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REPORT
OF THE
MEDICAL OFFICER OF HEALTH
OF THE
CITY OF LONDON
FOR THE YEAR
1921



LONDON
PRINTED BY DRAKE, DRIVER & LEAVER, LTD., ROSEBERY AVENUE, E.C. 1.
1922.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

1954

REPORT
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SANITARY STAFF.

MEDICAL OFFICER OF HEALTH.		Date of Appointment.
HOWARTH, Wm. J., C.B.E., M.D., D.P.H.	Dec., 1912
VETERINARY SURGEON.		
YOUNG, T. DUNLOP, O.B.E., M.R.C.V.S., D.V.S.M. ....	.....	Nov., 1909
CLERICAL STAFF.		
LOWE, GEORGE	Sanitary Clerk	Nov., 1902
GRAY, CHARLES M. ....	.....	March, 1911
BALDWIN, HAROLD J. ....	.....	March, 1921
LEE, W. J. ....	.....	Oct., 1915
PALLET, FRANK J. ....	.....	Nov., 1914
SPALDING, C. A. ....	.....	March, 1918
BAKER, H. J. ....	.....	April, 1918
CHAPMAN, MISS B. R. ....	.....	Feb., 1920
TUNBRIDGE, MRS. ....	.....	Jan., 1917
JARVIS, MISS E. S., M.B.E. ....	.....	May, 1921
WOMAN SANITARY INSPECTOR.		
WILKINSON, MISS ANNIE M. ....	.....	June, 1909
SANITARY INSPECTORS.		
HILLS, ARTHUR REGINALD ....	.....	April, 1888
GATHERCOLE, WM. HENRY JOSEPH ....	.....	May, 1891
MAY, WILLIAM HUSSEY ....	..... (died 13th October, 1921)	May, 1891
SIMMONS, EDWARD JOHN ....	.....	June, 1892
ROBBINS, FRANCIS JOSEPH ....	.....	Sept., 1892
RALPH, WILLIAM HOLDEN ....	.....	July, 1898
ROBINSON, ERNEST S. ....	.....	Feb., 1913
FOWLER, GEORGE HENRY ....	.....	Nov., 1920
SANITARY INSPECTORS AND MEAT INSPECTORS.		
SHARP, OWEN, Senior Inspector ....	.....	May, 1892
KELLAND, WILLIAM C. ....	.....	May, 1899
METTAM, HARRY ....	.....	Aug., 1903
DAVIES, THOS. L. ....	.....	Dec., 1903
BINTCLIFFE, CHARLES E. ....	.....	March, 1907
MATSON, WILLIAM S. ....	.....	Dec., 1910
MITCHENER, WILLIAM E. ....	.....	Dec., 1910
JONES, J. ....	.....	April, 1914
SLATTER, C. ....	.....	May, 1908
KING, GEORGE G. ....	.....	April, 1910
INSPECTOR OF SLAUGHTERHOUSES AND MEAT.		
EGLIN, WILLIAM ....	.....	July, 1896
ASSISTANT INSPECTORS OF SLAUGHTERHOUSES AND MEAT.		
MURRAY, SAMUEL B. ....	.....	Sept., 1911
PENMAN, T. ....	.....	July, 1913
MELLISH, CYRIL E. ....	.....	Feb., 1912
KEEPER OF THE MORTUARY.		
OAKLEY, J. E. ....	.....	Feb., 1909
DISINFECTOR.		
McDONNELL, R. J. ....	.....	April, 1903
MESSENGERS.		
PINKNEY, ROBERT W. ....	.....	Oct., 1921
PEACOCK, PERCY L. ....	.....	Oct., 1921
LABOURERS.		
STEGGLES, T. (General Duties at Mortuary) ....	.....	Dec., 1918
POWIS, B. (Do. do. ) ....	.....	Feb., 1920
HASTINGS, T. (Do. do. ) ....	.....	June, 1920
COLLINS, W. (Gatekeeper at City Mortuary) ....	.....	Nov., 1920
ADAMS, T. C. (Meat Shed) ....	.....	May, 1905
LUDGATE, G. (Meat Shed) ....	.....	Oct., 1906
PORTERS, CENTRAL MEAT MARKET.		
POTTER, R. ....	.....	March, 1914
STRONG, S. R. ....	.....	March, 1914
CLEANERS.		
WHALEY, MRS. E. A. ....	.....	Oct., 1921
WRIGHT, MISS G. I. ....	.....	Oct., 1921
GRAHAM, MRS. L. (Bath Attendant and Cleaner) ....	.....	April, 1918

ANNUAL REPORT OF THE HEALTH OFFICER OF
SANITARY STAFF FOR THE YEAR 1921

MEDICAL OFFICER OF HEALTH
JAMES T. DUNN, D.M.S., M.B., F.R.C.S.
VETERINARY SURGEON
JAMES T. DUNN, D.M.S., M.B., F.R.C.S.
CHIEF CLERK
JAMES T. DUNN, D.M.S., M.B., F.R.C.S.

INTRODUCTORY
The year 1921 has been a year of unusual activity for the Sanitary Staff. The work has been carried out in accordance with the programme laid down in the Sanitary Staff Report for 1920. The main objects of the Sanitary Staff are to prevent the spread of infectious diseases, to improve the public health, and to deal with the various nuisances which may be a source of danger to the community.

REPORT ON THE SANITARY STAFF'S WORK IN 1921
The Sanitary Staff has carried out its work in accordance with the programme laid down in the Sanitary Staff Report for 1920. The main objects of the Sanitary Staff are to prevent the spread of infectious diseases, to improve the public health, and to deal with the various nuisances which may be a source of danger to the community.

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ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1921.

To the Right Honourable the Lord Mayor, Aldermen and Commons of the Corporation of London.

PUBLIC HEALTH DEPARTMENT,
GUILDHALL, E.C.

16th March, 1922.

MY LORD MAYOR AND GENTLEMEN,

I beg to present herewith the report of the Medical Officer of Health for the Corporation of the City of London for the year 1921.

INTRODUCTORY.

In my last report I drew attention to the fact that the statistics for the year were probably inaccurate and this presumption was proved to be well founded by the returns of the Census which was taken on the evening 19th/20th June in that year. The estimated population in 1920 was taken as 12,000, but the Census showed that the actual population for 1921 was 13,706 of which 6,716 were males and 6,990 females, a decrease in 1921 compared with 1911 of 5,951, the ratio of the populations being 70 to 100. Some time will elapse before an analysis of the figures is available.

The present report contains an account of the activities of the Health Department during 1921. On certain occasions careful consideration has been given as to future lines of action and I would refer you to the difficult subject of the lighting and means of ventilation of basement workrooms (p. 72); the use of public conveniences where there is an absence of sufficient or separate water closet accommodation in business premises (p. 70). These two reports have been prepared by Mr. Fowler.

The question of the hygiene of kitchens has received attention by Mr. Gathercole and the work of rat repression has been conducted by Mr. Mayne. In both these instances the inspectors concerned have given me considerable assistance in the preparation of my report (p.p. 75 and 82).

I also desire to direct your attention to the report on the disposal of unsound food products (p. 45), in which a description of the premises erected by the Smithfield Animal Products Company, Ltd., is set out.

An interesting report is also presented by Mr. Kelland on meat inspection work in Australia and New Zealand (p. 34). Mr. Kelland was granted leave of absence for six months on account of illness and proceeded on a journey to these countries. He used his period of leave to inspect the various meat centres which were on the route of his travels.

During the year some further progress has been made in connection with the Hutchison Street area. The Ministry of Health have now intimated approval of the declaration of this area as insanitary and a draft of the proposed scheme has been submitted for the consideration of the Court. In addition a small area known as the Vine Street Minorities Area has been reported upon and progress is being made in this connection.

Improvements have been found necessary at the Centre for the treatment of venereal disease but owing to reasons of economy it is not considered desirable to proceed with the work of extension, but rather to carry on with existing facilities until the financial position of the country is less acute.

In all directions due regard is being paid to financial circumstances and no new expense is being incurred except in connection with matters of real urgency or need.

AREA.

The City of London Registration District comprises an area of 678 acres (excluding tidal water and foreshore), or 1.051 square miles, equal to a square of 1.0252 miles to a side.

The area of "Registration London" is 74,817 acres (excluding tidal water and foreshore), or 116.9 square miles, equal to a square of 10.81 miles to a side.

The attached table contains particulars required by the Ministry of Health.

HOUSING CONDITIONS.

STATISTICS.

YEAR ENDED 31ST DECEMBER, 1921.

1.—GENERAL.

(1) Estimated Population	13,706
(2) General death-rate	11·5
(3) Death-rate from tuberculosis of the lungs	0·95
(4) Infantile mortality	93
(5) Number of dwelling-houses of all classes	1,980
(6) Number of working-class dwelling-houses	1,454
(7) Number of new working-class houses erected	Nil.

2.—UNFIT DWELLING-HOUSES.

I.—INSPECTION.

(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	759
(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	357
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	Nil.
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	7

II.—REMEDY OF DEFECTS WITHOUT SERVICE OF FORMAL NOTICES.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	120
---	-----

III.—ACTION UNDER STATUTORY POWERS.

(a) Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919.	
(1) Number of dwelling-houses in respect of which notices were served requiring repairs	Nil.
(2) Number of dwelling-houses which were rendered fit	Nil.
(a) by owners	Nil.
(b) by Local Authority in default of owners	Nil.
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	Nil.
(b) Proceedings under Public Health Acts.	
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	352
(2) Number of dwelling-houses in which defects were remedied—	
(a) by owners	337
(b) by Local Authority in default of owners	Nil.
(c) Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.	
(1) Number of representations made with a view to the making of Closing Orders	Nil.
(2) Number of dwelling-houses in respect of which Closing Orders were made	Nil.
(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit	Nil.
(4) Number of dwelling-houses in respect of which Demolition Orders were made	Nil.
(5) Number of dwelling-houses demolished in pursuance of Demolition Orders	Nil.

3.—UNHEALTHY AREAS.

Areas represented to the Local Authority with a view to Improvement Schemes under (a) Part I., or (b) Part II., of the Act of 1890 :—

(1) Name of Area, Queen's Court, Vine Street, Minorities.	
(2) Acreage, about $\frac{1}{2}$ acre.	
(3) Number of working-class houses in area	7
(4) Number of tenements in these houses	25
(5) Number of working-class persons to be displaced	72
(4) Number of Houses not complying with the building bye-laws erected with consent of Local Authority under Section 25 of the Housing, Town Planning, &c., Act, 1919	Nil.
(5) Staff engaged on housing work with, briefly, the duties of each officer.	

The three District Inspectors are responsible for the inspection of the houses in their respective areas. Each house is registered on a card and subsequent visits noted thereon.

VACCINATION.

Of the 341 births notified to the Vaccination Officers during 1921, 67 had been successfully vaccinated by the end of the year, 32 had died before the age for vaccination, and in no case was a child reported as insusceptible. Vaccination was postponed by medical certificate in 2 cases, 170 had removed into other districts, or the vaccinations were pending at the end of the year. There were 70 instances of conscientious objection. The Public Vaccinators performed 4 re-vaccinations during the year.

VACCINATION STATISTICS IN THE CITY OF LONDON.

Year.	Number of Births notified to Vaccination Officer	Successfully Vaccinated.	Insusceptible.	Had Small-pox.	Died before Vaccination.	Vaccination postponed.	Cases pending or removed at the end of the year.	Conscientious objections.
		<i>per cent.</i>	<i>per cent.</i>	<i>per cent.</i>	<i>per cent.</i>	<i>per cent.</i>	<i>per cent.</i>	<i>per cent.</i>
1916	415	29·6	0·20	Nil.	8·2	0·5	45·6	15·9
1917	254	39·3	Nil.	„	5·9	0·8	37·1	16·9
1918	312	22·7	„	„	10·5	0·7	54·5	11·6
1919	460	23·7	„	„	10·0	0·7	50·6	15·0
1920	471	31·4	Nil.	„	4·6	1·2	42·2	20·3
Average previous 5 years.	382	29·3	0·04	„	7·8	0·7	46·0	15·9
1921	341	19·6	Nil.	„	9·4	0·6	49·9	20·5

VITAL STATISTICS.

In the subjoined table comparisons are made between the vital statistics as recorded in the City of London and those recorded in the Metropolis for the year 1921 and the previous five years. No reliable conclusions can be drawn from these comparisons, and they are inserted merely as matters of interest.

CITY OF LONDON COMPARED WITH THE METROPOLIS FOR THE YEAR 1921 AND THE PREVIOUS FIVE YEARS.

	City of London.		Birth Rate.		Death Rate.		Deaths of Children under 1 year to 1,000 Births.		Violent Deaths, per cent. of Deaths Registered		Deaths from principal Zymotic Disease per 1,000 of the Population.	
	Estimated Night Population (Imperial Census).	Estimated Day Population (Corporation Census).	City.	Metropolis.	City.	Metropolis.	City.	Metropolis.	City.	Metropolis.	City.	Metropolis.
1916	15,531	372,750	8·1	21·6	15·0	14·3	128	89	9·9	4·0	0·13	0·94
1917	14,720	374,459	7·9	17·5	15·6	15·0	69	103	6·2	5·9	0·24	1·02
1918	13,900	376,186	7·3	16·1	20·9	18·9	148	107	4·2	5·6	0·50	1·31
1919	13,893	377,931	9·6	18·3	14·4	13·4	108	85	10·4	5·9	0·29	2·37
1920	12,200	379,694	14·9	26·4	15·6	12·6	66	76	7·8	4·7	0·49	1·45
Average previous 5 years.	14,049	376,204	9·6	20·0	16·3	14·8	104	92	7·7	5·2	0·33	1·42
1921	13,706	381,083	9·4	22·3	11·5	12·4	93	80	5·7	4·2	0·22	0·14

From the table appended it will be noticed that the death rate for 1921 was 11·5 per 1,000 compared with 12·4 for the Metropolis as a whole.

(This Table is prepared in accordance with the requirements of the Ministry of Health.)

VITAL STATISTICS OF WHOLE DISTRICT DURING 1921 AND PREVIOUS YEARS.

Name of District : CITY OF LONDON.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS †		NETT DEATHS BELONGING TO THE DISTRICT.			
		Uncorrected number.	Nett.		Number. *	Rate.	of Non-residents registered in the District. †	of Residents not registered in the District. †	Under 1 Year of Age.		At all Ages.	
			Number. †	Rate.					Number. *	Rate per 1,000 nett Births.	Number. *	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1916	15,531	414	125	8·1	760	48·93	659	132	16	128	233	15·0
1917	14,720	253	115	7·9	705	47·88	602	126	8	69	229	15·6
1918	13,900	314	101	7·3	637	45·82	517	171	15	148	291	20·9
1919	13,893	453	139	9·6	780	56·14	681	101	16	108	200	14·4
1920	12,200	470	182	14·9	842	69·01	728	77	12	66	191	15·6
1921	13,706	336	129	9·4	785	57·27	705	78	12	93	158	11·5

NOTES.—This Table is arranged to show the gross births and deaths in the district, and the births and deaths properly belonging to it with the corresponding rates. For years before 1911 some of the corrected rates probably will not be available. The rates should be calculated per 1,000 of the estimated gross population. In a district in which large Public Institutions for the sick or infirm seriously affect the statistics, the rates in Columns 5 and 13 may be calculated on a nett population, obtained by deducting from the estimated gross population the average number of inmates not belonging to the district in such institutions.

* In Column 6 are to be included the whole of the deaths registered during the year as having actually occurred within the district.

In Column 12 is to be entered the number in Column 6, corrected by subtraction of the number in Column 8 and by addition of the number in Column 9. Deaths in Column 10 are to be similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under 1 included in the number given in Column 9.

† The Medical Officer of Health will be able from the returns made to him by the local Registrar of Deaths, as well as from the quarterly lists furnished by the Registrar-General, to fill in Column 8 in accordance with the rule in the next paragraph below. The Registrar-General, either directly or through the County Medical Officer of Health, will supply the Medical Officer of Health with the particulars of deaths to be entered in Column 9; and all such deaths must be included in this Column, unless an error is detected, and its correction has been accepted by the Registrar-General. For Column 4 the Registrar-General will furnish to the Medical Officer of Health a Statement of the number of births needing to be added to or subtracted from the total supplied by the local Registrar.

‡ "Transferable Deaths" are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided. The deaths of persons without fixed or usual residence, e.g., casuals, must not be included in Columns 8 or 9, except in certain instances under 3 (b) below. The Medical Officer of Health will state in Column 8 the number of transferable deaths of "non-residents" which are to be deducted, and will state in Column 9 the number of deaths of "residents" registered outside the district which are to be added in calculating the nett death-rate of his district.

The following special cases arise as to Transferable Deaths :—

(1) Persons dying in Institutions for the sick or infirm, such as hospitals, lunatic asylums, workhouses, and nursing homes (but not almshouses) must be regarded as residents of the district in which they had a fixed or usual residence at the time of admission. If the person dying in an Institution had no fixed residence at the time of admission, the death is not transferable. If the patient has been directly transferred from one such Institution to another, the death is transferable to the district of residence at the time of admission to the first Institution.

(2) The deaths of infants born and dying within a year of birth in an Institution to which the mother was admitted for her confinement should be referred to the district of fixed or usual residence of the parent.

(3) Deaths from Violence are to be referred (a) to the district of residence, under the general rule; (b) if this district is unknown, or the deceased had no fixed abode, to the district where the accident occurred, if known; (c) failing this, to the district where death occurred, if known; and (d) failing this, to the district where the body was found.

Area of City of London Registration District in acres (land and inland water)	678	Total population at all ages	13,706	} At Census 1921.
		Number of inhabited houses	†—	
		Average number of persons per house	—	

† No. of Inhabited Houses not yet reported by Census Authorities

(This Table is prepared in accordance with the requirements of the Ministry of Health.)

CAUSES OF, AND AGES AT, DEATH DURING THE YEAR 1921.

CAUSE OF DEATH.	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT (a)										TOTAL DEATHS WHETHER OF "RESIDENTS" OR "NON-RESIDENTS" IN INSTITUTIONS IN THE DISTRICT (b).
	All ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.		
1	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	
All causes { Certified (c)	158	12	—	—	4	10	17	40	75	691	
Uncertified											
1. Enteric Fever											
2. Small-pox											
3. Measles											
4. Scarlet Fever											
5. Whooping Cough										2	
6. Diphtheria and Croup	1				1					9	
7. Influenza										1	
8. Erysipelas										1	
9. Phthisis (Pulmonary Tuberculosis)	13					3	4	4	2	23	
10. Tuberculous Meningitis										13	
11. Other Tuberculous Diseases										6	
12. Cancer, malignant disease	17						2	10	5	83	
13. Rheumatic Fever	1								1	7	
14. Meningitis (See Note (d))										13	
15. Organic Heart Disease	32						5	8	19	38	
16. Bronchitis	15							2	13	16	
17. Pneumonia (all forms)	12	1				2		4	5	63	
18. Other diseases of respiratory organs	3							1	2	12	
19. Diarrhoea and Enteritis (See Note (e))	2	2								32	
20. Appendicitis and Typhlitis										16	
21. Cirrhosis of Liver										4	
21A. Alcoholism										4	
22. Nephritis and Bright's Disease	5				1			1	3	24	
23. Puerperal Fever										1	
24. Other accidents and diseases of Pregnancy and Parturition	2					1	1			2	
25. Congenital Debility and Malformation, including Premature Birth	6	6								34	
26. Violent Deaths, excluding Suicide	7	1					1	3	2	52	
27. Suicide	2						1		1	9	
28. Other Defined Diseases	38	2			1	4	2	7	22	224	
29. Diseases ill-defined or unknown	2				1		1			2	
TOTALS	158	12			4	10	17	40	75	691	

BIRTHS.

During the year 1921, 336 births were registered in the City, 242 of which however, did not belong thereto. To the remaining 94 must be added the births of 35 children born to citizens temporarily residing outside the City boundary.

The number of births, therefore, on which the rate should be calculated is 129. The annual birth rate was 9.4 per 1,000 persons of all ages, compared with a quinquennial mean rate of 11.9 per 1,000. In the Metropolis the birth rate in 1921 was 22.3 per 1,000.

MORTALITY.

During the year under review, 785 deaths were registered in the District, including 705 persons dying in the City, but not belonging thereto. See Table, p. 11, for details. Deducting these latter, 80 deaths remain, to which must be added those of 78 persons who died in Institutions in *outside districts*, where they were registered; the total, therefore, on which the City death rate is calculated is 158. The death rate for 1921 was 11.5 per 1,000 per annum of the population (the previous year being 15.6), whilst that for the whole of the Metropolis was 12.4.

DEATHS FROM VIOLENCE.—Of the City deaths, 5.7 per cent. were caused by injuries or violence, as compared with 10.4 in 1919 and 7.8 in 1920. This is 2.0 below the average for the previous five years.

PERCENTAGE OF REGISTERED DEATHS FROM VIOLENCE.

Year.	City of London. Per cent.	Metropolis. Per cent.
1916	9.9	4.0
1917	6.2	5.9
1918	4.2	5.6
1919	10.4	5.7
1920	7.8	4.7
Average previous five years	7.7	5.2
1921	5.7	4.2

DEATH RATES, PER 1,000 PER ANNUM.

Year.	City of London.	96 Great Towns of England and Wales.	Metropolis.
1916	15.0	14.4	14.3
1917	15.6	14.6	15.0
1918	20.9	18.2	18.9
1919	14.4	13.8	13.4
1920	15.6	12.5	12.6
Average previous five years	16.3	14.7	14.8
1921	11.5	12.3	12.4

The death rate from zymotic disease per 1,000 of the population was 0.22 compared with 0.14 in the Metropolis.

The deaths from Phthisis correspond to a rate of 0.95 per 1,000 of the population, as compared with 1.05 in the Metropolis.

INFANT MORTALITY.

The deaths of children under one year of age were at the rate of 93 per 1,000 births, as against 80 for the whole of London.

The table of infantile mortality on p. 14 shows the deaths of children under one year arranged according to monthly age periods. From this it will be seen that no less than 66.6 per cent. of these deaths occurred in the first month, 75 per cent. within the first three months, and 91.6 per cent. during the first six months of existence.

The usual preventive measures have continued in force, and include the holding of a Mothers' Meeting weekly at St. Bartholomew's Hospital, where the weighing of children is undertaken and advice given to parents. In the case of illness assistance in obtaining medical advice is offered, and milk is distributed in necessitous cases.

(This Table is prepared in accordance with the requirements of the Ministry of Health.)

CITY OF LONDON.

INFANTILE MORTALITY DURING THE YEAR 1921.

NETT DEATHS FROM STATED CAUSES AT VARIOUS AGES UNDER ONE YEAR OF AGE.

CAUSES OF DEATH.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months.	3 Months and under 6 Months.	6 Months and under 9 Months.	9 Months and under 12 Months.	Total Deaths under 1 Year.
All Causes.	Certified	7	....	1	....	8	1	2	....	1	12
	Uncertified....	....	....	....	....	....	....	....	....	....	....
Small-pox ....		....	....	....	....	....	....	....	....	....	....
Chicken-pox ....		....	....	....	....	....	....	....	....	....	....
Measles ....		....	....	....	....	....	....	....	....	....	....
Scarlet Fever ....		....	....	....	....	....	....	....	....	....	....
Whooping Cough ....		....	....	....	....	....	....	....	....	....	....
Diphtheria and Croup ....		....	....	....	....	....	....	....	....	....	....
Erysipelas ....		....	....	....	....	....	....	....	....	....	....
Tuberculous Meningitis ....		....	....	....	....	....	....	....	....	....	....
Abdominal Tuberculosis ....		....	....	....	....	....	....	....	....	....	....
Other Tuberculous Diseases ....		....	....	....	....	....	....	....	....	....	....
Meningitis (<i>not Tuberculous</i>) ....		....	....	....	....	....	....	....	....	....	....
Convulsions ....		....	....	....	....	....	....	....	....	....	....
Laryngitis ....		....	....	....	....	....	....	....	....	....	....
Bronchitis ....		....	....	....	....	....	....	....	....	....	....
Pneumonia (all forms) ....		....	....	....	....	....	....	1	....	....	1
Diarrhoea ....		....	....	....	....	....	....	....	....	1	1
Enteritis		1	....	....	....	1	....	....	....	....	1
Gastritis ....		....	....	....	....	....	....	....	....	....	....
Syphilis ....		....	....	....	....	....	....	....	....	....	....
Rickets ....		....	....	....	....	....	....	....	....	....	....
Suffocation (overlying) ....		....	....	....	....	....	1	....	....	....	1
Injury at Birth		1	....	....	....	1	....	....	....	....	1
Atelectasis ....		....	....	....	....	....	....	....	....	....	....
Congenital Malformations		1	....	....	....	1	....	....	....	....	1
Premature Birth		4	....	....	....	4	....	....	....	....	4
Atrophy, Debility and Marasmus ....		....	....	....	....	....	....	....	....	....	....
Other Causes ....		....	....	1	....	1	....	1	....	....	2
		7	....	1	....	8	1	2	....	1	12

Nett Births in the year { legitimate 119
illegitimate 10

Nett Deaths in the year of { legitimate infants 11
illegitimate infants 1

INFANT WELFARE WORK.

MILK AND FOOD FOR MOTHERS AND CHILDREN.—For some years past it has been the practice of the City Corporation to make an annual grant to provide milk for necessitous nursing mothers and dried milk for necessitous mothers who are unable to nurse their own children. This grant was not made as a direct result of any public legislation, but was purely an *ex gratia* grant made by the Corporation as a part of its policy of infant welfare supervision. This grant was fixed at a total sum of £150 per annum.

When the Milk (Mothers and Children) Order came into operation in 1919 and gave official authorisation to expenditure on these lines, the Corporation granted an independent sum of £50 per annum in accordance with the powers given by the Order. Later, as a result of experience gained it did not seem desirable that these grants should be made independently of each other. The expenditure under both headings was incurred in direct connection with Infant Welfare work, and was moreover authorised by the Order to which I have already referred.

After consideration the Corporation decided that the two grants be merged, and increased to £300 per annum, and that the charge in respect thereof be met out of the grant made under the Milk (Mothers and Children) Order.

In the early part of April the Ministry of Health issued a Circular to Local Authorities on the question of the supply of milk for expectant and nursing mothers, and for infants. This Circular among other things drew attention to the heavy expenditure incurred in the administration of this service, and stated that it had been considered essential for the Ministry of Health to impose restrictions, and insist on the observance of certain conditions in order that the grant in aid of the expenditure incurred might be received by the responsible Local Authorities. It was suggested that the benefits intended could be produced by an expenditure considerably less than that which was being incurred.

In connection with the repayment of the grant from the Ministry it was pointed out that schemes would have to be framed somewhat on the following lines:—

(1) **SUPPLY OF MILK AT LESS THAN COST PRICE.**—Such supplies may only be made in necessitous cases to:—

- (a) Nursing Mothers, and then only if they are actually suckling their children.
- (b) Expectant Mothers in the last three months of pregnancy, and
- (c) Children up to three years of age and exceptionally to children between three and five years of age.

(2) **THE AMOUNT OF MILK SO SUPPLIED.**—The amount of milk supplied at less than cost price must not exceed one pint per day per person, except that one pint and a half per day may be given to infants between three and eighteen months, provided a special medical certificate is submitted to justify the supply.

Dried milk may be substituted for fresh milk, and the amount of such milk should be such as would approximate to the quantity of fresh milk which would have been given.

(3a) **CONTROL OF FREE SUPPLIES.**—The control should be by a special Committee which may be a Sub-Committee of the Maternity and Child Welfare Committee—in the City Corporation this is a Sub-Committee of the Sanitary Committee, on which two ladies have been appointed. This Committee should lay down a definite procedure for dealing with applications for milk and review all applications for supply. It is suggested that each application should be considered by at least one member of the Committee, preferably the Chairman, the Medical Officer of Health, and a responsible financial officer before a supply is authorised. The Committee should also meet at frequent intervals to review the cases authorised.

(b) In order to determine whether applicants are genuinely necessitous it was suggested that a scale of income should be adopted suitable to the locality. This of course would result in a hard and fast line being drawn, which perhaps

might be an advantage and even a necessity in certain cases, though in other instances, especially in a community like the City, occasional hardship would result.

(c) Applications for milk at less than cost price have to be made on a printed form, signed by one member of the family. The Minister of Health is advised that persons deliberately making false statements as to their income for the purpose of obtaining milk at less than cost price are liable to prosecution for obtaining or attempting to obtain goods by false pretences. Reasonable steps are to be taken by Local Authorities to satisfy themselves that the particulars of income given by the applicants are correct.

(4) It is suggested that milk should be supplied through the Maternity and Child Welfare Centre.

The Committee gave their careful consideration to all the facts bearing on this matter and ultimately decided not to apply for the grant in aid.

The City, with its small population, is somewhat peculiarly situated. The homes and general social status of families likely to apply for free, cost price, or under cost price milk are well known to the officers of the Corporation who are responsible for the administration of the scheme. Of course, in some areas where the distribution of milk assumes considerable proportions, it is obviously essential that some such scheme as that above indicated should be in operation, but in the City it has been considered sufficient to decide the amount of money which the Corporation will spend on free milk, and to allow the Medical Officer of Health some latitude in the decision.

INFECTIOUS DISEASES.

Very few comments are necessary with reference to the incidence of infectious disease during the year 1921.

Diphtheria was prevalent to the extent of 33 cases as compared with 30 in 1920. The number of Scarlet Fever cases was 89, Erysipelas showed an increase from five to six. No case of Measles was notified, as compared with 18 notified in 1919. Chicken-pox was not so prevalent as in the previous year, in the proportion of two cases to six. Two cases of Ophthalmia Neonatorum were notified. The percentage of cases removed to hospital was somewhat higher than in 1919 and 1920.

During 1921, cases of Small-pox were reported at different times in various neighbourhoods. No cases were reported in the City; numerous contacts, however, with outside cases came to my knowledge. These were visited and kept under observation, and, where necessary, vaccination was advised.

In each instance of notified disease a detailed examination is made of the sanitary condition of the premises where the case occurred, and a summary of defects found by the District Inspector is given on page 9.

No case of Small-pox, Cholera, Plague, Typhus, Enteric, Relapsing, Continued or Puerperal Fever, Anthrax, Cerebro-spinal Meningitis or acute Polio-myelitis has been reported.

Fuller information is set out in the tables appended.

NOTIFICATION OF INFECTIOUS DISEASES.—In the following tables will be found particulars of certificates relating to cases of infectious disease forwarded under Sections 55 and 56 of the Public Health (London) Act, 1891, and information as to the removal of patients to hospitals, infirmaries, &c. :—

NAME OF DISEASE.	Number of Certificates received.	Treated at Home.	Removed to the Metropolitan Asylums Board Hospitals.	Removed to the London Fever Hospital.	Treated at other Hospitals and Infirmaries.	Duplicate Certificates received.	Diagnosis subsequently found to be incorrect.	Net number of Cases.
Small-pox	....	....	....	....	....	....	....	....
Diphtheria	43	....	16	9	8	9	1	33
Scarlet Fever	95	1	82	3	3	4	2	89
Enteric Fever	1	....	1	....	....	....	....	1
Puerperal Fever	....	....	....	....	....	....	....	....
Erysipelas	6	3	....	....	3	....	....	6
Cerebro-spinal Meningitis	....	....	....	....	....	....	....	....
Acute Polio-myelitis	....	....	....	....	....	....	....	....
*Ophthalmia Neonatorum	2	1	....	....	1	....	....	2
Measles	....	....	....	....	....	....	....	....
Rubella	....	....	....	....	....	....	....	....
Malaria contracted abroad	3	2	....	....	1	....	....	3
Acute Primary Pneumonia	8	1	....	....	6	1	....	7
Acute Influenzal Pneumonia	....	....	....	....	....	....	....	....
Totals	158	8	99	12	22	14	3	141
Chicken-pox	2	2	....	....	....	....	....	2
Totals	160	10	99	12	22	14	3	143

It will be seen from the foregoing that during the year, excluding Chicken-pox, 158 Certificates were received, including 14 duplicates and three in which the diagnosis was subsequently found to be incorrect.

The total number of notifiable infectious diseases, excluding Tuberculosis, Measles, Rubella, Malaria, Pneumonia and Chicken-pox, was 141, as compared with 79 last year; and, as stated, the number of cases of Scarlet Fever reported was 89.

The following is a return of infectious diseases notified in the City of London, exclusive of Tuberculosis, Measles, Rubella, Malaria, Pneumonia and Chicken-pox, with the percentages of such cases removed to hospitals for treatment or nursed at home during 1921 compared with the figures for the previous five years:—

Year.	Number of cases reported.	Per cent. of cases reported.	
		Removal to Hospital.	Treated at home.
1916	70	94·3	5·7
1917	51	94·1	5·9
1918	42	88·1	11·9
1919	41	90·2	9·8
1920	74	91·9	8·1
Average for the five years	55·6	91·7	8·3
1921	131	95·4	4·6

* In one of these cases the patient died at the Hospital to which it was removed for treatment. The other case was a mild one and the patient suffered no impairment of vision.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1921.

(The following table is prepared in accordance with the requirements of the
Ministry of Health.)

CITY OF LONDON.

	NUMBER OF CASES NOTIFIED.								*Total Cases removed to Hospital.
	At all Ages.	At Ages—Years.							
		Under 1.	1 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 years and upwards.	
Small-pox .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cholera .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Plague .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria	33	2	5	12	10	4	.....	.....	33
Erysipelas	6	.....	.....	.....	1	4	1	.....	3
Scarlet Fever	89	.....	13	60	10	6	.....	.....	88
Typhus „ .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Enteric „	1	.....	.....	.....	1	.....	.....	.....	1
Relapsing „ .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Continued „ .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Puerperal „ .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Polio-myelitis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cerebro-spinal Meningitis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pulmonary Tuberculosis	22	.....	.....	2	6	10	3	1	14
Other forms of Tuberculosis	1	.....	.....	.....	1	.....	.....	.....	.....
Ophthalmia Neonatorum	2	2	.....	.....	.....	.....	.....	.....	.....
Measles .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rubella .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Malaria (contracted abroad)	3	.....	.....	.....	.....	3	.....	.....	1
Acute Primary Pneumonia	7	.....	.....	.....	3	1	2	1	6
Acute Influenzal Pneumonia .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
TOTALS	164	4	18	74	32	28	6	2	146

* Metropolitan Asylums Board Hospitals, London Fever Hospital, City of London Infirmary,
St. Bartholomew's Hospital, City Police Hospital, &c.

ENCEPHALITIS LETHARGICA.

In January, 1919, Encephalitis Lethargica was added to the list of notifiable infectious diseases, because of the considerable incidence of this disease since the year 1917.

In the early part of the present year the Ministry of Health, in view of the necessity of co-operation between Officers of the Ministry, Medical Practitioners and Medical Officers of Health, issued a memorandum which was doubtless of considerable assistance in disseminating information as to diagnosis, treatment, infectivity, etc., of cases. It also clearly stated what action was to be taken by Medical Officers of Health on receipt of notifications. The following suggested precautions against infection are I think of sufficient importance to warrant their inclusion in this report :—

“ The other occupants of a house in which a case of encephalitis has occurred or is being treated may be assured that the disease is one of low infectivity, and that very slight risk is run by association with the patient. At the same time it is desirable that such association should be limited to what is necessary for proper care and nursing, and the patient should be well isolated in a separate room.

