

Report on the public health of 1903.

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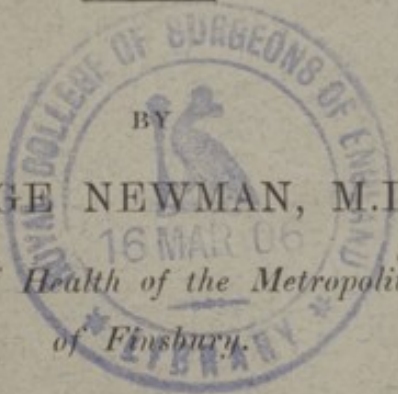
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THE
METROPOLITAN BOROUGH OF FINSBURY.

REPORT
ON THE
PUBLIC HEALTH OF FINSBURY
1903.

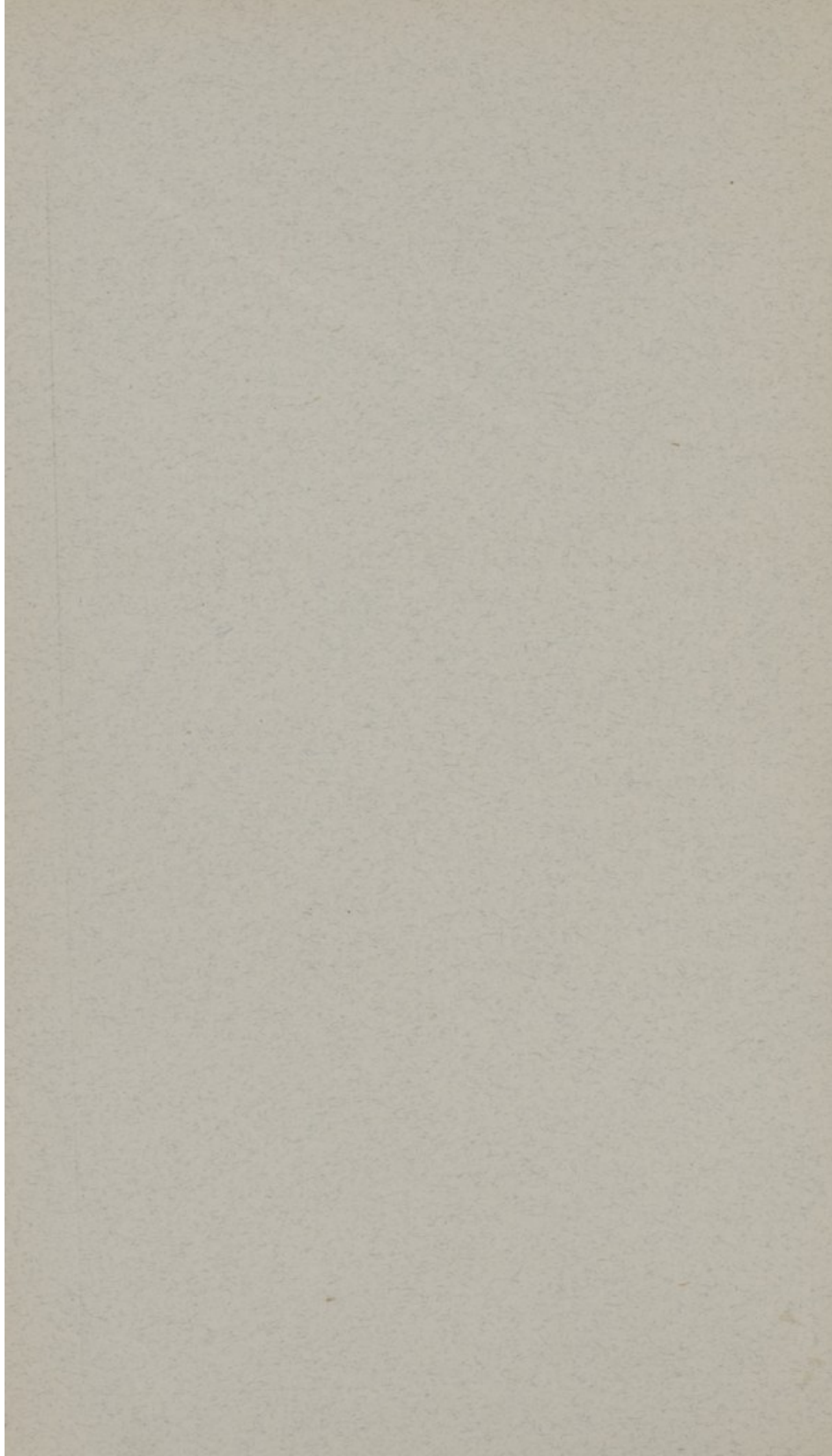
Including Special Report on Aliens, and Report on Factories and Workshops

BY
GEORGE NEWMAN, M.D.,
*Medical Officer of Health of the Metropolitan Borough
of Finsbury.*



LONDON :
PRINTED BY THOMAS BEAN & SON, GOLDEN LANE, E.C.

1904.

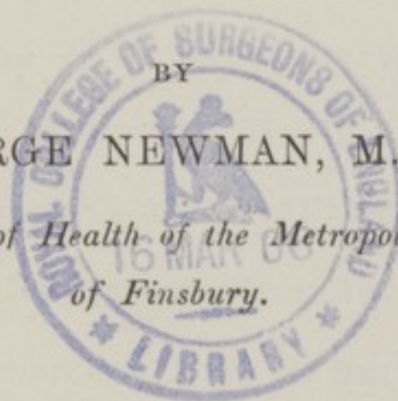


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THE

METROPOLITAN BOROUGH OF FINSBURY
PUBLIC HEALTH COMMITTEE, 1931

Chairman
ALBERT WOLFE HOWE

Members
Governor George M. Gifford

PUBLIC HEALTH OF FINSBURY

The Health of the Borough of Finsbury, London, 1931
1931

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Secretary, Mr. J. R. Gifford, London, E.C. 2

Mr. G. M. Gifford, London, E.C. 2

Mr. J. R. Gifford, London, E.C. 2

Mr. J. R. Gifford, London, E.C. 2

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Mr. J. R. Gifford, London, E.C. 2

PUBLIC HEALTH COMMITTEE, 1903-4.

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Vice-Chairman :

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His Worship the Mayor (Mr. COUNCILLOR MIDDLETON
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Mortuary Keepers :

W. OLIVER and J. E. OAKLEY.

Disinfectors and Keepers of Reception Houses :

W. OLIVER, T. STEGGLES, J. ALDER, G. VICKERS,
J. E. OAKLEY.

Solicitor appointed to act for the Borough Council in all Public Health Prosecutions :

MR. W. T. RICKETTS, 101-103, King's Cross Road.

Medical Officer of Health :

GEORGE NEWMAN, M.D., F.R.S. EDIN., D.P.H. CAMB.

To the Mayor, Aldermen and Councillors of the
Metropolitan Borough of Finsbury.

His Worship the Mayor: Mr. Councillor MIDDLETON
CHAPMAN, J.P.

Gentlemen,

I have the honour to submit herewith the Annual Report on the Public Health and Sanitary conditions of the Borough of Finsbury for the year 1903. It is drawn up in accordance with the instructions of the Local Government Board, and contains a record of the work of the Department, as carried out under the Public Health Committee. A Special Report on Aliens in Finsbury (containing some of the evidence given by me before the Royal Commission on Alien Immigration), and a statement on the Factories and Workshops, required by the Home Office, are incorporated. The Report is arranged, for convenience, in seven sections, as follows:—

- A. VITAL STATISTICS.
- B. RECORDS OF DISEASE.
- C. THE PROTECTION OF THE FOOD SUPPLY.
- D. HOUSE PROPERTY AND OVERCROWDING.
- E. FACTORIES AND WORKSHOPS.
- F. GENERAL SANITARY ADMINISTRATION.
- G. APPENDIX ON ALIENS IN FINSBURY.

I desire to take the opportunity of expressing my grateful appreciation of the continued support and assistance I have received from the Chairman and members of the Public Health Committee of the Council during the year. I am glad also to acknowledge the loyal co-operation of the staff of the Department.

I have the honour to be,
Gentlemen,

Your obedient Servant,
GEORGE NEWMAN,

Public Health Department, Medical Officer of Health.

Town Hall, Rosebery Avenue, E.C.

January 28th, 1904.

To the Mayor, Aldermen and Council of the City of New York

TABLE OF CONTENTS

A VITAL STATISTICS—The Committee on Vital Statistics
 (1904-1905)

REPORT

CHAPTER I—Introduction

CHAPTER II—The Vital Statistics of the City of New York

CHAPTER III—The Vital Statistics of the State of New York

CHAPTER IV—The Vital Statistics of the United States

CHAPTER V—The Vital Statistics of the World

CHAPTER VI—The Vital Statistics of the City of New York, 1904-1905

CHAPTER VII—The Vital Statistics of the State of New York, 1904-1905

CHAPTER VIII—The Vital Statistics of the United States, 1904-1905

CHAPTER IX—The Vital Statistics of the World, 1904-1905

APPENDIX

INDEX

GEORGE W. WHELAN
 Health Officer of the City of New York

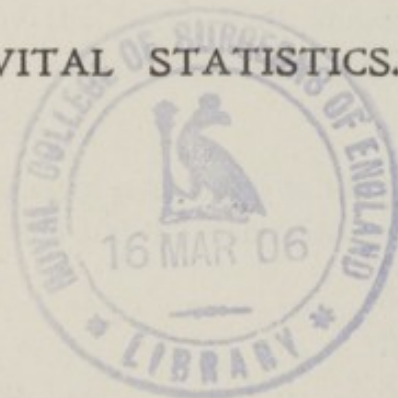


TABLE OF CONTENTS.

A—VITAL STATISTICS.				PAGE
			PAGE	
Population	...	...	11	
Births	...	...	13	
Deaths	...	...	13	
" in Public Institutions...			15	
" in Finsbury Districts...			16	
" according to age	...		17	
" of Infants	...		17	
" from Senility	...		20	
" from Infectious Diseases			21	
" in relation to Tenements			21	
B—RECORDS OF DISEASE.				
Notification of Infectious Disease	...	...	27	
Small-Pox	...	...	28	
Vaccination	...	...	29	
Chicken-Pox	...	...	31	
Diphtheria	...	...	32	
Enteric Fever	...	...	37	
Scarlet Fever	...	...	40	
Measles	...	...	42	
Whooping Cough	...	...	45	
Epidemic Diarrhœa	...	...	45	
Phthisis	...	...	51	
" Voluntary Notification of	...	...	52	
" Deaths from	...	...	52	
Other Forms of Tuberculosis			57	
Cancer	...	...	60	
Alcoholism	...	...	61	
C—FOOD SUPPLY.				
Meat Supply	...	...	67	
Meat Prosecutions	...	...	68	
Meat Confiscated	...	...	77	
Slaughter-houses	...	...	78	
Ice-Cream	...	...	78	
Tinned Peas	...	...	79	
Cheese Poisoning	...	...	87	
Restaurants and Eating-houses			89	
				90
The Milk Supply	...	...	120	
Sale of Food and Drugs Acts			121	
Water Supply	...	...	121	
D—HOUSE PROPERTY, &c.				
Housing	...	...	125	
Insanitary Areas	...	...	126	
Dwelling Houses Closed	...	...	141	
Houses Let in Lodgings	...	...	145	
House Inspection	...	...	149	
Overcrowding	...	...	149	
Common Lodging-Houses	...	...	152	
Model Dwellings	...	...	153	
Underground Rooms	...	...	156	
The Housing Question	...	...	156	
E—FACTORIES AND WORKSHOPS.				
Introduction	...	...	165	
Sanitation in Workshops	...	...	169	
Home Work	...	...	176	
Outworkers	...	...	178	
Inspection and Registration	...	...	179	
Legal Proceedings	...	...	181	
Bakehouses	...	...	182	
F—SANITARY ADMINISTRATION, ETC.				
The Canal and Canal Boats	...	...	199	
Removal and Re-interment of Human Remains	...	...	203	
Nuisances arising from Accumulation of Manure	...	...	205	
Schools	...	...	214	
Disinfection	...	...	215	
Mortuaries	...	...	218	
Reception Houses	...	...	219	
Sanitary Inspection	...	...	219	
Legal Proceedings	...	...	222	
Tables	...	...	231	
Vaccination Returns	...	...	235	
G—ALIENS IN FINSBURY.				
Appendix.				

VITAL STATISTICS

A.—VITAL STATISTICS.



VITAL STATISTICS

The Metropolitan Board of Health was organized in 1855 under the Local Government Act 1855. It was formed by amalgamating the various local authorities in the County of London. The Board of Health was the first authority to be established in the County of London. It was the first authority to be established in the County of London. It was the first authority to be established in the County of London.

AL-VITAL STATISTICS

Population - The population of the County of London in 1851 was 1,013,000. The population of the County of London in 1851 was 1,013,000. The population of the County of London in 1851 was 1,013,000. The population of the County of London in 1851 was 1,013,000. The population of the County of London in 1851 was 1,013,000.

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VITAL STATISTICS.

The Metropolitan Borough of Finsbury was created in November, 1900, under the London Local Government Act, 1899. It was formed by amalgamation of the following constituent parts, namely:—The Parish of the Vestry of Clerkenwell, the Parish of the Vestry of St. Luke, Middlesex, the Liberty of Glasshouse Yard, the Liberty of the Charterhouse, and the Parish of St. Sepulchre Without.

The population of the Borough is 100,487, and there are 8,500 inhabited houses. The area is 589 acres. The rateable value is £970,264, and the gross assessable value £1,189,793. The Borough is bounded upon the north by the Boroughs of Islington and Shoreditch; on the east by the Borough of Shoreditch; on the south by the City of London; and on the west by the Boroughs of Holborn and St. Pancras.

Population.—The estimated population to the middle of 1903 in the Borough of Finsbury was 100,487, comprised as follows:—

North Clerkenwell	...	...	...	34,691
South Clerkenwell	...	...	...	28,400
Finsbury (St. Luke)	...	...	...	35,769
St. Sepulchre	...	...	...	1,627
				100,487
				100,487

The sub-registration district of Glasshouse Yard (pop. 740) is now incorporated in the sub-registration district of Finsbury, making Finsbury (St. Luke) 35,769. At the census of 1901 the population was 101,463, in 1891 it was 110,907, and in 1861 it was at its maximum of 129,031. Hence it will be seen that the district is one of those central metropolitan areas, forming an inner zone immediately around the City of London, which has shown during the last 40 years a steady decline of population. This decline was most marked between 1871 and 1881, and between 1891 and 1901.

The numbers of the population, of each sex and at various ages (at the Census, 1901), was as follows:—

	Totals at all ages.	Under 5.	5-14.	15-19.	20-54.	55-75.	Above 75.
Males ...	49,910	6,158	10,371	5,182	24,467	3,477	255
Females ...	51,553	6,107	10,674	5,162	24,792	4,316	502
Total ...	101,463	12,265	21,045	10,344	49,259	7,793	757

In regard to occupation and status of the Finsbury population it may be said that in the main it is industrial. The Borough is rapidly becoming more and more a centre of commerce and manufacture. With one or two exceptions the district is not a good residential one, most of the inhabitants merely living in the Borough to be near their work. Particularly is this so in the Finsbury (or St. Luke) Sub-registration district. Large factories abound, although the main street frontages are used, in considerable measure, for small shops, which, however, carry on a considerable trade. In North Clerkenwell there are some residential neighbourhoods. Finsbury and Holborn are further characterised by the comparatively large percentage of foreigners living within their boundaries. An appendix to the present report is devoted this year to a record concerning aliens in Finsbury (see p. 241).

The question of the relationship between the population and housing will be considered at a later stage of the present report (see page 143).

Births.—The total number of births registered in the district during 1903 was 3664, as follows:—

Sub-registration District.	Total Births.	Rate per 1,000 of the Population in 1903.
North Clerkenwell ...	1,060	30·5
South Clerkenwell ...	879	30·9
Finsbury (St. Luke) ...	1,692	47·3
St. Sepulchre	33	20·3
The Borough	3,664	36·4

The birth rate for London was 28·4. Of the 3664 births in Finsbury 615 took place in the City of London Lying-in Hospital. Of this number only 113 rightly belonged to the Borough. Consequently, after correction, the total number of births belonging to the Borough was not 3664 but 3162, which gives a birth rate of 31·4 per 1,000 of the population.

Of the 3,664 births in Finsbury 1,818 were boys and 1,846 were girls.

Deaths.—The total number of deaths registered in the district was 2,039, but as 46 of these deaths were of persons who died in, but resided outside, the Borough, that number has been deducted, leaving the net number of Finsbury deaths at 1,993, which gives a total death rate of 19·8, as against 22·7 last year. The average rate for London as a whole was 15·6. In 1900 Clerkenwell had a death rate of 21·1 and St. Luke 27. In 1899 Clerkenwell was 22·3, and St. Luke 28·4. Roughly speaking, the death rate for the Finsbury area in 1900 was about 24·4 per 1,000. In 1901 it was 21·3.

The total number of deaths, 1,993, includes 870 deaths of Finsbury persons who died in various institutions outside the district. (The comparable figure for 1902 was 907). This leaves 1,123 intra-

parochial deaths, which yields an *intra-parochial* death rate of 11·1, as compared with 13·6 in 1902. This figure of 11·1 has, of course, no value except for local comparative purposes.

The following table from the preliminary returns of the Registrar-General compares the birth rates and death rates of London, Finsbury, and the neighbouring central districts of the Metropolis for 1903 after distribution of deaths in public institutions. The rates for Hampstead, one of the healthiest districts in London, have also been added for purposes of comparison.

Boroughs.	Population.	Birth Rate.	Death Rate.	Infant Mortality.
County of London ...	4,613,812	28·4	15·1	129·7
Finsbury	100,487	31·4	19·8	159·1
Islington	339,137	26·6	14·3	126·0
Shoreditch	117,513	33·4	19·4	173·1
City of London	24,539	13·8	14·6	136·1
Holborn	58,845	27·8	18·3	95·0
St. Pancras	235,716	26·7	16·2	112·6
Hampstead	85,197	17·1	9·2	72·7

The following is a list of the outlying institutions and other places where 870 of the residents of the Borough died during the year 1903:—

I. GENERAL HOSPITALS.

St. Bartholomew's...	...	134
Royal Free ...	...	27
King's College ...	...	9
Middlesex ...	...	4
University ...	...	4
St. Thomas's ...	...	2
Great Northern ...	...	1
London Temperance ...	...	1
London ...	...	6
St. George's...	...	1
Westminster ...	...	1
St. Mary's ...	...	1
Charing Cross ...	...	1

II. SPECIAL HOSPITALS.

Royal Chest...	...	6
Italian ...	...	4
National ...	...	3
Heart Hospital, Soho ...	...	1
Metropolitan ...	...	2
Hospital for Women, Euston Road ...	...	1
German ...	...	2
Great Ormond Street (Children's) ...	...	37
French ...	...	3
Homœopathic ...	...	3
Mildmay ...	...	2
Hampstead ...	...	1
Children's Hospital, Shadwell ...	...	1
Infants' Hospital, Hamp- stead ...	...	1
Maternity Hospital, Hackney ...	...	1
British Lying-in ...	...	1
Cancer ...	...	2
Evelina ...	...	2

III. FEVER HOSPITALS.

Eastern ...	...	4
Western ...	...	1
Northern ...	...	1
North Eastern ...	...	1
North Western ...	...	21
South Eastern ...	...	1
South Western ...	...	3

IV. POOR LAW INSTITUTIONS.

Holborn Infirmary...	...	262
Holborn Workhouse, City Road ...	...	191
Holborn Workhouse, Mitcham ...	...	40
Shoreditch Infirmary ...	...	3
Islington Infirmary ...	...	4
Lambeth Infirmary ...	...	1
St. Giles Workhouse ...	...	1

V. ASYLUMS.

Caterham ...	...	5
Darenth ...	...	2
Dartford ...	...	3
Hanwell ...	...	3
Colney Hatch ...	...	7
Claybury ...	...	2
Cane Hill ...	...	1
Leavesden ...	...	1
Banstead ...	...	9
City of London ...	...	2
Manor Asylum, Epsom ...	...	3
Horton Asylum, Epsom ...	...	2
Bookbinders' ...	...	1
Bethnal House ...	...	1

VI. UNCLASSIFIABLE.

Freidenheim Home ...	...	6
Home of St. John & St. Elizabeth ...	...	1
In street, on the way to St. Bartholomew's Hospital ...	...	8
River Thames, off Billings- gate ...	...	1
Hunter Street Police Station ...	...	1
The Cab Fields, Waterloo Station ...	...	1
In a Cab, near Royal Free Hospital ...	...	1
In a Cab, in Well's Street, Gray's Inn Road ...	...	1
Aldersgate Street Railway Station ...	...	1
Shepherd's Bush Green ...	...	1
Private Houses outside the Borough ...	...	7

 870

As regards their distribution, all the deaths belonging to Finsbury may be summarized briefly as follows :—

Intra-Parochial—

North Clerkenwell	401	} = 1123
South Clerkenwell	...	...	...	284
Finsbury (St. Luke)	...	...	...	418
St. Sepulchre	...	...	...	20

Extra-Parochial—

1. General Hospitals...	192	} = 870	
2. Special Hospitals	...	...	...	73
3. Fever Hospitals	...	...	...	32
4. Poor Law Institutions	...	...	...	502
5. Asylums	...	...	...	42
6. Elsewhere (unclassifiable)	...	...	...	29
Total				1,993

These figures are instructive as indicating in what portions of the Borough the death rate is highest. The death rate of the Borough is, as we have seen, 19·8. The death rates of the sub-registration districts, after distribution of the extra-parochial deaths, are as follows :—

North Clerkenwell	...	...	...	19·2
South Clerkenwell	...	...	...	18·3
Finsbury (St. Luke)	...	...	...	21·7
St. Sepulchre	...	...	...	19·0

As regards distribution according to age, the following table of total deaths (intra-parochial and extra-parochial) at subjoined ages gives the comparative returns from 1898 to 1903. It should be understood that for the years 1898-1900, the figures only include Clerkenwell and St. Luke :—

Mortality from All Causes at Subjoined Ages, 1898-1903.

	At all Ages.	Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Total Birth Rate.	Total Death Rate.
1898	2,480	682	409	79	80	831	399	33.7	24.4
1899	2,629	662	363	87	84	940	493	32.9	25.8
1900	2,479	574	351	76	78	937	462	32.1	24.4
1901	2,161	533	290	82	94	764	398	37.3	21.3
1902	2,283	558	339	81	82	805	418	36.0	22.7
Average for 5 years	2,406	602	350	81	83	855	434	34.4	23.7
1903	1,993	503	268	53	78	716	375	31.4	19.8

INFANTILE MORTALITY.

The infantile mortality of a district is the annual number of deaths of children *under one year of age* to every thousand births during the same year. Such a return is of considerable value, as it is one of the most reliable tests of the health of a community and of the sanitary condition of a district. It has a characteristic value for two reasons, migration does not greatly affect the distribution of deaths at this early age, and life is very susceptible to its surroundings. Hence such a record of deaths affords a delicate index as to the prevalence of disease and the external circumstances of life affecting it.

During 1903, as we have seen, there were 3,664 births in Finsbury. This includes the births in the City Road Lying-in Hospital. The total deaths of infants under one year was 503, out of the whole total of deaths of 1,993. The infantile mortality rate

is therefore 159. The infant mortality percentage on total deaths is 25·2.

In the whole of London during 1903 there were deaths of infants (16,978) equal to a rate of 129·7 per thousand births. The mean rate for the last ten years in London is about 150.

The distribution in the Borough of these deaths of infants may be set out as follows:—

Districts.	Deaths of Infants under 1 year of age.	Infant mortality rates per 1,000 births.
North Clerkenwell	135	127·3
South Clerkenwell	103	117·2
Finsbury (St. Luke)	168	99·3
St. Sepulchre	4	121·2
Intra-parochial... ..	410	129·6
Extra-parochial and Intra-parochial	503	159·1
London	16,978	129·7

As regards age distribution of infant's deaths, as a general rule, it may be said that they diminish from the first month onwards to the twelfth. The following table gives the age incidence in Finsbury for 1903.

Months.	0-	1-	2-	3-	4-	5-	6-	7-	8-	9-	10-	11-	Totals
North Clerkenwell...	48	19	13	14	11	8	10	7	10	12	3	8	163
South Clerkenwell...	44	7	8	9	5	6	9	10	2	10	7	8	125
Finsbury (St. Luke)	54	18	25	13	13	18	19	11	15	10	8	6	210
St. Sepulchre ...	...	...	2	1	...	1	1	...	...	...	...	...	5
Totals ...	146	44	48	37	29	33	39	28	27	32	18	22	503

Turning now to the causes of death in these infants, we find the record is as follows:—

Causes of Death.	Diarrhœa.	Prematurity.	Marasmus.	Bronchitis.	Pneumonia.	Convulsions.	Suffocated in Bed.	Measles.	Whooping Cough.	Accidents.	Tuberculosis.	Diphtheria, Erysipelas, Group.	Miscellaneous.	Totals.
North Clerkenwell...	29	23	20	19	11	8	9	6	11	...	7	1	19	163
South Clerkenwell...	13	21	16	15	9	5	4	3	6	2	1	...	30	125
Finsbury (St. Luke)	34	25	28	19	20	3	17	10	4	4	13	1	32	210
St. Sepulchre ...	1	1	...	1	1	1	...	...	...	...	...	...	...	5
Totals, 1903 ...	77	70	64	54	41	17	30	19	21	6	21	2	81	503

Some of these figures are very striking. In 1902 there was evidence of some decline in the number of deaths due to Epidemic Diarrhœa. In 1903 this decline is still continued. Further reference is made to this subject on a later page. As regards Suffocation in Bed I have to report that 70 per cent. of these cases occurred between Saturday and Monday. They were in all probability mostly due to Alcoholism. "Prematurity" and "Malnutrition and Debility" are more common causes of the death of infants in towns than in rural districts. The latter conditions and the indefinite disease termed "Marasmus" have all been entered in this report under one

heading, Marasmus. It is not unlikely that some of these cases are due to tuberculosis and other constitutional diseases. It will have been noticed that nearly one quarter of the total number of deaths in the Borough are of infants under one year of age.

SENILE MORTALITY.

The deaths of persons of 65 years and upwards were as follows:—

Intra-Parochial and Extra-Parochial—

North Clerkenwell	124	} = 375
South Clerkenwell	103	
Finsbury (St. Luke)	137	
St. Sepulchre	11	

One hundred and sixty three of these were men, and 212 were women.

Out of the total of 375, 104 were between 65–70 years of age.

193	„	70–80	„
71	„	80–90	„
6	„	90–100	„
1	„	100 and upwards.	

The claims of death at the two extremes of life, and the effect of season, are shown in the following table of total deaths, intra-parochial and extra-parochial:—

	Jan-March	April-June	July-Sept	Oct-Dec	Total
Infants under 1 year	132	92	140	139	503
Persons over 65 years	124	79	76	96	375

The causes of death amongst aged persons will naturally be those attributable to strain and exhaustion. The number of deaths, over 65 per 1,000 of the population, will also depend to a considerable degree upon the social status of the majority of the population. In an industrial community there will naturally be fewer lives attaining old age. Senility, Heart Disease, Pneumonia, Cerebral Diseases, Paralysis, etc., are common causes of death.

DEATHS FROM ZYMOTIC OR INFECTIOUS DISEASES.

The deaths from Zymotic Diseases occurring in the Borough (intra-parochial and extra-parochial) during the year numbered 262, and were caused as follows:—

	Small-pox	Scarlet Fever	Diphtheria and Membranous Croup	Enteric Fever	Puerperal Fever	Erysipelas	Measles	Whooping Cough	Diarrhoea	TOTAL
1901	10	19	36	11	4	4	49	37	95	265
1902	30	15	37	9	6	5	83	68	84	337
1903	—	12	12	11	4	2	69	52	100	262

These returns yield a Zymotic death rate of 2·61 per 1000. The amount paid to Medical Practitioners for furnishing Notification Certificates was £57 7s. 6d. as against £175 16s. 6d. last year. The Local Authority is recouped for this expenditure by the Metropolitan Asylums Board. The fees paid for Voluntary Notification of Phthisis amounted to £14 1s.

DEATHS IN RELATION TO TENEMENTS.

This year we have classified the deaths in relation to the number of rooms in the tenements occupied by the persons who have died, and the causes of death have been divided into (a) all causes, (b) zymotic diseases (including the notifiable diseases, influenza and zymotic enteritis), (c) phthisis, and (d) respiratory diseases other than phthisis. This Table, which is one of the most instructive in the whole report, is as follows:—

FINSBURY, 1903. DEATHS AND DEATH RATES FROM ALL AND CERTAIN CAUSES IN HOUSES OR TENEMENTS
OF SEVERAL SIZES.

Size of Tenements.	Census Population, 1901.	ALL CAUSES.		ZYMOTICS.		PHTHISIS.		RESPIRATORY DISEASE (excluding Phthisis).	
		Deaths.	Death rate per 1000.	Deaths.	Death rate per 1000.	Deaths.	Death rate per 1000.	Deaths.	Death rate per 1000.
One-room tenement ...	14,516	556	38.9	82	5.6	66	4.5	136	9.3
Two-room tenement ...	31,482	711	22.6	120	3.8	89	2.8	167	5.3
Three-room tenement	21,280	251	11.7	40	1.8	27	1.2	52	2.4
Four-room tenement and upwards of four rooms	33,185	186	5.6	18	0.54	21	0.63	28	0.84
Institutions*	1,000	16	—	—	—	7	—	4	—
Deaths not traced† ...	—	273	—	12	—	13	—	10	—
The Borough	101,463	1993	19.6	272	2.6	223	2.2	397	3.9

* Institutions include Common Lodging Houses, Houseless Poor Asylums, House of Retreat, and other similar Institutions.
The population is stated approximately only.

† These are deaths returned as belonging to Finsbury, in which no address was furnished or the deaths were not traceable
at the addresses furnished.

A study of this Table will show the effect of the one-room system upon the death rates. It will be seen, that in each of the four classes selected, the death rate falls in proportion as the number of rooms occupied rises. In the next place, it will be seen that the number of deaths occurring in tenements of two rooms or less number 1,267, or 63 per cent. of all the deaths in the Borough, though only 46 per cent. of the population actually live in such tenements. Then, again, under each of the stated causes of infectious disease, phthisis, and other respiratory diseases, it will be seen that the same broad result holds good. Many deductions might be drawn from this Table, but it is perhaps undesirable to burden the report with them. The main lesson is an obvious one. The conditions of life obtaining in one-room tenements are such as tend towards poor physique, disease and death. The density of population is higher, the physical restrictions are greater, and there is less fresh air and more uncleanness.

A study of the facts will show the effect of the various factors upon the death rate. It will be seen that in each of the years 1900-1902, the death rate falls in proportion as the number of years elapsed since the war. In the year 1903, it will be seen that the number of deaths occurring in each of the years 1900-1902 is 100 per cent of all the deaths in the year 1903. It is not, of course, the population actually living in each year, but the population which would have existed in each year had there been no deaths. This is the case with the other causes of death, such as tuberculosis and other respiratory diseases. It will be seen that the same trend exists in all these diseases. It is not, of course, the case with the other diseases, but it is perhaps probable that the same trend will exist. The main reason for this is that the number of deaths occurring in each year is not only a function of the number of persons living in each year, but also a function of the number of persons who are actually dying in each year. This is the case with all diseases, and it is the study of this fact which is the purpose of this report.

B. RECORDS OF DEATHS

THE INFECTION DISEASES

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B.—RECORDS OF DISEASE.

A large, empty rectangular box, likely a placeholder for a table or form related to disease records.

THE INFECTIOUS DISEASES.

The principal Infectious Diseases are seven in number, namely:— Smallpox, Scarlet Fever, Diphtheria, Fever (including typhus, typhoid or enteric, and simple or continued), Diarrhœa, Measles and Whooping Cough. The notification clauses of the Public Health London Act, 1891 (Sections 55–57), deal with smallpox, cholera, diphtheria and membranous croup, erysipelas, scarlet fever, typhus, typhoid, relapsing, continued, and puerperal fevers. During 1902 there were 586 notifications, as compared with 1026 in 1901. The returns according to the Metropolitan Asylums Board Reports are as follows:—

	First Qtr.	Second Qtr.	Third Qtr.	Fourth Qtr.	Total for 1902
Smallpox	—	—	—	1	1
Scarlet Fever... ..	48	64	122	49	283
Diphtheria (including Membranous Croup)	38	37	29	15	119
Fevers—					
Enteric	11	3	10	23	47
Typhus	—	—	—	—	—
Continued	—	—	—	—	—
Erysipelas	26	25	16	41	108
Puerperal Fever	3	2	3	—	8
Chicken Pox (Temporary Notification) ...	20	—	—	—	20
Totals	146	131	180	129	586

SMALL-POX.

During 1903, only one case of small-pox occurred in Finsbury. This occurred in a man, B. W., aged 49, residing at 21, Pentonville Road, N., which is a Common Lodging House. He commenced his illness on December 10th, the rash appeared on December 14th, and he was notified to me on December 15th, and at once removed to Long Reach. He was a common labourer who had been out of work for some time, and who came from Southwark on December 9th. As the result of enquiries at Southwark it appears that this man was an inmate of the Christ Church Workhouse from November 20th to December 9th, and was in bed the whole time. No direct information relating to his infection has been obtainable, but as there have been a number of cases in connection with the Christ Church Workhouse and a Common Lodging House in Southwark during the last two or three months, it is extremely likely that this man obtained his infection by contact with a previous case in that Borough. Twenty-eight residents (out of 49) at this lodging-house submitted to re-vaccination, which was carried out by the Public Vaccinator for the District. The whole of the premises were most thoroughly and completely disinfected, and the names and occupations of all the residents were taken, and other measures adopted with the view of preventing any spread of the disease. Up to the present no further cases have been notified to me. The case in question was one of Confluent Small-pox.

VACCINATION.

The returns for vaccination will be found in an appendix to the present report.

For purposes of reference the returns of the Metropolitan Asylums Board as to vaccination of the 9,658 cases of small-pox is also added. From these figures it will be seen :—

Ages.	Vaccinated.			Unknown.			Unvaccinated.			Total cases and deaths.		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
YEARS.												
Under 1 ...	—	—	—	—	—	—	187	130	69.52	187	130	69.52
1 to 5 ...	18	—	—	7	1	14.28	524	209	39.88	549	210	38.25
5—10 ...	116	2	1.72	26	5	19.23	563	103	18.29	705	110	15.60
10—15 ...	334	4	1.19	29	5	17.24	386	88	22.79	749	97	12.95
15—20 ...	829	19	2.29	44	10	22.73	233	62	26.61	1106	91	8.22
Total under 20	1297	25	1.93	106	21	19.81	1893	592	31.27	3296	638	19.35
20—25 ...	1274	60	4.71	49	16	32.65	149	47	31.54	1472	123	8.35
25—30 ...	1243	87	7.00	49	24	48.98	94	38	40.43	1386	149	10.75
30—35 ...	997	111	11.13	45	21	46.67	52	22	42.31	1094	154	14.07
35—40 ...	758	137	18.07	32	15	46.87	38	19	50.00	828	171	20.65
40—50 ...	893	188	21.05	62	33	53.23	31	24	77.42	986	245	24.84
50—60 ...	320	61	19.06	52	23	44.23	13	8	61.54	385	92	23.89
60—70 ...	126	30	23.8	25	8	32.00	5	—	—	156	38	24.39
70—80 ...	31	5	16.13	15	9	60.00	1	1	100.00	47	15	31.91
80— ...	6	1	16.67	1	1	100.00	1	1	100.00	8	3	37.50
Total between 20 and 80	5648	680	12.04	330	150	45.45	384	160	41.66	6362	990	15.56
Grand Total ...	6945	705	10.15	436	171	39.22	2277	752	33.03	9658	1628	16.85

(a) That under 5 years of age 18 cases of small-pox occurred in children who had been vaccinated, whilst 711 cases occurred in children who had not been vaccinated.

(b) That under 10 years of age the cases of small-pox in vaccinated persons had a mortality per centage of 1.72, and the unvaccinated cases had a mortality per centage of over 42 per cent.

(c) That under 20 years of age the cases of small-pox occurring in vaccinated persons had a mortality per centage of 1.93, and the unvaccinated cases had a mortality per centage of 31.27.

(d) That over 20 years of age the cases of small-pox occurring in vaccinated persons numbered 5,648 and there were 680 deaths, giving a mortality per centage of 12.04; whereas the cases occurring in unvaccinated persons were 384, 160 of whom died,

giving a mortality per centage of 41.66. The larger number of cases of small-pox in vaccinated persons is, of course, due to the fact that by far the larger proportion of the population at that age-period have, at some time or other in their lives, been vaccinated.

There are many things to be learned from a study of this Table by itself, and also in conjunction with the Table on sex and age incidence. There are three broad facts which stand out with clearness :—

(1) That small-pox among the vaccinated is now-a-days mainly a disease of adults, because children are protected by primary vaccination and adults are not protected by re-vaccination. (92 per cent. of the vaccinated cases were over 15 years of age).

(2) That among the unvaccinated, small-pox is still, in great measure, a disease of the young as it was in prevaccination days. (73 per cent. of the unvaccinated cases were under 15 years of age).

(3) That the mortality rate among the vaccinated is *at all ages* much less than among the unvaccinated, and that this difference is very striking and complete in children because of their recent vaccination.

Those who advocate vaccination and re-vaccination as protective in a greater or lesser degree against small-pox do so upon three main grounds. In the first place, they claim that, other things being equal, persons who have been vaccinated (especially within ten years) *are less liable to attack* from small-pox. This is abundantly established by the figures quoted above. In the second place, they claim that persons who have been vaccinated, and yet, on account of their greater number in the population, and, therefore, their consequent greater probability of infection, are attacked by small-pox, *do not die so readily from the disease* as those who have not been vaccinated. This claim also is more than proved in the returns quoted above. In the third place, they claim that the protection afforded by vaccination depends upon *the efficiency*

of the vaccination. This may be measured, as is frequently done, by the number of marks, but it is more satisfactorily measured by area of vaccination mark (*i.e.* area of cicatrix). The return of the Metropolitan Asylums Board respecting this point is given here and a study of it will amply prove the claim made.

	Admissions.	Deaths.	Mortality, per cent.
Vaccinated Cases—			
AREA OF CICATRIX—			
Half and upwards of half square inch	5,163	379	7·34
AREA OF CICATRIX—			
One third but less than half square inch ...	835	131	15·69
AREA OF CICATRIX—			
Less than one third square inch	860	162	16·87
AREA OF CICATRIX—			
Not recorded	87	33	37·93
Totals of Vaccinated Class ...	6,945	705	10·15
Unknown and Doubtful Class	436	171	39·22
Unvaccinated Class	2,277	752	33·06
Grand Totals	9,658	1,628	16·87

CHICKEN-POX (Varicella).

At the beginning of January, 1902, the Borough Council decided, on the recommendation of the Public Health Committee, to make Chicken-pox a notifiable disease for six months (Public Health (London) Act, 1891, Section 56) on account of the similarity of the disease to Small-pox. Towards the end of the same month the London County Council resolved to make Chicken-pox notifiable for three months throughout London. Hence the arrangements the Borough Council were making became merged into the County Council's arrangements. Notification commenced on February 7th, 1902. Subsequently, on

two occasions, the County Council extended the period for notification of this disease to the end of January, 1903. We received 690 notifications up to the end of 1902, and during January, 1903, 20, all under the age of 15 years. Each of these cases was specially visited and enquiries instituted. None of the 20 cases notified in 1903 were Small-pox. Several times during the year I have been consulted by medical practitioners in the Borough, with regard to cases of Chicken-pox which simulated Small-pox. Happily, all these cases were Chicken-pox.

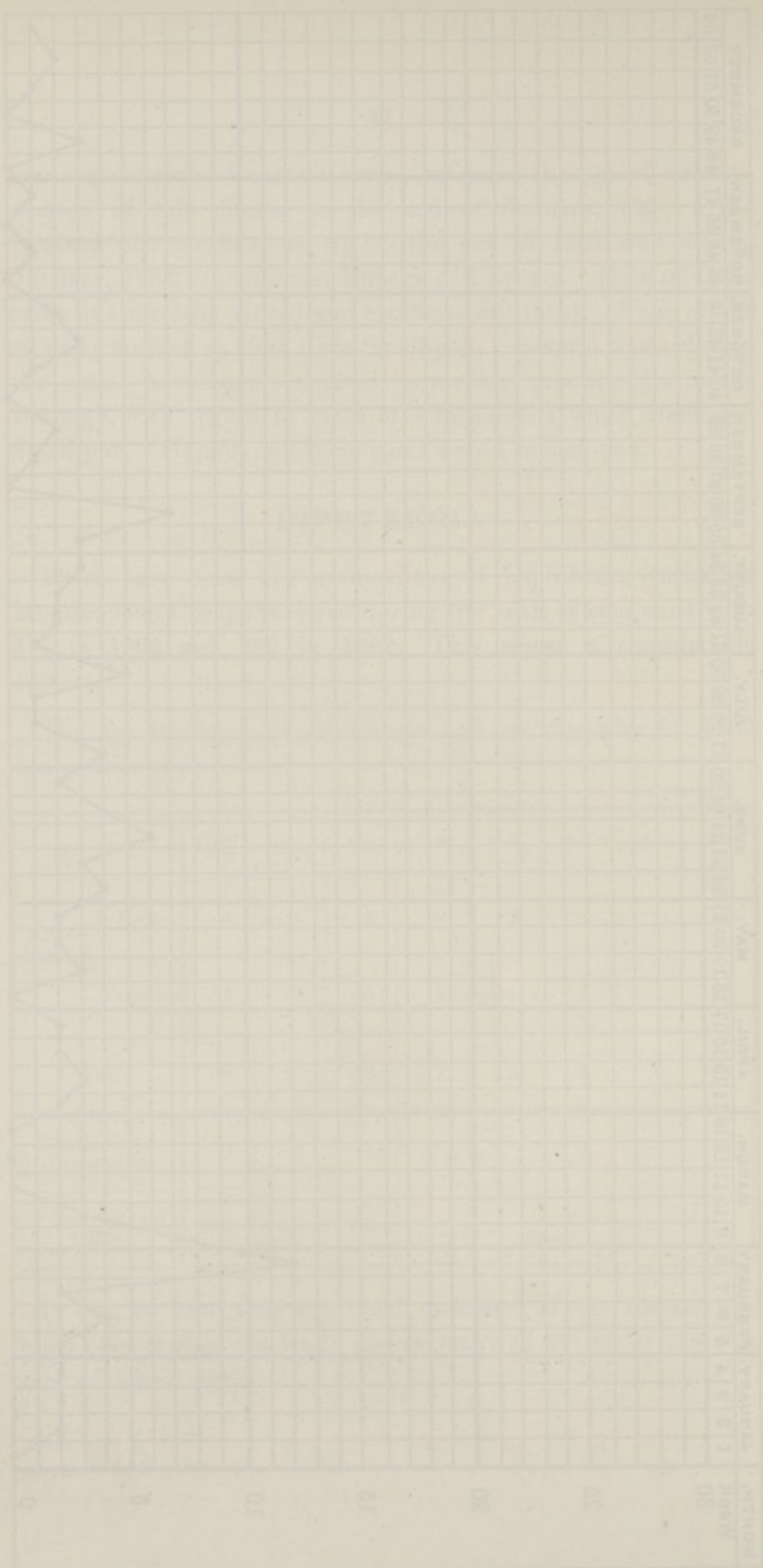
DIPHTHERIA.

There have been 119 notifications of Diphtheria (including Membranous Croup) received during the year, as compared with 216 in 1902 and 289 in 1901. This shows a considerable decrease.

The age incidence of Diphtheria and its mortality for 1903 was as follows :—

Ages in Years		Under 1 year	1-5	5-15	15-20	20-30	30-40	40-	Totals
No. of Notified Cases	Males	4	31	15	2	3	2	--	57
	Females	2	21	30	5	2	1	1	62
TOTAL ..		6	52	45	7	5	3	1	119
Deaths from Diphtheria.		3	5	4	--	--	--	--	12
Percentage on Cases.		16.6	9.6	8.8	--	--	--	--	10.1

It will be seen that the chief incidence of the disease has fallen upon young children; and as many as 97 out of the 119 were of school age.



The following table shows the seasonal occurrence of the cases of Diphtheria notified to us :—

Months	Jan.	Feb.	Mar.	April.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases	8	26	4	8	11	18	9	13	7	6	4	5
Total	38			37			29			15		

The cases of Diphtheria have been evenly distributed throughout the Borough, the southern portion of northern Clerkenwell, as last year, alone remaining free. In a general way it may be said that most cases have occurred in the overcrowded and poorer parts of the district. The incidence has not been exceptionally heavy in the Model Dwellings, nor in relation to any milkshops. Personal infection has been, without question, the main channel for the spread of the disease. Not a few cases have apparently arisen from contact with "ordinary sore-throats."

The following table illustrates the channels of infection and the sanitation of the houses in all those cases where infection could be at all traced, or the sanitation of the house was in any way open to criticism :—

I.—INSANITATION—			
Houses, in which Diphtheria occurred, found to be damp ... ..	...	...	2
Defective drains, sanitary conveniences, sinks, etc.	...	...	24
Defective paving in yard ... ..	...	...	2
Foul cistern ... ..	...	...	3
Accumulation of refuse ... ..	...	...	3
Total ... ..	...	...	34
II.—CHANNELS OF INFECTION—			
Previous cases in the same house or family ... ..	...	...	13
Contact with Diphtheria in vicinity ... ..	...	...	8
Following Scarlet Fever ... ..	...	...	23
From School ... ..	...	...	17
Previous cases of sore throat in family ... ..	...	...	10
Hospital attendants... ..	...	...	2
			73

Several cases were alleged to be due to "return cases" of Diphtheria from hospital, but there was not sufficient evidence. Four cases of diphtheria occurred at milkshops, but in no case did it spread. In all probability personal infection was the cause of many more cases than the 38 traced to previous cases or school influence.

Seven cases were traced, more or less directly, to Brewer Street School and ten to Moreland Street School. The outbreak at the St. Mark's School (Brewer Street) at first assumed a serious aspect. (1) A child, F. W., aged 6, died on February 14th, and at the inquest it was found that the cause of death had been Diphtheria. This child attended the school. Her illness began on February 10th, and her sore throat on February 11th. She was last at school on February 10th. (2) On February 17th, a child, E. W., residing in Noel Street, Islington, but attending the Brewer Street School, died from Diphtheria. (3) On February 19th, R. M., a little girl of five years, was notified to me as suffering from Diphtheria. This child was sick in school (at Brewer Street) on the afternoon of February 18th. She died on February 21st. These three fatal cases of Diphtheria within seven days started the infection in this school. It is not clear where or how they contracted the disease. (4) On February 23rd, I received notification of Doris D., aged five, who became ill with Diphtheria on February 20th. She was at school last on February 18th and probably contracted infection from R. M. or E. W. (5) Albert J., aged five, at the same school, sickened on February 20th and was notified on February 24th. (6) Mary G., aged four, sickened on February 20th and was notified on February 25th. She obtained infection from R. H. or E. W. (7) On the same date Lilian E., became ill with Diphtheria and was notified. She evidently contracted the disease from the same source. (8) Her sister followed. The school had been closed (see below), but when it was re-opened (March 23rd), some child brought back the infection of Diphtheria and two further cases occurred. (9) Maud L., aged

five, sickened on March 26th and was notified on March 30th. (10) Albert L., aged seven, followed on April 2nd, having contracted his infection at home.

Such is the record of the cases at Brewer Street School. Where did they obtain infection? Enquiry elicited two broad facts. First, Diphtheria was present in the infants' class at Moreland Street Board School, which is situated in the same district as the Brewer Street School and which draws children from the same streets. Secondly, the drainage at the Brewer Street School was found to be defective.

The Diphtheria at Moreland Street School may be considered first. (1) On February 2nd, I received a notification of Florrie B., aged five years, who sickened with Diphtheria on January 30th. (2) About a week later her brother, William B., aged six, became ill and died of Diphtheria on February 10th. Both of these children attended Moreland Street School. It has been impossible to trace the source of their infection. But it is evident they conveyed infection to other children at the Moreland Street School. (3) For on February 3rd, I received notification of Edward P., aged four, from the same class, and (4) on February 14th, of Edith S., aged five years. (5) On the same day Frederick H., aged three and a half, was notified, and he was followed four days later by (6) Francis Walker, aged four. This child shared lunch with the last two children, and probably came in the way of infection in this way. Here then are six cases of Diphtheria within about ten days in the same classes.

To these classes came a girl named W., who, without contracting Diphtheria herself appears to have taken the infection home and given it to her younger sister Florence W., who went to Brewer Street School and not to Moreland Street. This family consisted of father, mother, two little girls and a little boy. One girl went to Moreland Street and evidently brought infection back home, which attacked the other girl who contracted Diphtheria, took infection to Brewer Street School, and was

removed to hospital, where she died of the disease. There appears to be little doubt that this is the link connecting the two outbreaks, one in each school.

The six cases at Moreland Street School were followed by four others, each of whom contracted Diphtheria from the previous cases in the school. There were therefore ten cases in each school, the Brewer Street School cases being evidently started by cross infection from Moreland Street School.

It should however be noted that directly our attention was called to the presence of Diphtheria at Brewer Street School, a careful inspection of the school was made, and the urinal and trough closets were found to be in a most unsatisfactory and unclean condition, and the drainage of the school was found to be defective. There is however little doubt that this was not the direct source of infection.

It is needless to add that the record of relationship set out above was only revealed after the cases had occurred. Directly the first cases occurred thorough disinfection took place in 18 houses infected. Brewer Street School was inspected, a list of the children made, visits paid on those absent through illness, and the school was closed on February 20th (after the first three cases), and disinfected throughout. The school remained closed for some three weeks during the renovation of the drainage.

The fact that in 13 families infected in this series of school cases only one patient was attacked, is an indication of the success following the rapid isolation and thorough disinfection practised in each case. There can be little doubt that the measures carried out prevented a wide-spread outbreak of the disease.

Bacteriological Diagnosis has been taken advantage of in 61 cases of Diphtheria. Of these, 13 proved to be positive, and 48 gave a negative result.

