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REPORT
OF THE
MEDICAL OFFICER OF HEALTH
FOR THE
CITY OF LONDON
For the Year 1911,

BY
WM. COLLINGRIDGE, M.A., M.D., D.P.H., LL.M.,

MEDICAL OFFICER OF HEALTH FOR THE CITY OF LONDON,
LATE MEDICAL OFFICER OF HEALTH FOR THE PORT OF LONDON.

LONDON:
PRINTED BY CHARLES SKIPPER & EAST 49, GREAT TOWER STREET, E.C.

1912.

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REPORT

OF THE

MEDICAL OFFICER OF HEALTH

OF THE

CITY OF LONDON



FOR THE YEAR 1963

BY

MR. COLLEGE, M.A., M.D., F.R.C.P.

Medical Officer of Health and Sanitary Inspector

and Secretary of the London School of Hygiene and Tropical Medicine

LONDON

Printed by the London School of Hygiene and Tropical Medicine

1964

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SANITARY STAFF.

MEDICAL OFFICER OF HEALTH.

						Date of Appointment
COLLINGRIDGE, WM., M.A., M.D.	...	...	...	...	...	April, 1901

VETERINARY INSPECTOR.

YOUNG, T. DUNLOP, M.R.C.V.S. NOV., 1909

CLERICAL STAFF.

LOWE, GEORGE ...	...	Sanitary Clerk	...	...	...	Nov., 1902
GALLOWAY, R. E.	...	...	...	...	...	May, 1905
GRAY, CHARLES M.	...	...	...	...	...	March, 1911
STEPHENSON, F. H. (Meat Inspector's Office)	...	...	...	...	...	Feb., 1909
BEDWELL, NORMAN (Meat Inspector's Office)	...	...	...	...	...	Oct., 1910
MELLISH, CYRIL (Meat Inspector's Office)	...	...	...	...	...	Feb., 1912
BECKLES, VIRGINE	...	...	...	...	...	Jan., 1907

WOMEN SANITARY INSPECTORS.

Safford, Ada J.	...	...	...	...	...	Feb., 1902
Wilkinson, Annie M....	...	...	...	...	...	June, 1909

SANITARY INSPECTORS.

HILLS, ARTHUR REGINALD	...	...	...	...	...	...	April, 1888
GATHERCOLE, WM. HENRY JOSEPH	...	...	...	...	...	...	May, 1891
MAY, WILLIAM HUSSEY	...	...	...	...	...	...	May, 1891
SIMMONS, EDWARD JOHN	...	...	...	...	...	...	June, 1892
ROBBINS, FRANCIS JOSEPH	...	...	...	...	...	...	Sept., 1892
RALPH, WILLIAM HOLDEN	...	...	...	...	...	...	July, 1898
DUNWORTH, JAMES	...	...	...	...	...	...	Jan., 1902
WHEATON, ARTHUR	...	...	...	...	...	...	Oct., 1902

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
STANLEY, RALPH S.	...	...	...	...	...	March, 1907
BINTCLIFFE, CHARLES E.	...	...	...	...	...	March, 1907
MATSON, WILLIAM S.	...	...	...	...	...	Dec., 1910
MITCHENER, WILLIAM E.	...	...	...	...	...	Dec., 1910

INSPECTORS OF SLAUGHTERHOUSES AND MEAT.

JENKINS, HARRY	...	...	...	...	...	...	...	April, 1896
EGLIN, WILLIAM	...	...	...	...	...	...	...	July, 1896

ASSISTANT INSPECTORS OF SLAUGHTERHOUSES AND MEAT.

[illegible]

MATRON IN CHARGE OF THE SHELTER, GOLDEN LANE.

Mrs. A. R. Hills Dec., 1900

KEEPER OF THE MORTUARY.

OAKLEY, J. E. Feb., 1909

DISINFECTOR.

[illegible]

LABOURERS.

McDONNELL, R. J. (General Duties at Mortuary)	April, 1903
ADAMS, T. (Meat Shed)	May, 1905
LUDGATE, G. (Meat Shed)	Oct., 1906

REPORT
OF
MEDICAL OFFICER OF HEALTH
FOR THE
CITY OF LONDON.
1911.

REPORT

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MEDICAL OFFICER OF HEALTH

CITY OF LONDON

1911

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1911.

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

PUBLIC HEALTH DEPARTMENT,

GUILDHALL, E.C., 23rd April, 1912.

GENTLEMEN,

In presenting my last Annual Report, my first duty is to express my gratitude for the generous and unvarying support afforded to me during the thirty-two years that I have had the privilege of serving as your medical officer.

The importance and responsibilities of the office have greatly increased, and will be heavier in the future, as the value of health conditions on the welfare of the people becomes more and more realised.

Many important changes have taken place, and in no direction have these been more apparent than in the increased care and attention paid to the food supply. Upon the City, as the Market Authority for nearly one-half of the Country, this question has imposed heavy burdens. On the retirement of your late Chief Inspector, the opportunity was taken to appoint a Veterinary Inspector, Mr. T. Dunlop Young, to take charge, under your Medical Officer of Health, of the arrangements in the various markets, and with his valuable assistance, the system has been remodelled and developed to meet modern ideas.

It was found difficult to obtain sufficiently qualified Meat Inspectors, and the system was tried of taking young men, who had received good practical training in butchering and slaughtering, and appointing them on probation for a term of three years, during which time they were to obtain a knowledge of the Markets and the Meat Inspection, and qualify as Inspectors under the Public Health Acts. When fully qualified such probationers are eligible for appointment as full Inspectors. The experiment has proved most successful, and the City has now a well qualified staff of Meat Inspectors.

The Public Health (Regulations as to Food) Act, 1907, upon which I have previously reported at length, have greatly added to both the powers and responsibilities of the City.

In addition to new and commodious offices, the Corporation has provided a Laboratory, fitted with all appliances for bacteriological and microscopical work ; a detention room for the examination of doubtful and suspected meat, and a museum for the reception of morbid specimens, for the purpose of instruction. These have all been found of the utmost value in carrying on the work of Meat Inspection.

Inspection at any stage is useful in protecting the public health, but the only real and scientific system is that which deals with the meat at the time of slaughter, when all the organs are present. The only slaughtering within the City is that carried out at Aldgate, and in order to ensure the inspection of all animals at slaughter it was necessary to modify the then Bye-laws.

The introduction of a Bye-law restricting the hours of slaughter, except on due notice being given, permitted arrangements being made for the presence of an Inspector whenever killing was going on. While in only 40 cases during the last six months was notice given for slaughtering outside the fixed hours, the quantity seized as unfit for food during the year 1911 amounted to 219 carcasses, 120 pieces and 5,294 organs, as compared with 117 carcasses, 52 pieces, and 1,684 organs in 1910. While the number of animals killed increased by 16·5 per cent., the total number of seizures increased by 203 per cent.

The question of Meat Inspection cannot be considered as satisfactorily solved until some definite pronouncement binding uniformly with the force of law upon all authorities is made by the Government.

At present each authority interprets the recommendations of the Royal Commission according to its own ideas, the result being chaotic confusion. Science is never at a standstill, and the Royal Commission's advice as to pigs is now 15 years old, and no longer in accordance with the views held by the most advanced authorities in other countries.

In no other country is the entire carcase of a pig destroyed on account of a speck of tubercle in one particular gland. This, however, is the course recommended by the Commission. Certainly in cases where the animal is inspected at the time of slaughter (when the evidence of the organs is present, and the Inspector is in a position to give a definite opinion), the existence of any degree of disease should be an indication of the necessity for further examination, and in such cases the back bone should be cut down and the kidneys and other glands throughout the body should be carefully inspected. If there is no further evidence of disease, it would appear to be perfectly safe to remove the part infected (usually the head) and to allow the rest of the carcase to be used for food.

The question of the Milk Supply has engaged the attention of your Medical Officer for some years past.

Samples have been continuously taken of milk entering the City, and submitted to bacteriological analysis, showing such milk to be infected with live tubercle bacillus in amounts varying from 4·7 per cent. to 12·5 per cent. This investigation moreover has shown that the milk supply of the City at any rate is conducted under conditions which are far from satisfactory, and that there is urgent necessity for the introduction of legislation which will deal with the evil at its source, viz., the farm. The present legislation is unsatisfactory and incomplete, inasmuch as it deals only with the exclusion of an infected milk supply from London only, and allows it to be sold in other parts of the country.

The Factory and Workshop Act has contributed largely to the work of this Authority, and this is continuing to develop. It is now under the consideration of the Legislature to deal with the important question of Underground Workrooms, and the Corporation has approved of the action being taken in this direction, it being clear that underground conditions are less favourable to workers than those above ground.

The appointment of Women Inspectors was instituted in 1901, and has proved an unqualified success. One of these Inspectors is entrusted with the important duty with regard to Infant Mortality, and Infant Feeding generally.

Other important matters that have been dealt with are :—

The Inspection of Food at the Riverside Wharves, and the appointment of a Bacteriologist.

The Registration and Control of Ice Cream makers.

The reform of methods adopted in Hairdressers' shops.

The compilation of Bye-laws for the construction of Water-Closets.

Bye-laws for Houses let in Lodgings.

Conveyance of Milk.—Representations have been continuously made to dairymen and others as to the necessity for the use of churns which will so far as possible exclude the risk of contamination of dust and dirt in transit. The principal difficulty in dealing with this subject has been the erroneous belief that the openings provided for "ventilation" are essential for the preservation of the milk.

Cremation.—While the practice of cremation appears to be increasing in favour with the public, the City Crematorium is but slowly making way. Every attempt has been made to encourage its use, and the fees have been reduced to as low a figure as possible, viz., 2*l.* 13*s.* 6*d.*, so that at the present time Cremation, in addition to being a far more rational way of disposal of the dead, is actually carried out at a lower cost than burial.

Investigation into the condition of Tinned Foods.

The examination of Rat Virus sold in the City—(This matter was taken up in consequence of an outbreak of disease caused by one of these viruses being used at an wholesale establishment—and the indication of danger attaching to their use).

The examination of Soda Water showed a large amount of contamination, which led up to a Conference with the trade, and voluntary registration and compliance with regulations drawn up by your Medical Officer of Health.

The question of tuberculosis has naturally been the object of much attention. In 1901, a voluntary system of notification was adopted throughout the City with fairly good results. It is clear that no fixed method to decrease this scourge can be adopted without some such system of notification. All cases are visited and instructions given as to the method to be adopted to avoid the possibility of infection. Arrangements have been made for the removal to Sanatoria, and disinfection systematically carried out. This voluntary system of inspection has been superseded by the regulations of the Local Government Board applying to

- (1) All cases occurring in Poor Law Institutions and coming under the notice of Poor Law Medical Officers.
- (2) All cases treated as out or in-patients in hospitals.
- (3) Cases coming under the notice of Medical Practitioners.

Under the provisions of the Children Act, the London County Council has the power to call upon Local Authorities to place their baths and disinfecting apparatus at their disposal for the treatment of verminous children and their clothing in consideration of a fixed charge. The Corporation has deemed it advisable to carry out this work gratuitously and to confine it to children residing in the City, in order that the homes of the children can be visited simultaneously with the cleansing. It is clear that the cleansing of the person can be of no real lasting value unless accompanied by the amelioration of the sanitary surroundings of the child.

From this brief summary it will be seen that much sanitary work has been carried out, but much remains to be done.

In many directions important work demands attention, most of which can be carried out without further legislative authority.

In conclusion, I take this opportunity of recording my gratitude to the staff, clerical and inspectorial, who have loyally and zealously supported me during my term of service, and for the result of whose work, I, as their chief, have naturally received the credit.

I trust to leave this important office in better hands, and that the prestige of the Corporation as the Sanitary Authority of the chief city of the Empire will remain as an example to all others.

AREA.

The City of London Registration District comprises an area of 672·7 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.

DENSITY (1911).

City of London, Registration District, at night	-	-	-	28·9 persons to an acre.
" " " " during the day	-	-	-	*541·6 " "
Registration London, at night	-	-	-	60·4 " "

ANNUAL RATEABLE VALUE.

The rateable value of property within the *administrative county of London* was £44,676,713 on 6th April, 1911—whilst on the same date the corresponding rateable value of property in the City of London was £5,672,277, or nearly one-eighth of the whole County.

POPULATION.

The undermentioned figures are abstracted from the Preliminary report of the Registrar-General, dated 10th June, 1911, on the Census of England and Wales, 1911 (County of London).

	Area. Statute Acres.	Inhabited Houses.		Population.	
		1901.	1911.	1901.	1911.
City of London	672·7	3,865	†	26,923	19,657

For Registration, Parliamentary and Municipal purposes the boundaries of the City are co-terminous.

These figures represent the population on the *night* of the 1st April, 1901, and 3rd April, 1911.

CENSUS RETURNS.

YEAR.	Imperial Census. Night Population.	City Census.* Day Population.
1861	112,063	—
1866	—	170,133
1871	75,983	—
1881	51,405	261,061
1891	37,705	301,384
1901	26,923	—
1911	19,657	364,061

* This figure refers only to persons "actively engaged in the City during the daytime."

† The number of inhabited houses in the City at the Census of 1911 is not given in the Preliminary report.

