to the city hospitals.

THE INFECTIOUS DISEASE (NOTIFICATION) ACT.

The numbers of notifications received by the Medical Officer under the above Act, during the past five years, were as follows:—

	<u>1910.</u>	<u>1911.</u>	<u>1912.</u>	<u>1913.</u>	<u>1914.</u>
January ...	545	534	535	319	571
February ...	455	471	439	324	497
March ...	559	556	475	320	515
April ...	457	497	343	322	554
May ...	450	584	441	335	495
June ...	441	482	402	319	559
July ...	443	518	341	305	464
August ...	590	398	382	300	469
September ...	676	545	430	363	525
October ...	687	603	490	383	764
November ...	634	663	476	482	647
December ...	578	544	424	476	563
	<u>6,515</u>	<u>6,395</u>	<u>5,178</u>	<u>4,248</u>	<u>6,623</u>

The diseases were specified as follows:—

	<u>1910.</u>	<u>1911.</u>	<u>1912.</u>	<u>1913.</u>	<u>1914.</u>
Smallpox ...	13	11	6	4	2
Scarlet Fever ...	4,152	3,710	2,885	2,100	3,567
Typhoid Fever ...	272	221	163	165	176
Typhus Fever ...	14	28	4	6	4
Continued Fever ...	7	8	2	1	2
Relapsing Fever ...	1	2	—	1	—
Fever ...	—	1	1	—	—
Puerperal Fever..	43	52	42	43	60
Diphtheria ...	1,135	1,334	1,110	1,085	1,377
Membranous Croup.	38	26	18	23	33
Erysipelas ...	824	997	897	779	944
Anthrax ...	11	5	9	11	8
Cerebro-Spinal Fever	5	—	5	8	24
Acute Poliomyelitis	—	—	31	5	34
*Ophthalmia Neonatorum ...	—	—	5	17	392
	<u>6,515</u>	<u>6,395</u>	<u>5,178</u>	<u>4,248</u>	<u>6,623</u>

* Notifiable since July, 1912, and from April, 1914, by Midwives as well as Medical Practitioners.

NUMBER OF CASES REPORTED AND NUMBER REMOVED TO HOSPITALS, 1889-1914.

	SMALLPOX.		SCARLET FEVER.		TYPHOID.		TYPHUS.		DIPHTHERIA AND MEMBRANOUS CROUP.		MEASLES.	
	Number Reported.	Number Removed.	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	122	39	3,175	104
1890 ...	2	2	3,520	938	506	296	103	87	212	55	4,013	152
1891 ..	21	21	1,176	448	588	350	175	156	237	49	2,262	160
1892 ..	177	177	1,554	603	699	345	73	70	227	29	3,376	150
1893 ...	75	73	3,538	1,380	1,396	728	183	168	250	30	2,316	94
1894 ...	229	226	3,963	1,415	1,350	745	325	312	337	47	2,494	122
1895 ...	130	127	2,710	1,039	1,306	662	162	158	340	77	3,462	93
1896 ...	8	8	3,584	1,589	1,063	539	305	298	533	120	2,930	138
1897 ..	6	6	3,001	1,641	991	559	158	156	430	118	4,389	94
1898 ..	17	16	2,424	1,467	863	585	92	84	554	191	2,458	105
1899 ...	10	10	2,416	1,537	988	668	70	64	793	277	5,107	140
1900 ...	156	154	1,968	1,198	731	450	42	41	709	312	2,372	108
1901 ...	37	37	3,310	1,814	864	567	55	54	870	467	6,766	185
1902 ...	560	559	5,914	2,994	1,026	670	155	155	1,102	516	7,141	177
1903 ...	1,720	1,719	4,053	2,145	681	462	272	266	878	412	2,728	114
1904 ...	27	27	2,988	2,214	434	296	97	97	1,061	690	9,453	428
1905 ...	15	14	4,308	3,147	325	235	98	95	1,003	606	3,938	322
1906 ...	19	19	2,959	2,191	491	360	52	49	910	567	6,819	389
1907 ...	19	19	2,741	2,144	482	373	116	116	929	631	5,640	342
1908 ...	7	7	4,295	3,528	447	360	21	20	1,017	721	4,653	227
1909 ...	9	9	4,059	3,289	278	223	17	17	1,133	819	6,356	585
1910 ...	10	10	4,202	3,546	231	176	11	11	1,112	738	4,755	478
1911 ...	19	19	3,641	3,046	181	144	26	26	1,114	866	4,719	304
1912 ...	4	3	2,867	2,367	124	108	6	6	995	791	8,075	752
1913 ...	3	3	2,187	1,851	153	128	4	4	1,006	826	4,166	417
1914 ...	1	1	3,712	3,035	177	141	—	—	1,258	1,008	6,426	390

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 seven hospitals during the year 1914.

CITY HOSPITAL NORTH, NETHERFIELD ROAD.

Visiting Physician, Dr. R. I. RICHARDSON.

Resident Physician, Dr. T. H. DONOVAN.

DISEASES.	Remaining Dec. 31st, 1913.	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.	87	1156	—	1243	211	1	859	125	4	47	4.0
Enteric Fever.	5	17	—	22	—	—	17	—	—	5	29.4
Diphtheria ...	—	2	—	2	—	2	—	—	—	—	—
Smallpox	—	—	—	—	—	—	—	—	—	—	—
Measles	—	18	—	18	—	—	18	—	—	—	—
Whooping Cough	—	2	—	2	—	—	2	—	—	—	—
Other Diseases	—	30	—	30	—	—	26	—	—	4	13.3
Isolation and Observation Cases	13	132	—	145	—	—	123	17	—	5	3.7
Totals ...	105	1357	—	1462	211	3	1045	142	4	61	4.5

SCARLET FEVER.

	AGE PERIODS.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases	327	547	225	41	11	4	1	1156
No. of Deaths	34	9	4	—	—	—	—	47
Percentage of Deaths	10.3	1.6	1.7	—	—	—	—	4.0

ENTERIC FEVER.

	AGE PERIODS.							Total.
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	
No. of Cases.....	1	—	4	5	3	3	1	17
No. of Deaths	—	—	—	1	3	—	1	5
Percentage of Deaths	—	—	—	20	100	—	100	29·4

Corrected Diagnosis.	DISEASES NOTIFIED AS:—			
	Scarlet Fever.	Typhus Fever.	Typhoid Fever.	Deaths.
Tonsillitis	1	—	—	—
Nil	9	—	—	—
Influenza	1	—	1	—
Catarrh	4	—	—	—
Measles	7	—	—	—
Appendicitis	—	—	1	—
Chronic Constipation	—	1	—	—
Septic Rash	1	—	—	—
Pneumonia (Lobar)	—	2	3	2
Broncho-pneumonia	1	—	—	1
Chicken Pox	1	—	—	—
Rötheln	3	—	—	—
Typhoid	—	1	—	1
Peritonitis and Pneumonia.....	1	—	—	1
Scarlet Fever and Measles	16	—	—	1
Scarlet Fever and Chickenpox	12	—	—	—
Scarlet Fever and Mumps.....	7	—	—	—
Scarlet Fever and Diphtheria	1	—	—	1
Scarlet Fever, Mumps and Chickenpox	1	—	—	—
	66	4	5	7

CITY HOSPITAL SOUTH, GRAFTON STREET.