“ School children in the affected household may be kept from school as a precautionary measure, for three weeks after the isolation of the patient.

“ There is no necessity to place restrictions on the movements of other occupants provided they are frequently examined and remain well. Those in contact with the case, however, should be advised to use antiseptic nasal syringes or douches and to gargle the throat with solutions such as those advised for Influenza.

“ For example any of the following :—

(1) “ One per cent. solution peroxide of hydrogen.

(2) “ Two per cent. solution of permanganate of potash, 1 in 5,000 in 0·8 per cent. solution of chloride of sodium (common salt).

(3) “ Liquor sodæ chlorinate 0·5 per cent.

“ The solutions can be used as ordinary throat gargles or snuffed up through the nostril or applied by an efficient spray.

“ Any person in the infected household who suffers from sore throat or other symptoms suggesting an abortive attack should be treated from this point of view and isolated so far as possible until they have recovered.

“ The sick room should be thoroughly cleansed and disinfected at the end of the illness.”

Some years ago the Court of Common Council approved the expenditure of £25 per annum for providing nursing assistance in complicated cases of measles. It has never been necessary to use any part of this grant and the Court therefore authorised the use of so much of it as was necessary for nursing cases of Encephalitis Lethargica.

PREVENTION OF EPIDEMIC DIARRHŒA.

Having regard to the possibility of an increase in the death rate from infantile Diarrhœa which might arise from the hot summer which was experienced in 1921, the Ministry of Health in July issued a Circular Letter to Local Authorities carrying out Maternity and Child Welfare work in England and Wales, suggesting that preparations should be made immediately for dealing with an epidemic of Diarrhœa should it occur.

Mortality from Diarrhœa is almost entirely confined to children under the age of five years, and the fact that young children, who are most quickly and acutely influenced by the condition of the home are those affected by Diarrhœa emphasises the importance of home cleanliness as a primary factor in determining the occurrence of the disease. Not only is it important to insist upon domestic cleanliness, but also to ensure that all accumulations of dust, refuse and filth about dwelling houses are removed at short intervals.

The Corporation, by means of a Circular Letter which was widely distributed throughout the City, directed attention to the necessity of observing such a precaution.

The special precautions suggested by the Ministry in the event of Diarrhœa threatening to become seriously epidemic are briefly summarised below :—

(a) The attention of mothers of young children should be directed to the importance of breast feeding during the hot weather, the methods of preserving and storing milk and other food, and protecting it from flies, and the detection of early symptoms of illness and the desirability of medical advice.

- (b) Directs attention to the provision of milk, fresh or dried, under the Maternity and Child Welfare arrangements.
- (c) Suggests voluntary notification—
- (i.) by parents and health visitors and
 - (ii.) by medical practitioners in serious outbreaks.
- (d) Arrangements for domiciliary nursing, and instructions to mothers in methods of carrying out the treatment advised by medical practitioners in charge of the case. It also authorises the provision of disinfectant solution in which the soiled clothing of the patient may be placed on removal.
- (e) Hospital accommodation should be supplied as far as possible for children who are seriously ill.

The small resident population of the City presents no serious difficulty in matters of this nature, and I am able to report that despite the hot weather experienced during the summer, no serious outbreak of Diarrhœa was recorded.

METROPOLITAN NURSING ASSOCIATION.

The Metropolitan Nursing Association, which was instituted for providing trained nurses for the sick poor, has during the past year done quite a large amount of work among the poor in the City, some of which I am of opinion can well be regarded as public health work. In view of this fact the Corporation gave favourable consideration to an appeal for assistance which was made by the Association, and a grant of five guineas per annum was approved by the Court of Common Council on the 6th October last.

TEMPORARY ISOLATION ACCOMMODATION AT No. 6, BRIDGEWATER SQUARE.

In 1918 the Corporation made provision for suitable accommodation for the isolation and observation of small-pox contacts.

This accommodation was secured by the leasing and partial equipment of premises known as 6, Bridgewater Square. This matter was again before the Sanitary Committee for consideration, and although it has not been necessary to take advantage of the facilities that have been made available, the Committee decided that the continuance of the arrangements was essential in the interests of public health. The lease of the premises was accordingly renewed.

TUBERCULOSIS.

TUBERCULOSIS DISPENSARY.—The Tuberculosis Dispensary has been open for the reception of new patients and for the attendance of old cases, on Tuesdays and Fridays from 12.30 to 2.30, and on Thursdays from 6 to 7; also for the attendance of old cases only on Mondays from 5 to 7. In all the Dispensary has been open 201 times during the year.

NEW PATIENTS.—The number of persons, including contacts, who were examined for the first time at or in connection with the Dispensary was 275, divided thus :—

	Diagnosed as Suffering from Tuberculosis.	Diagnosed as Not Suffering from Tuberculosis.	Undiagnosed.		Total Number Examined.	
			Still under Observation.	Not still under Observation.	Insured.	Uninsured.
Residents	14	55	3	....	23	49
Non-Residents—						
Working in the City	20	32	1	1	27	27
Not working in the City	77	62	2	8	65	84
	111	149	6	9	115	160

Persons diagnosed as suffering from Tuberculosis may be thus classified :—

	Residents.	Non-Residents.		Totals.
		Working in City.	Not working in City.	
Disease of the Lungs	14	18	70	92
Disease of other Organs (Lungs not apparently affected) .....	.....	2	7	9

Many of the persons diagnosed as not suffering from Tuberculosis were found to be suffering from other diseases, for which they were advised to seek treatment elsewhere.

The undiagnosed cases are thus accounted for :—

Residents :—

All are still under observation.

Non-residents working in City :—

One is still under observation.

One has been referred to the Tuberculosis Dispensary of the area in which he resides.

Non-residents not working in City :—

One is still under observation.

Four have been referred to the Tuberculosis Dispensaries of the areas in which they reside.

Four have ceased to attend in spite of letters requesting them to do so.

Applicants unconnected with the City, either as residents or workers, were examined, and if found to be suffering from Tuberculosis the fact was notified to the Medical Officer of Health of the area in which they resided. Treatment was continued until arrangements had been made for their treatment locally, either at a dispensary in their area or otherwise. This has worked satisfactorily, and under these provisions 149 persons have received advice or treatment during the year.

PERSONS TREATED, &c.—The number of persons diagnosed to be suffering from Tuberculosis, who were treated or supervised, at or in connection with the Dispensary, was 213, divided thus :—

	Insured.	Not insured.	Totals.
Residents	30	26	56
Non-residents—Working in City	48	31	79
Not working in City	40	38	78
			213

Of these, 111 were new patients this year, while 21 attended for the first time in 1920, 17 for the first time in 1919, 23 for the first time in 1918, 11 for the first time in 1917, 10 for the first time in 1916, 18 for the first time in 1915, and 2 for the first time in 1914.

TOTAL ATTENDANCES.—The number of attendances of patients at the Dispensary, including first attendances, was 2,404, divided thus :—

	Insured.	Not insured.	Totals.
Residents	420	540	960
Non-residents—Working in City	636	287	923
Not working in City	219	302	521
			2,404

PERSONS UNDER TREATMENT, &c., AT END OF YEAR.—The number of persons who were under treatment, supervision or observation at or in connection with the Dispensary on December 31st, 1920, was 180, divided thus :—

	Insured.	Not insured.	Totals.
Residents	27	69	96
Non-residents—Working in City	46	26	72
Not working in City	4	8	12
			180

PATIENTS REFERRED TO THE HOSPITAL.—The number of persons who were referred to various departments of St. Bartholomew's Hospital for diagnosis or treatment was 42, divided thus :—

	Insured.	Not insured.	Totals.
Residents	7	10	17
Non-residents—Working in City	9	6	15
Not working in City	5	5	10
			42

Included in the foregoing are 30 patients who were examined by X-rays and four who received dental treatment. In addition to these a number of persons were seen by Physicians attached to the Hospital. For one patient an artificial denture was provided by the Corporation.

— PATHOLOGICAL EXAMINATIONS.—Specimens of sputum examined for the Tubercle Bacillus :—

Positive	....	....	....	....	16
Negative	....	....	....	....	148
					164

TREATMENT IN SANATORIA.—The number of patients who were recommended for admission to Sanatoria was 30, viz. :—

Residents recommended to :—

- (a) London County Council 14, of whom 11 were admitted ; 1 declined to avail himself of sanatorium treatment before the arrangements were completed ; for 2 (both advanced cases) no accommodation was available, of these, 1 who was already in St. Bartholomew's Hospital remained there and the other, who had previously been treated in a sanatorium, died at home.
- (b) London Insurance Committee 2, both of whom were admitted.

Non-residents, working in the City recommended to :—

- (a) London County Council 4, of whom 3 were admitted, the result in 1 case being unknown.
- (b) Voluntary Agencies 2, both of whom were admitted.

Non-residents, not working in the City, recommended to :—

- (a) London County Council 6, of whom 1 was admitted, the result in 5 cases being unknown.
- (b) London Insurance Committee 1, who was admitted.
- (c) Voluntary Agencies 1, who was admitted.

The small number of persons recommended to the London Insurance Committee is accounted for by the fact that on and after May 1st the responsibility for providing treatment in sanatoria for insured persons was transferred from the London Insurance Committee to the London County Council.

THE TUBERCULOSIS NURSE.—The work of the Tuberculosis Nurse has continued on the same lines as in former years. Of patients attending the Dispensary 70 homes have been visited and 671 visits made in connection with after-care and following up. In addition seven patients have been nursed in their own homes, the nurse working under the direction of the practitioners attending the patients. Six of these persons were in an advanced stage of the disease and three of them died at home. For nursing purposes 81 visits were made.

The following information is supplied in accordance with the requirements of the Ministry of Health. The paragraph numbers correspond with those in Circular 168, and where a number is omitted the subject matter does not concern City work:—

(i.) The Tuberculosis Dispensary is at St. Bartholomew's Hospital ; the Tuberculosis Officer is Dr. H. B. Gibbins ; one Tuberculosis Nurse is engaged in the work. To April 30th, treatment in residential institutions was provided for the insured by the London Insurance Committee and for the uninsured by the London County Council, since that date it has been provided by the latter for all persons.

(iii.) Patients are referred to the Tuberculosis Dispensary from hospitals, school clinics and other institutions, with all of which there is close co-operation.

The services of the Staff and all the resources of St. Bartholomew's Hospital are available for diagnosis and treatment. Many patients are referred to departments of the Hospital for these purposes.

(iv.) The Tuberculosis Officer is in constant consultation and communication with general practitioners, so that there is close co-operation between them and the Dispensary. He reminds them when reports are due on insured patients under domiciliary treatment and provides them with copies of the form with names and addresses inserted.

(v.) When the diagnosis is in doubt and the patient is under the care of a practitioner, arrangements are made with him for re-examination ; in other cases arrangements are made with the patient, but should he fail to attend, either the Tuberculosis Nurse calls upon him or he is reminded of the appointment in writing.

(vi.) The Tuberculosis Officer explains to the patients the importance of the examination of home contacts, and in addition to the necessary visits of the Sanitary Inspectors the Tuberculosis Nurse visits the homes of City residents periodically for the same purpose, and arranges for the attendance of the contacts at the Dispensary at times convenient to them.

The supervision of these contacts, and the re-examination of suspects among them, is secured by the home visits periodically made by the Nurse.

(vii.) X-ray photographs of 30 patients have been taken during the year, and have proved of value as an addition to the usual methods of diagnosis.

No special methods of treatment have been adopted in the Dispensary. Tuberculin has been used for a few cases.

(viii.) Experience shows that when the disease is active, residence in an institution more quickly and certainly brings about arrest than when treatment is attempted at home on sanatorium lines, and that the lessons learnt in the sanatorium are sometimes put into practice by the patient on his return home to his permanent advantage.

(ix.) Dental treatment is provided by the Dental Department of St. Bartholomew's Hospital, and the Corporation defrays the whole or part of the cost of artificial dentures for necessitous cases.

(x.) Nursing in their own homes of patients resident in the City is one of the duties of the Tuberculosis Nurse. Milk has been provided for necessitous persons requiring extra nourishment and in this connection the sum of £28 has been expended.

(xi.) Patients suffering from Non-pulmonary Tuberculosis receive advice and treatment from the Surgeons of St. Bartholomew's Hospital, to whom they are referred from the Dispensary. Treatment in residential institutions is provided as for pulmonary cases. The Corporation supplies surgical apparatus free of cost for necessitous residents in the City.

(xii.) The arrangements for "care" and "after care" are carried out by a sub-committee of the Sanitary Committee, on which two ladies are co-opted members. It receives detailed reports on all cases of Tuberculosis occurring among City residents.

(xiii.) No local arrangements exist for providing employment for patients.

(xiv.) No opportunity has arisen for the use of a shelter, but arrangements would be made for any suitable case if a site were available.

(xv.) No special points have been noted as to the incidence of Tuberculosis; the records do not show that the disease is specially prevalent among any class of workers in the City.

(xvi.) The usual methods for preventing the spread of infection are adopted, and pocket sputum flasks are provided free of cost.

(xvii.) The principal difficulty encountered occurs on the discharge of a patient from a sanatorium with the disease arrested. The home environment to which he returns is often unsatisfactory; suitable occupation near his home may be practically unobtainable, even when remuneration is not the main consideration, and the very considerable benefit gained is in some cases soon lost and the treatment in the sanatorium largely wasted.

CONSUMPTION—SPITTING.—The objectionable habit of spitting in the streets and other public places, and also the corridors of large buildings occupied by a number of different firms, is still a source of nuisance. Precautionary notices issued by the Corporation drawing attention to this practice are distributed to *bona-fide* applicants.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1921.

The issue of Public Health (Tuberculosis) Regulations, 1921, which amend in certain respects the Public Health (Tuberculosis) Regulations, 1912, was necessitated by the passing into law of the National Health Insurance Act of 1920, in accordance with the provisions of which sanatorium benefit under the National Insurance Act, 1911, ceased as from the 30th April, 1921.

Treatment of both Insured and Uninsured patients in a Sanatorium is now the responsibility in London of the London County Council.

The first article of the new Regulations consists of the citation and date of operation, and the second is confined to the alteration of definitions of "Tuberculosis Dispensary" and "Sanatorium."

The effect of Article 3 is to enable the Medical Officer of the Tuberculosis Dispensary to have access to the register of notifications which the Medical Officer of Health of the district is required to keep under Article XI. (2) of the Regulations of 1912.

Article 4 requires that every Medical Officer of Health shall from time to time, but not less often than once in every quarter, revise the register by removing from it the entries relating to notifications in respect of persons who have to his knowledge died or ceased permanently to reside in his district. In an area such as the

TUBERCULOSIS.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

Summary of Notifications during the period from the 1st January to the 31st December, 1921, in the City of London.

AGE-PERIODS	NOTIFICATIONS ON FORM A.													NOTIFICATIONS ON FORM B.†				NUMBER OF NOTIFICATIONS ON FORM C.		
	Number of Primary Notifications.*													Total Notifications on Form A.	Number of Primary Notifications.*			Total Notifications on Form B.	Poor Law Institutions	Sanatoria.
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total Primary Notifications.	Under 5		5 to 10	10 to 15	Total Primary Notifications.			
Pulmonary Males	2	.....	2	2	2	3	3	.....	1	15	21	.....	.....	.....	Nil.	Nil.	Nil.	5
" Females	1	1	3	2	.....	.....	.....	7	11	.....	.....	.....	"	"	"	.....
Non-pulmonary Males	"	"	"
" " Females	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	"	"	"	1

Col. (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21)

Patients notified as suffering from both pulmonary and non-pulmonary disease have been included among the "pulmonary" returns only.

All notifications on Form D have been disregarded in preparing this return.

* PRIMARY NOTIFICATIONS relate to patients who have not previously been notified in this or former years, either on form A or on Form B, in the area to which the return relates. Any additional notification of a case which has been previously notified in the area is regarded as duplicate. (Note.—No primary notifications should be made on Form C.)

† A School Medical Inspector, or the Medical Officer of Health of a county, county borough, or other district, if acting as a School Medical Inspector, is required to notify on Form B all cases of tuberculosis discovered in the course of inspection of children attending public elementary schools whether or not these have previously been notified.

Cols. 2-13. Only those cases which have been notified for the first time during the year on Form A in the area concerned, and which have never previously been notified in the area, either on Form A or on Form B, have been included in these columns.

Col. 14. The object of this column is to show the extent to which duplicate notification of the same case occurs on Form A, and all notifications on Form A, whether duplicate or not, are included in this column.

Cols. 15-18. Only those cases which have been notified for the first time during the year on Form B in the area concerned, and which have never previously been notified in the area, either on Form A or on Form B, have been included in these columns.

Col. 19. All notifications which have been made during the year on Form B in the area concerned, whether the cases have previously been notified in the area, or not, either on Form A or on Form B, have been included in this column.

Col. 21. Only notifications on Form C made by the Medical Officers of Sanatoria, as defined in the Tuberculosis Regulations, have been entered in this column.

RETURN RELATING TO ALL PERSONS WHO WERE TREATED AT THE TREATMENT CENTRE AT 20, GOLDEN LANE, E.C.1, DURING THE YEAR ENDED THE 31st DECEMBER, 1921.

	Syphilis.		Soft Chancre.		Gonorrhoea.		Conditions other than Venereal.		TOTAL.	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1. Number of persons who, on the 1st January, 1921, were under treatment or observation for :—	350	137	....	....	301	72	10	3	661	212
2. Number dealt with during the year in the out-patient Clinic for the first time and found to be suffering from :—										
Syphilis only	231	107	....	....	....	....	....	....	231	107
Soft chancre only .....	....	....	....	....	....	....	....	....	....	....
Gonorrhoea only .....	....	....	....	....	320	77	....	....	320	77
Syphilis and soft chancre .....	....	....	....	....	....	....	....	....	....	....
Syphilis and gonorrhoea	30	7	....	....	30	7	....	....	30	7
Gonorrhoea and soft chancre .....	....	....	....	....	....	....	....	....	....	....
Syphilis, soft chancre and gonorrhoea .....	....	....	....	....	....	....	....	....	....	....
Conditions other than venereal .....	....	....	....	....	....	....	19	4	19	4
TOTAL—Item 2	231	107	....	....	320	77	19	4	570	188
TOTAL—Items 1 and 2	581	244	....	....	621	149	29	7	1,231	400
3. Number of persons who ceased to attend the out-patient Clinic										
(a) before completing the first course of treatment for	51	19	....	....	179	51	....	....	230	70
(b) after one or more courses but before completion of treatment for....	39	14	....	....	....	....	....	....	39	14
(c) after completion of treatment, but before final tests as to cure of	24	3	....	....	10	2	....	....	34	5
4. Number of persons transferred to other Treatment Centres after treatment for	29	4	....	....	7	3	....	....	36	7
5. Number of persons discharged from the out-patient Clinic after completion of treatment and observation for :—	19	11	....	....	59	19	....	....	78	30
6. Number of persons who, on the 1st January, 1922, were under treatment or observation for :—	419	193	....	....	366	74	29	7	814	774
TOTAL—Items 3, 4, 5, & 6	581	244	....	....	621	149	29	7	1,231	400
7. Total attendances of all persons at the out-patient Clinic who were suffering from :—	5,849	3,044	....	....	7,920	1,353	35	15	13,804	4,412
8. Aggregate number of "In-patient days" of treatment given to persons who were suffering from :—	53	1	....	....	64	8	....	....	117	9
9. Examinations of Pathological material :—				For detection of				For Wassermann Reaction.		
				Spirochetes.	Gonococci.	Other Organisms.				
	(a) Specimens which were examined at, and by the Medical Officer of, the Treatment Centre			19	2,456	C.F.T. 58 C.S.F. 11		1,322 779 = 4,645		
(b) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved laboratory .....			....	33	C.S.F. 44		519 = 596 = 5,241			

STATEMENT SHOWING THE SERVICES RENDERED AT THE TREATMENT CENTRE DURING THE YEAR, CLASSIFIED ACCORDING TO THE AREAS IN WHICH THE PATIENTS RESIDED.

Name of County or County Borough (or Country in the case of persons residing elsewhere than in England and Wales) to be inserted in these headings.	London.	Essex.	Herts.	Surry.	Kent.							TOTAL.
A. Number of persons from each area dealt with during the year at or in connection with the out-patient Clinic for the first time and found to be suffering from:—												
Syphilis	307	23	3	2	3	.....	.....	.....	.....	.....	.....	338
Soft chancre .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gonorrhœa	380	14	1	1	1	.....	.....	.....	.....	.....	.....	397
Conditions other than venereal	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23
TOTAL	710	37	4	3	4	.....	.....	.....	.....	.....	.....	758
B. Total number of attendances at the out-patient Clinic of all patients residing in each area	18,129	67	10	5	5	.....	.....	.....	.....	.....	.....	18,216
C. Aggregate number of "In-patient days" of all patients residing in each area	126	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	126
D. Number of doses of Salvarsan substitutes given in the:—												
1. Out-patient Clinic	3,524	20	10	5	5	.....	.....	.....	.....	.....	.....	3,564
2. In-patient Dept. to patients residing in each area.	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20
E. Give the names of Salvarsan substitutes used in the treatment of syphilis and the usual initial and final doses.	Nov.-Arsenobenzol. Novarsenobillon. Galyl. (Intramuscular). Silver Salvarsan. Neo.-Kharsivan. Sulpharsenol. Eight injections in a course with ten injections of Mercury Grey Oil, Mercurosal, Benzoate, or Cyanide of Mercury.											
F. State the amount and kind of treatment usually administered to a case of Syphilis of each of the types usually dealt with at the Treatment Centre.	E. W.R. every three months after completion of a course for two years. Supervision monthly for one year after last course.											
G. State the nature of tests applied in deciding as to discharge of patients referred to in Item 5 on previous page.	Gonorrhœa.—Three tests at weekly intervals—Each test: Slides and cultures from urethra, thread and prostatic fluid after massage. Urethroscopic examination.											

(Signed) KENNETH M. WALKER,

Medical Officer of the Treatment Centre.

OCCUPATION OF PERSONS UNDER TREATMENT FOR VENEREAL DISEASES.

In 1919 I submitted to the Sanitary Committee particulars as to the occupations followed by patients under treatment for Venereal Diseases and recommended that it should be made illegal for persons suffering from these diseases to be engaged in such occupations as the preparation of foodstuffs. The list of persons then submitted was only a small one (104 patients) as the Special Treatment Centre had not been long established.

In February of this year, however, I was able to prepare a very much more comprehensive list, showing the occupations of over 1,100 patients. This has now been added to by including the occupations of 570 males and 188 females, making a total of 1911.

Table showing Occupations followed by 1,469 Males known to be suffering from Venereal Diseases.

Occupations.	Number.	Occupations.	Number.
Grocery Assistants	2	Brought forward	680
Confectionery Factory	2	Civil Service	20
Bakers	2	Butchers	9
Milkmen	2	Fish shops	7
Cooks	5	Waiters	11
Clerks	199	Domestics (valets, house-keepers, etc.)	18
Post Office	38	Salesmen	25
Medical Profession	1	Teachers	6
Independent	20	Students	12
Travellers	63	Gardeners	4
Opticians	2	Engineers	39
Electrical	18	Gunsmith	1
Surveyors	2	Chemists	3
Rubber planter	1	Photographers	3
Inventor	1	Farmers	2
Furriers	28	Tailors	55
Sailors	56	Soldiers	9
Carmen	41	Engaged in motor work	49
Porters	71	Labourers	331
Firemen	10	Policemen	25
Fitters	3	Printers	28
Railway workers	8	Machinists	5
Cellarmen	11	Miners	2
Tobacco	3	Electric work	8
Painters	15	Carpenters	34
Plumbers	2	Bricklayers	11
Watchmakers	2	Metal workers	12
Glass work	2	Picture work	1
Hat work	5	Penwork	1
Brush work	1	Aircraft work	1
Dockers	9	Brokers	6
Boots and matches	9	Straw roller	1
Drapers	1	Books	3
Dealers	11	Hawkers	7
Ironmongers	6	Iron founders	6
Timekeeper	1	Hairdressers	18
Laundry	2	Enameller	1
Tram and bus	3	Cricketer	1
Papers	5	Coal	2
Provision Assistants	3	Musicians	2
Music	2	School	4
Mason	1	Leatherwork	4
Barmen	11	Instruments	2
	680	Total	1,469

Table showing Occupations followed by 442 Females known to be suffering from Venereal Diseases.

Occupations.	Number.	Occupations.	Number.
Cooks	5	Brought forward	116
Domestic servants	11	Sweet shop	4
Waitresses	8	Nursery Attendant	1
Grocery assistant	1	Barmaids	2
Tobacco factory	6	Typists and clerks	26
Laundry	6	Housewives	262
Babies and school children (under 14 years)	47	French polishers	3
Brush maker	1	Shop assistant	1
Caretaker	1	Lamp makers	2
Tailoresses	8	Pipe polisher	1
Rubber cutter	1	Meat preparation packer	1
Box makers	4	Printing factory	1
Labeller	1	Flower sellers	5
Manicurist	1	Office cleaners	3
Tin work	1	Teachers (school)	2
Paint factory	1	Milliners	3
Machinist	4	Factory	3
Photo mounts	1	Book folder	1
Stationery	2	Stage	1
Painting	2	Drapery, &c.	3
Kitchen work	4	Bottle washer	1
Carried forward	116	Total	442

EXAMINATION FOR PATHOGENIC BACTERIA.

Any medical practitioner desiring examinations of specimens for Pathogenic Bacteria in cases of suspected infectious disease occurring amongst their patients residing in the City, should forward them to the Medical Officer of Health at the Guildhall. Arrangements have been made for free examination, and the results obtained are communicated as speedily as possible.

During the year the following specimens were so dealt with. It will be seen that positive results were obtained in 8.25 per cent. of these cases.

Specimen.	Disease suspected.	Result.	
		Positive.	Negative.
195 Swabbings from throats	Diphtheria	15	180
11 Sputum	Tuberculosis	2	9

Of the 195 swabbings from throats, 172 were received from the Central Foundation School for Girls, Spital Square, E.C. These swabs were sent to the City Pathologist in accordance with the arrangements between the City Corporation and the London County Council. This school is situate partly in the City and partly in the Metropolitan Borough of Shoreditch, and pupils attend from many parts of the East and North-East of London, and also Boroughs and Urban districts in Essex and Middlesex.

SMOKE AND ATMOSPHERIC POLLUTION.

Ten instances of smoke nuisance or annoyance from chimneys were dealt with during the year. Some of these were of a temporary character and did not recur, others were abated upon the service of the usual form of notice upon the offenders and there has been no occasion to take further action.

As mentioned in previous Reports, the annoyance and the evil from coal smoke cannot satisfactorily be dealt with by law until the enactments at present in force are strengthened or amended. The dirt and discomfort from smoke continues, although in a lesser degree than in former years, and for which the enormous numbers of the chimneys in surrounding Greater London are largely responsible. Difficulties in the way of obtaining suitable coal and skilled labour are still a fruitful source of trouble.

A critical examination of the air in the City was commenced in the year 1914, in conjunction with the Committee for the Investigation of Atmospheric Pollution, appointed by the International Exhibition and Conference in London, 1912, and an apparatus consisting of a large rain gauge is mounted upon the roof of one of the Corporation's buildings in Golden Lane, and the rain-water from a known area of surface is collected monthly. This rain-water, containing the soot, grit and dust washed from the air, has been submitted for examination to the Public Analyst and the results tabulated. For comparison the results obtained from similar observations made at the Archbishop's Park, Lambeth, by the London County Council are added.

SUMMARY OF MONTHLY OBSERVATIONS AND REPORTS DURING THE YEAR 1921.

Month of the Year 1921.	PLACE.	3	4	5	6	7	8	9	10	11	12
		Metric tons of deposit per square kilometre during month.									
		Rainfall in millimetres.	Insoluble matter.			Soluble matter.		Total solids.	Included in soluble matter.		
			Tar.	Carbonaceous other than tar.	Ash.	Loss on ignition.	Ash.		Sulphate as (SO ₂).	Chlorine (Cl)	Ammonia (NH ₃).
January	City of London	51	0.05	2.57	3.40	0.81	3.66	10.49	1.65	0.86	0.11
	Lambeth	46	0.09	1.43	1.67	1.02	1.97	6.18	1.29	0.49	0.12
February	City of London	6	0.05	2.26	2.94	0.59	2.18	8.02	0.87	0.36	0.06
	Lambeth	5	0.03	0.19	0.48	0.79	1.63	3.12	3.93	0.22	0.02
March	City of London	25	0.05	2.52	3.75	1.12	2.13	9.57	0.86	0.81	0.09
	Lambeth	26	0.11	3.48	4.49	1.25	2.13	11.46	1.26	0.59	0.10
April	City of London	13	0.10	4.80	6.13	1.40	3.99	16.42	1.90	0.82	0.14
	Lambeth	31	0.50	10.43	21.38	1.37	2.62	36.30	1.25	0.67	0.11
May	City of London	27	0.04	3.19	3.51	1.85	3.15	11.74	1.12	1.14	0.12
	Lambeth	23	0.03	0.80	0.85	1.40	1.92	5.00	0.90	0.71	0.10
June	City of London	12	0.02	2.92	3.14	0.98	1.83	8.89	0.63	1.01	0.16
	Lambeth	5	0.05	0.18	0.92	0.81	3.27	5.23	0.49	0.42	0.04
July	City of London	4	0.01	2.05	2.55	1.19	1.48	7.28	0.35	1.08	0.22
	Lambeth	1	0.08	2.02	3.80	0.84	1.50	8.24	insuff. quant.	insuff. quant.	insuff. quant.
August	City of London	23	0.05	5.96	4.41	1.72	2.18	14.32	0.94	1.10	0.23
	Lambeth	20	0.04	1.36	2.12	3.36	1.74	8.62	0.89	0.58	0.14
September	City of London	51	0.05	3.06	2.36	1.65	2.68	10.70	1.20	1.08	0.65
	Lambeth	49	0.06	1.15	2.07	0.83	0.30	4.41	0.63	0.52	0.16
October	City of London	19	0.08	2.44	3.43	1.37	1.83	9.15	0.91	0.52	0.13
	Lambeth	17	0.11	3.18	4.20	1.10	2.41	11.0	1.21	0.33	0.08
November	City of London	49	0.08	4.80	5.86	2.54	5.09	18.37	2.62	1.41	0.37
	Lambeth	47	0.19	3.27	3.41	1.70	3.76	12.33	1.96	0.55	0.26
December	City of London	26	0.05	2.33	3.19	1.35	2.18	9.10	0.89	0.91	0.21
	Lambeth	24	0.15	3.47	5.33	1.27	1.88	12.10	1.05	0.40	0.10

The foregoing table shows the rainfall for the months of January to December of the year 1921, and the amounts found of insoluble matter, tar, soot and dust, also the soluble matter, together with the sulphates, ammonia and chlorine in the volume collected.

The results as given by the Public Analyst have been re-calculated into metric tons per square kilometre during each month.

One metric ton per square kilometre is equivalent approximately to 9 lbs. per acre, or 2.56 tons per square mile. Although the presence of much impurity in the atmosphere has been long known the figures given represent a definite record of the facts.

In examining the foregoing table it will be appreciated that in the month of November only, the amount of deposit registered as falling in the City amounted to 18.37 tons per square kilometre, which is equal (estimating the City as having an area of one square mile) to no less than about 47 tons avoirdupois.

Of this mass of dirt, approximately 27½ tons were soluble, and included the chemicals mentioned, and 19½ tons were insoluble and consisted of tar, carbon and grit.

In addition to the foregoing, a daily observation has been made at mid-day at the Guildhall of the purity of the air by a modern dry method, by which the suspended matter can be readily demonstrated.

From the 1st January until the 31st December the amount of the impurity at noon has varied from half a milligramme to six milligrammes per cubic metre of air ; this latter figure includes times when there has been a fog.

It is interesting to compare the results of similar observations made at other places, as for example, Malvern and Sheffield, where results are widely divergent. The value of the work being carried on in connection with the examination of the atmosphere in the City is evident, and the details recorded indicate the necessity of its continuation.

VISIT OF CZECHO-SLOVAK MEDICAL COMMISSION.

At the request of the Ministry of Health the Medical Commission of the Czecho-Slovak Government which visited the country in the early part of the year were shown some matters of administrative public health interest in the City.

The following is a brief resume of the itinerary :—On the 14th February the Commission left the Guildhall in a motor omnibus for the Central Meat Market, Smithfield, where on arrival they were conducted over the Markets and their attention directed to certain of the stalls of special interest. The main object was to display the great variety of imported food products which London receives, and samples from most of the exporting countries were available for inspection.

The Cold Air Stores were next visited and the methods of transportation explained. Subsequently the riverside wharves were seen where the visitors were most impressed by the enormous trade in imported foodstuffs which the great stores indicated. The methods adopted in the inspection of tinned and dried foodstuffs were also demonstrated.

The Commission then returned to Guildhall for luncheon where they were received and entertained by Alderman Sir Charles Cheers Wakefield. After luncheon a visit was paid to the new works of the Smithfield Animal Products Co., Ltd., at Stratford, the Contractors to the Corporation for the destruction of unsound meat.

After tea at Guildhall the Commission retired apparently satisfied with the efforts which had been made on their behalf.

BACILLUS OF TETANUS IN VASELINE.

In April my attention was directed by Dr. MacFadden of the Ministry of Health to the reported death of an infant at Portsmouth from Tetanus Neonatorum, and it was suggested that infection had been received from Vaseline which had been used. Examinations had been made of the Vaseline, which in all cases were found to be sterile, but occasionally organisms had been found in caps covering the Vaseline and on the adjacent surfaces of the Vaseline.

With a view to ascertaining the position so far as the City was concerned I caused six purchases of vaseline to be made and submitted to the City Bacteriologist, Sir Frederick Andrewes, for examination. His report thereon is as follows :—

“ Six pots, numbered 22—27, were received on April 26th, 1921. One was a collapsible tube, and in the screw cap was a small cardboard disc. The other five were glass pots with metal screw lids without any paper discs on them. I may say here, that in November, 1920, I examined a number of pots for the C———M———Co., and found tetanus spores and other anaerobes in 50 per cent. of the paper discs in the lids of the pots, but none in vaseline itself. The Company removed all paper discs from the pots thenceforward sent out, and the present samples prove this.

“ The technique employed was the same as I had previously used, viz., mass cultivation in broth containing chopped meat. Of the six vaselines, four proved sterile, one specimen grew a coccus and one an undetermined bacillus : no anaerobes were present in any. The cardboard disc in the collapsible tube yielded a growth of *B. Mesentericus ruber* but no anaerobes. As there were no paper discs in the lids of the other pots I swabbed the inner surfaces of the lids and cultivated them. The wool which I used for swabbing was believed to be sterile, but control cultures showed that it contained *B. mesentericus*. This organism therefore grew in all the cultures from the swabs, but this would not have prevented the growth of anaerobes—rather the reverse. In four out of the five lids no anaerobes grew. The broths remained clear except on the surface and there was no offensive smell. In one

" case, the lid of sample No. 26, there was some evidence of anaerobic growth and large Gram positive bacilli were found in the depth. One cubic centimetre of this broth was therefore injected into a mouse ; it produced no harmful effect.