The Bacteriological Diagnosis is used only in doubtful cases. If the case is one showing the ordinary clinical signs of

Diphtheria it is notified forthwith. In one or two instances cases having the clinical signs of Diphtheria have yielded a negative bacteriological result. Such results may be due to failure to take a sufficiently firm swab, previous treatment of the throat with antiseptics, or delay in taking the specimen. It should be understood that a negative result is not therefore absolutely to be relied upon, but must be taken along with the initial symptoms and with the nature and history of the case. Of the total examinations made in doubtful Diphtheria 78 per cent. were negative.

In addition to making arrangements by which every medical practitioner can obtain the advantages of free bacteriological diagnosis, the Borough Council has also authorised me to supply Diphtheria Antitoxin to medical men in private practice in Finsbury. The stock is kept at the Town Hall, and one dose will be supplied, free of charge, for each notification received. Additional doses may be obtained from me at cost price. Application should be made at the time of notification. I shall also be able to supply doses of Antitoxin, gratis, to any medical practitioner who desires to use it for prophylactic purposes, *e.g.*, in children who have been in family contact with the notified case. During the year Antitoxin was used in several cases, both for prophylactic and therapeutic purposes.

ENTERIC FEVER.

In Finsbury during 1903 there were only 47 cases of Typhoid or Enteric Fever. In 1901 there were 65 cases, and in 1902 77. There was in 1903 one death in the district and 10 deaths among the 45 cases removed to hospital for treatment. The total number of deaths was therefore only 11, giving a death rate of 0·10 per 1,000, and a percentage mortality of 23·4 on the total number of cases.

The age distribution of the cases was as follows :—

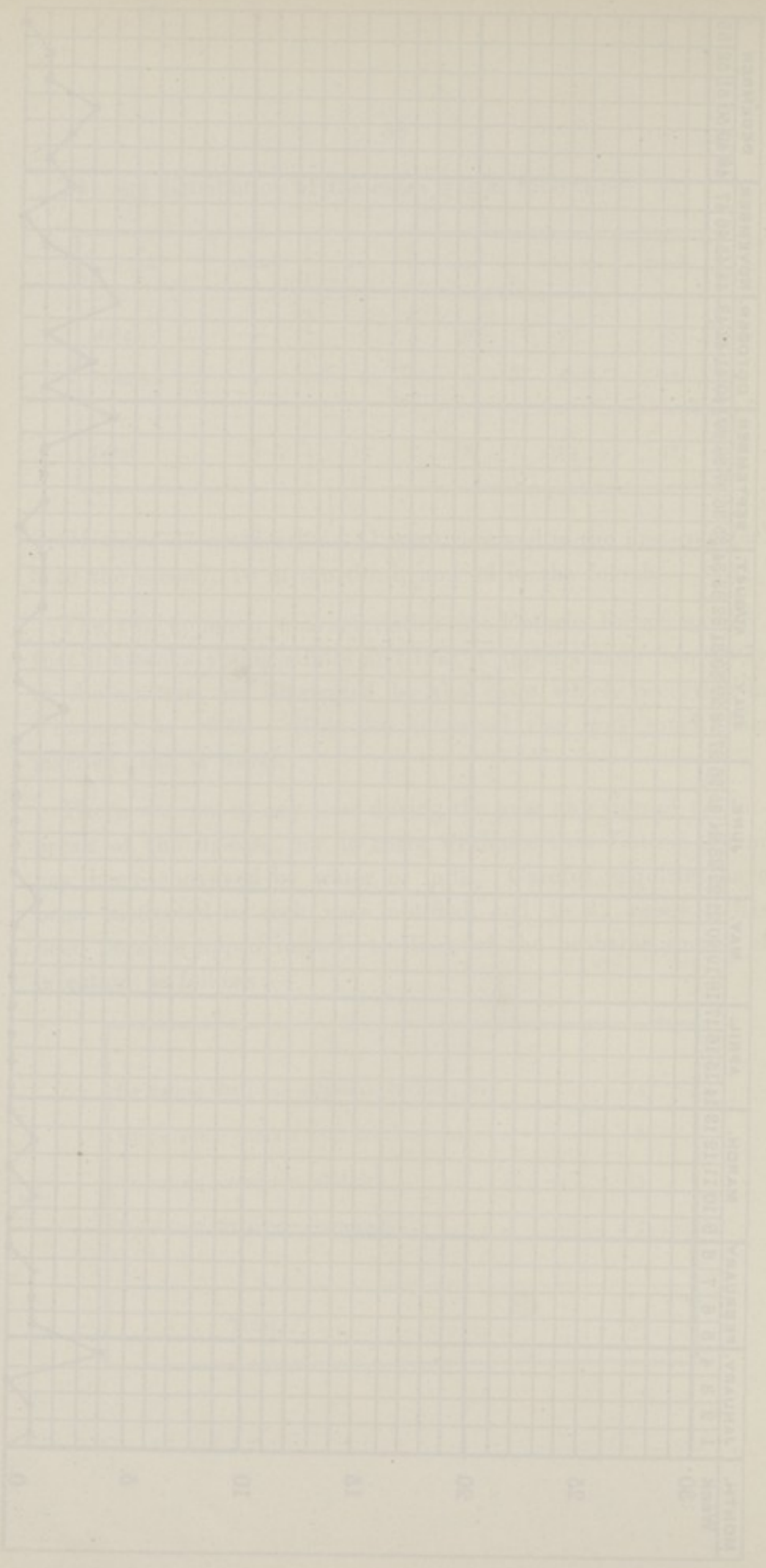
Ages	Under 5	5-14	15-30	Above 30	Totals
Males ...	—	9	9	7	25
Females ...	1	6	9	6	22
Total ...	1	15	18	13	47

Of these 47 notifications 11 were received in the first quarter, 3 in the second, 10 in the third, and 23 in the fourth.

The two common characteristics of Enteric Fever, namely, that it attacks young adults and that it appears more frequently in the autumn, are illustrated by the cases which occurred in Finsbury in 1903. But the autumnal rise was much less marked than is usual.

There was not at any time during the year any sign of an outbreak of the disease, nor is there evidence that Enteric Fever has been conveyed by water or milk. Careful enquiries have been instituted in each case notified, and in 32 cases it has been possible approximately to discover the probable source of infection, as follows :—

By eating shell-fish—oysters, cockles, &c. ...	14
By personal contact with previous cases ...	8
By eating ice-cream (alleged) ...	3
By eating watercress (alleged) ...	7
Total ...	32



APPROXIMATELY 75 BPM REGULAR RHYTHM WITH SLIGHT ST-T DEPRESSION

It will be understood that it is almost impossible to trace sources of infection in isolated cases of typhoid fever. In an outbreak various conditions and circumstances exist which assist in the detection of the source of infection. One group of five cases occurred in a single family due to personal contact or continuous infection of food. On November 1st, a little girl, R. C., was removed from Northampton Buildings to the Hospital for Sick Children in Great Ormond Street as suffering from "tuberculosis of the lungs." Her blood was examined for the typhoid reaction without result, and she made an apparently good recovery. But three weeks after, her brother, G. H. C., aged 14, sickened with typhoid fever and was removed to hospital on December 7th. The tenement was disinfected. On December 12th, the father, G. C., aged 42, was removed with typhoid fever and died in hospital. Disinfection was again carried out. On December 18th, another son, T. A. C., aged 8, was notified and removed, and on January 6th yet another son, A. C., aged 4, was notified and removed. It is possible that the girl suffered from unrecognised typhoid fever, and started the infection in the family; and although disinfection was carried out each time, the infection was not destroyed. It is evident that in this instance that, by careless pollution of food, clothing, or some other medium, the infection spread through the family in spite of our efforts at prevention. Cleanliness was lacking, which is, of course, a fatal mistake in combating typhoid infection. The only person in the family that escaped was the mother. Another instance occurred during the year of infection passing through a family.

Bacteriological Diagnosis has been arranged gratis for all medical practitioners in Finsbury. A few drops of the blood of the patient are taken and examined by means of the Widal test as to whether or not the blood contains typhoid toxins. The results are as follows:—

Total No. of Doubtful Cases Examined	Cases which gave Positive Results	Cases which gave Negative Results	Cases of Typhoid notified without Bacteriological Examination
15	9	6	32

SCARLET FEVER.

The total number of notifications received during the year for Scarlet Fever was 283, as against last year's 381, and 495 in 1901. The age and sex incidence was as follows:—

Ages.	0-	1-	5-	10-	15-	20-	30-40	Total
Males	1	50	46	19	7	3	1	127
Females	—	53	65	19	8	9	2	156
Total	1	103	111	38	15	12	3	283

From these figures it will be seen that 215 out of the 283 cases occurred in children under 10 years of age. In relation to school influence, it is of interest to note that 53 per cent. of the cases occurred in children at school ages, 36 per cent. occurred in children under school age, and 11 per cent. in persons over school age. These returns show a higher incidence than usual upon children under school age. Not only is Scarlet Fever a disease of children, but it is most fatal in young children. There were in all 19 deaths, distributed as follows:—

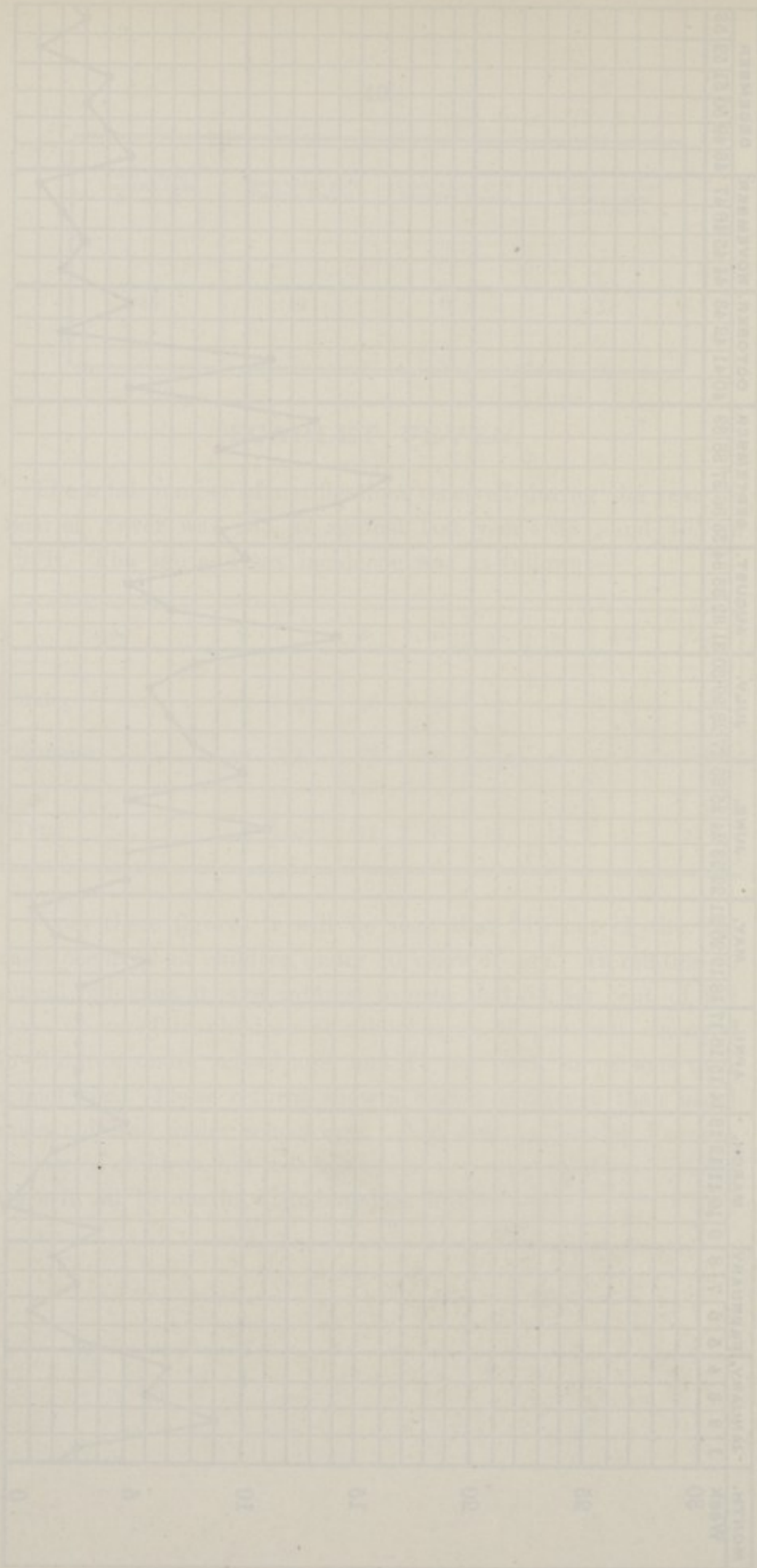


График (в) для 1909 года

Years	Under 1 year	1 and under 5	5 and above 5	At all Ages
Number of cases notified	1	103	179	283
Number of deaths ...	1	5	6	12
Percentage of deaths at each age period attacked	100·0	4·8	3·3	4·2

Nineteen deaths yield a Scarlet Fever death rate of 0·18 per 1,000. The comparative figures for the last six years are as follows :—

Years	Number of Cases notified	Number of Deaths	Death Rate per 1,000
1897	597	26	0·24
1898	518	30	0·27
1899	480	18	0·16
1900	227	12	0·11
1901	495	19	0·18
1902	381	15	0·14
1903	283	12	0·11

The distribution of the disease in Finsbury in 1903 has been fairly uniform, although there have been one or two groups around certain schools.

Direct infection has been traceable to schools in 15 instances only. Fourteen cases were attributed by relatives to infection derived from cases of Scarlet Fever or Diphtheria returned from hospital. In several of these cases enquiry elicits that the

returning children had a discharge from eyes or nose, and it is possible infection may have been carried in this way; but I was unable to obtain any conclusive evidence on the point. In 90 cases direct personal contact with previous cases has been traced as the source of infection.

In March, the Metropolitan Asylums Board began to send discharge notices to each Borough Council notifying the discharge of the patient from hospital, and the system is now in regular working for Diphtheria, Typhoid Fever, and Scarlet Fever. Each case on return is visited, and it is hoped by this means to prevent the occurrence of "return cases" of infection. Ten cases of Scarlet Fever were returned to their houses, in which complete recovery did not appear to have occurred. Nasal discharge was present in four cases, sore throat in two, ear discharge in three, and peeling of skin in one case. In six cases of Diphtheria sequelæ were also present. By the arrangement of the Metropolitan Asylums Board it may be possible in the future to trace the occurrence of "return" infection.

MEASLES.

As this is not a notifiable disease we can only gauge its prevalence and degree of severity by means of the death returns and school returns. Including both intra and extra-parochial returns there were 69 deaths attributed to Measles during the year, giving a death-rate of 0·68 per 1,000. The London death-rate for Measles for 1903 was 0·44 per 1,000, there being 2,046 deaths from that cause as against 2,360 in 1902. It is probable that these figures do not fully indicate the destruction of life due to Measles, for this disease is often complicated with bronchitis or other respiratory disease, and hence some deaths due to Measles are entered in the returns as due to bronchitis, &c. In 1903 the secondary causes of death in the 69 cases were:—pneumonia 42, bronchitis 21, miscellaneous 6. This gives 63 out of 69 (or 91 per cent.) deaths due to lung complication. Measles and Whooping Cough—both of which are looked upon

generally as slight ailments—caused more deaths in Finsbury (namely, 121) during 1903 than all the other infectious diseases put together.

It made be pointed out that the remedy for this state of things lies most largely in the hands of parents and others having the care of children. There are strong reasons against the inclusion of Measles under the notification clauses of the Public Health (London) Act, 1891, and hospital provision for this disease is at present impossible. Careful nursing of individual cases and closure of Infants' Departments of schools during an outbreak, coupled with disinfection when necessary, seem to be the best methods of reducing the high death-rate from this disease.

Early in 1901 the London County Council enquired as to whether the London Boroughs were in favour of extending to Sanitary Authorities the power to apply to Measles, when necessary, the provisions contained in any or all of certain sections of the Public Health (London) Act, 1891, which give powers as follows :—

- Section 60 gives power to Sanitary Authorities to require disinfection and cleansing of infected premises, etc.
- Section 61 provides for disinfection of bedding, clothing, etc.
- Section 62 prohibits the casting of infectious rubbish into ashpits, without previous disinfection.
- Section 63 prohibits letting houses in which infected persons have been living, without disinfection.
- Section 64 provides a penalty on persons who make false statements as to infectious disease, in letting houses.
- Section 65 provides for a penalty on persons ceasing to occupy premises without disinfection or notice to owner or making false answer.
- Section 68 prohibits the exposure of infected persons and things.
- Section 69 prohibits infected persons from carrying on any occupation likely to spread the disease.
- Section 70 prohibits the conveyance of infected persons by public conveyance.
- Section 72 prohibits the retention of the body of a person who has died of any dangerous infectious disease.
- Section 73 provides for the body of a person who has died in hospital of any dangerous infectious disease being removed only for burial.

Section 74 provides for the disinfection of a public conveyance which has been used for conveying the body of a person who has died of an infectious disease.

In reply to this enquiry, 10 of the Metropolitan Boroughs expressed approval of placing Measles in the schedule of dangerous infectious diseases, and the London County Council adopted this arrangement on January 21st, 1903. The new order came into force on April 1st, 1903. This arrangement gave the Borough Council the powers set forth above in cases of Measles.

We received 577 intimations of the occurrence of Measles during the year as follows :—

(i) Intimations from Schools :—

Ann Street Board School	...	...	...	...	32
Baltic " "	...	...	...	...	26
Bath " "	...	...	...	...	33
Central " "	...	...	...	...	13
Chequer " "	...	...	...	...	33
Compton " "	...	...	...	...	35
Hugh Myddleton "	...	...	...	...	21
Martyrs' Memorial "	...	...	...	...	24
Moreland Street "	...	...	...	...	39
Risinghill Street "	...	...	...	...	80
St. John's Lane "	...	...	...	...	12
Winchester Street "	...	...	...	...	14
Schools outside the Borough	...	...	...	...	14
					— 376
L.S.B. Visitors	...	...	...	...	2
Superintendents Model Dwellings	...	...	...	...	4
Sanitary Inspectors	...	...	...	...	130
Relatives and Guardians	...	...	...	...	43
Relieving Officers	...	...	...	...	4
Other Borough Councils	...	...	...	...	2
Medical Practitioners	...	...	...	...	16
					— 201
					—
Total	...	...	...	...	<u>577</u>

The age and sex incidence of the cases was as follows:—

	Under 1 year.	1—5.	5—10.	10—15.	15—	Total.
Males	14	186	75	1	2	278
Females	13	193	88	4	1	299
Total	27	379	163	5	3	577

As far as possible the powers applying to dangerous infectious diseases have been carried out in respect of measles, and in almost all instances disinfection at least has been done.

WHOOPING COUGH.

There were 52 deaths from Whooping Cough, giving a death rate of 0·51. Like Measles, this disease shows a considerable increase from 1901.

Whooping Cough is a disease of about two months duration, and is chiefly characterised by bronchial catarrh and a frequent paroxysmal cough. It generally occurs as an epidemic late on in the winter, say from January to March. Though no age is absolutely exempt from Whooping Cough, it is essentially a children's disease, most of the cases being met with in children under seven years of age. It is most fatal in the second year of life. The disease is almost entirely spread directly from patient to patient, the patient being infectious from the very commencement of the attack, and remaining so as long as the "whoop" is present. Owing to its infectiousness, isolation of the patient from other children should be enforced until there is no longer any sign of the "whoop."

The above principles are generally accepted as fully established, and the experience of the disease in Finsbury in 1903, well illustrates them. Out of the 52 deaths, 41 occurred in the first half of the year, and 27 in the first quarter. There were only 3 deaths in the last quarter of the year. Out of the 52 deaths,

21 occurred in infants under one year of age, and 47 occurred under 5 years of age. That the disease is spread from patient to patient, particularly in crowded tenements, is illustrated by the fact that about 30 per cent. of the deaths occurred in "model dwellings."

The means of preventing Whooping Cough (from which 1,627 children died in London in 1903, as compared with 1,876 in 1902) are largely in the hands of the public. Sufficiently long isolation of infected children, and watchful care over the infants' departments of the schools, are perhaps the main points requiring attention.

EPIDEMIC DIARRHŒA.

During 1903 there were 100 deaths attributed to this disease, 77 of these cases being infants under one year of age. This gives a death rate for Epidemic Diarrhœa of 0·99 per 1,000, compared with 0·81 in 1902 and 1·2 in 1901. Frequently in this district of London the death rate has been over 2·0 per 1,000. So that the present death rate compares favourably with previous rates. It should not however be forgotten that the London rate for 1903 was as low as 0·64 per 1,000. Hence, there is still much room for improvement in this particular district. It should be added, in relation to nomenclature, that of the 100 certificates received 71 were returned as Epidemic Diarrhœa, and 29 as Epidemic Enteritis. 41 per cent. of the cases occurred in the St. Luke division, 28 per cent. in South Clerkenwell, and 31 per cent. in North Clerkenwell.

In continuation of my report on this subject (*see* Report on Health of Finsbury, 1902, pp. 73-79), I may state that during 1903 the enquiry has been continued in respect to the influence of climatic conditions and milk supply.

(a) **Epidemic Diarrhœa and Climatic Conditions.**—The modern scientific view of the etiology of epidemic diarrhœa briefly stated is that it is a bacterial disease, and its occurrence

depends, wholly or partly, upon surrounding temperature, deficiency of rainfall, and pollution of food, chiefly milk.

The exact relationship which these conditions bear to each other is not yet known.

Some authorities hold that a certain temperature affects food, conducing towards creating in it injurious properties. Others believe that it is a question of pollution of milk by dust, which carries to the milk the casual micro-organisms, and that deficient rainfall favours this contamination, and increased temperature favours the growth multiplication of the bacteria thus conveyed to the milk. As Dr. Newsholme says, "Whatever be its mode of operation, a frequent fall of rain during the summer weeks, even though its total amount be not great, is one of the effectual means of keeping down the diarrhœal death rate"; and whilst he considers temperature conditions of great importance, "rainfall is more important than temperature in relation to epidemic diarrhœa." Rain washes the air, if the expression may be allowed, and carries to the surface aerial dust. It, of course, also washes the surface of the soil and removes surface pollution, and with it micro-organisms capable of infecting infants, usually by food. Thus the relationship between these meteorological conditions and milk, though an open question, may be an essential one to the origin of the disease. In any event, it seems clear that milk is probably the common vehicle of infection (Ballard, Delépine, Newsholme.)

On July 1st, 1902, we commenced a four-foot earth thermometer (Symon's) in the gardens of Wilmington Square (near the Town Hall), and since that date a daily reading has been taken at 9 a.m. The thermometer registered 56° F. (the critical temperature) on July 5th, 1903, and it remained above that figure until October 19th. On July 11th it rose to 57° F.; on July 16th to 58° F.; and from August 16th until October 13th it remained at or over 57° F. During that period, 58 deaths, from Epidemic Diarrhœa, of children occurred. Unhappily, the past records for a number of years for the constituent parts of

the Borough do not suffice to show how this figure of 58 compares with previous years, but the deaths from Epidemic Diarrhœa in total, and the corresponding rates (calculated on the changing population) from 1898 to 1903 are as follows:—

Years.	No. of Deaths from Epidemic Diarrhœa.	Death rate.	Air Temperature in Summer Quarter.	Rainfall in Summer Quarter.
1898	176	1·6	62·7	2·51
1899	187	1·8	63·0	4·32
1900	160	1·5	61·8	4·58
1901	127	1·2	61·7	5·10
1902	84	0·8	61·1	6·02
1903	100	0·99	60·0	15·56°

The relationship between the weekly number of deaths from Epidemic Diarrhœa and the temperature, as recorded by the four-foot earth thermometer, is shown the following Table:—

Summer Quarter, 1903.	July.				August.				September.				October.		
Dates of months.	5-11	12-18	19-25	26-1 Aug.	2-8	9-15	16-22	23-29	30 Sept	5-12	13-19	20-26	27-3 Oct.	4-10	11-17
Mean maximum temperature. °Four-foot thermometer.	56·5	57·7	58·2	58·4	58·5	58·6	58·9	58·6	58·7	59·0	58·0	57·1	57·4	57·5	56·8
Rainfall (15·56 in.)	0·00	0·57	3·18	1·52	0·35	2·11	1·11	1·23	0·86	0·55	0·81	0·22	0·61	1·05	1·39
No. of deaths from Epidemic Diarrhœa. (58)	—	—	1	1	4	4	5	4	7	5	8	3	6	6	4

° This rainfall was for 15 weeks (July 5—October 17).

This total figure of 58 is one of the lowest returns ever recorded in the third quarter of the year in this district of London (in 1902 it was 61). It would, therefore, appear as if there was an exception to Ballard's law as stated in last year's report. But, it will be seen, mention is also made of the effect of the rainfall. During 1903 the temperature conditions were favourable to diarrhœa, that is, for 15 weeks in the summer quarter the earth temperature was above 56° F. But in the same quarter there was a fall of 15·56 inches of rain as compared with 6·02 in 1902 and 5·10 in the summer quarter of 1901. The two records of temperature and rainfall must be taken together.

The broad conclusion which may be safely drawn from these facts is, that the excessive rainfall was one of the causes at least of the reduced death rate from epidemic diarrhœa among infants in the third quarter. Rain lays dust and washes the atmosphere, as well as reducing its temperature. Hence the pollution of food, etc., is reduced to a minimum.

(b) **Epidemic Diarrhœa and the Feeding of Infants.**—Year by year increasing evidence is obtained in support of the view that much of the epidemic diarrhœa of urban communities is derived from the consumption of polluted milk. Reference was made to this matter in my report for 1902. During 1903 we have carried out an enquiry into the conditions of life obtaining in relation to 416 infant deaths. The total infant deaths were 503. Into 416 of these cases it has been possible to make enquiry. Seventy-nine of the deaths enquired into were due to epidemic diarrhœa, and the feeding of these 79 cases has been investigated on the same lines as last year. It is thus possible to give the results of enquiry into 190 cases of fatal diarrhœa of infants. The return is as follows:—

Age in months.	Human Milk.	Artificial or Condensed Milk.	Human and Artificial.	Cows' Milk.	Human and Cows'.	Totals.
1-3	13	9	8	8	17	55
4-6	9	15	13	14	11	62
7-9	7	6	8	7	14	42
10-12	10	5	2	7	7	31
Totals ...	39	35	31	36	49	190

From these figures it will be seen that :—

39 or 20·5 per cent. were breast fed.

66 or 34·7 per cent. were fed wholly or partly on artificial milks.

85 or 44·7 per cent. were fed wholly or partly on cows' milk.

That is to say that 80 per cent. of the children under one year of age dying of epidemic diarrhœa in Finsbury were fed on artificial or cows' milk, or in other words, upon milk which might be, and in fact is, liable to great contamination. There can be no doubt in the mind of anyone who knows how the poor live in an urban district like Finsbury that, quite apart from the lesser suitability of condensed milk or cows' milk for infant feeding, these two forms of milk readily become contaminated with dirt and dust. Such pollution may gain access to the milk at the farm, or in transit, or at the milk-shop, or in the home. Such polluted milk readily sets up Diarrhœa, especially in warm weather. The remedy is to feed infants on human milk, or, if that be impracticable, then on clean pure cows' milk, suitably modified for infant consumption. If both of these are impossible, then recourse must be had to sterilized milk.

Twenty of the 79 infant deaths (or 36 per cent.) in 1903 occurred in children living in one-roomed tenements ; 40 occurred in children living in two-roomed tenements, and therefore 69, or

86 per cent. of the total deaths of infants from diarrhœa occurred in children living in homes of two rooms or less.

The results of the enquiry into the conditions of life of the 416 infant deaths, irrespective of cause of death, may be set out in the following table:—

Age in months.	Human Milk.	Artificial and Condensed Milk.	Human and Artificial Milk.	Cows Milk (Bottle).	Human and Cows' Milk.	Total.	One room.	Two rooms.	Three rooms.	Four rooms.
1-3	108	13	17	17	21	176	57	85	30	4
4-6	28	15	16	21	13	93	33	47	13	—
7-9	30	16	9	11	19	85	32	43	7	3
10-12	21	4	11	8	18	62	21	37	3	1
Totals	187	48	53	57	71	416	143	212	53	8

From this table it will be seen that:—

187 or 44·9 per cent. of the cases were fed on breast milk.

101 or 24·2 per cent. of the cases were fed wholly or partly upon artificial milk.

128 or 30·8 per cent. of the cases were fed wholly or partly on cows' milk.

It will therefore be seen that the manner of feeding in the infants who died of epidemic diarrhœa is open to more criticism than those dying of other diseases. The percentage as to accommodation are much the same: 143 deaths or 34 per cent. occurred in one-roomed dwellings, and 355 in all, or 85 per cent., occurred in homes of two or less than two rooms.

PHTHISIS.

Following the plan adopted in previous reports, the history of Phthisis for the past year will be dealt with under the two heads of Voluntary Notification and Mortality.

The Voluntary Notification of Phthisis.—There has been a steady and, on the whole, satisfactory rise in the number of voluntary notifications since the adoption of this system in October, 1900. Seventy notifications were received in 1901, 121 in 1902, and 219 in 1903, as follows:—

Notified Cases.	Under 10 years.	10-	20-	30-	40-	50-	60-	Total.
Males	—	7	22	38	49	29	12	157
Females	—	7	14	16	14	7	4	62
Total	—	14	36	54	63	36	16	219

It is unnecessary to discuss in this year's report the advantages of voluntary notification, which were dealt with fully last year (see pp. 80-81).

Deaths from Phthisis.—The total deaths due to consumption in 1903 were 238, giving a death-rate of 2·39 per 1,000, about the average rate for the last seven years.

Deaths	0-	10-	20-	30-	40-	50-	60-	Total
Males	7	8	17	39	30	29	19	149
Females	9	10	11	19	21	11	8	89
Total	16	18	28	58	51	40	27	238

In the first quarter of the year there were 64 deaths; in the second, 55; in the third, 63; and in the fourth, 56. The number of males as in 1902 is nearly twice that of females.

Dr. MacLearn, the Medical Superintendent of the Holborn Infirmary, writes to me under date January 20th, 1904:—“The

total number of deaths from Phthisis occurring in the Holborn Union Workhouse Infirmary in 1903 was 129. The number of these deaths in persons coming from Finsbury was 97. The number of Phthisis cases now—20th January, 1903—under treatment, who are residents of Finsbury, is 106 men and 20 women.”

During 1903, a careful study has been made of the comparative Phthisis death-rates during the past few years. The following table sets forth the chief returns for Finsbury :—

Year	0-10	10-20	20-30	30-40	40-50	50-60	60-70	Totals	Death rates
1896	35	11	38	64	63	31	10	252	2'33
1897	23	11	50	58	63	32	20	257	2'39
1898	28	15	43	58	57	42	10	253	2'35
1899	16	14	34	63	92	33	13	265	2'48
1900	11	13	47	68	88	28	12	267	2'51
1901	18	13	26	59	60	40	10	226	2'22
1902	38	15	28	72	48	33	15	249	2'45
1903	18	19	27	57	52	36	29	238	2'39

These are not the full number of deaths, which probably reached at least 300 in each year, or 1,500 per five years, but the deaths of which we have full particulars as to age, address, etc. These returns are full of interest, and illustrate a variety of points in connection with the ravages of Phthisis in Central London.

The results of the investigations made with regard to the history and surroundings of 129 cases of Phthisis in the Borough in 1903 are shown in the following tables :—

Source of Infection.	Notifications.	Deaths.	Totals.
Relative	66	52	118
Lodger	—	1	1
Neighbour	—	1	1
Friend	—	4	4
Fellow Workman	2	2	4
Institution	—	1	1
Totals	68	61	129

From the above table it appears that the source of infection was probably immediate personal contact in 31 per cent. of the notified cases, and 25 per cent. of the deaths. When it is considered that there are no outward signs by which the public can recognise Phthisis, that it is to the patient's interest to conceal the disease, and that the greater number of cases go about for years without medical attendance and are diagnosed only in the later stages or at death, this percentage of cases where a definite history of personal contact was made out must be counted as high. In many of these cases the history indicated family infection through several generations, as many as four and five near relatives dying from this disease at intervals of two or three years. There can be little doubt that thus in numerous cases, people have infected each other directly or indirectly.

The number of cases with a history of probable or possible infection by persons not related must always be small, since it is the cause of death among relatives that in the greater number of instances furnishes the clue to infection, and this clue is always wanting when the histories of fellow workmen, schoolmates, or fellow lodgers in past years are inquired into. The following histories were obtained with regard to eight cases which had been in contact with persons suffering from Phthisis, but which had no history of Phthisis among relatives.

1. F., 66 years. Phthisis 4 years. Fifteen years ago worked in Orphanage at Bournemouth, where many of the inmates were phthisical.
2. F., 19 years. Frequently visited the house of a man who was suffering from Phthisis and subsequently died. She was engaged to be married to the man's son, and spent a great deal of her time in the house.
3. M., 11 years. Lived next door to a house in which a phthisical patient lived. Had free access to the house for several years past.
4. F., 51 years. Intimate with two women suffering from Phthisis, one next door and one in same street.
5. M., 23 years. Worked with two men who died of Phthisis.
6. F., 36 years. Frequently visited and sat up with sister-in-law, who died of Phthisis.
7. M., 46 years. Worked with two men who have died of Phthisis within the last seven years.
8. F., 4 years. Lived in house in which two persons, not related, died of Phthisis in 1902.

The number of cases occurring in houses where other persons had been notified as suffering from, or had died from, Phthisis, was as follows:—

	Number of previous cases of Phthisis notified in former years, or having died in same house.					Totals.
	One.	Two.	Three.	Four.	Five.	
Notifications in 1903 ...	50	9	1	1	8	69
Deaths in 1903 ...	31	10	3	0	2	46
Totals	81	19	4	1	10	115

From this table it will be evident that 115 cases, or 25 per cent. of the total, occurred in houses already infected, and that 10 occurred in houses where there had been no less than five previous cases. Though the majority of these cases were probably infected by members of their own family, they

demonstrate none the less the urgent necessity of disinfection, education of the patient, and, if the means were available, of an efficient and extensive scheme of sanatorium training to this end.

The following table shows the number of cases from houses with sanitary defects:—

Sanitary state of house.	Notifications.	Deaths.	Totals.
Dirty throughout	15	14	29
Overcrowded	1	1	2
Damp interiors	11	6	17
Deficient ventilation	1	0	1
Deficient light	12	15	27
Defective drains	19	14	33
Combinations of above conditions ...	19	11	30
Total houses with sanitary defects...	78	61	139
No sanitary defects	105	86	191
No report	36	33	69
Deaths previously notified	—	58	58
Totals	219	238	457

Thus only 30 per cent. of the cases came from houses showing marked defects, from which it may fairly be inferred that exposure to infection, even under satisfactory conditions as to light, ventilation, &c., may be attended with considerable risk.

It should be added that during 1903, the London County Council made the following Bye-law. "No person shall spit on the floor, side, or wall of any public carriage, or of any public hall, public waiting room, or place of public entertainment, whether admission thereto be obtained upon payment or not.

"Any person who shall offend against this Bye-law shall be liable for each offence to a fine not exceeding forty shillings."

We have, of course, no power further than this to prevent expectoration in streets or houses. But we have made an effort to advise on the matter in each case of phthisis notified to us. Each case is visited and a sanitary survey made of the house. A printed statement as to preventing the spread of consumption is left with the patient and his friends, and thorough disinfection is carried out. A card is also left containing the following advice :—

To prevent Consumption.

1. Keep the windows always open at the top day and night, and the room well ventilated. Never let it get "stuffy."
2. Keep the room very clean.
3. Spit only into a spittoon or cup kept for the purpose. The cup should contain a little water or liquid disinfectant. Once a day clean the cup at the sink with boiling water.
4. Boil all milk before use.
5. Live in the fresh air as much as you possibly can.

(Signed) GEORGE NEWMAN, M.D.,
Medical Officer of Health.

Public Health Department,
 Finsbury Town Hall,
 Rosebery Avenue, E.C., 1903.

Other Forms of Tuberculosis.—In addition to 223 deaths from Phthisis (Tuberculosis of the Lungs), there were also during the year 22 deaths from Tuberculosis of the meninges of the brain, and 39 deaths from other forms of Tuberculosis. Each of these cases has been investigated as far as possible, and we have obtained some facts in relation to 24 infant deaths apparently tuberculous (the certified cause of death is printed in italics):—

1. F., 4 months; 10, I. Street. *Tubercular intestine (wasting) exhaustion.* Mother had eight children, four of whom died (one from diphtheria, three from "wasting"). No information as to phthisis in the family. Family of six lived in two rooms. Mother's milk only.

2. F., 10 months ; 181, C. Street. *Tubercular Broncho-Pneumonia and Meningitis*. Two rooms. Child breast-fed for first four months, and then fed on an artificial milk. The maternal grandmother died of phthisis. She had had eleven children, of whom eight died young ; causes of death not ascertained.
3. F., 11 months ; 2, H. Street. *Tuberculosis Mesenterica*. This family had only lived in this house five months ; previously had resided at 9, B. Square. Child fed on cow's milk, said to be "boiled in bulk," and then used as required. Paternal grandmother died of phthisis, father died of phthisis, and two children who were relatives died of "consumptive bowels." Family lived in two rooms.
4. F., 10 months ; 122, P. Road. *Tuberculous meningitis*. Child fed on mother's milk for three months, then condensed milk. The mother had had thirteen children, three of whom had died. Maternal grandmother died of phthisis, and paternal grandfather died of supposed bronchitis.
5. F., 10 months ; 1a, M. Street. *Tubercular meningitis*. Fed on mother's milk only ; no relatives have died of phthisis.
6. M., 4 months ; 12, T. Place. *Tubercular meningitis*. Breast milk for about two months and then cow's milk, bought anywhere, "boiled in bulk" and used as required. Paternal grandmother, two aunts and an uncle died of phthisis. Father has "a very bad cough, especially in winter." Two rooms.
7. F., 12 months ; 3, B. Court. *Tubercular meningitis*. Maternal grandfather died of phthisis ; several brothers and sisters of child's mother have died, cause of death unknown ; a cousin of the child died of tubercular meningitis. One room. Breast milk till weaned.
8. M., 5 months ; 79, M. Street. *Marasmus*. Child fed on breast milk for six weeks and then on cow's milk, "boiled in bulk." Father suffers from phthisis, and several of his brothers and sisters have died of phthisis. This child is one of eight, six of whom have died young.
9. F., 7 months ; 9, N. Street. *Tubercular meningitis*. Fed on cow's milk only, said to have boiled it in bulk ; Father suffers from phthisis. There have been three children, all of whom have died of "wasting diseases."
10. M., 7 months ; 4, St. H. Place. *Marasmus*. Fed on cow's milk only (said to have been boiled) for four months, then on artificial milk, Maternal grandfather and also uncle and aunt, died of phthisis ; mother constitutionally weak.
11. F., 2 months ; 12, A. Street. *Tubercular disease of brain*. Fed on human milk only ; Maternal grandfather died of "lung disease." One child and the mother suffer from "chest disease." One room.

12. F., 4 months; 29, S. Place. *Marasmus*. Breast fed for one month, then condensed milk. Nine children, 7 of whom died in infancy. "Lung disease" in the family. One room.
13. M., 3 months; 5, W. Street. *Tubercular meningitis*. Fed on cows' milk only, said to have been boiled. Consumption in the family. Of 7 children, three, including patient, died in infancy, one of "Consumptive bowels." Two rooms.
14. F., 7 months. 3, A. L. Street. *General tuberculosis*. Breast fed and then cows' milk, said to have been boiled. No history of phthisis in family. Clean home. Two rooms.
15. M., 3 months; 29, A. Street. *Tubercular enteritis*. Human and cows' milk, said to have been boiled. Previous infant died of "Consumptive bowels." No history of phthisis in family. Two rooms. Clean.
16. F., 11 months; 14, B. Square. *Tubercular meningitis*. Human and cows' milk. Father has phthisis; grandfather and uncle of patient died of phthisis. Two rooms. Clean.
17. M., 6 months; 4, B. Street. *Tuberculous broncho-pneumonia*. Breast fed only. Father has phthisis. Two rooms. Clean.
18. M., 6 months; 34, B. Street. *Tuberculous Mesenteric Glands*. Human and cows' milk, said to have been boiled. Phthisis in the family. Mother goes out selling flowers. One room.
19. F., 6 months; 1, B. Street. *Phthisis*. Human and cows' milk, never boiled. Mother "weakly," and much phthisis in family. One room.
20. M., 7 months; 62, Q. Street. *Tubercular Meningitis*. Breast fed only, Six members of the family have died of phthisis. Two rooms.
21. F., 10 months; 61, R. Street. *General Tuberculosis*. Human, cows' and condensed milk, said to have been boiled; grand-parents died of phthisis, and father also died of phthisis.
22. M., 6 months; 11, C. Street. *Acute Pulmonary Tuberculosis*. Breast fed only. Phthisis in the family. Two rooms.
23. M., 7, E. Place. *Marasmus*. Cows' milk only, "always boiled." Mother in consumptive hospital. Had four other children, all died young. One room.
24. M., 6 months; 3 W. Place. *Tabes Mesenterica*. Breast fed only. Consumption in the family, and previous case of "consumptive bowels." One room.

CANCER AND MALIGNANT DISEASE.

There were 92 deaths certified during 1903 as due to cancerous or malignant disease, which gives a special death rate of 0·91 per 1,000. The age and sex incidence of these deaths was as follows :—

Ages	Under 10 years	10 and under 20	20 and under 30	30 and under 40	40 and under 50	50 and under 60	60 and under 70	70 and upwards	Total
Males ...	—	—	2	3	6	12	11	6	40
Females	—	1	—	7	7	17	12	8	52
Totals 1903	—	1	2	10	13	29	23	14	92
Totals 1902	—	—	—	1	16	17	18	20	72
Totals 1901	1	2	2	8	14	18	14	13	72

The occupation of each person dying of Malignant Disease has been noted. These have been various, and in no case is there any obvious connection between the occupation and the cause of death. Eighty-six per cent. of the cases occurred in persons over 40 years of age.

As to local distribution, it may be remarked that the distribution was fairly uniform throughout the Borough, and there was no instance of more than one case in a house.

It is not probable that these returns are strictly accurate. They are in all probability under the mark, though in some instances the diagnosis included in the 92 cases must be accepted with reserve. Cancer is not always readily diagnosed. Moreover, it is likely that the deaths of a certain number of persons have been attributed to other causes when they should have been allocated to Cancerous Disease.

The parts of the body mainly affected with Cancerous Disease were as follows :—

Cancer and Malignant Disease of various parts of the body.	1901	1902.	1903.	Totals.
Face, Tongue, Jaw	—	7	12	19
Throat, Neck, Gullet	—	8	7	15
Stomach	9	12	16	37
Intestine	10	17	11	38
Liver... ..	10	6	13	29
Pancreas	—	—	3	3
Omentum	—	—	1	1
Breast	6	9	12	27
Uterus	16	12	9	37
Testis	—	—	1	1
Bladder	—	—	1	1
Various	21	1	6	28
Totals	72	72	92	236

An examination of the returns for 1903 reveals the following two facts: (a) the cases of cancer in men recorded in Finsbury numbered 40, of which 35 or 87·5 per cent. were cases of cancer of *the alimentary canal*; (b) the cases among women numbered 52, of which 26 or 50·0 per cent. were cases of cancer of *the alimentary canal*, and 21 or 40·4 per cent. were cases of cancer of *the breast or womb*.

ALCOHOLISM.

During 1903 twenty-two deaths were directly attributed to alcoholism and delirium tremens. Of these 7 were women. These figures do not, of course, represent more than a small proportion of the mortality really caused by alcoholism. It is more than likely, that most, if not all of the deaths of infants attributed to being "laid upon" in bed, are really caused

indirectly by alcoholism. During 1903 there were, as already pointed out, 30 deaths so caused. Nineteen of these deaths were of female children, and 70 per cent of the 30 cases of death due to this cause occurred between Saturday and Monday. Cirrhosis of the liver, a condition due, as a rule, to alcoholic excess, caused the death of 29 persons, 16 of whom were women. Hence it may be said that at least 81 deaths were probably due to alcoholic excess.

The figures are as follows :—

Years.	Alcoholism.	Cirrhosis of Liver.	Children laid upon.	Total.
1901	11	22	20	53
1902	27	21	30	78
1903	22	29	30	81

Of the 22 deaths due directly to alcoholism, 21 occurred between the ages of 30 and 60, none occurred under 30, and one occurred over 60. There can be no doubt that a large number of other deaths during the year were caused indirectly, or accelerated, by alcoholic excesses.

It may be of interest to place on record the number of public houses and beer shops in the Borough in 1903 according to returns furnished by the London County Council. In 99 houses notices of dilution, under the Food and Drugs Acts, are exhibited, with the view of protecting the vendor in case of prosecution for selling adulterated spirits. The return is as follows :—

	FINSBURY.	COUNTY OF LONDON.
Acreage (approximate)	589	74,839
Inhabited houses, 1901	9280	571,768
Population, 1901	101,463	4,536,541
Density of population—persons per acre ...	172	61
Percentage of total population, living in tenements of less than 5 rooms	77·2	53·9
Percentage of total population (overcrowded (<i>i.e.</i> , more than 2 persons in 1 room) ...	35·2	16·0
“On” licensed premises :—		
Victuallers'	189	5,464
Other	77	2,215
Total	266	7,679
Acres, per licensed house	2	10
Inhabited houses, per licensed house	35	74
Population, per licensed house ...	381	591
“Off” licensed premises :—		
Number	43	2,711
Acres, per licensed house	14	28
Inhabited houses, per licensed house...	216	211
Population, per licensed house ...	2362	1,674
Total licensed premises :—		
Number	309	10,390
Acres, per licensed house	2	7
Inhabited houses, per licensed house	30	55
Population, per licensed house ...	329	437

Finsbury stands third among the Metropolitan Boroughs in regard to the number of licensed premises to the population. Westminster has licensed premises to every 187 of the population, and Holborn to every 253 of the population.

Year	Population	Number of Insane	Insane per 1000
1850	1,000,000	10,000	10
1860	1,200,000	12,000	10
1870	1,400,000	14,000	10
1880	1,600,000	16,000	10
1890	1,800,000	18,000	10
1900	2,000,000	20,000	10
1910	2,200,000	22,000	10
1920	2,400,000	24,000	10
1930	2,600,000	26,000	10
1940	2,800,000	28,000	10
1950	3,000,000	30,000	10
1960	3,200,000	32,000	10
1970	3,400,000	34,000	10
1980	3,600,000	36,000	10
1990	3,800,000	38,000	10
2000	4,000,000	40,000	10

Insanity stands third among the Metropolitan Toronto in regard to the number of insane patients to the population. Westminster has insane patients to every 187 of the population, and Bolton to every 205 of the population.

PROTECTION OF THE FOOD SUPPLY.

C.—PROTECTION OF THE FOOD SUPPLY.

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PROTECTION OF THE FOOD SUPPLY.

During the year 1903 a large amount of time and labour has been spent upon the protection of the Food Supply. This has comprised meat inspection and seizure, registration and inspection of the milkshops and dairies, a special enquiry into the whole question of the milk supply of Finsbury, and carrying out the Sale of Food and Drugs Acts. During the year special food cases have also come in for attention. A large amount of time has been occupied over the sanitation of bakehouses (see section on Factory Act, page 182). The various premises in which the preparation of food takes place, directly or indirectly, have been inspected, including slaughterhouses, butchers' shops, cowsheds, milkshops, bakehouses, restaurant kitchens, etc.

MEAT.

At the time of the formation of the Borough of Finsbury in 1900, the Extra-Corporation meat markets came within its jurisdiction. This market is the second largest dead-meat market in London, the City Corporation markets adjoining it being of course the largest. In December, 1900, the Borough Council appointed a Special Meat Inspector to take supervision of this market and of meat shops or meat stores generally throughout the Borough. Inspector G. T. Billing, who had held a similar position under the Holborn Board of Works, was appointed to this post. His work requires that he shall be on duty in the market at an early hour in the morning, and at intervals he inspects meat elsewhere in the Borough. Meat is also inspected in every part of the Borough by the Sanitary Inspectors, and on Saturday nights and Sundays the "market streets" are also regularly inspected.

The mode of procedure is as follows: If a salesman or owner of meat calls in the Inspector to examine suspicious meat and at once surrenders what is unfit for food, this meat is confiscated and

destroyed, the Council not being liable. In cases of difficulty the Medical Officer of Health is sent for and consulted. But if the inspector takes the first step, and on his round comes across meat which is unfit for food, exposed for sale, or deposited in any place for the purpose of sale or of preparation for sale, he may deem it right to "seize" the meat. In this event it is thoroughly examined by the Medical Officer of Health, and if found to be diseased or unsound and therefore unfit for food, it is submitted to the presiding Magistrate at the Police Court. Permission is always granted for experts to examine the meat on behalf of the persons from whom it has been seized, and such meat lies at the Town Hall for this purpose for 24 hours after seizure. After the meat is condemned, the case in all its particulars (except the name of the person from whom it was seized), is laid before the Public Health Committee, and their instructions as to prosecution or otherwise carried out.

During the year under review there have been 26 prosecutions for unsound meat, fish and fruit, as follows:—

TABLE OF MEAT PROSECUTIONS, 1903.

Date of Trial.	Name and Address.	Article.	Where seized and Name of Inspector.	Penalty and Costs inflicted.
Jan. 2	William George Hiller, 50, Chapel Street, Finsbury	Two legs of pork, weighing 25 lbs.—unsound This pork was pickled or salted, and probably was unsound before being pickled. This meat was examined on the defendant's behalf by Professor Penberthy.	50, Chapel Street, Finsbury (Inspector Billing)	£30. This case had been adjourned from December 19th, 1902.
Feb. 6	Charles Brewer, 71, Margaret Street, Finsbury	Carcase of pork, weighing 27 lbs.—diseased This carcase was extremely emaciated and dropsical.	71, Margaret Street, Finsbury (Inspector Billing)	£15 and £5 costs.