Visiting Physician, Dr. N. E. ROBERTS.

Resident Physician, Dr. P. COTTER.

DISEASES.	Remaining Dec. 31st, 1913.	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.....	71	509	36	616	10	19	454	82	3	15	2.4
Enteric Fever.	2	16	—	18	—	—	14	—	1	4	25.0
Diphtheria	3	14	—	17	—	—	16	—	1	1	7.1
Measles	12	255	—	267	—	—	220	20	5	27	10.5
Other Diseases.....	—	7	—	7	—	2	4	—	1	1	14.2
Isolation & Obser- vation Cases	1	22	—	23	—	—	18	—	3	5	22.7
Totals	89	823	36	948	10	21	726	102	14	53	5.6

SCARLET FEVER.

	AGE PERIODS.							Total.
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	
No. of Cases	149	232	108	13	6	1	—	509
No. of Deaths	12	3	—	—	—	—	—	15
Percentage of Deaths	8	1.2	—	—	—	—	—	2.9

ENTERIC FEVER.

	AGE PERIODS.							Total.
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	
No. of Cases	1	2	4	6	3	—	—	16
No. of Deaths.....	*1	—	1	1	1	—	—	4
Percentage of Deaths..	100	—	25	16·6	33·3	—	—	25

*Died within 14 hours of admission.

DIPHTHERIA.

	AGE PERIODS.							Total.
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	
No. of Cases	1	7	3	2	1	—	—	14
No. of Deaths.....	*1	—	—	—	—	—	—	1
Percentage of Deaths..	100	—	—	—	—	—	—	7·1

*Died within 12 hours of admission.

MEASLES.

	AGE PERIODS							Total.
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	
No. of Cases	158	74	17	4	2	—	—	255
No. of Deaths	25	2	—	—	—	—	—	27
Percentage of Deaths..	15·8	2·7	—	—	—	—	—	10·5

CITY HOSPITAL, FAZAKERLEY.

Medical Superintendent, DR. C. RUNDLE.

Resident Physician, DR. S. R. RICHARDSON.

Diseases.	Remaining Dec. 31st., 1913.	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	357	63	449	73	361	—	2	15	4.2
Enteric Fever.....	3	5	—	8	—	6	—	—	2	40.0
Erysipelas	—	109	—	109	—	100	—	3	9	8.2
Diphtheria	66	145	—	211	24	173	—	5	14	9.6
Puerperal Fever	—	24	—	24	—	15	—	3	9	37.5
Measles	4	124	—	128	8	110	—	1	10	8.0
Whooping Cough	1	24	—	25	1	22	—	—	2	8.3
Tuberculosis	72	61	—	133	19	103	—	—	11	18.0
Other Diseases	28	237	—	265	21	223	—	1	21	8.8
Isolation & Observation Cases	1	14	—	15	1	14	—	—	—	—
Totals	204	1100	63	1367	147	1127	—	15	93	8.4

SCARLET FEVER.

	AGE PERIODS.							Total
	Under 5	5-10	10-20	20-30	30-40	40-50	50 up- wards	
No. of Cases.....	132	137	67	15	5	1	—	357
No. of Deaths.....	11	4	—	—	—	—	—	15
Percentage of Deaths	8.3	2.9	—	—	—	—	—	4.2

ENTERIC FEVER.

	AGE PERIODS.							Total
	Under 5	5-10	10-20	20-30	30-40	40-50	50 up- wards	
No. of Cases	—	—	1	2	—	2	—	5
No. of Deaths.....	—	—	—	—	—	2	—	2
Percentage of Deaths	—	—	—	—	—	100	—	40

DIPHTHERIA.

	AGE PERIODS.							Total
	Under 5	5-10	10-20	20-30	30-40	40-50	50 up- wards	
No. of Cases	55	41	30	14	4	—	1	145
No. of Deaths.....	12	2	—	—	—	—	—	14
Percentage of Deaths	21·8	4·8	—	—	—	—	—	9·6

Average duration of stay in hospital of patients whose treatment was completed at Fazakerley Hospital during the year 1914 was as follows :—

Scarlet Fever	6 to 7 weeks.
Typhoid Fever	8 weeks.
Diphtheria	4½ „
Measles	3

CORRECTION OF DIAGNOSIS.

Corrected Diagnosis.	DISEASES NOTIFIED AS—													
	Scarlet Fever	Diphtheria	Enteric Fever	Measles	Membranous Croup	Varicella	Erysipelas	Puerperal Fever	Cerebro-Spinal Meningitis	Smallpox	Chickenpox	German Measles.	For Observation	Deaths
Scarlet Fever	—	13	—	1	—	—	—	—	—	—	—	1	—	4
Diphtheria	1	—	1	—	5	—	—	—	—	—	—	—	—	1
Measles	13	3	—	—	1	—	—	—	—	—	—	1	—	4
German Measles.....	12	1	—	6	—	—	—	—	—	—	—	—	—	—
Whooping Cough	3	—	—	—	—	—	—	—	—	—	—	—	—	—
Mumps	3	—	—	—	—	—	—	—	—	—	—	—	—	—
Chickenpox.....	—	—	—	1	—	—	—	—	—	3	—	—	—	—
Scarlet Fever and														
Diphtheria	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever and Mumps..	2	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever and Chicken-														
pox	6	—	—	—	—	—	—	—	—	—	1	—	—	—
Scarlet Fever and Whoop-														
ing Cough	2	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria and Whooping														
Cough	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria and Measles ...	—	1	—	1	—	—	—	—	—	—	—	—	—	1
Measles and Chickenpox ...	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Erysipelas and Chickenpox	—	—	—	—	—	—	1	—	—	—	1	—	—	—
Syphilis	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever	1	—	—	—	—	—	—	—	—	—	—	—	—	1
Tonsillitis	10	45	—	—	—	—	—	—	—	—	—	—	—	—
Lobar Pneumonia.....	2	1	2	—	—	—	—	2	—	—	—	—	—	2
Erythema	1	—	—	—	—	—	—	—	—	—	—	—	1	—
Impetigo.....	1	—	—	—	—	1	—	—	—	—	1	—	—	1
Adenoids.....	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Retro-Pharyngeal Abscess	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Enteritis.....	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Eczema	—	—	—	—	—	—	1	—	—	—	—	—	—	—
Rherythma.....	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Cellulitis	—	—	—	—	—	—	2	—	—	—	—	—	—	1
General Peritonitis	—	—	—	—	—	—	—	1	—	—	—	—	—	1
Ovarian Salpinx	—	—	—	—	—	—	—	1	—	—	—	—	—	1
Chronic Nephritis	—	—	—	—	—	—	—	—	1	—	—	—	—	1
Totals.....	58	69	4	10	6	1	4	4	1	4	3	2	1	18

CITY HOSPITAL, FAZAKERLEY ANNEXE.