" I therefore feel justified in asserting the absence of harmful organisms, including anaerobes from these samples of vaseline and their receptacles."

From the above report it will be seen that whatever criticisms were advanced previously, none exist in respect of these samples purchased in the City.

It is further of interest to note that Sir Frederick Andrewes conducted the original investigation on behalf of the company manufacturing the vaseline.

ANTHRAX INFECTED SHAVING BRUSHES.

It has been necessary again during the present year to investigate the possibility of anthrax infection due to the use of shaving brushes. In no case, however, has the bacteriologist reported a positive result.

Enquiries have been made with a view to ascertaining whether shaving brushes of Japanese origin were displayed for sale on stalls and barrows in the City of London, but after continual observation no brushes were found so exposed.

It will interest your Worshipful Committee to know that the Ministry of Health has issued a Circular letter to Medical Officers of Health describing in brief what general action was taken in connection with the cases of anthrax in which shaving brushes were suggested as the medium of infection, and suggesting that all known dealers in shaving brushes should be warned of the serious results which might follow the sale of any Japanese shaving brushes which might still be in stock.

The Circular further described the following method as partially disinfecting these brushes :—

The brushes should be

- (a) Thoroughly washed with soap and warm water containing a little washing soda, then allowed to stand for half an hour in warm water containing a little soda ;
- (b) Placed in warm solution of formaldehyde (1 part of 40 per cent. formalin and 16 parts of water—2½ per cent. solution of formaldehyde) for half an hour.
- (c) Allowed to dry.

It should, however, be clearly understood that complete sterilisation of the brushes is impracticable and that while the above method may be relied upon to free the exposed parts of the bristles from infection, it does not affect the spores embedded in the handle of the brush.

In the City every assistance has been accorded to me by various City traders who have been affected, some of them seriously, by the discovery of anthrax in Japanese shaving brushes. They have readily complied with the suggestions I have made, and in many cases have voluntarily requested me to undertake the inspection of their stock rather than incur the risk that would attach to their sale.

The following is a summary of the numbers of each pattern brush which up to the 31st December, 1921, have been destroyed under my supervision. In each case a certificate of infection has been given to the owners.

Pattern No.	Total No. Destroyed.
5238	6741
1736	1044
5024	39
7065	2328
9011	717
9013	738
1223	907 and 1 box of bristles.
1224	456
1224A	72
5907	182

13224 and 1 box of bristles.

ENTERIC FEVER IN SHELL FISH.

Contaminated shell fish have again been the suggested cause of a case of enteric fever occurring in a neighbouring Borough.

In this case the patient partook of Whelks purchased by a retailer from a wholesale merchant at Billingsgate Market.

The onset of illness and the date of consumption of the whelks rendered enquiry into the circumstances necessary. It was found that the shell fish in question had been obtained from Brancaster. Samples of the whelks from that district were obtained by the Inspector of the Fishmongers Company and the following report by Professor Eyre thereon was forwarded to me by Sir John Wrench Towse, the Clerk to the Fishmongers Company :—

" Sample of Cooked Whelks No. E. 286.—Sample of whelks taken 15th July, 1921, by Inspector Hattersley from the premises of T. M. Wright, Billingsgate Market, which had been consigned to him by W. Softley, Brancaster Staith, by King's Lynn."

26th July, 1921.

Re SAMPLE OF COOKED WHELKS NO. E. 286.

" Six shell fish were examined from this particular batch. Of these, each was heavily infected with B. coli associated with bacteria of the coli-typhoid group, Streptococcus faecalis, bacillus enteritidis sporogenes, etc., indicating dangerous contamination with sewage. This result further suggests that the cooking process to which the shell fish had been subjected had been inefficiently carried out.

" From plate cultures subsequently prepared, numerous lactose non-fermenting bacilli were isolated; many of these proved to be merely coli variants, but one is still under investigation on account of its close relationships with the ' Strong ' and ' Harris ' types of B. dysenteriae.

" No typhoid or para-typhoid bacilli could be detected.

(Signed) JNO. EYRE."

Sir J. Wrench Towse sent a copy of this report to the Medical Officer of Health for Brancaster and asked him to warn all whelk merchants in his district that if, in future, whelks were not thoroughly cooked the sale would be prohibited in London.

I expressed the hope that the Medical Officer of Health for the district would go further than this insistence on cooking, and deal with the contamination by prohibiting the sale of such whelks until the conditions were improved. Later, Sir J. Wrench Towse issued instructions to prohibit the sale of the shell fish upon the London Market until they were proved free from pollution.

HYGIENE OF HAIRDRESSERS' AND BARBERS' SHOPS.

The Registered Hairdressers' establishments throughout the City remain under the supervision of your officers, and there are now ten proprietors of these places who hold certificates, and have undertaken to comply with the Regulations of the Corporation for the conduct of their business.

The following is a list of those proprietors at present on the Register :—

Walter Hartley, trading as the Army and Navy Toilet Club, 35, Bucklersbury.

Kingston and Hubbard, 8 and 10, Ludgate.

Chas. Lehman, 8 and 9, Aldermanbury Postern.

Martin Longman, 75, Mark Lane.

Thos. W. Monk, 5, Angel Court.

Marsh and Prince, 36, Coleman Street.

Pierre Pozzi, 16, Lawrence Lane.

Harry G. Wicks, trading as Arthur and Co., 42A, Old Broad Street.

The Hairdressers' establishments formerly conducted at No. 3 Mason's Court, 60, Fore Street, and 39, Basinghall Street, have been discontinued.

EXHUMATION AND RE-INTERMENT OF BODIES AT THE CITY OF LONDON CEMETERY.

During the year the bodies of seven persons buried at the City of London Cemetery at Ilford have been exhumed. Two of these were re-interred in the same graves, and five in other graves in the same cemetery.

In accordance with the terms of the Licences issued by the Home Secretary in respect of these cases, the work of removal and re-interment was carried out in the early morning under the supervision of your Medical Officer of Health.

CREMATIONS IN THE UNITED KINGDOM.

37 YEARS—1885-1921.

YEAR.	Woking.*	Manchester.	Glasgow.	Liverpool.	Hull.	Darlington.	Leicester.	Golder's Green	Birmingham.	Leeds.	City of London.	Sheffield.	Bradford.	W. Norwood	No. of Cremations each year.
1885	3	....	....	....	....	....	....	....	....	....	....	....	....	....	3
1886	10	....	....	....	....	....	....	....	....	....	....	....	....	....	10
1887	13	....	....	....	....	....	....	....	....	....	....	....	....	....	13
1888	28	....	....	....	....	....	....	....	....	....	....	....	....	....	28
1889	46	....	....	....	....	....	....	....	....	....	....	....	....	....	46
1890	54	....	....	....	....	....	....	....	....	....	....	....	....	....	54
1891	99	....	....	....	....	....	....	....	....	....	....	....	....	....	99
1892	104	3	....	....	....	....	....	....	....	....	....	....	....	....	107
1893	101	30	....	....	....	....	....	....	....	....	....	....	....	....	131
1894	125	47	....	....	....	....	....	....	....	....	....	....	....	....	172
1895	150	58	1	....	....	....	....	....	....	....	....	....	....	....	209
1896	137	52	10	2	....	....	....	....	....	....	....	....	....	....	201
1897	173	51	16	10	....	....	....	....	....	....	....	....	....	....	250
1898	240	62	12	27	....	....	....	....	....	....	....	....	....	....	341
1899	240	88	16	23	....	....	....	....	....	....	....	....	....	....	367
1900	301	83	20	40	....	....	....	....	....	....	....	....	....	....	444
1901	273	96	18	40	17	1	....	....	....	....	....	....	....	....	445
1902	275	81	20	54	13	2	1	5	....	....	....	....	....	....	451
1903	143	92	24	35	18	1	5	158	1	....	....	....	....	....	477
1904	138	98	19	40	20	7	8	220	19	....	....	....	....	....	569
1905	95	97	35	35	15	4	16	252	22	16	9	7	1	....	604
1906	140	90	44	46	17	13	12	298	25	15	23	6	14	....	743
1907	108	98	30	34	29	8	12	290	33	16	18	18	13	....	707
1908	119	116	28	32	37	6	14	364	18	24	19	12	6	....	795
1909	105	106	30	46	15	9	19	421	30	19	24	18	13	....	855
1910	106	114	28	37	21	9	16	415	38	12	22	8	14	....	840
1911	114	124	39	50	25	12	13	542	44	17	20	10	13	....	1,023
1912	125	149	44	52	27	15	14	591	40	24	32	12	9	....	1,134
1913	128	172	49	66	23	11	11	602	59	16	21	15	15	....	1,188
1914	124	184	57	48	16	11	7†	671	53	28	42	20	18	....	1,279
1915	153	165	63	53	34	16	22	730	45	20	45	21	12	10	1,389
1916	125	179	65	58	25	9	23	633	63	22	44	13	11	70	1,340
1917	129	178	65	62	22	14	30	719	50	17	68	25	10	118	1,507
1918	142	197	74	69	43	17	42	820	64	34	70	50	20	153	1,795
1919	181	235	84	89	46	26	36	919	76	30	68	41	31	169	2,031
1920	149	203	80	69	30	18	32	851	72	26	58	32	20	156	1,796
1921	159	228	87	75	43	20	36	893	78	31	57	29	24	162	1,922
Totals	4,855	3,476	1,066	1,193	538	231	373	10394	829	367	639	336	244	877	25,418

* "Viscount Cross in the year 1879 forbade the practice of cremation there (Woking) under the threat of passing an Act to make it illegal But in 1884 appeared the well-known judgment of Mr. Justice Stephen, which, in the case of a child's body having been burned by its father contrary to the order of the coroner, determined cremation to be a legal act, provided no nuisance be caused thereby to others."—Extract from speech made by the late Sir Henry Thompson at the opening of Golder's Green Crematorium, 22nd Nov-ember, 1902. Vide "Transactions of Cremation Society of England, 1903," p. 31.

† Closed for reconstruction from August, 1912, to July, 1914.

VISIT OF INSPECTOR W. C. KELLAND TO NEW ZEALAND.

Inspector Kelland, one of the Meat Inspectors on my staff, was in 1919 granted leave of absence to enable him to take a journey to Australia for the benefit of his health.

Inspector Kelland provided himself with a number of letters of introduction, and presentation of these on his arrival enabled him to make a fairly extensive study of the methods of slaughtering and inspection of meat in operation in the Commonwealth of New Zealand.

The impressions gained by Inspector Kelland are contained in the following Report which he has prepared:—

"I have the honour to submit herewith for your information some aspects of Meat Inspection and other allied matters in Australia and New Zealand, as they presented themselves to me on the occasion of my recent visit to these countries.

I will deal with the subject in the order in which I visited these countries and will, therefore, open with some remarks on conditions in New Zealand.

Upon arrival at Wellington, I presented letters of introduction to Dr. C. J. Reakes, the Director General of the Department of Agriculture, and desire here to place on record my appreciation of his personal kindness and the facilities arranged by him which enabled me to prosecute very full enquiries as to the conditions governing Meat Inspection in the Dominions.

For the purpose of carrying out the various Acts relating to Meat Inspection and for closer supervision, New Zealand is divided into four distinct district organizations, with headquarters at Auckland, Wellington, Christchurch, and Dunedin, under the control of a District Superintendent, in each case a Veterinarian.

During my visit I became personally acquainted with the Veterinary Superintendent of each centre, each of whom did everything possible, not only to make my visit profitable but enjoyable.

Out of the forty-five Meat Export Slaughtering Establishments, I visited twenty, in addition to the Public Abattoirs in the four centres. I was much impressed by the approach to some of these Meat Works, which gave the impression that one was approaching a private residence—with its well-kept lawns, flower beds, and borders—rather than Meat Export Works.

The slaughtering establishments are large spacious buildings, some of them with a killing capacity of from two thousand to eight thousand sheep and two hundred head of cattle per day, some being built on the two, others on the three-floor principle, the slaughtering being carried on on the upper floor. Most of the works that have been built in recent years are either of brick or reinforced concrete, while some of the old works are of wood; in the latter case the walls of the actual killing floors are lined with galvanized iron to the height of several feet, whereas the floors in each case are of some impervious material. Adjoining the killing floor is the cooling room, which is usually a large well ventilated apartment in which the carcasses are allowed to hang for several hours prior to being put into the freezing chamber. The drainage on the whole was very good, in most cases the sewage was discharged into an adjacent river or the sea, but where that was not possible, after passing over collecting tanks the sewage was forced through pipes on to the land where it soaked into the soil. Generally speaking, the cleanliness of these Establishments was all that could be desired, a fact that surprised me greatly in view of the large quantities of sheep and cattle that are killed daily. By the side of each slaughterman on the mutton floor are two holes, one through which the skin is dropped, through the other the head, pluck and intestines, these being dealt with on the floor below. There is no accumulation of skins and offal, and with a plentiful supply of water the floors are kept comparatively clean even when work is going on. In most cases the butcher has by his side a tank with a constant supply of hot and cold water for washing and cleaning the carcasses. On some of the beef floors a brush is used, to which is attached a hose, for washing down the vertebræ. Ample lavatory accommodation is provided for the employees and in some of the works which have been recently built, bathrooms, supplied with showers, and dressing rooms are provided. Facilities exist at all the meat export slaughterhouses for treating, to the best advantage, the offal and by-products on the premises. The various operations carried on under this heading, include the following:—meat canning, beef extract, tripe, tallow, pelts and slipe wool, hides and manures. In nearly all cases I visited the various departments which I found extraordinarily well kept, a feature that surprised me was how little effluvium existed, taking into consideration the nature of the work. This is accounted for by the fact that all offals are dealt with immediately after the animals are slaughtered.

The freezing and chilling rooms are similar to those in this country.

The methods of and preparation before slaughter are both for cattle and sheep the same (apart from the fact that in some cases the animals are rested, under cover) as in this country. I will not, therefore, go into unnecessary detail.

DISPOSAL OF THE CARCASSES AND OFFAL.

The sides of beef, after they have been properly prepared, are sent by rail to the chilling room, where they are allowed to hang until properly cooled, usually from six to twenty-four hours depending on weather conditions, after which they are quartered, graded and labelled, they are then put into a freezing chamber say at fifteen degrees Fahrenheit until hard frozen, when they are clothed and put into stacks ready for export.

The carcasses of mutton and lamb immediately after dressing are weighed. En route to the cooling room they pass over a weighing machine which records the weight and automatically deducts 6 per cent. to allow for shrinkage between hot weight and weight on arrival in this country, they are then graded and labelled, each grade being sorted and placed on separate rails; in this way they are sent forward to the cooling rooms, where they remain from six to twelve hours, after which they are taken to a freezing chamber and kept at a temperature of about fifteen to twenty degrees Fahrenheit until hard frozen; when frozen they are bagged and taken to store rooms where they are stacked to await shipment.

OFFAL.

Every possible care is taken when dealing with the offal and by-products "that nothing be wasted" and in justice to them, I am bound to admit their methods of utilizing everything to the best advantage was an education to me. We might with advantage adopt the New Zealand system in this country.

DISPOSAL OF BYE-PRODUCTS.

Blood.—All animals are bled in one place and the blood collected in one tank; it is ultimately treated by a special process and dried for use as manure.

Hides.—After the hides are prepared, scrubbed, washed and sprayed, they are classified, and put into stacks with dry salt between each hide; here they are kept until sold. The hair from the tails is washed, dried and exported.

Feet.—The feet are disposed of in various ways, the bones from them after being prepared are used for knife and toothbrush handles. The tendons and hoofs go for making glue and from the internal portions of the foot oil is extracted.

Horns.—These after preparation are used for fertilizer.
Heads.—The flesh from the sides of the head, cheek meat, is either frozen for export or canned. The skull is split by a special machine, the brain carefully removed and the bones then sent to the digester and ground, after which they are used for fertilizer.
Brains.—These are carefully frozen and either used locally or exported.
Tongues.—These are washed, trimmed and either canned or frozen for export.
Sweetbreads.—These are frozen for export, if not used locally.
Lungs.—All lungs are put into the digester, the majority being affected with parasitic disease.
Hearts.—These are either used for making Meat Extract, canned, or frozen for export.
Livers.—Only a very small percentage are free from parasitic disease; these are frozen for export. The diseased ones go to the digester.
 I found a great number of the lungs of both sheep and cattle affected with echinococcus veterinorum, the cystic stage of the tania echinococcus, and its presence in such proportions is due to the great number of dogs used in sheep and cattle droving.
Pillars of Diaphragm.—These are either canned or frozen for export.
Stomachs.—Portions of these are frozen for export, the remainder goes to the digester for fertilizer.
Spleens.—These are put into the digester.
Omentum and Mesentery.—The fat of the mesentery and the omentum is converted into oleo.
Intestines.—These after examination and preparation are salted and packed for export; the portions unsuitable for export go to the digester.
Kidneys.—If these are not left in the carcase they are carefully packed and frozen for export.
Tails.—These are frozen for export if not consumed locally.
Trimnings.—Trimnings from the carcasses, generative organs, etc., are collected and sent to the digester.

Sheep Offal.—This is dealt with in a similar manner; everything possible that is fit for human consumption is taken every care of, the other portions going to the digester. The skins are sent to the fell-mongering department where they are dealt with, the wool being dried and baled and the pelts prepared for export.

Every possible care is taken of the meat when it leaves the refrigerator for the ships. In the majority of cases the meat export slaughterhouses are located alongside a shipping port, but in a few cases the premises are in live stock centres, inland, the meat being carried to the port of shipment in insulated railway vans. When shipped into over-seas steamers at open roadstead ports, insulated lighters are used for conveying the frozen meat and products from the freezing works to the steamers. This, however, is only necessary in the case of three or four of the works.

MEAT INSPECTION AS CONDUCTED IN NEW ZEALAND.

To carry out the very important work of meat inspection, the live stock division has twenty veterinarians, thirty-two abattoir inspectors and eighty-six inspectors at the various meat works. The following figures will show the extent and importance of the work. They indicate the number of carcasses inspected during the year ended 31st March, 1919.

	Abattoirs.	Meat export Slaughterhouses.
Cattle	88,945	218,871
Calves	14,547	4,325
Sheep	480,372	3,690,152
Lambs	83,479	2,845,413
Pigs	44,879	56,625

In addition 19,536 pigs slaughtered in bacon factories were inspected.

DESCRIPTION OF SYSTEM OF MEAT INSPECTION.

The meat inspection in each of the meat export slaughterhouses is under the control of a veterinary surgeon, who has under him a staff of lay inspectors (assistants) who do the actual work, the veterinary inspector supervises. All cattle and sheep are examined ante-mortem by the veterinary inspector.

Cattle.—The method of examining the carcase and their organs are very similar to those employed in the City of London, and are as follows:—

Every organ is carefully examined, palpated, and the glands incised, after which the carcase is gone thoroughly over, the serious membranes, the bones of the vertebræ examined and the superficial glands incised. If there is no evidence of disease in the carcase or organs it is passed on, but before being labelled and clothed for export it is examined again, therefore there is little likelihood of any diseased carcase getting through. If any disease is found in a carcase of beef or its organs, it is sent to a detention room—a part of the cooling room is set aside for this purpose—there it is examined by the Veterinary Inspector and all the deep seated glands incised before judgment is passed. Any carcase, portions of a carcase, or organs condemned, are at once sent to the digester and dealt with under the supervision of the authorities.

Sheep.—In addition to being examined in the killing room, an inspector examines each carcase as it passes the weighing scale, observing the serious membranes and palpating the parts containing the precruial, inguinal and prescapular lymphatic glands. If they are found free from disease and of good quality they are labelled for export, but if of poor quality they are sent to the canning department.

Pigs.—A very careful examination is made of all pigs carcasses and their organs and if the slightest trace of disease is found either in the carcase or its organs, the carcase is chopped into two sides, the serious membrane bones of the vertebræ and lymphatic glands all examined and if—in the case of tuberculosis—the disease is localized in the head it is removed, and the carcase passed as fit for human

food. If there is the slightest trace of disease beyond the head the whole carcase and organs are condemned. Under the Foreign Meat Regulations, only carcasses free from disease are exported; those affected in the region of the head are used for local consumption.

Branding.—All carcasses after examination are branded with an approved brand for particular district and those slaughtered for export are labelled, therefore there is no difficulty in ascertaining from which abattoir or meat export works a particular carcase may have come and by whom it was examined.

COMPENSATION.

Compensation is paid by the New Zealand Government for condemned carcasses as follows:—

Heifers and bullocks not exceeding 8 years old and in every case of not less value than (three pounds) £3 per head, lambs and sheep (other than rams) not exceeding five years of age, and in every case of not less than 10s. per head.

Pigs of not more than 200 lbs.

Pigs of more than 200 lbs.

Cows, not exceeding ten years of age, and not of less value than £3 per head.

One penny per pound dressed weight of the carcase, not including the head or any part of the animal below the knee or hock.

Two pence per lb. dressed weight not including the head.

One penny per lb. dressed weight not including the head.

Three farthings per lb. dressed weight of meat condemned not including the head or any part of the carcase below the knee or hock.

The amount expended under this head for the year ending 31st March, 1919, was £10,888 2s. 10d.

In addition to the above 3,667 head of cattle were condemned and destroyed on account of disease either on the farms or at saleyards, for which £11,549 18s. 9d. was paid by the State in compensation.

SLAUGHTERING FEES.

Under the Slaughtering and Inspection Act a charge is made for the examination of all carcasses killed in the meat export slaughterhouses and abattoirs as follows:—

For every head of cattle Four pence.

For every twelve (or fraction of twelve) calves, sheep or pigs Three pence.

The amount received under this head during the year ending 31st March, 1919, was £14,962.

All public abattoirs are registered and meat export slaughterhouses licensed, the license for a meat export slaughterhouse has to be renewed annually, no license is renewable without the consent of the Minister of Agriculture, and he may refuse his consent if he is of opinion that the business of any meat export slaughterhouse has been carried on, or is about to be carried on, in a manner prejudicial to the public interest.

I would suggest such a procedure in connection with all cold stores within the City of London.

I was very much impressed by the way the public abattoirs were conducted. In each case a veterinary inspector is in charge, assisted by lay meat inspectors. All carcasses and their organs are most carefully examined and if free from disease are stamped on each quarter as having been passed. All towns with a population of two thousand must provide a public abattoir; this has to be erected by the Local Authority, and outside a district where an abattoir is established all slaughterhouses must be registered by the Local Authority, and licensed with the approval of the Minister for Agriculture.

Inspection is then provided for, and all carcasses slaughtered are subject to inspection, and are accordingly branded with a brand approved for the district. Therefore all meat, exposed or offered for sale throughout New Zealand, has been slaughtered under the supervision of the Government meat inspectors and passed as fit for human food.

RECORDS.

By Section 32 of the Slaughtering and Inspection Act, 1908, records are kept not only by the Government official, but the licensee of every slaughterhouse or meat export slaughterhouse must record in a book and make returns of all stock slaughtered each day, stating:—

(a) The number, species, and sex of such stock.

(b) The name, occupation, and address of the owner of such stock, or if the licensee is the owner then the person from whom, and the date on which he took delivery of same.

In the case of a slaughterhouse the colour and earmark of such head of cattle and sheep must be recorded.

No calf of a less dressed weight than sixty pounds including the skin is allowed to be sold and "blowing" is absolutely prohibited.

TRAINING OF MEAT INSPECTORS.

All meat inspectors are trained by the department. Suitable men, preferably with a knowledge of the meat trade, are taken on a period of probation after which time they have to pass a qualifying examination before a Government veterinarian; this is both written and practical and from what I could learn is a similar examination to that which is held by the Royal Sanitary Institute. Proper offices and accommodation are provided at all meat export slaughterhouses and abattoirs for the Government inspectors.

I consider meat inspection as carried out in the Dominion to be excellent and we in this country can with perfect safety accept their certificate as a guarantee that not only is the carcase to which it is attached free from disease, but has been slaughtered under the best hygienic conditions. I would desire here to express my satisfaction with all I saw and to thank all those gentlemen with whom I came in contact for their personal kindness and for the information which was at all times freely given. It is needless to say that the experience gained during my visit to New Zealand will prove of great value to me as an official of the Corporation of the City of London."

MEAT INSPECTION.

The following records of work done in connection with meat inspection have been prepared by Mr. Dunlop Young.

IMPORTED MEAT FOR THE YEAR 1921.—According to the Board of Trade Returns, the total weights of the various descriptions of frozen and chilled meat imported into the United Kingdom during the past three years, contrasted with 1913 and the values of the 1921 arrivals, were as follows, viz. :—

From.	1913. Tons.	1919. Tons.	1920. Tons.	1921. Tons.
Australia	150,666	69,044	154,743	104,732
New Zealand	122,234	121,209	197,305	263,665
Argentina	409,211	242,128	364,808	444,539
Uruguay....	29,717	21,322	41,774	67,093
United States	74	42,809	11,233	8,903
Other Countries	8,355	31,842	40,552	28,482
Total	720,257	528,354	810,415	917,414

From.	Increase or Decrease in 1921 compared with 1920. Tons.	Total Import Value, 1921. £	Value per ton. £
Australia	— 50,011	7,193,076	= 68
New Zealand	+ 66,360	20,937,998	= 79
Argentina	+ 79,731	33,277,407	= 75
Uruguay	+ 25,319	4,921,938	= 73
United States	— 2,330	803,050	= 90
Other Countries	— 12,070	2,570,175	= 90
Total	+ 106,999	69,703,644	= 76

The net increase in importations (106,999 tons) is mostly accounted for by the increase in receipts of chilled beef (99,674 tons).

The following table, compiled from statistics furnished by the Market Superintendent, shows the weights of the various descriptions of foodstuffs handled on Smithfield Market in 1920 and 1921 :—

Source of supply.	Beef and Veal.		Mutton and Lamb.		Ratio of Beef, Veal, Mutton and Lamb to the total of these descriptions.		Pork and Bacon.		Poultry, Game and other Provisions.		Totals.	
	Tons.		Tons.				Tons.		Tons.		Tons.	
	1920	1921	1920	1921	1920	1921	1920	1921	1920	1921	1920	1921
United Kingdom	51,465	33,203	16,728	20,356	21·0%	14·7%	5,531	9,908	15,110	16,684	88,834	80,151
Australasian and South African	15,860	24,810	103,320	101,359	36·6%	34·6%	76	106	5,499	4,312	124,755	130,587
North American	4,148	3,962	139	194	39·6%	1·2%	4,371	4,315	2,335	998	10,993	9,469
North American English killed	—	8,743	—	40	—	2·4%	—	—	—	—	—	8,783
South American	118,059	143,798	10,610	18,177	1·3%	44·4%	3,048	2,912	66	326	131,783	165,213
Continental ...	1,794	6,252	3,295	3,718	1·5%	2·7%	2,210	14,727	2,257	3,533	9,556	28,230
TOTALS ...	191,326	220,768	134,092	143,844	100·0%	100·0%	15,236	31,968	25,267	25,853	365,921	422,433

It will be observed from the foregoing table that the total amount of beef, mutton and lamb deposited for sale in the Market was 364,612 tons, an increase of 39,194 tons or 12 per cent. over the preceding year. Home grown supplies amounted to 53,559 tons, being 14,634 tons less than in 1920 and only 14·7 per cent. in 1917 of the total supply of meat sold on the Market compared with 57·5 per cent.

Although the quantity was small the quality was good and good prices were realised. The wholesale price of all classes of meat gradually decreased and the public should have benefited to greater extent than it has done.

The result of the examinations made by the inspectors showed that there continues to exist a great lack of satisfactory meat inspection at the places of origin in this country, which it is hoped the recommendations made by the Departmental Committee on Meat Inspection may remedy, if they are carried out as they should be.

Analysis of the total quantity of meat imported shows that the inspectors have to deal with meat arriving from many sources, viz. :—

	Mutton, Tons.	Lamb, Tons.	Beef, frozen, Tons.	Beef, chilled, Tons.	Offal, Tons.	Total, Tons.
Australia	6,082	11,860	76,518	....	....	95,510
New Zealand	104,038	62,906	45,290	....	....	212,234
Canada ....	....	....	( — 4,300 — )	....	....	4,300
Argentina	33,330	18,725	225,230	158,571	20,541	456,397
Uruguay....	8,601	222	54,996	15,178	3,663	82,660
Brazil ....	....	....	61,000	....	....	61,000
Patagonia	40,000	....	....	....	....	40,000
U.S.A.	Sundries	....	....	....	....	12,500

GENERAL REMARKS.

CHILLED BEEF.—The amount of chilled beef which arrived on the market during the year showed a considerable increase. The quality was good but evidently the meat was carried at a lower temperature than under the Linley system as at times it was difficult to state whether it was frozen or chilled. The cleanly condition and attractive appearance of the meat, more especially that displayed at Christmas, was an object lesson to all butchers. Consignments arrived from Canada, the quality was excellent and the refrigeration condition very satisfactory, the meat being carried at or slightly above 30 degrees F., but the dressing and general appearance as to cleanliness and finish was not up to the high standard attained by the Argentine shippers. If cost of transport and handling is not too high and greater attention given to the above-mentioned conditions, the Canadian chilled meat should be a serious competitor with Argentine supplies and even have some effect on home-grown meat prices.

With the exception of a few quarters of beef which on being cut into joints showed lesions of tuberculosis in the deep seated glands, the chilled meat arrived satisfactory as to disease, but occasionally, consignments appeared as if they had originally been sent away as chilled and later reduced in temperature to the frozen condition.

FROZEN BEEF.—Frozen beef also showed an increase but only to a small extent. This class of meat was satisfactory as to disease, but some consignments from Australia, New Zealand, South Africa and Brazil showed as regards quality, improvement as to breeding in the animals from which the meat was derived, grading, dressing and attractive appearance a standard considerably below what is considered necessary to effect a good demand and quick sale on the Central Markets in comparison with Argentine consignments.

MUTTON AND LAMB.—Quantities of war stock mutton continued to be placed on the Market and required the attention of the meat inspectors as to condition. Many carcasses were very poor in quality and unsaleable with the result that they hung in the stalls until they were unfit for food.

A considerable quantity of boned out mutton carcasses arrived from Patagonia. The quality of the meat was exceedingly poor and although generally free from disease such meat has little nutritive value.

An important feature was the great increase of good quality lamb carcasses which arrived from Argentina. This country is becoming a serious competitor against New Zealand in this class of meat.

EXAMINATION OF SOUTH AMERICAN TONGUES.

Owners.	No. of Tongues Examined.	Percentage Examined.	No. of Tongues Seized.	Percentage.
A	4,800	100%	170	3·5
"	6,036	5%	11	·18
B	99,772	5%	81	·08
C	1,824	100%	23	1·2

TONGUES EXAMINED AT DOCKS AND RELEASED.

A	....	....	....	5,724 Tongues.
C	....	....	....	69,996 "
D	....	....	....	3,470 "

FOOD PRODUCTS CONDEMNED AT COLD STORES.

Article.	No.	How Packed.	Origin.	Cause for Destruction.	Tons	Cwts.	Qrs	lbs.
Bacon (Pieces)	.....	.....	British	Decomposed	0	14	2	15
Beef (Quarters)	49	.....	New Zealand	"	3	4	1	12
"	18	.....	Argentine	"	1	7	2	17
"	21	.....	Brazil	"	0	19	2	0
"	4	.....	Australia	"	0	6	1	17
" (Pieces)	.....	.....	British	"	0	14	1	3
"	.....	.....	New Zealand	"	15	14	1	19
"	.....	.....	Argentine	"	21	16	3	1
"	.....	.....	Australia	"	68	11	0	20
"	.....	.....	Brazil	"	0	5	0	22
Brains (Beef)	.....	.....	Argentine	"	0	0	2	4
Calves (Carcases)	34	.....	New Zealand	"	1	11	0	27
"	50	.....	Argentine	"	1	11	3	4
Cheeks (Sheep's)	217	Bags	New Zealand	"	9	10	3	12
Chickens	1	Cases	U.S.A.	"	0	0	2	6
Feet (Ox)	.....	Bags	Argentine	"	0	3	2	2
Fish (Various)	.....	Boxes	British	"	10	1	1	13
"	.....	.....	Canada	"	6	12	3	9
Fruit (Tins)	163	Cases	U.S.A.	"	0	2	3	18
Geese	60	"	Holland	"	3	10	0	4
Hearts (Sheep's)	.....	Bags	New Zealand	"	18	8	0	2
" (Ox)	.....	"	Argentine	"	5	16	3	3
" (Calves)	.....	"	"	"	0	7	1	23
" (Ox)	100	"	Australia	"	3	19	0	6
Lambs (Carcases)	154	.....	New Zealand	"	2	1	3	7
"	158	.....	Chili	"	2	15	2	14
" (Pieces)	.....	.....	New Zealand	"	4	18	3	16
Livers (Sheep's)	.....	.....	"	"	2	4	2	1
"	.....	.....	Argentine	"	0	10	1	5
Mutton (Carcases)	6026	.....	New Zealand	"	141	2	1	23
"	160	.....	Chili	"	4	1	3	15
"	122	.....	Argentine	"	2	8	3	5
"	22	.....	Australia	"	0	8	0	21
" (Pieces)	.....	.....	British	"	0	1	1	23
"	.....	.....	New Zealand	"	37	17	3	11
"	.....	.....	Chili	"	0	12	3	2
"	.....	.....	Argentine	"	2	16	2	4
"	.....	.....	Australia	"	2	0	1	16
" (Carcases)	10	.....	New Zealand	Brine Stain	0	4	2	25
Offal (Various)	.....	.....	Argentine	Decomposed	15	15	1	9
"	.....	.....	British	"	0	2	3	23
" (Sheep's)	.....	.....	Australia	"	3	15	3	12
Pork (Carcases)	1	.....	British	"	0	1	0	26
"	93	.....	Argentine	"	4	2	1	5
"	2	.....	South Africa	"	0	2	0	18
"	2	.....	U.S.A.	Diseased	0	1	2	1
" (Pieces)	.....	.....	Argentine	Decomposed	4	10	3	7
Poultry (Various)	.....	Cases	British	"	1	14	2	25
Rabbits	160	"	Australia	"	5	5	3	8
Tails (Ox)	.....	.....	Argentine	"	0	1	0	0
"	.....	.....	New Zealand	"	1	1	3	26
Tongues	309	Bags	Argentine	Diseased	1	0	0	25
" (Sheep's)	.....	.....	"	Decomposed	0	15	0	21
Turkeys	.....	Cases	Hungary	"	0	18	2	27
Tins of Meat	10	Cases	Argentine	"	0	6	0	12
Tins of Meat (Various)	70	"	"	"	0	10	0	20
Veal (Pieces)	.....	.....	British	"	0	3	2	22
Venison (Pieces)	.....	.....	"	"	0	1	3	12
					420	9	0	18

Total condemned in the Year 1920 = 537 tons, 17 cwts., 2 qrs., 8 lbs.

" " " " 1921 = 420 " 9 " 0 " 18 "

Decrease 117 " 8 " 1 " 18 "

TUBERCULOUS MEAT SEIZED AT THE CENTRAL MARKETS DURING 1921.

		Carcases,	BEEF, Qrs.	Pieces,	Carcases,	PORK, Qrs.	Pieces,	Carcases,	VEAL, Qrs.	Pieces.
1921	....	40	39	66	312	6	66	12	....	3
1920	....	75	110	75	205	4	38	2	....	....
Increase	....	....	....	....	117	2	28	10	....	3
Decrease	....	35	71	9	....	....	....	....	....	....