Date of Trial.	Name and Address.	Article.	Where seized and Name of Inspector.	Penalty and Costs inflicted.
Feb. 20	Harry Jennings, 82, Chapel Street, Finsbury	Sixty-seven pieces of beef and 20 pieces of mutton, weighing in all 277 lbs.—unsound. The greater portion of this meat was obviously bad. This meat was examined on the defendant's behalf by Professor Penberthy.	82, Chapel Street, Finsbury (Inspector Billing)	£50.
Feb. 27	John Edward Webster, Wellington, Cambridge	Carcase of veal weighing 41 lbs.—diseased. This was the carcase of an animal that had suffered from general inflammation and was killed when moribund.	101, Charterhouse Street, Finsbury (Inspector Billing)	£15 and £5 costs.
Mar. 6	T. J. Farrell, Limited, Registered Office, 85, Charterhouse Street, Finsbury	Two sides of pork, weighing 88 lbs.—diseased. This pork was affected with advanced generalised tuberculosis. There were tubercles on the plura of each side, and many of the glands were affected, especially the pharyngeal, which were purulent.	85, Charterhouse Street, Finsbury (Inspector Billing)	£50.
Mar. 6	T. J. Farrell, Limited, Registered Office, 85, Charterhouse Street, Finsbury	Nineteen bellies and 14 legs of pork, weighing 266 lbs.—unsound. The greater portion of this meat was in a very advanced stage of decomposition.	85, Charterhouse Street, Finsbury (Inspector Billing)	£50.
Apr. 2	Louisa Ann Emerick, 141, Whitecross Street, Finsbury	Six pieces of pork, weighing 25 lbs.—diseased. These pieces of pork were portions of one carcase and were much emaciated and very dropsical. There were also some inflammatory adhesions on the pleura.	141, Whitecross Street, Finsbury (Inspector Billing)	£12 and £3 3s. costs.

Date of Trial.	Name and Address.	Article.	Where seized and Name of Inspector.	Penalty and Costs inflicted.
Apr. 8	Charles Fairey, 20, Tollington Park, Holloway	Two sides of beef, one head and tongue, one pair of lungs, one heart, and one tripe and tail—diseased. This was a case of generalised tuberculosis. The carcase was extremely emaciated, and there were tubercles on the pleura. The glands were extremely enlarged, and many of them tubercular. The pharyngeal glands, which were attached to the head, were about the size of a goose egg, and were purulent. The tongue and both lungs were markedly tubercular	101, Charterhouse Street, Finsbury (Inspector Billing)	£20 and 2s. costs.
May 22	Thomas E.Cue, 276, Central Meat Market, London	Thirty pigs' livers—unsound. These were Danish livers, and had been pickled in some preservative. The whole of the livers were extremely soft, disorganised and putrid. These livers were examined on the defendant's behalf by Mr. Allen, M.R.C.V.S.	At a stall in Exmouth Street, Finsbury (Inspector Billing)	May 26th. Dismissed on a point of law as to whether the master was liable, under sub-section 3 of section 47 of the Public Health (London) Act, 1891, for the acts of his servant, i.e., selling unsound meat for the food of man. A case was stated for consideration by the King's Bench Division of the High Courts, but was subsequently abandoned as the defendant had in the meantime become an inmate of a lunatic asylum. His friends guaranteed the costs incurred by the Council.
May 22	Thomas E.Cue, 276, Central Meat Market, London	Twenty-four pigs' livers—unsound. The remarks in the first case apply also to this case	At a stall in Exmouth Street, Finsbury (Inspector Billing)	Dismissed for the reasons stated above.

Date of Trial.	Name and Address.	Articles.	Where seized and Name of Inspector.	Penalty and Costs inflicted.
June 17	Walter Bryant, Keston, near Bromley, Kent	Four quarters of beef, weighing 568 lbs.—diseased. The animal (of which this meat formed the carcass) had died from parturient fever after calving. This was conclusively proved by the evidence given at the hearing of the case. The meat was badly congested and full of blood. All the glands were enlarged and badly congested. It had been very skilfully dressed by the defendant, who is a horse-slaughterer.	93, Charterhouse Street, Finsbury (Inspector Billing)	£25.
June 23	Joseph Tilbury, 28, Exmouth Street, Finsbury	One hundred and thirty-six pieces of beef skirt, weighing 176 lbs.—unsound. This meat was chilled American and was obviously bad, being much discoloured, very soft, slimy, and smelling offensively.	28, Exmouth Street, Finsbury (Inspector Billing)	£5 and 2s. costs. This case had been adjourned from June 16th, 1903.
June 23	John and William Davies, 14, Chapel Street, Finsbury	Thirty-seven rabbits and 2 pigs' heads, weighing 6c lbs.—unsound. These rabbits were from Ostend and all were obviously bad, being in parts green in colour and smelling very offensively. The pigs' heads were in a similar condition.	14, Chapel Street, Finsbury (Inspector Billing)	John Davies, £5 and 2s. costs. Summons against William Davies was withdrawn.
June 23	Edwin Thain, 141, Wood Street, Walthamstow	Eleven pigs' plucks, 120 pigs' kidneys and 2 pieces of beef kidney, weighing 86 lbs. This meat was American and had been frozen. The whole of it was in an advanced stage of decomposition, being in parts green in colour and the whole of it smelt offensively.	On a stall in Chapel Street, Finsbury (Inspector Billing)	£3 and 2s. costs.

Date of Trial.	Name and Address.	Article.	Where seized and Name of Inspector.	Penalty and Costs inflicted.
July 1	Johnson, Cole, Brier and Cordery, Ltd., Registered Office, Purbrook Street, Bermondsey. Secretary, A. Fickens	Twenty-four beef livers—unsound; and 1 pair of beef lungs—diseased. These livers were obviously unsound being much discoloured and smelling offensively. The lungs were very tubercular and the tubercles were purulent.	85, Charterhouse Street, Finsbury (Inspector Billing)	£15 and 2s. costs. A further summons against the same defendants in respect of 10 beef livers was withdrawn.
July 2	Henry Bridger, 135, Lever Street, Finsbury	Ten pieces of lamb and 1 piece of beef, weighing 35 lbs.—unsound. The 10 pieces of lamb were foreign and had been frozen. The whole of this meat was discoloured and smelt offensively.	135, Lever Street, Finsbury (Inspector Billing)	£4 and £1 3s. costs.
Sept. 17	Thomas Hornsey, 88, Guinness' Buildings, Lever Street, Finsbury	Sixty-six pieces of beef, weighing 190 lbs.—unsound. This meat was Argentine beef and had been chilled and the whole of it was in an advanced stage of decomposition being in parts green in colour and smelling offensively.	At a stall in Whitecross Street, Finsbury (Inspector Billing)	5s. for each of the 66 pieces of meat, total £16 10s., and £3 3s. costs, or six week's imprisonment. This case had been adjourned from September 10th, 1903.
Sept. 17	Thomas Hornsey, 88, Guinness' Buildings, Lever Street, Finsbury	—	—	This was a summons for obstructing the Meat Inspector in the execution of his duty. The defendant was fined £5 and £2 2s. costs, or one month's imprisonment. A further summons against the same defendant for assaulting the Meat Inspector was withdrawn.
Sept. 29 and 30	Wallace Gray, Clerkenwell Road, Finsbury	—	—	This defendant was arrested on a warrant for assaulting the Meat Inspector, and was fined £3 and £2 costs, or one month's imprisonment in default.

Date of Trial.	Name and Address.	Articles	Where seized and Name of Inspector.	Penalty and Costs inflicted
Oct. 16	William Field, 2, Doria Road, Fulham, S.W.	Sixteen pieces of mutton, weighing 38 lbs.—unsound. This was foreign meat and had been frozen, the whole of it was in an advanced stage of decomposition, being in parts green in colour and smelling offensively.	At a stall in Exmouth Street, Finsbury (Inspector Billing)	£10 and 2s. costs.
Nov. 20	The Glazed Pressed Beef Co., Limited, Secretary, A. Goodridge, Registered Office, 223, Pentonville Road, Finsbury	Ninety-six pieces of pork and a case of pork pieces, weighing 193 lbs.—unsound. The greater portion of the 96 pieces were pickled or salted pigs' cheeks which had been boned and from which the meat also had been removed and which were issued for making gelatine. The case or box of pork pieces were American and had been frozen. The whole of this meat was badly decomposed.	25, Warren Street, Finsbury (Inspector Billing)	£50 and £5 5s. costs.
Dec. 10	Lipton Limited. Secretary, W. S. Carmichael, Registered Office, City Road, Finsbury	Two pork kidneys and 1 piece of pork, weighing 52 lbs.—diseased. This pork was diseased with advanced generalized tuberculosis. 28 tubercular glands and nodules were found, many embedded in the deeper parts, and several in the muscular tissue. The tubercles were purulent, and varied in size from a pea to a hazel nut. There were several cysts in the kidneys, and also some yellowish spots about the size of a small pea.	At a sausage factory in Cayton Street, City Road, Finsbury (Inspector Billing)	£25 and £5 5s. costs.

Date of Trial.	Name and Address.	Article.	Where seized and Name of Inspector.	Penalty and Costs inflicted.
Dec. 4	John Mike Hemeter, Chalk Pit Hill, Chatham	A barrel of pieces of horse-flesh, weighing 80 lbs.--diseased These were small pieces of horseflesh averaging in weight about 4 ozs. The meat had a soapy feel and a sickly smell. It was very lean and coarse in texture. What little fat was present was very yellow and oily. The meat was very dark in colour and badly congested. There were several glands present and these were very much congested.	95,Charterhouse Street, E.C. (Inspector Billing)	This summons was not served. The defendant was supposed to have left Chatham and had gone to Germany. A warrant was issued for his arrest, but up to the end of the year this had not been effected.
FRUIT, &c.				
Apr. 21	William Lloyd, 225, Goswell Road, Finsbury	Nineteen pounds of apples--unsound	225, Goswell Road, Finsbury (Chief Inspector Green)	£5 and 2s. costs.
May 19	Henry Kennett, 46, Chapel Street, Finsbury	Two hundred and sixteen tins of peas--unsound Many of these tins were blown, and the whole of the peas were discoloured, fermenting and emitted a foul smell. The tins were badly made, and all appeared to have been opened and re-soldered in a very unskilful manner. These peas were examined on the defendant's behalf by Dr. J. F. H. Ryan.	46,ChapelStreet, Finsbury (Inspector Billing)	£15 and £5 costs.

Date of Trial.	Name and Address.	Article.	Where seized and Name of Inspector.	Penalty and Costs inflicted.
June 8	William A. and Henry Hale, 11, Exmouth Street, Finsbury	Seven tins of peas--unsound These peas were very soft, pulpy, of a light yellow brown colour, and emitted a sour offensive smell. The liquor in which these peas were preserved was viscous and turbid, and the surface was more or less completely covered by a scum of bubbles.	11, Exmouth Street, Finsbury(Inspector Billing)	Dismissed without costs. In giving his judgment, the learned Magistrate said, that although he had seen and condemned the seven tins of peas. he was now, after hearing the evidence of the defendants, placed in a difficulty. The peas had been preserved by a "new" process, which had the tendency of allowing them to get into such a condition as to render it very difficult to detect whether they were sound or not. For himself, he did not like the appearance or smell of the peas produced in Court, and which were said to be not unsound. The prosecution had very rightly been taken and necessitated this enquiry, which would do good, and therefore, whilst dismissing the case as not proved, he would give no costs. The seven tins of peas seized were not seen by anyone (except the witnesses for the prosecution), after they were seized, although they were kept 24 hours for the purpose of being examined by anyone on the defendants' behalf (see page 79).
Sept. 11	Ernest Robinson, 31, Albert Street, Islington	Two hundred and eighty-nine bananas--unsound	At a stall in Chapel Street, Finsbury(Chief Inspector Green)	£2 and 4s. costs.

It has been my practice to advise prosecution only in cases about the seriousness of which there could be no doubt whatever; that is to say, we have only taken to Court cases where the meat siezed was extremely unsound or in a state of advanced disease, or cases where continued warnings had been of no avail. In other cases,

where extenuating circumstances of one kind or another existed, we have been satisfied with severely reprimanding or warning the owner of the meat, and in that way have given him the benefit of any doubt. This policy has been adopted, not from any desire to diminish the absolute strictness of meat inspection, and, where necessary, prompt prosecution, but from a knowledge of the ordinary exigencies and difficulties of the trade, especially in hot weather. It is partly on this account that I have to report a heavy list of confiscated meat which has been surrendered to the Inspector (more than 100 tons in weight). This amount includes the meat upon which legal proceedings were instituted. About 80 per cent. of the total was foreign meat (chiefly Dutch and American).

It will be seen in the above Table that of 26 prosecutions instituted by us, three were dismissed, without costs. One prosecution has not yet been tried owing to the defendant absconding, and two prosecutions were for assault and not for meat seizure. The remaining 20 prosecutions resulted in convictions and penalties varying from £2 to £100.

The two first dismissals were on a point of law. May 22nd. Thos. E. Cue: 36 pigs' livers and 24 pigs' livers). The case was heard at the Guildhall, E.C., before Sir Horatio Davies, M.P., who, though accepting the unsound condition of the meat as a fact, and holding that the prosecution had been rightly instituted, dismissed the case in view of the absence of the master and owner of the meat. The learned magistrate, at our request, stated a case for the High Court, but it was not proceeded with, owing to the critical illness of the defendant.

The third case dismissed was that of the Green Peas, which is fully dealt with in the present report (pp. 79) as it is one of importance.

The case for December 4th concerned a barrel of diseased horse-flesh, deposited for sale as human food. It came from Chatham. The summons was not served as the defendant had left the country. We issued a warrant for his arrest, but up to the end of the year this had not been effected.

Twice during the year it has been necessary to issue summonses for obstructing and assaulting the Meat Inspector in his work. Both defendants were convicted and fined. In one case it was necessary to issue a warrant for arrest.

**Summary of Diseased and Unsound Meat, Offal, &c., confiscated
during the year ending December 31st, 1903.**

DISEASED.			
Sides of Beef	14	Sheep's Livers	6,344
Quarters of Beef	12	" Lungs	300
Barrels of boneless Beef	6	" Kidneys	4
" " Horseflesh	1	Beef Livers	880
Carcases of Mutton	2	" Lungs	309
" " Pork	46	" Heads	27
Sides of Pork	2	" Tongues	12
Pieces of Pork	7	" Hearts	4
Pork Kidneys	2	" Tripes	3
Carcases of Veal	29	" Kidneys	4
" " Stirks	7	Calves' Plucks	2
Pieces of Veal	2	" Livers	8
Pigs' Plucks	139	" Lungs	4
		Tons. Cwts. Qrs. Lbs.	
Total weight		18	3 2 6
DECOMPOSED.			
Quarters of Beef	12	Calves' Plucks	77
Pieces of Beef	195	" Tongues	17
Barrels of boneless Beef	5	Pigs' Plucks	913
Bags of boneless Beef	6	Barrels of Pigs' Plucks	23
Carcases of Mutton	11	Cases of Pigs' Plucks	652
Pieces of Mutton	273	Pigs' Livers	53
Carcases of Lamb	3	Barrels of Pigs' Livers	7
" " Pork	10	Tierces of Pigs' Livers	1
Pieces of Pork	122	Barrels of Pigs' Hearts	1
Boxes of pieces of Pork	1	" " Heads	1
Carcases of Veal	263	" " Feet	3
Sides of Bacon... ..	2	" " Kidneys	36
Pieces of Bacon	150	Baskets of Pigs' Chitterlings... ..	10
Crates of Rabbits	72	Boxes of Wet Fish	6
Rabbits	958	" Dried Fish	54
Beef Livers	559	Cases of Eggs	11
" Brains	127	Eggs	5,440
" Lungs	850	Parcels of Strawberries	1
" Tails	223	" Raspberries	1
" Heads	78	Pomegranates	443
" Tongues	11	Pineapples	38
" Spleens	279	Pieces of Pineapple	10
" Hearts	1,231	Tins of Preserved Apples	288
Cases of Beef Tails	57	" " Apricots	384
Barrels of Beef Kidneys	10	" " Peas	228
Hampers of Beef Kidneys	1	Barrels of Apples	2
Stones of Beef Kidneys	80	Bananas	309
Beef Udders	18	Boxes of Tomatoes	8
Beef Tripes	15	Tomatoes	169
Crates of mixed Offal	18	Sacks of Peas	3
Sheep's Heads	533	" Potatoes	10
" Livers	660	Boxes of Dates	20
" Plucks	618	Lemons	10
" Hearts	45	Cocoanuts	109
" Kidneys	270	Bags of Edema Cheeses	4
Hampers of Sheep's Kidneys	2	Chickens	5
Cases of Lambs' Plucks	437	Ducks	3
Lambs' Livers	2,000	Turkeys	6
Parcels of Lambs' Sweetbreads	2	Sausages	16
		Tons. Cwts. Qrs. Lbs.	
Total weight (Decomposed)		83	4 3 0
Total weight (Diseased)		18	3 2 6
Grand total weight (Meat only)		101	8 1 6

Slaughter-Houses.—The following are the five slaughter-houses situated in Finsbury :—

14, Penton Street	39, Bath Street*
20, Amwell Street	37, Chiswell Street*
191, Goswell Road*	

These slaughter-houses have been regularly inspected. The premises are comparatively small and are not well situated. They are, however, kept clean, and the paving and drainage is good. The slaughter-house at 102, Central Street has been closed recently, as it was situated in an insanitary area for which an improvement scheme (demolition and reconstruction) is being carried out by the London County Council. The slaughter-houses marked with an asterisk are licensed only to kill small cattle.

ICE-CREAM.

The sale of ice-cream as carried on from barrows in London streets is largely in the hands of Italians, and the cream is for the most part made upon the premises where the barrow men live. In London there are, according to the Census (1901), Italians to the number of 10,889. Of this total, 1,065 live in the Borough of Finsbury. Most of these persons reside in what is called the "Italian Quarter," and many of them are engaged in the manufacture of ice-cream.

During 1903, a determined effort has been made to supervise the ice-cream industry, not only in the Italian Quarter but throughout the Borough. A system of Registration was adopted in 1901, and has been strictly followed out in 1903, with the result that we have at present 101 registered premises in which this trade is carried on ; 91 are both makers and sellers, and 48 of the shops belong to Italians. On and after November 1st, our position, in relation to this trade, was much strengthened by the Ice-cream Clauses of the London County Council (General Powers Act, 1902, Part viii., Sections 42-45, which gave powers to enforce the following :—

- (a) Ice-cream must be made and stored in sanitary premises.
- (b) It must not be made or stored in living rooms.
- (c) Strict precautions must be taken as to protection from contamination.
- (d) Cases of infectious disease must be reported.
- (e) The name and address of the maker must appear on street barrows.

These regulations are new for London, though they have practically been in existence in Glasgow since 1895, and in Liverpool since 1898. These Ice-cream Sections in the General Powers (London County Council) Act, 1902, have been printed as posters and exhibited throughout the Borough, and, in addition, special copies in English and Italian have been distributed to every registered ice-cream maker or salesman in Finsbury.

The Section dealing with marking of barrows is as follows :—

Every itinerant vendor of any such commodity as aforesaid shall if not himself the manufacturer thereof exhibit in a legible manner on a conspicuous part of his barrow a notice stating the name and address of the person from whom he obtains such commodity and if such vendor is himself the manufacturer of such commodity he shall in the same manner exhibit his own name and address. Every such itinerant vendor who shall fail to comply with the provisions of this Section shall be liable for each offence on conviction as aforesaid to a penalty not exceeding Forty Shillings. Proceedings for the recovery of the penalties shall be instituted by the Sanitary Authority for the District in which the offence was committed or of the District to the Medical Officer of which such notification as aforesaid ought to have been made or in which such itinerant vendor as aforesaid shall offer any such commodity as aforesaid for sale as the case may be.

Under this Section we were the first Authority in London to institute proceedings. A conviction was obtained and a fine of 5s. inflicted. A second case occurred in April, when a conviction was obtained and a fine and costs of £1 8s. was inflicted.

TINNED PEAS.

On May 7th, Inspector Billing seized 216 tins (2½ lbs. each) of preserved green peas (called "Spanish"). I examined these peas and found them to be discoloured, possessed of an offensive smell, slimy to the touch, and many of them pulpy. The fluid in which they were tinned was thick, discoloured, and containing many bubbles of gas. The tins themselves were slightly "blown," and their inside walls were discoloured. On these facts I submitted the 216 tins to the Magistrate as unsound and unfit for food, and he condemned them, and they were destroyed. On May 19, the case came before the Court for trial. The case was defended by Mr. Beck. A conviction was obtained for us, and a penalty of £15 and £5 costs was inflicted.

At the time of this seizure of 216 tins several samples of other kinds of peas were obtained by me in order to compare *prices*, as it had been stated that the 216 tins of peas were being offered at good market price. On opening some of the samples purchased with this object, it was found that a tin labelled "Early June Peas" was not satisfactory. Accordingly another visit was paid to the shop from which they had been purchased, and seven more tins of the same consignment (which were all the vendor had in his possession) were seized and brought to me. In the presence of Mr. Colwell, the Public Analyst, Chief Inspector Green, and Inspector Billing, I carefully and minutely examined these seven tins, without shaking them previously. I found they had the four following characteristics:—

- (1.) There was a most disagreeable smell, sour and offensive.
- (2.) The liquor in which the peas were preserved was viscous and turbid, and the surface was more or less completely covered by a scum of bubbles.
- (3.) The peas themselves were soft and pulpy.
- (4.) The peas were of a light yellow brown colour.

This last characteristic I considered probably due to the fact that they had not been greened by copper. But to obtain information on that point I handed a tin to Mr. Colwell for chemical analysis.* The four of us who examined these seven tins of peas were all agreed as to the presence of these characters as stated above, and

* The following is the Public Analyst's certificate, dated 19th May, 1903:—

"I hereby certify that I have examined the preserved peas handed to me on the 7th May in a can marked "**Early June Peas**," and find they contain as follows:—

" Zinc	...	...	...	0.084 grains per lb.
" Tin	...	...	...	0.17 " "

"Copper and lead were not detected."

On May 20 I received also the following report:—

"I have completed the examination of the other two samples of canned peas and find as follows:—

	Copper.	Tin.	Lead.	Zinc.
" (1) Tarantelle Brand (Large)	0.624	2.114	nil	trace grains per lb.
" (2) Tarantelle Brand (Small)	0.602	1.26	nil	trace " "

"No. 1 was fermenting slightly when received."

(Signed) J. KEAR COLWELL.

upon these facts I formed the opinion that the seven tins of peas were unsound and unfit for food, although not in such a state of decomposition as the previous lot of 216 tins. The seven tins were then submitted to the Presiding Magistrate at the Clerkenwell Police Court, E. T. d'Eyncourt, Esq., who, on examining them, condemned them, and after 24 hours they were destroyed.

Following my invariable practice the condemned peas were kept at the Town Hall for 24 hours in order to allow the defendants every opportunity of having them examined by experts on their behalf. They were informed of this opportunity, but did not avail themselves of it. The vendor himself admitted that the peas were unsatisfactory, and stated that he had, as a matter of fact, arranged to change them before our seizure.

On May 19th the case came before the Court immediately after the previous case of 216 tins, but on the application of the defendant's solicitor (Mr. Beck) it was adjourned to June 8th. On that date a number of tins of peas, alleged to be from the same consignment, were produced and opened in Court, and did not appear unsound, and from this it was argued by Mr. Beck that the seven tins which we seized were also not unsound. It should be stated that the seven tins we seized had been stored on a shelf in the shop at the level of, and near, a gas burner for six weeks. An eminent analyst was called, and gave evidence that he had opened a number of tins in the same consignment and had found them sound; but that if the tins were shaken and then opened it would be found that the liquor became turbid, and bubbles of gas appeared on the surface. He further stated that this consignment was of a special character, and was a *bonâ-fide* "new" attempt to put on the market a good uncoppered preserved pea. He submitted in substance that we had mistaken the change set up by shaking with the changes set up by fermentation. He admitted that unblown tins (such as these were) might contain bad food, although advanced fermentation and decomposition would have a tendency to expand the ends of the tins. Moreover, where tins had been kept in a hot place there would be a greater tendency to go bad than if stored in a cool place, and that if the peas were as we described them they were unsound and unfit for food. He said that coppering peas fixed the albuminoids in the

pea, whereas in uncoppered peas the albuminoids might escape and render the liquor turbid.

A county medical officer of health also gave evidence to the effect that he had examined some of the peas in this consignment and found them to be *sterile* and entirely free from fermentation. He had also eaten some without injury. He stated that the peas were good. These, of course, were not the peas we seized; and the experiments which he stated he had made were not of a thorough character from a bacteriological point of view.

In giving judgment, the learned Magistrate (E. T. d'Eyncourt, Esq.) said that although he had seen and condemned the seven tins of peas, he was now, after hearing the evidence brought forward, placed in a difficulty. The peas had been preserved by a "new" process, which had the tendency of allowing them to get into such a condition as to render it very difficult to detect whether they were sound or not. For himself, he did not like the appearance or smell of the peas produced in Court, and which were said not to be unsound. The prosecution had very rightly been taken and had necessitated this enquiry, which would do good, and therefore, whilst dismissing the case, as not proved, he would give no costs.

I may add that Chief Inspector Green, Inspector Billing, Mr. Colwell, the Public Analyst, and myself, all examined some of the tins of peas which had been produced in Court by Mr. Beck as sound peas, and we found them not to possess the characteristics possessed by the seven tins seized. (1) The liquor was not, in fact, viscous or gelatinous, although the Court was informed that it probably would be so; (2) it was (even after vigorous shaking) less turbid; (3) the peas were not soft and pulpy; and (4) there was not an offensive sour odour. It should be remembered that our notes were taken at the time of examination and not, as the defendant's solicitor suggested, modified in the intervening period between examination and the trial of the case in Court. The evidence which I give in Court is invariably from notes I have taken at the time of examination. I admit, badness or otherwise is a question of degree. All fermentation and putrefaction must, of necessity, be a matter of degree. But it may be pointed out that it is now known that the

poisonous products of such changes are produced at an *early* stage in the process, and that there are a number of cases of food poisoning on record caused by ptomaines produced in tinned foods.†

We are careful never to take to Court any food about which there is any doubt as to its badness of quality. Such food is "surrendered" and not seized. I recognise the exigencies and difficulties of the food trade in London, and when there is doubt we make it a practice to give the vendor the benefit of the doubt, and destroy the food with his consent without prosecution. We destroy tons of such food every year (*see* Medical Officer's Annual Report, 1901, pp. 99 and 100; and 1902, pp. 97 and 98). In this instance I had no doubt at the time, and I have no doubt now, that the seven tins of peas which we seized were unsound and unfit for food, and no evidence was given in Court which altered my opinion. From my experience as a bacteriologist, and being accustomed to compare such articles, I affirm that the tins I saw in Court alleged to be from the same consignment were not in the condition of the seven tins seized, though I admit (as I admitted in Court) that some of the tins produced in Court appeared to show some signs of early fermentation. Unhappily, the seven tins we seized had been destroyed by order of the Magistrate, in the usual way, after standing for 24 hours for the defendants to examine, which they did not do. No bacteriological examination had been made of these seven tins for the simple reason that I was satisfied and the Magistrate was satisfied that they were bad, and the vendor admitted they were "not good enough for him." It is not true to say that there was any kind of haste in destroying them, or that I should have objected to an examination. One does not require to examine by delicate bacteriological tests food which is obviously bad.*

† It will be remembered that the outbreak of cheese poisoning involved 17 persons, which occurred in this Borough in October, 1901, was caused by one Dutch cheese out of a consignment, all of which appeared to be good. Even the poisonous cheese appeared to be good, and was only in the early stages of fermentation. Yet it actually produced serious disease in 17 people. If it had shown external signs of its unsoundness I should have seized it and advised the Council to prosecute. In this case the cheese was at once surrendered, the vendor himself having been poisoned.

° There is the further point that it would be unsatisfactory to seize foods on the findings of a bacteriological examination. Such a course would be unjust to the Trade.

My opinion on this case is that in all probability during this "new" process, or at the time of tinning, some living germ or, perhaps more likely, spore, obtained entrance to the tins; that it lay there dormant under ordinary circumstances of cool storage, but that when the tin was stored in a warm place for such a period as six weeks the living germ commenced to set up fermentation, which under the favourable conditions of the absence of preservative brought about such a state of things as I and others saw in the seven tins of peas which were seized.

Subsequently to the trial I had several tins of this consignment (some of the identical tins, in fact, which were submitted to the learned Magistrate in Court as sound) opened and examined both chemically and bacteriologically. The two following reports set out the findings:—

(i) *Chemical Report.*

J. KEAR COLWELL, F.I.C., F.C.S., *Public Analyst for Finsbury, Holborn, &c.*, reports as follows:

I have examined the can of "early June peas" marked A, handed to me on the 11th June, and beg to report as follows:—

On opening the can nothing markedly offensive was noticed in the smell, which had the peculiar character usually associated with canned peas. The contents were apparently normal, the liquid in which the peas were preserved not having gelatinised, and there was no evolution of bubbles of gas. The liquid was distinctly acid in re-action, its neutralisation being effected by about three times the amount of alkali required for a similar quantity of the liquid from ordinary canned peas. The quantity of deci-normal soda required for neutralisation was as follows—

Tarantelle (coppered canned peas)...	...	10 c.c. per 100 c.c. of liquor.
Early June (cold storage) ...	...	28 c.c. "
,, (after one week's incubation at blood heat)	...	33 c.c. "

These figures appear to indicate that some process of fermentation has been set up during the seven days incubation at a higher temperature. No preservatives or copper were detected. An estimation of the sugar and albuminous substances in the liquid and peas gave the following results. Comparative results obtained from ordinary coppered peas are also given—

	Early June Peas.		Tarantelle Coppered Peas.	
	Liquid.	Peas.	Liquid.	Peas.
Sugar	0.68 %	1.14 %	0.48 %	0.45 %
Albuminoids ...	1.64 %	4.73 %	1.39 %	6.36 %
Specific gravity	1024.5	—	1016.5	—
Solids (Total) ...	5.02 %	—	3.22 %	—

The condition of this sample of Early June Peas cannot in any way be compared with those I examined on the 7th May. The peas then examined were slimy and had an offensive smell; the liquid was acid and had become gelatinous, and fermentation was undoubtedly going on.

(Signed) J. KEAR COLWELL.

London, June 19th, 1903.

Subsequently, Mr. Colwell found that the volume of gas present in one of these tins which had been kept for a month at a cold temperature was 25·2 cubic centimetres, as compared with 28·8 cubic centimetres in a tin kept for a similar period on a warm shelf in a shop, and 31·0 cubic centimetres of gas in a tin kept at blood heat.

(ii) *Bacteriological Report.*

REPORT ON THE BACTERIOLOGICAL EXAMINATION OF SAMPLE TINS OF "PRESERVED PEAS."

The sample tins of "preserved peas" examined were received on the following dates :—

Samples "A" and "B" on 10th June, 1903, and
Sample "C" on 17th June, 1903.

A preliminary report on these samples, dated 19th June, 1903, was submitted as follows :—

Three tins of "preserved peas," labelled "Early June Peas," have been received for examination; the first two (tins A and B) were received in the laboratory on the 10th June, and the third on the 17th June.

On opening tin A a smell of a peculiar mouldy and very disagreeable character was obvious. The contents of the tin consisted of peas and a turbid liquor. The reaction of the liquor was strongly acid. A quantity of the liquor was transferred by means of sterilised pipettes to various culture media, and on some of the media thus inoculated a growth of a micro-organism was obtained after incubation.

I have not yet completed my examination of the contents of tin A, but the facts obtained thus far indicate that these contents had undergone some fermentative change, and were unfit for use as food. My examination of tins B and C has not progressed sufficiently far to enable me to give even a preliminary report with regard to them.

The subsequent report for August 18th, continues :—

Various culture media were inoculated from the contents of each tin, and incubated at temperatures of 22°C. and 37°C., some under ordinary aerobic and others under anaerobic conditions.

(i) The contents of tin "A," incubated on nutrient-gelatin at a temperature of 22°C., yielded a growth of a fine bacillus, which

stained by Gram's method, and did not liquify the medium on which it was growing.

This bacillus did not shew any growth at a temperature of 37°C.

(ii) Tin "B" was apparently sterile, no growth of bacteria being obtained on ordinary media at temperatures of 22°C. and 37°C., whether under aerobic or anaerobic conditions.

(iii) The contents of tin "C" were tested on culture media, after the unopened tin had been incubated for nine days at a temperature of 37°C.

Four, out of five, tubes of nutrient-gelatin inoculated with liquor from the tin shewed the growth of an orange-coloured sarcina, which liquified the medium on which it grew, and stained deeply by Gram's method.

This organism, like the bacillus isolated from tin "A," did not grow when incubated at a temperature of 37°C.

The contents of all three tins were of strongly acid reaction; and a pronounced "mouldy" smell was noticed when the tins were first opened.

The finding of bacteria in the contents of two of the three tins examined suggests that the process of sterilisation, said to be employed in the manufacture of these "preserved" peas, is inadequate.

Although each tin, when opened, evolved a most distinct and characteristic "mouldy" odour, no culture of a mould organism was obtained from the contents.

This can only be explained by the assumption that some species of mould, having escaped the effects of the process of sterilisation, was originally present in the tins, but had died out before the tins were received by me for examination.

I am of opinion, as the result of my examination, that the contents of the three tins were unsound, and unfit for food.

I am also of opinion that the legend on the label, "Seldom equalled, never excelled," is, if applied as a description of the contents of the three tins, inaccurate and misleading.

ALEX. G. R. FOULERTON, F.R.C.S., D.P.H.

*Lecturer on Public Health and on Bacteriology
to the Middlesex Hospital.*

*Director of the Bacteriological Laboratories at the
Middlesex Hospital.*

*The Bacteriological Laboratories,
The Middlesex Hospital, W.*

18th August, 1903.

These reports make it perfectly clear that these tins of peas *were not sterile*, as stated before the learned Magistrate in Court, and that there was in the consignment, agent or agents capable under favourable conditions of setting up fermentation and putrefaction in the peas. These favourable conditions were apparently in operation in respect of the seven tins which were turned bad and which we seized. My previous opinion receives in these two reports very striking and complete confirmation.

It is now abundantly evident that we were correct in our view that the seven tins examined by four of us were, in fact, unsound, in spite of the statements that they could not have been so, made by persons who had never seen them.

The case clearly illustrates the importance of *thorough* sterilisation of tinned goods. Further, it becomes evident that in all such cases each tin must be examined and judged on its own merits, and to draw conclusions on certain tins kept under other conditions than the condition of tins in the same consignment, as the defendants and their witnesses did in this instance, is fallacious.

CHEESE POISONING.

On Tuesday, August 4th, I received information from Dr. Roe, of Old Street, that he had had a case of food poisoning, into which he thought some enquiry should be made. I therefore made a full investigation of the case, upon which I may briefly report.

James W., aged 53, of Radsworth Street, Carman, Midland Railway Company, Whitecross Street Station, was first taken ill on Saturday morning, August 1st. He arose about 7 a.m. and had a cup of tea and went to work. At 10.30 he returned for breakfast, which consisted of tea, bread and butter and cheese (about 2 ounces). He went out again about 11 a.m., and in between one and two hours time was taken ill, and found it necessary to leave work early. The symptoms of his illness consisted in frequent vomiting, extreme pallor, faintness, colic pains and profuse diarrhœa. The onset was sudden and the symptoms very severe. The patient reached home early in the afternoon, and went to bed. His condition became steadily worse. He suffered from pains in the legs, loss of voice,

gripping pains in the stomach, and collapse. He died at midnight. An inquest was held, and I was present with Dr. Roe at the necessary autopsy. We found the body in a healthy condition throughout, except the stomach, which showed signs of acute poisoning.

I had previously visited the beer-shop, where the cheese was purchased, and secured a sufficient amount for analysis. I append Mr. Colwell's report on the same:—

"I certify that I have examined the contents of the stomach, handed to me on the 6th inst., but have failed to detect the presence of tyrotoxin or other poisons.

"From the sample of cheese, also furnished, I isolated a body which gave marked reactions, similar to those given by *Tyrotoxin*.

"I may add that on attempting to repeat the experiments this morning I failed to obtain any indication of the presence of tyrotoxin, doubtless due to the fact that tyrotoxin decomposes with great facility."

(Signed) J. KEAR COLWELL.

*Chemical Laboratory,
Town Hall, Rosebery Avenue, E.C.
10th August, 1903.*

On August 11th, some of the extract was found by Mr. Foulerton to have no effect on a rabbit, and some guinea-pigs and mice fed upon it. (Bacteriological Laboratory, Middlesex Hospital). But owing to the very transient and evanescent character of tyrotoxin, it is not necessarily to be supposed that this test proves the cheese was non-poisonous. There is, indeed, every reason to suppose it was. The man had eaten nothing else during the week which could have caused his illness and death. He was a very steady man, abstemious in habits, and not given to excesses. As far as I could trace, there were no other cases of poisoning from the cheese, but it is difficult, and almost impossible to trace the consumption of a small quantity of cheese from a little shop some days after its sale. The case, on all the facts, seems to have been one of cheese poisoning, in which the poison (*tyrotoxin* or whatever matter it was) was readily absorbed in a solution of tea. It is a parallel case to the 17 cases which I traced in 1901, due to the same poison."*

* See *Report on Health of Finsbury, 1901*, pp. 110-116.

RESTAURANTS AND EATING-HOUSES.

The annual statutory inspection of these premises is now complete. There is a total of 232 such places (as compared with 220 in 1902), in which about 400 men and 600 women are occupied in the preparation of food. These figures do not include waiters and waitresses, but only persons actually engaged in the preparation of food. In some cases such employés live on the premises. By the courtesy of proprietors I am able to say that the number of persons using restaurants in Finsbury daily is at least 60,000.

In 1902 it was found necessary to take action for the remedy of sanitary defects in 150 instances (out of 220) which showed that 68 per cent. of all these places were defective in one way or another. In 1903 it has been necessary to serve 137 sanitary notices (out of 232 premises), which gives a percentage of 59 as being sanitarily defective. This would appear to show some improvement, but it is evident that continuance of strict supervision is necessary.

The chief defects were dirty floors, walls and ceilings, some of them extremely so; unclean yards or areas where food was being prepared; a number of premises without proper or sufficient dustbin accommodation; and a number also in which the sanitary conveniences were either quite insufficient or defective. In a considerable number of cases infringement of the Bye-laws were met with in respect to the regulation that no sanitary convenience shall communicate directly with a room in which food is prepared. Whilst it may be said that many of the proprietors of these establishments conduct their business in a suitable manner and wholly within the meaning of the law, the same cannot be said of all. Some of the kitchens and cellars were in a disgraceful condition, and food prepared in them could not but be open to grave criticism.

Sweetmeat Makers.—We have in Finsbury eleven manufacturers or makers of sweetmeats. One or two of these are large firms with extensive premises, and whose produce has a world-wide market. Seven or eight of them, on the other hand, are in a small way of business, and naturally require more supervision from us. They supply local shops. In one of the Central Districts of Finsbury there are some 60 shops selling sweetmeats, but in only three cases do the vendors actually make sweets. These workshops have been carefully inspected, and various recommendations made for the protection of the produce from contamination.

Food Stalls.—In Chapel Street, Exmouth Street and Whitecross Street there is carried on a considerable food trade from stalls. These are regularly inspected at irregular periods every week, including Sundays and Saturday nights. A number of seizures or confiscations of diseased or unsound food have been made during 1902, and in some cases prosecution has followed. One of the most difficult foods to inspect is shell-fish, and from time to time information reaches the Department of illness attributed to the consumption of shell-fish. A number of enquiries have been made in such cases, and sometimes apparently clear evidence is forthcoming incriminating the shell-fish. These are generally obtained from Billingsgate or some near sea-side town. In some cases undoubtedly shell-fish fattened at sewage outfalls become contaminated and poisonous. In other cases the contamination is derived from their storage. Hawkers and stall-holders frequently keep their little stock of shell-fish in dirty buckets in dirty yards, and in this way it is possible that they may become polluted.

THE MILK SUPPLY.

DURING the present year we have made enquiries respecting the source of the milk sold in Finsbury. In a general way, it may be said, that vendors have three modes of obtaining milk. First, some 185 milk-sellers in Finsbury obtain their supply through milk contractors, who deal with more than a thousand country farms. There are 14 such wholesale contractors trading in the Borough. Secondly, there are some 50 milk sellers who obtain their milk through other milk sellers in the Borough from country farms.

Thirdly, there are, perhaps, a dozen milk shops which obtain part or all their milk from town cowsheds situated in the Borough. Speaking generally, therefore, it may be said that about 235 of the 261 milk sellers in Finsbury obtain their milk wholly or partly from country cowsheds, whereas about a score obtain their milk wholly or partly from town cowsheds.

We have a register in Finsbury of the source of the milk of every milk seller, whether it be town or country, so that it would be practicable at any moment to trace a milk supply with some degree of accuracy. A register is also kept of all the milkshops in the Borough, containing particulars of each in respect to general and particular sanitation, management of milk trade, &c.

The fourteen contractors deal with some 1,111 farms situated at varying distances from London. The following table sets out the main facts with regard to the distribution of the 280 towns and villages where the farms are situated which send milk :—

Contractor.	No. of Farms.	Counties in which Farms are chiefly situated.	No. of Milk Sellers supplied in Finsbury.
A	13	Derby, Essex	9
B	43	Wilts, Derby, Berks, Somerset, Norfolk, Hants, Worcester, Dorset, Oxford, Gloucester, Cambridge.	6
C	3	Stafford, Derby	4
D	400	Berks, Wilts, Bucks	18
E	100	Leicester, Dorset, Warwick, Cheshire, Suffolk, Somerset.	21
F	30	Norfolk, Essex, Cambs., Derby, Leicester.	31
G	3	Derby, Stafford, Northampton... ..	7
H	58	Leicester, Warwick, Stafford, Derby, Herts.	16
I	70	Devon, Dorset, Wilts, Derby, Stafford	9
J	70	Stafford, Derby, Leicester	24
K	1	Middlesex	4
L	60	Derby, Leicester, Bucks	2
M	60	Leicester, Middlesex, Stafford, Derby, Bucks	2
N	200	Bedford, Gloucester, Derby, Cambridge, Essex, Norfolk, Bucks, Stafford, Hunts, Leicester, Warwick.	32
TOTALS	1111		185

In addition to the farms dealing with contractors some 70 farms situated in a like manner in different parts of the country, deal direct with 21 of the larger milk sellers, and in this way about 60 shops are supplied. Hence, about 1,200 farms send milk into Finsbury more or less regularly.

The country sources, it will be seen, show a characteristic distribution. Much of the milk is derived from the great milk-producing counties of Derbyshire, Staffordshire, Leicestershire, Warwickshire, and Wiltshire, and very little appears to come from the home counties. To furnish some idea of distance I have marked on a map straight measurements from London for 25, 50, 100, and 150 miles. Of course, actually the distances by rail from London are much greater. But even this rough and ready method gives an approximate idea of the great distances which Finsbury milk travels before it reaches the milkshop. The distances of the 281 places, in straight measurement, are as follows:—

Within the 25 mile radius equal 2 (0·7 per cent.)				
„ 50	„	„	13 (4·6	„)
„ 100	„	„	111 (39·5	„)
„ 150	„	„	145 (51·9	„)
„ 200	„	„	10 (3·5	„)

It is evident that 95 per cent. of all the milk which comes into Finsbury from the country must of necessity spend several hours on the railway. From one cause or another this period of transit from farm to milk-shop averages 10 to 12 hours. An example will illustrate what actually happens. A certain contractor in Finsbury obtains his milk from a number of farms in the Derbyshire and Staffordshire district. He possesses a more or less correct list of the farms with which he deals, and a correct list of his milk agents through whom he does his business. He receives between 1,000 and 1,500 gallons of milk daily, and it is delivered in ordinary milk churns at Euston or St. Pancras Stations early in the morning. At R., in Staffordshire, he has an agent who obtains milk from some half dozen farms within three or four miles of R. railway station. Milking takes place between 4 and 6 p.m., and the milk is strained, and some of it cooled, and placed in churns and sent to R. railway station. The milk undergoes various vicissitudes on the railway (whose company does not provide refrigerator cars for its ordinary milk traffic), and eventually it arrives at Euston about three or four o'clock in the morning. The milk contractor (with his vans) meets the milk and distributes it, selecting so many churns for this van and so many for that, and by six in the morning the milk is at the

milk-shops in various parts of London. Exactly which milk reaches each milk-shop is not known to the contractor or anybody else. What is known is that it is at least 12 hours old, and some of it 18 hours old. A certain quantity, sometimes the whole supply, is taken from the railway stations to the depôt of the contractor, from which it is distributed to various districts. But in any case it has not reached its destination. For much of it is retailed (sometimes twice over) in small quantities to small shops which, whilst selling lamp oil, soap, pickles, candles, bacon, boot blacking or toffee, also deal in a few quarts of milk. And so from hand to hand the milk passes, and under some circumstances does not reach the consumer until 24 hours after being drawn from the cow.

The milk trade is now a very complex one, largely owing to the growth of the towns. Instead of a man owning his own cows or obtaining his necessary milk from neighbours in small quantities as required, it is now necessary to transport milk long distances in large quantities. Thus there has arisen the opportunity, or necessity, for the milk contractor. He is the middle man between the farmer and the milk-vendor.

Frequently one contractor will supply 30 or more shops, deriving his milk from as many farms. This adds very much to the complexity of the trade.

The Condition of Country Cowsheds.—The long period of transit and the opportunities of contamination of the milk which thereby occur is not, however, the only fact to be borne in mind. There is the further question of the condition of the farms and cowsheds from which the milk is obtained.

The sources of pollution of milk are various, and depend upon many minor circumstances and conditions. But for all practical purposes there are four chief opportunities between the cow and the consumer when milk may become contaminated.

1. At the farm.
2. During transit to the milkshop.
3. After arrival in the shop.
4. At the home of the consumer.

Here it is only necessary to refer to the contamination arising at the farm. There are diseases of the cow, uncleanness of the cow, insanitary and ill-ventilated cowsheds, uncleanly milking, and diseased or dusty milkers, all of which agencies may add their quota of contamination to the milk. It is, therefore, evident that the community living in Finsbury has a direct interest in the condition of the farms from which is derived the milk they daily consume. The next step therefore to discovering the source of the milk supply of the Borough seemed to be to learn, if possible, something of the conditions obtaining in the contributory farms. This was therefore done, and particulars obtained respecting farms in Staffordshire, Derbyshire, Leicestershire, and Wiltshire.

In a general way it may be said that country cowsheds and country cows are maintained at a lower standard of sanitation than town cows and cowsheds. The Dairy Order is administered in many rural districts with considerable laxity, and the personal interests of the members of the Local Authorities leads to a certain degree of supineness. It is rather the exception than the rule for Regulations to be made, and very rarely to be enforced.

Finsbury Cowsheds.—Milk sold in Finsbury is also derived from seven cowsheds situated in the Borough, containing at the present time 118 cows. There is licensed accommodation for about 150. The number both of cowsheds and cows has diminished in recent years. In 1856, for example, in Clerkenwell alone as many as 540 cows were stabled. Ten years ago there were 13 cowsheds in the district which now constitutes the Borough of Finsbury.

The seven existing cow-houses licensed by the London County Council are situated as follows: 39a, Baldwin Street; 1, George Street; 30, Great Sutton Street; 40, Rawstorne Street; 230, St. John Street; 4, Sermon Lane; 27, Whiskin Street. The main facts, which may be stated here, are set out in the following table:—

No. of Cowsheds.	No of Cows.	Cubic Capacity per cow, in cubic feet.	Paving and Drainage.	General Sanitation and Cleanliness.	Daily Milkings.	Cleanliness of Milking.	Treatment of Milk.	Destination of Milk.
1	49	560	good	fair	2	fair	strained and cooled	Finsbury, Stoke Newington, &c.
2	10	848	good	fair	2	fair	strained and cooled	Finsbury.
3	12	990	good	fair	2	fair	strained and cooled	Finsbury.
4	5	2154	good	bad	2	fair	strained and cooled	Finsbury, City of London.
5	22	1000	fair	bad	2	not clean	strained and cooled	Finsbury.
6	3	2000	very good	fair	2	fair	strained and cooled	Finsbury.
7	17	1100	good	fair	2	fair	strained only	Finsbury.

Most of the 118 cows at present stabled in Finsbury are Shorthorns or their cross. It is the practice to purchase good cows, and, on the whole, they are in good condition. Certainly the Finsbury cows are in a much better condition than the general average of cows in country cowsheds. This is due to three causes operating in the Metropolis. First, good class animals come to the London cowsheds, because the owners have to send them to the butcher when dry, and, therefore, inferior animals are a poor investment. Secondly, there is a very regular and thorough inspection by the veterinary inspector of the London County Council. Thirdly, there is no inbreeding. Consequently, general tuberculosis, which probably affects more than 30 per cent. of milch cows in the country (McFadyean, Delépine, etc.), only affects 20 per cent. in London, and whereas 2 per cent. of country cows have tuberculosis of the udder, only 0.20 per cent. of London cows have tuberculous disease of the udder.

The condition of cowsheds in Finsbury is, on the whole, good. The paving and drainage is satisfactory, but general uncleanness and untidiness is marked. Manure is left lying about, and the receptacles for this stuff are not cleared as often or so thoroughly as they should be. One or two of the sheds are deficient in light. But, in a general way, it may be said that the defects are not those of structure or accommodation so much as those due to careless management.

All the cows in Finsbury are milked twice daily, in the early morning and early afternoon. I saw no evidence of thoroughly clean milking, although I was informed in most cases that milkers washed before and during that operation, and also cleansed the udders of the cows about to be milked. After milking, the milk is in all cases strained ("screened"), generally through muslin, in order to get rid of particulate matter. In five out of the seven cowsheds the milk is cooled over a Lawrence cooler. In one it is cooled in a can under a tap of cold water, and in one it is not cooled at all. I consider the entire absence of cooling a great disadvantage, but I was told that the customers preferred it not cooled. Most of the milk is sold in Finsbury on "rounds" or in shops, but some of it finds its way to other metropolitan districts. The approximate amount yielded is 10 quarts per cow per day. On the whole, and judging the matter on broad lines, there would appear to be much room for improvement in the straining, manipulation, cooling and storage of milk in all these seven cowsheds. Rough and ready management, in a corner of the cowshed or yard, and entrusting the work to the cowman will not suffice. Dirty milkers and dirty utensils are unpardonable.