Medical Superintendent, DR. C. RUNDLE.

Resident Physician, DR. C. P. KELLY.

Diseases.	Remaining Dec. 31st, 1913.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment dur- ing the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
Scarlet Fever.....	53	721	98	872	194	—	560	103	2	15	2.0
Enteric Fever	—	2	—	2	—	—	2	—	—	—	—
Diphtheria	14	192	26	232	15	—	173	35	—	9	4.6
Small Pox	—	1	—	1	—	—	—	1	—	—	—
Measles	—	64	1	65	4	—	53	2	—	6	9.3
Whooping Cough ...	2	3	1	6	—	—	5	1	—	—	—
Other Diseases.....	6	196	15	217	6	—	173	29	5	9	4.6
Isolation and Observation Cases	2	12	—	14	—	1	11	2	—	—	—
Totals	77	1191	141	1409	219	1	977	173	7	39	3.2

SCARLET FEVER.

	AGE PERIODS.							Total.
	Under 5	5-10	10-20	20-30	30-40	40-50	50 up- wards.	
No. of Cases	190	300	181	35	11	4	—	721
No. of Deaths	10	4	—	1	—	—	—	15
Percentage of Deaths	5.26	1.33	—	2.85	—	—	—	2.0

ENTERIC FEVER.

	AGE PERIODS.							Total.
	Under 5	5-10	10-20	20-30	30-40	40-50	50 up- wards	
No. of Cases.....	—	—	—	1	1	—	—	2
No. of Deaths.....	—	—	—	—	—	—	—	—
Percentage of Deaths	—	—	—	—	—	—	—	—

DIPHTHERIA.

	AGE PERIODS.							Total.
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	
No. of Cases.....	51	94	29	13	5	—	—	192
No. of Deaths.....	5	3	—	1	—	—	—	9
Percentage of Deaths	9·8	3·1	—	7·7	—	—	—	4·6

Corrected Diagnosis.	DISEASES NOTIFIED AS:—											
	Scarlet Fever.	Diphtheria	Erysipelas	Measles	Scarlet Fever and Diphtheria	Measles and Diphtheria.	Typhoid Fever	Fever	Typhus Fever	Cerebro Spinal Meningitis	Croup	Deaths
Scarlet Fever	—	28	—	1	3	—	—	—	—	—	—	5
Peritonsillar Abscess	—	2	—	—	—	—	—	—	—	—	—	—
Tonsillitis	15	59	—	—	—	—	—	—	—	—	—	—
Scarlet Fever & Diphtheria..	1	4	—	—	—	—	—	—	—	—	—	1
Broncho-Pneumonia	—	4	—	—	—	—	—	—	—	—	—	4
Diphtheria, Varicella and Pertussis	—	1	—	—	—	—	—	—	—	—	—	—
Diphtheria and Mumps	—	1	—	—	—	—	—	—	—	—	—	—
Diphtheria	3	—	—	—	—	—	—	—	—	—	1	—
Erythema	2	—	—	—	—	—	—	—	—	—	—	—
Senile Gangrene	—	—	1	—	—	—	—	—	—	—	—	—
Enema Rash.....	1	—	—	—	—	—	—	—	—	—	—	—
Pertussis	—	—	—	1	—	—	—	—	—	—	—	—
Measles	4	—	—	—	—	2	—	—	—	—	—	—
Ulcers on leg.....	—	—	1	—	—	—	—	—	—	—	—	—
Gastritis	—	—	—	—	—	—	2	—	—	—	—	—
Adenitis	—	—	—	—	—	—	—	1	—	—	—	—
Jaundice	—	—	—	—	—	—	—	1	—	—	—	—
Syphilis	—	—	—	—	—	—	—	—	1	—	—	—
Rubella	2	—	—	—	—	—	—	—	—	—	—	—
Cellulitis	—	—	1	—	—	—	—	—	—	—	—	—
Acute Anterior Polio-myelitis	—	—	—	—	—	—	—	—	—	1	—	—
Pneumonia	—	1	—	—	—	—	—	—	—	—	—	1
Measles and Diphtheria.....	—	—	—	1	—	—	—	—	—	—	—	1
Varicella	1	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever and Varicella	1	—	—	—	—	—	—	—	—	—	—	—
Eczema	1	—	—	—	—	—	—	—	—	—	—	—
Total	31	100	3	3	3	2	2	2	1	1	1	12

CITY HOSPITAL, DEYSBROOK, WEST DERBY.

Visiting Physician, Dr. W. J. ROBERTSON DUNN.

Diseases.	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 ...	266	266	266	...	7	165	94	...	...	...

SCARLET FEVER.

	AGE PERIODS.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases	58	149	58	1	—	—	—	266
No. of Deaths	—	—	—	—	—	—	—	—
Percentage of Deaths	—	—	—	—	—	—	—	—

CITY HOSPITAL, PARKHILL.*Medical Superintendent*, Dr. H. R. MACINTYRE.*Resident Physicians* { Dr. W. H. BUTLER.
Dr. T. L. G. STEWART.

DISEASES.	Remaining Dec. 31st, 1913.	Admitted during the year.	Transferred from other City Hospitals	Total under Treat- ment during the year.	Transferred to Convalescent Hospital	Transferred to other City Hospitals.	Discharged.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions (including the Transfers from Fazakerley Hospital).
Phthisis	119	402	*20	541	—	—	267	190	—	†84	20·8
Isolation and Obser- vation Cases.....	—	—	—	—	—	—	—	—	—	—	—
Totals	119	402	20	541	—	—	267	190	—	84	20·8

* Transferred from Fazakerley Hospital.

† Of this number, 24 were admitted in 1913.

Of the cases discharged, 10 (children) were sent to the West Kirby Cottage Homes.

CITY HOSPITAL EAST, MILL LANE, OLD SWAN.

Visiting Physician, DR. H. A. CLARKE.

Resident Physician, DR. A. E. HODGSON.

DISEASES.	Remaining Dec. 31st, 1913.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment during the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
Scarlet Fever...	50	434	—	484	47	—	392	25	1	20	4·6
Enteric Fever..	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	52	608	—	660	—	—	503	96	28	61	10·0
Measles	—	18	—	18	—	—	16	—	1	2	11·1
Whooping Cough ...	—	—	—	—	—	—	—	—	—	—	—
Other Diseases.	—	175	—	175	—	3	151	—	8	21	12·0
Isolation and Observation Cases.....	11	17	—	28	—	—	12	16	—	—	—
Totals.....	113	1252	—	1365	47	3	1074	137	38	104	8·3

SCARLET FEVER.