OFFAL.

	Heads,	Tongues,	Lungs,	Hearts,	Livers,	Stomachs,	Spleens,	Mesenteries,	Intestines,	Kidneys,	
1921	{ 45	40	16	13	13	2	....	....	....	....	Oxen.
	{ 2,005	1	147	84	105	2	2	4	2	6	Pigs.
	{ 4	1	....	....	....	....	....	....	....	....	Calves
1920	{ 164	162	80	35	86	6	22	7	....	45	Oxen.
	{ 708	....	154	77	88	....	1	8	....	4	Pigs.
	{ 1	....	6	....	....	....	....	....	....	....	Calves.

Total Weight for 1920 = 38 tons 14 cwts. 3 qrs. 11 lbs.

" " " 1921 = 33 " 0 " 1 " 12 "

Decrease = 5 " 14 " 1 " 27 "

LEADENHALL MARKET AND CITY SHOPS.

The Leadenhall Market and City Shops have been carefully inspected during the year, and the following table shows the amount and variety of unsound food dealt with:—

Bacon (Sides)	....	....	....	....	3	Offal (Baskets)	....	....	....	....	10
" (Pieces)	....	....	....	....	20	" (Heads—Ox)	....	....	....	....	1
Beef (Pieces)	....	....	....	....	14	" (Heads—Pigs)	....	....	....	....	6
" (Tins)	....	....	....	....	13,208	" (Tongues—Ox)	....	....	....	....	4
Black Game	....	....	....	....	34	" (Livers—Ox)	....	....	....	....	2
Capercaillies	....	....	....	....	7	" (Livers—Sheep)	....	....	....	....	72
Chickens	....	....	....	....	422	" (Stomach—Ox)	....	....	....	....	5
Ducks	....	....	....	....	1,608	" (Feet—Ox)	....	....	....	....	28
Eggs (Fowls)	....	....	....	....	2,593	Partridges	....	....	....	....	2,295
" (Plovers)	....	....	....	....	434	Pheasants	....	....	....	....	813
Fish (In tins)	....	....	....	....	3,094	Pigeons	....	....	....	....	1,194
Fowls	....	....	....	....	6,192	Plovers	....	....	....	....	139
Foxes	....	....	....	....	5	Pork (Pieces)	....	....	....	....	16
Fruit (In tins)	....	....	....	....	4,085	" (Carcases)	....	....	....	....	6
Game (Cases)	....	....	....	....	3	Ptarmigan	....	....	....	....	44
" (Unclassified)	....	....	....	....	381	Quail	....	....	....	....	545
Geese	....	....	....	....	390	Rabbits	....	....	....	....	37,247
Goats (Carcases)	....	....	....	....	10	Snipe	....	....	....	....	236
Grouse	....	....	....	....	863	Stirk	....	....	....	....	1
Guinea Fowls	....	....	....	....	83	Teal	....	....	....	....	25
Hares	....	....	....	....	949	Turkeys	....	....	....	....	289
Hazel-hens	....	....	....	....	9	Venison (Carcases)	....	....	....	....	15
Kids	....	....	....	....	4	" (Pieces)	....	....	....	....	16
Lambs (Carcases)	....	....	....	....	2	Widgeon	....	....	....	....	264
Milk (In tins)	....	....	....	....	29,398	Woodcock	....	....	....	....	26
Mutton (Pieces)	....	....	....	....	10						

Total Weight for the year 1921 = 103 Tons, 17 Cwts., 3 Qrs., 25 lbs.

" " " 1920 = 81 " 16 " 0 " 14 "

Increase.... 22 " 1 " 3 " 11 "

ALDGATE MARKET AND SLAUGHTERHOUSES.

The following table shows the number of animals slaughtered at Aldgate as compared with 1920:—

	1921.	1920.
Bulls	161	19
Calves	17,613	13,332
Cows	19	10
Goats	59	62
Heifers	216	7,232
Oxen	5,804	5,866
Sheep	15,844	6,233
	<u>39,716</u>	<u>32,754</u>

NUMBER OF CARCASSES AND QUARTERS SEIZED AND DESTROYED AT ALDGATE.

Cause of Destruction.	BEEF.		MUTTON.		VEAL.	
	Carcasses.	Quarters.	Carcasses.	Quarters.	Carcasses.	Quarters.
Anthrax	1	....	....	....	....	....
Decomposition .....	....	....	19	43	17	5
Tuberculosis	16	2	....	....	8	....
Total for 1921	17	2	19	43	25	5
Total for 1920	9	....	2	7	34	2

RECORD OF ORGANS SEIZED AT ALDGATE FOR THE YEAR 1921.

Cause for Destruction.	OXEN.										SHEEP.									
	Heads.	Tongues.	Lungs.	Hearts.	Livers.	Stomachs.	Spleen.	Mesenteries.	Intestines.	Kidneys.	Heads.	Tongues.	Lungs.	Hearts.	Livers.	Stomachs.	Spleen.	Mesenteries.	Intestines.	Kidneys.
Abscess	15	....	37	....	226	4	....	....	....	4	....	....	....	9	....	....	....	....	....	....
Actinomycosis	90	106	7	....	12	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Anthrax	1	1	1	1	1	1	1	1	1	2	....	....	....	....	....	....	....	....	....	....
Cirrhosis .....	....	....	....	....	69	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Decomposition .....	....	....	....	....	....	18	4	1	1	2	89	89	42	29	27	19	43	19	19	28
Jaundice and Melanosis .....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....
Parasitic Disease .....	....	....	307	....	1381	....	....	....	....	....	....	....	....	....	1249	....	....	....	....	....
Pleurisy and Pneumonia .....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	25	....	....	....	....	....
Pneumonia .....	....	....	328	....	....	....	....	....	....	....	....	....	....	....	161	....	....	....	....	....
Pleurisy .....	....	....	502	....	....	....	....	....	....	....	....	....	....	....	73	....	....	....	....	....
Tuberculosis	112	71	368	....	91	22	....	80	80	36	....	....	....	....	....	....	....	....	....	....
Unmarketable	1	1	....	69	30	55	41	....	....	....	....	....	....	137	67	8125	147	187	187	....
Totals for the year 1921	220	179	1552	61	1800	101	40	82	82	44	89	89	1550	167	1798	8144	190	206	206	28
Totals for the year 1920	130	108	1084	61	1356	99	35	1057	1057	37	4	3	460	26	507	4741	22	121	121	4

Cause for Destruction.	CALVES.										GOATS.									
	Heads.	Tongues.	Lungs.	Hearts.	Livers.	Stomachs.	Spleen.	Mesenteries.	Intestines.	Kidneys.	Heads.	Tongues.	Lungs.	Hearts.	Livers.	Stomachs.	Spleen.	Mesenteries.	Intestines.	Kidneys.
Abscess	6	....	18	....	72	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Actinomycosis	14	12	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Anthrax .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cirrhosis .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Decomposition	17	17	20	48	30	17	49	17	17	42	....	....	....	....	....	....	....	....	....	....
Jaundice and Melanosis .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Parasitic Disease .....	....	....	124	....	117	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pleurisy and Pneumonia .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pneumonia .....	....	....	186	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pleurisy .....	....	....	161	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tuberculosis	25	14	106	....	149	11	....	10	10	18	....	....	....	....	....	....	....	....	....	....
Unmarketable .....	....	....	....	76	....	70	37	25540	25540	....	....	....	....	....	....	....	....	....	....	....
Totals for the year 1921	62	43	615	124	368	98	86	25567	25567	60	....	....	1	....	1	13	....	10	10	....
Totals for the year 1920	35	36	251	115	494	37	88	9042	9042	....	....	....	6	1	3	1	....	37	37	....

UNSOOUND MEAT.*—The meat, &c., seized during the year by your Inspectors as unfit for food is classified as under :—

1921.	Diseased.				Unsound.				Unwholesome.				Tinned Meat.				Tinned Milk.			
	tons.	cwts.	qrs.	lbs.	tons.	cwts.	qrs.	lbs.	tons.	cwts.	qrs.	lbs.	tons.	cwts.	qrs.	lbs.	tons.	cwts.	qrs.	lbs.
First Quarter	27	4	2	14	148	13	1	26	11	10	3	6	....	....	....	....	....	....	....	....
Second	18	12	2	15	355	14	1	25	5	0	3	7	4	7	3	1	3	7	5	24
Third	12	17	2	17	411	4	3	25	....	....	....	....	19	5	0	2	6	11	2	1
Fourth	29	11	2	27	518	4	2	14	....	....	....	....	3	2	3	2	3	15	2	0
Total	88	6	2	17	1433	17	2	6	16	11	2	13	26	15	2	5	13	15	1	25

1921.	Rabbits and Hares.				Poultry and Game.				Offal.				Fish.				Total.			
	tons.	cwts.	qrs.	lbs.	tons.	cwts.	qrs.	lbs.	tons.	cwts.	qrs.	lbs.	tons.	cwts.	qrs.	lbs.	tons.	cwts.	qrs.	lbs.
First Quarter .....	....	....	....	....	77	7	3	15	61	6	5	20	6	15	0	4	332	19	1	1
Second .....	....	....	....	....	54	0	0	1	77	15	0	20	14	3	26	....	519	14	1	7
Third .....	....	....	....	....	28	4	3	16	145	8	3	3	3	14	2	22	627	7	2	2
Fourth	4	14	1	11	49	7	0	3	181	9	3	12	5	5	9	....	790	12	0	22
Total	4	14	1	11	208	19	3	7	466	1	0	27	11	11	0	5	2270	13	1	4

SUMMARY OF UNSOUND FOOD DESTROYED.

	Tons.	Cwts.	Qrs.	Lbs.
Central Markets, Smithfield	1,604	6	0	14
Cold Stores	420	9	0	18
Leadenhall Market and City Shops	103	17	3	25
Aldgate Market and Slaughterhouses	109	11	1	27
Total for the year 1921	2,238	4	3	0
Total for the year 1920	2,141	16	3	0
Increase	96	8	0	0

Seven officers of the Royal Army Service Corps, seven officers of the Royal Navy and three Veterinary Surgeons received training in meat inspection at the Central Markets, Smithfield, during the year.

*Approximate weights.

CENTRAL MARKETS, SMITHFIELD.

*Table showing the average deliveries at the Central Meat Market, and other details for successive quinquennial periods during the past 48 years:—

Quinquennium.	Annual Average General Supply.			Seizures by Inspectors.			% of Unsound Meat.
	Tons.	cwts.	qrs.	Tons.	qrs.	cwts.	
1874-1878	178,373	10	0	192	18	2	·108
1879-1883	218,200	12	3	282	11	2	·129
1884-1888	249,580	19	2	248	1	2	·099
1889-1893	304,986	5	1	461	15	1	·151
1894-1898	372,440	12	2	749	3	3	·201
1899-1903	410,456	18	1	1,082	13	2	·263
1904-1908	414,906	11	1	1,584	19	3	·382
1909-1913	427,146	0	0	1,520	2	3	·356
1914-1918	324,715	0	0	1,370	11	2	·422
1919-1921	361,116	0	0	2,133	5	1	·591

*The sources of origin of the Central Markets Supplies during the past five years are here expressed in terms per cent. of the total annual deliveries.

	BRITISH.		AMERICAN.		Australian and New Zealand.
	Country Killed.	Town Killed.	†Foreign Killed.	Home Killed.	
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
1917	35·7	16·9	1·8	—	33·1
1918	31·8	11·1	0·6	—	43·9
1919	24·8	11·4	0·5	—	41·9
1920	17·6	6·7	2·6	—	39·0
1921	14·1	4·9	6·7	2·1	41·3

† Includes "General Foreign Meat and Produce."

‡ Includes South American Imports.

*Some idea of the amount of the work of your Inspectors of Slaughterhouses and Meat may be obtained from the following figures supplied by the Superintendent of the Market:—

	1917.	1918.	1919.	1920.	1921.
	Tons.	Tons.	Tons.	Tons.	Tons.
Average daily delivery into the Markets	922	688	964	1,192	1,389
‡ Minimum delivery on any one day	135	61	107	101	101
Maximum delivery on any one day	2,397	1,668	2,101	3,103	3,537

The heaviest weight previously recorded on any one day (22nd December, 1913) was 4,398 tons.

‡ The minimum deliveries relate to Saturdays when practically no wholesale business at the Market is carried out.

One ton in every 169 tons of meat paying toll in the Central Markets, Smithfield, was condemned last year, as compared with one ton in 174 in 1920.

Table showing Weight of Meat delivered, and Meat delivered to Contractors as unsound, during each Month of the Years 1920 and 1921.

MONTH.	Meat delivered at the Market, 1920.			Unsound Meat delivered to Contractors, 1920.			Meat delivered at the Market, 1921.			Unsound Meat delivered to Contractors, 1921.		
	Tons.	cwts.	qrs.	Tons.	cwts.	qrs.	Tons.	cwts.	qrs.	Tons.	cwts.	qrs.
January	30,428	0	0	160	9	1	33,604	0	0	122	2	0
February	26,613	0	0	101	17	1	32,071	0	0	89	1	1
March	31,315	0	0	224	19	1	34,037	0	0	139	7	0
April	28,439	0	0	158	7	1	34,002	0	0	111	17	1
May	28,517	0	0	184	18	3	33,970	0	0	186	8	3
June	27,543	0	0	223	4	1	33,935	0	0	233	7	0
July	30,944	0	0	142	7	3	30,865	0	0	238	15	0
August	28,700	0	0	147	14	2	34,329	0	0	224	5	0
September	32,103	0	0	233	6	1	37,009	0	0	195	19	0
October	32,309	0	0	165	17	1	39,279	0	0	255	14	1
November	34,736	0	0	205	5	2	39,986	0	0	241	18	3
December	34,275	0	0	144	5	2	39,295	0	0	199	9	2
TOTALS	365,922	0	0	2,092	12	3	422,382	0	0	2,238	4	3

* I am indebted to the Clerk and Superintendent of the Central Markets for the figures relating to the market supplies, sources of origin, &c.

FISH SUPPLIES.

227,497 tons of fish, of which 198,839 were land-borne and 28,658 water-borne, were received at or near Billingsgate Market during the year.

This was a decrease of 33,027 tons in the land deliveries, and an increase of 9,036 tons in the deliveries by water.

MONTHLY FISH RETURNS.

Table showing Weight of Fish, Delivered, Fish seized as Unsound, and Percentage of Fish Condemned to that Delivered, at or near Billingsgate Market, and on board boats lying off that place, during each month of the year 1921.

Month.	Weight of Fish Delivered.		Total.	Weight of Fish Condemned.			Ratio of Fish Condemned to that Delivered.	
	By Land.	By Water.		Tons.	cwts.	qrs.	1 ton in	Per Cent.
JANUARY	17,522	1,606	19,128	80	13	2	1 ton in 237-108 tons or	0-421
FEBRUARY	18,231	1,926	20,157	155	0	2	1 ..	130-028 ..
MARCH	17,978	1,663	19,641	63	16	1	1 ..	307-792 ..
APRIL	16,588	1,873	18,461	180	6	1	1 ..	102-385 ..
MAY	14,987	2,188	17,175	171	4	0	1 ..	100-321 ..
JUNE	14,490	2,060	16,550	202	15	0	1 ..	86-628 ..
JULY	15,191	2,298	17,489	447	12	0	1 ..	39-074 ..
AUGUST	16,492	3,418	19,910	436	9	3	1 ..	45-614 ..
SEPTEMBER	15,647	3,467	19,114	251	15	0	1 ..	75-926 ..
OCTOBER	17,087	2,984	20,071	285	2	3	1 ..	70-392 ..
NOVEMBER	18,643	3,150	21,793	176	12	3	1 ..	123-380 ..
DECEMBER	15,983	2,025	18,008	129	9	2	1 ..	139-091 ..
TOTAL	198,839	28,658	227,497	2,580	17	1	1 ..	88-089 ..

* Compiled from the Monthly Returns furnished to the Corporation by the Fishmongers' Company.

MONTHLY DELIVERIES OF FISH AT LONDON CENTRAL MARKETS,
SMITHFIELD, 1921.

	Tons.	cwts.	qrs.
January	109	19	0
February	121	0	0
March	101	16	0
April	109	15	0
May	94	16	0
June	92	14	0
July	79	2	0
August	85	1	0
September	96	1	0
October	111	6	0
November	116	9	0
December	93	6	0
TOTAL	1,211	5	0

Of the above, 11 tons 11 cwts. 0 qrs. 5 lbs. were seized as unsound by your Officers and those of the Fishmongers' Company. This equals 0-95 per cent. of the whole, or 1 ton in 105 tons.

WEIGHT OF FISH DELIVERED, FISH SEIZED AS UNSOUND, AND PERCENTAGE OF FISH CONDEMNED TO THAT DELIVERED, AT OR NEAR BILLINGSGATE MARKET DURING 1921 AND THE FIVE YEARS 1916-1920.

YEAR.	Weight of Fish Delivered.		TOTAL.	Weight of Fish Condemned.			Ratio of Fish Condemned to that Delivered.	
	By Land.	By Water.		Tons.	cwts.	qrs.	1 ton in	Per Cent.
1916	114,268	4,529	118,797	1,183	5	0	1 ton in 100 tons, or	0-996%
1917	111,548	3,623	115,169	1,750	6	3	1 ..	66 ..
1918	121,270	154	121,424	2,166	9	1	1 ..	56-047 ..
1919	158,326	9,360	167,686	3,079	16	2	1 ..	54-444 ..
1920	231,866	19,622	251,488	2,720	17	2	1 ..	92-425 ..
Average (5 years)	147,455	7,457	154,913	2,180	3	0	1 ton in 71-056 tons or	1-407%
1921	198,839	28,658	227,497	2,580	17	1	1 ton in 88-089 tons or	1-134%

THE DISPOSAL OF UNSOUND FOOD PRODUCTS.

It has been the policy of the Corporation in the past, annually, to advertise the fact that the Corporation is prepared to enter into arrangements with a contractor to remove and dispose of unsound food products condemned, surrendered or seized, either at Smithfield market, the City markets, or at places within the jurisdiction of the Port Sanitary Authority. Somewhat similar arrangements have also been made at Islington, but there has existed at the Cattle Markets a special plant known as the "Podival" apparatus, by means of which certain products were converted into manure on the premises.

The competition for the use of these products is of a limited character and no encouragement was made to firms to enlarge their plant in view of the fact that the tender was placed for one year only, and the unreliability of such arrangement did not encourage firms to establish up-to-date equipment.

The disposal of unsound food products to a contractor is a somewhat serious responsibility, because however honourable a contractor may be, some confidence has to be placed in employees, and where such products have to be carted for a considerable distance, obvious sources of leakage are evident. Unsound food likewise in view of modern methods is capable of being transformed by means of appropriate processes into residual products of considerable value, and it is necessary that modern equipment should exist if the fullest value for this material is to be obtained, and the highest prices for the products can therefore be given by firms who are equipped to use the products to the best advantage.

In view of these considerations three years ago I submitted to the Sanitary Committee the desirability of considering two alternatives, first whether the Corporation would establish its own plant for dealing with these condemned materials, or whether it would let the tender for a sufficiently long period to justify the contracting firm spending money on modern equipment.

The Committee decided against the first, but in favour of the second of these alternatives. The first advertisement which was published during the war period did not meet with satisfactory response. At a later date, proposals were received from a body of men who were prepared to establish a new firm by the name of "The Smithfield Animals Products Company." I believe the chief shareholders, if not the whole, are firms engaged in the meat trade in the neighbourhood of Smithfield. It is these firms who supply in the main the substances which are ultimately destroyed.

Unsound foods in the past have been dealt with by the Corporation, and the value received for the products, less $7\frac{1}{2}$ per cent. in respect of cold stores' condemnation and 20 per cent. in respect of carcasses surrendered at the Aldgate slaughterers, is returned to the owners. The deductions are the estimated costs of the administration of the work.

It therefore came about that the owners of the products decided that they would attempt to deal with the materials themselves, accepting responsibility for the actual work of destruction and the sale of the residuals on an ordinary commercial basis. A contract was therefore entered into with the parties mentioned, which was subsequently transferred to the company formed, and a description of their methods and the works erected would seem to be desirable.

The Company obtained land in Marshgate Lane, Stratford, and proceeded to obtain expert advice. It was formed for the express purpose of dealing with condemned foodstuffs obtained in the City, but not exclusively so. Apparently no expense has been spared in equipping the works in such a manner that it can deal efficiently with large quantities of material. A new factory of modern type has been erected and equipped with the most up-to-date plant on the land at Marshgate Lane. All the directors have a life-long experience in the melting trade. Their fundamental aim is, of course, to use the product to the best advantage, and for the purpose of avoiding nuisance, they have devised a system in which the minimum of handling is the outstanding feature. The raw material is loaded into trucks which are taken from the vans which convey the products from the various centres.

These trucks are taken direct to the butchering department of the works where large pieces of meat are cut by band-saws into smaller pieces. From these they are conveyed to a crusher and thence by conveyor and elevator to the hoppers of the melting machines. These vessels are steam-jacketed, and in them the meat is subjected to a temperature of between 280 degrees and 300 degrees Fahrenheit. This ensures complete sterilisation.

At the conclusion of the cooking process the free tallow which is obtained is run off into settling tanks, which after settlement is pumped to cleansing and storing tanks. Only one class of tallow is made and the whole of this is disposed of for candle and soap making. The residuals less this free tallow are raked from the vessels into a creeper-conveyor which carries the material into an elevator, whence it is discharged into a steam-heated revolving kettle. From this the residual is fed by means of a strickling box into hydraulic presses. These presses by means of accumulators, subject the resulting product, known as the wet "greave," to a pressure of 35 cwts. per square inch, the total pressure on each cake is therefore about 3,000 tons. This results in the bulk of tallow which is carried by the wet greaves being expelled and a solid cake of greaves is left behind. This can be handled with a very low percentage of breakages. These greaves are used in the manufacture of poultry food, dog biscuits and similar commodities.

The works are capable of dealing with very large quantities of material, much larger than the average amount obtained from the various sources under the control of the City Corporation. In fact when the additions which are now being installed and near completion are finished the works will be capable of dealing with 500 to 600 tons weekly.

The main supplies of materials handled consist of raw unsound meats, but the firm deals also with large quantities of tinned meat, fruit, jams, etc., and the supplies of these commodities are heavier since the armistice than in normal times owing to condemnations from Army dumps.

It is interesting to know that it takes nearly 3,000 twelve-ounce tins to produce one ton of meat. Any profitable method, therefore, of dealing with this meat obviously requires a speedy method of emptying the tins. To overcome this difficulty the Company have built in their own workshops an electrically driven circular saw capable of opening 7,000 tins per hour.

Fruit, jam, etc., having no fat contents, and being of no value for feeding purposes, is destroyed by acid and steam.

With a view to ensuring economy and efficiency, all floors and other parts to which dirt impregnated with fat adheres are scraped down every day, and the fat content in the scrapings is subsequently extracted. Bags, cloths, etc., which have contained fatty materials are also washed and the grease extracted.

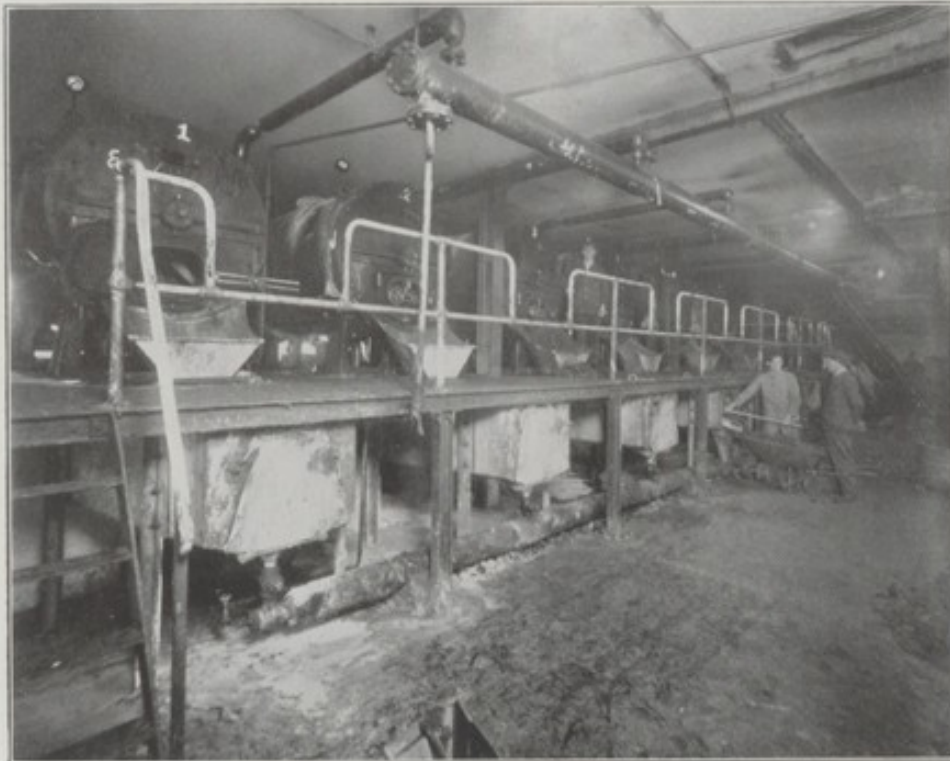
The Company endeavour to avoid giving offence in any degree to the inhabitants or workers in the district surrounding the property, and for the purpose of minimising effluvium nuisance have installed a complete system of ducts through which the fumes thrown off during the cooking process are drawn by suction through a furnace. This practically ensures the destruction of the fumes.

Various members of the Sanitary Committee have visited the works and have expressed their approval of them. Whenever I have visited I have found them to be conducted satisfactorily and adequate safeguards against leakage are adopted.

I think the Corporation is to be congratulated on having made these arrangements, and I hope that the venture by the traders may prove profitable. The accompanying photographs illustrate the character of the work, which as stated above, is in every sense effective and efficient.



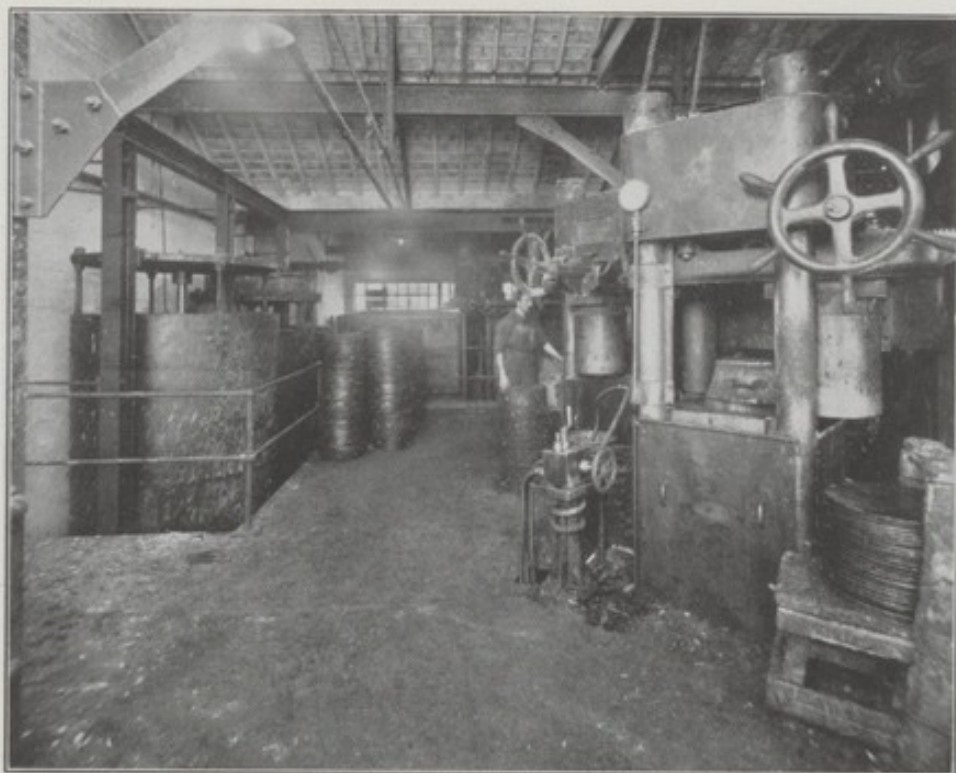
CRUSHER AND ELEVATOR.



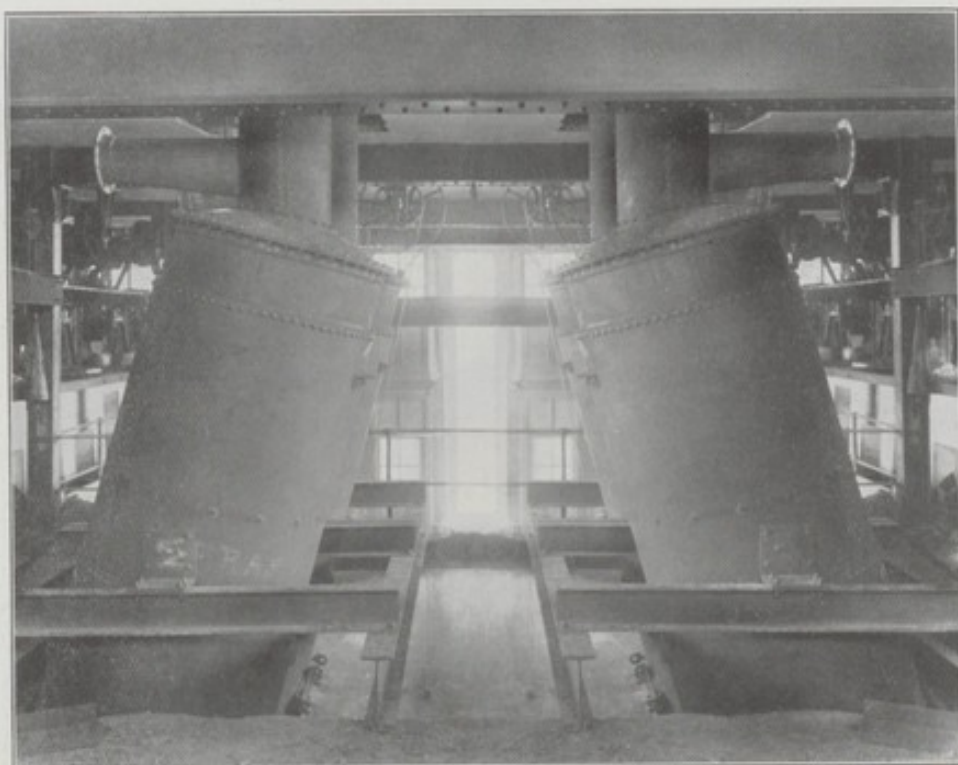
BATTERY OF STEAM-JACKETED MELTERS.



TURBINES AND CLEANSING TANKS.



GREAVES PRESSES.



BATTERY OF DIGESTERS.



TALLOW STORAGE TANKS.

OUTBREAK OF FOOD POISONING.

An outbreak of illness which occurred amongst the members of the staff of a large City trading concern, and in which certain indications seemed to point to food poisoning, was investigated in January and February last.

Suspicion attached to veal which had been served in the firm's dining room, and of which each of the persons suffering had eaten. The remaining portions of the veal were examined but no fault could be found with it.

The veal was purchased on the 20th January, and on the 24th the shoulders and legs were served as roast veal with bacon, gravy made from stock, and stuffing comprised of herbs and breadcrumbs. Vegetables were also served, as were also fruit salad (made from tinned fruits), suet roll with golden syrup and plum and apple tart.

On the following day what was left of the cooked veal was served as braised veal. No illness was reported among those who consumed the braised veal.

In all forty-four persons complained of having suffered from diarrhoea and sickness. Many of these persons were interviewed and requested to furnish particulars on a prescribed form drawn up with the object of eliciting essential information.

In the majority of cases it was found that the diarrhoeal attack commenced in the early hours of the morning of the 25th. In one instance only was vomiting a prominent symptom. The illnesses were not of a serious character, all the patients, with one exception, being back at work on the 26th January.

Samples of uncooked veal, of veal cooked and used at the mid-day meal on the 24th, of veal cooked and prepared on the 25th, and of the bacon used on the 24th were submitted to bacteriological examination. A rat and a mouse caught on the premises were also sent to the bacteriologist. Unfortunately, none of the stock from which the gravy was prepared on the 24th could be obtained.

Two of the patients attended at the Bacteriological Laboratory at St. Bartholomew's Hospital, and blood specimens were obtained. One specimen of faeces was also obtained from the one patient in whom diarrhoea continued for more than one night.

The premises and the arrangements for the preparation of the food were found quite satisfactory and presented conditions above the average.

It was found, however, that on the 24th January a quantity of stock had been found to be tainted, and, although instructions were given for its destruction, it was suggested by some of the staff that some of the material might have been used in the preparation of the gravy used.

Sir Frederick Andrewes' report on the specimens submitted for bacteriological examination was as follows :—

" The material supplied to me for investigation was as follows :—

" (1) Portions of roast veal believed to have been the cause of the outbreak.

" (2) Uncooked bacon which had been used.

" (3) Stewed veal, which had been eaten without ill-effect.

" (4) Four pieces of raw veal and one kidney from the carcasses furnishing the veal.

" In addition I examined the blood of two men, and the stool of another—all these having been sufferers in the outbreak a week previously—also a rat and a mouse caught on the premises.

" Cultivations of the various meats were made on lactose-litmus-agar plates—nine plates in all. Lactose-negative colonies were present in all plates, in some very numerous. Fourteen such colonies, representing all the types present, were sub-cultured for further study. Many of them were motile Gram negative bacilli, but none proved to be members of the Salmonella group, and none agglutinated with sera of the known food-poisoning bacilli (Gärtner, Aertrycke and Paratyphoid B. sera). The four lots of meat were fed to mice. Two mice were fed for three days exclusively on each of the four samples of meat. The two mice fed on No. (1), the cooked veal, were found dead on the 4th day; the six mice fed on the other three samples remained unaffected. This observation suggests the correctness of the opinion that it was the cooked veal which was at fault.

" Post mortem examination of the mice which died showed an acute diarrhoeal condition, the intestines being full of watery fluid. The spleens were scarcely enlarged. One mouse showed numerous hæmorrhages in the lungs and elsewhere. This mouse yielded an abundant growth of streptococci from the blood and organs. Both mice yielded growth of Gram

" negative motile bacilli from the heart, blood and liver, and one growth of a similar organism from the spleen. Seven colonies from the organs and intestinal contents were subjected to further study; those from the intestines and liver proved to be *B. coli*, fermenting lactose. Those from the bloods and spleen were lactose-negative, but did not conform to the *Salmonella* type, and were not agglutinated by any of the following sera:—Typhoid, Paratyphoid A and B, *Siupestifer*, *Aertrycke* (Mutton), and Gärtner. Nor were they Morgan's bacillus for they fermented mannite and formed no indol. It may be concluded that the mice did not die of infection with any of the food-poisoning bacilli infecting man.