Milk Shops in Finsbury.—There are registered in the Borough 261 milk vendors, of whom 40 are confectioners or maintain coffee shops, leaving 221 milk vendors (or about one to every 450 of the population) who sell milk for consumption off the premises. For the purposes of this enquiry a thorough inspection has been made of these 221 milk shops. They are divisible into two groups, namely, (a) dairies and (b) general shops selling milk. There are 39 so-called dairies (or 18 per cent. of the total) and 182 general shops. At the dairies only milk, butter, cheese and mineral waters are sold as a rule. At the general shops

every kind of provision and grocery is sold, and in many cases spices, soap, wood, paraffin oil, blacking, etc., are also sold. This, therefore, is the great dividing line between these milk shops, and, as a general rule, it may be said that the dairies sell most milk (about 60 per cent. of the total) and are managed in a more satisfactory and cleanly manner than the general shops. It is, of course, evident that it is impossible to manage a general provision shop, selling all sorts of miscellaneous materials, in a cleanly way. Hence it comes about, that most of these general shops are open to criticism from the point of view of a pure milk supply. Several matters of importance respecting the 221 milk shops may now be briefly considered :—

Milk Storage.—When the milk arrives from the farm, or from the contractor, which it generally does, as we have seen, in the early morning, it is necessary to store it on the milk shop premises. Such milk may be stored for two or three hours only, or for 24 hours or more. In 35 shops (or 16 per cent.) it is stored in the churns in which it arrives, or in special vessels kept for the purpose, and protected in a greater or lesser measure from pollution. In 186 (or 84 per cent. of the total milk shops in the Borough) the milk is at once placed in the counter pan (metal or earthenware) in the shop. As every one knows, these counter pans are exposed in the shop and dipped into whenever a customer requires serving with milk. Commonly, such pans will contain from 2–4 gallons of milk, and this is the store which will last, more or less, throughout the day. As a rule, these pans and the other utensils used in the Finsbury milk shops are fairly clean ; but as the day goes by it is found that dirt collects in the pan and on the milk owing to the fact that, as a rule, the pans are not covered. Two years ago instructions were given that everyone of these pans was to be covered, and many of the milk sellers provided themselves with muslin covers, paper frames or metal lids. Now we found by inspection that in 161 shops no cover at all was being used. That is to say, that 73 per cent. of the milk sellers do not take the most simple and elementary precaution to keep their milk from becoming polluted. It cannot be too strongly emphasised *that milk becomes contaminated in milk shops*, because it is not sufficiently protected. Such contamination arises from three sources :—

1. Constant dipping and manipulation.
2. Dust from the air.
3. Flies.

If a pan of milk is exposed to the dusty air of a small general provision shop, as it is in 180 shops in Finsbury, for from two to twelve hours, it gains an almost incredible amount of dust and dirt. A frequent use of the dipper must inevitably convey some small quantity of dust into the milk. But this is unavoidable, and a negligible quantity. Exposure to dusty atmosphere for a number of hours carries into the milk much more, and *flies* are responsible for a third dose of filth. I entered a milk shop in the Borough only recently and found nine flies in the milk pan. The pan was nearly empty and the vendor had occasion to empty it while I was in the shop, and it was easy to show him a black deposit of dirt at the bottom of his pan. Flies are responsible for a great deal of the pollution of milk. They pass from putrifying animal and vegetable matter in the street to the nearest milk pan and deposit in the milk the filth attaching to their bodies, mandibles, wings, and legs. It is thus that typhoid fever infection was spread in the Spanish-American War and in the South African War.* It is thus that every kind of objectionable filth finds its way into *unprotected vessels of milk*. There are only 60 (or 16 per cent. of the total) shops in Finsbury where the milk is protected from such pollution.

Cleanliness of Utensils.—I am glad to report that the matter of cleanliness of vessels receives increasing attention of milk-sellers in Finsbury. As a result of this enquiry it appears that in five shops only were the milk pans, milk cans, and other similar utensils absolutely dirty. In 204 shops the vessels used were fairly clean, and in 12 instances they were "thoroughly clean" and in every way beyond criticism. The importance of this matter cannot be overstated. At a moderate computation some 8,000 milk vessels are used daily in the Borough. Any dust or dirt which they contain will naturally pass into the milk supply. Fifty-two shops use *house-cans* in their trade. These vary in size from half-a-pint to one quart, and it appears that 7,579 of them are in daily use. Milk is

**American War Department, Official Report, 1900; British Medical Journal, 1901, vol. i., pp. 642, 770; and 1902, vol. ii., 936.*

conveyed in these vessels from the shops to the consumer's home, where they may remain indefinitely before being returned to the shop.† It is satisfactory to learn that it is the custom of the 52 milk-vendors using these house-cans to have them thoroughly cleansed after each use in hot water and soda.

Sanitary Condition of Milk Shops.—Out of the total of 221 milk-shops inspected in this enquiry, 116 (or 52 per cent.) were found to have one or more sanitary defects. The chief defects may be tabulated as follows :--

Sanitary Defects.	No. of Milk-shops.
Dust-box accommodation defective	20
Dust-box altogether absent	15
Yard paving absent or defective	10
Yard extremely dirty or refuse accumulated ...	23
Water-closet defective	32
Whole drainage defective	3
Water cistern defective	4
Foul water cistern	25
Dirty premises throughout	36

As a rule, the most defective premises were those used for general purposes and where a few pints or quarts of milk were sold. In some cases, however, sanitary defects were met with at dairies carrying on a large business.

Milk Trade in Finsbury.—A little more than one half (about 60 per cent.) of the milk trade done in the Borough is in the hands of the 39 dairies, and the remainder (about 40 per cent.) is in

† In 1902 on visiting a fatal case of confluent small-pox in Valetta Street, I found eight of these milk house-cans on a small table by the patient's bed. He had used them as drinking cups.

the hands of the 182 general dealers. The trade appears to be distributed as follows :—

Daily sale.	No. of shops.	Total barn gallons of milk sold daily.
Shops dealing in gallons of milk ...	114	1381
Shops dealing in quarts of milk ...	94	48
Shops dealing in pints of milk ...	13	4
Totals *	221	1433

Assuming these figures to be the daily average throughout the year it would appear that upwards of 500,000 barn gallons of milk (*i.e.*, a million imperial gallons), are sold in Finsbury during the year (an average of ten imperial gallons per head of the population per annum). Our returns show that 513 persons are actually engaged in the direct manipulation of this milk.

To this must be added the trade in condensed milk, respecting which we have also made enquiry. This trade, as is well known, is largely one of recent growth, and during the last ten years has shown enormous increase. We have reason to estimate that upwards of one and a-quarter million tins of condensed milk are sold in Finsbury every year. Such tins weigh about 1 lb., and contain about half a pint of fluid. Various brands are sold in the Borough, ranging from 2½d. to 5½d. in price. The most commonly used brands are Nestle's, "Tip-Top," "Head," "Cross," "Imperial," "Cup," "Goat," "Handy," "Rose," "Sunshine," &c.

Summary.

We must now add to the previous facts as to sources of milk sold in Finsbury, the further facts that in the Borough itself 52 per cent. of the milkshops have sanitary defects, and 73 per cent. of the milk sellers fail to protect their milk from dust.

The Condition of Milk Sold in Finsbury.—

The next matter requiring the consideration of the Borough Council is the condition and quality of the milk offered for sale within its boundaries. There are two sources of evidence respecting this portion of the subject, namely (*a*) the results of chemical and (*b*) bacteriological examination of the milk.

(a) *The Chemical Examination of Finsbury Milk.*—The composition of milk varies according to a variety of external circumstances, and it is, therefore, necessary to adopt a standard. The Board of Agriculture have prescribed the minimum standard, as follows:—

Water	...	...	88.50	per cent.
Fat	...	...	3.00	„
Solids, not fat	...	...	8.50	„
			100.00	

The adulteration which occurs in Finsbury, in common with other places, is judged by this standard. Adulteration is generally one or all of three kinds. First, water may be added, to increase the volume of milk. Secondly, fat (as cream) may be abstracted. Thirdly, preservatives may be added with the object of increasing the keeping power of the milk. The object of The Sale of Food and Drugs Acts, 1875–1899 (with the consequent appointment of Public Analysts) is the detection, on behalf of the public, of these various illegal adulterations of milk. If the adulteration is above a certain degree the local authority may prosecute the offender under the Acts.

Unsweetened condensed milk is often added to cows' milk when a sudden call is made for an increased quantity. Some large dealers are said boldly to add water to fresh milk if their supply runs short. The Sanitary Authority, of course, only obtains indirect evidence of this. If it is done, and the retail or wholesale vendor detected, prosecuted and fined, the fine is almost invariably of so small amount that a large profit will still be the result of the transaction. On the whole there is evidence to show that the old and grosser form of milk adulteration, by the addition of water, is largely giving place to more refined methods of mixing "separated" with "whole" milk, or in other ways reducing the quality of good milk, so that it may just reach the admittedly low standard fixed by the Board of Agriculture in their sale of milk regulations.

The Finsbury Borough Council authorize a certain number of samples of milk to be taken under the Acts and these are examined by the Public Analyst (Mr. J. Kear Colwell, F.I.C.). The following table gives the results obtained during the last ten years in the area now incorporated as the Finsbury Borough:—

Year	No. of Samples Analysed.	No. of Samples Adulterated.	Percentage of Adulterated Samples.	Added Water.					Percentage of Watered Milks in Samples Analysed.	Removal of Fat.					Percentage of Milks with fat removed on Samples Analysed.
				Under 5%	5% or over.	10% or over.	15% or over.	20% or over.		Under 5%	5% or over.	10% or over.	15% or over.	20% or over.	
1893	71	29	40.8	2	8	7	2	5	33.8	—	—	1	—	4	7.0
1894	119	29	24.3	1	8	6	3	7	21.0	—	—	—	—	4	3.3
1895	121	36	29.7	3	10	4	6	2	20.7	1	1	2	—	7	9.0
1896	235	74	31.5	8	23	9	7	6	22.6	—	6	3	5	7	8.9
1897	187	46	24.6	4	14	11	5	2	19.3	—	—	2	4	2	5.3
1898	197	42	21.3	2	14	14	3	1	17.3	—	1	4	1	2	4.0
1899	205	55	26.8	9	16	9	4	6	21.5	—	2	2	6	1	5.3
1900	228	36	15.8	5	12	6	4	2	12.8	—	—	4	1	2	3.0
1901	251	56	22.3	17	13	2	3	2	14.7	2	7	4	3	3	7.6
1902	269	53	19.7	15	15	3	2	3	14.2	2	6	3	2	2	5.5

In a number of the cases in the above Table both forms of adulteration was detected, water had been added and fat removed. Such cases have been entered under "added water."

This table is based upon an examination of the milk of all milk-sellers in the Borough, without any exception. Occasionally, by arrangement or by accident, some vendors are sampled twice or thrice in the year, and others perhaps only once. But the methods adopted are such as work automatically and cover the whole trade, the large dealer and the small dealer, without partiality.*

Several points of interest will be noticed in this decennial table. In the first place the number of samples examined has increased, owing to the increased necessity of protecting the public against adulteration. Secondly, it will be observed that the percentages of adulterated samples do not vary widely. The average works out at 25·6 which is much higher than most metropolitan boroughs. The return for 1902 (of 21·2) stands *sixth* amongst the London Boroughs.

The Annual Report of the Local Government Board for 1902-1903 gives the returns as follows:—

*During the existence of the Borough Council (1901-1903) there have been prosecutions for milk adulterations resulting in convictions and penalties as follows:—

MILK.

Year.	No. of Convictions.	Fines amounting to.	Costs amounting to.
1901	32	£44 17 6	£17 12 6
1902	23	£33 5 0	£33 7 0
1903	26	£68 0 0	£22 8 0
Total for the 3 years	81	£146 2 6	£73 7 0

Total for Fines and Costs = £219 9s. 6d.

Metropolitan Borough.	No. of milks examined.	No. found to be adulterated.	Percentage of adulterations.
Hackney	310	103	32·2
St. Pancras	262	84	32·0
Stepney	550	167	30·3
Shoreditch	154	46	29·9
Poplar	151	34	22·5
Finsbury	274	58	21·2
Lewisham	231	46	19·9
Stoke Newington	44	8	18·2
Battersea	157	28	17·8
Greenwich	134	23	17·1
Bethnal Green	205	33	16·1
Southwark	1057	170	16·0
Holborn	177	28	15·8
<i>London as a whole</i>	8411	1314	15·6
Westminster, City	574	86	14·9
Fulham	148	21	14·2
London, City	605	80	13·2
Camberwell	318	39	12·2
Chelsea	94	11	11·7
Kensington	206	23	11·1
Paddington	320	35	10·9
Wandsworth	215	23	10·7
Deptford	157	16	10·2
Islington	587	55	9·4
Bermondsey	389	31	7·9
Lambeth	310	24	7·7
St. Marylebone	202	14	6·9
Hammersmith	139	7	5·0
Woolwich	374	18	4·8
Hampstead	67	3	4·5

There can be no question that more adulteration goes on in Finsbury than in many other London districts.* A high return, as

*Dr. Harris of Islington and others have furnished evidence to show that most of the adulteration is done not by the farmer but by the wholesale or retail vendor. Examinations of milk at railway stations in London have shown such milk to be superior to the milk obtained for examination from milkshops, as judged by chemical analysis. See *Reports on Health of Islington*, 1901, p. 226 1902, p. 214.

an exception, might bear another interpretation, but a continuously high return over 10 years is a fairly reliable indication. In 1902 this Borough had *six per cent.* more adulteration than the average for all London. The comparative figures for that year (the most recent obtainable) work out as follows :—

					Percentage of Milk Adulteration.
Borough of Finsbury ...	...	...	...	...	22.2
London ...	...	...	...	...	15.6
Twenty largest towns of England and Wales					10.3
The rest of England and Wales ...					10.0

The percentages of adulteration for every five years since 1877 for England and Wales may also be added for comparative purposes :—

	No. of Samples in 1902.		Percentage of Adulteration in							
	Examined.	Found Adulterated	1902.	1901.	1900.	Quinquennium.				
						1897-01.	1892-96.	1887-91.	1882-86.	1877-81.
MILK	29,452	3,427	11.6	11.2	10.8	10.6	12.3	13.2	16.7	21.1

Thirdly, an examination of the table of results of analysis will show that much the most common adulteration is that of added water. It is, of course, the easiest to manage, and appears to the offender a less formidable undertaking than absolutely "tampering" with the milk. Nor is this feature of adulteration common to Finsbury. In London as a whole in 1901, out of 952 adulterated milks, 618 were cases of added water, 384 of abstraction of fat,

and 50 both watered and deprived of fat.* It is, therefore, evident that in London, and particularly in Finsbury, a not inconsiderable amount of watering of milk is going on. For it must be remembered that it is but a very small fraction of the actual adulteration taking place which is detected by the Local Authority.‡

(a) *The Bacteriological Examination of Finsbury Milk.*—As already pointed out, the sources of pollution of milk by bacteria are fourfold, namely—(1) at the farm; (2) during transit to the milkshop; (3) after arrival at the milkshop; and (4) in the home of the consumer. It was Tyndall who first pointed out, in 1878, that dust particles acted as “rafts” for carrying micro-organisms, and since that date abundant and indisputable evidence has been obtained in support of his view. *Wherever and whenever dust and dirt obtain access to milk, bacteria also obtain access.* Therefore, a large number of bacteria in milk will indicate, other things being equal, a large degree of dust pollution; a small number of bacteria, under similar circumstances, will indicate a small degree of contamination. But we may go a step further and learn, if possible, the *kind* of micro-organisms present in milk, where they have come from, and what action they are having upon

* “The average percentage of the added water reported to have been found in the 668 watered samples was 10·1, while the average percentage of fat removed from the 434 creamed samples was 16·8. In a memorial recently addressed to us by the Dairy Trade and Can Protection Society it is stated that the quantity of milk received in the London area from outside is approximately 144,000 imperial gallons a day. If this is correct, and if we assume that the samples taken for analysis in the metropolis in 1901 correctly represent the quality of this outside milk supply, it seems that Londoners pay, at 4d. per quart, at least £30,000 per annum for water which has been added to the milk supplied to them.”—Thirty-first Annual Report of Local Government Board, 1901-1902.

‡ This point becomes clear when it is seen that 500,000 barn gallons of milk (one year's sale in Finsbury) are equal to 8 million pints. But 269 samples (analysed in 1902) equal 134 pints. Hence only 134 pints out of 8 million pints have been analysed. It should be understood, moreover, that the 8 million pints is, if anything, an under estimate. In actual cost to the consumer, this amount of milk (500,000 barn gallons or 8 million pints), at the ordinary market price, works out at £67,000 per annum.

the milk. Some of these bacteria may be harmless; indeed, we know that some are advantageous and beneficial, assisting in the ripening of cream and flavouring of butter. But others may be of putrefactive species, bringing about decomposition in the milk to which they gain access. And a third group may be actually disease-producing species, conveying disease to the persons drinking the milk. Hence it is clear that, by a bacteriological examination, we may obtain facts of great value as to the condition of a milk, and in any case form some opinion as to the degree of pollution by dust and dirt which milk receives.

Now much of the market milk contains very large numbers of bacteria. Dr. Park, of New York, has made extensive researches into the quality of milk sold in that city, and he finds that the number of bacteria present varies according to season and according to the standard of milk shop. In a poor district the average number of bacteria present out of 13 samples was 1,977,692 per cubic centimetre (=15 drops) and in a well-to-do district the average of 10 samples was 327,500 bacteria per c.c.* Similar investigations have been made in Berlin, Paris, Edinburgh, Boston, Melbourne and other cities. As a result it has come to be recognized that even good milk may contain from 50,000 to 500,000 micro-organisms per c.c., if such are not injurious species. Several of the American Milk Commissions have laid down that 30,000 bacteria per c.c. is a suitable standard by which to judge the quality of milk provided none of these are disease producing. Such figures apply to freshly drawn milk and not to milk which has travelled a long distance to market. Certainly such a standard is, at present, too high for London milks.

For the purposes of this report I have made a careful bacteriological examination of nine London milks. Purchases were made in five shops situated in Finsbury, and four shops located in the neighbouring districts of the City of London, the City of Westminster, and the Boroughs of Holborn and Islington. Three out of the nine samples were purchased in small poor shops, the other six in good class shops. The sample was bought in the ordinary way, and it was not known that it was being

* *Journal of Hygiene*, 1901 (July) p. 395.

obtained for purposes of examination. It was collected in sterilized bottles and examined at the Town Hall within a few minutes of being purchased.|| The results obtained are set out in the following table:—

District of London.	Standard of Shop.	Average No. of Bacteria per c.c.	No. of Liquefying Colonies per c.c. °
City of London	Good class	4,800,000	120,000
City of Westminster	Good class	1,600,000	125,000
Borough of Holborn	Good class	4,800,000	145,000
Borough of Islington	Good class	1,600,000	10,000
Borough of Finsbury A	Good class	2,300,000	46,000
Borough of Finsbury B	Good class	1,280,000	30,000
Borough of Finsbury C	Poor class	3,200,000	45,000
Borough of Finsbury D	Poor class	2,700,000	†
Borough of Finsbury E	Poor class	340,000‡	0

° These numbers are included in the total average number of bacteria per c.c.

† These plates liquefied too rapidly for correct enumeration to be made of liquefying colonies.

‡ This milk probably contained a considerable quantity of preservative.

The samples above recorded were obtained in a haphazard manner, and do not necessarily represent the usual quality of the milk in these several districts. It would be absurd to conclude from these

|| It should be stated that the examination was made on ordinary Petri plates, and the culture medium used was best French gelatine. The milk was diluted immediately after receipt with sterilized water to a dilution of $\frac{1}{500}$; 1 c.c. of milk was added to 9 c.c. of sterilized water in small flasks, and thoroughly mixed; 1 c.c. of this $\frac{1}{50}$ dilution was then added to 49 c.c. of sterilized water and again thoroughly mixed. This gave a dilution of $\frac{1}{500}$, which was found necessary in order to examine the milk. Two plates of each sample were made, and the resulting colonies of bacteria were counted on the second and third days after incubation at 22°c. The figures were checked by three counters.

figures that the milk sold in the City of London or Holborn is inferior to milk sold in Finsbury. Obviously a very large number of examinations would be necessary to form any opinion upon the comparative condition of the milk of different districts, and other conditions would also have to be considered. The table, about the correctness of which there can be no doubt, must be taken for what it represents, namely, the bacterial content of nine milks, purchased by chance and examined at the same time, from nine London milk shops.

Without laying undue emphasis upon these results there are three simple deductions which may, I think, be safely drawn from them. First, Finsbury milk, as sold, contains a very large number of bacteria, and certainly a number much above any standard of suitability. Secondly, a considerable number of the contained bacteria are of the liquefying or putrefactive species (varying from one to three per cent.). Thirdly, in certain poor shops, of which we possess particulars, the numbers of bacteria are extremely low or the liquefying species are absent. The last figures recorded in the table (milkshop E) afford an excellent illustration of such shops. The cause of this apparently healthy state of the milk is the liberal addition of preservatives. In such cases the findings of bacteriology must be taken in conjunction with the results of chemical examination. There can be little doubt that much of the inferior milk sold in Finsbury, is bolstered up by the addition of preservatives, which are added to disguise its true character.

The milks were not tested for the presence of disease-producing bacteria. The organisms present in the numbers recorded above were chiefly of two kinds: (1) the ordinary *lactic acid bacteria* of milk, which bring about the souring of milk; (2) common, *putrefactive bacteria*, many of which liquefy gelatine, and all of which probably gain entrance to the milk from dust and dirt.* The milk from milkshop E was exceptionally bad, and contained a number of gas-producing and milk-coagulating organisms. In

* The species isolated included *Bacillus liquefaciens*, *B. fluorescens liquefaciens*, *Staphylococcus pyogenes albus*, *Bacillus coli communis*, several *Streptococci*, Sarcinae, etc.

a milk derived from an inflamed udder in one of the Finsbury cowsheds, the micrococcus of mastitis was found, and was practically the only organism present. These facts in respect of Finsbury milk are not exceptional. London milks have been frequently examined, with the result that marked bacterial pollution has been demonstrated. One illustration will suffice. In 1899, 50 samples of milk were examined in St. Pancras. Sixteen (or 32 per cent.) were normal healthy milks; and 34 (or 68 per cent.) were unhealthy milks. Of the latter, 12 samples contained pus in smaller or greater amounts, and 5 (or 10 per cent.) contained the tubercle bacillus.*

A qualitative bacteriological examination of 25 samples of milk obtained in Finsbury has just been made by Mr. Foulerton, Bacteriologist to the Middlesex Hospital, and his report is as follows:—

BACTERIOLOGICAL DEPARTMENT,
THE MIDDLESEX HOSPITAL,
LONDON, W.

23rd November, 1903.

REPORT ON SAMPLES OF MILK.

The samples of milk referred to in this Report were received from Dr. Newman on the following dates: Monday, 26th October, samples 1-4; Wednesday, 28th October, samples 5-12; Friday, 30th October, samples 13-20; Wednesday, 4th November, samples 21-23; Friday, 16th November, samples 24-25.

All twenty-five samples were received in clean glass bottles, with new corks, and were examined immediately after they were received in the Laboratory. Each bottle contained a little more than 100 cubic centimetres of milk, and the method of examination carried out was the same in each case.†

* Report on Health of St. Pancras, 1899, pp. 61-66 (Dr. Sykes).

† One hundred centimetres of the sample were measured out into a large glass tube, and were therein centrifugated by means of a Runne Centrifugal Machine for 15 minutes. The lowest ten cubic centimetres in the tube, containing all sediment, were then carefully pipetted off into a glass tube, and again centrifugated for 15 minutes.

The upper portion of the milk in the smaller test tube was then decanted, six coverglass specimens for microscopic examination were then prepared, and the remainder of the contents of the tube were employed for the inoculation test.

The six coverglass specimens were then stained in warm carbol-fuchin for 14 minutes, decolourised in a 33 per cent. dilution of nitric acid in water, washed in water, counterstained and mounted in the usual way.

The results of these tests were as follows :—

Three samples of the milk contained "acid-fast" bacilli, which morphologically resembled *Bacillus tuberculosis*, but which were proved by the inoculation test to be free from the latter micro-organism.

As regards *B. tuberculosis*, none of the twenty-five samples produced tubercular infection in the guinea-pig; all must therefore be pronounced as free from *B. tuberculosis*. With regard to the other types of organisms found, there are only two which require special mention. *Yeasts* are commonly found in samples of milk taken for analysis in the ordinary routine, and their presence in large excess may be taken as a general indication of staleness of the milk.

Micro-organisms belonging to the group of *Streptococci* are also frequently found in milk, and their exact significance, when thus found in large quantities, is not definitely ascertained. But in a number of cases milk in which *Streptococci*, of one species or another, have been found in predominating numbers, has been suspected of being a cause of disease in man.

Taken on the whole, the result of the examination of these twenty-five samples of milk may be said to be satisfactory from the Public Health point of view, and so far as the question of tubercular infection is concerned. At the same time, some of the samples contained an unnecessary amount of foreign dirt.

(Signed) ALEX. G. R. FOULERTON,
F.R.C.S., D.P.H. CAMB.

*Bacteriologist to the Middlesex Hospital; Lecturer on Public Health
and Bacteriology to the Middlesex Hospital Medical School.*

A careful microscopic examination was then made of each coverglass, with a view to the detection of "acid-fast" bacilli, if present, and at the same time a note was made of the predominating types of other micro-organisms which were present in the sediment, and notice was taken of any abnormal quantity of foreign matter present. Inasmuch as it is impossible to distinguish by microscopic examination, only between certain harmless "acid-fast" bacilli, which may be found in milk and *Bacillus tuberculosis*, and, moreover, since the latter may be present in milk in such small quantity as to be overlooked in such an examination, it was necessary to test each sample by inoculation. The remainder of the sediment left after the microscopic preparations were made was injected into the ham of a guinea-pig. The several guinea-pigs were killed by a dose of chloroform on the twenty-first day after inoculation, and the site of inoculation, and the neighbouring lymphatic glands and abdominal organs were carefully searched for evidence of tubercular infection.—A.G.R.F.

Mr. Foulerton furnished a Table of details showing the results of examination of each of the 25 milks sent to him. The following Table is an abstract of his findings:—

Bacteria, Pus, Dirt, etc., found in Milk.	No. of Milks in which found.	Percentage of Total No. of Milks Examined.
Pus, or cells like pus	8	32
Staphylococci	7	28
Streptococci	8	32
Diplococci	12	48
Bacillary Forms	20	80
Yeasts	9	36
Sarcinæ	3	12
Epithelium	2	8
Acid-Fast Organisms	3	12
Dirt	10	40

The results of this examination reveal no tuberculosis in this series of samples, but considerable bacterial pollution of various kinds. It should be noted that none of the milks examined had been sold, and therefore whatever pollution they contained was derived from contamination at the farm, in transit, or at the milk-shop, and not at the home of the consumer.

A word may be added as to tuberculosis. We cannot tell what percentage of the milk coming into Finsbury actually contains the germs of this disease, but there is little doubt that some of it does. In Liverpool about 2 per cent. of the *town-produced* milk has been proved to be tuberculous, and 9 per cent. of the *country* milk. In Hackney on one occasion 22 per cent. of the milks examined bacteriologically were found to be tuberculous; in Woolwich in 1902, Dr. Davis reported 10 per cent. of the milk examined bacteriologically to be tuberculous; in Camberwell in 1902, 36 milks were examined for the tubercle bacillus, and in 4 (or 11·1 per cent.) the organism was found; in the City of London in 1902, 24 milks were similarly examined, and tubercle was not found in any of them; and in Islington about 14 per cent. of the milks examined bacteriologically contained the tubercle bacillus. In 1901 in Croydon 6 per cent., and in London as a whole 7 per cent. of the

milks examined were found to contain the tubercle bacillus. These figures are sufficient to show that not only does London milk contain large numbers of bacteria (which is evidence of pollution), but a certain percentage of it contains the germs of tuberculosis.

Finally, it may be pointed out that the chief explanation of the large number of bacteria found in London milks is two-fold. In the first place, as already pointed out in the present report, London milk has generally travelled a considerable distance from the country, and as much as 12-24 hours have elapsed since the milk left the udder. Delépine and others have shown that the effect of *time* and *temperature* upon the multiplication of bacteria in milk is an intimate one. Given warm weather, and little or no refrigeration of the milk, and the organisms present will increase with almost incredible rapidity. Naturally, time will favour such multiplication. Consequently, a milk which when it left the farm contained some thousands of bacteria, will contain millions of bacteria some hours after when it reaches the milkshop in London. In the second place, in addition to the pollution milk undergoes at the farm there are many opportunities for its contamination in transit and at the milkshop. In winter very much the same degree of pollution will be found as in summer *but at a later stage* in the life history of the milk. What occurs in, say, six hours in summer may occur in winter in twelve hours. These facts emphasise the extreme importance of *protection* and *refrigeration* of all milk sent to the Metropolis. The matter is fully discussed elsewhere.*

Summary.

Here then are a large body of facts, strictly checked and abundantly confirmed, as to the condition of Finsbury milk as now being sold. The conclusions may be expressed briefly as follows:—

1. *Twenty-five per cent., or one quarter, of the milks examined have been found to be adulterated (ten years' average).* The latest figures obtainable (namely for 1902) show that Finsbury milk is adulterated six per cent. more than the average London milk, and twelve per cent. more than the average milk sold in the large towns of England and Wales.

* *The Bacteriology of Milk* (Swithinbank and Newman); see also *Report on the Public Health of Finsbury*, 1902, pp. 73-79.

2. *The sale of condensed milk of inferior quality appears to be enormously on the increase in Finsbury.*
3. *Milk, as sold in Finsbury, shows evidence of great bacterial contamination. The average number of micro-organisms present in four ordinary milks was upwards of two millions in every cubic centimetre, which affords absolutely indisputable evidence of pollution. Further, of samples examined 32 per cent. contained pus, and 40 per cent. contained dirt.*

CONCLUSIONS.

The requirement is a pure milk supply ; that is, a clean, whole milk, unadulterated, unsophisticated, and without preservatives, derived from healthy cows living under clean and sanitary conditions, and protected from contamination (dust and dirt) and infection (disease).

The enquiry, which has now been carried out, reveals a condition of affairs in respect to the milk supply of Finsbury which cannot be correctly described in these terms. The chief findings are as follow :—

- (1.) That the extent of the milk trade in Finsbury may be gauged by the fact that not less than a million imperial gallons of cows' milk, and not less than one and a quarter million tins of condensed milk are consumed in the Borough every year ;
- (2.) That 90 per cent. of the cows' milk consumed is obtained from country farms ;
- (3.) That 95 per cent. of the contributory farms are situated at a greater distance than 100 miles from London, which means that most of the Finsbury milk is 12 hours old before it reaches the milk shop.
- (4.) That there is evidence to prove that, as a general rule, the country cowsheds, from which the milk is derived, are ill-lit, overcrowded, badly-ventilated, and badly drained. There is also little or no guarantee that the milk is derived from healthy cows, free from tuberculosis.

- (5.) That when the milk reaches Finsbury it is not infrequently sold under conditions open to criticism ; 52 per cent. of all the milk shops in the Borough were found to have one or more sanitary defects, and 73 per cent. of the milk vendors fail to keep their milk covered or protected from dust. Further, 48 per cent. of the shops where milk is sold are small general dealers, doing a daily milk trade of only a few quarts or pints.
- (6.) That on the average returns of the last ten years, it appears that 25 per cent. of all the milk tested was found to be adulterated ; in 1901, the adulteration was 22 per cent., but even then it was 7 per cent. higher than the average for all London.
- (7.) That there is reason to believe that Finsbury milk, and milk generally in London, contains great bacterial contamination. Four unpreserved samples of milk, selected from two good class and two poor class milkshops, gave an average of 2,370,000 bacteria per cubic centimetre, which is about 2,000,000 bacteria in excess of what should be present in good fresh milk. Of 25 milks examined in Finsbury in 1903, 32 per cent. contained *pus*, and 40 per cent. contained dirt.
- (8.) That there is evidence to show an intimate relationship existing between a dirty or infected milk supply and disease.

As a result of the consideration of the special report above referred to, the Borough Council, adopting the recommendations of the Public Health Committee, resolved on prosecuting the following measures :—

(a) **Enforcement of Existing Law.**—The Council to communicate with the milk-sellers in the Borough drawing attention to the requirements of the law, particularly of the Dairy Orders, as regards inspection, cleanliness, &c. ; and to inform milk-sellers that they will be required in future to provide covers to all vessels

containing milk for sale, and that samples of their milk will be taken periodically for bacteriological examination.

The circular approved by the Committee, and eventually issued to all milk-sellers, was as follows:—

METROPOLITAN BOROUGH OF FINSBURY.

PROTECTION OF THE MILK SUPPLY.

DEAR SIR,—

The Council of the Metropolitan Borough of Finsbury have now given their careful consideration to the conditions existing in the Borough of Finsbury in regard to the milk trade. As a result of a special enquiry carried out by the Public Health Department, it appears that the management of the milk trade in Finsbury in the past has been open to considerable criticism, and it is the intention of the Council from the present date to insist upon a much stricter enforcement of the law in respect to the actual manipulation of the milk.

In particular the Public Health Department has been instructed to insist upon a higher standard in the following respects:—

- 1st. Cleanliness of the shop, including the shelves, tables, counters, and all other fixtures. These must be kept absolutely clean in any shop where milk is sold.
- 2nd. All milk vessels also must be kept scrupulously clean. In order that this should be so, milk vessels of every kind should be cleansed with steam or with scalding water and soda after each use.
- 3rd. Milk pans placed on counters, or any milk pan or vessel in which milk is stored, must always be kept covered, and the milk protected from air and dirt.
- 4th. Milk must not be kept in any place where it may be liable
 - (a) To become infected or contaminated by gases or effluvia arising from any sewer, drain, gully, sink, cesspool, or closet;

- (b) Or contaminated by any offensive effluvia from putrid or offensive substances of any kind ;
- (c) Or contaminated by any impure air or any offensive gases or substances.
- 5th. Milk from diseased or unhealthy cows must on no account whatever be mixed with other milk, and must not be sold or used for human food. It is the business of every milk seller to take steps to ensure that the milk he receives from the country is pure and free from such infection.

The Council have also resolved that from time to time examinations shall be made of milk sold in Finsbury without notice to milk vendors, with the view of determining the condition of the milk as regards the presence of dirt, dust, injurious bacteria, or other injurious or offensive matter from the cow or introduced by dirty manipulation.

The Council is satisfied that considerable contamination of milk takes place in Finsbury, and it has therefore resolved strictly to enforce the requirements of the Dairies Orders and Regulations made under it, in order to ensure a more satisfactory supply in future.

I am,

Sir,

Your obedient servant,

(Signed) GEORGE NEWMAN, M.D.,
Medical Officer of Health.

PUBLIC HEALTH DEPARTMENT,
FINSBURY TOWN HALL,
ROSEBERY AVENUE, E.C.

December 18th 1903.

(b) **Amendments of the Law.**—The Council also resolved on making representations to the proper authorities for securing (i) new regulations under the Dairy Orders ; (ii) an acceleration of the procedure under Sec. 71 of the Public Health (London) Act, 1891, relating to the prohibition of the sale of infected milk, the provisions of the section having been found ineffective in preventing the spread of contagion from such a source ; (iii) powers to a Sanitary Authority

to take samples of milk at places outside their district, and to take from carts, vans, or other vehicles samples of milk which there is reason to believe is to be sold in the district; and (iv) legislation embodying the recommendations of the Departmental Committee on Preservatives and Colouring in Foods.

These powers were resolved upon in the effort to control milk supplies by the Local Authority. But the Council further decided on the following amendments as to the Control of the milk supply in the Metropolis, which would affect the milk supply in Finsbury :--

(v) **Constitution of Central Milk Authority.**—That the London County Council should be constituted the Central Milk Authority, invested with the control of the milk supply to the Metropolis up to the time of the entry of the milk into the particular Borough to which it may be consigned, when the duty would devolve, as at present, upon the Borough Council concerned.

(vi) **Certification of Source of Supply.**—That the London County Council should be empowered to prohibit the entry into the County of London of any milk unless and until the farm or other place supplying it has been certified by a Medical Officer of Health and a Veterinary Surgeon, having the necessary powers of inspection, in the employ of the Council of the county concerned, or, in default, by such Officers in the employ of the London County Council, as a suitable place as regards the health of the animals, and the conditions under which they are kept, and the manner in which the milk is handled generally.

(vii) **Cancellation of Certificates.**—That the London County Council should be empowered to forthwith cancel any such certificate as above-mentioned upon any outbreak of infectious disease attributable to milk, or for any other sufficient reason, without the delay occasioned under the existing law.

(viii) **Local Powers.**—That powers similar in effect to those above indicated be vested where applicable in the Metropolitan Borough Councils as regards supplies produced in cow-sheds or other places in their respective districts.

(c) The Council further resolved on obtaining, if possible, some lectures on infant feeding and domestic hygiene to be delivered in the Borough.

SALE OF FOOD & DRUGS ACTS.

Under the Bye-laws of the Borough Council, each Sanitary Inspector acts, in his own sanitary district, as an Inspector under the above Act. During the year 1903 the Inspectors collected 610 samples, of which 86 (or 14·1 per cent) were adulterated. There were 46 prosecutions under the Act, the aggregate amount of fines and costs inflicted being £141 12s. 6d. In 1902, 14·6 per cent. of the samples were found to be adulterated, and there were 35 prosecutions.

The samples collected were as follows :—

	Samples taken.	Adulterated.		Samples taken.	Adulterated.
Milk	348	58	Beeswax	2	1
Condensed Milk ...	6	6	Camphorated Oil...	1	...
Butter	150	10	Arrowroot... ..	1	...
Cheese	9	...	Citrate of Magnesia	2	...
Mustard	17	...	Lard	8	...
Pepper	15	...	Dripping	6	...
Cocoa	4	1	Baking Powder ...	1	...
Coffee	20	6	German Sausage ...	1	...
Sugar	13	3	Vinegar	4	1
Flour	1	...			
Ground Ginger ...	1	...		610	86

Sampling is undertaken at various irregular times, including Sundays and in the evenings. All the various milk-sellers in the Borough are sampled without exception at some time during the year, and samples are also obtained from hawkers and others passing through the Borough, though not having any shop or premises in the Borough.

WATER SUPPLY.

The Water supply of the Borough is derived from the New River Company. According to the official water examinations, made under the Metropolis Water Act, 1871, the quality of the water is excellent. Taking the mean of the 12 months (monthly bacterial examinations), the New River unfiltered water contained 420 bacteria per c.c. and the filtered water, as delivered, contained only 16. This is the purest water, from a bacterial point of view, in London. An examination of the Tables of the average composition, chemical and bacteriological, of the London Water Supply, proves that the quality, as a whole, is excellent, and that the high standard of previous years was well maintained during 1903, in spite of the heavy rainfall, which was more than 10 inches above the mean of the last 35 years.

The wells existing in the Borough, which are still used, are as follows :—

1. RICHMOND STREET (25).—This is an artesian well, about 400 feet deep. The water is used for the purpose of supplying a gas engine only. The domestic supply is derived from the New River Company.

2. BUNHILL Row (No. 125).—This place is used by a firm of engineers and artesian well-borers. They have an artesian well about 450 feet deep and use the water for all purposes, not having any other supply.

3. COWPER STREET (Nos. 7 and 8).—There is a well here which is dug for a depth of about 80 feet, and then bored for a depth of another 60 feet. The water is not used for drinking purposes under ordinary circumstances, but sometimes in the summer those employed on the premises are likely to take a drink of the well water. It is ordinarily used for the machinery only.

4. CITY ROAD (Messrs. Lipton).—The firm using these premises has an artesian well in their cocoa factory, about 300 feet deep, the water from which is used for all purposes. They have a supply laid on from the New River Company as reserve.

5. CITY ROAD (No. 102).—There is an artesian well at these premises which is 370 feet deep, the water is used for all purposes, and there is also a supply from the New River Company.

THE HOUSING QUESTION

The Housing Committee of the Executive Council was set up in 1917 to deal with the housing problem of the country. It has since then been working in close co-operation with the Public Health Committee and the various departments of the Government. It has also been in touch with the various local authorities and the Housing Society. The Committee has held many public meetings and has issued many reports. It has also been in touch with the various local authorities and the Housing Society. The Committee has held many public meetings and has issued many reports. It has also been in touch with the various local authorities and the Housing Society.

D.—HOUSE PROPERTY AND OVERCROWDING.

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D-HOUSE PROPERTY AND OVERCROWDING.

THE HOUSING QUESTION.

The Housing Policy of the Finsbury Borough Council was stated in my report for 1901. Only certain portions of that policy come within the duties of the Public Health Committee and these have received attention during the year. Briefly, they are three. First, the improvement of insanitary areas and houses. Secondly, the keeping of a register of all persons displaced. Thirdly, the enforcement of the Public Health (London) Act, in respect to house property and overcrowding. In my report of 1901 I discussed in some detail the general position of the housing question and the necessary steps that should be taken. The past year has been occupied in continuing to take the steps. I propose to deal strictly with the above-mentioned points of insanitary areas and the maintenance of sanitation in house property. A register is being kept of persons displaced in any houses closed under the Borough Council.

For convenience this section dealing with the Housing Question will be sub-divided under three main headings. In the first place the insanitary areas under the London County Council will be considered; then the smaller insanitary areas receiving the attention of the Borough Council; and thirdly, the general question of the maintenance of sanitation in house property and the reduction of overcrowding.

The particulars which follow, respecting the areas now being dealt with by the London County Council, bring the facts of the case up to date. These facts are printed here for purposes of reference, and because of their great importance. They show in a very clear manner the steady degeneration of property in the areas during the process of reform, and furnish many illustrations of the difficulties of housing work in Finsbury, and the causes of the overcrowding in some parts of the Borough.

**I—INSANITARY AREAS IN FINSBURY,
UNDER THE LONDON COUNTY COUNCIL
(Part I of the Housing Act.)**

In my Report for 1902 (see pp. 126-140) a detailed statement will be found respecting these areas, and it will only be necessary this year to report the present condition and the changes which have taken place during the last twelve months.

The areas form two schemes, namely, the *Aylesbury Place Area* Scheme and the *Garden Row Area* Scheme. The latter includes four small areas designated *Garden Row*, *Roby Street*, *Baltic Street* and *Honduras Street*. The representations were made in respect of Aylesbury Place Area in 1897, the inquiry was held in 1900, and closures commenced in that year. The representation was made in respect of the Garden Row Areas in 1899, the inquiry was held in 1900, and closures commenced in 1901.

The state of affairs existent at the time of condemnation may be set forth as follows :—

Five Years, 1895—1899.	Houses.	Population.	Death Rate per 1000.	Deaths of Children under 5 years. Percentage on Total Deaths.
Aylesbury Place Area	73	511	36·4	—
Garden Row... ..	69	407	42·2	55
Roby Street	50	218	32·5	53
Baltic Street	55	351	42·1	44
Honduras Street ...	17	217	40·5	35
Averages and Totals of Garden Row Area	191	1193	39·3	46

The present position of these areas and the recent changes in them may be set out briefly under several sub-headings, and the first will concern the houses on the areas :—

(i) **Houses on the Areas.**—The history of the matter as regards houses may be set out in the following way :—

DWELLING-HOUSES ON THE FIVE AREAS.

	No. of Houses of all kinds at time of Scheme, 1900.	No. of Dwelling-houses, 1900.	No. closed previous to Scheme.	No. closed in 1900.	No. closed in 1901.	No. closed in 1902.	No. closed in 1903.	Total No. now closed.	No. of Dwelling-houses now occupied.
Aylesbury Place	73	70	8	1	3	2	16	30	40
Garden Row...	69	69	—	—	1	17	23	41	28
Roby Street ...	50	37	—	—	—	30	7	37	—
Baltic Street ...	55	52	—	—	—	13	16	29	23
Honduras Street	17	16	—	—	—	—	1	1	15
Totals ...	264	244	8	1	4	62	63	138	106

The *closures* have, it will be seen, taken place chiefly in 1902 and 1903. As regards distribution they are as follows: [In square brackets have been placed the number of houses in each street or court *occupied* at the end of 1903.]

Aylesbury Place Area.—Aylesbury Place, 1 [28]; Aylesbury Street, 6 [0]; Bishop's Court, 9 [3]; Jerusalem Passage, 0 [6]; St. John's Square, 2 [0]; Jerusalem Court, 12 [3].

Total closures—30.

Garden Row Area.—Garden Row, 14 [9]; Clarence Place, 11 [1]; Clarence Street, 1 [3]; Europa Place, 2 [6]; Central Street, 3 [4]; Lever Street, 10 [5]. Total closures—41.

Roby Street Area.—Roby Street, 16 [0]; Anchor Yard, 19 [0]; Helmet Row, 2 [0]; Richard's Place was entirely composed of houses used as workshops, etc. Total closures—37.

Baltic Street Area.—Baltic Street, 6 [10]; Middle Row, 5 [3]; Baltic Place, 3 [1]; Baltic Court, 5 [3]; New Court, 7 [0]; Thomas Place, 3 [2]; Hatfield Street, 0 [4].

Total closures—29.

Honduras Street Area.—Honduras Street, 1 [8]; Baltic Street, 0 [3]; Golden Lane, 0 [4]. Several tenements are empty, but only one house is wholly closed.

Total closures—1.

The decline in houses step by step is seen in the following table:—

DWELLING-HOUSES OCCUPIED AT END OF EACH YEAR.					
	1899.	1900.	1901.	1902.	1903.
Aylesbury Place	70	61	58	56	40
Garden Row	69	69	69	51	28
Roby Street	37	37	37	7	—
Baltic Street	52	52	52	39	23
Honduras Street	16	16	16	16	15
	244	235	232	169	106

In addition to closed houses, there are upon the areas from time to time several houses empty temporarily. "Closure" should be understood to mean that the house is boarded up or locked by the County Council.

(ii) **Population on the Areas.**—The total population on the five areas in 1899 was 1704. At the end of 1902 it was 1352, and at the end of 1903 it was 759. The approximate changes are set out in the following table. The figures for 1899, 1902 and 1903 are correct, and the result of actual enumeration of persons on the area at those dates, but the figures for 1900 and 1901 are estimated:—

Areas.	Population on Areas				
	1899.	1900.	1901.	1902.	1903.
Aylesbury Place ...	511	480	470	464	213
Garden Row	407	407	407	344	179
Roby Street	218	218	218	44	--
Baltic Street	351	351	351	285	174
Honduras Street ...	217	217	217	215	193
Total	1704	1673	1668	1352	759

It appears that during 1903, 569 persons have left these areas for one cause or another :—

	Aylesbury Place Area.	Garden Row Area.	Roby Street Area	Baltic Street Area.	Honduras Street Area.	Total.
No. of persons displaced in 1903.	251	165	44	111	22	593

It will be remembered that last year I showed that the clearances of people and closures of certain houses had led to grave overcrowding in adjoining houses. This year that has not occurred, or if so, only in a very slight degree. Further, it was proved that Bishop's Court in particular showed marked *increase* of the overcrowding (36 persons in 11 houses, in addition to the previous population), marked decline in sanitation, and a higher death-rate than before (rising from 46 per 1,000 in the previous five years to 52.6 per 1,000 in 1902). These facts were brought to the notice of the London County Council, and I am glad to report that during 1903 attention has been directed to the grave state of affairs which existed in Bishop's Court, with the result that out of the twelve houses nine have now been closed, and the population has been reduced from 176 persons, in this one small court, to three persons, *i.e.*, 173 persons have been displaced.

(iii). **Births on the Areas.**—The births taking place during the years 1900, 1901, and 1902, on the three areas numbered 164, which gives an average birth-rate (calculated on the population of the three years), of 35 per thousand, as compared with 32 for all Finsbury in 1901. The birth-rate on each of the five areas was substantially the same.

(iv). **Deaths on the Areas.**—The three clear calendar years following the schemes for these five areas were 1901, 1902, and 1903. During these three years 144 deaths occurred on the areas. The deaths and death-rates (calculated on the changing population), are set out as follows :—

Areas.	1901.		1902.		1903.	
	No. of Deaths.	Death Rates.	No. of Deaths.	Death Rates.	No. of Deaths.	Death Rates.
Aylesbury Place	19	40·3	21	45·2	4	18·8
Garden Row ...	10	24·5	13	37·8	9	50·3
Roby Street ...	8	36·7	3	68·1	—	—
Baltic Street ...	11	34·9	13	45·6	18	103·4
Honduras Street	4	18·4	6	27·9	5	25·9
Totals ...	52	31·2	56	41·4	36	47·4
Boro' of Finsbury	2161	21·3	2283	22·7	1993	19·8

(v). **Insanitation on the Areas.**—The five areas were, of course, condemned on the ground of insanitation, ill-construction, &c. I have to report that since March, 1900, matters have not improved. Indeed, as would be expected, the reverse has happened. There are a large number of defects and nuisances now existing on each of the areas, except the Roby Street area. Many of the houses are dirty and verminous in a high degree. Since March, 1900, the date of the Enquiries, a large number

of sanitary works have been carried out, and the areas have necessitated constant supervision and extra inspection during the last three years.

(vi). **Closure and Demolition.**—Subsequently to the carrying out of the requirements of the law under Part I. of the Housing of the Working Classes Act, 1890, the London County Council is occupied in executing the Scheme. The three steps are (a) acquisition of property, (b) closure of houses, (c) demolition of houses, and the following Table sets out the history of these proceedings :—

Areas.	No. of Condemned Houses occupied at end of 1900.	1901.			1902.			1903.		
		Houses acquired.	Houses closed.	Houses* demolished.	Houses acquired.	Houses closed.	Houses demolished.	Houses acquired.	Houses closed.	Houses demolished.
Aylesbury Place	61	...	3	...	16	2	...	5	16	...
Garden Row ...	69	1	1	...	35	17	...	33	23	...
Roby Street ...	37	...	...	...	34	30	...	3	7	37
Baltic Street ...	52	1	...	...	14	13	...	33	16	...
Honduras Street	16	...	...	...	3	...	...	10	1	...
Total ...	235	2	4	...	102	62	...	84	63	37

Rebuilding.—Roby Street is the only area upon which demolition has been carried out. At the end of 1902 seven houses were still occupied. By May, 1903, five of them had been closed, and subsequently the remaining two were closed and the area entirely cleared. The County Council, for some time, had had building plans ready, and the tenders for these buildings (to be called the Wenlake Buildings) on the Roby Street area

* *Demolition* refers only to houses demolished under the Act by the County Council. It does not include "ruins."

were accepted by the County Council on December 8th, 1903. The cost is to be £18,861. [For particulars as to new buildings, &c., see *Report on Public Health of Finsbury*, 1902, p. 128.]