	AGE PERIODS							Total.
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	
No. of Cases.....	121	198	93	17	3	1	1	434
No. of Deaths.....	12	8	—	—	—	—	—	20
Percentage of deaths	9·9	4·0	—	—	—	—	—	4·6

DIPHTHERIA.

	AGE PERIODS.							Total
	Under 5	5—10	10—20	20—30	30—40	40—50	50 up- wards	
No. of Cases	162	256	138	28	17	7	..	608
No. of Deaths.....	31	19	9	2	—	—	—	61*
Percentage of Deaths	19·1	7·4	6·5	7·0	—	—	—	10·0

* Of these deaths 28, or 45·9%, took place within 48 hours of admission to the Hospital.

Corrected Diagnosis.	DISEASES NOTIFIED AS :—		
	Diphtheria.	Scarlet Fever.	As stated.
*Tonsillitis	104	—	—
Broncho-Pneumonia	10	1	—
Lobar Pneumonia.....	9	1	—
Bronchitis	2	—	—
Pharyngitis	5	—	—
Laryngitis	5	—	—
Puerperal Septicæmia	—	—	4
Cerebro-Spinal Meningitis	—	—	2
Erysipelas	—	—	8
Mumps	—	—	1
Rotheln	—	1	—
Measles	8	10	—
Zymotic Enteritis.....	1	—	—
Empyema	1	—	—
Erythema	—	2	—
Urticaria.....	—	2	—
Syphilis	3	—	—
Rhinitis	2	—	—
Endocarditis	1	—	—
Ringworm	—	—	3
Abdominal Tuberculosis	1	—	—
Retro-Pharyngeal Abscess	1	—	—
Sub-Lingual Abscess.....	1	—	—
Influenza.....	2	—	—
Asthma	1	—	—
Dermatitis	1	—	—

* This comprises the cases sent into Hospital as Diphtheria, but which were negative both Bacteriologically and Clinically.

A

The following tables I, II, III, IV, and marked also A, B, C, D, are prepared pursuant to an instruction of the Local Government Board.

CITY OF LIVERPOOL.

TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1914 AND PREVIOUS YEARS.

YEAR.	Population estimated to Middle of each year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Uncorrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 year of age.		At all ages.	
			Number.	Rate.					Number.	Rate per 1000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1909.....	738960	23591	—	31·9	14761	19·9	779	72	3377	143	14054	19·0
1910.....	743295	23054	—	31·0	13917	18·7	574	113	3216	139	13456	18·1
1911.....	747627	22493	22437	30·0	15292	20·4	685	363	3472	154	14970	20·0
1912.....	752021	22233	22164	29·4	14003	18·6	639	407	2781	125	13771	18·3
1913.....	756553	22627	22555	29·8	13930	18·4	673	401	2987	132	13658	18·0
1914.....	767992	23143	23065	30·0	15320	19·9	718	444	3219	139	15046	19·5

* Rates in columns 5, 7 and 13 calculated per 1,000 of estimated population. + 25 of these deaths assigned to Liverpool were without any definite address.

NOTE.—This Table is arranged to show the gross births and deaths in the district, and the births and deaths properly belonging to it with the corresponding rates. For years before 1911 the corrected number of births is not available.

The deaths included in Column 6 of this table are the whole of those registered during the year as having actually occurred within the district.

In Column 12 is entered the number in Column 6, corrected by subtraction of the number in Column 8 and by addition of the number in Column 9. Deaths in Column 10 are similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under 1 included in the number given in Column 9.

“Transferable Deaths” are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided. The deaths of persons without fixed or usual residence, *e.g.*, casuals, are not included in Columns 8 or 9, except in certain instances under 3 (*b*) below. In Column 8 the number of transferable deaths of “non-residents” are deducted, and in Column 9 the number of deaths of “residents” registered outside the district are added in calculating the net death-rate of the district.

The following special cases arise as to Transferable Deaths:—

(1) Persons dying in Institutions for the sick or infirm, such as hospitals, lunatic asylums, workhouses, and nursing homes (but not almshouses) must be regarded as residents of the district in which they had a fixed or usual residence at the time of admission. If the person dying in an Institution had no fixed residence at the time of admission, the death is not transferable. If the patient has been directly transferred from one such institution to another, the death is transferable to the district of residence at the time of admission to the first Institution.

(2) The deaths of infants born and dying within a year of birth in an Institution to which the mother was admitted for her confinement should be referred to the district of fixed or usual residence of the parent.

(3) Deaths from violence are to be referred (*a*) to the district of residence, under the general rule; (*b*) if this district is unknown, or the deceased had no fixed abode, to the district where the accident occurred, if known; (*c*) failing this, to the district where death occurred, if known; and (*d*) failing this, to the district where the body was found.

Area of District in acres
(exclusive of area
covered by water.) 21,219.

Total population at all ages.....753,353 } At Census
Number of inhabited houses135,295 } of
Average number of persons per house5·5 } 1911.
(Not including Woolton Added Area).

The following is a list of the names of the persons who have been elected to the office of Mayor of the City of New York for the year 1890.

CITY OF NEW YORK

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

Mayor of the City of New York for the year 1890.

TABLE II.
CITY OF LIVERPOOL.
Cases of Infectious Disease notified during the Year 1914.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								TOTAL CASES NOTIFIED IN EACH LOCALITY. (e.g. Parish or Ward) of the District.																Public Institutions (Workhouses and Hospitals, &c., passing through the City. Total Cases Removed to Hospital.
	At all Ages.	At Ages—Years.							Sealand.	Exchange.	Abercromby.	Everton.	Kirkdale.	West Derby West.	Toxteth.	Walton.	West Derby East.	Wavertree.	Toxteth East.	Garsdon.	Fazakerley.	Woodton.			
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.																	
Small-pox	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous croup)	1258	12	306	707	150	78	4	1	31	36	47	179	78	131	163	210	120	141	25	49	2	...	30	16	1008
Erysipelas	898	17	23	68	110	322	301	57	63	87	56	210	63	68	78	104	37	59	8	34	2	...	27	2	302
Scarlet fever	3712	37	967	2327	279	96	5	1	101	113	107	707	211	370	426	584	256	343	193	183	13	4	92	9	3035
Typhus fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric fever	177	...	5	33	53	76	9	1	6	11	8	26	4	7	20	8	8	2	2	12	...	1	...	62	141
Relapsing fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal fever	56	...	...	...	13	43	...	...	3	4	1	7	6	7	5	9	4	5	...	4	...	1	...	...	41
*Ophthalmia Neonatorum	372	372	...	...	...	...	...	...	12	25	10	70	38	61	35	52	25	32	3	4	1	1	3	...	25
Cerebro-Spinal Meningitis	24	4	6	10	3	1	...	...	4	3	...	6	...	1	4	4	...	...	1	...	...	...	...	1	...
Poliomyelitis	34	2	24	7	1	...	...	...	2	3	...	8	1	1	3	10	1	2	...	3	...	...	...	...	...
Pulmonary Tuberculosis	2538	7	53	319	465	1081	541	42	252	255	156	478	243	295	331	173	135	80	36	48	3	7	...	46	460
Tuberculosis other than Pulmonary	930	33	207	362	201	99	26	2	115	81	44	152	71	144	122	66	53	38	11	23	3	3	...	4	...
Anthrax	7	...	...	...	1	5	1	...	1	1	...	1	...	1	...	...	1	...	...	...	...	...	...	2	5
Totals	10007	484	1501	3863	1276	1801	888	104	590	619	429	1844	715	1086	1187	1221	640	702	278	361	24	17	152	142	5018

*Notification from Midwives and Doctors as from 1/4. 14.