For statistical purposes, in the following pages the "Registration" District is referred to when speaking of the "City."

This consists of two sub-districts, together containing a population of 19,475 at the middle of 1911, calculated on the last Census Returns :—

St. Botolph	-	-	-	-	-	-	-	7,841
*St. Sepulchre and Allhallows	-	-	-	-	-	-	-	11,634
Total	-	-	-	-	-	-	-	<u>19,475</u>

The *Night* population, therefore, of the City of London Registration District at the middle of 1911 is taken at 19,475, and it is upon this figure that all vital statistics in this Report have been calculated.

The *Day* Census taken in May showed that the Day population was 364,061 persons, and that 1,077,155 persons and 94,095 vehicles entered and left the City on the day the count was made.

In 1903 it was ascertained that in the week ending 19th July no less than 347,463 vehicles passed to and from the four City bridges, viz. :—London, Southwark, Blackfriars and Tower, equivalent to upwards of 18,000,000 vehicles per annum.

CITY OF LONDON CENSUS, 1911.

In April last a Day Census was taken in the City, this being the fourth occasion on which such enumeration has been made. The three previous being in 1866, 1881 and 1891.

The report was issued in November last and gives the result of enumeration of persons and vehicles entering the City as compared with 1891 as follows :—

1911.				1891.			
Persons	...	...	1,077,155	Persons	...	...	951,066
Vehicles	...	...	94,095	Vehicles	...	...	76,259
<u>1,171,250</u>				<u>1,027,325</u>			

The examination of the returns of persons residing and employed in the City on the day of the Census, as compared with those on the occasion of the last Day Census, gave the following results :—

1911.	1891.
364,061	301,384

The figures upon which the Death Rate is calculated is 19,475, the estimated population at the middle of the year, based upon the result of the Imperial Night Census.

The acceptance of this figure for Statutory purposes is essential in order that the results may coincide with those published by the Registrar-General, but for practical purposes our rate should be based upon the Day Census.

* On the 1st April, 1901, the Middle Temple was transferred from the Strand Sub-District to St. Sepulchre Sub-District.

BIRTHS.

During the year 1911, 410 births were registered in the City. The annual birth rate was at the rate of 21·0 per 1,000 persons of all ages, compared with a quinquennial mean rate of 14·4 per 1,000. The birth rates last year in the Sub-Districts were—

St. Botolph	-	-	-	5·4 per 1,000.
St. Sepulchre and Allhallows	-	-	-	15·6 „

In the Metropolis the birth rate in 1911 was 25·0 per 1,000.

This decline in the birth rate has been in operation in this country since 1876, and is common to nearly all European countries.

VACCINATION.

Of the 410 children born in 1911, 153 had been successfully vaccinated by the end of the year, 34 had died before the age for vaccination, and 1 was insusceptible. Vaccination was postponed by medical certificate in 14 cases, 121 had removed into other districts, and 38 vaccinations were pending at the end of the year. There were 49 cases of conscientious objection.

The Public Vaccinators performed 1,230 re-vaccinations during the year.

VACCINATION STATISTICS IN THE CITY OF LONDON.

Year.	Number of Births.	Success-fully Vac-cinated.	Insus-ceptible.	Had Small-pox	Died before Vac-cina-tion.	Vaccina-tion Post-poned.	Cases pending or removed at the end of the year.	Consci-entious Objec-tions.
		<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>
1906	344	62·2	2·0	Nil.	7·3	5·2	22·9	1·7
1907	269	62·4	1·11	„	11·5	4·8	17·0	2·6
1908	281	59·8	·71	„	9·6	3·9	21·3	4·6
1909	248	58·4	·80	„	9·6	5·4	16·5	8·8
1910	262	57·6	·38	„	9·5	3·8	15·6	12·9
Average previous 5 years	281	60·1	1·0	„	9·5	4·6	18·6	6·1
1911	410	37·5	·24	„	8·2	3·4	38·7	11·9

VACCINATION ACT, 1907.

It will be seen that the number of conscientious objectors is still very high. This is doubtless due to the Vaccination Act of 1907, which is a direct encouragement to persons not to protect their children from the risk attending an attack of small-pox.

MORTALITY.

During the year under review, 842 deaths were registered in the District, including *711 persons dying in the City, but not belonging thereto. See Table, p. 20, for details.

Deducting the latter 131 deaths remain, to which must be added 82 persons who died at City Institutions in *outside districts*, where they were registered. The mortality, therefore, from which the City death rate is calculated is 213.

* These deaths occurred in St. Bartholomew's Hospital, and the Union Dépôt, Thavies Inn.

The death rate for 1911 was 10·9 per 1,000 per annum of the population (the previous year being 12·1), whilst that for the whole of the Metropolis was 15·0.

DEATH RATES, PER 1,000 PER ANNUM.

Year.					City of London.	77 Great Towns of England and Wales.	Metropolis.
1906	...	...	...	...	13·0	16·0	15·1
1907	...	...	...	...	12·7	15·4	14·6
1908	...	...	...	...	12·6	15·5	14·0
1909	...	...	...	...	16·0	15·6	14·0
1910	...	...	...	...	12·1	13·4	12·7
Average previous five years					13·3	15·2	14·1
1911	...	...	...	...	10·9	15·5	15·0

In comparing the above with the Registrar-General's Returns, some discrepancies will be observed, due to the fact that I have not been furnished with the number of *citizens* who died in Institutions other than those with which the City is connected.

The death rate from zymotic disease per 1,000 of the population was ·20 compared with ·31 in the Metropolis.

The deaths from phthisis correspond to a rate of ·97 per thousand of the population.

INFANTILE MORTALITY.

The deaths of children under one year of age to 1,000 births were 46·3, against 128 for the whole of London.

The Table of infantile mortality on p. 17 shows the deaths of children under one year arranged according to monthly age periods. From this it will be seen that no less than 36·8 per cent. of these deaths occurred in the first month, 52·6 per cent. within the first three months, and 68·4 per cent. during the first six months of existence.

NOTIFICATION OF BIRTHS ACT, 1907.

The work under the notification of Births Act has been continued during the year. 205 births were notified, including still-births. 243 other notifications were received relating to children the parents of whom did not reside in the City, and were forwarded to the Medical Officers of their respective districts.

Of the 205 City Births :—

95	were notified by private Medical Practitioners.
78	„ „ from Hospitals.
19	„ „ by Midwives.
13	„ „ by Parents.

During the year 593 visits were paid to the homes to give instruction in the care and feeding of the infants ; 81·5 per cent. of the infants were breast fed ; 11·9 per cent. were hand-fed and 6·6 per cent. were partly hand and partly breast-fed.

By a grant from the Corporation, mothers who were unable to obtain sufficient nourishment to enable them to nurse their babies, were supplied with $1\frac{1}{2}$ pints of milk daily.

A room at the Shelter, Golden Lane, is now utilised as a weighing room, and the mothers come each Monday afternoon to register the weight of their babies. These meetings give the mothers an opportunity for exchanging ideas which can be corrected and enlarged upon when necessary. There is also engendered a spirit of emulation among the mothers which cannot but be beneficial.

In many cases the mothers and fathers are ignorant of their duties ; and they cannot be blamed for their indifference and thoughtlessness until in some way it is found possible to educate them and make them familiar with the fundamental principles of Hygiene and other matters relating to health.

I have to acknowledge kindly help from the Guildhall Police Court for grants of money made from time to time for the purpose of providing milk for babies who were not eligible for the milk under the Corporation scheme ; also from the City Clergy.

The number of births registered as occurring in the City was 410, and the number of deaths under twelve months was 19. This is equivalent to an infant mortality rate of 46·3 per 1,000, the lowest on record in the City, notwithstanding the phenomenally hot weather experienced during the summer months.

DEATHS IN CITY INSTITUTIONS.

During 1911, 84 citizens died in City Workhouses, Workhouse Infirmary or Lunatic Asylums, or no less than 39·4 per cent. of the whole City mortality, the corresponding figure for the Metropolis being 41·2 per cent.

PERCENTAGE OF DEATHS OCCURRING IN WORKHOUSES, WORKHOUSE INFIRMARIES AND LUNATIC ASYLUMS TO TOTAL DEATHS IN THE CITY OF LONDON AND THE METROPOLIS RESPECTIVELY, FOR 1911, COMPARED WITH THE PREVIOUS FIVE YEARS :—

Year.	City of London.	Metropolis.
	<i>Per cent.</i>	<i>Per cent.</i>
1906	12·9	22·3
1907	37·6	24·8
1908	23·0	25·8
1909	38·0	42·0
1910	34·6	43·3
Average of previous five years	29·2	31·6
1911	39·4	41·2

(This Table is prepared in accordance with the requisitions of the Local Government Board.)

City of London.

Infantile Mortality during the Year 1911.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.				Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes.	{	Certified	7	...	...	...	7	1	2	2	...	1	...	...	2	1	2	1	19	
		Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
i. Common Infectious Diseases.	{	Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
		Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	
		Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Diphtheria {including Membranous Croup}	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
ii. Diarrhoeal Diseases.	{	Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Diarrhoea, all forms ...	1	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	2	
		Enteritis, Muco-enteritis, Gastro-enteritis }	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	1	3	
		Gastritis, Gastro-intestinal Catarrh }	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
iii. Wasting Diseases.	{	Premature Birth	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	
		Congenital Defects ...	3	...	...	...	3	...	1	1	...	...	...	...	...	...	...	...	5	
		Injury at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Want of Breast-milk, Starvation }	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Atrophy, Debility, Marasmus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
iv. Tuberculous Diseases.	{	Tuberculous Meningitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
		Tuberculous Peritonitis: Tabes Mesenterica }	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
		Other Tuberculous Diseases }	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	
v. Other Causes.	{	Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Meningitis (not Tuberculous)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Convulsions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Bronchitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	
		Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Pneumonia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Suffocation (overlying) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Other Causes	2	...	...	...	2	1	1	...	...	1	...	...	...	...	...	...	5	
				7	...	...	...	7	1	2	2	...	1	...	...	2	1	2	1	19

Total Births in the year - - 410.

Population - - - 19,475.
(Estimated to middle of 1911.)Births in the year { legitimate 394
 { illegitimate *16Deaths in the year of { legitimate infants 19
 { illegitimate infants 0

Deaths from all Causes at all Ages - - 213

* In five of these cases only did the mother belong to the City.

DEATHS FROM VIOLENCE.

Of the City deaths, 5·16 per cent. were caused by injuries or violence (as compared with 5·1 in 1909 and 5·76 in 1910), being ·04 above the average for the previous five years.

PERCENTAGE OF REGISTERED DEATHS FROM VIOLENCE.

Year.				City of London.	Metropolis.
				<i>Per cent.</i>	<i>Per cent.</i>
1906	...	...	...	7·18	3·92
1907	...	...	...	3·10	3·75
1908	...	...	...	4·50	4·43
1909	...	...	...	5·10	3·59
1910	...	...	...	5·76	4·03
Average previous five years ...				5·12	3·94
1911	...	...	...	5·16	3·84

VITAL STATISTICS, 1911.

City of London compared with the Metropolis, 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.
1906 ...	21,368	374,730	15·9	26·5	13·0	15·1	88	131	7·2	3·9	0·28	1·93
1907 ...	20,310	380,150	13·1	25·6	12·7	14·6	86	116	3·1	3·7	0·44	1·41
1908 ...	19,252	385,640	14·4	25·2	12·6	13·8	65	113	4·5	4·0	0·15	1·35
1909 ...	18,193	391,220	13·4	24·2	16·0	14·0	106	107	4·7	3·5	0·44	1·30
1910 ...	17,132	387,755	15·3	23·9	12·1	12·7	53·4	102	5·7	4·0	0·17	1·10
Average previous five years.	19,251	383,899	14·4	25·1	13·3	14·0	79·7	114	5·0	3·8	0·29	1·43
1911 ...	19,475	364,061	21·0	25·0	10·9	15·0	46·3	128	5·1	3·8	0·20	*

* Figures not yet published.

(This Table is prepared in accordance with the requisitions of the Local Government Board.)

Vital Statistics of Whole District during 1911 and Previous Years.