" The serum of the two patients who had suffered from diarrhoea a week previously, was tested against Gärtner's bacillus, the Mutton type of *B. Aertrycke*, and Paratyphoid B. One of them agglutinated the *Aertrycke* bacillus at 1 in 50, but not at 1 in 100. This was the only reaction observed, and is probably not significant. The stool of a third case, when plated out, yielded only lactose fermenting colonies. The rat and mouse proved healthy on dissection, and their spleens were sterile on culture.

" CONCLUSIONS.—In investigating an outbreak of this sort, the bacteriologist is always at a disadvantage when he cannot examine the acute cases of diarrhoea. It generally happens that, as in this case, he is called in late.

" The above observations suggest that the roast veal was at fault, and they make it reasonably certain that the outbreak was not one of infection with any of the usual food-poisoning bacilli, but was more probably due to poisoning by some chemical substance in the meat or gravy."

8th February, 1921.

(Signed) F. W. ANDREWES.

This outbreak is characteristic of the many minor outbreaks which are constantly occurring.

As a consequence of the general satisfactory condition of the premises, etc., the only precautionary measures necessary were special cleansing of utensils used and removal of all materials which might possibly have been contaminated.

INSPECTION OF FOOD IN CITY WHARVES.

The duty of supervision of food at the Wharves is undertaken by Mr. T. L. Davies, and the following is a summary of the chief matters coming under observation:—

SUMMARY OF FOOD DISCHARGED AT CITY WHARVES.

Article.	Where from.	Description of Packages.	Total Number of Packages.	General Range of Weight of Packages.
BUTTER	Holland	Cases and Casks	100,864	12 lbs.—100 lbs.
BACON	"	Bales	66,212	2 cwts.—3 cwts.
CHEESE	"	Single Cheeses	312,486	4 lbs.—14 lbs.
"	"	Packages	173,366	48 lbs.—110 lbs.
EGGS	"	Cases	28,079	1 cwt.—1 cwt. 2 qrs.
LARD	"	"	4,001	28 lbs.—56 lbs.
COMPOUND LARD	"	"	480	56 lbs.
MARGARINE	"	"	314,996	24 lbs.—56 lbs.
CEREALS—				
Barley	"	Bags	7,131	100 lbs.—1 cwt. 2 qrs.
Beans	"	"	2,879	1 cwt. 3 qrs.
Peas	"	"	3,220	1 cwt.—2 cwts.
Groats	"	"	100	1 cwt.
Rice	Holland and Italy	"	2,000	1 cwt.—2 cwts.
Farina	Holland	"	4,721	2 cwts.
Wheat	Australia	"	15,950	1 cwt. 3 qrs.—2 cwts.
COFFEE	North Africa	"	50,185	1 cwt. 2 qrs.
COCOA & CHOCOLATE	Ceylon and Holland	Bags and Cases	23,154	28 lbs.—2 cwts.
FRUIT (Soft)—				
Apples	Holland	Packages	2,870	40 lbs.—1 cwt. 2 qrs.
Peaches	"	"	54	6 lbs.
Plums	"	"	34,568	14 lbs.—40 lbs.
Pears	"	"	33,506	20 lbs.—40 lbs.
Currants	"	"	4,396	7 lbs.—40 lbs.
Gooseberries	"	"	4,819	14 lbs.—1 cwt.
Strawberries	"	"	59,472	7 lbs.—28 lbs.
Bilberries	"	"	400	7 lbs.
Cherries	"	"	4,343	12 lbs.—28 lbs.
Cranberries	"	"	814	28 lbs.
Rhubarb	"	"	22,281	1 cwt.
FRUIT (Dried)—				
Currants	Greece and Australia	Cases and Bags	512,009	40 lbs.—2 cwts.
Sultanas	Greece, Smyrna, Australia	"	428,225	28 lbs.—2 cwts.

Article.	Where from.	Description of Packages.	Total Number of Packages.	General Range of Weight of Packages.
Raisins	Australia, S. Africa and Spain	Cases & Bags	91,739	8 lbs.—2 cwt.
Plums	Australia & California	Cases	72,187	24 lbs.—56 lbs.
Peaches	"	"	1,197	24 lbs.—56 lbs.
Apricots	"	"	10,371	24 lbs.—56 lbs.
Pears	"	"	2,782	24 lbs.—56 lbs.
Evaporated Apples	California	"	11,451	56 lbs.
Figs	Greece, Smyrna and Spain	Cases & Bags	110,652	14 lbs.—3 cwt. 2 qrs.
Dates	Egypt and Persia	Cases	4,788	28 lbs.—1 cwt.
FRUIT (Green)—				
Oranges	Italy and Spain	Packages	384,996	56 lbs.—1 cwt. 2 qrs.
Lemons	"	"	165,887	56 lbs.—1 cwt. 1 qr.
Grapes	Holland and Spain	"	25,506	12 lbs.—40 lbs.
Grape Fruit	Jamaica	"	705	74 lbs.
Melons	Spain	"	24,140	56 lbs.—1 cwt.
Pomegranates	"	"	7,797	1 cwt.
VEGETABLES—				
Beans	Holland	Bags	5,775	84 lbs.
Cauliflowers	"	Packages	30,810	40 lbs.
Cucumbers	"	"	84,053	15 lbs.—40 lbs.
Cabbages	"	Bags	30,510	40 lbs.—1 cwt.
Carrots	"	Packages	30,140	1 cwt.—1 cwt. 2 qrs.
Lettuce	"	"	36,793	14 lbs.—28 lbs.
Potatoes	"	Bags	245,784	100 lbs.
Radishes	"	Baskets	1,644	50 lbs.
Onions	Holland and Spain	Packages	333,332	100 lbs.—1 cwt. 1 qr.
Spinach	Holland	"	20	40 lbs.
Tomatoes	Holland and Italy	"	303,786	12 lbs.—40 lbs.
Beetroots	"	Bags	1,806	100 lbs.
Turnips	"	Packages	40	56 lbs.
Parsnips	"	Bags	7,341	100 lbs.
Horseradish	"	Baskets	20	56 lbs.
Sprouts	"	Bags	9,903	56 lbs.
SUGAR	"	Bags & Cases	65,812	1 cwt.—2 cwt.
TINNED GOODS—				
Apricots	Australia & California	Cases	3,001	48 lbs.
Fruit Pulp	Holland and Spain	Cases and Casks	16,728	100 lbs.—3 cwt. 2 qrs.
Vegetables	Holland and Italy	Cases	4,588	50 lbs.—1 cwt. 3 qrs.
Tomatoes	Italy	"	29,936	50 lbs.—72 lbs.
Pears	Australia & California	"	2,855	48 lbs.
Peaches	"	"	2,991	48 lbs.
Jam	"	"	700	60 lbs.
Condensed Milk	Holland	"	855,758	48 lbs.
Salmon	Canada and Japan	"	15,706	48 lbs.
MACARONI	Italy	"	39,918	28 lbs.
NUTS (Various)	France, Spain & Italy	Bags & Cases	44,019	28 lbs.—2 cwt.
MILK POWDER	Holland	"	3,486	50 lbs.—1 cwt.
MILK SUGAR	"	Cases	1,070	100 lbs.
GINGER (Preserved)	China	Cases & Casks	1,865	30 lbs.—3 cwt. 2 qrs.
VEGETABLES (in Brine)	Holland	Casks	5,719	3 cwt.
MISCELLANEOUS—				
Caraway Seeds	Holland	Bags	3,241	1 cwt. 1 qr.
Liquorice	Italy	Cases	1,189	1 cwt.—3 cwt.
Confectionery	Holland	"	1,102	56 lbs.—1 cwt.
Anchovies	Spain	Cases & Barrels	128	1 cwt.—1 cwt. 2 qrs.
Desiccated Coconut	Ceylon	Cases	1,393	1 cwt. 2 qrs.—2 cwt.
Cocoa Butter	Holland	"	180	1 cwt.—1 cwt. 2 qrs.
Dried Orange Peel	Spain	"	20	90 lbs.
Pepper	India	Bags	4	1 cwt. 2 qrs.
Cherries in Brine	Italy	Casks	565	3 cwt.
Citrons in Brine	"	"	60	3 cwt. 2 qrs.
Yeast	Holland	Bags & Baskets	1,113	28 lbs. 1 cwt.
Liquid Egg Yolk	China	Casks	1,108	3 cwt. 2 qrs.—4 cwt. 3 qrs.
Sugar Candy	Holland	Cases	385	28 lbs.
Mustard	"	"	102	1 cwt.

CONDEMNATION OF FOOD INSPECTED AT RIVERSIDE WHARVES.

As a result of the daily Inspection of City Wharves, 194 loads of unsound food were removed from these places during the year by the Cleansing Department.

The material so disposed of comprised :—

	Tons.	cwts.	qrs.
Tinned Fruit, Vegetables, and Fish	70	7	0
Condensed Milk (removed at request of Owners)	1	7	0
Fruit Pulp	70	6	1
Fruit (Various)	39	6	2
Vegetables (Various)	26	0	2
Micellaneous	9	15	1
Total	217	2	2

A portion of the above was removed at the request of the owners.

IMPORTED EGG YOLK.

From time to time I have reported on the question of imported egg yolk, and have directed attention to the fact that this was formerly imported in a frozen state, free from preservative, or in an unfrozen state, either as whole egg containing albumin, or as whole egg from which the albumin had been extracted, and further that in the latter case, preservative, either salt or boric acid, had been used.

Salt in large proportions was contained in egg yolk which was destined to be used for technical purposes, such as leather dressing, and boric acid in considerable proportions was present in egg yolk intended for human consumption.

Action has been taken to prohibit the sale of boracised egg yolk in small tins for domestic use, but it is permitted to be sold to large manufacturers who use it for confectionery making only, where in the finished product, the amount of egg used in proportion to the bulk, is so small that the amount of boric acid can be regarded as negligible in amount.

During the war, yolk which possessed very considerable keeping qualities was submitted to me for examination, but no preservative could be discovered. More recently, a firm of City traders have submitted to me an egg yolk possessed of similar keeping qualities, which, when submitted for examination, was found to be free from formaldehyde, sulphurous acid, sulphides, salicylic acid, boric acid, borates, benzoic acid, hydrofluoric acid and fluorides.

A portion of the sample was submitted to the Ministry of Health for their investigation. Apparently some new manufacturing process was being used, of the details of which I am unable to obtain precise information.

IMPORTED COMPOUND LARD.

In the early part of the year, two consignments of "Compound Lard" were landed at Custom House Quay, Lower Thames Street. One consignment, which consisted of 250 boxes marked "Compound Lard"

arrived ex s.s. Batavier IV on the 19th February, and the other consisting of 100 boxes similarly marked arrived by the same steamer on the 12th March.

Samples of each consignment were submitted to chemical analysis, with the following results :—

	No. 1. per cent.	No. 2. per cent.
Cottonseed Oil	90	80
Stearine	10	20
	100	100

In directing the attention of the Sanitary Committee to these results, I pointed out that the so-called compound lard was apparently not prepared from hog fat, which of course is the material from which lard is made, and stated that in my opinion the use of the word "Lard," even in conjunction with the qualifying adjective, in connection with such a product as that examined is a pernicious proceeding and should be prohibited. The position is similar to what happened in the days when margarine was first introduced, when the word "Butter" in conjunction with some more or less appropriate adjective, or such a misleading name

as "Butterine" was applied to products which were only substitutes for butter. This practice was ultimately prohibited, and the word "Margarine" substituted to denote all such products.

I advised the Sanitary Committee of the possibility of the sale of this Compound lard constituting an offence against the provisions of the Merchandise Mark Act, but as this seemed to be a roundabout process, the Ministry of Health and the Ministry of Agriculture were acquainted with the circumstances above referred to, and a recommendation sent that it should be made illegal to use the word "Lard" in connection with preparations not consisting of lard or in which lard only constitutes a portion of the bulk, if such preparations are intended as substitutes for lard and to be used for human consumption.

IMPORTED SKIMMED CONDENSED MILK.

In May last, seven cases, each containing 48 tins of Condensed Milk, lying at Fresh Wharf, Lower Thames Street, and imported from Holland were examined by one of my officers.

Apparently the tins were in sound condition, except that some were slightly rusty. On being opened, however, many of the tins were found to contain thick and discoloured milk.

A stop was placed upon the consignment, and specimen tins sent to the Public Analyst for examination, who reported as follows:—

"Both samples were condensed 'machine skimmed' (*i.e.*, separated) milk and both samples were sweetened with cane sugar."

As these tins were not labelled "machine skimmed" or "skimmed milk" as is required by Section I (c) of the Sale of Food and Drugs Acts, 1899, information was forwarded to the Commissioner of Customs and to the Ministry of Agriculture.

It is of interest to note that action in respect of such unlabelled imported skimmed milk does not come within the scope of the duties of a Sanitary Authority, but devolves upon the Commissioners of Customs. I am not quite sure as to the reason for the difference in procedure in the case of imported skimmed condensed milk and imported margarine, in which latter instance the Local Authority may take action, and at my suggestion the Corporation communicated with the Ministry of Agriculture to the effect that it would be an advantage if the Local Authority could be given concurrent powers with the Commissioners of Customs in respect of offences of this nature.

CHEMICAL PRESERVATIVES IN IMPORTED FRUIT PULP.

The question of the presence of preservatives in imported food stuffs has again been the subject of report to the Sanitary Committee of the Corporation. In consequence of a communication received from the Ministry of Health, four samples of a consignment of fruit pulp were submitted to the City Analyst with a request that they should be examined for the presence of preservative.

The Analyst reported that each sample contained sulphur di-oxide to the following extent:—

Sample	1S	Strawberry Pulp	S O ₂	....	....	0·14%
"	2S	"	"	"	....	0·011%
"	3S	"	"	"	....	0·011%
"	1R	Raspberry Pulp	"	....	....	0·018%

The amount of preservative is certainly not large and would practically disappear in the process of the cooking, to which, as the pulp is used for jam making, practically all of it is subjected. I do not think, however, that chemical preservatives of any nature should be permitted in foodstuffs except under regulation.

So far as I am aware, no other country permits the unrestricted importation of foodstuffs to which preservatives have been added, and I certainly think if present scientific knowledge is inadequate for the purpose of enabling regulations to be framed, or if doubt exists as to the harmfulness or otherwise to human beings of certain of the more commonly used preservatives, it is time that some investigation work was carried out to enable a definite position to be taken up.

The circumstances were reported to the Ministry of Health, the Corporation at the same time suggesting that some control should be exercised over the nature and amount of preservative used in imported foodstuffs.

SALE OF FOOD AND DRUGS ACTS, AND THE

Articles examined during each

Articles submitted for Analysis	Quarter ending 31st March.				Quarter ending 30th June.			
	No. of Samples taken.	No. Genuine.	No. Adulterated.	Percentage of Adulteration.	No. of Samples taken.	No. Genuine.	No. Adulterated.	Percentage of Adulteration.
Milk	4	3	1	25.0	1	1	100.0	
Butter (on Bread)	5	5		100.0				
Margarine	1	1		100.0				
Vinegar								
Total Formal Samples	10	3	7	70.0	1	1	100.0	
INFORMAL—								
Milk	59	55	4	6.7	47	44	3	6.3
Butter	98	95	3	3.0	5	5		
Malt Vinegar	10	10			3	3		
Drugs	44	43	1	2.2	8	8		
Cheese	2	2						
Dripping	5	5						
Mustard	3	3			1	1		
Cocoa	6	6			7	7		
Crushed Linseed	6	6						
Ground Ginger	1	1			1	1		
Almond Oil	13	13						
Coffee	5	5			7	7		
Baking Powder	1	1			2	2		
Preserved Cream	2	2						
Cream								
Margarine					3	3	100.0	
Vinegar	3	3						
Salmon & Shrimp Paste	1	1						
Lard	3	3			4	4		
Lime Juice Cordial	1	1						
British Wines	4	4						
Medicated Wines					6	6		
Arrowroot					1	1		
Custard Powder					2	2		
Pepper					1	1		
Ground Rice					2	2		
Rice					2	2		
Olive Oil					9	9		
Self Raising Flour					1	1		
Cake								
Lemon Squash					16	16		
Lemonade					4	4		
Sugar					4	4		
Sauces								
Cayenne Pepper								
Jam								
Tapioca								
Curry Powder								
Flour								
Eggpride								
Sponge Cake								
Bread								
Total Informal Samples	267	259	8	2.9	115	109	6	5.2
TOTALS	277	262	15	5.4	116	109	7	6.0

PUBLIC HEALTH (MILK AND CREAM) REGULATIONS.

Quarter of the year 1921.

Quarter ending 30th September.				Quarter ending 31st December.				Total for 1921.			
No. of Samples taken.	No. Genuine.	No. Adulterated.	Percentage of Adulteration.	No. of Samples taken.	No. Genuine.	No. Adulterated.	Percentage of adulteration.	No. of Samples taken.	No. Genuine.	No. Adulterated.	Percentage of Adulteration.
2	2			2	2		100.0	9	5	4	44.4
								5		5	100.0
								1		1	100.0
				2	2			2	2		
2	2			4	2	2	50.0	17	7	10	58.8
55	51	4	7.2	51	51			212	201	11	5.1
13	13			35	35			151	148	3	1.9
				4	4			17	17		
16	16			80	78	2	2.5	148	145	3	2.0
13	13			9	9			24	24		
				6	6			11	11		
				2	2			9	9		
				2	2			11	11		
				15	15			28	28		
				10	10			12	12		
				11	11			12	12		
				25	25			24	24		
1	1			2	2			38	38		
				5	5			5	5		
				5	4	1	20.0	7	7		
				5	4	1	20.0	5	4	1	20.0
				7	7			10	7	3	30.0
				11	9	2	18.1	14	12	2	14.2
				7	7			1	1		
				7	7			14	14		
								1	1		
								4	4		
								6	6		
								7	7		
				5	5			4	4		
				1	1			7	7		
				1	1			2	2		
				4	4			10	10		
				2	2			6	6		
				2	2			2	2		
				3	3			12	12		
				4	4			5	5		
				4	4			16	16		
								4	4		
								4	4		
								21	21		
								12	12		
								9	9		
								14	13	1	7.1
								4	4		
								3	3		
								2	2		
								1	1		
								22	15	7	31.8
								6	6		
143	139	4	2.7	392	378	14	3.5	917	885	32	3.4
145	141	4	2.7	396	380	16	4.0	934	892	42	4.4

SALE OF FOOD AND DRUGS ACTS.

I regret to report that Inspector May who for 30 years performed the duties of Inspector of Food and Drugs died on the 13th October, 1921. He had been ailing for a year or two and during the latter part of his illness his work was carried out by Mr. Hills. Mr. May has been a loyal servant of the Corporation and of the Commissioners of Sewers previously, and his death was keenly felt by his colleagues.

During 1921, 934 samples were submitted to the Public Analyst for examination. Of this number 917 were taken as test samples without the formality of the Act being observed; 32 of these were found to be adulterated, made up as follows:—

- 11 of Milk out of 212 samples taken.
- 3 of Butter out of 151 samples taken.
- 2 of Vinegar out of 14 samples taken.
- 3 of Margarine out of 10 samples taken.
- 7 of Sponge Cake out of 22 samples taken.
- 1 of Jam out of 14 samples taken.
- 1 of Eggpride out of 1 sample taken.
- 1 of Cream out of 5 samples taken.
- 3 of Drugs out of 148 samples taken.

Of the formal samples, 10 out of 17 were found to be adulterated, made up as follows:—

- 4 of Milk out of 9 samples taken.
- 5 of Butter out of 5 samples taken.
- 1 of Margarine out of 1 sample taken.

The percentage of milk adulteration for both formal and informal samples together is 6·7 as compared with 4·3 for 1920. Of the 15 adulterated samples, 11 were informal samples and four formal samples. Two prosecutions resulted. Two vendors of adulterated samples were cautioned.

BUTTER.—The three cases of adulteration are again of butter sold on bread or rolls, and not where butter was sold in bulk.

DRUGS.—Three drugs were reported against, two of Boric Acid Ointment, and one of Gregory's Powder. The ointments were deficient in boric acid. The Gregory's Powder contained magnesium carbonate instead of light magnesia. The vendors were cautioned in each instance.

SALE OF FOOD AND DRUGS ACTS, 1875 TO 1907.

RESULTS OF PROSECUTIONS, 1921.

FIRST QUARTER.		
<i>Sample.</i>	<i>Nature and Extent of Adulteration.</i>	<i>Result.</i>
11 Butter (on Roll)	100 per cent. margarine	£2 and 17/6 costs.
64 „ (on Bread)	90 per cent. margarine	£2 and 17/6 costs.
SECOND QUARTER.		
212 Butter (on Bread)	90 per cent. margarine	5/- and 17/- costs.
259 Margarine	100 per cent. margarine sold in plain wrapper and bulk not labelled	£5 and £1 costs Ordered to pay £1 costs.
THIRD QUARTER.		
NIL.		
FOURTH QUARTER.		
858 Milk	9 per cent. added water	£2 and £1 1s. costs.
859 „	8 per cent. added water	£2 and £1 1s. costs.

SUMMARY.

	£	s.	d.		£	s.	d.
First Quarter: Fines	4	0	0	Costs	1	15	0
Second Quarter „	5	5	0	„	2	17	0
Third Quarter „	—	—	—	„	—	—	—
Fourth Quarter „	4	0	0	„	2	2	0
Total Fines	£13	5	0	Total Costs	£6	14	0

ADMINISTRATIVE ACTION REGARDING SAMPLES NOT REPORTED TO BE GENUINE.

Name of Article.	Identification No. given to the sample in the Quarterly Report.	Result of Analysis.	If any legal proceedings were instituted under the Sale of Food & Drugs Acts, state result, showing fines and costs separately.	If any legal proceedings were instituted under Acts other than the Sale of Food & Drugs Acts, state result, showing fines and costs separately.	If no legal proceedings were instituted, state briefly the course adopted in regard to each sample.	Information, if any, as to previous convictions.	Remarks on any point of special interest.
Quarter ending 31st March, 1921.							
Butter	10	100 per cent. Margarine.	....	....	Vendor cautioned.		
"	11	100 " "	Fined £2 and 17s. 6d. Costs.	....	Resampled.		
"	15	100 " "	....	....	"
"	16	100 " "	....	....	"
"	64	90 " "	Fined £2 and 17s. 6d. Costs.	....	....	....	Same vendor as No. 15.
"	192	90 " "	....	....	Cautioned.		
"	212	90 " "	Fined 5s. and 17s. Costs.	....	....
"	274	100 " "	....	....	Cautioned.		
Milk	37	7 per cent. original fat abstracted.	....	....	Resampled.		Subsequent sample genuine.
"	77	14 per cent. "	....	....	Resampled.		
"	102	12 " "	....	....	Resampled.		Subsequent sample genuine.
"	104	11 " " and 12 " added water	....	....	Resampled.		
"	111	4 " "	....	....	Cautioned.		
Boric Acid Ointment	206	62 " Boric Acid deficient.	....	....	....	....	Referred to Borough of Holborn.
Margarine	259	100 per cent. Margarine.	Fined £5 and £2 Costs.	....	....
Quarter ending 30th June, 1921.							
Margarine	284	100 " "	....	....	Cautioned.		
"	285	100 " "	....	....	"
"	286	100 " "	....	....	"
Milk	302	2 per cent. added water. 4 per cent. original fat abstracted. 6 per cent. deficient in fat.	....	....	Resampled.		Subsequent sample genuine.
"	319	8 per cent. original fat abstracted.	....	....	Resampled.		
"	350	6 " "	....	....	Cautioned.		
"	366	6 " "	....	....	Resampled.		Subsequent sample genuine.
Quarter ending 30th September, 1921.							
Milk	422	10 per cent. original fat abstracted.	....	....	....		Sale of milk discontinued.
"	441	6 " "	....	....	Resampled.		Subsequent sample genuine.
"	446	3 " added water.	....	....	"
"	458	6 " "	....	....	"
Quarter ending 31st December 1921.							
Vinegar	617	12 per cent. deficient in Acetic Acid.	....	....	"		Subsequent sample genuine.
"	651	10 " "	....	....	"		" "

Name of Article.	Identification No. given to the sample in the Quarterly Report.	Result of Analysis.	If any legal proceedings were instituted under the Sale of Food & Drugs Acts, state result, showing fines and costs separately.	If any legal proceedings were instituted under Acts other than the Sale of Food & Drugs Acts, state result, showing fines and costs separately.	If no legal proceedings were instituted, state briefly the course adopted in regard to each sample.	Information, if any, as to previous convictions.	Remarks on any point of special interest
Boric Acid Ointment	693	10·4 per cent. deficient in Boric Acid.	....	....	Cautioned.		
Sponge Cake	788	0·20 per cent. of Boric Acid.	....	....	Reported to Ministry of Health.		
"	799	0·35 " "	....	....	"
"	801	0·42 " "	....	....	"
"	802	0·22 " "	....	....	"
"	804	0·31 " "	....	....	"
"	807	0·29 " "	....	....	"
Sponge Fingers	800	0·36 " "	....	....	"
Black Currant Jam	809	58·1 per cent. only of water soluble extract	....	....	Cautioned.		
Milk	858	9 per cent. added water	Fined £2 and £1 1s. Costs.				
"	859	8 per cent. added water	Fined £2 and £1 1s. Costs.				
*Gregory's Powder.	878	66 per cent. of Magnesium Carbonate in place of 66 per cent. Magnesia.	....	....	Cautioned.		
Eggpride	932	1·10 per cent. Boric Acid.	....	....	Reported to Ministry of Health.		

SALE OF FOOD ORDER, 1921.

The Sale of Food Order, 1921, imposed upon Local Authorities certain responsibilities in respect of weight of bread and tea, labelling of imported produce, composition of jam, marmalade, and dripping, margarine, and other edible fats.

The enforcement of the provisions of the Order is entrusted as regards weight of bread and tea to Local Authorities for the purpose of the Weights and Measures Acts, and as regards labelling of imported produce, the composition of jam, marmalade, etc., to Local Authorities authorised to appoint an Analyst for the purpose of the Sale of Food and Drugs Acts, 1875 to 1905, and such of their officers as they may respectively designate or appoint for those duties.

Since the issue of this Order, however, an amending order has been received which removed lard from the list of imported products which are required to be labelled and revokes the Sections of the Order relating to the composition of jam, marmalade, and dripping, margarine, and other edible fats.

The only part of the Order now entrusted to the Sale of Food and Drugs Authorities is Part 3, which relates to the labelling of imported produce other than lard. It is, however, possible that certain of the provisions of Part 5, which relate to fats, even though they have been revoked, may prove to be useful for the purposes of the Sale of Food and Drugs Acts as indicating the standard of composition generally recognised as the minimum of purity for the articles in question, as the provisions were originally settled after consultation with the representatives of the trades concerned.

SALE OF MARGARINE.

Certain samples of Margarine purchased during the year were found to have infringed the provisions of the Margarine Act, 1887, and the Sale of Food and Drugs Act, 1899.

Section 6 of the Margarine Act, 1887, requires that every package containing margarine exposed for sale shall be clearly labelled in printed capital letters not less than one-and-a-half inches square, and Section 6 of the Sale of Food and Drugs Act, 1899, requires that upon the paper wrapper in which margarine or margarine cheese is sold, the word "margarine" or "margarine cheese" shall be printed in capital block letters not less than half-an-inch long and distinctly legible, and that no other printed matter shall appear on the wrapper.

The following are the details of the infringements above referred to :—

Sample No. 284.—The margarine was delivered to the purchaser in a paper wrapper upon which was stamped in duplicate the word "margarine" in letters slightly less than a quarter of an inch long. The bulk moreover from which the sample was taken was not labelled in any way.

Samples No. 285 and 286.—Both these samples were supplied in plain wrappers, and no indication was given that margarine was being served. A "margarine" stamp of the correct sized lettering was produced in each case, and the reason given in each instance for not marking the paper wrapper was shortage of ink for the inking pad. The separate bulks from which the samples were drawn were properly labelled.

After consideration of all the facts it was decided that the attention of the vendors be officially directed to the circumstances, and that they be cautioned as to their future action.

THE PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912.

During the year 1921, samples of Milk, Cream and Preserved Cream, have been purchased with a view to ascertaining to what extent the provisions of the Regulations were complied with.

The following is a summary of the results :—

	Number of samples examined for the presence of a Preservative.	Number in which a Preservative was found to be present.
1. Milk and Cream not sold as Preserved Cream :—		
Milk	212	0
Cream	5	1
2. Cream sold as Preserved Cream :—		
(a) Instances in which samples have been submitted for analysis to ascertain if the statement on the label as to preservative were correct—		
i. Correct Statement		7
ii. Incorrect Statement		0
(b) Determination made of Milk Fat in Cream sold as Preserved Cream—		
i. Above 35 per cent.		7
ii. Below 35 per cent.		0
(c) Instances where (apart from analysis) the requirements as to labelling or declaration of Preserved Cream have not been observed—		
NIL.		
(d) Particulars of each case in which the regulations have not been complied with and action taken—		
In one instance, Cream not bearing any label of declaration of preservative was purchased and found on analysis to contain 0.27 per cent. boric acid. The vendor was cautioned.		

DAIRIES, COWSHEDS AND MILKSHOPS' ORDERS.

Seven applications for registration have been received during the year.

All premises occupied by persons registered to retail Milk have been subjected to periodical inspection, and the same conditions have been imposed as required by Regulations made under the Dairies, Cowsheds and Milkshops' Orders, to ensure the cleanly storage and sale of Milk and of the proper hygienic surroundings being maintained.

EXAMINATION OF MILK AS REGARDS INFECTION WITH TUBERCLE.

During the year three series of milk samples were collected at the railway stations in the City of London receiving milk from the country, and were submitted to Sir Frederick Andrewes for bacteriological examination, and to the City Analyst for chemical examination.

The first series was submitted in May, and consisted of 30 samples.

Seven, out of twenty-nine samples, or over 24 per cent. were reported to contain the tubercle bacillus. One of the samples submitted was not included in the report of the Bacteriologist as the inoculated animal died eight days after inoculation, a period too short to allow the milk sample to be pronounced negative. The percentage number of infected milk was higher in this series than ever previously recorded in the City. Although I gave consideration to the possibility of coincidence, having regard to the small number of samples submitted, I considered the circumstances sufficiently serious to justify the examination of a further series of samples. Before referring to this further series, I have to state that the samples were also examined for the presence of dirt. Of the thirty samples, 28 were clean and two distinctly not clean.

The chemical examination showed that, with one exception, all samples were genuine milk and free from boric acid or formalin.

In the second series, 24 samples were submitted to the Bacteriologist, but the pathological report refers only to 19, as four of the animals died within a few days of inoculation and one was lost.

Of the 19 samples, five, or 26·3 per cent., were found to be infected with the tubercle bacillus. Having regard to the fact that five of the samples are not included in these figures, it is quite possible that the true percentage is even more serious than the above, but even so, I think it is a matter of very serious concern that it is possible to purchase in the City of London 50 consecutive samples of milk and find that 1 in 4 of these milks is tuberculous.

A third series of 24 samples was taken, and again a high percentage of tuberculous samples was reported. Of the 24 samples submitted, three were shown to contain tubercle bacilli. This represents a percentage of 12·5 and is considerably lower than the results obtained in the two previous series, though the proportion is still far too high.

The infected milks were despatched to London from the following areas:—Sudbury, Lavenham, Chelmsford, Walton-on-Naze, Diss, Tivetshall, Spooner Row, Tolleshunt Darcy, Foulsham, Capel, Gunton, Thorpe-le-Soken and Yarmouth.

The results of the bacteriological examination have of course been followed up by action at the farms at which the milk was produced, but I have before reported, and must here repeat, that in my opinion little permanent improvement can be expected until the responsibility of ensuring that milk is free from tubercle is made the direct obligation of the farmer. As the matter at present stands it has to be proved that the farmer is aware that "he sells or suffers to be sold or used for human consumption the milk of a cow which is suffering from tuberculosis of the udder."

The difficulty of proving "knowledge" is obvious and I am satisfied that the obligation should rest on the farmer to ensure the milk he supplies to the public is free from infection and that it should not be necessary for any public body first to discover—an expensive undertaking—that infected milk is being sold and then to notify the farmer in order that suitable remedial measures may be adopted after the dangerous milk has been consumed by the public.

Since 1904 continuous observation has been kept on the condition of milk arriving at the several railway termini in the City and the following summary sets out the percentage number of samples of milk which have been found to be infected with the tubercle bacillus during each year:—

	1904	....	7·7 per cent.	1913	....	10·4 per cent.	
	1905	....	9·1 "	1914	....	10·2 "	
	1906	....	8·0 "	1915	....	8·5 "	
	1907	....	8·3 "	1917	....	4·2 "	
1st series	} 1909	....	12·5 "	1919	....	14·8 "	
2nd "		....	4·7 "	} 1921	....	24·2 "	1st series.
		1910		6·25 "	26·3 "	2nd "
	1912	....	6·6 "	....	12·5 "		3rd "

ICE CREAM.

Consideration was given during the year to the provisions which exist for dealing with ice cream vendors and the premises upon which ice cream is manufactured.

One of the Metropolitan Borough Councils approached the London County Council expressing the view that the present provisions are inadequate. The letter from the Metropolitan Borough Council contained the following paragraph:—

“The London County Council (General Powers) Act, 1902, gives the Sanitary Authority power to take action if and when premises are considered unfit for the purpose of manufacture of ice cream but it may often happen that such commodity is made for a considerable time upon most unsuitable premises without discovery. It is considered that as in the case of milk vendors, a system of compulsory registration of ice cream vendors should be introduced, and I am further directed to request your Council to consider the advisability of including a clause in their next General Powers to give effect to this suggestion.”

The County Council were advised that the powers already possessed by the Local Sanitary Authorities in London are, if duly exercised, sufficient to protect the public from dangers arising from the consumption of ice cream. Before giving further consideration to the question raised however, the Council desired to ascertain the views of Local Sanitary Authorities thereon, and approached the Corporation accordingly.

In my opinion there is something to be said in favour of compulsory registration, for although the requirements with respect to the sanitation of premises on which ice cream is manufactured, sold or stored, and the precautions necessary in case of infection and notification of infection may be adequate, there is some uncertainty in a district like the City in being sure that the commodity sold by itinerant vendors is prepared under satisfactory conditions and under adequate supervision.

There are in the City a considerable number of these itinerants, and periodically the names and addresses of the persons from whom a vendor obtains the commodity, or, if the vendor is the actual manufacturer, the name and address of the vendor, is noted and a communication forwarded to the Medical Officer of Health of the district in which this address is situate. This is necessary because the fact that ice cream is manufactured or stored at the address stated may not be known to the Medical Officer of Health of that area, since possibly the vendor may sell only within the City area.

I think it would be a better procedure if all persons manufacturing, selling, or storing ice cream were required to be registered in the district in which the commodity is manufactured or stored, and if all itinerant vendors were required to indicate the fact of registration on the barrow, also the registered address.

If this were the case no communications would require to be forwarded to the Medical Officers of Health of outside districts, the fact of registration would be sufficient guarantee that the premises on which the commodity was manufactured or stored were subjected to continuous supervision. Without this intimation it is necessary to make periodical enquiries of the Medical Officers of Health as to whether the places of manufacture or storage are in all respects satisfactory.

For these reasons therefore I am of opinion that compulsory registration of ice cream vendors with the Local Authority in which the premises where the commodity is prepared are situate, should be introduced and the County Council have been notified accordingly.

ARTIZANS' DWELLINGS, STONEY LANE, HOUNDSDITCH.