Isolation Hospitals (Name and Situation...)
(City Hospital North, Everton,
" " South, Toxteth,
" " Park Hill, Toxteth,
" " East, West Derby,
" " Fazakerley, Fazakerley,
" " " Annexe, Fazakerley.)
Total available beds.....1,019

Number of Diseases that
can be concurrently
treated 13

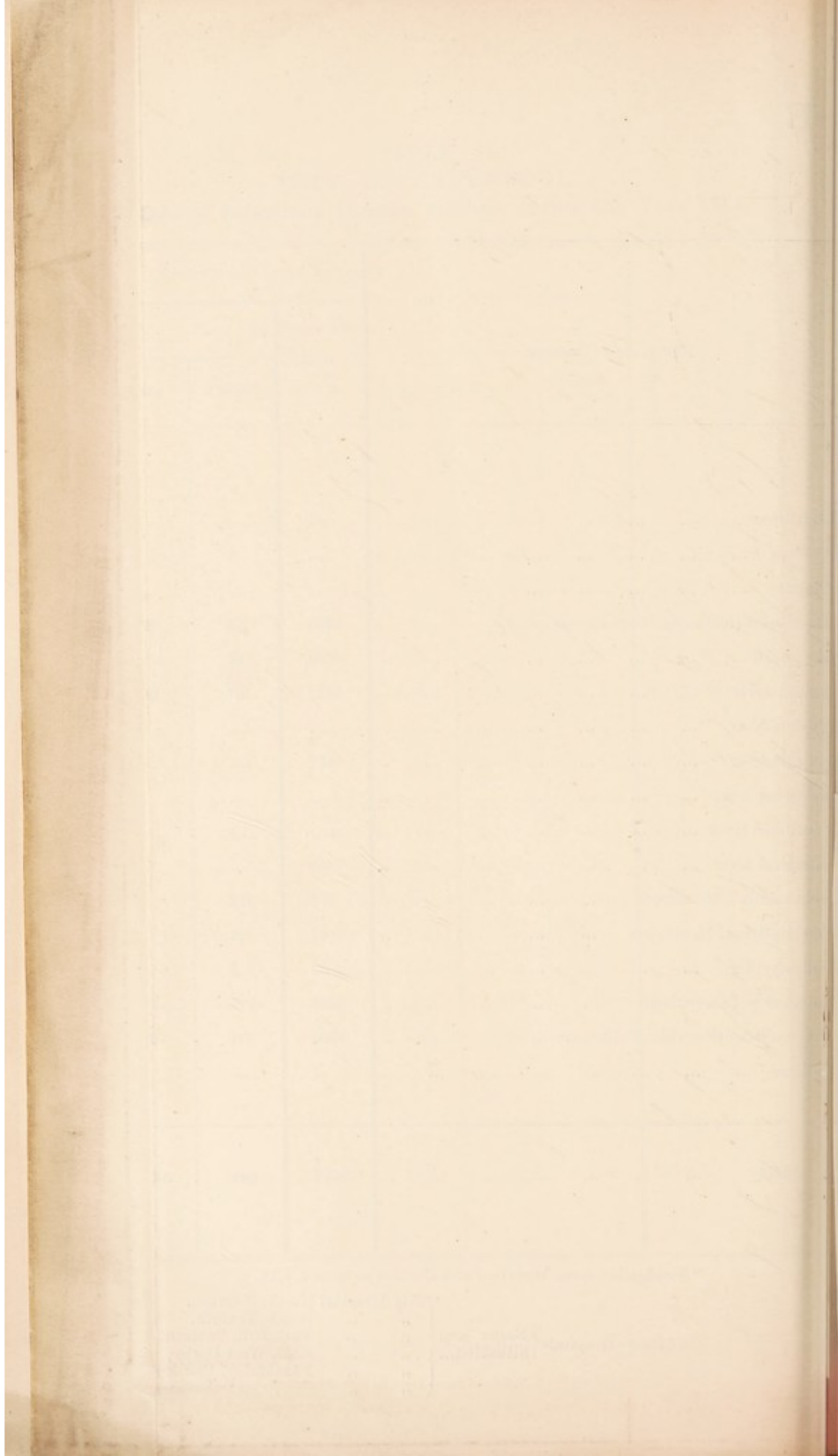


TABLE III
CITY OF LIVERPOOL.
Causes of, and ages at, Death during the Year 1914.
(See notes at back.)

C

Causes of Death.	NETT DEATHS AT THE SURJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT (a).									Total Deaths whether of "Residents" or "non-Residents" in Institutions in the District (b).
	All ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	
1	2	3	4	5	6	7	8	9	10	11
All causes (Certified (c)	14688	3102	1406	950	627	538	1975	3202	2888	5717
(Uncertified	358	117	20	8	8	7	27	67	104	8
1. Enteric Fever	44	—	—	2	6	9	22	5	—	37
2. Small-pox	—	—	—	—	—	—	—	—	—	—
3. Measles	517	109	222	165	21	—	—	—	—	151
4. Scarlet Fever	123	6	16	65	35	—	1	—	—	111
5. Whooping Cough	248	88	100	54	6	—	—	—	—	42
6. Diphtheria and Croup.	110	5	22	43	36	2	1	—	1	91
7. Influenza	78	3	2	3	2	3	14	22	29	5
8. Erysipelas	38	3	—	—	1	—	11	14	9	31
9. Phthisis (Pulmonary Tuberculosis) ...	1132	1	6	11	62	201	521	311	19	590
10. Tuberculous Meningitis.	114	27	18	35	33	1	—	—	—	54
11. Other Tuberculous Diseases	262	42	34	45	52	28	33	25	3	119
12. Cancer, malignant disease.	750	—	1	5	1	7	92	419	225	279
13. Rheumatic Fever	49	—	—	1	11	3	11	16	7	16
14. Meningitis (See note (d))	177	59	40	33	31	5	5	4	—	35
15. Organic Heart Disease.....	1081	6	—	4	41	61	191	432	346	384
16. Bronchitis	1491	289	92	40	7	6	85	379	593	401
17. Pneumonia (all forms).....	1613	376	306	193	72	46	186	264	170	503
18. Other diseases of Respiratory organs	201	15	25	16	11	13	30	52	39	58
19. Diarrhoea and Enteritis. (See note (e))	1061	635	322	66	6	1	4	6	21	267
20. Appendicitis and Typhlitis	57	—	1	2	13	16	12	11	2	56
21. Cirrhosis of Liver	76	—	—	—	—	1	17	53	5	37
21a. Alcoholism	3	—	—	—	—	—	3	—	—	5
22. Nephritis and Bright's Disease	407	3	8	14	13	18	84	172	95	170
23. Puerperal Fever	31	—	—	—	—	5	26	—	—	23
24. Other accidents and diseases of Pregnancy and Parturition	49	—	—	—	—	—	37	12	—	11
25. Congenital Deceility and Malformation, including Premature Birth	986	920	56	10	—	—	—	—	—	211
26. Violent Deaths, excluding Suicide ...	525	95	21	45	62	40	111	100	51	239
27. Suicide	53	—	—	—	—	5	31	14	3	16
28. Other Defined Diseases	3759	535	134	106	113	74	472	954	1371	1781
29. Diseases ill-defined or unknown	11	2	—	—	—	—	2	4	3	2
	15046	3219	1426	958	635	545	2002	3269	2992	5725
Sub-Entries included in above figures—										
Cerebro-Spinal Meningitis	20	6	—	7	7	—	—	—	—	13
Poliomyelitis	7	—	1	—	5	—	1	—	—	4
Syphilis	72	51	6	1	1	1	8	4	—	35
*Pneumonia	785	83	73	60	41	41	161	206	120	285