Name of District: CITY OF LONDON.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	NETT DEATH AT ALL AGES BELONGING TO THE DISTRICT.	
		Number.	Rate.*	Under 1 Year of Age.		At all Ages.					Number.	Rate.
				Number.	Rate per 1,000 Births registered.	Number.	Rate.*					
1	2	3	4	5	6	7	8	9	10	11	12	13
1894 ...	34,831	520	14.9	82	157	993	28.5	570	562	169	600	17.2
1895 ...	33,823	552	16.3	81	147	1,057	31.2	629	627	189	619	18.3
1896 ...	31,412	534	17.0	72	133	1,066	33.9	677	672	164	558	17.8
1897 ...	30,245	491	16.2	58	118	1,046	34.6	615	608	146	584	19.3
1898 ...	29,121	468	16.1	55	118	957	32.9	620	615	132	474	16.3
1899 ...	28,039	416	14.8	56	135	1,011	36.0	649	642	149	518	18.5
1900 ...	26,998	403	14.9	72	179	987	36.6	625	609	146	524	19.4
1901 ...	27,411	377	13.7	60	160	974	35.5	644	633	115	456	16.6
1902 ...	26,546	339	12.7	42	124	910	34.3	643	610	136	436	16.4
1903 ...	24,958	338	13.6	39	115	839	33.6	647	631	91	299	12.0
1904 ...	23,565	353	15.0	34	96	865	36.8	662	644	85	306	12.9
1905 ...	22,425	302	13.4	42	139	896	39.5	701	675	92	313	13.9
1906 ...	21,368	341	15.9	30	88	901	42.1	691	658	36	279	13.0
1907 ...	20,310	268	13.1	23	86	853	41.9	715	692	97	258	12.7
1908 ...	19,252	277	14.4	18	65	899	46.7	736	712	56	243	12.6
1909 ...	18,193	244	13.4	26	106	912	50.1	756	725	105	292	16.0
1910 ...	17,132	262	15.3	14	53.4	768	44.8	645	629	69	208	12.1
Averages for years 1894-1910	25,625	381	14.7	47	118.7	9.37	37.6	660	643	116	409	15.5
1911 ...	19,475	410	21.0	19	46.3	842	43.2	728	711	82	213	10.9

* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

NOTE.—The deaths included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

Area of City of London Registration District in acres (exclusive of area covered by water) ... 672.7

Total population at all ages ...

Number of inhabited houses... ..

Average number of persons per house

} At Census of 1911.

(This Table is prepared in accordance with the requisitions of the Local Government Board.)

Causes of, and Ages at, Death during Year 1911.

	DEATHS IN OR BELONGING TO WHOLE DISTRICT AT SUBJOINED AGES.							DEATHS IN OR BELONGING TO LOCAL INSTITUTIONS (AT ALL AGES).			TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT.
	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.	St. Botolph.	St. Sepulchre.	*	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	
1. Small-pox	...	...	...	...	...	...	...	...	...	...	...
2. Measles... ..	1	1	...	...	...	...	...	...	1	...	4
3. Scarlet Fever... ..	...	...	...	...	...	...	...	...	...	...	...
4. Typhus Fever	...	...	...	...	...	...	...	...	...	...	...
5. Epidemic Influenza	3	...	...	...	...	1	2	1	2	1	1
6. Whooping Cough	1	...	1	...	...	...	...	1	...	...	4
7. Diphtheria, Membranous Croup	...	...	...	...	...	...	...	...	...	...	9
8. Croup	...	...	...	...	...	...	...	...	...	...	...
9. Enteric Fever	...	...	...	...	...	...	...	...	...	...	4
10. Asiatic Cholera	...	...	...	...	...	...	...	...	...	...	...
11. Diarrhoea, Dysentery	2	2	...	...	...	...	...	...	2	...	22
12. Epidemic or Zymotic Enteritis	...	...	...	...	...	...	...	...	...	...	27
13. Enteritis	7	3	1	...	...	2	1	4	3	1	20
14. Other Continued Fevers	...	...	...	...	...	...	...	...	...	...	...
15. Erysipelas	...	...	...	...	...	...	...	...	...	...	2
16. Puerperal Fever	...	...	...	...	...	...	...	...	...	...	3
17. Other Septic Diseases	3	...	1	...	...	1	1	1	2	...	15
18. Intermittent Fever and Malarial Cachexia.	...	...	...	...	...	...	...	...	...	...	...
19. Tuberculosis of Meninges	3	...	1	...	1	1	...	1	2	...	28
20. Tuberculosis of Lungs	19	...	...	...	2	16	1	12	7	1	12
21. Other Forms of Tuberculosis	4	1	...	...	2	...	1	3	1	...	19
22. Alcoholism	3	...	...	...	...	3	...	...	3	...	4
23. Cancer	14	...	...	...	...	9	5	5	9	3	61
24. Premature Birth	1	1	...	...	...	...	...	1	...	...	13
25. Developmental Diseases	5	5	...	...	...	...	...	2	3	...	17
26. Old Age	11	...	...	...	...	...	11	7	4	1	2
27. Meningitis	...	...	...	...	...	...	...	...	...	...	8
28. Inflammation and Softening of Brain	...	...	...	...	...	...	...	...	...	...	5
29. Organic Diseases of Heart	6	...	...	...	...	4	2	3	3	...	8
30. Acute Bronchitis	4	1	1	...	...	1	1	3	1	...	8
31. Chronic Bronchitis	28	...	1	...	...	4	23	12	16	1	11
32. Lobar (Croupous) Pneumonia	2	...	...	...	...	1	1	...	2	...	8
33. Lobular (Broncho-) Pneumonia	6	...	...	...	...	3	3	3	3	1	56
34. Diseases of Stomach	2	...	...	...	...	1	1	1	1	...	12
35. Obstruction of Intestines	1	...	...	...	...	...	1	...	1	...	17
36. Cirrhosis of Liver	2	...	...	...	...	...	2	1	1	...	5
37. Nephritis and Bright's Disease	5	...	...	...	...	2	3	1	4	2	20
38. Tumours and Other Affections of Female Genital Organs.	...	...	...	...	...	...	...	...	...	...	3
39. Accidents and Dis. of Parturition	...	...	...	...	...	...	...	...	...	...	...
40. Deaths by Accident or Negligence	10	...	1	2	...	5	2	4	6	...	83
41. Deaths by Suicide	1	...	...	...	...	1	...	...	1	...	8
42. Deaths from Ill-defined Causes	1	...	...	...	...	1	...	...	1	...	2
43. All other Causes	68	5	1	...	3	34	25	33	35	9	207
Total all Causes	†213	19	8	2	8	90	86	99	114	20	†728

* Persons dying in City Institutions. Address not stated on certificate of death.

† Including 17 Citizens, distributed in Columns 1 to 10 (15 died in St. Bartholomew's Hospital, 1 at the Union Depot, Thavies Inn, and 1 at the City Police Hospital, Bishopsgate)

‡ Including 82 Citizens who died in City Institutions outside, distributed in Columns 1 to 10.

NOTIFICATION OF INFECTIOUS DISEASE.

In the following Tables will be found particulars of infectious disease notified under Sections 55 and 56 of the Public Health (London) Act, 1891, and information as to the removal of patients to hospitals, infirmaries, &c. :—

NATURE 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 incorrect.
Small-pox	—	—	—	—	—	—	—
Diphtheria	26	1	9	3	8	4	1
Scarlet Fever	26	—	16	3	3	3	1
Enteric „	8	1	3	—	3	—	1
Puerperal „	1	—	—	—	1	—	—
Erysipelas	22	8	—	1	6	7	—
Cerebro-Spinal Meningitis	—	—	—	—	—	—	—
Ophthalmia Neonatorum ...	1	1	—	—	—	—	—
Totals	84	11	28	7	21	14	3
*Chicken-pox	4	4	—	—	—	—	—
†Phthisis	7	3	—	4	—	—	—
Totals	95	18	28	11	21	14	3

* The notification of this disease was voluntary during a portion of the year.

† The notification of cases of Phthisis (other than those included under the Tuberculosis Regulations, 1908, and the Tuberculosis in Hospitals Regulations, 1911) was voluntary in the City of London during the year 1911.

It will be seen from the foregoing that during the year, excluding Chicken-pox and Phthisis, 84 Certificates were received, including 14 “duplicates,” and 3 in which the diagnosis was subsequently found to be incorrect.

The total number of cases of “notifiable infectious disease” was, therefore, 67, as compared with 54 for the previous year. The total number of cases of Scarlet Fever reported was 22, compared with 18 of last year.

The following is a Return of infectious disease notified, exclusive of Chicken-pox and Phthisis, occurring in the City of London, with the percentages of such cases removed for treatment to hospitals or nursed at home during 1911, compared with the figures for the previous five years :—

Year.	Number of cases reported.	Per cent. of cases reported.	
		Removed to Hospital.	Treated at Home.
1906	149	91·9	8·1
1907	140	84·3	15·7
1908	90	91·0	9·0
1909	67	82·1	17·9
1910	54	79·6	20·4
Average for previous five years.	100	85·8	14·2
1911	67	83·6	16·4

Cases of Infectious Disease notified during the Year 1911.

CITY OF LONDON.

DISEASE.		CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.		NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.		TOTAL CASES REMOVED TO HOSPITAL.
		At all Ages.	At Ages—Years.						St. Botolph.	St. Sepulchre.	St. Botolph.	St. Sepulchre.	
			Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.					
Small-pox	...	—	—	—	—	—	—	—	—	—	—	—	—
Cholera	...	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	...	21	—	7	7	3	4	—	8	13	8	12	20
Erysipelas	...	15	—	—	—	6	9	—	8	7	3	4	7
Scarlet Fever	...	22	—	4	6	3	9	—	6	16	6	16	22
Typhus	„	—	—	—	—	—	—	—	—	—	—	—	—
Enteric	„	7	—	—	2	3	2	—	1	6	1	5	6
Relapsing	„	—	—	—	—	—	—	—	—	—	—	—	—
Continued	„	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal	„	1	—	—	—	—	1	—	—	1	—	1	1
Plague	...	—	—	—	—	—	—	—	—	—	—	—	—
Anthrax	...	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal Meningitis	...	—	—	—	—	—	—	—	—	—	—	—	—
Ophthalmia Neonatorum	...	1	—	1	—	—	—	—	1	—	—	—	—
Polio-encephalitis	...	...	—	—	—	—	—	—	—	—	—	—	—
Totals	...	67	—	12	15	15	25	—	24	43	18	38	56
*Chicken-pox	...	4	—	4	—	—	—	—	2	2	—	—	—
†Phthisis	...	7	—	—	—	2	5	—	4	3	1	3	4
Totals	...	78	—	16	15	17	30	—	30	48	19	41	60

This Table is prepared in accordance with the requisitions of the Local Government Board.

* The notification of this disease was voluntary in the City of London during a portion of the year.

† For cases of this disease notified under the Public Health (Tuberculosis) Regulation, see p. 29.

In each case a detailed examination was made of the sanitary condition of the premises where infectious cases occurred, and a summary of defects found by the District Inspectors is given on page 56.

EXAMINATION FOR PATHOGENIC BACTERIA.

Any medical practitioner desiring examination of specimens for Pathogenic Bacteria in cases of suspected infectious disease occurring amongst their patients residing in the City, should forward them to me at the Guildhall. Arrangements have been made for free examination, and the results obtained will be 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 37 per cent. of these cases.

<i>Specimen</i>	<i>Disease suspected.</i>	<i>Result—</i>	
		<i>Positive.</i>	<i>Negative.</i>
Two of Sputum - -	Phthisis - -	1	1
Five of blood - -	Enteric Fever - -	2	3
One throat swab - -	Diphtheria - -	—	1

NOTIFICATION OF CEREBRO-SPINAL FEVER.

(Epidemic Cerebro-Spinal Meningitis.)

As a preventive measure against the spread of the above-mentioned disease, which is still in evidence in London, the County Council have, in accordance with the provisions of Section 56 of the Public Health (London) Act 1891, made an Order requiring for a further period of twelve months as from and including the 13th March, 1911, the notification of cases of Cerebro-Spinal Fever (Epidemic Cerebro-Spinal Meningitis) in the Administrative County of London.

On the advice of a Committee appointed by the President of the Royal College of Physicians, it has been decided that for notification purposes the disease at present known as Posterior Basal Meningitis shall be included in the terms "Cerebral-Spinal Fever," which term shall not, however, be interpreted to include cases of Meningitis due to Tuberculosis, Syphilis, Middle Ear disease or injury.

Cerebro-Spinal Fever was first made notifiable in London by order of the Local Government Board for a period of six months as from 12th March, 1907, and has been extended by renewed Orders from year to year, the provisions of notification being in continual operation since 1907.

Only one case, a child aged $2\frac{1}{2}$ years, has occurred in the City since the disease was made notifiable.

NOTIFICATION OF CHICKEN-POX.

Owing to the increase in cases of Small-pox (referred to on page 24) and the fact that failure to distinguish between Chicken-pox and Small-pox is likely to lead to the spread of the latter disease, the London County Council, on the 16th March last, made an Order, under Section 56 of the Public Health (London) Act, 1891, requiring the notification of Chicken-pox for a period of three months only as from and including the 22nd March, 1911.

At the expiration of that time the Order was not extended.

It should be mentioned in this connection that a voluntary system of notification of Chicken-pox has been in operation in the City since the Small-pox epidemic of 1901-2.

The difficulty of differential diagnosis is greatly increased by the fact that so little opportunity is given to medical students to study the disease clinically.

The admirable organisation of the Metropolitan Asylums Board removes all cases notified to their hospitals, and this, while of the greatest benefit to the community at large as regards infection, creates an absolute dearth of material for the instruction of students in hospitals.

The Board has recently made new regulations to meet this difficulty, by admitting students to their Small-pox hospitals free of charge, under certain regulations, and this appears to be all that can be done in the matter.

SMALL-POX.

A small outbreak occurred during the early part of the year affecting chiefly Stepney, Shoreditch and Bethnal Green.

The last serious epidemic of Small-pox occurred in 1901, and after the prolonged absence of the disease from the Metropolis, many people (especially those of the poorer classes) have unfortunately availed themselves of the provisions of the Vaccination Act, 1907, thus largely increasing the number of unprotected persons.