These Buildings, erected by the late Commissioners of Sewers and opened in January, 1885, stand upon ground formerly the site of several courts and alleys in the Ward of Portsoken.

There are five “blocks” of Dwellings, severally named King's, Queen's, Prince's, North, and South, designed for occupation by persons of the artisan class, some of the ground floors being let as shops. The Buildings contain 501 rooms, arranged in 241 tenements, and are occupied by 775 persons, compared with 805 in 1920. 73 per cent. are adults and 27 per cent. children (under 14 years).

The number of births was eight, viz., four males and four females. The birth rate was 10·3 per 1,000, which is 10·5 per 1,000 below the average for the previous five years.

The death rate for 1921 was 15·5 per 1,000 per annum. The number of deaths of children under one year, per 1,000 births, was 125, as against 93 for the City generally.

TABLE OF BIRTHS AND DEATHS OCCURRING AT THE ARTIZANS' DWELLINGS, STONEY LANE, HOUNSDITCH, DURING THE YEAR 1921.

NAME OF BLOCK.	BIRTHS.		MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.						
	Male.	Female.	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.
NORTH BLOCK	1	2	3	....	....	....	....	1	2
SOUTH	....	....	1	....	....	....	....	....	1
KING'S	....	1	2	....	....	....	....	1	1
QUEEN'S	1	1	3	1	....	....	....	1	1
PRINCE'S	2	....	3	....	....	....	....	1	2
TOTALS	4	4	12	1	....	....	....	4	7

The birth rate in these Dwellings reached a maximum of 46·9 per 1,000 in 1896, and has since been falling, as shown by the following figures :—

BIRTH RATE, ARTIZANS' DWELLINGS.

1896	46·9	1909	29·6
1897	40·3	1910	32·9
1898	43·1	1911	29·5
1899	37·5	1912	33·4
1900	38·4	1913	29·7
1901	33·8	1914	36·3
1902	45·8	1915	28·8
1903	31·2	1916	22·6
1904	30·1	1917	29·3
1905	29·1	1918	13·8
1906	26·1	1919	18·7
1907	35·0	1920	19·8
1908	31·5	1921	10·3

The baths provided for the use of tenants of these Buildings, which were opened in May, 1904, continue to be extensively used, the number of persons bathing during 1921 being 10,791, of whom 3,738 were males and 7,053 were females.

The accompanying table is compiled from the monthly records of attendances at the baths :—

RECORD OF ATTENDANCES AT THE BATHS, ARTIZAN'S DWELLINGS.

MONTH.	SEX.				TOTAL.
	Males.		Females.		
	Children.	Adults.	Children.	Adults.	
January	14	88	48	134	284
February	60	186	149	274	669
March	74	232	221	343	870
April	82	254	227	402	965
May	63	278	220	472	1,033
June	89	294	258	463	1,104
July	96	339	246	515	1,196
August	75	226	208	416	925
September	89	274	280	450	1,093
October	86	275	204	459	1,024
November	52	184	143	316	695
December	89	239	196	400	933
TOTALS	869	2,869	2,400	4,653	10,791

CITY MORTUARY.

DISINFECTION—TRADE.—In accordance with the requirements of the South African Authorities, the disinfection of second-hand clothing prior to export to that country has been carried out as usual.

The following table gives the details of this work :—

Number of Certificates issued.	Number of articles disinfected.	Fees received by the Corporation.	
479	561,975	£1,123	
DISINFECTION—INFECTIOUS DISEASES :—			
	Articles disinfected after cases of infectious disease	....	17,329
BODIES RECEIVED—POST-MORTEM AND INQUESTS :—			
	Bodies received at the Mortuary to await burial	....	153
	Post-mortem examinations made	....	71
	Inquests held on bodies	....	140
	Inquests held on fires	....	25
CLEANSING OF PERSONS ACT, 1897 :—			
	Number of verminous persons bathed	....	22

NUMBER OF ARTICLES* DISINFECTED, BODIES RECEIVED AT THE MORTUARY, AND INQUESTS HELD AT THE CORONER'S COURT IN THE CITY DURING 1921, COMPARED WITH THE PREVIOUS FIVE YEARS.

Year.	Articles disinfected.	Bodies received at the Mortuary.	Inquests held on bodies.	Inquests held on Fires.
1916	438,426	169	151	2
1917	295,144	234	213	1
1918	179,990	158	130	0
1919	207,935	170	150	4
1920	549,829	172	158	9
Average for previous 5 years		334,265	181	160
1921	579,304	153	140	25

DISINFECTION OF CLOTHING OF EMIGRANTS TO THE UNITED STATES OF AMERICA.—The United States of America, in order to prevent, so far as was possible, the introduction of infectious diseases into that country through the medium of emigrants, have issued regulations requiring disinfection of the personal effects of all third-class passengers entering the United States ports. A further requirement was the production of a certificate by a responsible authority vouching that such disinfection had been efficiently conducted.

As a result the Corporation were requested by the agents of two large shipping firms to effect the necessary work of disinfection. The request was complied with and the usual charge for disinfection of £1 for each time the apparatus was used, plus one half the overtime charges incurred, resulted in the sum of £341 3s. 3d. being paid into the Chamber of London.

In all, the personal effects of 3,610 emigrants have been dealt with.

PRESERVATION OF BODIES OF UNKNOWN DEAD.—The De Rechter apparatus for the preservation of the dead, installed at the City Mortuary in March, 1909, was fully described in the Annual Report for that year. It has proved of considerable assistance in connection with the identification of persons found drowned in the river Thames.

FIRE INQUESTS.—Dr. F. J. Waldo, J.P., Coroner for London and Southwark, has kindly furnished me with the following list of places in the City which were the subject of Fire Inquests held by him during 1921 :—

INQUESTS HELD UNDER THE CITY OF LONDON FIRE INQUESTS ACT, 1888.

<i>Date of Inquest.</i>	<i>Premises burnt.</i>
17th December, 1920 and 4th January, 1921	4, Jewin Crescent, E.C.
6th, 12th, and 17th January, 1921	11, 12 and 13, Arthur Street, E.C.
26th January, 1921	6 and 7, Redcross Street, E.C.
2nd and 10th February, 1921	15, Aldersgate Street, E.C.
2nd and 10th February, 1921	15, Aldersgate Street, E.C.
28th January, 3rd, 8th, and 15th February, 1921	18, Old Swan Lane, E.C.
3rd March, 1921	2, Whitefriars Street, E.C.

<i>Date of Inquest.</i>	<i>Premises burnt.</i>
3rd March, 1921	68, Fleet Street, E.C.
5th July, 1921	33, Whitecross Street, E.C.
19th July, 1921	52, Aldersgate Street, E.C.
22nd August, 1921	41, Jewin Crescent, E.C.
22nd and 30th August, 1921	122, Minories, E.C.
6th September, 1921	27, Camomile Street, E.C.
6th and 13th October, 1921	39, Jewin Street, E.C.
6th and 13th October, 1921	39, Jewin Street, E.C.
6th and 13th October, 1921	39, Jewin Street, E.C.
6th and 13th October, 1921	39, Jewin Street, E.C.
6th and 13th October, 1921	39, Jewin Street, E.C.
6th and 13th October, 1921	39, Jewin Street, E.C.
20th October, 1921	7, Camomile Street, E.C.
20th October, 1921	3, Lawrence Lane, E.C.
7th November, 1921	2, Aldermanbury Avenue, E.C.
16th December, 1921	13, Wine Office Court, Fleet Street, E.C.
16th December, 1921	13, Rose Street and Paternoster Square, Newgate Street, E.C.
22nd December, 1921	142, Houndsditch, E.C.

In addition to the above the City Coroner personally inquired into 236 "non-fatal" City fires reported to him during the year.

DISINFECTANTS.—As heretofore, all the disinfectants used in the Public Health Department were obtained through your Medical Officer of Health.

They are used for the following purposes:—

- A. Deodorising and "denaturalising" condemned meat, disinfecting public conveniences (urinals, &c.).
- B. Disinfecting roadways, street gullies, &c.
- C. Disinfecting premises, &c., after infectious disease, drain testing and sundries.

LIQUIDS SOLD AS DISINFECTANTS.

The Council of the Royal Sanitary Institute at their annual conference held in Birmingham in July, 1920, passed the following Resolution, and in the following November forwarded a copy to the Corporation with the request that it should be considered and if approved a similar Resolution passed and forwarded to the Ministry of Health.

- (1) "That it is desirable in the public interest and on public health grounds that the sale of any liquid as a 'Disinfectant' should be controlled by legislation.
- (2) "That such legislation should demand that any liquid sold as 'Disinfectant' shall have a carbolic acid co-efficient (as tested by an approved method) of at least one.
- (3) "That a penalty should be imposed (a) for any false or misleading statements as to the germicidal value of a disinfectant, and (b) for any misleading instructions with reference to the effective use of a disinfectant."

The efficient control of the sale of so-called "Disinfectants" is a matter which, in my opinion, should receive the attention of the Legislature, and a Resolution in similar terms to that quoted above was passed by the Sanitary Committee and forwarded to the Ministry of Health.

SANITARY INSPECTIONS.

The following is a statement of the work of the Sanitary Inspectors in their several Districts during each month of the year:—

WEST DISTRICT—

Inspector F. J. ROBBINS.

Month	Premises Inspected.	Orders issued.	Notices served.	Improvements effected.
January	142	2	3	10
February	200	4	2	20
March	227	7	8	28
April	321	6	71	36
May	266	18	10	22
June	282	7	20	52
July	200	1	3	25
August	218	1	5	30
September	200	2	5	30
October	225	7	12	27
November	232	3	16	23
December	342	8	8	30
TOTALS	2,855	66	163	333

MIDDLE DISTRICT—
Inspector E. J. SIMMONS.

Month.	Premises inspected.	Orders issued.	Notices served.	Improvements effected.
January	106	4	4	20
February	266	5	11	41
March	242	4	10	24
April	302	6	11	24
May	288	6	7	28
June	259	7	10	36
July	216	1	2	31
August	204	1	2	33
September	200	2	6	33
October	217	6	10	34
November	228	3	9	26
December	346	6	11	46
TOTALS	2,874	51	93	376

EAST DISTRICT—
Inspector W. H. RALPH.

Month.	Premises inspected.	Orders issued.	Notices served.	Improvements effected.
January	127	12	19	10
February	236	17	27	14
March	265	43	64	34
April	349	16	55	64
May	273	8	24	49
June	265	4	18	37
July	235	5	11	20
August	119	3	3	11
September	273	4	9	18
October	232	4	18	28
November	239	6	13	32
December	297	10	20	35
TOTALS	2,910	132	281	352

THE FOREGOING ARE SUMMARISED AS UNDER :—

District.	Number of inspections made.	Orders issued.	Notices served.	Improvements effected.
West	2,855	66	163	333
Middle	2,874	51	93	376
East	2,910	132	281	352
TOTALS	8,639	249	537	1,061

REGISTERED LODGING HOUSES.

PUBLIC HEALTH (LONDON) ACT, 1891, SEC. 94.

The Corporation, as the Sanitary Authority in the City, are required, under the provisions of Sec. 94 of the Public Health (London) Act, 1891, to make and enforce Bye-laws applying to houses let in lodgings or occupied by members of more than one family for the following purposes :—

- For regulating the number of persons and separation of the sexes.
- For the registration and inspection of such houses.
- For enforcing drainage and promoting cleanliness and ventilation.
- For the cleansing and limewashing of the premises at stated times.
- For the taking of precautions in any case of infectious disease.

The Bye-laws now in force in the City for this class of property were made by the Court of Common Council on 24th November, 1904, and confirmed by the Local Government Board on the 20th January, 1905.

Unfurnished lodgings, when the rent is not less than 10s. a week, and furnished lodgings when the rent is not less than 12s. 6d. a week, are exempt from the operations of the Bye-laws.

Particulars relating to the registered Lodging-houses in the City now on the Register are given in the accompanying table:—

REGISTERED LODGING-HOUSES.

District.	Number of Houses on Register.	Number of Lodgers.	Number of Tenements.	Average Number of Persons per Tenement.	Cleansing Notices Served.
West	72	424	189	2·3	74
Middle	4	25	17	1·5	4
East	64	357	157	2·3	73
TOTAL	140	806	363	2·2	151

These houses are periodically inspected, and in April of each year the landlords are called upon to carry out a thorough cleansing of them, in accordance with the provisions of Bye-laws. This necessitated the service of 151 Notices during 1921.

In addition to the foregoing, there are eleven blocks of Dwellings let out in tenements, but not placed on the Register for the reason that each holding is "self-contained," it having been decided in a Court of Law that in these circumstances they are not subject to the Bye-laws for houses let in lodgings, or occupied by members of more than one family:—

Name and situation of Artisans' Block Dwellings.	No. of Tenements.					No. of Inhabitants.
	One Room.	Two Rooms.	Three Rooms.	Four Rooms.	Five Rooms or more.	
WEST DISTRICT.						
Albion Buildings, No. 21, Bartholomew Close		9				19
Albion Buildings, No. 22, Bartholomew Close		10				19
Bartholomew House, Bartholomew Close	14	3				37
Dean Street Blocks, Fetter Lane—						
Block A	3	4		1		28
" B	2	5				29
" C	6	3				28
" D	2	5				24
" E	2	5				22
" F		4		1		19
St. Ann's Chambers, Ludgate Hill	2	10				19
Bloomfield House, Snow Hill		14		3		47
TOTAL	31	72		5		291
MIDDLE DISTRICT.						
Bridgewater House, Fann Street		12				12
City Buildings, Moor Lane		20	12			90
TOTAL		32	12			102
EAST DISTRICT.						
Harrow Alley and Stoney Lane—						
North Block		48	8			217
South "	5	22	13			178
Prince's "	5	50				167
Queen's "	5	40	5			160
King's "	8	16	16			158
Barker's Buildings, Catherine Wheel Alley, Bishopsgate	10	7	2	1		41
TOTAL TWO "BLOCKS"	33	183	44	1		921

These ten blocks contain 413 tenements, and are inhabited by 1,314 persons—an average of 3·18 persons to each tenement.

COMMON LODGING-HOUSE, 116, MIDDLESEX STREET.—The above premises, which are known as the "Salvation Army Working Men's Hotel and Shelter," and is the only common lodging-house in the City, was opened on the 7th February, 1906. It was utilised during the War as a Soldiers' Hostel, but is now again in use as a common lodging-house. The premises are periodically inspected, and always found to be well kept and in a generally satisfactory condition.

NEGLECT TO COMPLY WITH WATER-CLOSET BYE-LAWS.—In accordance with the Bye-laws with respect to water-closets, &c., made under Section 54 of the City of London (Various Powers) Act, 1900, every person who shall intend to construct a water-closet, or to connect or disconnect any water-closet from any soil pipe or drain, shall, at least seven days before the work is to be commenced, deliver or send to the Corporation at the Guildhall, a plan showing the situation of such water-closet, drawn to scale, together with a section showing the proposed means of ventilation.

Under Section 17, every person who shall offend against these Bye-laws renders himself liable to a penalty of £5 for every such offence, and in the case of a continuing offence, to a further penalty of 40s. for each day after written notice of this offence from the Corporation.

Any infringement of such Bye-law is a serious matter, and may lead to considerable trouble and expense to the owner of the property, inasmuch as it may necessitate the condemnation of a system installed in contravention of the Corporation requirements.

No instance of neglect in this respect has occurred during the year under review.

DRAINAGE PLANS.—In the course of the year 156 plans were submitted with regard to proposed reconstruction of water-closets or drains in the City.

Of these, 133 were approved, 10 revised and approved, and 13 not approved.

STREET GULLIES.—The gradual substitution of properly trapped gullies for those formerly existing has greatly reduced the number of complaints received of offensive smells arising from those appliances, especially in warm weather. In some cases this nuisance was doubtless due to want of flushing, but in the majority faulty construction was the cause of the trouble.

The City Engineer has given special attention to this matter for several years past, and his action in replacing the old pattern gullies with those of a more up-to-date design will, I hope, eventually lead to a complete abatement of the evil.

OVERCROWDING.—Overcrowding is a nuisance to be dealt with summarily under Section 2, Sub-section 1 (e) of the Public Health (London) Act, 1891, and during the year one case was reported by your officers. On the service of the statutory notice of abatement the overcrowding was discontinued.

SANITARY DEFECTS AND INFECTIOUS DISEASE.—In every case of notification of infectious disease, the premises involved were inspected with regard to the drainage system, water supply, ventilation, &c.; and of the 151 cases so investigated in 1921, it was found necessary to reconstruct the sanitary system in five instances, and to make amendments to soil and waste pipes, water-closets, &c., in 61 others.

HOUSE, TRADE AND OTHER REFUSE REMOVAL.—The City Engineer informs me that the refuse removed from the City in 1921 consisted of 17,819 cartloads of street sweepings and slops, and 46,541 loads of house and trade refuse, a total of 64,360 loads. The total for the year 1920 was 61,236. The use of the Destructor was discontinued in September, 1905, since which date all refuse has been removed by barge from Lett's Wharf to the Corporation land on Hornchurch Marshes, where it is dealt with. The horse manure collected from the street orderly bins is not included in the above, but is dealt with by a contractor, who sells it to market gardeners and others.

LEGAL PROCEEDINGS.—During the year 537 notices have been served by the District Inspectors at the order of the Sanitary Committee, and in three cases only was it found necessary, in consequence of non-compliance therewith, to refer the matters to the City Solicitor with a view to such steps being taken as he deemed necessary.

SUMMER FLUSHING OF COURTS.—There are 279 courts and narrow passages throughout the City which were regularly flushed during the Summer months under the direction of the City Engineer, who informs me that in this service and the flushing of the main streets, no less than 33,552,709 gallons of water were used. Of these courts and alleys, 20 were flushed six times a week, 10 five times a week, 2 four times a week, 27 three times a week, 126 twice a week, and 94 once a week.

Disinfectants are also freely applied where desirable.

The condition of the approaches to Billingsgate Market and the Customs House, as heretofore, required special attention. There has always been a difficulty in keeping the thoroughfares in the immediate vicinity of these places free from the nuisance caused by the drippings from the fish carts, especially during hot weather.

LIMEWASHING OF COURTS.—There are 89 courts and narrow passages situated in various parts of the City, the walls of which, unless cleansed frequently, become dirty and unsightly through the constant traffic of passengers or vehicles, together with the action of the smoke-laden atmosphere. These are cleansed or limewashed twice a year under the direction of the City Engineer. Of the places so dealt with during 1921, 24 were situated in the East District, 33 in the Middle District, and 32 in the West District.

REMOVAL OF HUMAN REMAINS.

184, FLEET STREET.

During the year only one instance of the disturbance of human remains in the City has been brought to my notice; the following is a brief summary of the facts relating thereto:—

In the course of excavation in connection with the construction of new drains, a small quantity of human remains were unearthed. The bones were quite dry and not in an offensive condition. They bore evidence of having been previously disturbed. They were re-interred with due decency on the site.

FLY NUISANCE.

The prolonged drought experienced during the summer of this year together with the unusual heat resulted in the nuisance from flies being more pronounced than ever.

Every effort was made by your officers to impress on householders in the City the necessity for the observance of such precautions as cleanliness, frequent removal of house and other refuse, and the prevention of access of flies to foodstuffs, especially milk.

Leaflets were also distributed throughout the City directing attention to the danger created by the fly and enlarging on the precautionary measures which should be taken in order to minimise the nuisance and danger so far as possible.

FACTORY AND WORKSHOP ACT, 1901, &c.

FACTORIES, WORKSHOPS AND WORKPLACES.—The premises upon the Register number 3,652, in which are included 7,785 workrooms, &c.

There were served 2,139 notices during the year for various purposes under the Acts.

The number of Factories, Workshops and Workplaces at present Registered is as follows:—

	Registered Places.	Workrooms, &c., in Registered Places.
FACTORIES	894	3,340
WORKSHOPS	1,808	2,800
WORKPLACES:—		
Kitchens of Restaurants, Tea Rooms, &c.	789	1,274
Stables	25	56
Other places	136	315
	<hr/> 3,652	<hr/> 7,785

The following is a Summary of Inspections of separate workrooms, &c., during the year:—

	Workshop Inspectors.	Women Inspectors.	Totals.
FACTORIES	1,956	2	1,958
WORKSHOPS	1,958	—	1,958
WORKPLACES	979	38	1,017

The following is a Summary of Inspections of separate workrooms since 1914 :—

	Workshop Inspectors.	Women Inspectors.	Totals.
FACTORIES.			
1914	3,025	237	3,262
1915	1,438	319	1,757
1916	1,264	406	1,670
1917	1,501	234	1,735
1918	904	3	907
1919	995	7	1,002
1920	866	—	866
1921	1,956	2	1,958

	Workshop Inspectors.	Women Inspectors.	Totals.
WORKSHOPS.			
1914	2,053	658	2,711
1915	1,411	751	2,162
1916	1,224	799	1,960
1917	1,308	347	1,655
1918	783	11	794
1919	1,069	18	1,087
1920	731	—	731
1921	1,958	—	1,958

	Workshop Inspectors.	Women Inspectors.	Totals.
WORKPLACES.			
1914	672	138	810
1915	512	164	676
1916	469	173	642
1917	760	124	884
1918	713	72	785
1919	445	41	486
1920	618	—	618
1921	979	38	1,017

BAKEHOUSES.—Bakehouses are scheduled as Workshops (Part 2, Sixth Schedule), and are required to be registered by the Local Authority (Section 132).

The following is a list of Bakehouses registered in the City :—

ABOVEGROUND BAKEHOUSES.

† 280, Bishopsgate.
† 45, Fish Street Hill.
† Great Eastern Railway Hotel.
*61, Middlesex Street.
*85, Middlesex Street.

†*37, Middlesex Street.
*63 to 65, Middlesex Street.
†*122, Middlesex Street.
3, Pancras Lane.
21, Stoney Lane.
68, St. Mary Axe.
*75, St. Paul's Churchyard.
194, Upper Thames Street.

UNDERGROUND BAKEHOUSES.

188, Aldersgate.
262, Bishopsgate.
*4, Broadway.
8, Copthall Avenue.
15, Cornhill.
†*67, Farringdon Street.
*93, Fetter Lane.
48, Knightrider Street.

SUMMARY.

Aboveground Bakehouses	....	....	5
Underground Bakehouses	....	....	16
			—
			21

* These have been established at least 35 years.

† Factory Bakehouses (power is used).

**SUMMARY OF WORK DONE UNDER THE FACTORY AND
WORKSHOP ACT, 1901, AND THE PUBLIC HEALTH (LONDON)
ACT, 1891, &c., FOR THE YEAR 1921.**

	Men Inspectors.				Women Inspectors.		Totals.
	Special Inspector Gathercole.	East District Inspector Robinson.	West District Inspector Fowler.	West District Miss	East District Miss Wilkinson.		
INSPECTIONS.							
Factories, Initial Inspections (Tenancies)		86	112				198
Do. Initial Inspections (Workrooms)		180	303				483
Do. Periodical Inspections (Tenancies)		199	267			2	468
Do. Periodical Inspections (Workrooms)		503	970			2	1,475
Do. Re-inspections (Sanitary Works, &c., in hand)		298	308				596
Workshops, Initial Inspections (Tenancies)		204	196				400
Do. Initial Inspections (Workrooms)		296	310				606
Do. Periodical Inspections (Tenancies)		555	412				967
Do. Periodical Inspections (Workrooms)		654	659				1,313
Do. Re-inspections (Sanitary Works, &c., in hand)		438	432				870
Workplaces, Initial Inspections (Tenancies)	39					1	40
Do. Initial Inspections (Workrooms)	77					1	78
Do. Periodical Inspections (Tenancies)	495					33	528
Do. Periodical Inspections (Workrooms)	902					37	939
Do. Re-inspections (Sanitary Works, &c., in hand)	725					5	730
Bakehouses, Inspections	39						39
Do. Re-inspections (Sanitary Works, &c., in hand)	10						10
DEFECTS FOUND.							
Factories, Workshops and Workplaces, &c.—							
Want of Cleanliness	162	53	79			5	299
Want of Ventilation	24	8	12				44
Overcrowding		1	4				5
Want of Drainage of Floors			1				1
Other Nuisances, &c.	56	183	210			6	455
Kitchens { Storage Cistern defective	4						4
Accommodation for Refuse	3						3
Accumulation of Refuse	9						9
Insufficient (Tenancies)	3	1	8				12
Sanitary Accommodation { Unsuitable (Do.)	1	19	50				70
Defective (Do.)	75	206	269			6	556
Do. (No. of Conveniences)*	85	337	404			8	834
Not separate for Sexes (Tenancies)	2	24	30				56
Total Defects found	339	495	663			17	1,514
DEFECTS REMEDIED.							
Factories, Workshops and Workplaces, &c.—							
Want of Cleanliness	161	52	65				278
Want of Ventilation	33	8	10				51
Overcrowding		1	4				5
Want of Drainage of Floors							
Other Nuisances, &c.	56	207	167				430
Kitchens { Storage Cistern defective	2						2
Accommodation for Refuse	6						6
Accumulation of Refuse	4						4
Insufficient (Tenancies)		1	7				8
Sanitary Accommodation { Unsuitable (Do.)		21	45				66
Defective (Do.)	74	170	224				468
Do. (No. of Conveniences)*	97	331	358				786
Not separate for Sexes (Tenancies)	3	23	22				48
Total defects remedied	339	483	544				1,366
OUTWORKERS.							
Lists received from City Firms	1,411						1,411
Names and Addresses, &c., received from other Authorities	279						279
Names and Addresses transmitted to other Authorities	11,035						11,035
Notices served on Employers	1,737						1,737
Letters written, &c.	440						440
Firms visited	124						124
Workshops notified by H.M. Inspector		66	20				86
General complaints received	11	5				1	17

ACTION TAKEN.	Men Inspectors.			Women Inspectors.			Totals.
	Special Inspector Gatherrade.	East District Inspector Robinson.	West District Inspector Fowler.	West District Miss	East District Miss Wilkinson.		
Matters referred to H.M. Inspector—							
Want of Cleanliness		3	2				5
Want of Ventilation		1	1				2
Overcrowding							
Want of Drainage of Floors							
Failure to affix Abstract		42	25				67
Other Nuisances		1	2				3
Action taken in matters referred by H.M. Inspector—							
Notified by H.M. Inspector	1	25	20				46
Reports sent to H.M. Inspector	1	29	20				50
Other matters							
Notices served—							
Factories—Intimation		13	25		2		40
Statutory		4	13				17
Workshops—Intimation		86	63				149
Statutory		19	15				34
Workplaces, &c.—Intimation	138						138
Statutory	24						24
Orders required from Sanitary Committee	75	41	39				155
Certificates for Cleansing issued by Medical Officer of Health	46	8	5				59
Matters referred to District Inspectors	17	4	3				24
Matters referred to Women Inspectors		1					1
Matters referred to Workshop Inspectors					1		1
Cases reported for Legal Proceedings							
Legal Proceedings taken							

SPECIAL INSPECTION WORK.

Domestic Workshops—Inspection (Tenancies)						12	12
Do. Defects found							
Do. Defects remedied							
Outworkers' Premises, Inspections (Tenancies)							
Do. Defects found							
Do. Defects remedied							

SPECIAL INSPECTION WORK—(WOMEN INSPECTORS.)

Offices, Inspections (Tenancies)						2	2
Do. Defects found							
Do. Defects remedied							
London County Council (General Powers) Act, 1904, Inspections of Premises after Cleansing of Children						13	13
Do. Do. Defects found						1	1
Do. Do. Defects remedied.....							
Children Act, 1908 (Nurse Children), Inspections of Premises						5	5
Do. Do. Defects found							
Do. Do. Defects remedied.....							
Underground Conveniences for Women, Inspections						16	16
Do. Do. Defects found						26	26
Do. Do. Defects remedied.....							
Railway Stations (Ladies' Rooms), Inspections						23	23
Do. Do. Do. Defects found						8	8
Do. Do. Do. Defects remedied							
Notification of Births Act, 1907, Visits						194	194
Number of Mothers attending " City Shelter " for advice						368	368
Special Visits						15	15

OUTWORKERS AND HOMEWORKERS.—The provisions of the Act relating to " Outworkers " were carried out as heretofore, and the lists of the names and addresses of workers receiving work from the City firms were duly received without the necessity of legal proceedings.

In a number of cases employers neglected to keep lists at their premises and to send copies of the same to the Corporation as required by the Act. Notice in each case was served upon the offender and in all cases complied with.

No case of infectious disease was reported in connection with premises occupied by outworkers in the City. Four contacts with Scarlet Fever were reported. The necessary enquiries were made and suitable precautions taken.

The following figures show the number of Outworkers notified since 1902 :—

Year.	Number of Lists received.	Outworkers Employed in City.	Outworkers Employed outside City.	Total number of Outworkers.
1902	.....	17	3,752	3,769
(Note.—First Notice issued to all employers at the end of 1904.)				
1905	576	236	7,891	8,127
1908	1,506	624	16,909	17,533
1911	1,515	656	16,405	17,061
1912	1,481	709	15,777	16,486
1913	1,523	718	16,025	16,743
1914	1,581	739	15,941	16,680
1915	1,589	807	15,444	16,251
1916	1,481	661	14,766	15,427
1917	1,366	602	13,319	13,921
1918	1,395	607	12,802	13,409
1919	1,379	688	12,581	13,269
1920	1,359	802	13,102	13,904
1921	1,411	717	11,035	11,752

NOTE ON THE USE OF PUBLIC CONVENIENCES WHERE THERE IS AN ABSENCE OF SUFFICIENT OR SEPARATE W. C. ACCOMMODATION IN BUSINESS PREMISES.

The problems of public health are so closely related to those of personal well-being that the full strength of public opinion endorses the requirement of law which enforces the provision of separate and suitable sanitary conveniences for the sexes in premises where business is carried on.

In the City of London an enactment requiring the observance of this principle has been in operation since 1848. The result is that few commercial buildings are found to be without the conveniences necessitated by the employment of both sexes.

In plans of new buildings the proposed number of tenancies together with the probable numbers of each sex likely to be employed receive careful consideration, and consequently difficulties of this nature seldom arise afterwards. In older buildings and adapted dwelling houses extra sanitary accommodation to that originally provided has been frequently added during structural additions and alterations which have been executed from time to time.

The peculiar conditions imposed by the war, and the resulting abnormal increase in the number of women workers, have caused temporary difficulties, but these are being gradually eliminated. Other problems, however, have arisen to some extent which do not seem to be easy of solution. The chief of these is due to the present economic necessity which has delayed the demolition and rebuilding of lease-expired premises, and which requires the fullest use being made of all available buildings whilst at the same time restricting expenditure to an absolute minimum.

Separate floors or rooms are let (perhaps temporarily) resulting in complications as to the use or apportionment of water-closets. These are accentuated if the new tenants employ persons of both sexes instead of one as under the former occupation, or when the premises in question formed part of a larger tenancy.

The ideal arrangement is for every separate occupation to have conveniences exclusively for the use of the staffs employed therein. This is, however, a counsel of perfection and unattainable under present conditions. Where conveniences are situated on landings or staircases adjustments can be made between tenants. But when some are located within one particular set of premises—separately occupied—difficulties of several kinds immediately present themselves, though, where possible, one occupier in a building will generally give accommodation to another occupier by arrangement, especially in the case of a small sub-tenancy. There is, however, a great dislike to this practice both on the part of employers and their staffs. It is not always desirable or convenient either to give or to accept free access to other premises at all times, and moreover the hours of business may not always coincide.

There are instances where fairly large staffs of either sex are employed together with only one or two of the other sex ; or a small number of each sex. This results in difficulty being experienced in providing separate W.C. accommodation on the premises for both, or for the sex of smaller numbers, particularly where several business tenements are found.

In old buildings where leases have expired or are approaching expiration, owners are very reluctant to incur the cost of the erection of new conveniences which, owing to the general demand for business accommodation and the unusual conditions of occupation which exist, have become necessary.

The shortage of buildings in the City has been the cause of derelict structures becoming temporarily occupied as workshops until the more permanent occupation of suitable premises could be arranged.

A building, or portion of premises, occupied as a Factory or Workshop, on which additional W.C. accommodation is found to be necessary, may be so built as to render the construction of a new convenience or conveniences practically impossible, so as to comply with the Bye-laws in force. Such cases are rare however.

The majority of lock-up shops are without sanitary accommodation attached to them, but it is an accepted principle that persons employed there have the use of conveniences in the building above or at the rear and of which the shops themselves form part.

Where the several conditions above-mentioned are encountered the question arises from time to time as to the use of public conveniences (if they are situated within a reasonable distance) as an effort to meet the requirements of law, and yet prevent any undue hardship. No such arrangement is legally permissible.

Very comprehensive powers are given by the Factory and Workshop Act, 1901, and the Public Health (London) Act, 1891, relating to sanitary conveniences in Factories, Workshops and Workplaces. Section 38 of the Public Health (London) Act enacts :—

“ Every factory, workshop and workplace, whether erected before or after the passing of this act, shall be provided with sufficient and suitable accommodation in the way of sanitary conveniences, regard being had to the number of persons employed in or in attendance at such building, and also where persons of both sexes are or are intended to be employed, or in attendance, with proper separate accommodation for persons of each sex.”

Section 9 of the Factory and Workshop Act, 1901, contains similar provisions (excluding workplaces). No standards are laid down but the Secretary of State is empowered to make an Order to determine what is sufficient and suitable accommodation within the meaning of this Section. The Section does not apply to London, and the Order made under it (Sanitary Accommodation Order, 1903) therefore does not apply, but the contents are extremely useful as a guide. They are followed in the City of London, the Sanitary Committee having adopted the contents of the Order as constituting their interpretation of the requirements of Section 38 of the Public Health (London) Act, 1891.

By Section 157 of the Factory and Workshop Act, “ mens ” workshops are exempted from the provisions relating to sanitary conveniences, so that, by inference, public or other accommodation outside the premises may be used. In practice, however, this Section is ignored and all action taken under the Public Health (London) Act which contains no such limitation.

The responsibility both with regard to construction and the maintenance of efficient and cleanly conditions of sanitary conveniences in factories, workshops and workplaces is placed primarily upon the Local Sanitary Authority. H.M. Inspector of Factories acts in a supervisory capacity and is given power by the Factory and Workshop Act to take action only if a Local Authority makes default after receipt of information of some contravention from the Factory Inspector.

The requirements of the Act relating to sanitary conveniences are equitable. All workers are given the right of access to suitable conveniences within the premises where they work at all times during employment ; facilities which physiological necessity demands. It is found that the number of cases where the necessary accommodation is absent is not large.

It is noteworthy that while it is made necessary to provide separate conveniences for the sexes, there exists no statutory power to prevent persons of both sexes using them promiscuously. It appears, therefore, that once the necessary accommodation has been provided the jurisdiction of the Sanitary Authority as to its

use ends, though the intention of the Acts undoubtedly is to secure separate use as well as separate provision. Presumably office rules are made to meet this circumstance.

If it should be considered desirable to recognise the use of a public convenience by one sex in special cases a somewhat difficult situation would be created. It is in the first instance contrary to the letter and intention of law. Further there is no guarantee that the public convenience would be used as permitted; it is possible, after such a concession had been granted, that both sexes would use one and the same convenience in a building. A distance within which a public convenience should be situated so as to be sufficiently near, would have to be fixed. This would be difficult. It would also have to be decided in some cases which of the two sexes should be so accommodated. Men's and Women's public conveniences are not always adjacent to one another.