* Sub-Entries should here be made for other deaths which it is desirable to distinguish, on account of their administrative importance or special interest (e.g., any deaths from Anthrax, Typhus or Glanders, which have been included under 28, Other Defined Diseases; or deaths from pneumonia other than broncho-pneumonia which have been included under 17, Pneumonia all forms).

NOTES TO TABLE III.

The classification and numbering of Causes of Death are those of the "Short List" on page XXV. of the Manual of the International List of Causes of Death, which has been consulted and followed in all cases of doubt.

- (a) All "Transferable Deaths" of residents, *i.e.* of persons resident in the District who have died outside it, are *included* with the other deaths in Columns 2-10. Transferable deaths of non-residents, *i.e.*, of persons resident elsewhere in England and Wales who have died in the District, are in like manner *excluded* from these columns. For the precise meaning of the term "transferable deaths" *see* footnote to Table I.

The total deaths in Column 2 of Table III. equal the figures for the year in Column 12 of Table I.

- (b) All deaths occurring in institutions for the sick and infirm situated within the district, whether of residents or of non-residents, are entered in the last column of Table III.
- (c) All deaths certified by registered Medical Practitioners and all Inquest cases are classed as "Certified"; all other deaths are regarded as "Uncertified."
- (d) Exclusive of "Tuberculous Meningitis" (10), but inclusive of Cerebro-Spinal Meningitis.
- (e) Title 19 has been used for deaths from Diarrhœa and Enteritis at all ages. (In the "Short List" deaths from Diarrhœa, and Enteritis under 2 years are included under Title 19; those at 2 years and over being placed under Title 28.)

TABLE IV.
CITY OF LIVERPOOL.
INFANT MORTALITY DURING THE YEAR 1914.

Nett Deaths from stated Causes at various Ages under One Year of Age.

(See Note (a) at back.)

CAUSE OF DEATH.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months.	3 Months and under 6 Months.	6 Months and under 9 Months.	9 Months and under 12 Months.	Total Deaths under One Year.
All Causes.	Certified	468	130	130	105	833	619	583	588	479	3037
	Uncertified	54	3	2	6	65	22	15	8	7	182
Small-pox		—	—	—	—	—	—	—	—	—	—
Chicken-pox		—	—	—	—	—	—	—	1	1	2
Measles		—	—	—	—	—	2	10	37	60	109
Scarlet Fever		—	—	1	—	1	—	—	2	3	6
Whooping Cough		—	—	—	4	4	8	20	27	29	88
Diphtheria and Croup		—	—	—	—	—	1	—	1	3	5
Erysipelas		—	—	—	1	1	1	—	1	—	3
Tuberculous Meningitis		2	—	—	—	2	5	4	13	3	27
Abdominal Tuberculosis (b)		—	—	—	1	1	5	9	8	5	28
Other Tuberculous Diseases		—	—	—	1	1	4	2	1	6	14
Meningitis (not Tuberculous)		—	—	1	1	2	2	17	25	13	59
Convulsions		36	13	17	11	77	57	30	22	10	196
Laryngitis		—	—	—	—	—	1	—	—	—	1
Bronchitis		2	7	6	17	32	82	70	67	38	289
Pneumonia (all forms)		3	4	8	6	21	53	71	105	126	376
Diarrhoea,		—	1	3	4	8	78	136	115	86	423
Enteritis		1	4	8	4	17	38	60	59	38	212
Gastritis		—	—	1	2	3	24	11	7	2	47
Syphilis		2	2	5	2	11	27	9	3	1	51
Rickets		—	—	—	—	—	—	2	7	5	14
Suffocation, overlying		5	—	6	9	20	36	14	5	1	76
Injury at Birth		9	2	—	—	11	—	—	—	—	11
Atelectasis		20	3	1	—	24	5	—	—	—	29
Congenital Malformations (c)		25	8	4	3	40	8	6	—	—	54
Premature Birth		303	55	27	13	398	30	5	1	1	435
Atrophy, Debility and Marasmus... ..		95	17	25	20	157	132	71	46	25	431
Other Causes		19	17	19	12	67	42	51	43	30	233
		522	133	132	111	898	641	598	596	486	3219