In the City of London the percentage of unprotected persons has risen from 1·7 per cent. in 1906 (the year before the passing of the Act) to 11·9 in the present year.

In the epidemic under review, 64 cases were notified within the Administrative County of London.

Although no cases occurred in the City, the epidemic gave a considerable amount of work, owing to the fact that a large number of persons had been in actual contact with patients, and were engaged in work in the City, and this occasioned many visits for the purpose of urging re-vaccination and vaccination, and when your officers were successful in obtaining the "contacts'" consent, the detail arrangements had then to be made with the Vaccination Officer.

The following details may be of interest in considering the source of infection and the cases affecting the City.

Case No. 1 was a youth aged 19, living in London, who until the 25th February was engaged in business in the City. Upon the 25th February he was found to be suffering from Small-pox and was removed to hospital. His fellow-workers were re-vaccinated, and the premises disinfected. Upon the 9th March, the wife and two children of one of

these fellow-employés, living in another borough, were found to be suffering from Small-pox and were removed to hospital. It is now known that the wife "fell ill" three or four weeks previously. Upon the 10th March, the husband went to visit his family at the hospital (one of the children being upon the "Dangerous" list), when it was found that the vaccination mentioned above appeared not to have been successful: he was examined and traces of recent Small-pox were found, and he was detained in hospital.

Case No. 2 was that of a young man age 20 who had worked in the City, where he attended for a few hours after an absence of three weeks on account of indisposition; the next day, 27th February, he was ascertained to have suffered from Small-pox and was removed to hospital. No information could be obtained of any source of infection in this case.

Case No. 3 was that of a youth aged 15. This patient neither worked nor lived in the City, but there was some possibility of his having used a laundry receiving dépôt within the City limits, and he was also known to have attended a City Boys' Club. Here again we were unable to discover the definite source of infection. As a precaution, however, the Club was temporarily closed, and is now only re-opened to those members who are efficiently protected by vaccination.

HOSPITAL ACCOMMODATION FOR CASES OF OPHTHALMIA NEONATORUM.

The provision of hospital accommodation for cases of Ophthalmia Neonatorum, which was added to the list of notifiable infectious diseases as from the 13th March last, has received the consideration of the Metropolitan Asylums Board, and in August a letter and Report was issued from that body, suggesting the desirability of such accommodation.

In the early stages of this disease, definite expressions of any opinion as to whether the inflammation is likely to take a dangerous course or not, is only possible after microscopical examination of the eye secretion.

Ophthalmia Neonatorum is more serious than is generally appreciated. It is stated that about 10 per cent. of those who are totally blind, owe their affliction to an attack of this disease contracted at birth, and it is manifest, therefore, that in-patient hospital treatment for those severe cases is desirable, especially among the poorer classes who are financially unable to command that expert and constant attention which is essential if the sight of the patient is to be saved.

The number of cases in London that would probably require this treatment has not yet been estimated, but would doubtless be large, and the consequent amount of accommodation necessary, forms one of the difficulties in the way of the successful accomplishment of the scheme.

It is suggested that as a first step, grants should be obtained from the King Edward's Hospital Fund, to allow of wards, which are now empty for lack of funds, to be opened for this purpose.

Up to the present, however, no definite or final arrangements have been made.

PUBLIC HEALTH (TUBERCULOSIS IN HOSPITALS) REGULATIONS, 1911.

On the 18th December 1908, the Local Government Board in pursuance of the powers vested in them by Section 130 of the Public Health Act, 1875, as amended by the Public Health Act, 1896, issued Regulations known as the Public Health (Tuberculosis) Regulations, 1908, providing for the compulsory notification to the Medical Officer of Health of the Sanitary Authority, of Pulmonary Tuberculosis (Phthisis or Consumption) occurring amongst the inmates of Poor Law Institutions or amongst persons under the care of Poor Law Medical Officers when acting in their public capacity, and further provided for notification of change of address (other than by admission to a Poor Law Institution) by any person in respect of whom a notification has been made.

A further step in the direction of impressing upon the public generally, and especially the poorer classes, the fact that the spread of consumption is mainly due to infection, and as such can be fought and suppressed, has now been taken. When the Regulations of 1908 were issued it was pointed out that the desirability of affording facilities for extending the administrative powers therein granted, was under consideration, and as a consequence, the Local Government Board in March last issued the Public Health (Tuberculosis in Hospitals) Regulations, 1911.

These Regulations provide for the notification of cases of Pulmonary Tuberculosis occurring amongst the in-patients and out-patients at hospitals, dispensaries, or other similar institutions for the treatment of the sick, which are supported wholly or partially otherwise than by the contributions of the patients (or of their relatives or guardians) and otherwise than from rates and taxes. The Regulations require that the Corporation shall provide and maintain a sufficient supply of printed forms or certificates to be furnished to the governing body of every hospital (within the meaning of the Regulations) within the City area.

Such certificates duly filled up and completed must be forwarded to the Medical Officer of Health for the area in which the hospital is situated, by the Medical Officer of such hospital within 48 hours of his first recognition of Pulmonary Tuberculosis in any person on whom he has professionally attended at the hospital.

The Medical Officer of Health in any case when the patient referred to in such notification does not reside within his district, must further transmit the notification to the Medical Officer of Health for the area in which the patient lives, and shall at the same time notify the Medical Officer of the hospital that he has done so, and shall give him the name and address of the Medical Officer of Health to whom the notification has been sent. It will be seen, therefore, that the responsibility of ascertaining the residence of the patient is thrown upon the Public Health Officials.

Article IV. (3) of the Regulations requires that the Medical Officer of Health for every area within the Administrative County of London (which includes the City) shall furnish weekly returns to the Medical Officer of Health of the County of all notifications received by him.

Nothing in these Regulations shall authorise or require any enactment which renders the patient or a person in charge of the patient, or any person liable to a penalty, or subjects the patient to any restriction, prohibition or disability affecting himself or his employment, occupation or means of livelihood on the grounds of his suffering from Pulmonary Tuberculosis. One of the main objects of these Regulations is to ascertain in which localities the incidence of Pulmonary Tuberculosis is greatest, but in addition, certain beneficial and practical Regulations have been introduced in order to prevent the spread of the disease and assist the patients themselves.

Thus the Council are empowered on the advice of their Medical Officer of Health to :—

- (1) Take the necessary measures to secure the disinfection of infected article and the cleansing or disinfection of premises which have been used by the patient.
- (2) Take the necessary measures for the safe disposal and destruction of infectious discharges of the patient.
- (3) Supply all such reasonable assistance, facilities and articles as will tend to diminish the risk of infection arising from the conditions affecting the use or occupation of any room whether used or occupied by the patient as a sleeping apartment.
- (4) Furnish for the use of the patient on loan or otherwise, any appliance, apparatus or utensil which may be of assistance in preventing the spread of infection, and
- (5) Appoint such officers, do such acts, and make such arrangements as may be requisite for giving advice and for carrying out the provisions of these Regulations, and of the Public Health (Tuberculosis) Regulations, 1908.

Prior to the issue of the 1908 Regulations, a system of voluntary notification had been in operation in the City, but this, although doubtless limiting to some extent the spread of this dread scourge, still left the Sanitary Authority without any Statutory powers in the matter.

It is difficult to form an accurate estimate of the proportion of consumptive patients affected by the Regulations, but as consumption is a disease of poverty, the great majority of consumptives will, doubtless, sooner or later, come under the care of charitable hospitals or the Poor Law, and it will be evident therefore, that the 1908 Regulations, together with those of 1911, will embrace in their scope a very large portion of consumptives, to whom to all intents and purposes the principles of compulsory notification will be applied.

There are at present six hospitals situated within the City limits that come within the meaning of these Regulations, the names and addresses of these are as follows :—

- (1) St. Bartholomew's Hospital.
- (2) The Farringdon Dispensary, 17, Bartlett's Buildings, Holborn Circus.
- (3) The Royal General Dispensary, 25, Bartholomew Close.

- (4) The Metropolitan Dispensary, 9, Fore Street.
- (5) Billingsgate Mission Dispensary, 19, St. Mary-at-Hill.
- (6) The City Dispensary, 29 and 30, College Street (now closed as the result of the occurrence of a fire, but to be re-opened shortly).

The Local Government Board have since issued an Order dated the 16th November last, providing for the compulsory notification within 24 hours, by a medical practitioner, of every case of Pulmonary Tuberculosis which comes under his notice.

Such notification is to be made to the Medical Officer of Health for the district in which the patient resides, and provision is made for the payment of 2s. 6d. for each notification.

The Medical Officer of Health, on receiving the notification relating to the patient, if the place of his residence is not within the Medical Officer's area, is required to transmit it to the Medical Officer of Health in whose district it is situated, and at the same time to notify the certifying medical practitioner that he has done so, and to give him the name and address of the Medical Officer of Health to whom the notification has been so sent.

Any expense incurred is to be defrayed by the Council of the district in which the patient resides.

The main object which has induced the Local Government Board to require notification of all cases of this disease is to enable local authorities to assist them in their endeavour to combat its ravages, and for this purpose the Medical Officer of Health is required to take such action as may appear to him necessary or desirable to prevent the spread of infection, and for removing conditions favourable to infection.

"Article IX. (1) For the purpose of these Regulations and of the Poor Law Regulations, and of the Hospital Regulations, a Council, on the advice of their Medical Officer of Health, may supply all such medical or other assistance, and all such facilities and articles as may reasonably be required for the detection of Pulmonary Tuberculosis, and preventing the spread of infection, and for removing conditions favourable to infection, and for that purpose may appoint such officers, do such acts, and make such arrangements as may be necessary.

"Provided that nothing in this sub-section shall be deemed to authorise a Council to take any of the measures herein mentioned at any Poor Law Institution or any Hospital.

"(2) A Council, on the advice of their Medical Officer of Health, may provide and publish or distribute in the form of placards, handbills or leaflets, suitable summaries of information and instruction respecting Pulmonary Tuberculosis, and the precaution to be taken against the spread of infection from that disease."

The Medical Officer of Health is further required to send weekly returns to the Medical Officer for the London County Council, and to keep a Register of all cases brought to his notice. Forms as set forth in Schedules A and B have been forwarded to the Medical men practising in the City, and to School Medical Inspectors in accordance with the terms of the Order.

Whilst the issue of these Regulations imposes considerable additional duties and responsibilities on sanitary officers, their advent will be welcomed by all interested in public health as completing the system of compulsory notification of all cases of Pulmonary Tuberculosis.

Those who were advocating the compulsory notification of Tuberculosis 12 years ago, will well remember the powerful opposition they encountered, and the general approval with which the Regulations have been received, is a striking example of the advance of public opinion on this question, and a tribute to persons who have worked so diligently and energetically to throw new light on this subject.

Voluntary notification has, to some extent, been responsible for this alteration in public opinion, as the working of this system has proved conclusively, that notified patients do not suffer any of the disabilities that had been anticipated by those opposed to notification, but the voluntary system, though useful to some degree, is inadequate as a basis for effective administrative action on a large scale, while the experiment of compulsory notification in Sheffield has given an object lesson in the smooth and successful application of compulsion in large centres.

During the year, 61 cases have been notified in accordance with the Regulations of 1908 and 1911. All have been kept as carefully under observation as circumstances would allow.

The extension of the principle of notification can only be viewed with satisfaction, and efficiently administered, the Regulations should result in some diminution in the mortality due to Phthisis. At present no curative powers are available and in practice our methods must be mainly confined to advice to patients, and disinfection of room or rooms and clothing, &c., after removal or death.

The fact, however, must be borne in mind, that the disease has shown, for a long time past, a steady diminution.

To what extent the mortality has declined will be seen from the following summary abstracted from the Annual Report of the Medical Officer of the Local Government Board for 1910-11.

DEATH RATE PER 100,000 OF POPULATION.

	1871-1880.	1881-1890.	1891-1900.	1901-1910.
England and Wales.—				
Pulmonary Tuberculosis	219	178	139	117 (1901-09)
Other forms of Tuberculosis... ..	67	65	62	50 (1901-09)
London.—Pulmonary Tuberculosis	251	208	179	145

PREVALENCE OF EPIDEMIC DIARRHŒA AMONGST CHILDREN.

During the very hot and dry summer of the past year, the Local Government Board deemed desirable the issue of a circular impressing upon Local Authorities the necessity for taking active steps to mitigate, as far as possible, the child mortality from diarrhœa and enteritis.

In many sanitary districts, systematic efforts are made each summer to remove nuisances and other conditions, which favour excessive mortality amongst children, but the Board suggested the following lines along which it was most important that action should be taken.

Such is, of course, not intended to cover the whole field of precautions, supplementary action being probably necessary to meet the special needs of individual districts.

“ Firstly, it is important that advice should be given as to the feeding and management of children, and more generally as to preventing the exposure of their food to contamination from decomposing organic matter. The distribution of clearly worded leaflets is useful in this connection ; but even more important are personal visits and the offer of practical advice to the mothers of babies born within the last twelve months. Exact and simple instructions are most likely to be followed, if given during a period of special danger. In districts and towns, in which the Notification of Births Act has been adopted, the records obtained under that Act will give valuable information in selecting the homes to which visits are now most urgently required.