The Action of the London County Council.—

As I pointed out in my report for 1902 (see p. 137) there has been considerable delay in the completion of these two schemes which is due, as far as I am able to gather, to the somewhat cumbrous legislation of the Housing Act, which involves many different operations occupying a large amount of time. It is desirable that Members of the Council should have before them a brief statement respecting this machinery. I understand that, in particular, it is felt that delay has occurred in respect of the Garden Row Area (which includes the Roby Street area), and therefore, that area will be taken as an illustration of the legislative requirements common to all areas in the Metropolis, condemned under Part I. of the Housing of the Working Classes Act.

- (i) Official representation by the Medical Officer of Health (Secs. 4 and 5 of the Housing of the Working Classes Act, 1890).

[The Garden Row Area was represented to the Vestry of St. Luke by the Medical Officer of Health for that district, the late Dr. Yarrow, on July 31st, 1899.]

- (ii) The Local Authority (which under this part of the Act is for the Metropolis, the London County Council) shall take such representation into their consideration, and if satisfied of the truth thereof, and of the sufficiency of their resources, shall pass a resolution requiring a scheme to be made for the improvement of the area (Sec. 4).

[The Garden Row Area was duly considered by the London County Council, and a resolution approving a scheme was passed on October 29th, 1899.]

- (iii) The making of the scheme (including the provision of re-accommodation for persons displaced), maps, particulars, estimates, etc. (Sec. 6).

[The scheme for the Garden Row Area was prepared, and received the seal of the London County Council on November 7th, 1899.]

- (iv) Publication of advertisements in September, October, or November, for three consecutive weeks, to be followed, during the month next following the month in which such advertisements were issued, by the service of notices on owners, lessees, occupiers, etc. (Sec. 7).

[The necessary advertisements were issued in November, 1899, and the notices were served in December, 1899.]

- (v) The petition to the confirming Authority (in London, the Home Secretary) and if the confirming Authority approve the scheme, all particulars of which must be furnished, the appointment of a Local Inquiry. A representative of the Home Secretary is appointed to conduct the inquiry and report his findings to the Home Office (Sec. 8).

[The petition for confirmation of the Garden Row Scheme was forwarded by the County Council to the Home Secretary in January, 1900, and Mr. H. T. Steward was appointed to hold an inquiry as to the accuracy of the representation, which inquiry was held on March 29th and 30th, 1900.]

- (vi) After receiving the report of the inquiry, the confirming Authority may make a provisional Order declaring the limits of the scheme, and any other modifications required by the Home Secretary, and authorising such scheme to be carried into execution (Sec. 8).

[As a result of the inquiry and report by Mr. Steward, the Home Secretary forwarded a draft Provisional Order confirming the scheme. The Order proposed to modify the scheme in certain particulars. The modifications did not, altogether, receive the approval of the County Council, which, therefore, made representations to the Secretary of State, with a view of obtaining a reconsideration of the Order. Some correspondence ensued, and in May, 1900, a deputation of the County Council waited on the Secretary of State. In the

result, however, no alteration was made and the Provisional Order was issued by the Secretary of State on May 25th, 1900.]

- (vii) The Provisional Order does not become valid unless or until it has been confirmed by Act of Parliament, which is termed "the confirming Act." (Sec. 8 (6)).

[The Provisional Order in respect of the Garden Row Area was confirmed by Parliament in July, 1900. Subsequently to the confirmation of the scheme, the Home Secretary expressed a hope that the County Council would arrange that provision of re-housing accommodation should precede displacements as far as possible, "which was in accordance with the Council's usual practice."]

- (viii) **The Execution of the Scheme.**—When the confirming Act has been passed by Parliament, the Local Authority (*i.e.*, the London County Council) shall execute the scheme (Sec. 12). The process of execution of the scheme involves a number of steps required by the conditions of the Housing of the Working Classes Act.

- (a) Requests are served by the London County Council for the delivery of claims on all owners of property included in the scheme.
- (b) The interests in each case have to be valued, and negotiations entered into with the various claimants, up to the point of agreement or refusal.
- (c) The cases of agreement are settled between the London County Council and the claimant, the cases of refusal necessitate the appointment of an Arbitrator to settle the amount of compensation to be paid. By Schedule II (Art. 29) the Arbitrator cannot be appointed until after sealed offers have been made by the County Council in every case not settled by agreement. Outstanding cases, therefore, necessitate delay in the appointment of the Arbitrator.

- (d) After the awards of the Arbitrator have been issued, the titles to, and purchases of, the property concerned must be investigated and completed.
- (e) Thirteen weeks' notice must ultimately be given before any houses are taken for demolition (Sec. 14).

[In the Garden Row Area these requests were made subsequently to July, 1900, and by March 31st, 1901, 53 claims had been delivered, amounting in the aggregate to £114,918. During 1901-02, that is, up to the 31st March, 1902, the County Council reported that considerable progress had been made in the settlement of claims in respect of Garden Row Area. In all, 76 claims had been received, and as no less than 54 of these had been settled by agreement, it was anticipated that application might soon be made to the Home Secretary to appoint an Arbitrator to deal with the cases in dispute. While the negotiations for the settlement of claims was proceeding the County Council prepared plans of the dwellings to be erected on the Roby Street Area, which had been decided upon as the portion to be first cleared with a view to re-housing. The building plans were approved by the Home Secretary in December, 1901, and the working drawings were proceeded with in 1902. The Housing Committee of the County Council reported in 1902 :—

“By dealing with the Roby Street Area first the inconvenience to the inhabitants by the reconstruction of the areas confirmed in the scheme will be minimized, and dwellings will be provided, to which those displaced from the remaining areas can be transferred as it becomes necessary for them to move.”

During 1902-03, that is, up to the 31st March, 1903, the County Council reported that negotiations had still been proceeding and 76 claims had been received, of which 68 were settled by agreement, leaving 8 cases for arbitration. The Arbitrator was, therefore, appointed during 1902, and completed his awards in March, 1903. During the same year working plans of the dwellings to be erected on the Garden Row Area were also being prepared, and have since been submitted to, and approved by, the Home Secretary. In 1903, the whole of the Roby Street Area

was cleared, the last two houses being demolished in July, and the tenders for the new buildings (to be called the Wenlake Buildings) were accepted by the County Council on December 8th, 1903, and the laying of the foundations began on February 8th, 1904. From August, 1900, to December, 1903, $3\frac{1}{2}$ years, had been occupied in the process of the execution of the scheme, prior to re-building.]

II.—INSANITARY AREAS IN FINSBURY UNDER THE BOROUGH COUNCIL.

(Part ii. of the Housing Act and the Public Health (London) Act.

During the year a large amount of attention has been devoted to a number of small insanitary areas unsuitable for treatment by the London County Council, under Part I. of the Housing of the Working Classes Act. These have, therefore, been approached from the point of view of Part II. of the Act, which is applicable to all Sanitary Districts, and may be enforced by the Local Authority. It provides *inter alia* for the closure and demolition of buildings which are unfit for human habitation. In dealing with such houses the procedure to be adopted must depend upon a variety of circumstances. In some cases it is preferable to proceed under the Housing Act (Part ii.), in other cases under the Public Health (London) Act, which is also enforceable by the Local Authority. These two Acts furnish the Borough Council with considerable powers, of which it should avail itself if necessary.

Before advising the Council to put these powers into force, I have made it my duty to see the owner in each of the following areas, and have fully set before him, or his solicitors, the various defects of the property. Further, I have pointed out, where necessary in unmistakable terms, that unless the owner himself would sufficiently repair or close the properties in question, it would be necessary for me to proceed under the Acts above-mentioned. It has seemed to me that this method of first

approaching the owner in a personal way before issuing legal notices against him has considerable advantages to recommend it, and affords the owner ample opportunity of discharging his duties to his property and tenants. I have to report that in the following five areas in which this course has been adopted it has resulted in each case in the owner himself undertaking the necessary sanitary repair rather than the Local Authority. This is, in my judgment, as it should be. Property has its duties as well as its rights. In the event of non-compliance, or non-acceptance of responsibility for the insanitary conditions existing, it would, of course, be necessary for me to advise the Borough Council to proceed with strictness against such owners.

Particulars of these five areas appear in my Report for 1902 (p. 140), and it will therefore only be necessary to report present position and changes during the year.

Area A.—An area near Sermon Lane containing 12 houses and a population of 53. Closure and demolition was commenced and completed during 1902.

Area B consists of two small courts, Caroline Place and Kemp Place, Baker's Row.

The floors, walls and roofs were defective, the paving of the yards in a bad condition, no through ventilation for the houses, and defective drainage. The owners, while admitting the serious defects and insanitation, believed that they could remedy the condition of things by extensive repairs. Works have therefore been carried out extending over several months, and a number of the sanitary defects have been rectified. This attempt has not been made by my advice, and it remains to be seen how far the eight houses will be made really habitable. There can be no doubt at all that the property has been greatly improved. Wherever possible effort should be made to improve residential property rather than close it, and I view with satisfaction any such remedial works as these *if they are adequate and result in making houses habitable* within the meaning of the law.

The following are the works which were carried out :—

Ventilation of rooms improved ; ventilation under floors of ground floor rooms improved ; new floors to ground floor rooms ; roofs repaired ; roofs of w.c.'s renewed ; new dust-bins provided ; yard repaved ; sash cords to windows renewed ; rooms papered and ceilings whitened.

The Public Health Committee inspected these properties on April 28th, and approving the action which had been taken, resolved that no further steps were necessary at present in respect to the matter. The property has since changed ownership.

Area C was **Providence Place**, a blind court on the east side of Baker's Row, Farringdon Road. It consisted of ten houses, five on each side. In the front of each house was a small fore-court, railed in. A high wall existed at the end of the court opposite to the entrance. The houses contained two rooms, one above the other. There were no back windows and no through ventilation to any of the houses. At the back of each house stood business premises. The water-cistern was at the end of the court, opposite the entrance, and at its side stood two metal dust boxes. These were for the common use of all the houses in the court. In the fore-courts, which were unpaved, there were small subterranean cellars with approaching stone steps. In these places were situated the sanitary conveniences for each house. The only means of light and ventilation was derived from the staircases which lead down to them. There were 52 persons resident in Providence Place.

The structural conditions of the houses in this Place were of such a nature as to make palliative alterations of no avail. The only improvement that could be made was closure and demolition.

I approached the owners and laid before them all the facts, stating that unless they would take action themselves it would be necessary for me to do so, and that with promptitude and strict-

ness. Finally, the owners, resolving to act themselves, decided (in September, 1902) to close and demolish the property at the end of 1903. Part of the agreement was to maintain the property in sufficient sanitary and habitable repair pending closure. I have now to report that the owners have fulfilled their contract, and this objectionable and insanitary *cul de sac* exists no longer. It was altogether beyond repair, and its removal is a decided sanitary improvement. Fifty-two persons were displaced, of whom 29 found accommodation in the vicinity.

Area D is **Easton Place**, which opens to the South-west end of Easton Street. The entrance is under two arches, passing under Nos. 2 and 3 of Easton Place. The court in front of the houses is about 90-100 feet long and 7 feet wide. The small yard at the back of each house is about 3 feet by 11. In these back yards stand the sanitary conveniences, but the dustbins stand in the front court. There are nine houses, consisting in the main of a ground floor of one room, and a first and second floor, each of one room. The cubic capacity of the rooms is from 700-800 cubic feet. The back ventilation was very limited, consisting only of a small window or skylight on each staircase. The floors were unventilated, and the houses were worn out and damp. In some instances the drainage of the houses was also defective. The number of people resident in the court was about 70.

I laid these facts before the owner and informed him that unless he was prepared to carry out extensive repairs it would be necessary to close the premises under Part II. of the Housing Act. The owner selected to repair and the following works were carried out:—

Drains taken up and relaid; ventilation under floors provided; yards repaved; roofs and gutterings repaired; sanitary dustbins provided; flooring and stair treads repaired; sash cords to windows renewed; dampness of walls remedied; walls and ceilings of houses cleansed, repaired, papered and whitewashed.

The Public Health Committee inspected the property on April 28th, and approving the action which had been taken, resolved that no further steps were necessary at present in respect to the matter.

Area E is a square of property bounded by York Road, Ironmonger Row, Lever Street and Hull Street, the outside of the square consisting of about 30 houses. Inside the square of property stood eleven cottages and a ginger-beer factory. The cottages constituted Garden Court and Charles Court, entered by narrow passages from Hull Street. All the houses in this property were old and worn out, with many defects, but particularly was this true of the two small courts. These, with the ginger-beer factory, were also unsatisfactory in that they prevented light and air gaining access to the backs of the houses facing the outer sides of the square.

These facts, as in the previous areas, were laid before the owners of the property, and arrangements were come to by which the whole of the property is to be rebuilt in the course of two or three years. But in order to improve the houses on the outside of the square at once, the inside of the square was to be cleared during 1903.

I have to report that the owners fulfilled their contract with me and these eleven cottages (population 81) were closed and demolished during 1903. The operations were completed and the ground inside the square cleared by July 21st, 1903. Charles Court consisted of six cottages occupied by 44 persons. Each house contained three rooms one above the other. There were no basements and only small back yards (5 by 11 feet). There were many sanitary defects. The houses were empty and closed at the end of April, and the owner found accommodation for all the displaced tenants. Garden Court consisted of five cottages, two of which contained three rooms and three of which contained two rooms. The number of occupants was 37. These houses were also empty in April, and accommodation was found for the

tenants. Both Courts and the contained houses were therefore closed by the end of April, and subsequently demolished.* In due course the shell of the square will also be cleared.

Summary of these five small Areas. Three of these areas have been closed and cleared. Thus 33 insanitary houses have been demolished and 186 persons have been displaced. Sixty of these persons found fresh accommodation in the Borough and about 73 more elsewhere, mostly in the vicinity.

Two areas have been altered, repaired and made habitable, including 17 houses accommodating about 110 persons.

Insanitary Areas now under consideration.—In addition to the above 10 areas upon which work is now being carried out, there remain in the Borough several other insanitary areas which have received attention. In respect to two or three of them negotiations are still proceeding, and it would be undesirable to enter into details in the present report.

Dwelling-houses closed in 1903.—In addition to the closures on the insanitary areas or on account of insanitation, there have been a number of dwelling-houses closed by their owners for reconstruction on the sites of premises for commercial or industrial purposes. As I have pointed out elsewhere, the Borough tends to become more and more a commercial district and dwelling-houses are being superseded every year by business premises. How rapidly this is taking place will be seen in the following returns.

During 1903 dwelling-houses have been closed in the following streets :—

* I possess particulars as to each house, its measurements, conditions and defects, and as to each family of tenants, how long they had resided there, whither they had removed, and the nature of their employment.

Streets.	No. of Houses Closed.	No. of Persons Displaced.
Clerkenwell Green	3	65
Goswell Road (L.C.C.)... ..	12	56
Compton Street	1	8
St. John Street Road	3	20
Percival Street	2	3
Great Percy Street	6	25
King's Cross Road	2	7
Collier Street	1	8
Rodney Street	2	20
Moreland Street... ..	16	173
Red Lion Market	2	18
Hill Street	3	27
Finsbury Square	2	6
Great Arthur Street	4	31
Featherstone Street	3	19
Wilson Street	1	5
Leonard Street	2	3
Bath Street	2	12
Central Street (L.C.C.)... ..	6	30
Ironmonger Passage	1	4
Mitchell Street	3	35
Bartholomew Square	3	42
South Place	1	6
Total	81	623

All these dwelling-houses have been closed in order to make room for business premises or street widenings. This table does not include any closures for insanitary reasons. Most of the closures, it will be seen, occur in the southern portion of the Borough contiguous to the City of London. Only 11 houses (or 13 per cent. of the total closures) have taken place in the northern part of the district. No evidence could be more complete of the change which is proceeding year by year in the character of the Borough than the facts disclosed in these figures. The total record for 1903 is as follows :—

	Houses closed in 1903.	Persons Dishoused in 1903. (Approximate Number.)
Five Insanitary Areas (L.C.C.)...	59	593
Insanitary Closures (F.B.C.) ...	21	133
Closures for Commercial reasons, Street Widening, &c.	81	623
TOTALS	161	1349

Last year 140 houses were closed and 839 persons were dishoused ; the total for the two years is therefore 301 houses and 2,188 persons. It is unnecessary to add that there are considerable changes taking place in the use of house property, *e.g.*, private dwelling-houses being transformed into business premises without closure or demolition of houses, and which are not included in the above returns.

Lastly, we have endeavoured to trace the destination of the removals in the closed properties under our jurisdiction, that is to say, the removals from the closed areas C and E and from the houses closed for street improvements, &c.

Houses Closed.	Number of Persons removed into Houses elsewhere in Finsbury.	Number of Persons removed out of Finsbury.	Total removals traced.	Removals not traced.	Total.
From Area C (F.B.C.)	29	23	52	—	52
From Area E (F.B.C.)	31	50	81	—	81
From houses closed owing to street improvements, commercial invasion, etc.	331	207	538	87	625
Totals ...	391	280	671	87	758

It will be remembered that the total removals from the insanitary areas under Part I. (London County Council) during 1903 was 593, and the whole total for the year is, therefore, 1351. From the above table it will be seen that of the removals traced 51 per cent. of the persons remained in Finsbury.

III.—THE MAINTENANCE OF SANITATION IN HOUSE PROPERTY.

The sanitary supervision of existing houses is one of the most important parts of the housing question in Finsbury. It cannot be doubted that the problem of housing in London is what it is to-day very largely indeed because in the past strict sanitary supervision of existing houses has been neglected. This sanitary supervision, to be effective, must be two-fold in its application, namely, it must deal with house structure and sanitary maintenance (houses let in lodgings, house to house inspection, etc.) and with overcrowding of persons. During 1903 a large amount of time has been devoted to this subject. For convenience it may be reported in sections as follows:—

1. **Houses let in Lodgings, etc.**—When the Borough was formed there were a number of houses let in lodgings, registered under Bye-laws of Section 94 of the Public Health (London) Act, 1891. Bye-laws first came into force in this district in 1897, and from that year to 1900 the total number of houses registered in all the constituent parts of the new Borough was 327. During 1901 new Bye-laws had to be framed. After considerable discussion and amendment these Bye-laws were ratified by the Local Government Board in November, 1901, and they are now in force. Provisions exist in the Bye-laws—

- (a) For fixing the number of persons who may occupy a house or part of a house which is let in lodgings or occupied by members of more than one family ;
- (b) For the registration of houses so let or occupied ;
- (c) For the inspection of such houses ;
- (d) For enforcing drainage for such houses, and for promoting cleanliness and ventilation in such houses ;
- (e) For the cleansing and lime-washing at stated times of the premises ;
- (f) For the taking of precautions in case of any infectious disease.

The two main objects of the Bye-laws are the maintenance of sanitation and cleanliness and the restriction of overcrowding. The former is attained by a variety of Bye-laws (9-17), and the latter by Bye-laws 3 and 4, which lay down the following standard :—

- 3. The landlord of a lodging-house or a lodger therein shall not knowingly cause or suffer a greater number of persons than will admit of the provision of *three hundred cubic feet* of free air space for each person of an age exceeding ten years, and of *one hundred and fifty cubic feet* of free air space for each person of an age not exceeding ten years to occupy, at any one time, as a *sleeping apartment, a room which is used exclusively for that purpose*, and which is under the control of such landlord or which has been let to such lodger respectively, as the case may be.

4. The landlord of a lodging-house or a lodger therein shall not knowingly cause or suffer a greater number of persons than will admit of the provision of *four hundred cubic feet* of free air space for each person of an age exceeding ten years, and of *two hundred cubic feet* of free air space for each person of an age not exceeding ten years, to occupy, at any one time, as a sleeping apartment, *a room which is not used exclusively for that purpose*, and which is under the control of such landlord or which has been let to such lodger respectively, as the case may be.

During 1903 we have inspected and placed on the Register 170 houses, which, with 939 previously registered, makes a total of 1,109 houses in the Borough. Houses in 120 streets and courts are now registered. During the year the usual inspections have been made, and a number of notices served. In the spring the registered houses were cleansed, in accordance with the requirements of the Bye-laws. Overcrowding also has been reduced in many registered houses, and there is a substantial improvement in their general sanitation.

There are still remaining out of the 9,000 houses in the Borough a number which ought to be registered, and these will be proceeded with in due course. In a general way it may be said that it is tenement houses of the poorer class which require registration. Such houses are exempt when the landlord resides upon the premises, and the letting by such landlord is to not more than one lodger.

Legal Proceedings under the Bye-laws.

During the year it has been necessary to take proceedings under the Bye-laws for Houses let in Lodgings. Such proceedings may be recorded briefly:—

(1.) **Failure to cleanse Registered Houses (Bye-law 15).**—Twenty-one summonses were issued under this Bye-law. Five were dismissed by Mr. Mead; two were withdrawn, and in 14 we

obtained convictions. Total penalties and costs, £25 0s. 6d. With regard to the dismissed cases it would be desirable that a note should be added, as the circumstances were exceptional.

The object of the Local Government Board in this Bye-law is clearly to lay down a definite time limit for cleansing. If this were not so it is evident that the plea would be urged that such a house had been cleansed at some anterior period during the year, and therefore did not require it again. As drawn, the Bye-law lays down a fixed point for cleansing, and so becomes *automatic*, and does not require periodical inspection to determine when it should be cleansed. In tenement houses of this character it is desirable in the interests of the public health that cleansing should be done annually, without periodical inspection, and at a fixed period. The Local Government Board's model Bye-law on this point lays down one week as a standard. Our own Bye-law (No. 15) lays down any period within the month of April. It was ratified by the Board at our express request as we considered four weeks a more reasonable period within which the cleansing should be done.

In reference to the particular cases dismissed, the first was that of Mr. J. Maley. This gentleman stated in Court at Worship Street that he was the owner of 200 houses, and that he had 13 tenement houses in this Borough registered under these Bye-laws. The learned Magistrate, Mr. Mead, took up the attitude that to ask an owner to cleanse 13 houses in one month was unreasonable, and to require all the registered houses in the Borough to be cleansed in one month was also unreasonable. On this assumption he held that this Bye-law was "bad, invalid, and unreasonable," and he accordingly dismissed this case and the three other cases which were down for hearing that day (May 28th). Mr. Mead had been further misinformed that there were 2,000 registered houses in Finsbury. In point of fact there were 1,020. After consultation with the Solicitor (Mr. Ricketts) we deemed it desirable to wait over May 29th, to see what judgment the learned Magistrate at the Clerkenwell Police Court (Mr.

Baggallay) would give under this same Bye-law. In the event he found for the Council in each of 5 cases, which were exactly similar to the case of Mr. Maley, imposing penalties or costs in each case. This judgment is in accord with the usual practice, and Mr. Baggallay held that the Bye-law was valid and good law, even though Mr. Mead's objections had been fully stated before him by Mr. Ricketts. It thus appears that the judgment of the learned Magistrate, Mr. Mead, is somewhat exceptional, and the Solicitor and myself decided, on a consideration of all the circumstances of the case, that we should not put the Council to the expense of an appeal in this instance. I may add that the dismissed cases were prosecuted on my advice, not because of any personal opinions whatever, but because I had no option under the law except to advise prosecution. During the last five years we have obtained 60 convictions under this Bye-law, and these four dismissals are the first which have occurred. I reported the facts to the Local Government Board.

On June 5th, three other precisely similar cases under Bye-law 15 were heard by Mr. d'Eyncourt at the Clerkenwell Police Court, who also convicted in each case, inflicting penalties and costs. In this case, also, Mr. Ricketts stated to the learned Magistrate the particulars of Mr. Mead's judgment in the case of the Council against Maley. Hence all the facts of the case were before the Court, and judgment was again given in support of the Council's Bye-laws.

(2.) **Overcrowding of Registered Houses (Bye-law 4).** Ninety-eight cases of overcrowding in registered houses came to our knowledge during the year. Seven prosecutions have taken place, one was withdrawn and the remaining six resulted in convictions. Total penalties and costs £13 12s. 0d. It should be added that in addition to these 14 prosecutions for overcrowding, under Bye-law 4, there were other cases of overcrowding under this Bye-law which were abated under notice without prosecution.

2. **House to House Inspection** is a second means for attaining the ultimate object of sanitation in house property. By this arrangement houses, whether registered or not, are periodically inspected and a complete sanitary survey thus carried out. Each inspector undertakes this work in his own sanitary district. When sanitary defects are present notices are at once served for their repair. The facts obtained are entered in the House Record Book. In this register are particulars as to owner, mode of occupation, cubic space, conditions of sanitation, drainage, &c. This record is constantly of great service in the work of the Department, and of considerable permanent value. During 1903 the systematic house inspections thus made numbered 1,447. There are in the Borough about 9,000 residential houses.

3. **Overcrowding.**—In the third place, regular work is being done in the reduction, as far as known and as far as practicable, of any nuisances arising by reason of overcrowding. The prevalence of overcrowding in Finsbury in 1901 was considered in some detail in the Housing Report issued by the Medical Officer during the year (see pp. 57–67), and it will therefore be unnecessary to enter into the facts there set forth. Since the publication of that Report the Census Report for 1901 has been issued (in 1902), and contains figures and facts concerning the degree of overcrowding existent in Finsbury. The chief facts respecting these returns are as follow :—

The total population of the Borough is 101,463. The number of houses is 9,280, and hence the number of persons per house is 10·9. This is only a relative figure on account of the “model dwellings,” for which the census enumerators return “separate blocks” as *houses*. But even with adjustments, the return of persons per house comes out at 9, as compared with the London average of 7·8 per house. The Borough of Finsbury unfortunately occupies the unenviable position of being one of the most “overcrowded” districts of London. The explanation of this will be found in relation to house property (the increase of commercial premises over dwelling-houses) and the transition stage in which Central Districts, and particularly Finsbury, find themselves.

The Census Report gives the following figures in respect to the occupiers of tenements of less than five rooms:—

	Rooms in tenement.	Tenements of less than 5 rooms.	PERSONS PER TENEMENT.											
			1	2	3	4	5	6	7	8	9	10	11	12 or more
Total tenements, 24,097.	1	6364	1993	2144	1250	648	226	73	20	6	3	1	...	...
	2	7882	283	1554	1629	1561	1258	889	441	173	77	15	2	...
Tenements of less than 5 rooms, 20,515.	3	4233	68	440	624	708	731	604	497	315	149	66	23	8
	4	2036	24	155	253	346	331	272	251	171	111	75	34	13

The proportion of tenements with less than five rooms averages 65·9 per cent. of the total number of tenements in the County of London. It is lowest in Lewisham (30·9), and highest in Finsbury (85·1). The proportion of single room tenements (which averaged 14·7 per cent. in all London), ranges from 3·5 per cent. in Lewisham to 26·4 in Finsbury and 27·0 in Holborn. Hence, Finsbury is characterised more than any other Borough in London by tenement dwellings of less than five rooms.

When we turn to the inhabitants of these tenements, we find that as many as 77·4 per cent. of the whole population of the Borough live in tenements of less than five rooms; 14,516 persons live in single room homes (*i.e.*, 14·3 per cent. of the entire population); 31,482 persons live in two-room tenements (*i.e.*, 31·2 per cent.); 21,280 persons live in three-room tenements (or 20·9 per cent.), and 11,168 live in four-room tenements (or 11·0 per cent.). These figures are of grave import, and bear an intimate relationship to the health of the community.

During the year a large number of complaints of alleged "overcrowding" have been made to this Department, and each of these has received careful investigation. Most of such complaints proved to be unfounded or grossly exaggerated. In 138 cases however, overcrowding has been abated. This figure does not include 98 cases of overcrowding in registered houses.

We have also, as in 1901 and 1902, carried out systematic inspections by day and night in certain streets or areas known to be overcrowded. For example, we have again made a thorough night inspection of Bastwick Street (June 24th, 1903). We visited 34 houses comprising 133 occupied tenements in which 357 adults and 169 children, or a total of 526 persons, were living. Twenty nine of these tenements or 21·8 per cent were overcrowded as judged by Bye-law 4 (see p. 145).

The results of our inspections and prosecutions in Bastwick Street are set out in the following table :—

Date of Night Inspection in Bastwick Street.	Number of Occupied Tenements Inspected.	Number of Overcrowded. (Bye-law 4).	Percentage of Overcrowding.
December 20th, 1901	64	47	73·4
February 25th, 1902	129	78	59·6
November 18th, 1902	87	38	43·6
June 24th, 1903... ..	133	29	21·8
January, 1904 (Day Inspection)	129	9	6·9

After the inspection of December 20th, 1901, we issued notices upon the owner of the houses in question. After the second inspection we issued summonses, and convictions and penalties were obtained (£15 18s. 0d.) After the third inspection we issued further summonses against the same owner, who was again convicted and fined (£10 8s. 0d.) After the fourth inspection, when we found overcrowding had been reduced by 52 per cent., we issued warning notices as to the 29 overcrowded tenements.

At the end of the year and during the first few days of 1904 a careful day-inspection of Bastwick Street was made. Thirty-seven houses were visited, and the numbers and ages of the occupants were obtained. The number of occupied tenements inspected was 129. Under Bye-law 4 only nine occupancies were found to be overcrowded, which gives a percentage of over-

crowding of 6·9. I have reason to suppose that this figure is approximately correct, and if so, it indicates a satisfactory reduction in the degree of overcrowding. Broadly, as a result of our continued action in this street, overcrowding has been reduced in two year's time by 66 per cent. (from 73·4 to 6·9).

A night inspection was also made of 17 houses in the Pentonville District. In all, 68 occupied tenements were inspected, and 38, or 55·8 per cent., were found to be overcrowded. Notices were issued against the owners in all these cases.

The Italian quarter has also received some attention. Another night inspection has been there. We visited 23 houses, containing 95 occupied tenements, of which 48 or 50·5 per cent. were overcrowded. Exactly a year before we inspected the same properties at night and found 58·4 overcrowded. A number of notices were served on the owners and two summonses were issued in which convictions and penalties were obtained (£34s. 0d.)*

4. Common Lodging Houses.—The following seven common lodging-houses are situated in the Borough :—

Address.	Registered Owner.	Registered Number of Occupants.	Average Attendance.
Clerkenwell Green, 35	J. H. Claytor ...	73	70
Old Street, 97 ...	Wm. Cragg ...	82	70
Pentonville Road, 19	Mr. Callagher ...	23	20
Do. 21	Do. ...	36	30
St. John's Lane, 34 ...	Mrs. Hensman ...	51	36
Whitecross Street, 99	James Shuttleworth	98	80
White Lion Street, 57	Do.	98	90
		461	396

* The details of overcrowding ascertained in the night inspections will be found in the Minutes of the Council.

These Common Lodging-houses have been visited and inspected on various occasions during the year. Two in Middle Row, accommodating 39 persons each, have been closed during the year. There are no Salvation Army Shelters in Finsbury. There is one Church Army Asylum in Banner Street.

5. **Model Dwellings**, so called, are numerous in Finsbury. In 1900 I made a return of such buildings, and it is now desirable that a revised list should be printed. The present record is as follows :—

RETURN OF MODEL DWELLINGS

Situation.	Known As.	Built.
Seward Street	Bartholomew Buildings	1889
Rawstorne Street	Brewer's Buildings	1876
Brewer Street North	Buxton Buildings	1885
King's Cross Road	Cobden Buildings	1864
Rosebery Avenue	Coldbath Buildings	1889
Goswell Road	Compton Buildings	1876
Farringdon Road	Corporation Buildings	1865
Dufferin Street	Coster Dwellings	1889
St. John's Lane	Dundee Buildings	1877
City Road	Eagle Dwellings	1886
Farringdon Road	Farringdon Road Buildings	1873
Glasshouse Yard	Glasshouse Chambers	1888
Lever Street	Guinness Buildings	1893
Henry Street	Henry Street Buildings	1870
Brewer Street North	Hermitage Buildings	1884
Lever Street	Lever Street Buildings	1878
High Street	Fry's Buildings	
White Horse Alley	Market Buildings	1885
Little Sutton Street	Little Sutton Street Buildings	1891
Rosoman Street	Northampton Buildings	1890
Whitecross St., Roscoe St., &c.	Peabody Dwellings	1883
Farringdon Road	Peabody Dwellings	1884
Peerless Street	Peerless Buildings	1877
St. John's Square	Penny Bank Chambers	1879
Risinghill Street	Penton Residences	1875
North Street	Pollard Houses	1894
Rawstorne Street	Rawstorne Buildings	1884
Rodney Street	Rodney Residences	1875
Lever Street	St. Clement's Buildings	1881
Allen Street	St. Paul's Buildings	1890
Peters Lane	Smithfield Buildings	1883
Clerkenwell Road	Victoria Dwellings	1882
Winchester Street	Winton Houses	1894
Peters Lane	Hewett's Buildings	1876
Clerkenwell Close	Salisbury Buildings	1881

IN BOROUGH OF FINSBURY IN 1903.

Erected By	No. of Blocks.	No. of Tenements.	No. of Occupants.
City & Central Dwellings Company ...	17	298	1200
Worshipful Brewers' Company	6	46	168
Mr. Wright	4	28	139
Improved Industrial Dwellings Company	1	20	86
Artisans Dwellings Company	3	95	436
Improved Industrial Dwellings Company	26	321	1605
Corporation of City of London	9	183	1025
Purchased in 1891 by London County [Council	2	56	138
Royal Caledonian Society	1	25	150
Francis Howse	2	31	116
Metropolitan Association for Improved [Dwellings	10	256	1075
Mr. Cohen	1	25	121
Guinness's Trust	14	338	1336
Mr. Lacey	5	34	160
Worshipful Brewers' Company	1	8	30
Lever Street Trust	1	6	34
Mr. Fry	3	12	58
	1	16	56
Mr. Kennedy	2	50	238
Artisans Dwellings Company	16	468	2000
Peabody Donation Fund	33	843	3340
Peabody Donation Fund	11	228	830
Improved Industrial Dwellings Company...	1	72	268
National Penny Bank, Limited	1	17	75
Bannister Fletcher	4	30	154
East End Dwellings Company	3	55	195
Brewers' Company	6	24	100
Bannister Fletcher	3	30	162
London Laborers Dwellings Society, Ltd.	1	60	232
Mr. Haw	1	72	360
Mr. Couldrey	1	20	102
Soho & Clerkenwell Industrial Dwellings [Company	7	137	685
East End Dwellings Company	3	55	232
Mr. Hewett	1	13	33
	1	6	32
	202	3978	16971

6. **Underground Rooms.**—Under Sections 96 and 97 of the Public Health (London) Act, 1891, there have been 27 nuisances abated in respect to the occupation of underground rooms or kitchens.

General Conclusions.—As we have seen in a previous report* :—

1. The population of Finsbury reached its zenith between 1851 and 1861.
2. The number of *inhabited* houses were greatest in 1851.
3. Since these respective dates there has been a steady and uninterrupted decline both in houses and population. *But whereas the population has declined 21 per cent., the number of inhabited houses has declined 31 per cent.*

The chief decline in the houses occurred between 1881 and 1891, whilst the chief decline in the population took place in the decennium between 1871 and 1881. These changes occurred in the most marked degree in those portions of the Borough in immediate proximity to the boundary of the City of London. Such changes inevitably resulted in overcrowding, and there was, in fact, a greater number of persons per house in Finsbury in 1901 (10·9), as compared with London as a whole (8·0).||

From these figures it is clear (i) that the population of Finsbury is a declining one ; (ii) that the density of population *per acre* is a declining one ; but (iii) that the density *per house* is an increasing one. Time and the ordinary process of events, if coupled with strict sanitary supervision and enforcement of the Public Health Act, will ultimately solve the *insanitary* Housing problem in the Borough. But in the meantime, and during the transition period, the problem is an acute one.

There are two further points which must not be ignored if the whole question is to receive adequate consideration. First, in a Borough like Finsbury, the industrial classes may be divided in

* Report on the Housing Question in Finsbury (1901) pp. 58-67.

|| Ibid pp. 64 and 65.

a general way into two divisions, those able to live away from their work and those not able to do so. There is evidence to show that the first group is a rapidly increasing one, and the need of many of the workers to live near their work is a diminishing need. Particular will this be so, as means of transit are improved.* Notwithstanding this, there will be for many years to come a considerable population of persons who must, or will, live near their work. For this population who are immovable, accommodation must be found. Secondly, Central London inevitably tends to become like the City of London, namely, a place for business development and commercial premises. On this account the price of land and the cost of building dwelling houses on a large scale, to let at low rents, are absolutely prohibitive. The prices are such as can only be paid for commercial concerns. It is an inevitable change which it is in the main impossible to prevent. Rather is it desirable to meet the change and recognise it as an increasing factor in the future. It is as useless as it is undesirable to attempt to stem it. All it needs is guidance, supervision, and direction.

It is, of course, this change, the increasing value of land in Central London, which has led to the density of buildings per acre, and which of itself is an aggravation of the housing problem. Whereas the number of houses (dwelling-houses and business premises) per acre in the administrative County of London is approximately 8·2, in the Central Districts it rises to 19 and 21. It is obvious that this diminishes open spaces, and makes the building of more dwelling-houses in Central Districts impracticable. In Finsbury there are 19 houses per acre and there can be no doubt that this condition of things creates some of our chief difficulties, not only in the housing problem but in sanitation and Public Health work generally. The returns for London are as follows :—

* Without some improved means of transit (cheap and rapid) the carrying out of the provisions of the Housing of the Working Classes Act and the Public Health (London) Act, must involve the incurrence of considerable hardship upon persons it was the object of these Acts to assist, and in this and other ways, a satisfactory early solution of the Housing problem in Central London is largely impracticable and ineffectual.

BOROUGH.	Area in Acres.	In-habited.	Uninhabited.		Total Houses.	No. of Houses per Acre.
			In occupation.	Not in occupation.		
Shoreditch	657	12743	1150	252	14145	21·5
Southwark	1131	20878	996	508	22382	19·7
Bethnal Green	759	14006	357	324	14686	19·3
Finsbury	589	9280	1674	293	11247	19·1
Stepney... ..	1765	31462	1042	592	33096	18·7
City of London	672	3865	5762	437	10064	14·9
Holborn	405	4703	989	219	5911	14·6
Chelsea	659	8641	422	344	9407	14·3
Paddington	1356	17684	488	533	18705	13·8
Islington	3091	38645	830	687	40162	12·5
Fulham	1703	18534	199	634	19367	11·3
Battersea	2160	23462	267	403	24132	11·2
Bermondsey	1499	15817	473	290	16580	11·1
Lambeth	4080	41511	881	944	43336	10·6
Deptford	1562	15823	229	195	16247	10·4
St. Marylebone	1472	13536	762	702	15000	10·2
Poplar... ..	2327	22613	379	288	23280	10·0
Kensington	2291	22131	709	1141	22981	10·0
Hackney	3288	30634	524	479	31637	9·6
St. Pancras	2694	23715	1009	541	25265	9·4
Stoke Newington	863	7717	84	150	7951	9·2
City of Westminster	2502	18366	2427	1036	21829	8·7
Camberwell	4480	36671	554	754	37979	8·5
<i>Administrative County of London</i>	<i>74839</i>	<i>571768</i>	<i>24098</i>	<i>15971</i>	<i>611837</i>	<i>8·2</i>
Hammersmith... ..	2286	15198	355	286	15839	6·9
Hampstead	2265	11294	295	490	12079	5·3
Wandsworth	9129	37764	516	1732	40012	4·3
Greenwich	3851	14240	169	266	14675	3·8
Lewisham	7014	22750	380	1217	24347	3·4
Woolwich	8276	18086	176	234	18496	2·2

This table has been constructed from the Census Report, 1901.

The improvement schemes now in the process of being carried out (under the London County Council) will displace 1,700 persons. Other areas which are about to be, or are being, dealt with will displace two or three hundred more. There will also be other persons displaced owing to the substitution of warehouses and factories for dwelling-houses. At present, accommodation is to be provided in the Borough by the London County Council for the 1,700 persons displaced. And further accommodation in the Borough ought to be provided, if practicable, for some, at all events, of the remaining persons displaced.* These matters are receiving the consideration of the Housing Committee. But merely increasing the house accommodation is not the whole of the solution, or, indeed, the most important part of the solution, of the housing problem in Finsbury. To re-house large numbers of persons within some Boroughs may be the primary and essential remedy. In Finsbury, such a policy, on the part of the Local Authority, might seriously and permanently aggravate the evil conditions at present existing.†

The policy which has been adopted by this Department since 1901, is, in my judgment, that which, in the long run, will prove most efficacious and also most equitable. Expressed in a few words it is :—

1. The strict sanitary supervision and maintenance of existing houses.
2. The strict enforcement of the Public Health (London) Act, 1891, as it affects house property and overcrowding, as far as is compatible with justice and equity.

* The applicability of the method of enlargement and improvement of existing houses as carried out by Miss Octavia Hill in London, and by others in Glasgow, should have due consideration before houses are demolished as wholly irremediable, and before new houses are built.

† It will be understood that this remark does not apply to re-housing persons displaced by sanitary schemes under the Housing of the Working Classes Act, nor to re-housing in suburban or outside districts. But re-housing in Finsbury must almost of necessity be re-housing the very poor upon very costly land, and so eventually necessitating a large charge on the rates.

3. Action under Part II. of the Housing of the Working Classes Act for Houses and small areas which are beyond repair, when necessary (and where action possible under Part III).

4. The improvement in transit.†

† Housing Report, pp. 98-103.

E. FACTORIES AND WORKSHOPS

3. Action under Part II. of the Housing of the Working
Classes Act for Houses and small areas which are
beyond repair, with necessary land where action
possible under Part III.

4. The improvement in transit.

Housing Report, pp. 95-100

FACTORIES AND WORKSHOPS.

The Factory and Workshop Act, 1901, came into force at the beginning of 1902 and has thrown upon the Local Authorities a number of additional duties. Section 122 of the Act lays down that the Medical Officer of Health of every District Council shall every year report separately on the administration of the Act in factories and workshops in the district under his supervision, and transmit a copy to the Secretary of State for the Home Department. The portion of the Annual Report on the Health of the District is devoted to the subject, and within its pages will be found references to everything which has concerned the Public Health Department in 1903 in relation to factories or workshops. The only exceptions are continuous workshops and dairies, which come more properly in the section of the Report dealing with the Prevention of the Spread of Disease.

E.—FACTORIES AND WORKSHOPS.

The population of 1903 was 23,476 persons under 15 years of age. There may be set on one side as far as concerns factories and workshops, the number of persons over 15 years of age as being 28,711. Out of this number 22,022 are reported as employed, leaving a total of 6,689 workers, or nearly one-half of the male population. Abstracting 2,725 of approximately the same number of those employed in Government service, defence of the country, professional occupations, and agriculture, the number of labourers in a rough estimate of 3,964 persons employed in factories and workshops.

I have abstracted from the Census Report for 1901 a table giving the persons under each of the 24 headings of the Census Report, except "Farming," which occupies nobody in Factory and Workshop work. I have 27 classes of workers. The chief industries of Factory work under the Act and their various branches are: iron and goods, metals and machinery, jewelry and watchmaking, building, carpentry and joinery, furniture and domestic, skin and leather works, paper and printers, and dress and textile.

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It is well known that the population of the Borough of Finsbury is largely an industrial population. Out of the total census population of 101,463 there are 23,086 persons under 10 years of age. These may be set on one side as far as concerns factories and workshops. The number of persons over 10 years of age is therefore 78,377. Out of this number 28,669 are "retired" or unoccupied, leaving a total of 49,708 workers, or nearly one-half of the entire population. Subtracting 9,708 as approximately the total number of those occupied in Government service, defence of the country, professional and commercial occupations, and employers of labour, we get a rough estimate of 40,000 persons employed in factories, workshops or workplaces.

I have abstracted from the Census Report for 1901 a table giving the returns under each of the 23 headings of the Census Report, except "Fishing," which occupies nobody in Finsbury. Hence we have 22 classes of workers. The chief industries of Finsbury come under domestic and hotel service, conveyance of men and goods, metals and machinery, jewellery and watchmaking, builders, carpenters and plumbers, furniture and decorations, skin and feather works, paper and printers, and dress and textile fabrics.

Occupations of Persons in Finsbury over 10 years of age.	Males.	Females.	Total.	Percentage on Adult Population.
i. General or Local Government	942	43	985	1'2
ii. Defence of the Country ...	127	—	127	0'2
iii. Professional Occupations ...	787	559	1346	1'7
iv. Domestic and Hotel Service, Charwomen and Laundresses	738	4117	4855	6'2
v. Commercial Occupations ...	1610	291	1901	2'4
vi. Conveyance of Men, Goods, &c.	6863	173	7036	8'9
vii. Agriculture, Nurserymen and Florists	35	53	88	0'1
viii. Mines and Quarries	66	7	73	0'1
ix. Metals, Machinery, &c. ...	2613	213	2826	3'6
x. Jewellery, Watch Making, &c.	1965	375	2340	2'9
xi. Building, Carpentry, Painters, Plumbers, &c.	2767	1	2768	3'5
xii. Furniture and Decorations ...	1738	352	2090	2'7
xiii. Brick, Potteries, Glass, &c. ...	354	26	380	0'5
xiv. Chemical Works	353	266	619	0'8
xv. Skins, Leather, Hair and Feathers	682	747	1429	1'9
xvi. Paper, Printers, and Stationery	3367	3143	6510	8'3
xvii. Textile Fabrics	574	581	1155	1'5
xviii. Dress, Tailors, Milliners, Seam- stresses, Shirt Makers, Boot and Shoe Makers, Artificial Flower Makers, &c. ...	1517	3840	5357	6'9
xix. Food, Tobacco, Restaurants, &c.	3204	1289	4493	5'7
xx. Gas, Water and Electricity ...	183	1	184	0'2
xxi. Other, General, and Undefined Workers and Dealers ...	2630	516	3146	4'1
xxii. Without Specified Occupations or Unoccupied	5238	23431	28669	36'6
Totals	38353	40024	78377	100'0

It is unnecessary to discuss this Table, although it is full of interest. It may, however, be stated that of the females over ten years of age, who work in Finsbury, 61·7 per cent. are unmarried, and 25·8 per cent. are married or widowed (which is the fifth highest percentage in London). The total, 78,377, includes all adult persons and also all children who are at work. It does not include children at school or infants (roughly 23,000). It will be seen that a very large proportion of the persons in the Borough are engaged in unskilled or casual labour (*Vide* Nos. iv., vi., xix., xxi., xxii.). If we include unspecified occupations, probably as much as 50 per cent. are so employed. In section xxii. the total of 28,669 is a large one. It includes 297 persons retired from business, 56 pensioners, 477 "living on their own means" (what is called "independent"), and 27,839 "without specified occupation."

The largest percentage of occupied persons is found to be in the class of those engaged in the conveyance of men and goods. The Borough contains several of the great carrying firms such as Messrs. Carter Paterson, MacNamara, etc., who possess large stables of 800 or 1,000 horses each. The next most common occupation in the Borough is in relation to printing, papers, or stationery.

The following Table shows the various trades and occupations carried on in workshops and workplaces in the Borough of Finsbury which are now on the workshop register of this Department:—

Trade or Occupation	No. of Workshops	No. of Workplaces	Total
Conveyance of men and goods	10	10	20
Printing, papers, or stationery	10	10	20
Other trades and occupations	10	10	20
TOTAL	30	30	60

Watchmakers and Repairers	86	Book-edge Gilders	12
Jewellers	75	French Polishers	12
Cabinet-makers	68	Skirts and Shirts	12
Engravers and Chasers ...	68	Blouse-makers	11
Box and Packing-case makers	63	Brush-makers	11
Tailors	63	Glass-blowers	11
Bakehouses	62	Instrument-makers	11
Stick-makers and Mounters ...	56	Stationers	11
Leather Goods	55	Wood and Ivory Turners ...	11
Builders, Joiners, &c.	42	Coppersmiths	10
Furriers	37	Gold and Silver Chain-makers	10
Gilders and Platers	34	Opticians	10
Laundries	30	Glass-silverers and Bevellers	9
Clock, Jewel, and Instrument Case-makers	28	Pipe-makers and Mounters ...	9
Necktie-makers	28	Dial-painters	8
Artificial Florists	24	Druggists and Perfumers ...	8
Boot and Shoe-makers ...	24	Embroidery	8
Stables	24	Metal-workers	8
Goldsmiths and Silversmiths	23	Paper and Rag-sorters ...	8
Mantle-makers	21	Pattern-makers, &c.	8
Milliners	21	Gold-blockers	7
Fancy Goods, Toys, &c. ...	20	Plaster and Cement Cast- makers	7
Coach-builders and Wheel- wrights	20	Cycle-makers	6
Hat and Hat-shape Makers ...	18	Firewood-choppers	6
Smiths	18	Lapidaries	6
Brass Finishers	17	Wire-workers	6
Dressmakers	17	Athletic Goods... ..	5
Picture-frame Makers ...	16	Electricians	5
Clock-makers	15	Linen Collar-makers	5
Feathers	14	Lithographic Artists, &c. ...	5
Glass-workers	14	Miscellaneous Trades (less than five of each)	265
Ironmongery	14		
Umbrella-makers	14	TOTAL	1651

We have also instituted a factory register which, though not a statutory requirement, will prove of considerable value.

The following Table shows the various trades and occupations carried on in factories in the Borough of Finsbury which are now on the factory register of this department :—

Printers and Stationers ...	29	Silk Weaving	3
Engineers	14	Stick Mounting and Making	3
Ivory, Bone & Wood Turners	10	Brass Finishing	2
Gilders and Platers	7	Coach-building	2
Cabinet-makers	5	Confectionery and Cocoa ...	2
Cycles and Motors	5	Distillery, &c.	2
Glass Workers	5	Leather Goods	2
Pianofortes	5	Marble-workers	2
Box-makers	4	Metal Polishers	2
Cigar and Cigarette Makers	4	Rubber Goods... ..	2
Laundries & Collar Dressers	4	Smiths	2
Book-binders	3	Surgical Instruments... ..	2
Foundries	3	Wheelwrights... ..	2
Mantle-making	3	Miscellaneous (1 of each) ...	39
Paper Goods	3		
Pipe-makers and Mounters ...	3	Total	177
Shirts and Pyjamas	3		

The difference between the above total (177) and the number of factories on the register (159) is accounted for by the various businesses carried on in the tenement factories.