It must not be overlooked that the use of a public convenience usually involves payment by the user. This is an unfair—if slight—responsibility to place upon a person who is entitled to have proper accommodation provided without charge.

The principle involved is an important one. Public conveniences were provided first of all for public use and not to act as reliefs to buildings which may have become occupied beyond their "convenience" capacity. If it is intended to allow their use in every such case they would have to be multiplied to some considerable extent.

Consideration of this subject shows that the widest powers are provided to secure adequate accommodation in all premises and under almost any circumstances, but without any discretionary latitude to meet special difficult cases. Nevertheless, it appears that in such circumstances, particularly during the present period of industrial depression, the use of a public convenience by employees of one sex, if few in number, is perhaps justifiable and, for the time being, preferable to costly alterations which may be necessitated if strict observance of the law as it stands were insisted upon. But in view of the complications likely to arise from such a concession it is undoubtedly easier and safer to enforce the Statutory requirements.

LIGHTING AND MEANS OF VENTILATION OF BASEMENT WORKROOMS.

The demands of modern industry and commerce, combined with economic problems produced by the extremely high value of land in the City of London, control the development of sites and the use of buildings within its boundaries, and necessitate the fullest use being made of all available space below as well as above ground. Basement rooms are therefore a necessity in London, and some persons are compelled under present conditions, to pass the working day below the ground level.

It has long been recognised that these rooms are undesirable from the depressing effect they produce, and the difficulty of providing them with adequate natural light and ventilation which are essential to the maintenance of health. Moreover, it is unnatural for human beings to live or work regularly underground, and therefore probably harmful.

Basement workrooms may be divided into two classes:—

- (1) Those in modern buildings, and
- (2) Those in older buildings and former dwelling houses.

In the first group, basements are provided, generally, with a certain amount of natural light and direct ventilation to the external air, and supplemented with mechanical ventilation where necessary. They generally have adequate provision for artificial lighting and though some are undesirable as workrooms still, they present conditions which are the best obtainable under present circumstances.

The second class presents a more difficult problem. In the older type of building and dwelling house the basements were constructed and intended usually for stores, stock rooms or cellars only. Under economic pressure many of these have become occupied, and sometimes separately occupied, as workrooms or offices. Whereas little or no light and ventilation were needed originally these now become a necessity. In some cases slight structural alterations have given good results, but in others the necessary radical alterations would present extreme difficulty, and be very costly. Mechanical ventilation by means of fan and air ducts can be

installed in special cases but no such adaptation can be followed to introduce or increase natural light, except to a very limited extent by borrowed light in the form of reflectors, refracting glass and by the maintenance of cleanliness of walls, ceilings and windows, and the prevention of light-obstructing conditions generally. In practice it is very rarely found that, in the absence of natural light, insufficient artificial light is provided in workrooms, it being essential to efficient work.

Difficulties in providing natural light and ventilation will depend upon the degree to which the room is below the surface of the surrounding ground, the proximity and height of other adjacent buildings and the area and position of available openings.

There is no definition in either the Factory and Workshop Act, 1901, or the Public Health (London) Act, 1891, of an underground workroom except an underground bakehouse, which is considered to be such if the floor of the baking room is more than three feet below the surface of the adjoining street or ground adjoining or nearest the room.

The Public Health (London) Act contains a similar clause defining an underground room if occupied separately as a dwelling.

In each of the foregoing, use of the rooms so specified is forbidden unless they comply with certain requirements, which, though embodying useful powers with regard to light and ventilation do not, with one exception, fix standards; the exception being that of an underground room of a dwelling house, the window (or windows) of which must be equal to one-tenth the floor area, half the window must be made to open at the top and an area be provided in front of it.

The Act of 1901 indirectly empowered Local Authorities to fix standards of lighting and ventilation in underground bakehouses by requiring the District Council to certify the premises to be suitable for use as a bakehouse. In the City of London it was laid down that all such premises should be lighted naturally if possible, failing this only electric light was to be used for illuminating purposes. Through ventilation was insisted upon and inlets required to be at least 12 inches above any footway surface and then only if other higher positions were not practicable. These standards are useful as a guide in dealing with basements generally, and might usefully be applied in principle in any future action taken.

All basement workrooms may be considered to form part, or come within the terms of a factory, workshop or workplace. The supervision of these premises varies within certain limits and may be broadly stated to be as follows:—

In Factories all matters, with the exception of water-closet accommodation, are controlled directly by His Majesty's Inspector of Factories.

In Workshops and Workplaces, the local Sanitary Authority is directly responsible for the general conditions, including cleanliness, ventilation, and air space in workrooms, as well as for enforcing special regulations in certain cases. The Inspector of Factories, however, exercises a supervisory control and has power to act if a Local Authority makes default in relation to any matter to which the Inspector has called attention, and which it is the duty of the Local Authority to deal with.

A basement workroom which forms part of a factory does not come within the jurisdiction of the Sanitary Authority, but one forming part of a workshop or workplace does.

No definition of "workplace" is given in either the Factory or Public Health Acts, though the term is quoted in both; but it has been interpreted to mean any place, not being a factory or workshop, where persons are employed and regular work of some kind is carried on. Offices, warehouses and restaurants kitchens, &c., would therefore be classed as workplaces.

Statutory powers relating to workshops and workplaces are given to Local Authorities in London by the Factory and Workshop Act, 1901, in conjunction with the Public Health (London) Act, 1891. They contain no provision whatever for the lighting of workrooms, either by natural or artificial means, and it would appear that light of any particular description cannot be enforced under these Acts in general workrooms. Moreover, there is no power to secure even adequate lighting.

With regard to ventilation it is laid down in the Factory and Workshop Act, 1901, that "every room in any factory or workshop sufficient ventilation shall be provided and sufficient ventilation shall be maintained." *Workplaces* are excluded from this requirement, but it may be noted that the whole of any premises within

a building, and in one occupation, is regarded by the Home Office to be a factory or workshop as the case may be ; offices and other rooms in which work is carried on, except where certain specified exemptions have been allowed, could therefore be dealt with as being parts of a factory or workshop and subject to the same requirements.

Presumably the intention of the provision quoted above is to require ventilation to the external air direct, but in some instances where these conditions are met with the ventilating openings are situated in, or so near to the ground level in the form of pavement ventilators, gratings in stall-boards and the risers of entrance steps, that quantities of dust and other impurities gain access to the rooms they serve which is extremely undesirable. On the other hand in workrooms where the means of ventilation are not in direct connection with the open air (and the intention of the Act, therefore, not complied with) sufficient air may be introduced and diffused to meet the requirements of the workers and be minus the gross impurities already mentioned. This would be preferable perhaps to an admittedly undesirable method of "direct" ventilation.

In a basement, air usually enters the room just above head level, and in cold weather the workers find this objectionable, close the ventilating opening, and consequently ventilation is not maintained.

Another aspect may be considered. Where mechanical means of ventilation by extraction fan have been installed in basements it is found that care has often been taken to select an *outlet* at some convenient point, but the incoming "fresh" air is drawn, frequently, not from special suitably selected points to ensure purity and freedom from dirt, but from any openings or spaces in aerial communication with the system, including other rooms, and not always direct from the external air. In such cases only a mechanical system which is principally indirect ventilation exists.

These points render it difficult to say whether the provision of direct ventilation to the external air can be enforced and even if so, whether it is advisable to do it in every case.

Factors which should not be ignored when considering means of ventilation are the close relationship it bears to means of heating, also that which the position of the ventilating openings bears to both. More adequate means of ventilation become necessary if the heating apparatus vitiates the air than would otherwise be required. The intense dislike sedentary workers have of a draught of cold air necessitates care in the use and position of windows and other openings if they are to be of any value for ventilating purposes, otherwise they will be kept permanently closed.

It is noteworthy that offices, which are considered to be workplaces, are not legally, under the Factory and Workshop Act, required to be either adequately lighted or ventilated. The weakness of the Act is still further exemplified by Section 157 in which men's workshops are exempted from various requirements, among which is included "means of ventilation." The Public Health (London) Act, however, gives some power in this connection in workshops and workplaces, but only where "gases, vapours, dust or other impurities generated in the course of the work carried on therein that are a nuisance or injurious or dangerous to health" are found, and perhaps also under Section 2 (a) which refers to any premises in such a state as to be a nuisance or injurious or dangerous to health.

An effort was made in 1913 to introduce legislation affecting underground workrooms in certain trades under which occupation of all such rooms was prohibited unless certified by the Local Authority as suitable for the purpose. Adequate lighting and ventilation were, amongst other requirements, specified as conditions to be complied with before the certificate was to be granted. The Secretary of State was to be empowered to make regulations for lighting and ventilation.

The definition of underground room was to be held to mean any room any part of which is so situated that half or more than half of the whole height from floor to ceiling is below the surface of the footway of the adjoining street. The Bill did not become law. I referred to this fact in my Annual Report for 1913.

Difficulty is sometimes experienced where a basement under a shop becomes used as a workroom connected with the business carried on above, the direct

means of ventilation of which is almost invariably obtained through the stall-board. If it has not been used previously as a workroom the ventilation arrangements are not always altered and increased to suit the new conditions. Cases have been found where even the openings which originally existed have been reduced or quite obliterated during the fixing of new shop fronts. Even the fresh air inlet to the drain has been enclosed. No notice to the Local Authority of such alteration is legally necessary but is very desirable. Modern shop-fronts have a tendency to become lower than formerly; as a consequence the stall-boards become reduced in depth with a corresponding reduction in the only available space for ventilating the basements direct to the external air, and sometimes to such an extent as to render them inadequate for the purpose, if the basements are to be used as workrooms.

It is the duty of every occupier of a workshop to give notice to His Majesty's Inspector of Factories within a month of the commencement of occupation. The Factory Inspector in turn forwards the information to the Local Authority concerned. If this Regulation were observed without omission the supervision of basement workrooms could be more thoroughly carried out as it is most frequently in non-notified workrooms where faults of ventilation are found. However, even when this notification has been given, alterations affecting light and ventilation may be made by an occupier without hindrance and of which no notice is required. Any contravention so caused will remain to be discovered the next time the premises are visited.

To summarise the powers of Local Authorities in relation to the question under consideration, it appears that in basement workrooms there is no specific power given in either the Factory and Workshop Act or the Public Health (London) Act in respect of lighting. The provisions as to ventilation are definite in relation to workrooms, where women, young persons, or children are employed, but no particular ventilating area can be insisted upon and the means must be "sufficient." A further power is given in general terms under Section 2 (a) of the Public Health (London) Act relating to "any premises in such a state as to be a nuisance or injurious or dangerous to health." Workplaces can only be required to be ventilated under the Nuisance Section of the Public Health London Act, by Section 2 (a) quoted above, or Section 2, Subsection (g) (ii.) relating to gases, vapours, dust, etc.

In presenting these observations, due regard has been given to the peculiar difficulties which exist in the City of London and which render complex the problems reviewed.

Much disorganisation of business would accrue if measures were taken to overhaul and improve the natural lighting and ventilating arrangements of basements on a large scale though some improvement is necessary. At present a Local Authority is given no power to act, apart from those herein quoted, except under the Nuisance Sections of the Public Health (London) Act, 1891.

KITCHENS OF RESTAURANTS.

The following is an epitome of the powers possessed by Local Authorities in dealing with kitchens of restaurants.

In the memorandum dealing with the duties of Local Authorities issued by the Home Office in 1902, the following note appears:—

" 'Workplace' is not defined in the Act, but in a case under Sec. 38 of the Public Health (London) Act, 1891, where the same phrase as in this Act occurs, viz., 'factory, workshop and workplace' it was held that the word is not to be limited to places where something is being manufactured or made, but includes 'any place where work is done permanently, and where people assemble together, to do work permanently of some kind or other.' It is therefore a word of wider signification than the word 'workshop.' In the case in question a stable and stable yard where men were employed as cab-cleaners and horsekeepers was held to be a workplace. Similarly the Secretary of State has been advised that the kitchens of restaurants, &c., though they are not workshops, come within the meaning of the term 'workplace.'"

The London County Council (General Powers) Act, 1908 (Section 8), contains sections intended to regulate premises used for the sale, etc., of food for human consumption, to the following effect:—

8.—(1)—From and after the passing of this Act the following provisions shall apply to any room, shop or other part of a building within the County in which any article whether solid or liquid intended or adapted for the food of man is sold or exposed for sale or deposited for the purpose of sale or of preparation for sale or with a view to future sale :

- (a) no urinal water closet, earth closet, privy, ashpit or other like sanitary convenience shall be within such room, shop or other part of a building or shall communicate therewith except through the open air or through an intervening ventilated space ;
- (b) no cistern for supplying water to such room, shop or other part of a building shall be in direct communication with or directly discharge into any such sanitary convenience ;
- (c) no drain or pipe for carrying off faecal or sewage matter shall have any inlet or opening within such room, shop or other part of a building ;
- (d) no such room, shop or other part of a building shall be used as a sleeping place and so far as may be reasonably necessary to prevent risk of infection or contamination of any such article as aforesaid no sleeping place shall adjoin such room, shop or other part of a building and communicate therewith except through the open air or through an intervening ventilated space ;
- (e) refuse or filth whether solid or liquid shall not be deposited or allowed to accumulate in any such room, shop or other part of a building except so far as may be reasonably necessary for the proper carrying on of trade or business ;
- (f) Due cleanliness shall be observed in regard to such room, shop or other part of a building and all articles apparatus and utensils therein and shall be observed by persons engaged in such room, shop or other part of a building ;

(2) If any person occupies or lets or knowingly suffers to be occupied any such room, shop, or other part of a building wherein any of the conditions prohibited by this section exist or does or knowingly permits any act or thing therein in contravention of this section he shall be liable on summary conviction to a fine not exceeding for a first offence twenty shillings and for every subsequent offence five pounds and in either case to a daily penalty not exceeding twenty shillings.

The business of a vendor of fried fish is separately legislated for and bye-laws controlling this trade are operative in the City.

The Public Health (London) Act, 1891, Section 2, specifies defects, *e.g.*, want of cleanliness, ventilation and overcrowding, occurring in workplaces which may be dealt with as Nuisances, and Section 25 gives power to the Medical Officer of Health and the Sanitary Inspector to certify where cleansing or limewashing is necessary. Section 38 requires separate, suitable, and sufficient water closet accommodation to be provided.

The Sections of the Acts, &c., quoted appear to represent the powers available in respect of workplaces and, therefore, of restaurant kitchens.

The greatest difficulty experienced in the City, in connection with statutory requirements, is in respect of Section 8 (c) of the 1908 Act. Presumably a gully, although it is effectively trapped, must be regarded as a drain opening. This deficiency exists in many of the places which existed prior to the passing of the Act, and if it is to be regarded as preventing the use of a room as a kitchen, very many of these places would cease to exist. A drain inlet cannot be removed from a basement kitchen unless an open area exists in which the gully can be placed. Such an open area is a rare circumstance in the City and the alternative is to require an upper floor to be used for the purpose and to take the discharge pipe into the basement where a sealed gully can be provided. This is an altogether impracticable requirement in the majority of cases, though the necessity can be pointed out to those who propose opening a new restaurant with a basement kitchen attached. As a consequence of these difficulties it has been the practice in the past not to close kitchens presenting circumstances such as those outlined above, but to require the provision of the best known appliance for use as a trap, and to endeavour to ensure that the defect is minimised by frequent visitation.

The principal defects ascertained on inspection may be assumed to be the following :—

- (a) The situation of the kitchen. This may be underground and, as a consequence, lighting and ventilation are defective. In addition, some of the kitchens, both underground and otherwise, are located in old, dirty premises, which apparently are waiting for improvement schemes to mature, when they will be demolished. Ventilation of the basement kitchen generally means facilities for the entrance of dust from the street level and various devices have to be adopted to minimise this evil.
- (b) The conditions of the floors, walls and ceilings is not always what could be desired. Impervious floors are by no means the rule. Walls faced with glazed bricks are the exception. Ceilings are sometimes not satisfactory. In new places these essentials invariably receive adequate attention.
- (c) Old buildings are ill-provided with facilities for storing food. All gradations, between practically no provision to kitchens to which small stores are attached, exist. Improvements in this respect are taking place. The occupiers of small kitchens endeavour so to arrange the work that the food purchased each day is consumed that day and none is ever required to be stored. This attempt is, of course, practically never completely successful.
- (d) The water closet accommodation has often been a serious difficulty, particularly where a small number of workers is employed and these consist of two sexes. The requirement of separate, suitable conveniences with an intervening ventilating lobby, should such conveniences be in close relationship to the kitchen, is always insisted upon, but it should be an additional requirement that in the lobby, or attached to the conveniences, there should be installed satisfactory provision for personal ablution.
- (e) A changing room for the staff is rarely provided, but cupboards in a small place, ranging to a separate room in a large place, should be an essential.
- (f) The number of sinks for washing-up purposes should bear a relationship to the business done. Often this provision is inadequate. The sanitary condition of these appliances requires careful attention.
- (g) Water storage cisterns are a necessity where boilers are used for generating steam. They are, however, frequently placed in positions where they cannot be kept free from dust or dirt. In some instances occupiers have been ignorant of the existence of these cisterns and their condition when examined will be imagined.
- (h) The condition of cooking utensils is a matter of general administrative supervision by the occupier whose attention requires sometimes to be called to unsatisfactory conditions.
- (i) Adequate provision for the storage of refuse is most important. Neglect of simple precautionary measures results in the rat nuisance becoming a serious problem in some places, and in customers being exposed to unnecessary risks from food poisoning. In old premises rats frequently gain access to the kitchen, and much educational work has recently been carried out, and improvements effected, in connection with rat repression.
- (j) The condition of food used and stored upon the premises is a matter of considerable importance and although examination of food is often made, the main responsibility rests upon the manager.

A difficulty of a subsidiary character is the objection which neighbouring tenants frequently make to the smells of cooking which occasionally arise. When

the nuisance is caused by the burning of refuse of an offensive nature, perhaps this can be dealt with under the Public Health Acts, but where this is simply a cooking smell and affects personal comfort, perhaps the only remedy is an action at common law by the party affected.

In previous reports attention has been directed to the fact that restaurant kitchens, being workplaces, may be established without notice of any kind being given, in which respect they differ from factories and workshops. It is not necessary either that such places should be registered, although an attempt is made to keep as complete a register as possible of all kitchens known to exist in the City. It would prove a great advantage to public sanitation if all restaurant kitchens were required to be registered under different conditions of occupation. These conditions should specify the minimum requirements in respect of the matters set out above.

SUGGESTION.—I would suggest that when another Bill is promoted by the Corporation for general purposes that an endeavour be made to obtain additional powers in respect of regulations of kitchens in which food is prepared for consumption by the general public, whether such kitchens are attached to restaurants or to hotels.

FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.

1921.

1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF NUISANCES.

Premises. (1)	Number.		
	Inspections. (2)	Written Notices. (3)	Prosecutions (4)
Factories (including Factory Laundries)	666	57	—
Workshops (including Workshop Laundries)	1,406	183	—
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	568	162	—
Total	2,640	402	—

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

Particulars. (1)	Number of Defects.			Number of Prosecutions. (5)
	Found. (2)	Remedied. (3)	Referred to H.M. Inspectors. (4)	
<i>Nuisances under the Public Health Acts :—†</i>				
Want of cleanliness	299	278	5	—
Want of ventilation	44	51	2	—
Overcrowding	5	5	—	—
Want of drainage of floors	1	—	—	—
Other nuisances	471	142	3	—
Sanitary accommodation {	insufficient	12	8	—
	unsuitable or defective	626	504	—
	not separate for sexes	56	48	—
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouse (S. 101)	—	—	—	—
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)	—	—	—	—
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report)	—	—	—	—
Total	1,514	1,366	10	—

† Including those specified in Sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

3.—HOME

NATURE OF WORK.*	OUTWORKERS' LISTS, SECTION 107.					
	Lists received from Employers.					
	Lists †	Sending twice in the year.		Lists	Sending once in the year.	
		Contractors.	Workmen.		Contractors.	Workmen.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Wearing Apparel— making, &c.	1,178	2,971	7,175	39	84	96
cleaning and washing						
Household Linen						
Lace, Lace Curtains and Nets						
Curtains and Furniture Hangings						
Furniture and Upholstery						
Electro Plate						
File making						
Brass and brass articles						
Fur pulling (Furriers)	94	151	298	4	5	2
Cables and Chains						
anchors and Grapnels						
Cart Gear						
Locks, Latches and Keys						
Umbrellas, &c.	52	33	275			
Artificial Flowers	34		326			
Nets, other than Wire Nets						
Tents						
Sacks						
Racquet and Tennis Balls						
Paper, &c., Boxes, Paper Bags	10	4	53			
Brush making						
Pea picking						
Feather sorting						
Carding, &c., of Buttons, &c.						
Stuffed Toys						
Basket making						
Chocolates and sweetmeats						
Cosaques, Christmas Crackers, Christmas Stockings, &c.						
Textile Weaving						
TOTAL	1,368	3,159	8,127	43	89	98

* If an employer gives out work of more than one of the classes specified in column 1, and subdivides his list in such a way as to show the number of workers in each class 4 (or 5 and 7) into their respective classes. A footnote should be added to show that this has been done.
† The figures required in columns 2, 3 and 4 are the total number of the lists received from those employers who comply strictly with the statutory duty of sending two lists some previous returns odd numbers have been inserted. The figures in columns 5 and 6 will usually be (approximately) double of the number of individual outworkers whose

4.—REGISTERED WORKSHOPS.

Important classes of work-shops, such as workshop bakehouses, may be enumerated here.	Workshops on the Register (S. 131) at the end of the year.	
	(1)	Number.
General Workshops		1,787
Bakehouses (including Factory Bakehouses)		21
Total number of Workshops on Register		*1,808

* These were found to be 2,800 Workshops &c. in places Registered.
NOTE.—The Factory and Workshop Act, 1901 (S. 131), requires the Medical Officer of Health in his Annual Report to the District Council to report specifically on the Obvols. If the Annual Report is presented otherwise than in print, it is unnecessary to include in the copy sent to the Home Office, the portions which do not relate to Memorandum of March, 1901.

WORK.

Notified in accordance with the provisions of the Factory Act, 1901.	OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.			
	Prosecutions.		Instances.	Notices served.	Prosecutions.	Orders made (S. 110).	Prosecutions (Sections 109, 110).
	Failing to keep or permit inspection of lists.	Failing to send lists.					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1,737							
1,737	Nil	Nil	Nil	Nil	Nil	Nil	Nil

of work, the list should be included among those in column 2 (or 3 as the case may be) against the principal class only, but the outworkers should be assigned to column 3 and each year and of the entries of names of outworkers in those lists. The entries in column 2 must necessarily be given numbers, as there will be two lists for each employer—in names are given, since in the February and August lists of the same employer the same outworker's name will often be repeated.

5.—OTHER MATTERS.

Class.	Number.
(1)	(2)
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Act (S. 133, 1901)	67
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (S. 5, 1901).	46
Other	50
Underground Bakehouses (S. 101):—	
Certificates granted during the year	3
In use at the end of the year	Nil
	16

Date, 31st December, 1921.

(Signature) W. J. HOWARTH,
Medical Officer of Health.

administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State (Home Office), the duties of Local Authorities, and the Medical Officer of Health under the Act of 1901 are detailed in the Home Office Memorandum of March, 1901.

RAT REPRESSION.

The Rats and Mice (Destruction) Act, 1919, which became operative on January 1st, 1920, involved the Corporation, the citizens and occupiers of premises within the City in additional responsibilities in connection with the suppression of rats. The first section of the Act reads as follows:—

“(1) Any person who shall fail to take such steps as may from time to time be necessary and reasonably practicable for the destruction of rats and mice on or in land of which he is the occupier, or for preventing such land from becoming infested with rats and mice shall be liable to penalties.”

Section 3 of the Act makes the Ministry of Agriculture and Fisheries the Supervising Central Authority, and also vests this Ministry with executive powers in case of default by the Local Authority. By Section 8, the expression “land” includes any building or any other erection on land, and any cellar, sewer, drain or culvert in or on the land. Section 5 empowers the Local Authority to do the necessary work and recover expenses where the occupier on whom a notice has been served under Section 1 fails to take the necessary steps for the purpose of destroying rats and mice or of preventing the land from becoming infested with these vermin. Apparently the owner of the property is involved in no responsibility unless the land is not occupied by any tenant, in which case the owner is regarded as the occupier.

The subject had been interesting the Sanitary Committee for some considerable time prior to the passing of this Act and numerous reports had been submitted for their consideration. Up to the present the work carried out has been more or less of a tentative or experimental character, and the time has now arrived when a definite decision as to future procedure should be arrived at. In deciding on a course of action it may perhaps be advisable to refer briefly to previous reports.

The subject of viruses first received attention and the virus used at the Central Meat Market was investigated in 1913 by the City Bacteriologist, who reported that this particular virus was inert though it was stated to contain a modified Loeffler's bacillus, possibly the bacillus typhi murium of Loeffler.

The virus question was again enquired into in 1920, when three samples were obtained. One proved to be identical with Gaertner's B. enteritidis, the second resembled Gaertner's bacillus and the third was similar to the first. The conclusion arrived at, after considering the subject at some length, was that Gaertner's bacillus was not a natural inhabitant of the intestine of either rats or mice, but that both these animals might be infected by these organisms and the result might be death or recovery, or the animals might survive as carriers. It was further suggested that there was a possibility of a carrier animal gaining access to food and thus contaminating it. The question therefore arose whether the use of virus should not be prohibited.

In November, 1918, a report was presented advising the appointment of an inspector whose sole duties should be concerned with the problem of control of vermin. This report was acted upon and Inspector Mayne was accordingly appointed as a temporary inspector for this purpose. In this report I also drew attention to the information which I had obtained, though I was unable to vouch for its accuracy, that rats in the City had increased considerably since the prohibition of the sale of live rats for rat baiting. I was informed that in former days sewer men carried sacks about with them in which to put rats they caught and subsequently sold, but to-day there is no market for live rats and no attempts are now made to catch them as each rat becomes an incubus to the catcher from the point of view of disposal.

In March, 1919, I submitted a report prepared by Major Fullerton on the “Protozoal Parasites of the Rat with special reference to the occurrence of *Spirochetal Jaundice in man and to the London rat as a natural reservoir of *Spirochæta icterohæmorrhagiæ*.” This report was a most useful contribution to the subject and added to the known iniquities of the rat.*

In April, 1920, a lengthy report on rat repression was submitted in printed form. This dealt in a fairly comprehensive manner with the natural history of the animal, the circumstances which contribute to the prevalence of rats in the City, and the available methods for attacking the problem.

In October, 1920, two temporary inspectors in addition to Mr. Mayne were appointed to carry out work in connection with rat repression. These inspectors, in addition to investigating complaints, proceeded to make house to house enquiry throughout the City and summaries of the main details of the work performed by them have been submitted in monthly reports. By means of this systematic survey a considerable amount of accurate knowledge of local circumstances has been gained. One of these inspectors resigned in April, 1921, and the vacancy has not been filled, but the Court of Common Council sanctioned the employment of the remaining two officers until June, 1922. This decision was passed on a report dated May 24th, 1921.

Other minor reports have been submitted at different times, but those referred to are the most important.

The chief conclusions arrived at are as follows :—

- (1) Rat infestation if uncontrolled will depend upon the amount of food which is available. Rats increase to the limits of the means of subsistence. Available food is therefore an important factor in the work of rat repression.
- (2) The increase to this maximum can also be to some extent prevented by—
 - (a) Rendering premises rat proof and thereby preventing casual infestation. Such means include satisfactory drainage and construction of drains and adequately guarded openings of basements and even of doors. Also by effecting internal improvements in premises with the object of doing away with conditions which provide the rat with shelter and suitable nesting places.
 - (b) Efforts to catch or kill rats which have infested premises by means of traps, poisons, varnish, by rat catchers, or by the use of suitable animals.
- (3) In view of the fact that black rats are increasing in the City and that this particular species is capable of climbing, preventive measures against ingress are not to be limited to the ground floor but to extend to the highest floor of a building. These rats will enter buildings by travelling along even telephone cables.

If the above requirements are diligently pursued rats can be reduced in numbers, but the experience of Copenhagen tends to show that even if, with such measures, there is combined rewards for rats killed, which apparently would encourage a large number of persons to be rat catchers, the reduction can only reach a certain limit, and that if at any time these energies are relaxed for any reason, the prolificacy of the rat is so great that the previous maximum dependent upon the means of subsistence will again rapidly be reached.

This fact whilst not furnishing a reason against energetic action certainly suggests that present methods cannot be regarded as final or even as adequate. It is, however, difficult to suggest alternatives in present knowledge which fact emphasises the necessity for research work by competent persons.

The complete control of refuse food would undoubtedly result in material improvement, and in this connection, I venture to suggest that the collection of refuse in the City, if it could be carried out immediately after the work is completed in the evening, would remove much food which at the present time is left available all night for rat consumption. The majority of the receptacles provided to hold refuse are of metal with metal lids. When purchased they meet requirements. It does not, however, take long for these receptacles to become mis-shapen and the lids ill-fitting, in fact the lids are frequently lost. I am not sure, however, whether arrangements for evening collection is a practical suggestion for fairly obvious reasons, such as those relating to the locking up of buildings after the staff have left.

It will be noted that the Ministry of Agriculture and Fisheries is the supervising body under the Rats and Mice (Destruction) Act, 1919, and in this connection I desire to mention that the problem of rat repression in a built-on area like that of the City is totally different from the problem in an agricultural district. The work is closely associated with that of nuisance control and for this the first

essential knowledge is an intimate acquaintance with the elements of sanitary science, drainage, sanitary fittings and traps, and also food hygiene, all of which are matters of prime importance in rat repression, and without a knowledge of these fundamentals a man, even if possessed of considerable acquaintance with the natural history of rats and their habits, will be unable efficiently and effectually to apply his knowledge to the difficult subject of rat repression in the City.

In these circumstances it is my strong opinion that rat repression should be undertaken by the district and factory and workshop inspectors. That is to say, that such inspectors investigating premises should always have this subject in mind and that just as to-day it is the duty of these inspectors always to enquire as to whether there is, say for instance, the possibility of escape of sewer gas from defective fittings, so ought he at the same time invariably to enquire "Is this place rat infested or are the conditions such as favour rat infestation?"

I would suggest that the actual work of inspection and examination is undertaken in the future by the district and factory and workshop inspectors,* but as they could hardly supervise the subsequent remedial measures, owing to the excessive calls which repeated visits would make on their time, I suggest that there should be attached to my staff another officer whose duty it will be to investigate these complaints and supervise the efficient carrying out of repressive measures where such measures are solely of the nature intended to deal with the rat problem. If the work is arranged in this manner, one instead of two inspectors, as now engaged, would meet requirements.

Another point to consider is whether the law as at present enacted is quite satisfactory. It would appear that the onus of ridding a premises of rats devolves entirely upon the occupier. In many instances the premises themselves are such as favour the harbouring and propagation of the vermin and structural alterations are necessary to effect improvements. In some instances these alterations may be of such a character that only the owner is competent to give instructions for such work to be carried out. In any event the premises should be such that the occupier should be able to ensure that he can control casual rat infestation, and that should be his distinct responsibility. The condition of the structure should be the landlord's responsibility. This is somewhat similar to the remedial measures in the case of nuisances where responsibility for structural repairs devolve upon the owner and the responsibility for non-structural repairs upon the occupier.

Another suggestion which I have previously made is that rat catchers should be registered with the Local Authority. If in complying with the law an occupier finds it necessary to employ rat catchers, such men should in some way be under official control. Various suggestions are made of doubtful action on the part of rat catchers, but I cannot confirm these.

I consider it desirable that rat catchers should work in conjunction with the local officers and that the latter should know the premises which require the services of a rat catcher. They should know what success has met his efforts, and should be made acquainted with the means of disposal of the captured rodents. Registration seems to be the best way of proceeding, and a conference between your officers and those rat catchers who are known to be engaged in this work in the City might well be held with a view to establishing some form of voluntary regulations and for setting out the rules which a person should be required to comply with to entitle him to registration. A development of the scheme would be the suggestion that occupiers of premises in the City should be notified of the fact and requested to engage only rat catchers who are on the registered list. Possibly it might also be advisable to arrange that registered rat catchers should bring their live rats to some central station arranged by the Corporation for destruction under supervision.

SUGGESTIONS.

1. That rat investigation and repression should be regarded as coming under the heading of general sanitary work, and be referred to the district and factory and workshop inspectors* who will report on rat infested premises. There should be attached to the department an inspector competent to supervise the execution of the remedial measures necessary.

2. Remedial measures should be the responsibility not of the occupier alone but of both the occupier and the owner. Of the owner when structural defects exist such as favour the harbouring of rats and prevent the occupier dealing effectually with infestation. The occupier should be responsible for ridding his premises of casual infestation when structural conditions are such as enable him with reasonable care to rid the premises of casual rats.

* Since writing this report I observe that the recently issued Sanitary Officers' Order, 1922, provides that a Sanitary Inspector shall "if so directed by the Local Authority, act as officer of the Local Authority under the . . . Rats and Mice (Destruction) Act, 1919, and under any orders or regulations made thereunder."

3. Rat catchers, for reasons stated, should be registered with the Local Authority, and controlling regulations should be framed.

4. In view of the difficulties of the problem and the practical impossibilities of exterminating rats by present known methods, research work should not only be encouraged, but should be a function of the central department.

As regards work done during the year, I have to report that the number of buildings systematically inspected was 1,523, and those inspected as a consequence of complaints was 288. The number of premises found to be rat infested was 968, at all of which premises some action had been taken prior to the first inspection. As a consequence of inspection, rat proofing has been carried out at 147 buildings and for the same reason drainage repairs have been effected at eleven others.

MEDICAL EXAMINATIONS.

In accordance with the Standing Order of the Court that no person shall enter the employ of the Corporation or any of its Committees without previously passing a medical examination to the satisfaction of the Committee having cognizance of the appointment, 55 persons were examined by the Medical Officer of Health during 1921, one of these persons was reported as physically unfit for office. Nine officers were also medically examined with a view to their retirement, six of whom were reported to be unfit for duty.

I have the honour to be,

GENTLEMEN,

Your obedient Servant,

William J. Howarth.

*Medical Officer of Health for the
City of London.*

PUBLIC HEALTH DEPARTMENT,
GUILDHALL, E.C.

APPENDICES.

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APPENDIX A.—STREET LISTS OF MORTALITY.