“ Secondly, the full value of the personal instructions indicated above cannot be realised, unless vigorous efforts are made to prevent the accumulation in, or in the vicinity of the house of the decomposing animal and vegetable matter. It is not necessary to do more than mention the importance of efficient scavenging, of frequent and, if practicable, daily removal of house and stable refuse, of domestic cleanliness, and of keeping all food properly protected. The Council may consider it advisable, during the next few weeks, to divert the sanitary inspectors from less urgent work, and to instruct them to make rapid visits with a view to securing efficient sanitation, especially in and about the houses of the working classes.

“ Thirdly, it is important that the Council should promptly ascertain in which parts of their district diarrhoea is especially prevalent, and should devote close attention to street and court scavenging, and to the removal of stable and domestic refuse in those areas. Without waiting for the weekly death returns, efforts should be made to obtain information of cases of diarrhoea from health visitors and others who make domestic visits, to impress upon parents the importance of immediate treatment of infantile diarrhoea. Apart from the medical notification of cases of epidemic diarrhoea in children, the visits of health visitors can be utilised for impressing upon parents the seriousness of diarrhoea amongst young children, and the desirability of information being given to the Medical Officer of Health should a case of diarrhoea occur.”

In my opinion, the diversion of the Sanitary Inspectors from their statutory duties is undesirable, and so far as the City is concerned, unnecessary, but with this exception, all the suggestions outlined above are carried out by your Officers as routine.

The Corporation take special precautions, not only in the summer months, but during all periods of the year, to minimise as much as possible the excessive infantile mortality with which all civilised countries are afflicted, and for this purpose have retained the services of a Woman Sanitary Inspector, who devotes practically the whole of her time to this object.

In 1902, when this Officer was appointed, the deaths of children under one year of age, to 1,000 births, was 124, and this figure has since steadily fallen, until for the year

1911, it reached 46·3 as against 128 for the whole of London. This result bears ample testimony to the value of the work done, and I may add that during the hot months, May to September, only five deaths from diarrhoea or enteritis in infants were registered in the City.

COMPULSORY NOTIFICATION OF MEASLES.

During the year, compulsory notification of measles has again received the consideration of Public Health Authorities. From time to time the principle is advocated, such advocacy almost invariably coinciding with outbreaks of the disease.

In the City, public attention was called to the matter, in connection with an inquest held at the Coroner's Court on the 29th December, 1910, on the body of a female child, aged $2\frac{1}{2}$ years, who died from Broncho-Pneumonia, following measles, and accelerated by shock from scalds, the jury appending to their verdict the following rider, viz. :—

“ And the Jurors advise compulsory notification of the malady known as
 “ Measles, throughout London, followed by disinfection of premises, and
 “ also hospital treatment by the Metropolitan Asylums Board for poor
 “ children, such as the deceased, suffering from the disease.”

Whilst the adoption of any measure that may be likely to limit the spread of any infectious disease is desirable, investigation of all the factors concerned is essential before expressing any opinion as to the advisability or otherwise, of making notification of any particular disease compulsory.

Measles is a specific infectious fever, attended by a characteristic eruption and catarrh, affecting chiefly the respiratory, nasal and ocular mucous membranes, and with the possible exception of Whooping Cough, one of the most infectious of the specific fevers. Moreover, it is the cause of more deaths than either Scarlet Fever or Diphtheria, and for these reasons its notification has been adopted in various places during the past 20 years.

The expenditure involved, however, proved so considerable, and the results obtained were attended with so little success, that this method of dealing with the disease was generally abandoned.

Nearly all children are attacked by Measles within the first ten years of life, while probably half the patients do not get medical attendance.

It is obviously impracticable to make notification of infectious diseases compulsory when a medical man is not consulted, as a non-medical diagnosis would be valueless, and it is clear that no penalty relative to the notification of infectious diseases could be enforced in the absence of medical evidence as to the nature of the disease.

If medical attendance could be assured in all cases, the notification of Measles under such improved conditions might possibly be useful from a statistical point of view, but it is difficult to see of what service it could be in limiting the spread of infection, as the rash does not appear until the fourth day of illness, and the disease is certainly infectious before the appearance of the rash, and has in all probability spread to other unprotected children in the house before it is recognised. It would certainly be desirable, if practicable, that the first case in each house should be reported, as the sanitary authority might then have some chance of limiting the spread of infection.

Direct contact with a case of Measles is undoubtedly the most important factor in the spread of the disease, and on this account, notification and removal to hospital with consequent isolation, would at first, appear desirable. On consideration, however, it is clear that the segregation of cases would be of little or no advantage as this disease is infectious in its pre-eruptive stages, and a child may be the carrier of the disease, infecting those with whom it comes in contact before it presents any definite indication of the malady.

Again, the fact that so large a proportion of those attacked are infants, and would have to be accompanied by their mothers, presents a serious difficulty in relation to hospital accommodation.

Obviously, school attendance affords opportunity for the spread of infection, and on this account active steps are taken by School Medical Officers of the London County Council to exclude unprotected children from school immediately a case of measles occurs.

Notification of all such exclusions in London is forwarded to the Medical Officer of Health, and by these means, to some extent the risk of infection may be minimised.

Practically all children get Measles, and this fact is generally urged as an argument against notification, but while there is some degree of strength in such argument, the fact must not be overlooked that if the attack is postponed until the later years of childhood, the case mortality is much reduced.

In the case of a disease so infectious as Measles, a disease which is directly and indirectly responsible for so large a percentage of infantile deaths, it is advisable that wherever possible, restrictions should be imposed with a view to preventing the spread of the infection, but having regard to all the circumstances in connection with measles, I am unable to endorse the rider of the jury previously referred to.

I am of opinion, however, that if Sections 60, 61, 62, 63, 64, 65, 68, 69, 70, 72, 73 and 74 of the Public Health (London) Act, 1891, were applied to Measles, such would to some extent contribute to the reduction of the number of cases. These Sections deal with the disinfection, shelters, clothing, infected rubbish, letting of houses, wilful exposure, transmission of infected clothing, milk and fruit trades, use of public conveyances, burial of dead, removal of corpses, use of hearses.

As a matter of fact the precautions such as disinfection and removal of families to the City Shelter, after cases of Measles that come to our knowledge, have been the practice in the City for many years.

On the 13th March, in view of the special prevalence of the disease, a conference was held at the Local Government Board, which was attended by the Medical Officers of Health of the Local Government Board, the London County Council, the Metropolitan Borough Councils, and the City of London, to discuss the possibility of adopting further preventive measures.

The Local Government Board issued a Memorandum on the subject which is here reproduced in full.

" MEASLES IN LONDON."

" I am directed by the Local Government Board to state that they have had under consideration the present outbreak of Measles in London, and that on the suggestion of the President, their Medical Officer has conferred with the Medical Officers of the London County Council and of the various Borough Councils as to the measures which may be taken for dealing with it.

“ At the Conference the view was generally expressed that Sanitary Authorities
 “ have been hampered in their efforts to check the spread of the disease by the absence
 “ of early information of cases, and the question was considered whether this difficulty
 “ would be removed if Measles were made a notifiable disease.

“ On this question widely divergent views as to the value of notification were
 “ shown to exist. A very large number of cases are not attended by a doctor, and it
 “ was pointed out that in such cases the adoption of the Notification Act would be a
 “ dead letter.

“ It may also be observed that the notification of Measles has been tried in a large
 “ number of towns and then abandoned.

“ Without, therefore, expressing any view on the question whether the notification
 “ of Measles would be justified, it is clear that such other means of obtaining informa-
 “ tion as are available should be fully utilised.

“ The Board find that the School Attendance Department of the London Education
 “ Authority have supplied much valuable information as regards Measles in the past,
 “ and in view of the proceedings at the Conference, it appeared to the Board that it
 “ might be practicable to arrange that this source of information should be made more
 “ readily available.

“ On this question the Board have consulted the Board of Education, and it has
 “ now been arranged that so long as the present emergency lasts the School Attendance
 “ Officers will give speedy information to the Medical Officers of Health of all cases of
 “ illness coming under their notice. It is hoped that by this means early information
 “ of the majority of cases of Measles will reach the Medical Officers of Health.

“ The information thus obtained will necessarily require to be followed up.
 “ Probably many cases will be reported which are not Measles, and arrangements should
 “ be made for obtaining a proper diagnosis, for securing that the cases are properly
 “ isolated, and for urging on the parents the need of obtaining medical aid where such
 “ aid is required.

“ No doubt the Council's official who visits the home will be able to do much in
 “ the way of giving advice as to the care and nursing of the patients.

“ REMOVAL TO HOSPITAL.

“ The Board have been in correspondence with the Metropolitan Asylums Board,
 “ and it is understood that the Board will agree to receive cases of Measles on the
 “ recommendation of the Medical Officer of Health. The accommodation of the
 “ Metropolitan Asylums Board for this purpose is necessarily limited, and arrangements
 “ will be made by which preference will be given to those cases most needing hospital
 “ treatment.

“ The Board may also remind the Borough Council that they have power to provide
 “ temporary hospitals, and if at a subsequent date the amount of accommodation for
 “ measles which is available in the hospitals of the Metropolitan Asylums Board should
 “ come to be exhausted, this power might have to be utilised.

“ STAFF REQUIRED FOR DEALING WITH OUTBREAK.

“ For dealing with this outbreak and properly following up the information which
 “ will be obtained, it is essential that each Medical Officer of Health should be provided

“with an adequate staff, and the Board trust that the Council will at once appoint any additional temporary assistants (medical or other) that may be required.

“At the same time I am to enclose a copy of a Memorandum which the Board’s Medical Officer has prepared on the subject of measles.”

I am in entire accord with the views expressed in the above quoted Memorandum. The real object of notification is to obtain early advice of cases of the diseases notifiable, and this object I believe can best be attained in the case of the specific disease under review by the methods advocated above, *i.e.*, the speedy notification by the School Attendance Department of the Local Education Authority of all cases of illness, whether diagnosed or not, coming to their notice. Although some of the cases thus notified would doubtless ultimately prove non-infectious, the advantages obtained by the early notification on the lines indicated would sufficiently compensate for the additional labour involved.

RECEPTION OF CASES OF MEASLES.

The Board of Management of the Metropolitan Asylums District, have, by virtue of the powers vested in them by the Metropolitan Poor Act, 1867, and the Acts amending and extending that Act, provided hospitals for the reception and treatment of persons suffering from certain specified infectious diseases.

Section 80 of the Public Health (London) Act, 1891, empowers the same Board of Management, subject to such regulations and restrictions as the Local Government Board may from time to time prescribe, to admit any person who is not a pauper, and is reasonably believed to be suffering from any of the diseases specified in the Section, into a hospital provided by the Managers.

The Local Government Board, deeming it expedient that provision should be made with regard to the admission to such hospitals, of persons not being paupers, suffering from Measles, on the 30th May last, by virtue of their powers, prescribed the following regulations and restrictions by which such persons may be admitted into any of the hospitals maintained by the Metropolitan Asylums Managers :—

ARTICLE 1. The Metropolitan Asylums Managers shall not receive into any of their hospitals a person to whom this Order applies unless, in their opinion, they have more accommodation available than is required for the reception of the pauper patients suffering from measles whom the Managers are authorised to receive.

ARTICLE 2. Except as hereinafter provided, a person to whom this Order applies shall not be admitted by the Metropolitan Asylum Managers into any of their hospitals except on the recommendation of the Medical Officer of Health for the district of the Sanitary Authority for the execution of the Public Health (London) Act, 1891, in which the person is residing at the time when the question of his removal to hospital arises.

The recommendation of the Medical Officer of Health shall in every case be sent to the Metropolitan Asylum Managers, and shall be accompanied by such information respecting the circumstances of the case as the Metropolitan Asylum Managers may reasonably require.

Provided that the Clerk to the Metropolitan Asylum Managers may, if he receives general authority in that behalf from the Managers, direct that a person to whom this

Order applies shall be admitted into a hospital of the Managers otherwise than on the recommendation of a Medical Officer of Health if, in the Clerk's opinion, the admission of such person is desirable on the ground of sudden or urgent necessity, or for some other special or exceptional reason.

The Clerk shall report to the Hospitals Committee of the Metropolitan Asylums Managers at their next ordinary meeting the name of any person admitted to a hospital of the Managers on his direction, and the grounds on which his direction for the admission of such person was given.

ARTICLE 3. If it becomes necessary to determine the priority in which persons to whom this Order applies shall be admitted into any hospital, the Metropolitan Asylum Managers shall have regard to such person's need of isolation in the interests of the public health, so far as the same can be ascertained from the information sent to them by Medical Officers of Health in pursuance of Article 11 of this Order, with the recommendations relating to the admission to hospital of persons to whom this Order applies.

ARTICLE 4. This Order may be cited as the Metropolitan Asylums (Measles) Order, 1911.

It will be seen by Article 2 that the onus of recommending the admission of a patient to any of the hospitals of the Metropolitan Asylums Managers is thrown upon the Medical Officer of Health for the district in which the person is residing at the time when the question of his removal to hospital arises.