Nett Births in the year { Legitimate ... 22,272
Illegitimate ... 793

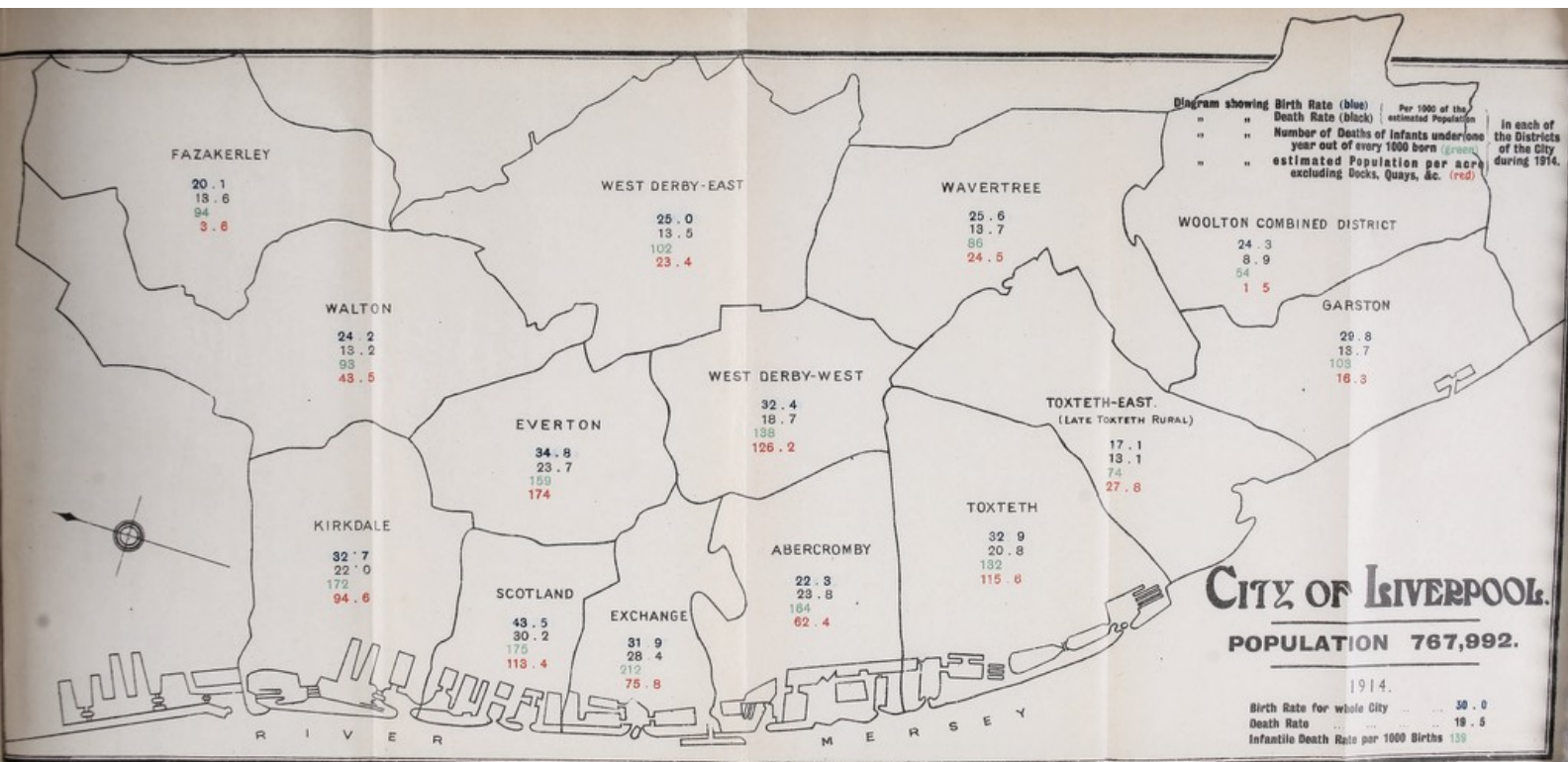
Nett Deaths in the year of { Legitimate Infants 3,021
Illegitimate Infants 198

NOTES TO TABLE IV.

- (a) The total in the last column of Table IV. should equal the total in column 10 of Table I., and in column 3 of Table III.
- (b) Under Abdominal Tuberculosis are to be included deaths from Tuberculous Peritonitis and Enteritis and from *Tabes Mesenterica*.
- (c) The total deaths from Congenital Malformations, Premature Birth, Atrophy, Debility and Marasmus, should equal the total in Table III. under the heading Congenital Debility and Malformation, including Premature Birth.

Want of Breast Milk is included under Atrophy and Debility.
- (d) For references to the meaning of any other headings, *see* notes attached to Table III.

In recording the facts under the various headings of Tables I , II., III. and IV., attention has been drawn to the notes on the Tables.



FAZAKERLEY

20.1
8.8
48
8.8

WEST DERBY EAST

25.0
18.5
102
23.4

WAL

20.1
8.8
88
48

WE

EVERTON

34.8
23.7
159
174

KIRK

88
22
172
84

SCOTLAND

43.5
80.2
175
118.4

EXCHANGE

31.9
28.4
72
78.8



DEATHS REGISTERED IN THE CITY OF LIVERPOOL.

DURING THE YEAR ENDING SATURDAY, 2ND JANUARY, 1915.