1. Sanitary Conditions of Workshops.—

(a) **Cleanliness.**—Speaking generally, it may be said that the large workshops, which are in the majority of cases situated in comparatively new buildings, are kept in a clean condition. Many of these have to do with the making of dress materials or wearing apparel,

and cleanliness is essential to success in business. The same cannot be said of a great number of the small workshops situated in or at the back of residential houses. Many of these are of long standing and associated with the early industries of Clerkenwell and the parish of St. Luke, such as jewellery, watchmaking, plating, etc. Many of such workshops are not kept as cleanly as they might well be. This is partly due to deterioration of premises and decline of trade, and partly to their situation. It is almost impossible to maintain cleanliness in small sheds in back yards. Sometimes too, the processes themselves are of a nature to make cleanliness difficult. Perhaps 30 or 40 per cent. of these workshops are open to criticism on account of uncleanness. During the year 140 workshops in all parts of the Borough have been found to require notices for cleansing.

(b) **Air Space.**—Taking the standard of 250 cubic feet per head as laid down in Section 3 of the Act, it may be said that comparatively few Finsbury workshops have been found in 1903 to be overcrowded. In 28 cases it has been necessary to issue notices. In other cases a slight re-arrangement of workers has provided that each person shall have at least 250 cubic feet. In many of the large workshops the air space provided is liberal. In general, workshops in Finsbury are not ventilated by fan or other artificial means, but some are warmed with hot water pipes. Further, it may be said that as a result of the action of one of H.M. Lady Inspectors of Factories, a great deal has been done in the direction of providing means of warming workshops.

(c) **Ventilation.**—Here, also, it may be said that it is exceptional to meet with a workshop in the Borough which is not provided with sufficient means of ventilation. The first clause of the section (7-i.) requiring that “sufficient ventilation shall be maintained” would appear to throw some onus upon the workers themselves. We have, again, frequently found that even where ample means of ventilation is provided *workers themselves prevent ventilation* by not maintaining in operation the means provided.

(d) **Drainage of Floors where wet processes are carried on.**—The only “wet processes” carried on in Finsbury, speaking generally

are small laundries, of which there are a considerable number. In four instances it has been necessary to order more adequate drainage.

(e) Provision of Suitable and Sufficient Sanitary Conveniences.—

In respect to this matter we have found it necessary to take considerable action. Speaking of small workshops it must be said in the first place that these sanitary conveniences are situated in the back yards near the workshops as a rule, and do not gain in suitability on that account; in the second place, they were constructed for the use of the residents in the house, at one time a single family, and latterly several families living on the tenement system, and now have to serve also as the sanitary convenience for the workshop. Consequently we have one sanitary convenience, not infrequently ill-situated, acting for the house and workshop. This is undesirable, but it is impracticable in many cases to arrange otherwise. It is obvious how this state of things has come to be. One family in former days occupied the whole house and possessed a workshop, say, on the ground floor or in the back yard. Prosperity of trade necessitated the engagement of one or two additional workers not belonging to the family. Sometimes such workers lived in the house, in other cases they lived elsewhere. Eventually, perhaps, the owner himself moved out and sub-let his house in tenements, retaining the ground floor and the workshop. Thus we have the present position:—a tenement house containing three or four families, a workshop in the back yard, the employés of which come in from other districts. The sanitary convenience acts for both parties, the residents and non-resident workers. With regard to large workshops the chief difficulty is due to the fact that whole floors of, or rooms in, large buildings are let out without reference to, or arrangements for, sanitary convenience accommodation as regards the separation of sexes. In large firms owning entire buildings there is generally ample provision.

In enforcing section 9 of the Act we have not been without difficulties, which are not lessened by the facts that many of the industries in these small workshops are seasonal, and that the trade is occasionally in the hands of one family, both sons and daughters

working in the workshop. The standard we have used is that contained in the Order of the Home Office (February 4th, 1903)—

In pursuance of Section 9 of the Factory and Workshop Act, 1901, I hereby determine that the accommodation in the way of sanitary conveniences provided in a factory or workshop shall be deemed to be sufficient and suitable within the meaning of the said section if the following conditions are complied with and not otherwise:—

1. In factories or workshops where females are employed or in attendance there shall be one sanitary convenience for every 25 females.

In factories or workshops where males are employed or in attendance there shall be one sanitary convenience for every 25 males: provided that—

(a) in factories or workshops where the number of males employed or in attendance exceeds 100, and sufficient urinal accommodation is also provided, it shall be sufficient if there is one sanitary convenience for every 25 males up to the first 100, and for every 40 after;

(b) in factories or workshops where the number of males employed or in attendance exceeds 500, and the District Inspector of Factories certifies in writing that by means of a check system, or otherwise, proper supervision and control in regard to the use of the conveniences are exercised by officers specially appointed for that purpose it shall be sufficient if one sanitary convenience is provided for every 60 males, in addition to sufficient urinal accommodation. Any certificate given by an Inspector shall be kept attached to the general register, and shall be liable at any time to be revoked by notice in writing from the Inspector.

In calculating the number of conveniences required by this order, any odd number of persons less than 25, 40, or 60, as the case may be, shall be reckoned as 25, 40, or 60.

2. Every sanitary convenience shall be kept in a cleanly state, shall be sufficiently ventilated and lighted, and shall not communicate with any work-room except through the open air or

through an intervening ventilated space: provided that in work-rooms in use prior to 1st January, 1903, and mechanically ventilated in such manner that air cannot be drawn into the work-room through the sanitary convenience, an intervening ventilated space shall not be required.

3. Every sanitary convenience shall be under cover and so partitioned off as to secure privacy, and if for the use of females shall have a proper door and fastenings.

4. The sanitary conveniences in a factory or workshop shall be so arranged and maintained as to be conveniently accessible to all persons employed therein at all times during their employment.

5. Where persons of both sexes are employed, the conveniences for each sex shall be so placed or so screened that the interior shall not be visible, even when the door of any convenience is open, from any place where persons of the other sex have to work or pass; and, if the conveniences for one sex adjoin those for the other sex, the approaches shall be separate.

6. This order shall come into force on the 1st day of July, 1903.

7. This order may be referred to as the Sanitary Accommodation Order of 4th February, 1903.

A. Akers Douglas,

One of His Majesty's Principal
Secretaries of State.

Home Office, Whitehall,
4th February, 1903.

Some of the difficulty in arranging these matters equitably and suitably arises from the questions of leasehold which constantly crop up in a district like Finsbury in the midst of a transition period between a residential Borough and an industrial Borough.

During the year 35 notices have been served for insufficient sanitary convenience accommodation in relation to factories, workshops and workplaces, and 304 such conveniences have been cleansed and repaired. Insufficient sanitary convenience accommodation includes seven cases in which no convenience of any kind was provided. In one of these cases as many as 50 men were in attendance.

Summary of Defaults and Defects in Factories and Workshops.—It may be desirable here to summarize the results of the year's work in regard to the sanitary condition of workshops, &c. During the year 2,322 visits of inspection have been made to factories and workshops by the Workshops Inspector, and a large amount of work has been accomplished. In addition to this, the other inspectors in the ordinary course of their duties on their several districts have inspected 28 workshops. The chief matters arising in relation to this work are set out in the following table:—

**Summary of Defaults and Defects in Factories, Workshops and
Workplaces for which Notices were served during 1903.**

Dirty staircases, &c., cleansed	13
Damp and dilapidated workshops, repaired	9
Dirty workshops, cleansed	136
Overcrowded workrooms	28
Ventilation of workshops, improved	31
Sanitary conveniences, cleansed	102
Sanitary conveniences, defects remedied	202
Insufficient sanitary convenience accommodation	35
Defective soil pipes, repaired or reconstructed... ..	16
Yards cleansed, paved, or paving repaired	19
Defective sinks and gullies, repaired	11
Water-cisterns cleansed and defects remedied... ..	51
Accumulations of refuse and manure	11
Dustbins and manure receptacles defective or absent	87
Drainage defective, repaired or reconstructed	42
Rain-water pipes defective, &c.	13
Wash-house paving defective or undrained	4
Workshop roofs and gutters defective	9
Stable paving defective or undrained	10
Black smoke observations	4

In addition to the routine work of the inspector, systematic inspection has been made of the factories, workshops and workplaces in the following streets, &c.: St. John Street Road, King's Cross Road (part), Pentonville Road, White Lion Street, Chapel

Street, Sermon Lane, Penton Street, Henry Street, Hermes Street, Rodney Street, Collier Street, Southampton Street, and the whole of that part of the Borough north of Pentonville Road.

Last year it will be remembered that systematic inspection was made of streets around the Town Hall, and the above named series of streets formed the second district surveyed in regard to workshops, &c. In the latter part of 1903 a third district was taken, comprising: City Road (part), Singer Street, Tabernacle Street, Castle Street, Leonard Street, Cowper Street, etc. This third workshop survey is not yet complete.

This work during 1903 has resulted in the inspection of 119 factories and about 400 workshops and workplaces.

II. Special Sanitary Regulations for Bakehouses (see p. 182).

III. Home Work.—This has reference to persons employed by firms carrying out various simple trade processes at home. They are out-workers doing work for firms belonging to Finsbury or other Boroughs, but all of them working and living in Finsbury. Three hundred and two visits have been paid by the Workshop Inspector to 259 such homes. So that it will be seen that it is impossible to keep pace with this branch of the work, for it is evident from the Table on page 179 that we have at least 342 such out-workers doing work for firms in other Boroughs. In all probability also there are many of whom we have not yet received notification. Probably the home workers in Finsbury do not number less than 750.

Of the 259 homes visited, in which trade work is being carried on, it was found that in 81 places there was one person working; in 25, two persons; in 7, three persons; in 5, four persons; in 21 places, 5 or more persons working. In 58 cases enquiry elicited the fact that the home work was not done only by the out-worker himself but that he, in turn, employed others at his home to do the out-work. These cases, therefore, are in fact a sort of home workshop. Three others were found to be "domestic workshops." In three

cases also, it should be recorded, there was the occurrence of infectious disease in the homes of out-workers' obtaining work from Finsbury firms, but residing in other boroughs.

The following summary of results of inspection of out-workers' homes speaks for itself:—

No. of out-workers visited	...	...	...	...	...	...	259
Total visits made	...	...	...	...	...	...	302
No. in which wrong address was given or out-workers had removed	...	...	...	...	...	...	83
No. who had given up home work	...	...	...	...	...	...	37
No. in which work was done in factories	...	...	...	...	...	...	2
" " " " workshops	...	...	...	...	...	...	30
" " " " workrooms only	...	...	...	...	...	...	35
" " " " living rooms	...	...	...	...	...	...	58
" " " " bedrooms	...	...	...	...	...	...	19
" " " " bed and living rooms	...	...	...	...	...	...	27
No. of cases in which rooms were clean	...	...	...	...	...	...	132
" " " " dirty	...	...	...	...	...	...	7
" " " " overcrowded	...	...	...	...	...	...	4
Workshops in which no Abstract of Act was affixed	...	...	...	...	...	...	6
Sanitary defects on premises	...	...	...	...	...	...	8
Notices served	...	...	...	...	...	...	13
Total No. of persons employed at 139 out-workers :—							
Men	...	...	...	...	81	}	401
Women	...	...	...	...	317		
Young Girls	...	...	...	...	3		

IV. Outworkers' Lists.—Under Section 107 of the Act, employers in certain industries, namely: (*a*) making, cleaning, washing, altering, finishing and repairing of wearing apparel; (*b*) ditto for lace, lace curtains and nets; (*c*) cabinet and furniture making and upholstery work; (*d*) electro-plating; (*e*) making of files and (*f*) fur-pulling, have to keep, in prescribed form, lists of employés working outside the factory or workshop. Such lists have to be sent on or before February 1st and August 1st in each year to the Borough Council. In cases where such outworkers do not reside within the limits of the Borough in which they work, then their names and addresses are to be sent on to the Council in whose district they reside.

In Finsbury, during 1903, we have received 109 lists from 75 employers, 34 of whom have acted in accordance with the Act, and sent two lists during the year at or about the stated periods. Forty-one employers have sent once. It will be seen from the following table that but few employers comply strictly with the requirements of the Act. The 59 lists received February 1st to June 30th were practically all "first lists" due on February 1st, and the 39 lists received August 1st to December 31st, should have been sent in during July. So that, out of 109 lists, only 11 were received at the statutory periods. It has been necessary to take action under Section 107, sub-section (5), to enforce more accurate returns. The penalty to which employers are liable for contravening this requirement of sending in lists is £2, or for second offence £5. Reference is made to this matter subsequently. These 109 lists have chiefly been from firms concerned in the making or preparing of wearing apparel (section *a*). We have received several lists from fur-pullers (furriers) (section *f*). Sections (*c*), (*d*) and (*e*) have, generally speaking, furnished no lists. We have received 90 lists of outworkers from 18 Local Authorities in whose districts outworkers are employed who live in Finsbury. In this way we have obtained the names and addresses of 342 outworkers obtaining work from elsewhere but living and working in Finsbury. The following Table furnishes in brief the facts obtained under Section 107 of the Act:—

Lists received.	1903.		1902.	
	Number of Lists.	Number of Outworkers	Number of Lists.	Number of Outworkers
Lists received from Employers, Jan. 1st to Feb. 1st	3	79	5	97
Do. do. Feb. 1st to June 30th	59	1416	31	1056
Do. do. July 1st to Aug. 1st	8	300	6	118
Do. do. Aug. 1st to Dec. 31st	39	1103	11	264
Total	109	2898	53	1535
Lists received from 18 Local Authorities in 1903	90	342	84	218
Lists dispatched to 54 Local Authorities in 1903	351	2814	121	941

V. Inspection, Registration, &c.—A Register of Workshops and Workplaces is kept in the department which contains the names and addresses of the occupier, the trade or manufacture, the position and cubic capacity of the workrooms, the number of gas burners, the number of occupants permissible, the means of ventilation, and details respecting the sanitary arrangements. At the end of 1901, there were on the register 987 workshops, and during 1902 the new workshops placed on the register numbered 378, making the total number on the register at the end of 1902 1,365. During 1903, 350 workshops were added, 64 were removed from register for one cause or another, and the total now on the register is 1651. The following table sets out in brief the work done :—

Inspection, Registration, &c.	Nos. for 1903.
Workshops on Register at end of 1902	1365
Workshops placed on Register during 1903	350
Workshops removed from Register, 1903	64
Total Workshops on Register end of 1903	1651
Workrooms measured, 1903	512
Factories placed on Register, 1903	159
<hr/>	
Factories and Workshops inspected	777
Do. visited <i>re</i> various matters	181
Do. re-visits	1090
Outworkers' Homes, visits to	302
Total	2350
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COMPLAINTS RECEIVED AND INVESTIGATED—	
Personal	22
Anonymous	16
Trade Society	1
Per London County Council	6
Total	45
<hr/>	
HOME OFFICE CERTIFICATES.	
Notices received <i>re</i> existence of Workshops (Sec. 127, Sub-sec. 3)	65
Complaints (Sec. 5)	78
Limewashing needed	37
Ventilation	16
Sanitary conveniences	31
Overcrowding	1
Insufficient w.c. accommodation	9
Other matters	3
<hr/>	
Notices sent to Home Office Inspectors	66
No abstract affixed	40
Domestic workshops	3
Defects in factories	20
„ workshops	2
Illegal employment	1

On only one occasion during the year has any difficulty arisen from obstruction by refusal to admit the Inspector to premises in the course of his duties. On March 26th, Inspector Peverett visited 172-174, King's Cross Road, in the course of a systematic inspection of the district. The premises are occupied as a builder's supply stores. The occupier, Mr. C., refused to admit the Inspector, giving as his reasons the fact that no nuisance existed there, and that the Inspector had no power to enter as the premises were neither a factory, workshop or workplace. A letter was sent to Mr. C., and another visit made on April 7th, when admittance was again refused under the occupier's orders. The matter was reported to the Public Health Committee, and finally, on May 25th, the Inspector went to the premises, accompanied by a police constable (as authorised by Factory and Workshop Act, 1901, Sections 119 (b) and 125) and inspected the premises. On this occasion the occupier placed no obstacle in his way. The premises were found to be in good order.

VI. Legal Action.—During the year 1903 we have issued 372 intimation notices respecting factories and workshops and 83 statutory notices.

In 22 instances it has been necessary to issue summonses. Two of these were for smoke nuisances, and one for conveying offensive refuse at illegal hours, and the convictions are entered in the appendix. The other 19 cases were for various defaults as follows:—

Date.	Name and Address of Defendant.	Offence.	Result.
May 1st	M. Webb & Sons, 4, King William St., E.C.	For failing to repair a drain at 50, Pentonville Road	Fined £5 and £3 5s. costs.
July 10th	Perry Bros., 17-19, Bishops' Road, N.E.	For constructing w.c.'s. contrary to London County Council Bye-laws at 13-14, Gt. Sutton Street	Work done. Withdrawn on payment of £2 2s. costs.
Aug. 6th	R. Clarke, 41, Featherstone St., E.C.	For failing to repair a drain at the Iron Foundry, Featherstone Court	Work done. Ordered to pay £2 2s. costs.
Aug. 6th	Haward Bros., Iron Foundry, Featherstone Court	For failing to repair a drain at the Iron Foundry, Featherstone Court	Fined 1s. and £1 3s. costs.

October 15th. At Worship Street Police Court. Messrs. Basil Mitchell, Ltd., 34-38, Banner Street; Miss A. B. Morgan, 42-44, Golden Lane; Messrs. Myer & Turner, 1 and 2, Radsworth Street; Messrs. Waterer & Green, 8, Roscoe Street; and Messrs. H. T. Williams & Co., 89-90, Milton Street, for failing to supply to the Council a list of the names and addresses of persons employed by them as outworkers as required by the Factory and Workshop Act, 1901. The lists having been supplied and costs paid in each case (total £5 2s. 6d.), the summonses were withdrawn.

October 16th. At Clerkenwell Police Court. Messrs. Alexander & Co., of 3, Charterhouse Buildings; Mr. F. Linfoot, 159, St. John Street Road; Messrs. Jamieson & Co., 41, Charterhouse Square; Mr. J. H. Dobbs, 22, Charterhouse Buildings; and Mr. A. Attneave, 192-194, Pentonville Road, for failing to supply to the Council a list of the names and addresses of persons employed by them as outworkers. The lists having been supplied, and costs, £1 3s., paid in each case, the summonses were withdrawn.

October 22nd. At Worship Street Police Court. Messrs. Grimes & Co., 40, Banner Street; Messrs. I. Miller & Co., 108 and 110, Golden Lane; Messrs. Frederick Cooper & Co., 4, Bayer Street; Mr. Markheim, 88 and 90, Golden Lane; and Messrs. Hartley, Jackson & Co., 252, Old Street, for having failed to supply to the Borough Council, on or before the 1st of August last, a list of the names and addresses of persons employed by them as outworkers. The lists having been supplied and the costs paid (total £4 12s), the summonses were withdrawn.

BAKEHOUSES.

In 1902, a Special Report was furnished by me to the Borough Council, setting out the requirements of the Factory and Workshop Act, 1901 (Sections 97-101), in respect of underground Bakehouses. This report contained six chapters dealing with the following divisions of the subject, viz.: 1. The growth of Bakehouse Legislation. 2. The Factory Act, 1901. 3. What the Act means in practice. 4. The Underground Bakehouses in Finsbury. 5. The Above-ground Bakehouses in Finsbury. 6. The general

conditions existing in the Bakehouses in Finsbury. It is only necessary here to make reference to Chapter III., dealing with the practical administration of the Act.

The requirements of the Act in respect of underground Bakehouses, as insisted upon in Finsbury, may be stated as follows: First, there are statutory obligations of a hard and fast character (Sections 97-100), and secondly, there are statutory obligations which are to be interpreted by each Local Authority acting in its discretion. Under the first series are the following;

- (a) General fitness on sanitary grounds.
- (b) No sanitary convenience to communicate directly with the Bakehouse.
- (c) Water supply cisterns to be separate from water cisterns of sanitary convenience.
- (d) No drain or sewer pipe to have an opening in the Bakehouse.
- (e) Smooth impervious walls to be duly whitewashed or painted.
- (f) Bakehouse not to be used as sleeping places, etc.

These six requirements apply to all Bakehouses without option, and therefore they have been strictly enforced in the underground Bakehouses.

Under the second series it has been necessary to take all the facts and circumstances into consideration. The Public Health Committee appointed a Bakehouse Sub-Committee* to go fully into the whole subject. This Sub-Committee visited all the underground Bakehouses, and after deciding upon a general course of action, judged each case on its merits. The general principles kept in view were those set out in the Bakehouse Report,

* This Sub-Committee consisted of Alderman Howes, Councillor Dr. Evan Jones, Councillor Walter Smith and Councillor the Rev. J. E. Wakerley. In November, 1903, owing to the resignation of the last named, Councillor Gillett was appointed to fill the vacancy.

and were substantially the same as those subsequently approved by the Home Office.*

These principles were an amplification of Section 101 (4): "An underground Bakehouse shall not be certified as suitable unless the District Council is satisfied that it is suitable as regards (a) construction (b) light (c) ventilation and (d) in all other respects."

The Sub-Committee kept the following standard in view :—

1. **Construction.**—Capacity to be not less than 1,500 cubic feet, and height to be, as a rule, eight feet. Walls, floors and ceilings to be rendered hard, smooth, impervious and durable.
2. **Light.**—To be such that it is possible to read an official copy of the Abstract of the Factory Act between the hours of 11 a.m. and 3 p.m.
3. **Ventilation.**—To be through and effectual.
4. **All other respects.**—Separate and suitable accommodation for flour. Proper means of access. Troughs on castors. Provision for proper refuse collection. No animals. No overcrowding. General cleanliness.

With but few exceptions these requirements were absolutely insisted upon, and a large number of further recommendations were also made.

Result of Action of Local Authority.—Before the Factory and Workshop Act, 1901, came into force, there were in Finsbury 23 aboveground and 46 underground Bakehouses. Two of those above ground have now been closed, leaving 21 open, and as a result of the Act, six underground Bakehouses have been closed, leaving 40 in use. The total number of Bakehouses is therefore 61 as against 69.

* Annual Report of Chief Inspector of Factories and Workshops, 1902, pp. xxxii—xxxiii.

The record as to the underground Bakehouses is as follows :—

No. 1. 1, Wilmington Street. [Bakehouse Report, 1902, p. 22.]

Certificate granted January, 1904.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101 :—

Stall board glazed and hung ; troughs on castors ; independent ventilating shaft ; new flour store and galvanised iron flour shoot ; minor alterations.

No. 2 16, Margaret Street. [Bakehouse Report, 1902, p. 22.]

Certificate granted 9th September, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101 :—

Troughs fixed on castors ; floor lowered 18 inches and concreted ; ceiling lathed and plastered ; two new lights fixed in front wall with white tiled openings ; semi-prism pavement lights ; small grating in stall-board ; staircase repaired ; coal hole separated from the flour store by a whole fitting door ; second floor store, on level with yard, completely renovated and refitted ; yard roof removed to admit through ventilation ; minor alterations.

No. 3. 92, King's Cross Road. [Bakehouse Report, 1902, p. 22.]

Certificate granted 8th June, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101 :—

New gas pipes ; new windows to Bakehouse and in room in rear of Bakehouse ; water from main ; troughs on castors and one table on castors ; ceiling, walls, and staircase made level with Portland cement, and whitewashed ; new pedestal to water-closet ; new water taps ; new gully in yard, and also new gully in room at rear of bakehouse, premises re-drained throughout ; minor alterations.

No. 4. 42, Southampton Street. [Bakehouse Report, 1902, p. 22.]

Certificate granted 8th June, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101 :—

Two steel joists fixed under floor of shop ; new stall-board light to shop front with fanlight ; reflecting pavement lights fixed to whole of front ; new ceiling relathed and plastered ; walls made smooth with Portland cement and parian ; new floor to Bakehouse ; perforated zinc frames fixed in parting wall ; iron grating fixed in back wall ; Bakehouse whitewashed throughout ; shop, shop front, stairs, landings, etc., varnished and painted ; minor alterations.

No. 5. 30, Penton Street. [Bakehouse Report, 190, p. 23.]

Certificate granted 3rd December, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101 :—

Floor of Bakehouse dug out to make Bakehouse of proper height ; floor of Bakehouse concreted and rendered smooth with cement and large stone flags ; three large windows provided ; new brick wall with window between Bakehouse and store room ; walls cemented and limewashed ; new trough and table fixed on castors ; water from main ; doors provided with locks and windows ; floor and walls in store room repaired and cemented ; minor alterations.

No. 6. 45, Henry Street. [Bakehouse Report, 1902, p. 23.]

Certificate granted January, 1904.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

More effectual light and ventilation throughout ; complete renovation of walls and floor of flour store ; flour store area repaired ; new steps to step ladder ; minor alterations.

No. 7. 2, Chapel Street. [Bakehouse Report, 1902, p. 23.]

Certificate granted 9th September, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Top of ovens lowered and concreted, and ventilators and new stall-board light fixed to increase light and ventilation ; new stall-board light on side of Bakehouse ; glass floor light fixed into shop giving more light to Bakehouse ; floor of Bakehouse and areas re-concreted ; troughs fixed on wheels ; store room repaired ; efficient through ventilation provided for Bakehouse ; water-closet abolished ; coal hole properly cleansed and repaired ; minor alterations.

No. 8. 6, Barnsbury Road. [Bakehouse Report, 1902, p. 23.]

Certificate granted 8th June, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Skylight raised in front of oven from 10 ft. to 13 ft., to admit more light ; new grating in front of back oven for ventilation ; 24 sq. ft of glass inserted over front oven ; troughs on wheels ; door fitted between Bakehouse and flour store ; floor concreted ; minor alterations.

No. 9. 190, St. John Street Road. [Bakehouse Report, 1902, p. 24.]

Certificate granted 3rd November, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Floor lowered ; walls re-done ; new troughs on castors ; new stall-board light put in ; special flour store ; new staircase ; new cement floor in the room at rear of Bakehouse, together with the area therein ; minor alterations.

No. 10. 72, White Lion Street. [Bakehouse Report, 1902, p. 24.]

Certificate granted 9th September, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Floor concreted ; new stairs, and new enlarged staircase ; new grating, and windows altered with glazed tiles ; window enlarged on the west side of the Bakehouse with a bulk head fitted with glazed tiles ; new gas pipes with wire cages ; walls limewhited and cemented ; two new troughs with castors ; flour store limewashed ; water from main ; yard limewhited ; new water taps ; new cistern in water-closet ; minor alterations.

No. 11. 16, Tysoe Street. [Bakehouse Report, 1902, p. 24.]

Certificate granted 8th June, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101 :—

Floor of Bakehouse lowered 12 inches and concreted ; additional store room for flour provided ; ceiling of Bakehouse match-lined ; new stall-board lights ; water from main ; troughs placed on wheels ; entrance to Bakehouse from shop removed, and new access made from next house ; electric light installed ; galvanized dust-bin provided ; lavatory basins provided ; minor alterations.

No. 12. 53, Amwell Street. [Bakehouse Report, 1902, p. 24.]

Certificate granted 9th September, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101 :—

Re-lined the ceiling and painted it ; hacked off old plaster and replastered walls ; cut two new windows in wall ; re-paved the floor ; removed water-closet to the new area formed outside the Bakehouse ; minor alterations.

No. 13. 21, Amwell Street. [Bakehouse Report, 1902, p. 25.]

Closed, 1903.

No. 14. 17, Exmouth Street. [Bakehouse Report, 1902, p. 25.]

Certificate granted January, 1904.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101 :—

Stall-board front glazed and hung ; brickwork sloped and glazed ; doors to cellars ; walls hacked off and rendered in cement ; floor lowered, with new cement floor ; joists trimmed back ; light into yard enlarged, hung, and glazed bricked ; minor alterations.

No. 15. 14, Exmouth Street. [Bakehouse Report, 1902, p. 25.]

Certificate granted January, 1904.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101 :—

Stall-board front glazed and hung ; Chappuis' reflector hung ; new flour store ; back area glazed bricked and glazed ; Chappuis' reflector at back ; minor alterations.

No. 16. 88, Farringdon Road. [Bakehouse Report, 1902, p. 25.]

Certificate granted 8th June, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101 :—

Ceiling of Bakehouse match-lined ; stall-board openings refixed ; partition to separate flour store from Bakehouse ; receptacle for coal provided ; new coal cellar provided at the back ; two new doorways cut through wall, to admit extra light and ventilation ; troughs placed on wheels ; separate storage cupboard for salt, jars, &c. ; electric light installed ; dressing accommodation for men provided ; minor alterations.

No. 17. 11, Bowling Green Lane. [Bakehouse Report, 1902, p. 26.]

Certificate granted 9th September, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Troughs on wheels; shelves and cupboards removed; walls and ceiling plastered; flour store whitened; new door to coal cellar; floor paved with a hard, durable and impervious pavement upon a bed of concrete; window enlarged and hung; minor alterations.

No. 18. 35, Lloyd's Row. [Bakehouse Report, 1902, p. 26.]

Certificate granted January, 1904.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Walls hacked off and rendered smooth in cement; new match-lined ceiling; door to coal cellar; new cement floor; stall board glazed and hung; two glass lights in shop floor; troughs on castors; white tiles over oven; flour stored in back parlour; minor alterations.

No. 19. 61, St. John Street Road. [Bakehouse Report, 1902, p. 26.]

Certificate granted 8th June, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Oven put back 2 ft. and re-built with glazed tiles; new window above oven; ceiling of Bakehouse cleansed, match-lined, and painted; walls cleansed, cemented, and limewashed; wood-work painted; floor re-laid with flag stones; new troughs and benches with castors; new cupboard for tins, etc.; new galvanized dust-bin provided; flour store cleansed and limewashed; stairs repaired; minor alterations.

No. 20. 36, Corporation Row. [Bakehouse Report, 1902, p. 26.]

Certificate granted January, 1904.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Floor lowered; new cement floor; window enlarged and made to open; walls hacked off and rendered in cement; window put in partition wall between bakehouse and flour store; area in flour store tiled with white tiles and floor cemented; pavement lights fixed over area; troughs on castors; minor alterations.

No. 21. 1, St. John Street Road. [Bakehouse Report, 1902, p. 27.]

Certificate granted 8th June, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Old water cistern removed and water fixed from main; new cistern supplied for water-closet; re-levelling and plastering ceiling; re-levelling floor and cementing same; new sashes and frames to stall boards and enlarging same; providing 4½ ft. by 2 ft. prism pavement light; re-hanging Bakehouse doors; providing new partition with sliding doors to separate flour store; troughs on wheels; minor alterations.

No. 22. 4, Myddelton Street. [Bakehouse Report, 1902, p. 27.]

Closed, January, 1904.

No. 23. 32, Northampton Street. [Bakehouse Report, 1902, p. 27.]

Certificate granted 8th June, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Stall board 9 ft. long fixed, and two fan lights; two fan lights on either side of Bakehouse; prism pavement light fixed; copper and sink in corner of Bakehouse removed; troughs put on castors; minor alterations.

No. 24. 68, Compton Street. [Bakehouse Report, 1902, p. 27.]

Certificate granted 9th September, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Floor lowered 6 inches and properly concreted; back area made 2 feet wider and lined with Dutch tiles; front area provided with Dutch tiles; new iron grating made for front; large new bench on wheels, and three smaller ones with new frames; walls and ceiling lime-whited; new windows on staircase; minor alterations.

No. 25. 1, Compton Street. [Bakehouse Report, 1902, p. 28.]

Certificate granted 3rd November, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Floor lowered 18 inches; walls cemented; match-boarded ceiling, and painted same; two pieces of glass in floor of shop; new door to flour store; flour store re-paved; another window fitted in flour store; new staircase with railings to Bakehouse; considerable enlargement of the opening in the wall between the flour store and the Bakehouse; minor alterations.

No. 26. 14, Aylesbury Street. [Bakehouse Report, 1902, p. 28.]

Closed, 1903.

No. 27. 51, Rosoman Street. [Bakehouse Report, 1902, p. 28.]

Certificate granted 9th September, 1903

Alterations executed under Factory and Workshop Act, 1902, Sec. 101:—

Ceiling of flour store lathed and plastered; floor concreted; new stall-board fixed with sashes to fit; old stall-board taken down over oven and a window fixed instead of same; troughs on castors; minor alterations.

No. 28. 40, Red Lion Street. [Bakehouse Report, 1902, p. 28.]

Certificate granted 9th September, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

New ceiling to Bakehouse; floor dug up to make Bakehouse 7 ft. 6 in., and made smooth with concrete and cement; walls covered with Cristopal tiling; partitions formed with match-lining under stairs in basement; new stall-board provided; new ventilator fixed and carried to top of parapit; new staircase to Bakehouse; flour loft completely renovated; minor alterations.

No. 29. 56, St. John Street. [Bakehouse Report, 1902, p. 29.]

Certificate granted 3rd November, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Gas pipes and gas fittings refitted ; removing small insufficient trough against wall, and putting in strong table ; new treads to stairs ; repairing walls of Bakehouse ; repairing floor ; troughs on wheels ; stall-board lights improved ; removing sink and gully and disconnecting same from Bakehouse ; separate storage for flour ; minor alterations.

No. 30. 5, Goswell Road. [Bakehouse Report, 1902, p. 29.]

Certificate granted 3rd November, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

More light and ventilation ; water-closet built in with brick and cement, and a lobby made to entrance ; shaft bricked in with glazed bricks and cement fitted to Bakehouse for ventilation ; troughs on castors ; floor lowered ; minor alterations.

No. 31. 236, Goswell Road. [Bakehouse Report, 1902, p. 29.]

Certificate granted 3rd November, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Extra ventilation ; troughs on castors ; walls cemented ; Bakehouse thoroughly cleansed ; gully removed from Bakehouse ; minor alterations.

No. 32. 272, Goswell Road. [Bakehouse Report, 1902, p. 29.]

Certificate granted 8th June, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Stall-board in front of window cut away and an iron grill fixed to same ; new stall-board fixed the full length of shop ; flooring and joists under window cut away, also brick-work over oven, and constructing bulk head over same ; all old timbers made good ; walls, ceilings, etc., repaired, cleansed and whitewashed ; minor alterations.

No. 33. 2, Macclesfield Terrace. [Bakehouse Report, 1902, p. 30.]

Certificate granted 3rd November, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Renovated oven ; new ceiling ; walls rendered smooth in Portland cement and finished in parian with a trowled face ; new stall-board light ; steel joist provided to carry flooring ; floor dug out and concreted ; two new troughs on castors ; minor alterations.

No. 34. 124, Central Street. [Bakehouse Report, 1902, p. 30.]

Certificate granted 3rd November, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

New concrete floor ; ceiling match-boarded and walls cemented ; area under paving enlarged ; large pavement light fixed and sashes fixed in the stall-board for light and ventilation to basement ; new skylight fixed ; new flour store ; new coal cellar ; troughs on castors ; Bakehouse thoroughly cleansed ; minor alterations.

- No. 35. 148, Whitecross Street.** [Bakehouse Report, 1902, p. 30.]

Certificate granted 9th September, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Old bressemer taken out at back of Bakehouse and replaced with two steel joists; new floor and joists fixed 9 inches higher; two lensed pavement lights fixed at back, and new floor light in shop over Bakehouse, also new pavement light over open area; floor lowered 12 inches and concreted; new stall-board light fixed with sashes; ventilating shaft fixed at back of premises; Bakehouse ventilated at the eastern end; new step-ladder and hand-rail fixed to Bakehouse; new wheels to troughs; walls of Bakehouse and area rendered smooth with Portland cement and sand; ceilings and walls whitened; all woodwork painted; minor alterations.

- No. 36. 169, Whitecross Street.** [Bakehouse Report, 1902, p. 31.]

Certificate granted 9th September, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

New flooring over Bakehouse fixed with new joists 6 inches higher, and ceiling match-lined; old bressemer taken out and replaced with two steel joists; skylights fixed over ovens with sashes; Bakehouse floor concreted; troughs on wheels; gully sealed in Bakehouse; ceilings and walls of Bakehouse and flour store whitened; coal hole separated from the flour store by a wall and door; more light to the flour store; minor alterations.

- No. 37. 106, Whitecross Street.** [Bakehouse Report, 1902, p. 31.]

Closed 1904.

- No. 38. 61, Whitecross Street.** [Bakehouse Report, 1902, p. 31.]

Certificate granted 3rd November, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Stall-board glazed and hung; new cement floor; windows at back enlarged and made to open; new troughs on wheels; new flour store; prismatic light in yard; glass inserted in shop floor; minor alterations.

- No. 39. 109, Finsbury Pavement.** [Bakehouse Report, 1902, p. 31.]

Certificate granted 3rd November, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Fixing new ventilators; new skylight over dining-room; concreting Bakehouse floor and plastering walls, &c.; fixing cover over gully under sink; new gas connection to oven; troughs on castors and two new dough boards; new sink; minor alterations.

- No. 40. 29, Central Street.** [Bakehouse Report, 1902, p. 32.]

Certificate granted 8th June, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Ceiling match-boarded; windows provided in stall boards with necessary accessories; double matchline under window in shop; gas meter in Bakehouse removed; window in Bakehouse repaired and fitted with white tiles; match boards taken down round walls and replastered in cement; floor concreted and cemented; handrails to staircase; walls plastered; ceilings and walls whitened; woodwork painted; troughs on wheels; coal cellar opening boarded up; minor alterations. *

No. 41. 66, Bath Street. [Bakehouse Report, 1902, p. 32.]

Certificate granted 8th June, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Floor concreted; troughs on castors; partition in washhouse removed; stairs removed from Bakehouse to widen it; two large skylights fixed; minor alterations.

No. 42. 58, Ironmonger Row. [Bakehouse Report, 1902, p. 32.]

Certificate granted February, 1904.

Alterations executed under Factory and Workshops Act, 1901, Sec. 101:—

Heavy iron grills taken down from windows; opaque glass taken out of sashes and transparent substituted; windows made to open; ventilating shaft carried up to the roof; walls hacked off and rendered in cement; also room adjoining Bakehouse ditto; troughs on castors; minor alterations.

No. 43. 42, Bath Street. [Bakehouse Report, 1902, p. 32.]

Certificate granted 8th June, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Bakehouse floor lowered and concreted; under-pinning walls of Bakehouse and rebuilding basement walls at north front; stall-board lights fitted to front and side of shop, spring fanlight catches fixed to same; three steel joists provided to ground floor; reflector provided, step and riser, to side entrance door; reflecting stall-board light fixed in side wall; one column fixed and made good to north front shop; one frame and sashes fixed to opening between Bakehouse and flour stores; all walls of Bakehouse rendered in Portland cement and sand, and faced with parian; stairs and landings from ground floor to basement reconstructed; walls and ceilings of flour stores and walls of Bakehouse whitewashed; ceiling of Bakehouse painted; minor alterations.

No. 44. 131, St John Street Road. [Bakehouse Report, 1902, p. 33.]

Certificate granted 13th November, 1903.

Alterations executed under Factory and Workshop Act, 1901, Sec. 101:—

Floor lowered; ceiling match-lined; walls in Bakehouse and flour store rendered with cement; new doors in Bakehouse and flour store; troughs on castors; Bakehouse and flour store whitewashed; joists and flooring cut away for light and ventilation at front; 9-inch ventilating tube carried from near the ceiling of Bakehouse to above the roof of the house with a louvre cowl on top; minor alterations.

No. 45. 235, Goswell Road. [Bakehouse Report, 1902, p. 33.]

Closed 1903.

No. 46. 281, Goswell Road. [Bakehouse Report, 1902, p. 33.]

Closed 1903.

From these records it will be evident that considerable alterations have been carried out. The average height is now just under eight feet. Only seven Bakehouses have less than 1,500 cubic feet capacity and these are not much less than 1,500. To obtain the necessary height the floors of 15 Bakehouses have been lowered. My advice at the outset was to the effect that lowering the floors of Bakehouses should not be sanctioned by the Subcommittee, as, in my judgment, such a process tended to make the underground Bakehouse even more underground than before. The Committee however deemed it best, under all the circumstances, to offer no opinion as to the ways and means by which a baker made his Bakehouse satisfactory, but to judge each Bakehouse as they found it after the owner had made what alterations he thought necessary. This decision of the Committee was in keeping with their previous resolve, that, whilst absolutely insisting upon certain requirements, to which reference has been made, they would be guided in their judgment by the circumstances and conditions of each case, judging it on its own merits. Such, in brief and broadly stated, was the policy of the Committee, who themselves made a minute enquiry and inspection in every case.

The results of this policy have been two-fold. First, very few Bakehouses, in point of fact six only, have been closed as unsuitable. At first sight that appears to be but little to show as a result of the new Act which no doubt had, at its inception, the object of closing a large number of these underground Bakehouses. But the second result of the action taken in this Borough has been an enormous improvement in the 40 underground Bakehouses certified. It would have seemed incredible at first that such extensive improvements would have been possible. Many bakers have incurred great expense in carrying out the immense improvements which have been made. It is therefore my duty to report that though there have been few closures the result of the Act has been a vast improvement, a real and substantial advance, in the sanitation of Finsbury Bakehouses as a result of action taken under the new Act.

It should be added that Finsbury stands in a somewhat exceptional position in respect of this problem and this position has had to be taken into consideration in an equitable enforcement of the Act in regard to underground Bakehouses. In districts where there is available space for the construction of above-ground Bakehouses on the curtilage of bakery premises, or comparatively low density of buildings per acre in the vicinity, the granting of a certificate to an underground Bakehouse should be withheld unless all requirements are absolutely provided. It is equitable that under such circumstances great strictness should prevail. But in districts like Finsbury the Act must be administered with some consideration of the complexity of the problem. On page 158 of the present report will be found a table recording the number of buildings (dwelling-houses and business premises) per acre. From this table it will be seen that though the average for all London is eight buildings per acre *the average in Finsbury is 19*. It is evident that this is an important factor in a careful and just consideration of the closure of underground Bakehouses. This fact, coupled with the great improvement executed by the owners of underground Bakehouses, received the consideration of the Committee in deciding upon their policy.

It remains to be added that it is the intention of the Public Health Committee to insist in maintaining a high standard of general cleanliness and sanitation in Bakehouses in future.

A draft order of the Secretary of State, modifying the proportion of cubic feet of space to be provided in certain bakehouses, was made in 1903, and is to the following effect :—

In pursuance of the power conferred on me by sub-section (2) of section 3 of the Factory and Workshop Act, 1901, I hereby direct that the proportion of cubic feet of space to each person employed prescribed in sub-section (1) of the said section shall be modified :

- (1) as regards Underground Bakehouses by substituting "five hundred cubic feet of space to every person" for "two hundred and fifty cubic feet of space to every person" and

- (2) as regards Bakehouses where work is carried on at night by artificial light other than electric light by substituting in respect of the period between 9 in the evening and 6 in the succeeding morning "four hundred cubic feet of space to every person" for "two hundred and fifty cubic feet of space to every person."

This regulation when it comes into force will affect very few bakehouses in Finsbury, and they will have due notice for the reduction of persons if necessary.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both primary and secondary data collection techniques. The primary data was gathered through direct observation and interviews, while secondary data was obtained from existing reports and databases.

The third part of the document details the statistical analysis performed on the collected data. It describes the use of descriptive statistics to summarize the data and inferential statistics to test hypotheses. The results of these analyses are presented in a clear and concise manner, highlighting the key findings of the study.

Finally, the document concludes with a discussion of the implications of the findings and offers recommendations for future research. It suggests that further studies should be conducted to explore the underlying causes of the observed trends and to develop effective strategies to address them.

GENERAL SANITATION AND ADMINISTRATION

F.—GENERAL SANITATION AND ADMINISTRATION.

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ADMINISTRATION

GENERAL SANITATION AND ADMINISTRATION.

The Canal and Canal Boats.—The Canal which is situated within the Borough of Finsbury is owned by the Regent's Canal and Docks Company, and consists of a waterway of about $5\frac{3}{4}$ acres, a portion of which has a through communication with the River Thames on the one hand and the Midlands on the other.

The major portion of the *cul de sac* known as the "City Road Basin," with wharves, warehouses, and factories on either side, at which boats load and unload merchandise.

The Regent's Canal has two basins in this immediate neighbourhood. They lie parallel to each other, and are separated only by the Wharf Road. The most westerly basin is the "City Road Basin," and that on the easterly side of it, lying between Wharf Road and Wenlock Road, is the "Wenlock Basin." It is situated in the Borough of Shoreditch, and is the smaller of the two.

The City Road Basin, in the Borough of Finsbury, has on its west side premises fronting on Macclesfield Street and Graham Street, and occupied by various firms as factories, warehouses, and wharves. There are also a few residential premises.

There are three wharves at which boats load offensive cargo, viz.: 22, *Graham Street*, 12, *Macclesfield Street*, and 26, *Wharf Road*. The first belongs to the Borough of Islington and the other two to the Borough of Finsbury. The "offensive cargo" consists of street sweepings and house refuse. It does not, of course, include night soil, as occurs in rural districts in which the water-carriage system of sewage removal is not adopted.

Canal Boats.—The number of Canal Boats inspected during the past year was 106, as against 116 last year. Twenty of these 106 were offensive cargo boats. Thirty-five infringements of the Acts were found, requiring 21 complaint notices to the persons

responsible. The Inspector under the Canal Boats Act for the City Road Basin is the Sanitary Inspector (Inspector Powell), for the district of Finsbury in which it is situated.

In addition to the boats registered under the Canal Boats Acts, there are a number of other boats or barges known as "dumb" boats. These are boats which at one time were registered, but from structural or other defects are now unfit for habitation. Casual visits have been made to these boats in order to ascertain if the men who work on them use the cabins for other purposes than as store-places for ropes, chains, etc. These boats carry general merchandise, and are worked by men who contract to navigate them from the dock to the various wharves, and *vice versa*.

Sailing barges, registered under the Merchant Shipping Acts, occasionally bring cargoes of building materials, bricks, sand, pipes, etc., from the Medway District. They are inspected by the Port Sanitary Authority of the Port of London, except in cases of infectious disease, when the Local Authority has certain jurisdiction.

Further, the Local Authority has no powers in respect to Registration. Its powers are limited to Inspection. Various minor matters in respect to the marking of boats have received attention during the year. One case of overcrowding was also reduced.

Particulars of Infringements.

(a) **Registration.**—No infringement. This Local Authority has only powers of Inspection.

(b) **Notification of Change of Master.**—No infringement.

(c) **Certificates.**—Two infringements. The boat was working without a certificate on board in one case, and in the other case the number on certificate did not agree with that on the boat.

(d) **Marking.**—Two infringements. The boats were indistinctly marked and numbered.

(e) **Overcrowding.**—Two infringements. In the first case there were three children on the boat (one being in excess). We persuaded the parents to leave two of the children with friends at Brentford, where they will attend school. The second case was due to one child in excess sleeping in the fore-cabin; the parents agreed for the child to sleep with them in the aft cabin, which was sufficiently large for the purpose.

(f) **Separation of the Sexes.**—Two infringements. A female over 12 years of age occupied the cabin with the captain and his wife in the one case; and in the other case the captain's wife was sleeping by herself, in the fore part of the cabin which was used by other members of the crew—she was screened off. In each case they were on the boat for a trip.

(g) **Cleanliness.**—One infringement. The fore cabin was dirty and not weatherproof.

(h) **Ventilation.**—Two infringements. In the first boat the means of ventilation was blocked up by the cargo, and in the other the apparatus was defective.

(i) **Painting.**—Seven infringements. The re-painting of the interior surface of the cabin was required in each case.

(j) **Provision of Water Cask.**—Three infringements. One boat was without a water vessel, and the cans were dirty in the other cases.

(k) **Removal of Bilge Water.**—One infringement. The boat had no pump on board.

(l) **Notification of Infectious Disease.**—No case notified as occurring among the occupants of the Canal Boats.

(m) **Admittance of Inspector.**—Admittance to the Canal Boats has always been readily granted.

In addition to above, the following defects have been met with, viz.:—Seven aft cabin deck heads defective, three defective stoves

in cabins, two boats leaky, and one with space between bulkhead dirty.

Notices have been served, and the infringements rectified.

No legal proceedings have been necessary to secure compliance with the Acts and Regulations. Any infringements not satisfied within the time specified on the Complaint Notes, have always been complied with after a written communication to the owner.

No Infectious Disease has been notified or met with in the Canal Boats, therefore isolation has not been necessary.

In no instance has a Canal Boat been detained for the purpose of cleansing and disinfection.

The following table gives a comparison of the past five years, as regards the women and children employed on the Canal Boats visiting this district :—

Year.	Boats Inspected.	Persons found on Boats.			Totals.	Registered for.
		Men.	Women.	Children.*		
1899	100	206	38	77	321	356
1900	107	222	31	60	313	381
1901	102	207	34	64	305	360
1902	116	189	78	78	345	365
1903	106	183	45	51	279	346

In his visits the Inspector met with a Canal Boat which was worked entirely by women. There was a lady-captain and three other women in the boat.

The floods of last year seriously delayed the Canal Boats in their journeys. In some places the boats were unable to pass under the bridges owing to the abnormal rise of the water.

* The term children should be understood to include only those at ages as stated in the Acts, viz. ;—under the age of twelve years.

We have always found the occupants of the Canal Boats ready and willing to accede to any request or suggestion, which we have felt it our duty to make in view of cleanliness and good health.

REMOVAL AND RE-INTERMENT OF HUMAN REMAINS.

On September 15th it was reported to me by Mr. Ward, the Works Manager of the building works then going on in Bayer Street, Golden Lane, that in the course of excavations that morning he had come across a large number of human remains. On receipt of this report I visited the site, and found a considerable layer of dried human bones. Subsequently I reported the matter to the Home Office, at the same time applying for the usual license for removal of the human remains under the Burial Act, 1857, Section 25. The Home Office instructed that the matter should be left in my hands in the ordinary way, and that the removal should be effected with due care and attention to decency, the remains to be taken to some burial ground where burials may legally take place and be therein re-interred.

LICENSE FOR THE REMOVAL OF HUMAN REMAINS.

20 and 21 Vic., Cap. 81, s. 25.

In virtue of the power vested in me by the 25th Section of the Burial Act, 1857 (20 and 21 Vic., cap. 81), I hereby grant License for the removal of the human remains disturbed in connection with the excavations in Bayer Street, Golden Lane, London, E.C., on the following conditions:—

- (1) That the removal be effected with due care and attention to decency.
- (2) That the remains be removed to some burial ground where burials may legally take place and be therein re-interred.

This License simply exempts from the penalties which would be incurred if the removal took place without a License ; it does not in any way alter civil rights. It does not, therefore, confer the right to bury the remains in any place where such right does not already exist.

This License shall, if any of the conditions on which it is granted be not complied with, be deemed to have been void from the beginning, and, if not acted upon within twelve months from this date, shall become void.