So far as the City is concerned, the resident population is very small, and I have not had occasion to advise the removal of any cases of this disease. In larger districts, however, necessity must frequently arise, and some such hospital accommodation for the reception of cases of Measles is desirable, and its provision, will, probably, limit the disease.

NOTIFICATION OF POLIO-MYELITIS AND POLIO-ENCEPHALITIS.

From time to time, especially in thickly populated areas, outbreaks of any specific infectious disease not already embraced by the Public Health (London) Act, 1891, render it desirable that, in the interests of the public health, similar precautions be taken to prevent its spread as are observed in the case of notifiable diseases, and for this purpose power is given to the Sanitary Authority of any district, under Section 56 of the Act, to make an Order augmenting the list of diseases which are compulsorily notifiable under Section 55, and in accordance with these powers, the London County Council in August last, issued such an Order in relation to Polio-myelitis or Polio-encephalitis.

This Order which demands the notification in the administrative County of London (which includes the City) of all cases of the disease, was duly approved by the Local Government Board, and came into operation as from and including the 1st September, 1911, and failure to notify the disease to the Local Sanitary Authority after that date, constitutes an offence against the Act, and renders the offender liable to a penalty not exceeding 40s.

Acute Polio-encephalitis is a disease of acute or sudden onset occurring commonly in young children, and is characterised by loss of power and usually subsequent

wasting of the parts affected, without loss of sensation or affection of sphincters. Although adult cases do occur from time to time, attacks after six years of age are rare, by far the greater number occur during the first three years of life, the period of greatest susceptibility, however, being during the second year.

The disease, which is a seasonal one, invariably reaches its maximum in August, and is least evident in January and November. It would appear, therefore, that the period of onset corresponds with the month of greatest heat.

The relation of the disease to acute specific fevers is one of extreme importance. It has been observed to follow Scarlet Fever, Measles, Whooping Cough, Typhoid Fever, Pneumonia, Diphtheria and Malaria, and this relationship has been too frequent to allow of doubt that there is some significance in the connection.

That the disease is epidemic and infectious has been definitely established, well marked epidemics having been reported in various counties and in parts of the country which at other times have been particularly free from the malady.

The onset of the disease, which is of the nature of paralysis, is sudden. Sometimes the patient goes to bed well and wakes at night in great pain. Movement of the affected limb or back is restricted, the temperature is raised, vomiting may occur, there is general malaise, and the outbreak may even be attended by convulsions.

A more common symptom is that the child is taken ill with slight feverish symptoms, headache, vomiting, diarrhoea and pains in the back, and after a day or two in bed as a result of this general malaise, it will be noticed that one or more limbs are paralysed.

The acute onset, the loss of power, and the flaccidity of the limb without any disturbance of sensation are, as a rule, sufficient to make the diagnosis clear, but in some cases difficulty has arisen in differentiating between this disease and Cerebro-spinal Meningitis.

Until recent years very little attention has been given to Epidemic Cerebro-spinal Meningitis, and even less to Polio-myelitis, and as there would appear to be some similarity between the two diseases, it is obviously desirable that they should both be subject to the same discipline as far as public health is concerned. Cerebro-spinal Meningitis referred to on page 23, was placed upon the list of notifiable diseases in March, 1907, and it is clear that the non-notification of Polio-myelitis, which at times resembles Cerebro-spinal Meningitis, discounts the value of the notification of the latter.

The preventive measures in operation in regard to Small-pox and Epidemic Cerebro-spinal Meningitis have been adopted in connection with those of Polio-myelitis. The information obtained by your Officers is communicated to the London County Council on an approved form, copies of which are then transmitted to all the Metropolitan Borough Councils for the scrutiny of their Medical Officers of Health, who, if they are able to detect any direct or indirect connection with their districts, can immediately set the necessary machinery in motion with a view to eliminating a possible means of infection which might have otherwise passed unnoticed.

GLANDERS.

In accordance with Article 3 (3) of the Glanders and Farcy, 1907, the Veterinary Inspector, under the Diseases of Animals Act, notified during the year three cases of Glanders in horses presented for shipment at the Custom House Quay.

The animals were slaughtered, and the carcasses disposed of in the usual manner.

ANTHRAX.

On the 24th May last, one of your Meat Inspectors, while examining some pig carcasses exposed for sale at the Central Meat Market, observed one, which in his opinion presented lesions suggestive of Anthrax.

Pending definite diagnosis, the carcase was carefully isolated.

Microscopical examination, conducted by your Veterinary Inspector, revealed the presence of Anthrax bacilli in considerable numbers, and a subsequent examination by the Assistant Pathologist at the Royal Veterinary College, confirmed this diagnosis, as also did the result obtained by the Veterinary Inspectors of the Board of Agriculture, to whom specimens were sent as required by the Anthrax Order, 1910.

The usual precautionary measures were taken, and everything with which the carcase had been in contact was disinfected.

The value of the laboratory, recently established, as an adjunct to the Meat Inspectors' Offices at the Central Meat Market, and the advisability of having available the services of a scientific advisor, has been demonstrated by this case, in which a definite diagnosis was made, and the necessary measures taken to prevent any danger of spread of the infection.

Recent investigations have shown that lesions in pigs, that have succumbed to Anthrax, may be often so slight as to escape recognition without microscopical and bacteriological examination.

CLEANSING OF VERMINOUS SCHOOL CHILDREN.

In 1897, the passing of the Cleansing of Persons Act empowered Local Authorities to bath, disinfect, &c., any person infested with vermin who should apply to them for relief, and arrangements were made by the Corporation for all cases of this nature to be dealt with by the City of London Union Authorities, at a fixed charge.

In 1907, this arrangement was extended in order to embrace those children of London County Council Schools who were found by the Officers of the Council to be in a verminous condition.

Shortly after this extension the London County Council (General Powers) Act, 1907, empowered that body as the Local Education Authority for the County to take effective measures for dealing with children in a verminous condition attending their

schools, and gave authority to their Medical Officer (Education) to examine the person and clothing of any child attending any school provided or maintained by the Council, to ascertain whether the person or clothing of such child is infested with vermin or is in a foul or filthy condition, and to require either the parent or other person responsible for such child to effect the cleansing of its person and clothing within 24 hours of the receipt of a notice to that effect.

If the parent or other person responsible fails to comply with such notice, the Council or its duly authorised Officers may remove the child from the school and cause the person and clothing of such to be properly cleansed in suitable premises and with suitable appliances, and detain the child until such cleansing has been effected.

With regard to the "suitable premises," and "suitable appliances" referred to above, Section 38 of the same Act enacts that the Council and any Sanitary Authority in the metropolis may make arrangements for use by the Council of any such premises or appliances as the Sanitary Authority may possess.

The London County Council Act confined these provisions to the Metropolitan area, but the Children Act, 1908, confers similar powers on local authorities throughout the country, and moreover contains a clause which renders the parent, guardian or other person responsible for the maintenance of the child that has been allowed to get into such a condition as necessitates renewed action under this Act, liable to a fine not exceeding ten shillings.

It will be seen, therefore, that Local Education Authorities are now armed with a weapon wherewith cleanliness of the person and clothing of children attending their schools may be effectively enforced, and with a view to ensuring its speedy use, an agreement was entered into between the Corporation of London and the London County Council, the principal terms of which are as follows :—

- (i.) The Corporation to reserve the Cleansing Station on Tuesdays and Thursdays in each week from two to four p.m., for the exclusive use of such children.
- (ii.) The Corporation to properly cleanse at such Station the person and clothing of any child sent by the Council under this Agreement, providing always that such child is residing in the City and in attendance at one of the Council's Public Elementary Schools.
- (iii.) The Corporation not to be required to cleanse more than ten children in any one day.
- (iv.) The Corporation to provide sufficient and competent assistants for the purpose of effecting such cleansing.
- (v.) The cleansing of female children to be undertaken by women only.
- (vi.) The Cleansing Station to be kept entirely separate from any premises used by the Corporation for the suspected cases of infectious disease contacts, and
- (vii.) The Corporation to effect the cleansing of the home of any child embraced by this Agreement in all cases where such is reasonably necessary for the health and cleanliness of the child.

It was at first proposed that the Council should make a contribution of 6*d.* per bath per head, but the Corporation decided to bear the entire cost of the cleansing, &c.

The Cleansing Station with three baths, accommodation for reception and dressing, &c., has been provided on the site of the disused Chemical Laboratory in Golden Lane, the necessary structural alterations, which included the establishment of a separate entrance in Golden Lane, being carried out by the City Engineer.

In November last, soon after the arrangements detailed above had been put into operation, the London County Council asked if the Corporation would be prepared to cleanse children infested with vermin from schools outside the area of the City.

The cleansing of the bodies and clothing of the children would be of little lasting value unless the condition of their environment were dealt with at the same time, and the Corporation would have no power to act in this direction in the case of children residing outside the City.

It is essential that both the cleansing of the children and their homes should be in the hands of the same authority, each being responsible in this respect for its own area.

For this reason the Corporation were unable to agree to the suggested extension.

For general information I will here enumerate the procedure adopted in dealing with cases under the foregoing arrangements.

- (1) The School Nurse will visit the school, examine all the children, and send printed instructions to the parent of any child found in a verminous condition, as to the simplest and quickest method of disinfection.
- (2) If at the end of 48 hours the Nurse finds the child in the same unsatisfactory state, a notice will be served on the parents or guardians, informing them that if such cleansing is not carried out within 24 hours of the receipt of such notice, the same will be done in a compulsory manner under the provisions of Section 122, Sub-section 2, of the Children Act, 1908.
- (3) If after the expiration of 24 hours from the time the above-mentioned notice is served, the Nurse, on examination of the child at the school, finds that the necessary cleansing has not been carried out, she will take the child to the Cleansing Station and there leave a card (No. 219) of admission.
- (4) The child is then bathed and cleansed by an official duly appointed by the Corporation for the purpose, and the clothing treated in the disinfecting apparatus.
- (5) After the child has been cleansed, the card (No. 219) will be so endorsed by the person in charge of the Station, and handed to the Nurse when she calls to examine the child at the end of the day.
- (6) If the cleansing is satisfactory, the Nurse signs the card (No. 219) and forwards it to the Medical Officer of Health accompanied by a request to take the necessary steps with regard to the home.
- (7) Should a child again attend a Council School in a verminous condition after having been so cleansed, Police Court proceedings under the Children Act, 1908, may be instituted against the parents or guardians.

The first child was sent to the Cleansing Station on the 28th September, and from that date to the end of the year 30 cleansings were carried out by the Superintendent-in-Charge.

These cleansings related to 24 separate children, and involved the inspection of 16 homes, in four of which disinfection or cleansing was necessary.

This system will doubtless prove of considerable value in the prevention of the spread of school infection, and will, moreover, furnish the Corporation with a new source of information as to houses requiring sanitary supervision. The control of the sanitary condition of the homes of school children is one of the most important duties connected with sanitary administration, and the new departure has overcome to a large extent the difficulties hitherto experienced of obtaining information as to the sanitary surroundings amongst which the school children live.

CONTAMINATED MILK.

The investigation into the character of Milk arriving in London consigned to traders in the City, which I instituted in 1902 and repeated during the years 1904, 1905, 1906, 1907, 1908, 1909 and 1910, was continued in April of the present year.

The primary object of the enquiry, as in past years, was to ascertain to what extent Milk, as delivered in the City of London, could be regarded as an active agent in the dissemination of Consumption.

Forty-two samples were taken at railway stations in the City on arrival from the following counties :—

Essex	...	...	...	...	19 Samples.
Suffolk	...	...	...	...	10 "
Norfolk	...	...	...	...	4 "
Buckinghamshire	...	...	...	...	2 "
Bedfordshire	...	...	...	...	1 "
Derbyshire	...	...	...	...	1 "
Cambridgeshire	...	...	...	...	4 "
Huntingdonshire	...	...	...	...	1 "

These samples were submitted to Dr. Klein for bacteriological examination, who reported thereon, as follows :—

May 15th, 1911.

I enclose tabular statement of results *re* analyses of Milk Samples Nos. 1-42 (exclusive of Nos. 1A, 4A, 7A of May 15th).

No. of Sample.	Amount of Dirt.	Date of Injection of Guineapig.	Condition of Subcutaneous Guineapig after 1 week.	Condition of Subcutaneous Guineapig after 2 weeks.	Post-mortem Examination after 3-4 weeks.	General Result.
1	Little dirt...	... April 9 1911.	Extensive swelling and œdema in groin and on abdomen.	Both animals dead on 17th April. Extensive gangrene.		Extensive gangrene in both animals.
2	Fair amount	...	Extensive swelling in groin.	Firm swelling in groin.	Open abscess in groin, negative tubercle in both animals.	Suppuration in subcutaneous animal.
3	Traces	...	Tumour in groin : Abscess.	Tumour disappeared. Abscess healed.	Negative tubercle in both animals.	Suppuration in subcutaneous animal.
4	Fair amount	...	Both animals dead on 15th April. Septicæmia.			Septicæmia, death six days.