CAUSE OF DEATH.	SEX.	AGE—YEARS.												RESIDENTS.												PUBLIC INSTITUTIONS.														Total.	Rate per 1,000.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		AGE—YEARS.												RESIDENTS.												PUBLIC INSTITUTIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		Male.	Female.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.	37.	38.	39.	40.	41.	42.	43.	44.	45.	46.	47.	48.	49.	50.	51.	52.	53.	54.	55.	56.	57.	58.	59.	60.	61.	62.	63.	64.	65.	66.	67.	68.	69.	70.	71.	72.	73.	74.	75.	76.	77.	78.	79.	80.	81.	82.	83.	84.	85.	86.	87.	88.	89.	90.	91.	92.	93.	94.	95.	96.	97.	98.	99.	100.	101.	102.	103.	104.	105.	106.	107.	108.	109.	110.	111.	112.	113.	114.	115.	116.	117.	118.	119.	120.	121.	122.	123.	124.	125.	126.	127.	128.	129.	130.	131.	132.	133.	134.	135.	136.	137.	138.	139.	140.	141.	142.	143.	144.	145.	146.	147.	148.	149.	150.	151.	152.	153.	154.	155.	156.	157.	158.	159.	160.	161.	162.	163.	164.	165.	166.	167.	168.	169.	170.	171.	172.	173.	174.	175.	176.	177.	178.	179.	180.	181.	182.	183.	184.	185.	186.	187.	188.	189.	190.	191.	192.	193.	194.	195.	196.	197.	198.	199.	200.	201.	202.	203.	204.	205.	206.	207.	208.	209.	210.	211.	212.	213.	214.	215.	216.	217.	218.	219.	220.	221.	222.	223.	224.	225.	226.	227.	228.	229.	230.	231.	232.	233.	234.	235.	236.	237.	238.	239.	240.	241.	242.	243.	244.	245.	246.	247.	248.	249.	250.	251.	252.	253.	254.	255.	256.	257.	258.	259.	260.	261.	262.	263.	264.	265.	266.	267.	268.	269.	270.	271.	272.	273.	274.	275.	276.	277.	278.	279.	280.	281.	282.	283.	284.	285.	286.	287.	288.	289.	290.	291.	292.	293.	294.	295.	296.	297.	298.	299.	300.	301.	302.	303.	304.	305.	306.	307.	308.	309.	310.	311.	312.	313.	314.	315.	316.	317.	318.	319.	320.	321.	322.	323.	324.	325.	326.	327.	328.	329.	330.	331.	332.	333.	334.	335.	336.	337.	338.	339.	340.	341.	342.	343.	344.	345.	346.	347.	348.	349.	350.	351.	352.	353.	354.	355.	356.	357.	358.	359.	360.	361.	362.	363.	364.	365.	366.	367.	368.	369.	370.	371.	372.	373.	374.	375.	376.	377.	378.	379.	380.	381.	382.	383.	384.	385.	386.	387.	388.	389.	390.	391.	392.	393.	394.	395.	396.	397.	398.	399.	400.	401.	402.	403.	404.	405.	406.	407.	408.	409.	410.	411.	412.	413.	414.	415.	416.	417.	418.	419.	420.	421.	422.	423.	424.	425.	426.	427.	428.	429.	430.	431.	432.	433.	434.	435.	436.	437.	438.	439.	440.	441.	442.	443.	444.	445.	446.	447.	448.	449.	450.	451.	452.	453.	454.	455.	456.	457.	458.	459.	460.	461.	462.	463.	464.	465.	466.	467.	468.	469.	470.	471.	472.	473.	474.	475.	476.	477.	478.	479.	480.	481.	482.	483.	484.	485.	486.	487.	488.	489.	490.	491.	492.	493.	494.	495.	496.	497.	498.	499.	500.	501.	502.	503.	504.	505.	506.	507.	508.	509.	510.	511.	512.	513.	514.	515.	516.	517.	518.	519.	520.	521.	522.	523.	524.	525.	526.	527.	528.	529.	530.	531.	532.	533.	534.	535.	536.	537.	538.	539.	540.	541.	542.	543.	544.	545.	546.	547.	548.	549.	550.	551.	552.	553.	554.	555.	556.	557.	558.	559.	560.	561.	562.	563.	564.	565.	566.	567.	568.	569.	570.	571.	572.	573.	574.	575.	576.	577.	578.	579.	580.	581.	582.	583.	584.	585.	586.	587.	588.	589.	590.	591.	592.	593.	594.	595.	596.	597.	598.	599.	600.	601.	602.	603.	604.	605.	606.	607.	608.	609.	610.	611.	612.	613.	614.	615.	616.	617.	618.	619.	620.	621.	622.	623.	624.	625.	626.	627.	628.	629.	630.	631.	632.	633.	634.	635.	636.	637.	638.	639.	640.	641.	642.	643.	644.	645.	646.	647.	648.	649.	650.	651.	652.	653.	654.	655.	656.	657.	658.	659.	660.	661.	662.	663.	664.	665.	666.	667.	668.	669.	670.	671.	672.	673.	674.	675.	676.	677.	678.	679.	680.	681.	682.	683.	684.	685.	686.	687.	688.	689.	690.	691.	692.	693.	694.	695.	696.	697.	698.	699.	700.	701.	702.	703.	704.	705.	706.	707.	708.	709.	710.	711.	712.	713.	714.	715.	716.	717.	718.	719.	720.	721.	722.	723.	724.	725.	726.	727.	728.	729.	730.	731.	732.	733.	734.	735.	736.	737.	738.	739.	740.	741.	742.	743.	744.	745.	746.	747.	748.	749.	750.	751.	752.	753.	754.	755.	756.	757.	758.	759.	760.	761.	762.	763.	764.	765.	766.	767.	768.	769.	770.	771.	772.	773.	774.	775.	776.	777.	778.	779.	780.	781.	782.	783.	784.	785.	786.	787.	788.	789.	790.	791.	792.	793.	794.	795.	796.	797.	798.	799.	800.	801.	802.	803.	804.	805.	806.	807.	808.	809.	810.	811.	812.	813.	814.	815.	816.	817.	818.	819.	820.	821.	822.	823.	824.	825.	826.	827.	828.	829.	830.	831.	832.	833.	834.	835.	836.	837.	838.	839.	840.	841.	842.	843.	844.	845.	846.	847.	848.	849.	850.	851.	852.	853.	854.	855.	856.	857.	858.	859.	860.	861.	862.	863.	864.	865.	866.	867.	868.	869.	870.	871.	872.	873.	874.	875.	876.	877.	878.	879.	880.	881.	882.	883.	884.	885.	886.	887.	888.	889.	890.	891.	892.	893.	894.	895.	896.	897.	898.	899.	900.	901.	902.	903.	904.	905.	906.	907.	908.	909.	910.	911.	912.	913.	914.	915.	916.	917.	918.	919.	920.	921.	922.	923.	924.	925.	926.	927.	928.	929.	930.	931.	932.	933.	934.	935.	936.	937.	938.	939.	940.	941.	942.	943.	944.	945.	946.	947.	948.	949.	950.	951.	952.	953.	954.	955.	956.	957.	958.	959.	960.	961.	962.	963.	964.	965.	966.	967.	968.	969.	970.	971.	972.	973.	974.	975.	976.	977.	978.	979.	980.	981.	982.	983.	984.	985.	986.	987.	988.	989.	990.	991.	992.	993.	994.	995.	996.	997.	998.	999.	1000.	1001.	1002.	1003.	1004.	1005.	1006.	1007.	1008.	1009.	1010.	1011.	1012.	1013.	1014.	1015.	1016.	1017.	1018.	1019.	1020.	1021.	1022.	1023.	1024.	1025.	1026.	1027.	1028.	1029.	1030.	1031.	1032.	1033.	1034.	1035.	1036.	1037.	1038.	1039.	1040.	1041.	1042.	1043.	1044.	1045.	1046.	1047.	1048.	1049.	1050.	1051.	1052.	1053.	1054.	1055.	1056.	1057.	1058.	1059.	1060.	1061.	1062.	1063.	1064.	1065.	1066.	1067.	1068.	1069.	1070.	1071.	1072.	1073.	1074.	1075.	1076.	1077.	1078.	1079.	1080.	1081.	1082.	1083.	1084.	1085.	1086.	1087.	1088.	1089.	1090.	1091.	1092.	1093.	1094.	1095.	1096.	1097.	1098.	1099.	1100.	1101.	1102.	1103.	1104.	1105.	1106.	1107.	1108.	1109.	1110.	1111.	1112.	1113.	1114.	1115.	1116.	1117.	1118.	1119.	1120.	1121.	1122.	1123.	1124.	1125.	1126.	1127.	1128.	1129.	1130.	1131.	1132.	1133.	1134.	1135.	1136.	1137.	1138.	1139.	1140.	1141.	1142.	1143.	1144.	1145.	1146.	1147.	1148.	1149.	1150.	1151.	1152.	1153.	1154.	1155.	1156.	1157.	1158.	1159.	1160.	1161.	1162.	1163.	1164.	1165.	1166.	1167.	1168.	1169.	1170.	1171.	1172.	1173.	1174.	1175.	1176.	1177.	1178.	1179.	1180.	1181.	1182.	1183.	1184.	1185.	1186.	1187.	1188.	1189.	1190.	1191.	1192.	1193.	1194.	1195.	1196.	1197.	1198.	1199.	1200.	1201.	1202.	1203.	1204.	1205.	1206.	1207.	1208.	1209.	1210.	1211.	1212.	1213.	1214.	1215.	1216.	1217.	1218.	1219.	1220.	1221.	1222.

DISPOSED OF BY
ATHENÆUM,
LIVERPOOL.