(Signed) A. AKERS DOUGLAS,

One of His Majesty's Principal Secretaries of State.

Whitehall,

15th September, 1903.

In accordance with the conditions of the license I authorised the London Necropolis Company, of Westminster Bridge Road (Mr. J. B. Walker, General Manager), to make arrangements for the suitable removal of these bones in cases, with any necessary addition of disinfectants which might be found desirable. The encasement and removal of about 150 skeletons took place on September 17th. The operations were carried out under my personal supervision, Inspector Davis being present during the carrying out of that portion of the work when I was engaged elsewhere. Mr. Walker has certified that the cases were in due course removed to Brookwood Cemetery, and were re-interred with due care and decency.

On November 13th my attention was again called by Mr. Ward, the Works Manager of the works in Bayer Street, to a second quantity of bones which had been met with in the course of excavations. In accordance with the conditions of the license granted me by the Home Secretary on September 15th, I arranged with the London Necropolis Company to make arrangements for the proper and suitable removal of these bones in cases, with any necessary addition of disinfectants which might be found desirable. The encasement and removal of about 120 skeletons took place on Monday, November 16th, and was completed by noon. The operations were carried out in a proper manner, and the cases were in due course removed to Brookwood Cemetery, and there re-interred.

NUISANCES ARISING FROM ACCUMULATION OF MANURE.

During the year several nuisances or alleged nuisances have occurred as a result of accumulation of manure. These cases have received immediate attention, and in each case any nuisance arising has been abated. In one instance, owing to the complainant advising the Local Government Board, it was necessary for me to furnish a special report to the Board, which was as follows:—

A Special Report by the Medical Officer of Health on an alleged nuisance arising from accumulation of Manure.

The following letter was received by the Town Clerk:—

LOCAL GOVERNMENT BOARD,
WHITEHALL, S.W.

10th July, 1903.

SIR,

I am directed by the Local Government Board to forward to the Finsbury Borough Council the enclosed copy of a letter, which has been addressed to the Board by Messrs. Wm. Angus & Co., with reference to a nuisance caused by a stable; and I am to request that the Board may be furnished with the observations of the Borough Council and with a report by the Medical Officer of Health on the subject of the communication.

I am, Sir,

Your obedient Servant,

JOHN LITHIBY.

Assistant Secretary

The Town Clerk
of the Metropolitan Borough of Finsbury.

(Copy.)

44, 46, 48, 50 and 52, PAUL STREET, FINSBURY,
LONDON, E.C.

July 3rd, 1903.

DEAR SIR,

We beg to enclose you correspondence which has passed between us and the Medical Officer of Health for the Borough of Finsbury, which kindly return to us after perusal (stamped envelope enclosed).

The nuisance of which we complain is of a very serious nature, not merely an ordinary odour arising from a well-kept stable, but apparently arises entirely through the place being kept in a negligent and uncleanly condition. In any case it is impossible for us to open our windows, and even with them closed the danger to the health of our staff is considerable.

As Dr. Newman appears unable to cope with the matter we must ask you to kindly give it your immediate attention with a view to arranging for its abatement.

Yours faithfully,

p.p. WILLIAM ANGUS & Co., Limited.

(Signed) CHARLES E. ANGUS.

The Secretary,
Local Government Board.

In accordance with the instructions contained in the letter from the Local Government Board, I beg to report the chief facts in respect of the subject referred to.

Messrs. McNamara & Co., Limited, railway agents and general cartage contractors, &c., are the owners of certain premises situated in Paradise Street, Paul Street, Castle Street, and Hill Street, in the Borough of Finsbury. The premises are used for stabling 730-750 horses. About 190 horses are stabled in Paradise Street, 190 in Paul Street, and 350 or more in Castle Street and Hill Street. Some 500-600 men are employed. The firm contracts for all kinds of transport work, including the General Post Office,^o the Corporation of the City of London, and the Great Eastern Railway Co., and employs in all some 1,100 horses. The stables, which are the subject of the above correspondence, are situated at the Eastern end of the Borough on the boundary between Finsbury and Shoreditch. Previously to the formation of the Metropolitan Boroughs in 1900 part of the premises belonging to McNamara & Co., situated in Paradise Street and Paul Street, came within the boundaries of the Vestry of Shoreditch. The premises in Castle Street and Hill Street came

^oUnder the terms of the contract existing between Messrs. McNamara & Co. and His Majesty's Government (for the service of 800 horses) the representatives of the Postmaster General have full power to inspect at any time, without notice, any horses, stables, or premises used in the service, in order to satisfy themselves that the same are being properly and sanitarily managed. This power, has I am informed, been exercised repeatedly.

within the Parish of St. Luke, now one of the constituent portions of the Borough of Finsbury. I am informed that the Vestries of Shoreditch and St. Luke found it necessary on more than one occasion to complain of nuisances arising in connection with these stables. In 1897 such a complaint had relation to the accumulation of manure, and was the subject of prosecution, as a result of which the Vestry of St. Luke obtained a "prohibition order" against the firm (Minutes of the Vestry of St. Luke, 1897-98, p. 440.) It should be stated that Messrs. McNamara's stables are surrounded in a considerable degree, on all sides, by large buildings used as commercial offices, warehouses, factories, and places of business. The dwelling houses in the immediate vicinity are comparatively few.

The complaint, which is represented by the above letter from Messrs. W. Angus & Co., dates, as far as I am concerned, from April, 1902, but I am informed by the complainant that he has made verbal complaint previous to this date. The firm of Messrs. Angus & Co., Limited, trades as wholesale and export furniture manufacturers, and occupies large and commodious premises in Paul Street, opposite to the premises of Messrs. McNamara. Early in April, 1902, I received a written and verbal complaint from this firm, and in a series of letters received during April, May, and July of last year, and June of the present year, the complaint was repeated or amplified. In substance it would appear that Messrs. Angus & Co. allege that a nuisance, dangerous to the health of their employees and the public, arises from the odour derived from the stables of Messrs. McNamara & Co., which are kept in a "negligent and uncleanly condition." It is, perhaps, hardly necessary to put in all the correspondence, which repeats in various terms the views and objections of Angus & Co. There are, however, two points which occupy a prominent place in these letters, and to which reference should be made, in order that the facts may be within the knowledge of the Borough Council and the Board. First, the complaint has relation to a nuisance *on the premises* of McNamara's stables. It is not, as I gather, a question of a nuisance in the street, such for example as might arise by the conveyance of "offensive matter" at periods of the day when such refuse should not be conveyed. The nuisance is rather the smell arising from the stables, due, in the complainants' opinion, to infrequency of removal of manure and general uncleanliness of the

stables.† The second point is that Messrs. Angus & Co. have applied to the Local Government Board on account of the failure of the Local Authority, as they express it, to obtain "immediate remedy" of the alleged nuisance. In fact, the first letter that we received on the matter (April 4, 1902) concluded with the following words: "We beg to inform you that failing its [the alleged nuisance] immediate remedy, we purpose taking the matter up with the Local Government Board. We are sorry to have to go past you in this matter, but we are quite determined to have it abolished as it is highly dangerous to health, and it is impossible for us to tolerate it any longer."

In consequence of this complaint I visited these stables early in April, 1902, and made a full enquiry into the whole subject. From that time to the present (*i.e.*, 15 months) I have given much attention and consideration to the matter, and with a view of satisfying ourselves as to the manner in which these premises were maintained from a sanitary point of view, we have made careful inspection on 225 separate occasions during the 15 months. [From July, 1903, to the end of the year, 126 more inspections were made.] It will be admitted that this has given us some opportunity for a study of the actual facts of the case. The chief of these facts it is now my duty to submit to the Board.

The 750 horses are stalled on various floors. The stalls are lime-whited periodically, and throughout the year lime-whiting is being carried out, so that it may be said that each stall is lime-whited about once a month. This cleansing is carried out with a disinfectant solution of corrosive sublimate and lime wash. The floors of the stables are properly paved and well drained. On the ground floors the paving is mostly cobbled stones, but the other floors are mainly concreted and serrated, though in parts laid with blue Staffordshire bricks. We have never found accumulation of manure in any of the stables, as all such refuse is at once cleared away to the "shoot," and falls into the receptacles below, on the ground floor. Disinfectant (chloride of lime) is placed upon the floor daily, and a solution of disinfectant is hosed upon the floors periodically and regularly flushed

†On at least one occasion the complainants stated that actual illness was produced in some of their employees by the effluvia. I have not deemed it my duty to enter into the question as to whether or not such effluvia can or does produce illness, or is dangerous to the health, nor have I obtained any evidence as to the cases of illness referred to. I assume that is not a point upon which the Board desires me to report.

into the drains. Peat moss is used as litter, except in the case of some 50 horses, which for various reasons, are supplied with straw.^o The stables are lighted and ventilated by windows (twelve of which face the premises of Messrs. Angus, in Paul Street), and with the exception of two small stables, are light and airy. There are three "shoots," and therefore three receptacles where the manure from the 750 horses is deposited. One "shoot" is in the Paul Street stables, a second in the Castle Street stables, and a third in the Paradise Street stables. The firm contract with Messrs. X.Y.Z., who are bound by agreement to clear all the manure from the bottom of each shoot, to the complete satisfaction of the Local Authority and the firm. We have insisted upon a *daily* clearance, and this has been adopted by the firm. The manure is removed in waggons and transported to the country by rail. It appears that occasionally X.Y.Z. do not remove as regularly as usual. In this event, McNamara and Company themselves remove the manure in order that there may not be undue accumulation, but the cost of such removal is debited to X.Y.Z. Such an instance occurred for example at the end of June, in the present year, and during two or three days the firm removed some 20 tons of manure. The removal of manure is carried out by X.Y.Z. during the day time, but at irregular hours. At the time of my first "surprise" inspection I found a considerable accumulation of manure which in my opinion was creating, or likely to create, a nuisance. I therefore urged upon Messrs. McNamara (a) a *regular daily removal*, about which there was to be no irregularity and no negligence, (b) a modified arrangement for the removal of manure by placing the waggon itself under the shoot, and (c) a reconstruction of the receptacle under the "shoot." I have also made other suggestions from time to time. My advice has been at once accepted, and with comparatively few exceptions, I have no evidence whatever in support of the view that there has been gross negligence and uncleanness on the part of this firm. Only on one occasion during the 15 months has it been necessary to serve notices upon the firm on account of accumulation of manure.

I do not assert that no "nuisance" has existed in the sense of a disagreeable smell. I think such is inevitable wherever and whenever

^oI have enquired into the relative merits of peat moss and straw as litter, and I have not been able to obtain any evidence to show that peat moss litter, as used in these particular stables, is unsuitable.

750 horses are stabled together, on a limited area, in the midst of a great community. There can be little doubt that some emanations must inevitably escape into Paul Street from the twelve windows (acting as ventilators) and from the entrance yard in Paul Street. But if Messrs. McNamara keep their stables clean, and maintain a regular daily clearance of the manure at the bottom of each shoot, I am of opinion that they are conducting their business within the meaning of the existing law.

A consideration of the powers of a Metropolitan Sanitary Authority in respect to this subject, and of the exigencies and requirements in regard to cartage contracting, may assist in a clear understanding of a subject which has given anxiety to Public Health Authorities in London for some years.

The Public Health (London) Act, 1891, deals generally with the existence and abatement of conditions which are nuisances, or injurious or dangerous to health (Secs. 1-5). It also lays down that in trades, processes, businesses, and the like, emitting or producing any effluvia, which is a nuisance, or injurious or dangerous to the health of any of the inhabitants of the district, the person so offending shall be liable to conviction and penalty, "unless it is shown that such person has used the best practicable means for abating the nuisance, or preventing or counteracting the effluvia." (Sect. 21.) The same Act gives power to the Borough Council to serve notice on any owner or occupier of premises on which there is an accumulation of any obnoxious matter (including manure, &c.) for its removal within 48 hours. In the event of the removal not taking place the Council may remove and charge expenses against such owner. (Sect. 35). Or the Borough Council may contract for the regular removal, with the written consent of the occupier, of all such refuse and manure. (Sect. 36 (a)). Lastly, the Borough Council may, by resolution, require the regular daily removal of manure or other refuse matter from stables, cow-houses, and such premises, and where such notice has been given if any person fails to comply with the notice he shall be liable to a fine. (Sect. 36 (b)).

In addition to these powers of the Act, the Borough Council also possesses power in certain Bye-laws of its own and of the London County Council. The Finsbury Bye-laws concerning this matter require removal of such refuse at least once a week, unless the Council shall have resolved otherwise under the statutory provision in that behalf. The London County Council Bye-laws lay down various regulations for the removal of such refuse, but the only point that

applies to the present case is that certain kinds of refuse must be removed in "a suitable carriage or vessel." The regulations, which lay down certain hours as those during which alone such removal must take place, do not apply to horse manure.

It will therefore be seen that acting for the Borough Council, we have carried out in this case all that the law either allows or requires. The only step in the control of such stables which the Council has not taken, as far as I am aware, is that of a resolution requiring a daily removal, and I can readily conceive circumstances in which such action of the Council would be of great service. But I am bound to point out to the Board that in the case of Messrs. McNamara *daily* removal is already contracted for, and, with few exceptions, actually carried out. The exceptions have received immediate and uncompromising notice from us, and Messrs. McNamara have at once complied.

In the second place, I must remind the Board of the difficulties of conducting immense stables in Central London without giving rise to conditions of an unpleasant kind, and which, unless most rigorously inspected and supervised, may give rise to a nuisance. The exigencies and requirements of this trade are apparent. Horses are required at all times of day and night in Central London. It therefore would appear that they must be stabled in Central Districts. But the stabling of 750 horses in one place is, in my judgment, most undesirable. It must always and inevitably be unpleasant, in a greater or lesser degree, for persons residing or working in the vicinity. Again, there are the questions of space occupied by fodder, by litter, and by manure. In respect of the latter, I understand that the reason why X.Y.Z. is irregular in removing manure, particularly in the summer months, is due to the fact that he cannot dispose of the stuff. I am informed that one railway company has refused to receive any more manure from X.Y.Z., because they cannot get their trucks emptied at the destination during haymaking and harvest time, which leads to a block in the traffic. This is not a concern of mine, and I only name the matter to the Board, because it illustrates what has been experienced in other Metropolitan districts in recent years—namely, that there is a difficulty in disposing of large quantities of manure from immense establishments at one and the same time, particularly in the summer.

I therefore have to report to the Board that, judging the matter from the point of view of existing sanitary law, and viewing all the circumstances, I am of the opinion

(i) That from the facts of the case it appears that the firm of McNamara & Co. have, since April, 1902, carried out with a considerable degree of regularity the duties devolving upon them under the Public Health (London) Act, 1891, in the management of their business ;

(ii) That on those occasions where they have failed this Borough Council has carried out its full powers without delay, and that its requirements have been immediately complied with ; and, further, that the Local Authority has, by inspection and enforcement of the law, supervised the removal of manure as much as practicable ; and

(iii) That the stabling of 750 horses in one place in the middle of a crowded district of London must inevitably give rise to unpleasant effluvia, which is of course most marked in summer weather.

(Signed) GEORGE NEWMAN, M.D.

PUBLIC HEALTH DEPARTMENT,
TOWN HALL, FINSBURY, E.C.

July 15, 1903.

The above report was approved and adopted by the Council, and acting under the Public Health (London) Act, 1891, Sect. 36 (2), it was resolved that the Council “do hereby order and “direct that the person to whom the same may belong, be “required to remove or cause to be removed daily all manure “or other refuse matter from their stables, cowhouses or other “premises situate in this Metropolitan Borough, and that public “notice of this requirement be given in the district by bills “generally circulated therein and delivered to such persons as “aforesaid at their respective premises.”

In accordance with this Resolution the following notice was printed in large bill form, and placed on the walls throughout the Borough :—

REMOVAL OF MANURE.

The Council of the above-mentioned Metropolitan Borough, being the Sanitary Authority for the District, hereby give notice that they require the Daily Removal of Manure or other refuse from all stables, cowhouses, or other premises in the said Borough. The Council further give notice that any person to whom the manure or

other refuse belongs who fails to comply with this notice will be liable, under Section 36 (2) of the above-mentioned Act, without further notice, to a fine not exceeding 20/- for each day during which such non-compliance continues.

By order of the Council,

(Signed) G. W. PRESTON,

Town Clerk.

TOWN CLERK'S OFFICE,
FINSBURY TOWN HALL,
ROSEBERY AVENUE, E.C.
3rd of September, 1903.

The following Circular was also sent to six firms possessing large stables in the Borough :—

METROPOLITAN BOROUGH OF FINSBURY.

*The Town Hall,
Rosebery Avenue, E.C.*

.....190

PUBLIC HEALTH (LONDON) ACT, 1891.

REMOVAL OF MANURE.

The **Council** of the above-mentioned **Metropolitan Borough**, being the Sanitary Authority for the District, hereby give notice that they require the **daily removal** of **manure** or other refuse from **the stable, cowhouse or other premises** occupied by you, and situate at.....in the said Borough. If you **fail to comply** with this notice, you will be liable under Sec. 36 (2) of the above-mentioned Act, without further notice, to **a fine not exceeding 20s. for each day** during which such non-compliance continues.

(Signed)

Medical Officer of Health.

To Mr.....

of.....

This circular was not sent to owners of small stables, and the Resolution has not been applied to such owners, as accumulations of manure at such places do not, as a rule, create a nuisance.

Whilst for purposes of convenience this action of the Council has been stated here, it should not be supposed that it arose only out of the alleged nuisance at the premises of Messrs. McNamara. It was the result of several manure accumulations which occurred during the year.

In addition to their ordinary compliance with the law, it should be added that Messrs. McNamara, at my suggestion, made several alterations in their premises and in the management of manure removal, which have had beneficial results.

On July 18th, I received a formal complaint from the authorities at the Risinghill Street Board School of the existence of a nuisance from manure accumulation at Jay's Buildings. This was not the first complaint of its kind respecting accumulations at these premises. I visited the place, as on previous complaints, and found some 30 horses stabled there. I found a considerable accumulation of manure, and arranged for its more regular and more frequent removal, and also for keeping the manure in a different part of the premises. By the adoption of these two measures the nuisance was abated.

Similar complaints reached me in respect of manure accumulations in Whiskin Street, Claremont Mews, and other places, and these received attention. During the year I have also made representations (after personal inspection) to the various owners of cowsheds, in respect of frequent and cleanly removal of manure.

SCHOOLS.

There are in Finsbury 24 Public Elementary Schools, containing 19,166 children, as follows:—

Schools.	Infants.	Boys.	Girls.	Totals.
Board Schools ...	4,820	4,866	5,236	14,922
Voluntary Schools ...	1,417	1,384	1,443	4,244
Totals ...	6,237	6,250	6,679	19,166

During the year various visits and inspections have been made to the Elementary Schools. In some cases this has been due to the occurrence of infectious disease or to the existence of insanitary conditions. One School was closed for two weeks for thorough disinfection and drainage after an outbreak of diphtheria.

The certificates received from the Board Schools as regards the occurrence of non-notifiable diseases have been as follows :—

NON-NOTIFIABLE INFECTIOUS DISEASES IN BOARD SCHOOLS
IN FINSBURY, 1903.

Schools.	No. on Roll.	Measles.	Whooping Cough.	Chicken Pox.	Other Diseases.	Total.
Albion Place ...	711	12	1	3	1	17
Ann Street ...	866	32	2	6	6	46
Bath Street ...	1314	43	2	24	36	105
Baltic Street ...	568	26	—	4	2	32
Bowling Green Lane	923	—	—	—	—	0
Central Street ...	917	24	—	1	4	29
Chequer Alley ...	802	35	—	2	—	37
Compton Street ...	1134	35	6	15	6	62
Hugh Myddelton ...	2146	21	—	3	2	26
Martyrs Memorial ...	438	39	6	4	3	52
Moreland Street ...	1202	39	18	13	13	83
Risinghill Street ...	1513	91	9	32	20	152
White Lion Street ...	843	—	—	—	—	0
Winchester Street ...	1545	97	21	17	12	147
TOTAL ...	14922	494	65	124	105	788

DISINFECTION.

After all cases of infectious diseases, in a certain number of notified cases of Phthisis, and after all deaths from Phthisis, premises have been thoroughly disinfected. Where necessary the walls have been stripped. No charge is made for disinfection unless the householder requires it to be done at a time when the officers are not on duty. In such cases a nominal fee would be charged.

Articles of clothing, bedding, carpets, curtains, etc., have been disinfected in the steam disinfecting apparatus (Goddard, Massey and Warner) which has given satisfaction. Disinfection by this means is absolutely efficient and occupies about one hour. Two vans are used for conveyance of the articles. One van for bringing the infected articles, and a second van for taking the disinfected articles back again. In the Eastern Division we have a Thresh machine, which we use occasionally. The following is the record of work done during 1903 :—

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.
Beds	121	191	252	110	674
Mattresses	4	20	10	19	53
Pillows	208	497	468	183	1,351
Bolsters... ..	57	131	120	55	363
Sheets	162	390	382	150	1,084
Blankets	183	343	258	149	933
Quilts	146	312	263	108	829
Cushions	26	46	58	21	151
Table Cloths	—	2	—	—	2
Curtains	4	8	—	—	12
Carpets... ..	6	3	2	—	11
Wearing Apparel	133	100	308	107	648
Sundries	676	638	686	285	2,285
Burnings	5	4	4	1	14
Totals	1,726	2,685	2,811	1,188	8,410

The above Table deals with articles which have been disinfected. The actual number of occupancies disinfected during 1903 are as follows :—

	Small-pox	Scarlet Fever	Diphtheria	Enteric Fever	Puerperal Fever	Disinfection by request.	Measles.	Phthisis	Totals
January ...	1	28	8	7	—	—	—	19	63
February ...	—	12	26	3	—	1	—	18	60
March ...	1	10	6	3	3	—	1	28	52
April ...	—	13	10	—	1	3	30	9	66
May ...	—	18	11	1	1	1	68	21	121
June ...	—	33	19	2	—	3	203	17	277
July ...	—	36	9	3	2	2	151	10	213
August ...	—	44	13	4	—	1	18	10	90
September ...	—	43	10	7	1	4	16	15	96
October ...	—	23	6	12	—	1	10	11	63
November ...	—	11	4	5	—	2	4	17	43
December ...	1	15	5	6	—	1	5	10	43
	3	286	127	53	8	19	506	158	1187

We have practically discarded Sulphur as a disinfectant, using Formic Aldehyde Gas instead (30 tabloids to every 1,000 cubic feet). We have also used Lingner's Formalin apparatus when necessary.

By whatever method gaseous disinfection is practised it may prove ineffectual on account of the fact that what is required is that the disinfectant should be applied directly to infected surfaces of a room. It is therefore better, wherever practicable, to apply the disinfectant by washing or spraying. Accordingly we have adopted the spray method in cases where thorough disinfection is required, and disinfectant solution (chloride of lime, 1-2 per cent.) is sprayed on to walls, floors, etc. Thorough and wet cleansing of infected surfaces is the desideratum.

THE MORTUARIES.

We have two Mortuaries, one at Warwick Place, in the Eastern Division, and the other at 47, Northampton Road, in the Western Division. The Returns are as follows :—

	Northampton Road Mortuary.	Warwick Place Mortuary.	Total.
Inquest cases	83	65	148
Infectious diseases... ..	2	5	7
Bodies deposited by Borough Orders ...	1	2	3
Bodies brought for convenience of relatives, &c.	124	127	251
TOTAL	210	199	409

In addition to the inquests held at the Borough Mortuaries, 60 inquests have been held in places outside the Borough upon bodies of persons belonging to the Borough, making the total number of inquests held 208. The verdicts were as follows :—

I. NATURAL CAUSES—			2. ACCIDENTAL—		
Heart Disease	20		Fracture of Skull	4	
Heart Failure (Syncope)	29		Fracture of Arm, Leg, &c.	2	
Alcoholism	23		Run over in Street	10	
Cancer	2		Poisoning... ..	1	
Phthisis	12		Injuries caused by fall... ..	12	
Meningitis	2		Shock from Burns	10	
Epilepsy	1		Concussion of Brain	2	
Improper feeding and Inanition	6		Asphyxia by Choking	1	
Convulsions	8		Asphyxia by Drowning	3	
Asphyxia	12		Asphyxia by Hanging	1	
Cerebral Hæmorrhage	3		<u>46</u>		
Atelectasis	3		3. SUICIDES—		
Lead Poisoning	2		By Hanging	5	
Cerebral Diseases	8		By Shooting	1	
Miscellaneous	12		By Poisoning	3	
			By Drowning	2	
			Miscellaneous	4	
			<u>15</u>		
143			4. MURDER		
					4

Reception Houses.—During disinfection of rooms, free accommodation is provided for the temporarily displaced persons. We have two reception houses, one (41, Macclesfield Street) in the Eastern Division of the Borough, and a second (47, Northampton Road), when necessary, in the Western Division.

The total number using the reception houses was eight families of 26 persons.

SANITARY INSPECTION.

There are on the Staff of the Department a Chief Sanitary Inspector, a special Meat Inspector, seven District Sanitary Inspectors, and two Clerks, who devote the whole of their time to the work of the Department. For purposes of sanitary inspection and supervision the Borough is divided into six districts, to which are attached six Inspectors, one to each district. In his sanitary district each Inspector undertakes duties under the Public Health and the Sale of Food and Drugs Acts. In March, 1902, the Borough Council appointed one additional Inspector, as a Factory and Workshop Inspector. There are five men regularly engaged in the work of Disinfection and the Mortuaries, etc., and in times of epidemic one or two others have been temporarily employed.

The ordinary duties of the Sanitary Inspector include the inspection of dwelling-houses, milk-shops, bakehouses, etc.; the investigation of every case of infectious disease; the supervision of sanitary works and drainage; the enquiries respecting complaints made to the Department, and smoke and general nuisances. Reports are furnished to me by the inspectors from time to time having reference to the above matters, all the more important cases being specially reported upon in writing.

The construction of the drainage of new buildings is supervised by the Borough Surveyor (Mr. P. G. Killick). The Department also has the advantage of the advice and co-operation of the Borough Surveyor in all matters affecting drainage.

Refuse collection and destruction, cleansing of streets, and regular emptying of dustbins and dust-boxes is undertaken by the Wharf and Cleansing Department (Mr. A. May, Superintendent). Rapid and effectual removal of refuse and dust and the satisfactory cleansing of streets, particularly in the months of July and August, is of the greatest importance. The relationship between bad scavenging and disease is an intimate one, and there can be no doubt that a well scavenged town, other things being equal, will be characterised by a lower infantile death rate and a lower zymotic death rate than that which will occur in a dusty and badly scavenged town.

WORK OF SANITARY INSPECTORS.

	Inspector Ensor.	Inspector Davis.	Inspector Longden.	Inspector Norman.	Inspector Hindhaugh.	Inspector Powell.	Total.
Damp, dirty, or dilapidated houses nuisances remedied	115	191	252	221	213	133	1125
Defective doors, windows, floors, ceilings, sashcords, &c.	94	59	24	80	66	52	375
Illegal occupations of kitchens, cellars, or underground rooms remedied	6	2	5	4	3	5	25
Water-closets cleansed or repaired	241	261	282	195	234	137	1350
Additional water-closets provided ...	8	31	—	19	5	1	64
Urinals cleansed or provided ...	—	8	4	3	2	—	17
Defective soil-pipes and ventilating shafts repaired	16	21	4	9	12	9	71
Yards drained, paved, repaired, or limewashed	97	101	49	254	157	71	729
Waste and sink pipes repaired or remedied	38	15	7	27	26	17	130
Water cisterns cleansed or repaired	70	62	8	37	82	65	324
Accumulation of rubbish, manure, &c., removed	27	29	14	42	28	27	167
Dung or dust receptacles repaired or renewed	72	78	40	94	54	41	379
Defective drains relaid	30	61	41	87	98	56	373
Drains cleared... ..	30	5	9	20	8	49	121
Rain water pipes repaired, &c. ...	20	22	10	81	56	19	208
Defective roofs and gutters repaired	81	64	87	191	73	90	586
Areas paved, limewashed, or repaired	25	3	11	33	52	8	132
Water supply to houses re-instated	6	7	11	2	1	8	35
Washhouses re-paved or repaired...	69	16	7	143	93	36	364
Bakehouses cleansed or repaired ...	—	—	—	—	—	—	—
Restaurants cleansed or repaired ...	10	64	32	15	9	6	136
Nuisances from animals abated ...	—	5	4	9	4	2	24
Basements cleansed or repaired ...	17	24	9	16	61	1	128
Stables re-paved or repaired ...	1	6	—	19	1	2	29
Smoke nuisances abated	1	5	3	6	2	2	19
Miscellaneous nuisances abated ...	17	20	20	18	15	5	95
House-to-house inspections	313	208	222	381	150	173	1447
First visits on complaints, &c. ...	698	1452	986	1344	850	1119	6449
Re-visits	3745	3944	4716	5886	2950	3778	25019
Intimation Notices served	446	461	533	686	351	373	2450
Statutory Notices served	110	45	65	227	115	65	627
Infectious disease investigations ...	286	224	275	352	273	155	1565
Cases of overcrowding abated ...	15	34	11	36	9	33	138
Cases of overcrowding abated in registered houses	38	21	23	13	—	3	98
Canal boat inspections	—	—	—	—	—	106	106

The above Table does not include any reference to particulars regarding the inspection of Factories and Workshops.

LEGAL PROCEEDINGS UNDER THE PUBLIC HEALTH (LONDON) ACT, 1891,
AND METROPOLIS LOCAL MANAGEMENT ACT.

Date.	Name and Address of Defendant.	Offence.	Result.
Jan. 8th, 1903	Fred. Gebringer, 31, Great Pearl Street, Spitalfields	Permitting overcrowding at 24, Bastwick Street	Fined £1 and 2s. costs
" ...	Do. do.	Permitting overcrowding at 48, Bastwick Street	Fined £1 and 2s. costs
" ...	Do. do.	Permitting overcrowding at 53, Bastwick Street	Fined £5 and £2 2s. costs
" ...	Do. do.	Permitting overcrowding at 55, Bastwick Street	Fined £1 and 2s. costs
March 5th ...	J. Rowley, 216, Green Lanes, N.	For failing to alter and amend defective drain at 59, Lever Street	Fined £2 and £1 3s. costs
May 1st ...	Perry Bros., 4, City Road	For failing to clear choked water-closet at 51, Little Sutton Street	Withdrawn on payment of £2 2s. costs
May 14th ...	L. Aaron, 14, Doughty Street, W.C.	For failing to alter and amend defective drain at 35, Central Street	Withdrawn
May 28th ...	J. Maley, 2, Alpha Villas, Archway Road, W.	For failing to cleanse the lodging-house, 15, Galway Street, as required by the By-laws (see page 146)	Dismissed
" ...	J. Priestley, 1, West Street, Finsbury Circus	For failing to cleanse the lodging-house, 1, Hatfield Street, as required by the By-laws (see page 146)	Dismissed
" ...	Do. do.	For failing to cleanse the lodging house, 14, Hatfield Street, as required by the By-laws (see page 146)	Dismissed
" ...	Mr. Hughes, 3, Hatfield Street, E.C.	For failing to cleanse the lodging-house, 3, Hatfield Street, as required by the By-laws (see page 146)	Dismissed
" ...	F. Cant, 5, Hatfield Street, E.C.	For failing to cleanse the lodging-house, 5, Hatfield Street, as required by the By-laws (see page 146)	Dismissed
May 29th ...	Hollingsworth & Collier, 1, Bishopsgate Street Without, E.C.	For failing to cleanse the lodging-house, 24, Northampton Road	Fined £2 and 2s. costs
" ...	A. H. A. Saunders, 36, Pembury Road, Lower Clapton	For failing to cleanse the lodging-house, 24, Noble Street	Fined £1 and 2s. costs
" ...	J. W. Harris, 54, Barnsbury Road, N.	For failing to cleanse the lodging-house, 11, Risinghill Street	Fined £2 and 2s. costs
" ...	Mr. Busby	For failing to cleanse the lodging-house, 30, White Lion Street	Ordered to pay 2s. costs

Date.	Name and Address of Defendant.	Offence.	Result.
May 29th ...	Hollingsworth & Collier, 1, Bishopsgate Street Without	For failing to cleanse the lodging-house, 16, Collier Street	Withdrawn.
" ...	Joseph Johnson, 49, Halton Road, Canonbury, N.	For failing to cleanse the lodging-house, 5, Clerkenwell Close	Fined £2 and 2s. costs.
June 5th ...	Geo. Chapman, 40, Queen Street, Paddington, W.	For failing to cleanse the lodging-house, 53, Margaret Street	Fined £2 and 2s. costs.
" ...	Thos. Parker, 25, St. Mary Abbott's Terrace, Kensington	For failing to cleanse the lodging-house, 21, Easton Street	Fined £3 and 2s. costs.
" ...	Wm. Reed ...	For failing to cleanse the lodging-house, 50, Margaret Street	Fined £2 and 2s. costs.
June 19th ...	Geo. Lichtenberg, 129, Highbury New Park, N.	For failing to cleanse the lodging-house, 43, Warren Street	Fined £2 and 2s. costs.
July 16th ...	Geo. King, 11, Memel Street	Permitting overcrowding at 11, Memel Street	Withdrawn.
July 24th ...	Lewis Gilbert, 24, Marshall House, Golden Square	For failing to cleanse the lodging-house, 28, Northampton Road	Fined £2 and 2s. costs.
" ...	J. W. Harris, 54, Barnsbury Street	For failing to provide a water supply to water-closet at 20, Noble Street	Fined £2 and 2s. costs.
" ...	Thomasso Cozzi, 3, Bath Court	Permitting overcrowding at 3, Bath Court...	Fined £1 and 2s. costs.
" ...	Giovanni Briagoli ...	Permitting overcrowding at 14, Great Bath Street	Fined £2 and 2s. costs.
July 31 ...	E. Haden Fergusson, 46, Princes Road, Wimbledon	For failing to cleanse the lodging-house, 40, St. Helena Place	Fined £1 and 2s. costs.
" 31 ...	Do. do.	For failing to cleanse the lodging-house, 42, St. Helena Place	Fined £1 and 2s. costs.
" 31 ...	Do. do.	For failing to cleanse the lodging-house, 43, St. Helena Place	Fined £1 and 2s. costs.
" 31 ...	J. Shenton, 100, St. John Street Road	For failing to cleanse the lodging-house, 6, Woodbridge Street	Fined £1 and 2s. costs.
Aug. 21 ...	M. de Martini, 39, Calthorpe Street, W.C.	For removing offensive matter during prohibited hours through Ray Street, &c.	Fined £1 and 2s. costs.
Sept. 11 ...	Frederick Warman, Highbury Corner, N.	For failing to cleanse the lodging-house, 197, Pentonville Road	Fined 10s. 6d. and 2s. costs.
Oct. 2 ...	S. J. Owers, 71, Malmesbery Road, Bow	Removing obnoxious matter during prohibited hours	Fined £3 and 2s. costs.

Date.	Name and Address of Defendant.	Offence.	Result.
Nov. 6 ...	Louis A. Pantlin, 4, George Street, Euston Road	Neglecting to remove rubbish from basement, 3, Berkley Court	Fined 10s. and 2s. costs
" 6 ...	Richard Leage, 10, City Road	For neglecting to alter and amend defective drain at 6, Thomas Street	Ordered to pay £2 2s. costs
Dec. 10 ...	Pisa Barnett, 56, Moor-gate Street, E.C.	For failing to provide a water supply to water closet at 30, Easton Street	Ordered to pay £2 2s. costs
" 31 ...	Lottie Chalkiadi, 56, Moorgate Street, E.C.	For failing to cleanse dirty room at 13, Baker's Row	Abatement order and 6s. costs

SALE OF FOOD AND DRUGS ACT.

Jan. 1st ...	Robert Falgate, 9, Lever Street	For selling milk which had been adulterated by the addition of 12·4 per cent. of added water	Fined £1 and £1 3s. costs
Jan. 6th ...	J. S. Simcock, 2, Penton Street	For selling camphorated oil which was 63·5 per cent. deficient in camphor	Fined £1 and £1 2s. costs
Jan. 21st ...	Wm. Jenkins, 6, Aylesbury Street	For selling milk from which had been abstracted 7 per cent. of its fat or cream	Fined £10 and £3 13s. 6d. costs
Jan. 23rd ...	David Williams, 69, Great Percy Street	For selling milk which had been adulterated by the addition of 7 per cent. of added water	Fined £3 & 12s. 6d. costs
" ...	David Rawland, 24, Collier Street	For selling milk which had been adulterated by the addition of 14·9 per cent. of added water	Fined £5 & 12s. 6d. costs
" ...	Jane Daley, 18, Collier Street	For selling milk which had been adulterated by the addition of 15·7 per cent. of added water	Fined £1 & 12s. 6d. costs
Feb. 12th ...	Pantaleum Manzi, 11, City Road	For selling milk which had been adulterated by the addition of 8·7 per cent. of added water	Fined £2 and £1 4s. costs
March 5th ...	David Evans, 32, President Street	For selling milk which had been adulterated by the addition of 8·1 per cent. of added water	Fined £5 & 12s. 6d. costs
" ...	Samuel Curry, 284, Goswell Road	For selling milk which had been adulterated by the addition of 8·1 per cent. of added water	Fined £5 & 12s. 6d. costs
" ...	Morgan Evans, 40, Goswell Road	For selling milk which had been adulterated by the addition of 7·7 per cent. of added water	Fined £1 & 12s. 6d. costs
" ...	Harold Isaacs, 53, Church Road, Southgate Road	For selling milk which had been adulterated by the addition of 6·1 per cent. of added water, at 14, Playhouse Yard	Fined £1 & 12s. 6d. costs
March 6th ...	Frederick Robinson, 182, King's Cross Road	For selling butter adulterated with 79 per cent. of foreign fat	Fined £3 & 12s. 6d. costs

Date.	Name and Address of Defendant.	Offence.	Result.
March 6th...	Joseph Turner, 1a, Weston Street	For selling milk which had been adulterated by the addition of 8.2 per cent. of added water.	Fined 10s. & 12s. 6d. costs
" ...	Frederick Harris, 39, Margaret Street	For selling beeswax with 50 per cent. of resinous matter	Withdrawn. A previous case decided
April 16th ...	Wm. Davies, 104, Goswell Road	For selling milk adulterated by the addition of 12.7 per cent. of added water	Fined £10 & 12s. 6d. costs
April 17th ...	Henry Sharpe, 4, Suffolk Street	For selling milk adulterated by the addition of 23.3 per cent. of added water	Fined £4 & 12s. 6d. costs
April 17th ...	Stephen Evans, 44, Margaret Street	For selling milk adulterated by the addition of 6.8 per cent. of added water	Fined £1 and 12s. 6d. costs.
" ...	John Evans, 49, Bayham Street	For selling milk adulterated by the addition of 6.7 per cent. of added water	Fined £1 and 12s. 6d. costs.
" ...	David Evans, 122, St. John Street	For selling milk adulterated by the addition of 6.8 per cent. of added water.	Fined £1 and 12s. 6d. costs.
May 29th ...	Daniel Jones, 39, Exmouth Street	For failing to get registered for sale of milk	Fined £1 and 2s. costs.
June 24th ...	Arthur Wood, 87, Lever Street	For selling milk adulterated by the addition of 8 per cent. of added water	Fined £1 10s. and £1 3s. costs.
July 2nd ...	Benjamin Cook, 2, Peerless Street	For selling milk adulterated by the addition of 19.8 per cent. of added water	Fined £3 and £1 3s. costs.
July 3rd ...	Rose Hosty, 3A, Penton Place	For selling butter adulterated with 82.0 per cent. of foreign fat	Fined £1 and 12s. 6d. costs.
" ...	Mary Wright, 9, Risinghill Street	For selling milk adulterated by the addition of 6.1 per cent. of added water	Ordered to pay 12s. 6d. costs.
July 26th ...	Ann Pugh, 158, Lever Street	For selling milk adulterated by the addition of 6.3 per cent. of added water	Dismissed.
August 6th	Annie Barson, 51, Galway Street	For selling milk from which had been abstracted 9.6 per cent. of its fat or cream	Fined £1 10s.
August 19th	James Clark, 36, Central Street	For selling coffee adulterated with 60.0 per cent. of chicory	Ordered to pay £1 13s. 6d. costs.
August 21st	Robert Albon, 7, Copenhagen Street	For selling milk which had been adulterated by the addition of 10.1 per cent. of added water at 105, Rosoman Street	Fined £3 and 12s. 6d. costs.
" ...	Annie Jones, 69, Bastwick Street	For selling milk which had been adulterated by the addition of 11.4 per cent. added water	Fined 10s. and 12s. 6d. costs.
" ...	Do. do.	For selling butter adulterated with 85.0 per cent. of foreign fat	Fined £1 and 12s. 6d. costs.

Date.	Name and Address of Defendant.	Offence.	Result.
Sept. 11th ...	Otto Thomas, Ltd., 28, Leadenhall Street	For selling beet sugar for Demerara sugar at 113, Goswell Road	Fined £5 and 12s. 6d. costs.
Oct. 2nd ...	John Thomas, 230, St. John Street	For selling butter adulterated by the addition of 3.35 per cent. of water	Fined £5 and 12s. 6d. costs.
..	Do. do,	For selling milk from which 6 per cent. of its fat had been abstracted	Fined £2 and 12s. 6d. costs.
Oct. 16th ...	David Jones, 13, Percival Street	For selling Butter adulterated with 85 per cent. of foreign fat	Fined £6 and 12s. 6d. costs
..	Do. do.	For selling margarine in unstamped paper	Fined £2 and 2s. costs
..	Marion Hurst, 28, Thomas Street	For selling white crystals with an organic dye for Demerara sugar	Fined £3 and 12s. 6d. costs
...	Jane Jones, 76, Compton Street	For selling butter adulterated with 85 per cent. of foreign fat	Fined £3 and 12s. 6d. costs
Oct. 22nd ...	George F. Callis, 31, Glasshouse Yard	For selling yellow crystals for Demerara sugar at 47, Bath Street	Fined £3 and £1 3s. costs
..	Do. do.	For selling coffee adulterated with 30 per cent. of chicory at 47, Bath Street	Fined £3 and £1 3s. costs
Oct. 29th ...	Benjamin Dibbins, 52, Central Street	For selling milk adulterated with the addition of 14.2 per cent. of added water	Fined £2 and £1 3s. costs
..	Magdaline Porter, 74, Bastwick Street	For selling milk adulterated with the abstraction of 7.3 per cent. of fat	Fined £2 and £1 3s. costs
..	Robert A. Scott, 21, Finsbury Market	For selling milk adulterated with the abstraction of 10.3 per cent. of fat at 3, Tabernacle Street	Withdrawn
..	William Evans, 136, Whitecross Street	For selling milk adulterated with the addition of 7.1 per cent. of added water.	Fined £2 and £1 3s. costs
..	Do. do.	For selling butter adulterated with 86.0 per cent. of foreign fat	Fined £3 and £1 3s. costs
Nov. 24th ...	Mrs. Mills, 6, Brewer Street North	For selling coffee adulterated with 50 per cent. of chicory	Ordered to pay 12s. 6d. costs
..	Emma Quilter, 11, Wynyatt Street	For selling coffee adulterated with 75 per cent. of chicory	Ordered to pay 12s. 6d. costs

SMOKE NUISANCES.

Date.	Name and Address of Defendant.	Offence.	Result.
April 2 ...	Lawrence Jacobs & Co., 80-84, Golden Lane, E.C.	For allowing black smoke to issue from boiler chimney shaft in such a quantity as to be a nuisance	Fined £1 and £1 3s. costs
July 16th ...	Johns, Son & Watts, 40-48, City Road	For allowing black smoke to issue from boiler chimney shaft in such a quantity as to be a nuisance	Fined £2 and £1 3s. costs
Sept. 10 ...	Johns, Son & Watts, 40-48, City Road	For allowing black smoke to issue from boiler chimney shaft in such a quantity as to be a nuisance	Fined £1 and £2 2s. costs
Oct. 15 ...	County of London and Brush Provincial Electric Lighting Co., Ltd., Moorgate Court, Moorgate St.	For allowing black smoke to issue from boiler chimney shaft at the Electric Lighting Station, City Road, in such a quantity as to be a nuisance	Fined £1 and £2 2s. costs
Dec. 10 ...	Do. do.	For allowing black smoke to issue from boiler chimney shaft at the Electric Lighting Station, City Road, in such a quantity as to be a nuisance	Fined £5 and £2 2s. costs
Dec. 18 ...	The London and India Docks Co., 109, Leadenhall Street, E.C.	For allowing black smoke to issue from boiler chimney shaft at the Cold Air Stores, St. John Street, in such a quantity as to be a nuisance	Fined £4 and 2s. costs

LONDON COUNTY COUNCIL (GENERAL POWERS) ACT, 1902.

March 6th...	Dominico Ciullo, 63, St. Peter Street, Islington	Selling ice cream from a barrow without having name and address inscribed thereon	Fined 5s. and 2s. costs
April 2nd ...	Otabio Morganti, 40, Shepherdess Walk, N.	Selling ice cream from a barrow without having name and address inscribed thereon	Fined 5s. and £1 3s. costs

MEMORANDUM

TO :	FROM :	SUBJECT :
The Secretary	The Director	General Administration
The Secretary	The Director	General Administration
The Secretary	The Director	General Administration
The Secretary	The Director	General Administration
The Secretary	The Director	General Administration
The Secretary	The Director	General Administration
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The Secretary	The Director	General Administration

LONDON COUNTY COUNCIL (GENERAL PURPOSES) ACT 1963

The following provisions of the London County Council (General Purposes) Act 1963 shall apply to the Council and to the Council's officers and servants in relation to the Council's general administration:

Section 1. The Council shall have the following powers and duties:

(a) to manage the Council's general administration;

(b) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(c) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(d) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(e) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(f) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(g) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(h) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(i) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(j) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(k) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(l) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(m) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(n) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(o) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(p) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(q) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(r) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(s) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(t) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(u) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(v) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(w) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(x) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(y) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

(z) to make such arrangements as may be necessary for the efficient management of the Council's general administration;

LOCAL GOVERNMENT TABLES.

LOCAL GOVERNMENT TABLE

Year	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Population	1,210	1,340	1,480	1,620	1,760	1,900	2,040	2,180	2,320	2,460	2,600	2,740	2,880
Area (sq. mi.)	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6
Population density	378	394	411	426	439	452	464	478	492	504	519	537	550
Number of families	215	235	255	275	295	315	335	355	375	395	415	435	455
Number of households	185	205	225	245	265	285	305	325	345	365	385	405	425
Number of dwellings	235	255	275	295	315	335	355	375	395	415	435	455	475
Number of families per household	1.14	1.16	1.18	1.20	1.22	1.24	1.26	1.28	1.30	1.32	1.34	1.36	1.38
Number of dwellings per household	1.24	1.26	1.28	1.30	1.32	1.34	1.36	1.38	1.40	1.42	1.44	1.46	1.48
Number of families per dwelling	0.91	0.93	0.95	0.97	0.99	1.01	1.03	1.05	1.07	1.09	1.11	1.13	1.15
Number of households per dwelling	0.79	0.81	0.83	0.85	0.87	0.89	0.91	0.93	0.95	0.97	0.99	1.01	1.03
Number of dwellings per household	1.14	1.16	1.18	1.20	1.22	1.24	1.26	1.28	1.30	1.32	1.34	1.36	1.38
Number of families per dwelling	0.91	0.93	0.95	0.97	0.99	1.01	1.03	1.05	1.07	1.09	1.11	1.13	1.15
Number of households per dwelling	0.79	0.81	0.83	0.85	0.87	0.89	0.91	0.93	0.95	0.97	0.99	1.01	1.03

Name of District—METROPOLITAN BOROUGH OF FINSBURY.
FOR WHOLE DISTRICT.

YEAR.	Population estimated to middle of each Year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.		DEATHS IN PUBLIC INSTITUTIONS.	Deaths of non-residents registered in District.	Deaths of Residents registered beyond District.	DEATHS AT ALL AGES NETT.	
		Number.	Rate*	Number.	Rate per 1,000 Births registered.	Number.	Rate*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1897	107,471	3,156	29.3	663	210.0	1,745	16.2	128	128	881	2,498	22.6
1898	107,472	3,467	32.2	682	196.7	1,698	15.8	124	124	905	2,479	23.0
1899	106,662	3,344	31.4	662	197.9	1,702	15.6	121	121	1,048	2,629	24.6
1900	101,576	3,259	32.8	574	176.1	1,592	15.6	95	95	981	2,478	24.3
1901	101,463	3,792	37.3	461	121.6	1,318	13.0	33	29	880	2,169	21.4
1902	100,487	3,624	36.0	558	153.9	1,376	13.6	40	35	907	2,283	22.7
Approximate Averages for years 1897-1902	104,188	3,440	33.1	600	176.0	1,572	14.9	90	89	934	2,422	23.1
1903	100,487	3,664	36.4	503	159.1	1,123	11.1	43	46	870	1,993	19.8

* Rates calculated per 1,000 of estimated population.

Note.—The deaths to be included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term of "Non-residents" is meant persons brought into the district on account of illness, and dying there; and by the term "Residents" is meant persons who have been taken out of the district on account of illness, and have died elsewhere.

Area of District in acres (exclusively of area covered by water). 589

Total population at all ages 101,463
Number of inhabited houses, 9,280
Average number of persons per house, 10.9.

} At Census of 1901.

Note.—The above figures for 1897-1900 are approximate only, and have been arrived at by the addition of the figures for the Parishes of Clerkenwell and St. Luke.

TABLE II.

Borough of Finsbury.

NAMES OF LOCALITIES	1—THE BOROUGH				2—NORTH CLERKENWELL				3—SOUTH CLERKENWELL				4—FINSBURY (ST LUKE)				5—ST SEPULCHRE			
	Population estimated to middle of each Year	Births registered	Deaths at all Ages	Deaths under 1 year	Population estimated to middle of each Year	Births registered	Deaths at all Ages	Deaths under 1 year	Population estimated to middle of each Year	Births registered	Deaths at all Ages	Deaths under 1 year	Population estimated to middle of each Year	Births registered	Deaths at all Ages	Deaths under 1 year	Population estimated to middle of each Year	Births registered	Deaths at all Ages	Deaths under 1 year
YEAR	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d
1901	101,463	3,792	2,161	461	35,028	1,059	699	158	28,676	888	583	124	35,375	1,798	840	172	1,643	37	31	6
1902	101,463	3,624	2,283	558	35,028	1,056	783	183	28,676	871	593	152	37,375	1,649	873	217	1,643	38	34	6
1903	100,487	3,664	1,993	503	34,691	1,060	667	163	28,400	879	519	125	35,769	1,692	776	210	1,627	33	31	5

NOTES—(a) The separate localities adopted for this table should be areas of which the populations are obtainable from the census returns, such as wards, parishes or groups of parishes, or registration sub-districts. Block 1 may, if desired, be used for the whole district; and blocks 2, 3, &c., for the several localities. In small districts without recognised divisions of known population this Table need not be filled up.