<i>No. of Sample.</i>	<i>Amount of Dirt.</i>	<i>Date of Infection of Guinea-pig 1911.</i>	<i>Condition of Subcutaneous Guinea-pig after 1 week.</i>	<i>Condition of Subcutaneous Guinea-pig after 2 weeks.</i>	<i>Post-mortem Examination after 3-4 weeks.</i>	<i>General Result.</i>
5	Little dirt...	April 9	Tumour in groin : abscess.	Suppurating wound	Abscess healed : Negative tubercle in both animals.	Suppuration in subcutaneous animal.
6	Little dirt...	"	Negative ...	Negative ...	Negative in both animals.	Negative.
7	Little dirt...	April 11	Both animals dead : malignant oedema.			Malignant oedema.
8	Appreciable amount	"	Tumour : abscess	Suppurating wound	Suppurating wound, negative tubercle in both.	Suppuration in subcutaneous animal.
9	Fair amount	"	Tumour in groin, firm.	Tumour diminished	Tumour almost disappeared, negative tubercle.	Local temporary tumour in subcutaneous animal.
10	Traces ...	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
11	Appreciable amount	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
12	Appreciable amount	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
13	Little dirt...	April 13	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
14	Good deal of dirt...	"	Tumour in groin : abscess.	Suppurating wound	Scar of healed abscess in subcutaneous animal. Negative tubercle in both animals.	Suppuration in subcutaneous animal.
15	Traces ...	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
16	Little dirt...	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
17	Good deal of dirt...	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
18	Good deal of dirt	"	Tumour in groin : abscess.	Suppurating wound	Suppurating wound in groin of subcutaneous animal. Negative tubercle.	Suppuration (prolonged) in subcutaneous guinea-pig.
19	Traces ...	April 20	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
20	Little dirt...	"	Tumour in groin, firm.	Big tumour (firm) in groin.	Purulent glands in groin of subcutaneous animal. No tubercle bacilli anywhere.	Purulent inflammation in subcutaneous animal ; peritoneal animal negative.
21	Fair amount	"	Both animals dead. Septicæmia.			Septicæmia.
22	Traces ...	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
23	Fair amount	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
24	Little dirt...	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
25	Appreciable amount	April 22	Tumour in groin : abscess.	Small abscess	Small purulent tumour in groin of subcutaneous animal. Negative tubercle in both animals.	Suppuration in groin, viscera normal in both animals.
26	Traces ...	"	Abscess in groin ...	Abscess in groin ...	Negative locally and viscera.	Negative in viscera of both animals. Suppuration in groin of subcutaneous animal.
27	Traces ...	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
28	Traces ...	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.

<i>No. of Sample.</i>	<i>Amount of Dirt.</i>	<i>Date of Injection of Guinea-pig. 1911.</i>	<i>Condition of Subcutaneous Guinea-pig after 1 week.</i>	<i>Condition of Subcutaneous Guinea-pig after 2 weeks.</i>	<i>Post-mortem Examination after 3-4 weeks.</i>	<i>General Result.</i>
29	Fair amount ...	April 22	Big tumour : abscess	Open suppuration...	Open suppurating wound in subcutaneous animal ; no tubercle bacilli.	Suppuration in subcutaneous animal, viscera normal, negative viscera in peritoneal animal.
30	Negative ...	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
31	Very little dirt ...	April 25	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
32	Traces ...	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
33	Considerable ...	"	Big tumour : abscess	Open abscess	Suppuration in subcutaneous animal ; no tubercle bacilli.	Suppuration in subcutaneous animal, viscera normal, negative in peritoneal animal.
34	Traces ...	"	Negative ...	Negative ..	Negative in both animals.	Negative in both animals.
35	Considerable ...	"	Big tumour, firm ...	Tumour, firm, but decreased.	Small thickening in subcutaneous animal, viscera normal. Peritoneal animal normal.	Temporary tumour in subcutaneous animal, negative in peritoneal animal.
36	Fair amount ...	April 25'	Big tumour : abscess	Open abscess.	Purulent discharge in groin, no tubercle bacilli, viscera normal. Peritoneal animal normal.	Suppuration in subcutaneous animal, negative in peritoneal animal.
37	Fair amount ...	April 27	Big tumour, firm ...	Tumour and matter	Tumour disappeared, viscera normal in both animals.	Temporary tumour in subcutaneous animal, negative viscera in both animals.
38	Small Amount ...	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
39	Traces ...	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
40	Very little dirt ...	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
41	Fair amount ...	"	Negative ...	Negative ...	Negative in both animals.	Negative in both animals.
42	Fair amount ...	"	Big tumour : abscess	Open abscess	Abscess healed in subcutaneous animal. Viscera normal in both animals.	Suppuration in subcutaneous animal. No tubercle bacilli, viscera normal in both animals.

SUMMARY.

None of the samples caused tuberculosis in the injected animals ...	0	per cent.
12 samples had either no dirt or only insignificant traces of dirt ...	28.5	" "
22 samples were quite negative in producing any diseased condition ...	52.4	" "
20 samples caused disease, either acute fatal results, or local inflammation and abscess ...	47.6	" "
Of the 13 samples which caused local abscess, no less than 9 samples contained appreciable amounts of dirt ...	69.2	" "
Clean 12 ...	28.5	" "

19th May, 1911.

(Signed) E. KLEIN.

Inasmuch as the animals injected with the sediment of samples Nos. 1, 4, 7 and 21, died respectively, of extensive gangrene, septicæmia, malignant œdema, and septicæmia, shortly after inoculation, these samples were lost for the tubercle test, and in order to complete the investigation into the conditions of these particular samples, further specimens from the same sources as Nos. 1, 4 and 7 were obtained. It was impossible, however, to get a sample from the source of No. 21, as the supply had been discontinued.

The result of the examination of these samples was as follows :—

“ Sample 1a.—Appreciable amount of dirt, the injection into guineapigs was
“ quite negative. Killed after 23 days. The animals show
“ locally and viscerally no change.

“ Sample 4a.—Little dirt. The action of the milk was local suppuration
“ with a few miliary abscesses in the liver after 22 days. No
“ tubercle bacilli.

“ Sample 7a.—Very little dirt. Local extensive tumour in one week. Death
“ after 18 days. Extensive septic œdema.”

For comparative purposes, I print below the summary of the results of the several series taken during the years 1904-1911.

	1904.	1905.	1906.	1907-8.	1909.		1910.*	1911.
					1st Series.	2nd Series.*		
<i>Character of Milk.</i>	%	%	%	%	%	%	%	%
Fairly clean and pure	48·7	68·2	80	54·2	43·7	66·6	75	28·6
Unclean ...	43·6	22·7	12	37·5	43·8	33·3	25	71·6
Tuberculous ...	7·7	9·1	8	8·3	12·5	4·7	6·25	Nil.

For the first time since these enquiries were instituted (1902), no samples were found to contain the tubercle bacillus, and although this is satisfactory, the increase in the number of samples in which dirt was found (the highest since the system was commenced) together with the high percentage of pathogenicity, is regrettable, and indicates a very unsatisfactory state of affairs, either at the farm itself, or during transit.

In all cases where the samples yielded unsatisfactory results, the dairymen were called upon to furnish a certificate of a Veterinary Surgeon as to the health of the cows from which the milk was derived, and a report of the Medical Officer of Health for the district as to the sanitary condition of the premises.

In five instances, Nos. 4, 5, 9, 21 and 25, the Veterinary Surgeon certified that the unhealthy cows had been found in the herd, and in one case (9), the premises were reported unsatisfactory.

While there is no doubt that much of the impurity finds its way into the milk at the point of production, I am of opinion that the conditions of transit, although they have somewhat improved of late years, are also largely responsible for the dirty nature of the milk on its arrival.

The type of churn, usually used by the wholesale dairyman, a few years ago was of a most unsatisfactory design, being fitted with a cup-shaped lid, in which was drilled so called “ventilation” holes, through which dust or dirt found ready access to the contents.

* It will be noticed that the 100 per cent. is made up of clean and unclean samples only in these years.
The samples in which tubercle was found also contained dirt.

To this type of churn, I have always taken strong exception, and have made efforts to impress upon those responsible the absolute futility of expecting milk to arrive in London in a clean and wholesome condition, if sent out in churns which offer no obstacle to the ingress of dirt.

Most of the larger wholesale dairymen are now adopting specially constructed churns, designed to exclude dust and dirt in transit, and locked or sealed to prevent the possibility of tampering with the contents, but there are still some, however, who profess to believe that milk will not keep unless placed in ventilated receptacles. This is a fallacy, which only continuous action on the part of the sanitary authorities can hope to combat.

The final report of the Royal Commission on Tuberculosis, issued during the present year, settles once and for all the oft-debated question, as to whether or not tuberculosis can be transmitted from animal to man through the agency of milk.

The labours of the Commission, which have extended over a period of 11 years, have involved one of the most careful, scientific and practical investigations ever conducted, and the value of their findings, especially in relation to the infective properties of tuberculous milk, cannot be exaggerated.

Sufficient evidence has been accumulated in the course of this investigation, to definitely establish the fact, that a considerable amount of the tuberculosis of childhood is due to infection from tubercle bacilli, conveyed by the consumption of cow's milk, and the Commissioners, in urging the necessity for legislative action for the improvement of the milk supply, are convinced that any such measure should prohibit the sale of milk from the recognisably tuberculous cow, irrespective of the site of the disease, whether in the udder or in the internal organs.

There is a general concensus of opinion that the present method of conducting the milk trade is extremely unsatisfactory, and although there is some measure of control as regards tuberculous milk in London, there is an urgent necessity for its extension to the country as a whole.

Every farmer who sells milk should be registered, such registration to be withheld if the sanitary condition of the farm and its surroundings are unsatisfactory.

Every cow whose milk is sold should be subjected to the Tuberculin test by a qualified authority, and any found to re-act, marked and registered in order that they may be followed up to the time of slaughter, and specially examined after.

The segregation of healthy animals and those re-acting is essential. The sale of milk for human consumption from a tuberculous cow (whether or no the udder be affected) should be prohibited. If boiled or pasteurised under official supervision before use, there can be no objection to its use for the food of animals.

All milk should be conveyed in dust-proof churns, locked or sealed, and carried in specially constructed vans, and special precautions required to eliminate the risk of contamination during distribution.

All animals slaughtered on account of tuberculosis should be rigidly inspected by duly qualified Inspectors before being sold for human food.

The machinery should be in the hands of the Local Authority, but ample power should be vested in the Central Authority to take action in case of default.

The question of compensation is one that should receive careful consideration, and due regard being had to public health interests, it would not seem possible or politic to ignore the demands in the case of animals clinically healthy, but which are found after slaughter to be affected with tuberculosis. No compensation should, however, be paid if it can be shown that the owner has been responsible for the disease by neglect with regard to breeding, feeding or housing of the animals in question.

Compensation should be given for a limited time only, say three years. During that time the farmer will be able to take steps to eradicate the disease from his herd. At the expiration of this term, the possession of a cow in a milking herd in an advanced stage of consumption should be a statutory offence.

Whatever compensation is agreed upon, it should be paid out of national and not local funds.

It is satisfactory to note that the findings of the Royal Commission amply confirm the results published from time to time by your Officers, and fully endorse the action taken by the Corporation in connection therewith.

CONFERENCE ON MATTERS RELATING TO PUBLIC HEALTH.

In July, 1904, a Conference was convened by the London County Council with the object of affording Metropolitan Borough Councils an opportunity of exchanging views as to the results of the experience gained in the administration of the Public Health (London) Act, 1891, and of discussing any general principles which it might appear to be desirable to adopt with a view to the provisions of the Act being equally and uniformly enforced throughout the Metropolis. The beneficial results attending the holding of this Conference suggested the advisability, after a period of nearly seven years, of convening another with a view to discussing the many and diverse matters of public health interests which have arisen since the previous meeting.

A Conference of the Representatives of the London Sanitary Authorities was accordingly held at the County Hall, Spring Gardens, S.W., on Thursday, the 6th April last, the City being represented by the Chairman of the Sanitary Committee (the Rev. Percival Clementi-Smith, M.A.), the Town Clerk, and the Medical Officer of Health, when, after discussion, the following Resolutions were passed:—

"Houses Let in Lodgings." That the efficient administration of Section 95 of the "Public Health (London) Act, 1891, relating to the registration and regulation of "houses let in lodgings is a matter of extreme importance to the public health of "London."

"Pulmonary Tuberculosis." (A). That the principle of compulsory notification "should be extended to all cases of pulmonary tuberculosis.

(B). That the establishment of tuberculosis dispensaries throughout London "is urgently required."

"Measles." (A). (1). That a better organisation is desirable in London for the "control of measles in schools.

(2). That during a serious outbreak of measles children under five years of "age should be excluded from school attendance.

(3). That compulsory notification of measles is desirable.

(4). That the cleansing of the infants' departments and of the furniture, "lower walls and floors thereof, shall take place once a week.

"(5). That accommodation should be provided in the Metropolitan Asylums Board's Hospitals for urgent non-pauper cases of measles.

"(B). That in the interests of public health the school regulations should provide "that all children from houses infected with measles should be prohibited from school "attendance."

"*Water Supply to Tenement Houses.* That houses of two or more storeys occupied "by more than one family of the working class should have at least one water supply "and a sink placed on a landing convenient for the occupants of the second and third "storeys."