STREET OR PLACE.	No. of House	Sex.	Age.	Date of Death.	Cause of Death.	Remarks
Albion Buildings ...	22	M	70	29 June	Enlarged Prostate	
Aldersgate Street ...	27	F	56	2 April	Albuminuria	
Aldgate ...	36	F	24	30 March	Difficult Delivery—Influenza	
" ...	3	M	86	16 April	Enlarged Prostate	
" Avenue ...	26	F	70	10 April	General Hæmorrhage—Fall from Window	Died at Vallence Rd., E. Inquest.
" High Street ...	34	M	21	19 Sept.	Endocarditis	
" " " " ...	32	M	60	12 Nov.	Syncope due to Chronic Disease of Heart	P.M., Inquest.
Aldgate High Street, Three Nuns Hotel ...	—	M	26	2 July	Coal Gas Poisoning	Inquest, <i>Felo de Se.</i>
" " " " ...	—	M	68	18 August	Chronic Interstitial Nephritis	
Amen Court ...	3	F	73	8 March	Bronchitis—6 days	Resided at Upton Park.
Bank Tube Station ...	—	M	61	29 Jan.	Threw himself in front of train	
Barkers Buildings ...	21	M	37	28 Oct.	Pulmonary Tuberculosis	Died at Colindale Hospital.
Bartholomew's House, Cloth Fair.	13	M	78	17 March	Cancer of Stomach	Died in City of London Infirmary, Bow Road.
Basinghall Street ...	31	M	74	22 Jan.	Myocardites	Resided at Brixton.
" " " " ...	19	F	86	29 June	Chronic Bronchitis	Died at City of London Infirmary, Bow Road.
" " " " ...	162	F	60	18 Aug.	Asthma and Bronchitis	
Bishopsgate ...	86	F	48	21 Nov.	Valvular Disease of Heart	
" " " " ...	192	M	14	23 Dec.	Acute Arteo Myelitis	
Blackfriars Station, District Railway.	—	M	47	26 July	Fracture of Skull—Threw himself in front of train	Inquest, <i>Felo de Se.</i>
Bride Lane ...	20	M	3 days	20 Nov.	Prematurity	
Bridgewater Square ...	7	F	69	9 Jan.	Carcinoma of Stomach	Died in Hackney Infirmary.
Broadway, Ludgate Hill ...	5	F	70	11 Oct.	Myocardial Degeneration. Arterio Sclerosis	Died at City of London Infirmary, Bow Road.
Brushfield Street ...	14	F	70	28 Sept.	Carcinoma of Arteries	
" " " " ...	—	F	81	16 Oct.	Bronchitis, 12 days	" " "
Bush Lane ...	29	F	10	27 June	Mikuliez Disease—Asthenia	Died in Guy's Hospital.
Cannon St., Fire Station ...	—	M	25	21 Oct.	Syncope—Stenosis of the Aorta	Inquest, P.M.
Carter Lane ...	22	M	40	12 Feb.	Carcinoma of Breast	Died in St. Bart's. Hosp'l.
" " " " ...	8	M	70	17 June	Morbis Cordis	
Circus, Minories ...	5	M	48	23 Nov.	Pulmonary Tuberculosis	Died at City of London Infirmary, Bow Road.
Crosby Square ...	7	M	51	23 Feb.	Diabetes and Tuberculosis of Right Lung	
Cross Lane, St. Dunstan's House.	—	F	45	16 June	Malignant Endocarditis	
Crown Court ...	1	M	20	30 June	Pulmonary Tuberculosis	Died in N.W. Hospital.
Crown Place, Aldgate ...	3	M	79	1 May	Fractured ribs, crushed between van and wall.	Died at Vallence Road, Inquest.
Crutched Friars ...	1	F	72	2 Jan.	Senile Decay	Died at Hackney Infirmary.
Dean's Court, St. Paul's School.	—	M	12	16 Sept.	Hæmorrhagic Diphtheria	Died at London Fever Hospital.
Dean Street ...	5B	F	72	11 Jan.	Bronchitis	
" " " " ...	8A	F	55	13 Feb.	Carcinoma of Cervix Uteri	Died at University College Hospital.
" " Fetter Lane ...	6A	M	75	9 July	Valvular Disease of Heart	
Duke Street ...	5	F	61	6 March	Carcinoma of Recti	
Eastcheap ...	38	M	73	22 Dec.	Chronic Bronchitis	Died in French Hospital.
Elm Court, Middle Temple	—	M	72	21 April	Aortic Disease	
Farringdon Street, Farringdon Hotel.	—	M	24	24 Nov.	Epistaxis	
Fleet Street ...	21	F	41	24 March	Suppurating Fibro Cystic Tumour of Uterus.	Died in Grosvenor Hospital.
" " Anderton's Hotel.	—	F	62	23 June	Acute Gastritis	
" " Daily Tele-Telegraph.	141	F	60	17 July	Cancer Uterus	
" " " " ...	92	M	57	12 Nov.	Aortic Stenosis	
" " " " ...	69	M	62	18 Nov.	Valvular Disease of Heart	
Fleet Lane ...	29	M	66	11 Nov.	Cerebral Hæmorrhage—Arterio Sclerosis	Died at City of London Infirmary, Bow Road.
Goodman's Yd., Minories	3	F	47	5 Dec.	Ascitis of uncertain origin	
" " " " ...	21	M	42	20 Dec.	Malignant Disease of Mesentery—Eman- ciation and Exhaustion	
Great Eastern Hotel ...	—	F	57	13 April	Diabetes Mellitus	
Great New Street ...	20	M	72	1 May	Mitral Valve Disease of Heart	Died in City of London Infirmary, Bow Road.
" " " " ...	3	F	62	16 June	Syncope—Flabby and Fatty Heart	
" " " " ...	20	M	56	15 Nov.	Phthisis	Died at King's College Hospital.
Great St. Helens ...	35	F	51	18 May	Carcinoma	Died at Elizabeth Garratt Anderson Hospital.
Greenwich Street ...	2	M	65	5 May	Valvular Disease of Heart	
Gresham Street ...	64	F	78	20 March	Syncope—Chronic Bronchitis accelerated by Catarrh.	Inquest, P.M.
" " " " ...	23	F	62	22 Sept.	Broncho-pneumonia	
Greystoke Place ...	8	M	10 Mths.	8 August	Diarrhœa—5 days	Died at City of London Infirmary, Thavies Inn.
Harcourt Buildings ...	3	F	54	20 Feb.	Carcinoma of Ventrical—7 months	
Heneage Lane ...	6	M	77	6 June	Lobar-pneumonia	
Holborn Buildings ...	7	F	78	22 Feb.	Morbis Cordis	Died at City of London Infirmary, Bow Road.

STREET LISTS OF MORTALITY—*continued.*

STREET OR PLACE.	No. of House	Sex.	Age.	Date of Death.	Cause of Death.	Remarks.
Holborn Buildings ...	7	F	73	16 Sept.	Bronchitis	Died in Archway House.
Huggin Court ...	2	F	42	8 Jan.	Pulmonary Tuberculosis	Died in St. Columbus Hospital.
" Lane ...	9	M	44	10 May	Carcinoma of Tongue	
Hutchison Avenue ...	10	F	26	4 Oct.	Pulmonary Laryngeal Tuberculosis	
" " ...	4	F	70	27 Nov.	Broncho-pneumonia	Died at City of London Infirmary, Bow Road.
" Street ...	8	F	68	28 Jan.	Chronic Interstitial Nephritis	Died in Stone Asylum.
" " ...	14	M	6 weeks	22 April	Found Dead—Suffocation while in bed with Mother.	
" " ...	19	F	3 hours	24 Oct.	Premature Birth	Died at 24, Underwood Street, E.
" " ...	19	F	8 hours	23 Oct.	" "	
" " ...	9	M	18 days	7 Feb.	Ophthalmia Neonatorum	Died in St. Margaret's Hospital.
John Street (Minories) ...	15A	M	69	2 Aug.	Syncope—Valvular Disease of Heart	
" " " ...	13	M	60	28 Aug.	Broncho-pneumonia	Died at City of London Infirmary, Bow Road.
King's Bench Walk ...	6	M	64	9 Nov.	Carcinoma of Oesophagus	Died in St. Bartholomew's Hospital.
King's Block, Stoney Lane	26	F	30	5 Jan.	Heart Failure, probably Old Rheumatic Fever.	
" " " ...	6	M	73	5 Feb.	Stenosis of both Coronary Arteries.	Inquest.
King Street, Snow Hill ...	—	M	60	13 June	Lobar Pneumonia	
16, Bloomfield House						
Lawrence Poultney Lane	17	M	66	12 May	Carcinoma of Oesophagus	Died in St. Bartholomew's Hospital.
Liverpool Street Station	—	M	29	12 April	Injuries—Run over by Train	Resided at Newbury—Inquest.
" " " ...	—	F	43	10 June	Injuries—Fall from Window	Resided in Norfolk—Accidental.
Long Lane ...	In Str't	M	49	28 Nov.	Diabetes Mellitus	Resided at Palmer's Green
" " " ...	80	F	42	8 Dec.	Obstructed Labour	Died at City of London Maternity Hospital.
Ludgate Hill ...	62	M	71	12 May	Cerebral Hæmorrhage	Resided at Brixton.
" " " ...	56	M	44	16 June	Rupture of Artery—Accelerated by Valvular Disease of Heart.	P.M., Natural.
Mansell Street ...	8	M	71	5 May	Chronic Bronchitis	Died at City of London Infirmary, Bow Road.
Mark Lane ...	75	F	56	7 May	Fall on Staircase	Accidental—Inquest, P.M.
Middle Street ...	5	F	83	8 Sept.	Cerebral Thrombosis—Myocardial Degeneration.	Died at City of London Infirmary, Bow Road.
Middlesex Passage ...	1	F	82	21 Feb.	Senile Decay	Died at Stone Asylum.
" Street—	—	M	48	26 Jan.	Morbus Cordis	Died in Hackney Infirmary.
Salvation Army Shelter	—	M	57	22 Dec.	Chronic Bronchitis	Died at City of London Infirmary, Bow Road.
Middlesex Street ...	123	F	64	11 Feb.	Gastric Carcinoma	
" " " ...	—	M	69	7 March	Bronchitis	Died at City of London Infirmary, Bow Road.
Salvation Army Shelter						
Middlesex Street...	116	M	63	13 April	Lobar Pneumonia	" " "
" " " ...	—	M	59	24 May	Epilepsy	" " "
Salvation Army Shelter						
" " " ...	—	M	65	11 June	Carcinoma of Rectum	
" " " ...	—	M	65	18 July	Morbus Cordis	
Middlesex Street...	97	F	81	27 Oct.	Chronic Bronchitis	
" " " ...	—	M	71	26 Nov.	Lobar Pneumonia—Arterio Sclerosis	Died at City of London Infirmary, Bow Road.
Salvation Army Shelter						
Middlesex Street...	41	M	18	25 Nov.	Broncho-pneumonia	
Minories ...	47	M	16	23 May	Endocarditis	
" " " ...	81	F	39	12 July	Valvular Disease of Heart	
" " " ...	83	F	22	10 Sept.	Tuberculosis of Lungs	
Montague Court ...	5	F	58	18 Feb.	Carcinoma of Auditory Meatus	Died in St. Bartholomew's Hospital.
" " " ...	3	F	71	26 Aug.	Arterio Sclerosis	Died at Stone Asylum.
" " " ...	3	F	49	22 Dec.	Cerebral Hæmorrhage	Died at City of London Infirmary, Bow Road.
Monument Street ...	19	M	65	17 Oct.	Diabetes Mellitus—Arterio Sclerosis	Died at City of London Infirmary, Bow Road.
Moor Lane Chambers ...	4	F	87	26 Oct.	Senility—Bronchitis	
Nevill's Court, Fetter Lane	11	F	3 mths.	27 Aug.	Hydrocephalus—Meningocele	
" " " ...	2	F	87	13 Nov.	Valvular Disease of Heart—Arterio Sclerosis.	
New Bridge Street ...	26	M	66	23 May	Asphyxia—Drowning	Found in River Thames off Temple Steps.
New Street, Bishopgate	30	M	64	10 Feb.	Chronic Bronchitis	Died at City of London Infirmary, Bow Road.
" " " ...	36	F	67	13 Dec.	Acute Bronchitis—Asthenia	
" " " ...	30	F	5 days	16 Dec.	Spina Bifida	Died in City of London Maternity Hospital.
North Block, Stoney Lane	10	M	72	21 Feb.	Emphysemia of Rectum	
" " " ...	44	M	74	23 Aug.	Spontaneous Fracture of Femur	
" " " ...	12	F	60	27 Nov.	Myocarditis	Died at Charing Cross Hospital.
Norwich Street ...	2	F	52	4 July	Carcinoma of Breast	

STREET LISTS OF MORTALITY—*continued.*

STREET OR PLACE.	No. of House	Sex.	Age.	Date of Death.	Cause of Death.	Remarks.
Old Bailey	60	M	69	27 Feb.	Acute Bronchitis	
Old Broad Street... ..	42	F	19	6 April	Lobar Pneumonia	
" " Gresham House	—	M	51	30 March	Shock—Collapse of Floor	Resided at Edmonton.
" " " "	—	M	46	30 March	Suffocation when buried under debris—Collapse of Floor.	" " "
" " " "	11	M	43	13 Dec.	Valvular Disease of Heart—Heart Failure	
Prince's Block, Stoney Lane.	—	M	38	18 April	Pulmonary Tuberculosis	
" " " "	9	F	78	26 June	Syncope—Fatty Degeneration of Heart	
" " " "	13	F	87	18 Nov.	Senility—Bronchitis	
Providence Place... ..	3	F	84	24 March	Cardiac Valvular Disease	
" " " "	11	M	5 days	9 Sept.	Gastro Enteritis	Died in London Hospital.
Queen's Block, Stoney Lane.	58	F	58	12 May	Morbus Cordis—Fatty Degeneration	
" " " "	47	F	3 mths.	22 May	Broncho-pneumonia	
" " " "	34	F	85	18 July	Myocardial Degeneration	Died at City of London Infirmary, Bow Road.
Queen Victoria Street ...	5	F	70	11 Sept.	Broncho Pneumonia—Arterio Sclerosis	Died at City of London Infirmary, Bow Road.
Red Cross Street— Fire Station.	—	M	3 days	4 March	Prematurity	Died in City of London Maternity Hospital.
River Thames, Near Blackfriars	—	M	48	12 Oct.	Asphyxia—Drowning. No evidence to show how he entered the water.	Resided at Peckham.
" " " "	—	M	about 3 weeks	29 June	Inanition.—Not sufficient evidence to show to what cause due.	P.M., Inquest.
Rood Lane	24	F	76	13 Nov.	Severe Varicose Ulceration of both legs	
St. Anne's Chambers, The Broadway	33	F	22	10 May	Diabetes Mellitis	
St. Bride Street	10	F	23	5 Aug.	Pulmonary Tuberculosis, 8 months	
St. Paul's Churchyard ...	22	M	45	2 Feb.	Fall Downstairs	P.M.—Died in St. Bart's Hospital.
St. Swithin's Lane	24	M	63	22 April	Aortic Regurgitation	
Sergeant's Inn, Fleet Street	6	M	69	8 Feb.	Arterio Sclerosis	Died in Asylum at Stone.
South Block, Stoney Lane	4	F	85	29 March	Mitral Disease of Heart	
Stoney Lane	23	M	59	10 March	Hodgkins Disease	Died in London Hospital.
Temple Avenue, Temple Chambers	217	M	70	10 Jan.	Laceration of Brain—knocked down by Tram Car.	P.M., Accidental.
" " " "	242	M	6	15 Feb.	Uræmia Peritonitis	Died at St. Bartholomew's Hospital.
Temple, Middle (Western Gate)	—	M	newly born	28 Feb.	Found Dead—Want of attention at Birth.	Inquest, P.M.
Thavies Inn	18	M	73	21 Jan.	Senile Decay	Died at City of London Asylum, Stone.
" " " "	18	M	48	19 April	Pulmonary Tuberculosis	Died at City of London Infirmary, Bow Road.
" " " "	18	F	71	17 July	Tuberculosis of Lymphatic Glands	Died at Long Grove Mental Hospital.
" " " "	18	M	56	9 Oct.	Aneurysm of Thoracic Aorta.	Died at City of London Infirmary, Bow Road.
" " " "	18	F	79	18 Nov.	Myocardia Degeneration	" " "
Upper Thames Street ...	24	F	55	10 Feb.	Cancer of Breast	Died in Cancer Hospital, Chelsea.
" " " "	21	M	43	22 April	Found Dead—Rupture of Aneurysm of Aorta.	Inquest.
Warwick Square	7A	F	70	6 Dec.	Chronic Bronchitis	Died at City of London Asylum, Stone.
Wood Street	119	F	70	10 Sept.	Gall Stones	
Wormwood Street	8	F	72	6 Feb.	Morbus Cordis	Died at City of London Infirmary, Bow Road.

APPENDIX B.—LIST OF CASES OF INFECTIOUS DISEASE OTHER THAN TUBERCULOSIS, 1921.

STREET LISTS.—Compiled from Notifications received.

Street or Place.	No. of House.	Sex.	Age.	Disease.	Date of Notification.
					1921.
Aldermanbury Buildings	2	M	16	Scarlet Fever	29th November.
Aldersgate Street	153	F	11	Ditto	10th March.
Ditto	46	M	8	Ditto	20th July.
Austin Friars	13	M	1	Diphtheria	15th September.
Basinghall Street	73	M	7	Scarlatina	4th October.
Bank of England	—	M	8	Ditto	4th October.
Bartholomew House	20	M	30	Malaria	18th August.
Beer Lane	13	F	12	Scarlet Fever	16th January.
Ditto	13	F	13	Ditto	18th January.
Ditto	13	M	15	Ditto	28th May.
Cannon Street	120	M	61	Erysipelas	21st November.
Carmelite Street, Fire Station	13	F	9	Scarlet Fever	4th February.
Ditto ditto	24	F	9	Ditto	20th February.
Carter Lane	36	M	8	Diphtheria	30th June.
Ditto	36	M	12	Ditto	11th September.
Ditto	36	M	9	Ditto	12th September.
Ditto	36	M	8	Ditto	18th September.
Ditto	36	M	11	Ditto	23rd September.
Ditto	36	M	9	Ditto	2nd November.
The Circus, Minories	1	M	9	Scarlatina	11th September.
City of London Union, Bow Road	—	M	29	Pneumonia	5th October.
Ditto ditto	—	M	70	Ditto	22nd November.
Ditto ditto	—	M	20	Ditto	13th December.
Ditto ditto	—	M	48	Ditto	16th December.
Ditto ditto	—	M	24	Ditto	29th December.
City Police Hospital	—	M	24	Ditto	27th July.
Ditto ditto	—	M	29	Ditto	11th October.
Coleman Street	68	F	10	Scarlet Fever	4th July.
Cooper's Row	11	M	6	Scarlatina	7th December.
Cornhill	30	M	13	Scarlet Fever	15th July.
Ditto	—	M	6	Ditto	18th July.
Crosby Square	4	M	9	Ditto	31st October.
Crown Court	1	M	20	Diphtheria	9th June.
Crown Place	6	F	10	Scarlet Fever	31st October.
Ditto	6	F	5	Ditto	7th November.
Dean Street	1A	F	11	Ditto	20th September.
Devonshire Square	15	M	14	Scarlatina	6th September.
Ditto	16	F	16	Diphtheria	26th March.
Duke Street	18	F	10	Scarlatina	2nd June.
Fenchurch Street	1	F	12	Ditto	30th May.
Fetter Lane	108	F	9	Scarlet Fever	14th November.
Fish Street Hill	21	F	14	Diphtheria	12th February.
Great Ormond Street Hospital	—	M	5	Scarlet Fever	29th April.
Great St. Helen's	12	M	9	Scarlatina	10th September.
Great Tower Street	34	F	34	Scarlet Fever	29th October.
Harrow Alley	39	F	13	Ditto	24th January.
Ditto	39	F	11	Ditto	27th August.
Ditto	39	F	12	Ditto	28th August.
High Street, Aldgate	53	F	4	Ditto	12th April.
Hutchison Avenue	20	M	41	Malaria	11th August.
Hutchison Street	9	M	7/365	Ophthalmia Neonatorium	28th January.
Ditto	20	F	8	Scarlatina	14th June.
Ditto	16	M	12	Scarlet Fever	23rd July.
Kinghorn Street	13	M	1	Ditto	13th November.
King's Block	13	F	8	Diphtheria	27th June.
Ditto	26	F	6	Scarlet Fever	23rd June.
Lime Street	39	F	9	Ditto	12th July.
Ditto	39	M	5	Ditto	23rd May.
London Hospital	—	F	2	Ditto	25th January.
Lothbury	7	M	8	Ditto	17th October.
Mark Lane	20	F	62	Pneumonia	2nd November.
Middlesex Street	39	F	7	Scarlet Fever	7th June.
Ditto	43	F	2/365	Ophthalmia Neonatorium	26th June.

STREET LISTS.—Compiled from Notifications received.—*continued.*

Street or Place.	No. of House.	Sex.	Age.	Disease.	Date of Notification.
Mincing Lane	27	M	8	Scarlatina	3rd October.
Minories	60	F	14	Scarlet Fever	11th October.
Ditto	98	F	7	Ditto	29th August.
Ditto	82	M	16	Enteric Fever	12th September.
Ditto	122	F	13	Scarlet Fever	15th November.
Montague Court, Little Britain	2	M	4	Ditto	17th November.
Moorgate Street	15	M	13	Diphtheria	1st March.
Newbury Street	14	M	1	Scarlet Fever	8th October.
New Street	12A	F	19	Ditto	28th January.
New Street, Houndsditch	24	F	1	Ditto	12th September.
North Block	16	M	8	Ditto	14th May.
Ditto	17	F	3	Ditto	10th February.
Ditto	29	F	4	Ditto	8th August.
Ditto	33	F	3	Ditto	30th May.
Ditto	33	F	2	Ditto	30th May.
Ditto	34	F	6	Ditto	21st August.
Ditto	35	F	10	Scarlatina	29th May.
Ditto	39	F	10	Ditto	30th May.
Ditto	39	F	5	Ditto	30th May.
Ditto	47	M	5	Scarlet Fever	15th August.
Ditto	48	M	6	Ditto	15th August.
Ditto	56	F	5	Ditto	4th September.
North Western Hospital	—	M	15	Diphtheria	13th June.
Old Broad Street	11	F	43	Erysipelas...	27th July.
Prince's Block	12	F	4	Scarlet Fever	31st July.
Ditto	16	F	5	Ditto	30th April.
Ditto	37	M	15	Ditto	7th October.
Ditto	46	M	3	Ditto	22nd July.
Ditto	46	F	28	Diphtheria	30th July.
Ditto	52	F	7/12	Ditto	30th January.
Ditto	53	M	6	Scarlet Fever	27th June.
Providence Place	10	M	4	Diphtheria	13th June.
Queen's Block	19	M	8	Scarlatina	4th August.
Rose Alley	26	F	3	Diphtheria	28th January.
Ditto	2	F	10	Scarlet Fever	24th June.
Ditto	7	F	3	Ditto	2nd July.
Ditto	9	M	11	Ditto	12th October.
Ditto	21	F	6	Scarlatina	17th December.
Saint Bartholomew's Hospital	—	—	—	Diphtheria, 11 cases ;	Scarlet Fever, 10 cases ;
St. Helen's Place	21	F	11	Scarlet Fever	Erysipelas, 2 cases.
St. Mary-at-Hill	27	M	7	Ditto	11th September.
Sergeant's Inn	10	M	10	Ditto	3rd November.
Salisbury Square	10	M	17	Ditto	27th June.
Snow Hill	4	F	24	Ditto	5th February.
South Block	17	M	7	Ditto	25th July.
South Eastern Hospital	—	F	4	Diphtheria	28th May.
Ditto ditto	—	F	14	Scarlet Fever	4th July.
Stoney Lane	15	M	8	Ditto	29th November.
Thavies Inn, City of London Union	—	F	17	Ditto	6th September.
Ditto ditto	—	F	79	Erysipelas...	6th May.
Tudor Street	6	M	13	Scarlet Fever	29th August.
Upper Thames Street	104	F	1	Ditto	26th April.
Whistler's Court	—	M	9	Diphtheria	13th April.
Widegate Street	25	F	9	Ditto	2nd July.
Ditto	25	F	10	Ditto	6th March.
Wood Street	46	F	58	Erysipelas...	18th October.
					23rd April.

**APPENDIX C.—REGISTER OF HOUSES LET IN LODGINGS OR
OCCUPIED BY MEMBERS OF MORE THAN ONE FAMILY.**

WEST DISTRICT.

Situation of Premises.	Name and Address of Landlord.	Tenements.	Lodgers
6, Bartholomew Place	Veil, 6, Bartholomew Place	One family.	
20, Bride Lane	A. Green, 24, Leysfield Rd., Shepherd's Bush	1	3
5, Britton's Court	Mrs. Hurrell, 5, Britton's Court	1	6
1, Chapel Place	Moravian Mission, 32, Fetter Lane	2	8
2, do.	Do. do.	2	7
43, Cloth Fair	Mr. C. Taylor, 6, Finsbury Square, E.C. 2	3	8
44, do.	Do. do.	1	4
45, do.	W. and J. Biggerstaff, 59, West Smithfield	2	7
5, Currier's Row	T. Simmons, 5, Currier's Row	2	4
6, do.	A. Bedford, 6, do.	One family.	
7, do.	W. Bampton, 7, do.	One family.	
12, do.	R. Edwards, 12, do.	3	4
13, do.	Mr. Galler, 13, do.	2	4
4, Dorset Street	E. King, 23, Whitefriars Street	3	5
7, do.	E. King, 23, Whitefriars Street	1	9
10, East Harding Street	Eyre and Spottiswoode	3	7
11, do.	Do.	3	7
12, do.	Do.	4	8
2, Evangelist Court	Morris & Co., 28, East Road, City Road	2	4
1, Fenton's Buildings	Evans, Fisher, Webb, 60, Bartholomew Close	2	4
2, do.	Do. do. do.	2	5
3, do.	Do. do. do.	3	6
42, Fetter Lane	W. Read, 102, Fetter Lane	3	5
93, do.	L. B. Hayward, 93, Fetter Lane	4	9
29, Fleet Lane	Messrs. Watney, Combe & Reid, Stag Brewery, Pimlico	3	9
30, do.	Do. do. do.	2	6
31, do.	Do. do. do.	4	7
1, Great New Street	Mrs. J. Barnsley, 1, Great New Street	5	8
2, do.	Do. do.	4	8
3, do.	Do. do.	7	9
13, do.	Mrs. Lee, 12, East Harding Street	4	4
14, do.	Mr. A. E. Walker, 14, Great New Street	3	10
15, do.	Mrs. A. E. Castlneau, 15, Great New Street	8	9
16, do.	J. Day, 16, Great New Street	3	5
20, do.	F. Wilson, 51, Frankfort Road, Herne Hill	9	15
21, do.	M. Quilty, 21, Great New Street	3	7
5, Green Dragon Court	Smith, Oakley & Gerrard, 4 & 5, Charles Street, W.	1	6
6, do.	C. Fleming, 6, Green Dragon Court	1	4
7, do.	Smith, Oakley & Gerrard, 4 & 5, Charles Street, W.	1	4
6, Greystoke Place	W. G. Cuss, 6, Greystoke Place	1	4
7, do.	Solicitors' Law Stationery Society, 104 Fetter Lane	6	7
8, do.	Do. do. do.	4	8
9, do.	Do. do. do.	4	13
2, Gunpowder Alley	T. Richardson, 2, Gunpowder Alley	1	6
7½, do.	T. Townsend, 259, Essex Road, N.	2	6
8, do.	Do. do.	3	6
25, Kinghorn Street	W. B. Hallett, 11, Queen Victoria Street	Empty.	
25A, do.	Do. do.	1	4
54, Little Britain	J. Boni, 54, Little Britain	1	2
79, Long Lane	Robert Dyas & Sons, 63, Fore Street	1	5
2, Middle Street	F. B. Westacott, 74, Camden Road, N.W.	1	4
3, do.	Do. do.	1	5
4 & 5, do.	J. Hull & Sons, Bartholomew Close	6	12
6, do.	J. Marks, 19, Ludgate Hill	3	4
20, do.	T. Green, 20, Middle Street	One family.	
1, Montague Court	Mrs. Joyce, 1, Montague Court	3	7
2, do.	Mr. Hanlan, 2, do.	2	5
3, do.	Mr. Long, 3, do.	4	4
4, do.	Do. do.	3	4
5, do.	Mrs. Hutchins, 5, do.	2	7
6, do.	Mr. F. J. Swain, 6, do.	1	4
7, Nevill's Court	Moravian Mission, 32, Fetter Lane	1	6
8, do.	Do. do.	4	7
9, do.	Do. do.	3	8
10, do.	Do. do.	6	14

Carried forward 173 387

WEST DISTRICT—*continued.*

Situation of Premises.	Name and Address of Landlord.	Tenements.	Lodgers.
	Brought forward	173	387
11, Nevill's Court	Goldsmiths' Company, Goldsmiths' Hall	4	8
12, do.	Do. do.	5	9
57, West Smithfield	T. A. Allen, 57, West Smithfield	1	4
13, Wine Office Court	Farebrother, Ellis & Co., 29, Fleet Street	1	4
14, do.	Do. do.	2	5
16, do.	Do. do.	1	4
17, do.	Do. do.	2	3
TOTAL		189	424

Average number of lodgers to each occupied tenement : 2.3.

Houses demolished :—

Tenement houses on Register	72
Cleansing Notices served	74

MIDDLE DISTRICT.

1 and 2, Huggin Court	City Parochial Charities Trustees, 3, Temple Gardens	6	12
9, Huggin Lane	H. Belcher, 8, Martin's Lane, E.C.	5	5
10, do.	H. Willis, 10, Huggin Lane	5	6
15, Swan Lane	H. Postlewaithe, 15, Swan Lane	1	2
TOTAL		17	25

Average number of lodgers to each occupied tenement : 1.5

Cleansing Notices served	4
Houses on Register	4

EAST DISTRICT.

7, Artillery Lane	Clerk to Bishopsgate Institute, Bishopsgate	8	19
9, do.	John Tharp, 9, Norton Folgate	6	14
20, do.	A. Woolf, 20, Artillery Lane	2	3
21, do.	Clerk to Bishopsgate Institute	4	7
10, Brushfield Street	J. Shepherd, 106, Eastern Road, Brighton	2	5
12, do.	Luke Cohen, 12, Brushfield Street	3	6
14, do.	Clerk to Bishopsgate Institute	6	9
1, Circus, Minories	S. Moses, 65, Mansell Street	5	26
2, do.	T. Shaw, 2, Circus, Minories	2	5
3, do.	W. Lewis, 3, do.	3	6
4, do.	W. Wisdom, 4, do.	2	6
5, do.	T. Grover, 5, do.	4	7
7, do.	Balch & Balch, 17, Argyle Square	4	7
3, Crown Place, Aldgate	W. Harper, 3, Crown Place	3	5
5, Duke Street	Imbert Terry & Co., 28A, Basinghall Street	2	2
6, George Street, Minories	B. Marks, 6, George Street	1	1
1, Hutchison Avenue	A. J. Hollington, 8, Middlesex Street	1	3
3, do.	B. Ereira, 3, Hutchison Avenue	1	1
4, do.	Morris Cohen, 4, Hutchison Avenue	2	3
6, do.	J. Sietta, 51, New Road, Whitechapel	1	3
7, do.	Do. do.	1	2
9, do.	Barnet Barnet, 9, Hutchison Avenue	1	1
10, do.	C. Zeffice, 10, do.	1	2
12, do.	A. Cohen, 11, do.	3	4
13, do.	B. Levy, 13, do.	3	5
14, do.	P. Sugarman, 14, do.	1	1
21, do.	A. Fuglar, 21, do.	1	1
22, do.	B. Dubowski, 22, do.	3	3
23, do.	J. Cronie, 23, do.	2	6
24, do.	S. Ereira, 24, do.	2	2
25, do.	L. Lazarus, 25, do.	1	1
26, do.	Lewis Joseph, 26, do.	2	2
5, Hutchison Street	J. Silver, 5, Hutchison Street	1	3
6, do.	J. Soloman, 6, do.	2	6
10, do.	I. Levy, 10, do.	2	5
12, do.	N. Webber, 12, do.	1	2
17, do.	A. Cohen, 17, do.	1	3
18, do.	A. Solomon, 18, do.	1	2
20, do.	I. Edwards, 20, do.	1	4
Carried forward		92	193

EAST DISTRICT—*continued.*

Situation of Premises.	Name and Address of Landlord.		Tenements.	Lodgers.
	Brought forward		92	193
Janes Buildings, 2, Hutchison Street.	Messrs. Moore & Moore, 7, Leadenhall Street		3	7
14, New St., Gravel Lane	J. Panyer,	14, New Street, Gravel Lane	1	2
15, do.	H. Norden,	15, do.	1	3
16, do.	H. Lifman,	16, do.	1	2
22, do.	B. Levy,	22, do.	1	3
23, do.	E. Dickson,	23, do.	1	4
27, do.	E. Marks,	27, do.	2	3
30, do.	E. Hassan,	30, do.	3	6
32, do.	E. Douglas,	32, do.	1	2
34, do.	R. Cohen,	34, do.	2	4
40, do.	M. Roche,	40, do.	2	4
1, Queen's Court, Vine St.	Claude M. Levy, 238, Bishopsgate		4	7
2, do.	Do.	do.	3	10
3, do.	Do.	do.	2	7
4, do.	Do.	do.	2	10
3, Three Crown Court, Jewry Place	Mr. Martin, 14, Seething Lane		3	5
4, Vine Street, Minories	Balch & Balch, 19, Argyle Square		6	16
5, do.	Do.	do.	6	18
17, Widegate Street	A. Cohen, 17, Widegate Street		2	6
18, do.	S. Franks, 18, do.		2	5
21, do.	A. Field, 182, Hanbury Street		4	6
24, do.	W. I. Crane, 25, Widegate Street		4	8
25, do.	Do.	do.	3	6
2, Goodman's Yard	Charrington, Brewers, Mile End Road		2	5
5, Artillery Lane	Clerk to Bishopsgate Institute, Bishopsgate		4	15
TOTAL			157	357

Average number of persons to each occupied tenement : 2·3

Houses demolished or closed in 1921	Nil.
Tenement houses on Register	64
Cleansing Notices served	73

STATE OF NEW YORK

Year	Amount	Name	Address	Occupation
1890	100	John Smith	123 Main St	Merchant
1891	120	Jane Doe	456 Elm St	Teacher
1892	150	Robert Brown	789 Oak St	Farmer
1893	180	Mary White	101 Pine St	Housewife
1894	200	James Black	202 Cedar St	Blacksmith
1895	250	Elizabeth Green	303 Birch St	Shopkeeper
1896	300	William Red	404 Spruce St	Physician
1897	350	Anna Blue	505 Willow St	Widow
1898	400	George Yellow	606 Poplar St	Lawyer
1899	450	Harriet Purple	707 Hickory St	Musician
1900	500	Thomas Grey	808 Chestnut St	Banker
1901	550	Sarah Pink	909 Walnut St	Artist
1902	600	Charles Orange	1010 Elm St	Engineer
1903	650	Lucy Brown	1111 Oak St	Novelist
1904	700	Henry Green	1212 Pine St	Scientist
1905	750	Elizabeth White	1313 Cedar St	Historian
1906	800	William Black	1414 Birch St	Philosopher
1907	850	Anna Red	1515 Spruce St	Biographer
1908	900	George Blue	1616 Willow St	Historian
1909	950	Harriet Purple	1717 Poplar St	Historian
1910	1000	Thomas Grey	1818 Hickory St	Historian

STATE OF NEW YORK

IN SENATE

January 1, 1911

REPORT

OF THE

COMMISSIONERS OF THE LAND OFFICE

FOR THE YEAR 1910

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