(b) Deaths of residents occurring beyond the district are to be included in sub-columns *c* of this table, and those of non-residents registered in the district excluded. (See note on Table I. as to meaning of terms "resident" and "non-resident.")

(c) Deaths of residents occurring in public institutions are to be allotted to the respective localities, according to addresses of the deceased.

TABLE III.
 CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1903.
Borough of Finsbury.

Notifiable Disease	Cases Notified in Whole District					Total Cases Notified in each Locality				No. of Cases removed to Hospital from each Locality			
	At All Ages	At Ages—Year				1 North Clerkenwell	2 South Clerkenwell	3 Finsbury (St. Luke)	4 St. Sepulchre	1 North Clerkenwell	2 South Clerkenwell	3 Finsbury (St. Luke)	4 St. Sepulchre
		Under 1	1 to 5	5 to 15	15 to 25									25 to 65	65 and upwards
Small-pox ...	1	—	—	—	1	—	—	—	—	1	—	—	—
Cholera ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria ...	119	3	54	46	8	8	—	—	44	26	49	—	48
Membranous croup ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas ...	108	5	1	3	17	74	8	—	32	23	52	1	—
Scarlet Fever ...	283	1	107	147	23	5	—	—	95	59	127	2	125
Typhus Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever ...	47	—	1	15	14	17	—	—	20	9	18	—	16
Relapsing Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Continued Fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever ...	8	—	—	—	4	4	—	—	1	1	6	—	4
Plague ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Varicella ...	20	2	11	7	—	—	—	—	5	7	8	—	—
Totals ...	586	11	174	218	66	109	8	198	125	260	3	153	193

TABLE IV.

Borough of Finsbury.

CAUSES AND AGES AT DEATH DURING THE YEAR, 1903.

Causes of Death.	Deaths in District at subjoined Ages							Deaths in Localities (at all Ages)				Deaths in Public Institutions
	All ages	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	North Clerkenwell	South Clerkenwell	Finsbury (St Luke)	St. Sepulchre	
Measles	69	19	48	1	1	...	...	27	9	32	1	9
Scarlet Fever	12	1	5	4	1	1	...	6	2	4	...	12
Whooping Cough	52	21	26	5	...	...	...	18	19	15	...	14
Diphtheria and Membranous Croup	12	1	5	4	...	1	1	3	1	8	...	8
Fever { Typhus ... ..	...	...	...	...	...	...	...	...	...	...	...	...
{ Enteric	11	...	...	...	6	5	...	4	4	3	...	10
{ Continued ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza	10	1	...	...	...	7	2	4	3	3	...	3
Diarrhœa	71	53	12	1	...	1	4	21	15	35	...	10
Enteritis	29	24	3	...	...	...	2	15	5	8	1	8
Puerperal Fever... ..	4	...	...	...	4	...	...	...	...	4	...	2
Erysipelas	2	1	...	...	...	1	...	1	1	...	...	1
Other Septic Diseases	23	4	5	1	3	7	3	10	3	9	1	21
Phthisis	223	4	4	5	20	179	11	82	46	93	2	117
Other Tubercular Diseases... ..	39	12	13	4	2	8	...	9	9	21	...	27
Cancer, Malignant Disease	92	...	...	...	2	66	24	35	21	34	2	58
Bronchitis	221	54	33	2	2	50	80	64	64	86	7	88
Pneumonia	159	41	51	5	1	52	9	45	43	68	3	55
Other Diseases of Respiratory Organs	17	2	1	0	5	7	2	8	6	3	...	10
Alcoholism	22	...	...	...	...	22	...	9	1	12	...	8
Cirrhosis of Liver	29	...	...	1	...	26	2	8	6	15	...	11
Veneral Diseases	13	10	...	...	...	2	1	3	4	6	...	4
Premature Birth... ..	70	70	...	...	...	...	...	23	21	25	1	8
Diseases and Accidents of Parturition	3	...	...	...	...	3	...	2	...	1	...	...
Heart Diseases	130	...	2	4	15	74	35	49	42	34	5	58
Other Diseases of Circulation	83	...	...	...	...	50	33	39	22	21	1	36
Accidents	49	6	5	7	1	18	12	10	16	22	1	33
Suicides	15	...	...	...	2	10	3	6	3	6	...	7
Renal Diseases	4	...	...	...	...	3	1	...	3	1	...	2
Nervous and Cerebral Diseases... ..	44	...	1	1	...	28	14	13	10	21	...	28
Senility	109	...	...	...	...	2	107	28	28	51	2	76
Overlain in Bed	30	30	...	...	...	...	...	9	4	17	...	2
Convulsions	25	17	8	...	...	...	...	12	7	5	1	...
Developmental Diseases	28	22	4	...	1	1	...	7	9	12	...	12
Diseases of Stomach	13	2	...	...	2	9	...	5	4	4	...	7
Inflammation and Softening of Brain	3	...	...	...	...	1	2	1	2	...	...	2
Meningitis	26	11	9	2	...	4	...	5	11	10	...	16
Nephritis and Bright's Disease	50	...	3	2	2	37	6	17	14	17	2	30
Intestinal Obstruction	11	3	...	...	...	5	3	3	6	2	...	8
Tuberculous Meningitis	22	9	12	...	1	...	...	7	5	10	...	5
Tumours & other Diseases of the Female Organs	3	...	...	...	1	2	...	2	1	...	...	3
Murder	4	...	1	1	...	2	...	3	...	1	...	2
Marasmus	71	64	7	...	...	...	...	24	18	29	...	7
All other causes	90	21	10	3	6	32	18	30	31	28	1	52
All cases	1993	503	268	53	78	716	375	667	519	776	31	870

VACCINATION RETURNS.

RETURN FOR THE PERIOD JANUARY—JUNE, 1903.

RETURN to be made on or before 8th of February, 1904, by Mr. T. J. Garstang, Vaccination Officer of the Holborn Union, respecting the Vaccination of Children whose Births were registered in the Finsbury District, from 1st January to 30th June, 1903, inclusive.

(Return made to the Board of Guardians.)

Registration Sub-Districts comprised in the Vaccination Officer's District	Number of Births returned in the "Birth List Sheets" as registered from 1st January to 30th June, 1903	Number of these Births duly entered by 31st January, 1904, in Columns I, II, IV and V of the "Vaccination Register" (Birth List Sheets), viz:					Number of these Births which on 31st January, 1904, remained unentered in the "Vaccination Register" on account (as shown by Report Book) of:—			Number of these Births remaining on 31st January, 1904, neither duly entered in the "Vaccination Register" (columns 3, 4, 5, 6, and 7 of this Return) nor temporarily accounted for in the "Report Book" (columns 8, 9, and 10 of this Return)	Number of Certifi- cates of Conscientious Objection actually received by the Vaccination Officer, irrespective of the dates of birth of the Children to which they relate, during the year 1903.	
		Col I		Col II		Col IV	Col V	Postpone- ment by Medical Certificate	Removal to Districts, the Vaccination Officer of which has been duly apprised			Removal to Places un- known, or which cannot be reached, and Cases not having been found
		Success- fully Vac- cinated	Insus- ceptible of Vaccina- tion	Had Small Pox	Number in respect of whom Certifi- cates of Con- scientious Ob- jection have been received	Dead, Unvac- cinated						
1	2	3	4	5	6	7	8	9	10	11	12	
1. Finsbury	862	482	1	0	0	95	17	198	36	33	1	
2. Clerkenwell, North	549	363	0	0	3	39	28	49	32	35	10	
3. Clerkenwell, South	450	340	0	0	1	31	15	33	18	12	4	
Total	1861	1185	1	0	4	165	60	280	86	80	15	

Dated 3rd February, 1904.

Signed, THOMAS J. GARSTANG, Vaccination Officer.

VACCINATION RETURNS.

TOTAL RETURN FOR 1902.

RETURN made on or before 8th February, 1904, by Mr. T. J. Garstang, Vaccination Officer of the Holborn Union, respecting the Vaccination of Children whose Births were registered in the Finsbury District, from 1st January to 31st December, 1902, inclusive.

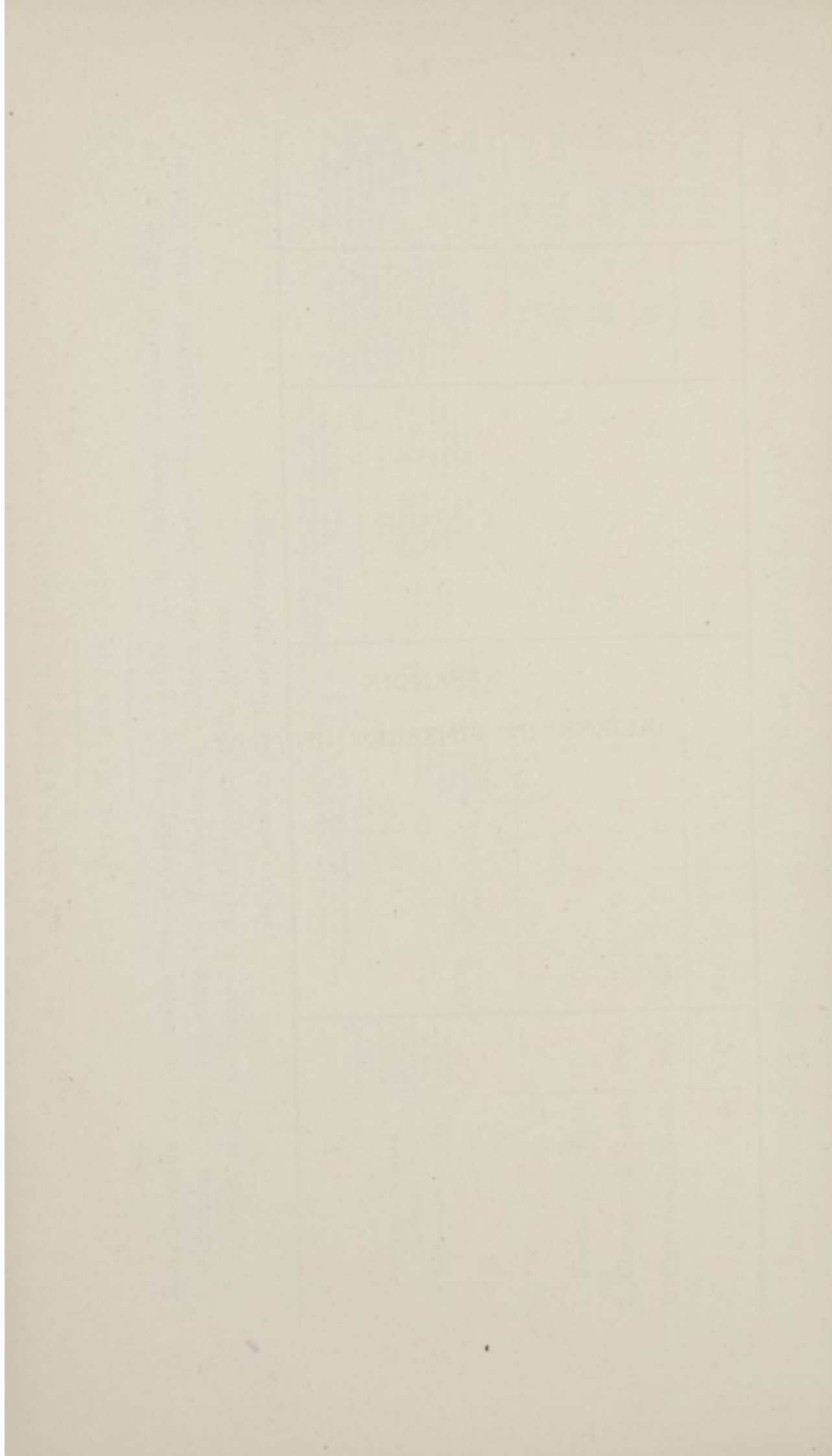
(Return made to the Board of Guardians.)

Registration Sub-Districts comprised in the Vaccination Officer's District	Number of Births returned in the "Birth List Sheets" as registered from 1st January to 31st Dec., 1902	Number of these Births duly entered by 31st January, 1904, in Columns I, II, IV and V of the "Vaccination Register" (Birth List Sheets), viz:					Number of these Births which on 31st January, 1904, remained unentered in the "Vaccination Register" on account (as shown by Report Book) of:—			Number of these Births remaining on 31st January, 1904, neither duly entered in the "Vaccination Register" (columns 3, 4, 5, 6, and 7 of this Return) nor temporarily accounted for in the "Report Book" (columns 8, 9, and 10 of this Return)	Total Number of Certificates of Successful Primary Vaccination at ALL AGES received during each of the calendar years 1902 and 1903	
		Col I Success- fully Vac- cinated	Col II		Col IV Number in respect of whom Certifi- cates of Con- scientious Ob- jection have been received	Col V Dead, Unvac- cinated	Postpone- ment by Medical Certificate	Removal to Districts, the Vaccination Officer of which has been duly apprised	Removal to Places un- known, or which cannot be reached; and Cases not having been found		1902	1903
			Insus- ceptible of Vaccina- tion	Had Small Pox								
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Finsbury, St. Luke	1657	978	1	0	2	184	15	358	74	45	2160	1329
2. Clerkenwell, North	1068	722	0	0	8	124	29	93	49	43	990	948
3. Clerkenwell, South	884	635	0	0	4	99	16	74	34	22	1270	872
Total	3609	2335	1	0	14	407	60	525	157	110	4420	3149

Dated 3rd February, 1904.

Signed, THOMAS J. GARSTANG, *Vaccination Officer.*

APPENDIX
ALPHABETICALLY BY NAME



ALIENS IN FINSBURY.

The following table shows the number of aliens in Finsbury in 1903, and the number of the same in 1902 and 1901. It is based on the returns made to the Registrar-General under the provisions of the Aliens Act, 1902.

APPENDIX.

(ALIENS IN FINSBURY IN 1903.)

APPENDIX

ALBENS IN WISCONSIN IN 1909

ALIENS IN FINSBURY.

The Census Returns for 1901 record the total number of aliens in Finsbury as 2,487. Previously to that year the Census Report was based on Registration Areas, and therefore Finsbury (Clerkenwell, St. Luke's, &c., as it then was) was included in the Holborn Registration District, and hence it is impossible to say exactly what number of aliens lived in what is now the Borough of Finsbury. In any event there has been an increase, as the following figures show :—

FOREIGNERS ENUMERATED IN HOLBORN REGISTRATION DISTRICT
1861-1891, AND METROPOLITAN BOROUGHS OF HOLBORN AND
FINSBURY IN 1901.

WHERE BORN.	1861.	1871.	1881.	1891.	1901.	
					Finsbury.	Holborn.
Born in Europe.						
France	378	485	329	354	186	660
Switzerland	87	93	106	118	79	247
Spain	14	16	11	21	4	50
Portugal	5	3	1	—	2	8
Italy... ..	767	909	1,561	1,451	1,065	2,029
Greece	8	8	3	3	1	19
Turkey	4	1	5	2	3	16
Germany	569	954	921	996	634	1,098
Prussia	177					
Hungary and Austria ...	40	60	80	131	127	207
Belgium	47	88	41	71	31	113
Holland	48	42	45	69	46	109
Denmark	13	28	15	19	15	41
Norway	7	7	9	10	6	14
Sweden	10	27	16	18	6	44
Russia	18	28	24	92	90	240
Poland	64	47	44	78	73	112
Servia	—	—	1	—	34	23
Roumania	—	—	—	12	—	—
Born in Asia	2	1	—	8	—	26
Born in Africa	4	1	2	6	3	4
Born in America	127	71	161	175	82	636
Other Countries	—	1	3	4	—	8
TOTAL	2,389	2,870	3,378	3,638	2,487	5,704

From investigations which have been made by this Department during 1903, there can be little doubt that either the figures of the Census returns are incorrect (which, owing to various circumstances, may be possible), or there has been since 1901 a greater proportionate increase than before that date. The following Table is the result of a careful distribution of the Census figures of 1861-91, and includes the Census figures of 1901 and the result of our own enquiries in Finsbury in 1903:—

Decennial Periods.	No. of Italians.	Total Number of Aliens.	Total Population of Borough of Finsbury.	Percentage of Aliens to Total Population.
1861	130	1,000	129,031	0·77
1871	250	1,200	124,722	0·96
1881	550	1,400	112,382	1·24
1891	500	1,500	110,907	1·35
1901	1,065	2,487	101,463	2·45
1903	1,400	3,000	100,000	3·00

NOTE.—It is estimated that there are about 750-1,000 Jews (English-born) living in Finsbury, and about 3,000 Jews employed in Finsbury but not resident there. These figures have not been included in the above Table. The returns for 1903 include the children of aliens born in Finsbury.

Thus it will be seen that there has been an uninterrupted increase not only in the number of aliens in the Borough, but in the percentage of aliens to the total population. This increase has been most marked among the Italians, of whom there are now about 1,400 in Finsbury, or about the same number as all the rest of the aliens put together. According to the Census there were 1,065 Italians in Finsbury in 1901. In 1903 the numbers were as follows:—

	Italian Quarter.	Elsewhere in Finsbury.	Total.
Italians born in Italy	551	452	1,003
Italians born in England	200	150	350
Italians working in Finsbury but not residing there	—	—	70
Total	751	602	1,423

Thus it would appear that at least 1,353 Italians were resident in the Borough. In addition to these 1,353 we have come across about 70 Italians working in Finsbury but resident in other parts of London. Taking all things together I am of opinion that there are resident or at work in Finsbury at the present time not less than 1,400-1,500 Italians, and another 30 children of mixed nationality, half-Italian. Almost exactly half of the Italians in Finsbury live in the Italian Quarter, and those who do not actually live within the boundaries of this area live as near to it as they can find accommodation. About 80 or 100 of the resident Italians live in St. Luke (or Eastern) Division of the Borough, which leaves, roughly, 1,250-1,300 Italians resident in Clerkenwell (or Western) Division of the Borough. In 1861 there were 128 Italians in the whole of Clerkenwell. So that during 40 years the resident Italian population of the Borough has increased by 1,200-1,250, whilst the total population has decreased by 29,000.

From these figures it will be apparent that the number of aliens actually and also in proportion to the population has increased during the last forty years. But when all is said the increase is a small one, and does not lend support to the exaggerated and sometimes extravagant statements as to the invasion of the foreigner. There is indeed evidence to show that the much proclaimed alien invasion of the United Kingdom is not in accordance with the facts of the case. The following table sets out the state of affairs according to the latest official returns* :—

*Report of Royal Commission on Alien Immigration, 1903, vol. i, p. 21.

Country.	Total Population.	No. of Aliens.	Percentage of Aliens to Total Population, Last Census.	Percentage of Aliens to Total Population, Previous Census.
United States of America	76,303,387	10,460,085	13·71	14·76
Switzerland	3,327,336	318,698	9·58	6·62
Denmark	2,172,380	70,900	3·26	3·19
Norway	2,221,477	67,832	3·05	2·41
Belguim	6,069,321	171,438	2·82	2·60
France	38,961,945	1,037,778	2·66	2·95
Austria	26,150,708	517,903	1·98	1·77
Germany	56,367,178	778,698	1·38	0·88
Holland	5,104,137	52,989	1·04	1·08
Hungary	17,463,791	179,809	1·03	0·77
United Kingdom	41,458,721	286,925	0·69	0·58
Sweden	4,784,981	10,112	0·21	0·09
Spain	18,121,472	36,706	0·20	0·23

From this table it will be seen that the United Kingdom is less invaded by aliens than any other Great Power.

Between 1881-1891, the aliens in the United Kingdom increased by 83,883 (135,640 in 1881, to 219,523 in 1891), and between 1891-1901, they increased 67,402 (from 219,523 to 286,925). Out of the total aliens in this country 135,377 were found to be resident in London, including 10,889 Italians.†

Origin of Aliens in Finsbury.—Italy stands first as the country sending most aliens to Finsbury (1,400). Germany is second with some 600. Then follow France, Austria-Hungary, Russia, and other European States.

†In Holborn and Finsbury 3094 Italians reside, in the City of Westminster 2282, in St. Pancras 828, in Marylebone 462, in Islington 436, and in the remaining Boroughs 1480.

In respect of Italy we have obtained the original home of 1,003 Italians resident in Finsbury, and the exact locality of their residence in Finsbury, as follows :—

Italian Origin.	Finsbury Italian Quarter.	Elsewhere in Finsbury.	Total.
Piedmont and Turin	27	8	35
Lombardy and Milan... ..	19	29	48
Parma and Piacenza	187	76	263
Genoa	9	1	10
Venice... ..	4	14	18
Tuscany and Florence	8	60	68
Rome	46	45	91
Naples, Caserta, etc.	262	200	462
Other Parts	6	2	8
Totals	568	435	1,003

The Italians are gregarious. This accounts for two characteristics of their life in Finsbury. First, they live together in groups and colonies, unassimilated with the British population; and secondly, they follow each other to England and to Finsbury, joining in family life and the same occupations.

The chief residential quarter of the people from Naples, Caserta, and Piacenza is the Italian quarter; whilst the people from Venice and Tuscany settle in other parts of the Borough. This is due in part to the congestion of the Italian Colony itself, and in part to national association and family connections. Comparatively few Romans live in the Italian Colony, nor do the natives of Florence settle much in this district. Yet it naturally comes about that Italians obtain shelter within a short radius of their quarter, and many of the streets immediately surrounding Saffron Hill are now showing marked signs of Italian residence.

Occupation of Aliens in Finsbury.—A glance at the above table will suggest something of the occupation of the Italians in the Borough. Between forty and fifty per cent. of the Italians now in Finsbury hail from the province immediately around Naples. In the main it may be said that the immigrants from this district are engaged in Finsbury in ice-cream work, organ-playing, and miscellaneous occupations. The second district sending most Italians to Finsbury is that around Piacenza and Parma, which provides twenty-six per cent. of the total. These places are situated in Emilia, on the railway between Milan and Bologna, north of the Apennines. Their occupation in London is mostly as asphalters, paviors, and mosaic-floor workers. The district just south of the Apennines—Massa-Carrara and Lucca, in Tuscany—sends many of the plaster-model makers and the masons. The distribution of the various Italians when they arrive in Finsbury is characteristic. They club together according to occupation.

In January, 1903, we found that the occupations of the Italians then in Finsbury (numbering some 705 adults) were distributed as follows:—

OCCUPATION OF ITALIANS RESIDENT IN FINSBURY IN 1903.

Occupation.	Italian Colony.	Elsewhere in Finsbury.	Total.
Unemployed	16	3	19
Ice Cream Work	28	56	84
Barbers and Hairdressers	13	30	43
Carpenters and Masons	34	9	43
Porters and Servants	25	—	25
Bootmakers	12	7	19
Artist Models	2	—	2
Asphalters, Paviers, Mosaic-Floor Workers	84	45	129
Organ-Makers or Players	43	5	48
Tailors	8	4	12
Confectioners and Restaurant Keepers	19	45	64
Plaster Workers	1	52	53
Painters	8	2	10
Waiters	8	7	15
Bakers	—	4	4
Artificial Flower Makers	2	—	2
Knife Grinders	—	4	4
Fruiterers	1	31	32
Cabinet Makers	2	30	32
Miscellaneous : -- <i>i.e.</i> , Engineers, Lodging-House Keepers, Charwomen, Clerks, Insurance Agents, Engravers, Interpreters, Publicans, Butchers, Ironworkers, Stablemen, Needleworkers, Scene Shifters, Midwives, Polishers, Printers, Glass Workers, Hatters, Labourers, Carmen, Hawkers. }	43	22	65
	349	356	705

Thus it will be seen that of all the Italians in the Borough 18 per cent. work as asphalters, paviors, etc., 12 per cent. are engaged in the ice-cream industry, 13 per cent. deal in other occupations, concerning the preparation or sale of food, 8 per cent. in modelling work, and 6 per cent. are engaged in organ-making and playing. It will be desirable to note briefly the chief facts respecting these employments:—

1. *Asphalters, Paviors and Mosaic Floor Workers.*—A few Englishmen are employed in this line of work, but, practically speaking, it is mostly done throughout London by Italians. They come as a rule from Piacenza, Parma, Milan and Piedmont generally. They work in gangs for special firms, paving companies, or building contractors. Usually they work by the day and not by the hour, being paid about 4s. to 4s. 6d. per diem. The common hours of work are from 6 a.m. to 6 p.m., and after work is over they retire to their quarters and spend the evenings in the common rooms of the houses in which they live, smoking, singing, or hanging about. The head of a well-known asphaltting firm states that he employs thirty to forty Italians for laying asphalt, and he prefers Italians to Englishmen for two chief reasons. In the first place, they are said to be more reliable, and in the second place they can stand the heat of the hot new pavement better than English workmen. The mosaic work is, as a rule, marble work. Small pieces of Carrara marble are set in ordinary cement, and the whole, when set, is rubbed down smooth and polished with a stone rubber. It appears that there are practically no English mosaic workers, the whole of the work being in the hands of the Italians, though some of the coloured marble comes from Belgium. Such mosaic flooring is increasingly used for public offices and buildings, in corridors, lavatories, &c. One firm alone in Central London employs 80 to 100 Italians in this process of flooring. The busy season is in the summer, much less work being done in the winter. The work is not of course confined to London. Many of these Italian mosaic-floor workers are sent into the provinces for longer or shorter periods. The wages are the same as in the asphaltting, 4s. to 4s. 6d. a day.

2. The *ice-cream industry* was fully dealt with in my last report.*

* Report on Health of Finsbury, 1902, pp. 109-115.

3. *Plaster-cast Making* is another of the Italian trades carried on in Finsbury. A couple of actual cases may serve as illustrations of the way in which this industry is carried on. Sig. L., 8, B. Street, employs eleven men, four of whom live in the house, and seven hawk the casts. The latter go for a week or so to towns round London (Brighton, &c.). When away they lodge with other Italians. They look out for persons of their own nationality selling ice-cream, etc., then start an acquaintanceship, and ultimately lodge with them. If there are no Italians to be found in the town to which they go, then they reside in a common lodging-house or similar institution. If trade is good and they get rid of their articles, they send to Sig. L., or, as they term it "the house," for two or three more boxes of assorted casts. After some weeks absence these wandering pedlars return to B. Street, and assist in the manufacture, or start on another round of visits to neighbouring towns. When in London they reside always in B. Street, and live in a co-operative or communal manner. These men are mostly young, but no boys under eighteen are employed, the usual age being from about twenty to twenty-five. Almost all of them come from Lucca in Tuscany, or within twenty miles of Lucca. The families of the older men remain in Italy, and the younger men are unmarried. They have been in England perhaps sixteen or eighteen months. Residence here is uncertain. They go elsewhere, or commence other work if at any time the plaster-casting trade falls off, or fails to bring in an adequate return. If their relatives in Italy are out of work, they write to Finsbury, and come over for a time to try their fortunes here. "If trouble in my family to-day," said one of them recently, "I go home to-night"; and that represents the general idea in the minds of Italians in Finsbury. They come and go almost without thought. Or they may go on to America, making and selling their casts. They are wanderers on the face of the earth.

The plaster-cast process practised by the Italians is briefly as follows:—Porcelain or cement figures are purchased. Such are placed in large rough moulds which allow a clear space of, say, a quarter of an inch all round the figure. Into this mould gelatine is now poured, and allowed to stand all night to cool and set. The solidified gelatine is then cut into two sections in a vertical line, and

the porcelain model removed. The gelatine mould is then used for casting plaster figures. The plaster consists of ordinary plaster of Paris and water mixed. The casts are hollow, partly on account of cost of material, and partly to reduce the weight of the goods for carrying. They are retailed at varying prices, from twopence upwards. The salesman hawker has one-third of the price realized; "the house" (*i.e.* Sig. L.) takes two-thirds. There are less than twenty firms similar to this in London. Recently a score or more of Italian plaster-makers arrived here from Paris.

Sig. F., of 1, S. Street, is another of the Italian plaster workers in Finsbury. He came from near Venice about five years ago. He had previously worked in Paris, Berlin, and St. Petersburg for longer or shorter periods. He employs at S. Street six men and three girls. They came from various parts of Italy, and their chief recommendation has been their artistic talent and special skill. Occasionally F. employs other nationalities; a German is just leaving him, and two others are coming in from Cologne. The wages he pays range from 36s. per week to £2 2s. per week. Two of the men sleep on the premises. The work is regular, and not greatly affected by season. The figures and casts made by F. are of various qualities, hardened by a "secret process," which makes them like marble. The girls do the rough colouring work, and specially skilled men do the finishing. Sig. F. stated that he is the only maker of this class of goods in London, and he sells in Liverpool, Manchester, Glasgow and Belfast. He also exports to Canada and Australia, some of his export orders being very large. He also supplies firms in London. The average wholesale price of his large figures is about 12s. per pair; of his smaller figures about 2s. per pair.

4. *Organ-making and Organ-playing.*—In the Italian quarter there is an organ factory. The owner has been in England for twenty-six years. He came from Caserta, and eventually married an English woman and settled down here. He lives in the Quarter. The firm produces about sixty piano-organs every year. These are not for hire, but for sale, and not a few of them find a market in Buffalo, New York, Chicago, and other places in the United States. Some even go to South Africa, and a few go direct to the Continent of Europe. The majority are sold, however, to English firms, who

retail. The price varies from £16 to £40. Some 16 or 18 men, all Italians, are occupied regularly throughout the year, either in the manufacture or repairing of organs. The wages of polishers and stringers average about £2 a week, but the music markers are paid £3. It is said that all the materials are of "British manufacture." Most of the employés came from Turin, Genoa, and the north of Italy. This firm also store organs, and in their sheds in the Italian quarter may be found 40 or 50 barrel-organs. These belong to different Italians, who pay "shed money." When an Italian desires to do a day's barrel-organ playing, he hires from neighbours who own organs. It is said that whilst North Italians make the organs, Southern Italians play them. As a general rule, it may be said that the expert work accomplished by Italians is commonly done by North Italians, and the unexpert work by Southern Italians.

Barrel-organ playing has now become a general annoyance in London, and is greatly on the increase. Most of the people are simply lazy, and some of them are worse. They do well, make a considerable amount of money, and are only grinding with a hired organ whilst their ice-creams are cooling, or their asphalte hardening. The Italian Immigrant has many strings to his bow, and when he returns in the autumn to his own country, it is with sufficient cash to carry him through the winter. Next spring will see him back again, or he may decide to stop in England for two or three winters, and then retire on the proceeds. In the winter he will roast potatoes and chestnuts, and work the barrel-organ; in summer he will change his occupation to asphalte laying and ice-cream making.

The occupation of the other aliens in the Borough besides the Italians is various. The Germans are, perhaps, chiefly working at furniture, tailoring, and the baking trade. About 190 men are engaged as bakers, and more than half of them are Germans. Many persons of the same nationality, and many Swiss, are engaged in the watch-making and jewellery trades.

New Trades introduced by Aliens.—It is probable that in many ways aliens have introduced modifications into existing processes carried on in Finsbury. In some cases these

have been thoroughly sound improvements. Doubtless the reverse is also true. Some new processes have been introduced, such as asphaltting, mosaic floors, plaster-casting, pearl-handle making, and some forms of furniture work (which used to be imported and are now done here). Many new watch-making tools have been introduced into the old watch-making trade of Clerkenwell. Germans, Swiss and Swedes, appear to be chiefly responsible for this. I am informed also that certain horological work of high standard has been done in Clerkenwell by foreigners. One of the leading watch tool manufacturers and dealers in Finsbury, and the head of a well-known firm, tells me that whereas 50 years ago about 10 per cent. of their kind of work was foreign made, now as much as 70 per cent. is of foreign make. Consequently, Clerkenwell manufacture has greatly declined, and many of the "chamber-men" have vanished. He attributes this to competition, chiefly from Switzerland, America, and Germany. Coventry also is now able to produce similar articles to the old Clerkenwell produce at a lower price. As my informant expressed it: "Cheapness has done it; the foreigners have in many ways helped us and shown us good points, and they deserve their reward." He further added that if foreign immigration could be limited to skilled workmen such as have come into Finsbury, it was a great benefit. Generally speaking, I have formed the opinion that with the exception of the Italians, the foreign immigrants now residing in Finsbury are of the better class and are skilled. This applies also to many of the Italians, but cannot be said of them as a whole.

THE JEWS.

In our various duties throughout the Borough we have met with some 250 Jews, most of them of English birth. A Jewish gentleman of long residence and considerable experience as the head of a large firm in Finsbury tells me that there are probably 750-1,000 Jews resident in the Borough. And he agrees with me that in all probability there are some two or three thousand Jews and Jewesses (mostly English-born) at work in the Borough. The same gentleman informs me that the foreign Jews in Finsbury are chiefly in business for themselves as employers of labour. It is not a residential quarter for foreign Jews. Formerly the St. Luke's Division used to be such, but owing to the invasion of the City the

foreign residential Jews have left the district. Another gentleman, a German Jew, in a large way of business gave me the same information. There are some dozen or more Jewish firms who have courteously given me information which shows that in some cases Jewish firms are employing practically no Jews, and in other cases many Jews. Taking ten such firms haphazard I find 200 Jews and Jewesses employed out of 1,100 employés. The chief trades in these ten are feather cleaning, tobacconists, furriers, skin dyers, mantle and blouse makers, and stick manufacturers. Many of these Jewish firms are among the most prosperous in the Borough, and maintain a very high sanitary standard in every way. If anything, I should say that they were in advance of some neighbouring English firms. This remark does not apply to small Jewish workshops, which are not exceptional in this respect, and are more liable in some degree to overcrowding. It should be added that the larger firms in Finsbury, whether managed by "Christians" or "Jews," are maintained at rather a particularly high standard of sanitation. This is partly due to the fact that they deal in clothing, fine articles and food preparations, which necessitates great cleanliness for success of the trade.

Social Characters of Aliens.—In respect of the Italians, it may be said generally they are in some ways superior to a similar class of English persons in the same district. They take, for example, more care of their children as regards cleanliness, feeding, training, clothing, etc. The Italian children are healthier than their English neighbours, and suffer less from rickets and zymotic disease. It is difficult to produce figures, but there is no doubt at all that, per thousand births, the infant mortality amongst Italians in London is much less than amongst a similar class of English in the same district. This may be attributed partly to the personal care of the children themselves, and partly to the habits of the parents. For example, the Italians are more sober and abstemious. There is less alcoholism and less grinding poverty, and so there is less child sickness, for the children are the first to suffer from such conditions. Again, the home conditions, with the exception of overcrowding, are more favourable. The interiors of the rooms and houses inhabited by Italians are fairly clean, sometimes

extremely so, and by reason of much papering and painting the rooms generally have a bright and pleasing appearance. The beds and bed-clothing are almost invariably clean and neat, in contradistinction to the same properties and belongings of the neighbouring English. Outside their own rooms, however, the Italians are not so clean or tidy. The staircase or the yard or area of such houses is often unclean. Rubbish is left about, and sanitation generally is neglected. There is one further point which may be mentioned—namely, that Italian mothers feed their infants more wisely than their English neighbours.

Many of the Italian children attend St. Peter's Public Elementary School (Roman Catholic) in Clerkenwell Road. This school has 500 Italian scholars and 250 English and Irish scholars. None of the teachers are Italian, and the language is not taught during the day. There is a night-school held, from 5.30 to 7.30 p.m. during the week, for children to learn Italian, and this evening school is superintended by an Italian Committee, and taught by Italian teachers. There is a Continuation (evening) School carried on here three nights a week, under the London School Board, for Italians to learn English and for English persons to learn Italian. The present day-school was opened 25 years ago, but there was a public elementary school for some 20 years previously.

In reference to the Italian ice-cream makers, it should be remembered that they live and work on the same premises. A *padrone*, or general "boss," rents a house, and lives in it with his family and his assistants. The latter are the men, generally young men and sometimes boys (all Italians), who are at work in the early morning soon after four or five o'clock, obtaining ice from the local depôt, and freezing the previous day's mixture in the freezers. When the substance is made they go out with the barrows to various parts of London. A *padrone* may employ six or a dozen such young men. They sleep together, live and work together, and share in the common life of the family. Or the *padrone* rents two or four small cottages, using two rooms for himself and his family, two for his assistants, one as a common room for meals, and another as a store-room for the materials of his industry. The process of making the cream is carried on in the yard, which contains four or

five freezers and as many barrows. The financial arrangements existing between the *padrone* and his assistants differ. In some cases the men pay eighteenpence a week for sleeping accommodation, &c., and work for the *padrone*. In other cases they enter into an agreement that through the season the young men shall give their services in return for board and lodging and a small allowance of pocket-money.

Displacement of English by Aliens.—We have about 3,000 aliens in the Borough. In the Italian Quarter English have without question been displaced. There is marked congestion all over the Borough, and it cannot be doubted that if every alien left Finsbury tomorrow their places would be taken immediately by English persons. The reverse proposition must therefore be true, that these aliens have displaced English persons or have occupied available space. In Finsbury we are overcrowded without aliens. Therefore, with 3,000 aliens, we are more overcrowded. That is the position in a sentence. But as the aliens are comparatively few (3 per cent. of the entire population), the displacement, purely by aliens, is comparatively small. The congestion in Finsbury is primarily not due to aliens, but to contraction of the inhabitable house property owing to commercial invasion. The congestion is only aggravated by aliens.

During a midnight inspection in the Italian Quarter in 1902, we visited 36 tenements (containing 154 persons) and found that the percentage of tenements overcrowded was 58·4, as compared with 22·4 in the neighbouring (English) district of Noble Street, 34·7 in an area in the Eastern Division of the Borough, and 43·6 in Bastwick Street. In 1903 we made another night inspection of the Italian Quarter. We examined 95 tenements, and found 48 overcrowded. This gives a percentage of overcrowding of 50·5. On the same night we found 55·8 per cent. of overcrowding in a district (English) of Pentonville, and 21·8 per cent. in Bastwick Street.

Death Rates in Italian Quarter. As an illustration of the differences which obtain between the Italian and the native population in Finsbury, the following returns respecting the Italian Quarter may be given :—

		Population (approximate)	No. of Deaths.	Death Rates.	No. of Births.	Birth Rates.	Deaths of Infants under 1 year of age.	Infantile Death Rate.
A								
The whole Area bounded by Far- ringdon road, Mount Pleasant, Warner Street, Little Saffron Hill and Clerkenwell Road	1901	3500	66	18·8	123	35·1	18	146·4
	1902	3500	63	18·0	134	38·3	22	164·2
	1903	3500	43	12·3	114	32·6	19	166·6
B								
The Italian Quar- ter, after the elim- ination of Victoria Dwellings, Cor- poration Build- ings, and Cold- bath Buildings, as no appreciable number of Ital- ians live in them.	1901	1400	41	29·3	74	52·9	12	162·2
	1902	1400	40	28·6	85	60·7	18	211·8
	1903	1400	26	18·6	71	50·7	15	211·3
C								
The English por- tion of the popu- lation resident in the remaining portion of the Italian Quarter, marked B.	1901	670	27	40·3	27	40·3	7	259·2
	1902	670	24	35·8	33	49·2	8	242·4
	1903	670	19	28·4	18	26·9	0	0
D								
The Italian por- tion of the popu- lation resident in the remaining portion of the Italian Quarter marked B.	1901	730	14	19·2	47	64·7	5	106·4
	1902	730	16	21·9	52	71·2	10	192·3
	1903	730	7	9·6	53	72·6	7	123·1

Aliens and Sanitation.—Excluding the Italians, there are not a sufficiently large number of aliens in the Borough to form any useful opinion on this point. Every now and then we detect marked uncleanliness and overcrowding amongst isolated foreigners. But it cannot be said that this occurs so frequently as to make it proportionately greater than amongst native English people. Naturally, aliens do not understand English sanitary law until they have been here some time. I may add that on many occasions aliens suspected of infection have come to the Borough from the Port of London, but in no case has infection spread.

The Royal Commission on Alien Immigration.—The recommendations of this Commission were briefly as follows:—

1st. That the immigration of certain classes of aliens into this country should be subjected to State control and regulation.

2nd. That a Department of Immigration should be established, either in connection with the Board of Trade and Local Government Board or independent.

3rd. That improved methods be employed to secure correct statistical returns relating to alien immigration.

4th. That certain legislative power be obtained for the purpose of carrying out the following suggestions, viz.—

(a) That the Immigration Department be empowered to enforce regulations in respect to certain classes of immigrants.

(b) That they be provided with a sufficient staff of officers.

(c) That the officers be empowered to make enquiries as to the character and condition of immigrants on their arrival, and report "undesirables" to the Immigration Department.

(d) That the duty of the Immigration Department shall be to determine what shall be done with "undesirables" arriving in this country.

(e) That any alien becoming an "undesirable" within two years of his arrival, *i.e.*, that is becoming a criminal, a prostitute, a person living on the proceeds of prostitution, a person of a notoriously bad character, or a person becoming a charge upon public funds or without proper means of support, may be ordered by a Court of Summary Jurisdiction to leave

this country, and the owner of the vessel who brought him here be required to take him back. (f) In reference to all orders of repatriation, due regard be had to international arrangements. (g) Provisions for medical examination of aliens at port of arrival. (h) Compulsory powers for obtaining information at port of arrival.

5th. (a) A stricter enforcement of the powers of the Public Health (London) Act, 1891. (b) That enquiries should be made as to the existence of overcrowding among aliens. (c) That where overcrowding among aliens is found to exist the the overcrowded area may be declared to be a prohibited area in the sense that no more aliens may be allowed to go there. (d) Full notice of such an area becoming prohibited to be given at the ports of embarkation. (e) That on their arrival in this Country enquiries should be made from immigrants as to their intended destination. (f) All alien immigrants (not transmigrants) coming from and arriving at certain ports to be registered. (g) Any alien going to reside in a prohibited area should be guilty of an offence.

6th. Upon conviction of any felony or misdemeanour, a Court of Justices may direct as part of the sentence that the alien convicted shall leave the country. If this order be disobeyed, the alien shall be punished as a rogue and vagabond.

7th. That further Statutory powers should be obtained for regulating the accommodation upon and condition of foreign immigrant passenger ships.

These recommendations were signed by:—

LORD JAMES OF HEREFORD, LORD ROTHSCHILD, THE RIGHT HON. ALFRED LYTTLETON, SIR KENELM E. DIGBY, MAJOR W. EVANS GORDON, MR. HENRY NORMAN, MR. W. VALLANCE.

Lord Rothschild and Sir Kenelm E. Digby furnished a further memorandum on the opinion which they had formed, that the problem of alien immigration was mostly a local one affecting Stepney, and that the difficulty could only be met by

measures tending to diminish, in a considerable degree, the volume of alien immigration. In substance, these two Commissioners held, "That by a thorough and uniform administration " of the existing law the object aimed at in the recommendation " of preventing newly arrived aliens adding to the overcrowding " conditions of a district already full would be obtained more " effectively than by the method suggested of declaring certain " areas to be prohibited. There would be the additional " advantage that no novel or expensive machinery would be " required beyond, what appears necessary, some addition to " the number of inspectors."

Broadly, it may be said, that the alien question in Finsbury is not of an urgent character at the present time.

SUMMARY OF PROCEEDINGS UNDER THE PUBLIC HEALTH & FACTORY & WORKSHOP ACTS.

[The following Tables have been drawn up in accordance with suggestions received from the Medical Officer of Health of the Administrative County of London in order to facilitate uniformity in stating returns for the various Metropolitan Boroughs. The forms were not received in time for their incorporation in the body of the report.—G. N.]

Proceedings during 1903.

PREMISES.	NUMBER OF PLACES—				Number of in- sp. ctions, 1903.	Number of notices, 1903.	Number of pro- secutions, 1903.
	On register at end of 1902.	Added in 1903.	Removed in 1903.	On register at end of 1903.			
Milk premises	280	17	36	261	400	116	—
Cowsheds	7	—	—	7	184	12	—
Slaughter-houses ...	6	—	1	5	100	—	—
Other offensive trade premises	—	—	—	—	—	—	—
Ice cream premises ...	94	7	—	101	700	43	—
Registered houses let in lodgings	324	770	15	1079	4316	{(a) ^o 98 {(b) ^o 622	{(a) ^o 7 {(b) ^o 22

(a)^o For overcrowding.

(b)^o For other conditions.

Overcrowding, 1903.

Number of dwelling rooms overcrowded	236
Number remedied	236
Number of notices issued	236
Number of prosecutions	7

Underground rooms.

Number closed during year	27
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Insanitary houses.

Number closed under the Public Health (London) Act, 1891	—
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Shelters provided under sec. 60 (4) of the Public Health (London) Act, 1891.

Number of persons accommodated during the year	26
--	----

Customs and Inland Revenue Acts.

Number of houses for which applications were received during year	5
Number of dwellings comprised therein	60
Number of certificates granted	5

*Number of prosecutions under By-laws under Public Health
(London) Act, 1891.*

(a) For prevention of nuisance arising from snow, ice, salt, filth, etc.	—
(b) For prevention of nuisance arising from offensive matter running out of any manu- factory, etc.	—
(c) For the prevention of keeping of animals in such a manner as to be injurious to health ...	—
(d) As to paving of yards, etc., of dwelling houses	—
(e) In connection with the removal of offensive matter, etc.	2
(f) As to cesspools and privies, removal and disposal of refuse, etc.	—
(g) For securing the cleanliness of tanks, cisterns, etc.	—
(h) With respect to water closets, earth closets, etc.	2
(i) With respect to sufficiency of water supply to water closets	2
(j) With respect to drainage, etc. (Metropolis Management Act, Section 202)	6
(k) With respect to deposit of plans as to drainage, etc. (Metropolis Management Act, Section 202)	—

Mortuaries.

Total number of bodies removed	409
Total number of infectious bodies removed ...	7

Inspection of Factories, Workshops and Workplaces.

CLASS OF WORKS.	NUMBER OF PLACES.†					Number of Inspections, 1903.	Number of Notices, 1903.	Number of Prosecutions, 1903.
	On Register at end of 1902.	Added in 1903.	Removed in 1903.	On Register at end of 1903.				
				Premises.	Rooms.			
Factories ...	—	4	—	4	—	4	} 455	—
{ Factory Laundries ...	—	—	—	—	—	—		—
{ Factory Bakehouses ...	—	159	—	159	—	318		3
{ Other Factories ...	—	—	—	—	—	—	—	—
Workshops*	30	4	4	30	104	10	} 1716	—
{ Workshop Laundries ...	66	1	5	62	200	248		—
{ Workshop Bakehouses ...	1269	345	55	1559	3070	1716		1
{ Other Workshops ...	—	—	—	—	—	—	—	—
Workplaces	258	326	83	501	—	302	13	—
{ Outworkers' Premises ...	325	32	13	344	576	1186	180	—
{ Places where Food is prepared for Sale † ...	[In cluded in other work shops.]					—	—	—
{ Workplaces other than the above ...	—	—	—	—	—	—	—	—
Total ...	1948	871	160	2659	3950	3784	648	4

* In a separate Table the more important classes of workshop industry are distinguished (See page 168).

† A Register is required by s. 131 in the case of Workshops only.

‡ Under this head are included the Kitchens of Hotels, Restaurants, Eating Houses of all sorts, Tripe, Fried Fish and Eel Shops, and other places where food is prepared.

*Matters dealt with in connection with Factories, Workshops and
Workplaces.*

PARTICULARS.	NUMBER OF DEFECTS.				Notices Issued	Prosecutions
	Found	Notified by Home Office	Remedied	Notified to Home Office		
<i>Matters under the Public Health (London) Act, 1891.</i>						
Want of Cleanliness	121	37	158	—	158	—
Want of Ventilation	15	16	31	—	31	—
Want of Air Space: Over-crowding	27	1	28	—	28	—
Sanitary Accommodation. (s. 38). {	Insufficient	15	2	17	—	17
	Unsuitable	273	31	304	—	304
	Not separate for Sexes	11	7	18	—	18
Want of Drainage of Floors ...	4	—	4	—	4	—
Other Nuisances	274	3	277	—	277	4
<i>Contraventions of Factory and Workshop Act, 1901.</i>						
Occupying Underground Bakehouse without Certificate ...	—	—	—	—	—	—
Breach of Special Sanitary Requirements for Bakehouses (ss. 97 to 100)	—	—	—	—	—	—
Failure as regards Lists of Outworkers (s. 107)	51	—	51	—	36	15
Giving out work to be done in premises which are ... {	Unwholesome (s. 108)	—	—	—	—	—
		Infected (s. 110)	—	—	—	—
Allowing Wearing Apparel to be made in Premises infected by Scarlet Fever or Small-pox (s. 109)	—	—	—	—	—	—
Other Contraventions	66	—	—	66	—	—
Total	857	97	888	66	873	19

Cases reported to H.M. Inspector.

Abstract not affixed	40
As to action taken in cases notified by H.M. Inspector	78
Other cases	26
Number of underground bakehouses in use at the end of 1903	41
Certificates granted (s. 101)	40
Number of workshop rooms measured	512

List of Outworkers (s. 107).

CLASS OF HOMEWORK	NUMBER OF LISTS RECEIVED, 1903.				NUMBER OF ADDRESSES OF OUT-WORKERS	
	Up to Feb. 1st		Up to Aug. 1st		Forwarded to other Authorities	Received from other Authorities
	No. of Lists	No. of Out-workers	No. of Lists	No. of Out-workers		
Wearing Apparel						
Furriers	—	—	4	11	9	} 342
Hats and caps	1	5	2	10	12	
Mantles	3	18	3	11	26	
Millinery	2	23	2	26	49	
Shoes and boots	5	142	2	84	216	
Tailors	10	42	7	185	209	
Ties and scarves	3	197	2	87	273	
Underclothing, shirts, skirts, blouses, etc.	29	972	21	860	1802	
Lace	—	—	—	—	—	
Cabinet making	—	—	—	—	—	
Fur pulling	—	—	—	—	—	
Other	9	96	4	129	218	
TOTAL	62	1495	47	1403	2814	342

Number of Notices prohibiting homework in unwholesome premises (s. 108)	—
Number of Orders prohibiting homework in infected premises (s. 110)	—