"*Places where Food is Prepared and Exposed for Sale.* (A). That it is desirable "that regulations should be made to limit the pollution resulting from exposure in an "improper manner in public places or adjacent to the public way, of food and food "receptacles.

"(B). That it is desirable that all places where food is prepared for sale should be "regulated by bye-laws made by the London County Council and administered by the "sanitary authorities, and should be subject to annual licensing by the sanitary "authority."

"*Notification of Births Act, 1907.* That in view of the adoption of the Notification "of Births Act, 1907, throughout London, and the provisions of the recent orders of "the Local Government Board with regard to the compulsory notification of consump- "tion, the appointment of one or more women health visitors, or women sanitary "inspectors, in each metropolitan borough is eminently desirable."

"*Chapels of Rest.* That it is desirable that chapels of rest, apart from mortuaries "for bodies awaiting inquest, should be established by sanitary authorities.

"That all private mortuaries should be registered and regulated."

Conferences of Representatives of Authorities entrusted with the working of the Statutes relating to public health are in every way desirable, and I am sure that the interchange of views which are the natural corollary of such meetings must have an important bearing on the combined and uniform efforts which are so necessary for the effective administration of public health legislation.

CREMATIONS.

The number of Cremations at the Corporation Cemetery at Ilford during the year was 20, as compared with 22 in 1910. It will be seen from the table on page 47 that only two other Crematoria in the United Kingdom have to record a decrease in numbers, while the total Cremations taking place in 1911 is 1,023, against 840 for 1910.

The increase year by year in the total number of Cremations has been maintained, with three exceptions since 1885, when the first Crematorium in the United Kingdom was opened at Woking.

The several large towns in the United Kingdom where Crematoria are erected are shown in the accompanying table, and the date of opening them indicated in the first column.

It is interesting to note that since Cremation first received legal recognition in this country (1884) 9,983 have availed themselves of this method of disposal of the dead.

CREMATIONS IN THE UNITED KINGDOM,

27 YEARS—1885-1911.

YEAR.	Woking.*	Manchester.	Glasgow.	Liverpool.	Hull.	Darlington.	Leicester.	Golder's Green.	Birmingham.	Leeds.	Ilford.	Sheffield.	Bradford.	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	2	...	...	...	...	...	...	...	446
1902	275	81	20	54	13	1	1	5	...	...	...	...	...	450
1903	143	92	24	35	18	1	5	158	3	...	...	...	...	479
1904	138	98	19	40	20	8	8	220	19	...	...	...	...	570
1905	95	97	35	35	15	3	16	252	20	16	9	7	1	601
1906	140	90	45	46	17	13	12	298	25	15	23	6	13	743
1907	108	96	30	34	29	8	13	290	33	16	18	18	13	706
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
Total	3,440	1584	391	551	227	72	117	2965	230	119	135	79	73	9,983

* "Viscount Cross in the year 1879 forbid 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 November, 1902. *Vide* "Transactions of Cremation Society of England, 1903," p. 31.

ARTIZANS' DWELLINGS, STONEY LANE, HOUNSDITCH.

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 artizan class; some of the ground floors being let as shops. The buildings contain 501 rooms, arranged in 241 tenements, and are occupied by 847* persons, compared with 880 in 1910. 71·3 per cent. are adults, and 28·7 per cent. children (under 14 years).

The death rate for 1911 was 11·8 per 1,000 per annum. The number of deaths of children under one year, per 1,000 births, was 80, as against 46·3 for the City generally.

TABLE OF BIRTHS AND DEATHS OCCURRING AT THE ARTIZANS' DWELLINGS,
STONEY LANE, HOUNSDITCH, DURING THE YEAR 1911.

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 60	60 and up- wards.
NORTH BLOCK ...	3	3	1	...	...	...	...	1	...
SOUTH „ ...	...	2	1	..	1	...	...	...	...
KING'S „ ...	1	...	2	1	...	...	...	...	1
QUEEN'S „ ...	5	2	2	..	...	...	...	1	1
PRINCE'S „ ...	4	5	4	1	...	...	...	1	2
TOTALS	13	12	10	2	1	...	...	3	4

The number of births was 25, viz.: 13 males and 12 females. The birth rate was 29·5 per 1,000, and is 1·5 per 1,000 below the average for the previous five years.

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	1904	-	-	-	-	-	30·1
1897	-	-	-	-	-	40·3	1905	-	-	-	-	-	29·1
1898	-	-	-	-	-	43·1	1906	-	-	-	-	-	26·1
1899	-	-	-	-	-	37·5	1907	-	-	-	-	-	35·0
1900	-	-	-	-	-	38·4	1908	-	-	-	-	-	31·5
1901	-	-	-	-	-	33·8	1909	-	-	-	-	-	29·6
1902	-	-	-	-	-	45·8	1910	-	-	-	-	-	32·9
1903	-	-	-	-	-	31·2	1911	-	-	-	-	-	29·5

* i.e., persons sleeping on the premises.

The Baths provided for the use of the tenants of these Buildings, which were opened in May, 1904, continue to be extensively used, the number of persons bathing during 1911 being 12,572, of whom 5,236 were males and 7,336 were females.

The accompanying Table is compiled from the monthly records of attendances at the Baths.

RECORD OF ATTENDANCES AT THE BATHS, ARTIZANS' DWELLINGS.

(The corresponding figures for 1910 are in italics.)

MONTH.	SEX.								TOTAL.	
	Males.				Females.					
	Children.		Adults.		Children.		Adults.			
	1910.	1911.	1910.	1911.	1910.	1911.	1910.	1911.	1910.	1911.
January -	134	93	323	233	163	149	277	301	897	776
February -	137	116	305	243	142	174	261	296	845	829
March -	101	141	354	223	132	201	244	337	831	902
April -	125	114	371	292	173	215	325	323	994	944
May -	152	128	410	326	203	339	401	410	1,166	1,203
June -	119	156	328	313	275	317	407	423	1,129	1,209
July -	126	146	311	458	316	402	457	518	1,210	1,524
August -	112	152	245	366	259	280	448	515	1,064	1,313
September -	126	160	249	362	365	310	438	440	1,178	1,272
October -	98	105	266	305	229	141	358	347	951	898
November -	78	102	188	259	158	114	226	303	650	778
December -	104	123	209	320	160	145	299	336	772	924
Totals -	1,412	1,536	3,559	3,700	2,575	2,787	4,141	4,549	11,687	12,572

DISINFECTION, &c., AT CITY MORTUARY.

406,014 articles of bedding, clothing, furniture, &c., were received at Golden Lane and disinfected. Of these 401,649 were disinfected at the request of City firms engaged in exporting second-hand clothing to South Africa, where the authorities will not allow such articles to enter the country unless accompanied by a certificate duly signed by a medical officer of health, vouching for the proper disinfection of each consignment. In all 1,219 such certificates were issued during the year. The remaining 4,365 articles were from premises in the City where infectious disease had occurred.

204 bodies were received at the Mortuary, pending interment, 92 post-mortem examinations were made, 182 inquests were held on bodies, and 6 inquests on fires.

NUMBER OF ARTICLES DISINFECTED, BODIES RECEIVED AT THE MORTUARY, AND
INQUESTS HELD AT THE CORONER'S COURT IN THE CITY DURING 1911,
COMPARED WITH THE PREVIOUS FIVE YEARS.

Year.	Articles of Bedding, &c., disin- fected.	Bodies received at the Mortuary.	Inquests held on bodies.	Inquests held on Fires.
1906	3,796	236	216	3
1907	4,672	193	165	8
1908	10,078	194	173	3
1909	325,831	205	187	3
1910	418,957	180	161	2
Average for previous five years	152,667	201	180	4
1911	406,014	204	182	6

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 1911 :—

1911.

<i>Inquest held on</i>	<i>Name of Premises.</i>	<i>Date of Fire.</i>
14th February, 1911	- 49 and 50, Barbican -	3rd February, 1911.
4th and 10th May, 1911	- 36A, Aldersgate Street -	2nd May, 1911.
30th May, 1911	- 11, Nicholl Square -	19th May, 1911.
8th September, 1911	- 5 and 6, Dorset Buildings -	30th August, 1911.
17th August and 21st September 1911.	93, Upper Thames Street	1st August, 1911.
7th December, 1911	- Railway Arch in Seacole Lane	22nd November, 1911.

DISINFECTION OF CONVEYANCES AFTER CARRYING
CASES OF INFECTIOUS DISEASE.

Five public conveyances, which had been used to convey patients suffering from infectious diseases to hospital, have been disinfected at the City Disinfecting Station, Golden Lane, E.C.

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 “denaturalizing” condemned meat, disinfecting public conveniences (urinals, &c.).
- B. Disinfecting roadways, street gullies, &c.
- C. Disinfecting premises, &c., after infectious disease, drain testing and sundries.

The amounts spent during the past 12 months under the several headings were:—

				£	s.	d.
A.	...	...	...	15	10	4
B.	...	...	...	344	10	10
C.	...	...	...	18	10	9
Total				£378	11	11

The above amounts only relate to materials purchased for the use of the Public Health Department. Arrangements have been made with the heads of other departments whereby any disinfectants required by them can be obtained direct from the Contractor supplying the Public Health Department.

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 my Annual Report for that year.

Since its establishment 17 bodies have been placed therein, four during 1909, eight during 1910, and five during 1911. These latter were all the bodies of unknown persons who had met their death by violence, and the preservation has in many cases led to their identification.

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.	Works completed.
January	...	...	...	118	5	6	11
February	...	...	...	294	10	13	37
March	...	...	...	228	7	13	31
April	...	...	...	318	3	144	39
May	...	...	...	361	37	8	34
June	...	...	...	352	5	42	79
July	...	...	...	213	10	13	56
August	...	...	...	210	6	20	38
September	...	...	...	215	6	31	38
October	...	...	...	226	5	41	34
November	...	...	...	187	7	19	27
December	...	...	...	242	5	12	37
Totals				2,964	106	362	461

MIDDLE DISTRICT.

(Inspector E. J. SIMMONS.)

Month.	Premises inspected.	Orders issued.	Notices served.	Works completed.
January	111	6	2	18
February	269	7	11	45
March	215	13	14	27
April	218	12	18	32
May	273	8	22	42
June	279	7	18	27
July	248	5	14	41
August... ..	218	6	15	44
September	224	6	14	41
October	246	6	14	33
November	276	8	17	41
December	304	4	11	56
Totals	2,944	88	170	447

EAST DISTRICT.

(Inspector W. H. RALPH.)

Month.	Premises inspected.	Orders issued.	Notices served.	Works completed.
January	110	8	9	32
February	283	15	6	48
March	234	7	132	32
April	286	15	18	35
May	320	14	7	136
June	294	6	39	31
July	232	12	10	29
August	134	3	9	20
September	230	4	11	29
October	285	5	15	34
November	294	9	7	31
December	230	7	18	33
Totals	2,932	105	281	490

The foregoing are summarised as under :—

District.	Number of inspections made.	Orders issued.	Notices served.	Improvements effected.
West	2,964	106	362	461
Middle	2,944	88	170	447
East	2,932	105	281	490
Totals... ..	8,840	299	813	1,398
Average of previous five years	8,584	396	1,097	1,509

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, together with the corresponding figures for 1900 :—

REGISTERED LODGING-HOUSES.

District.	No. of Houses on Register.		No. of Lodgers.		No. of Tenements.		Average No. of Persons per Tenement.		Cleansing Notices Served.	
	1911.	1900.	1911.	1900.	1911.	1900.	1911.	1900.	1911.	1900.
WEST	121	183	896	1,502	400	656	2.24	2.29	159	239
MIDDLE	7	55	42	363	21	130	2.0	2.79	7	66
EAST	119	158	810	1,186	341	488	2.37	2.43	139	176
Total	247	396	1,748	3,051	762	1,274	2.2	2.39	305	481

These are periodically inspected, and in April of each year their owners are called upon to undertake a thorough cleansing of them, in accordance with the provisions of the Bye-laws. This necessitated the service of a total of 305 Notices during 1911.

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 :—

WEST DISTRICT.

Name and situation of Artizans' Block Dwellings.	No. of Tenements.					No. of Inhabitants.	
	One Room.	Two Rooms.	Three Rooms.	Four Rooms.	Five Rooms or more.		
{ Albion Buildings (No. 21), Bartholomew Close	...	10	...	...	...	25	
{ Albion Buildings (No. 22), Bartholomew Close	...	10	...	...	...	22	
Bartholomew House, Bartholomew Close	...	16	2	...	...	33	
{ Dean Street Blocks, Fetter Lane—							
Block A	...	3	4	...	1	...	36
„ B	...	2	5	...	...	...	24
„ C	...	6	3	...	...	...	30
„ D	...	2	5	...	...	...	18
„ E	...	2	5	...	...	...	24
„ F	...	...	4	...	1	...	19
St. Ann's Chambers, Ludgate Hill	...	1	20	...	...	...	47
Bloomfield House, Snow Hill	...	...	24	...	...	...	57
Total Six "Blocks"	...	32	92	...	2	...	335

MIDDLE DISTRICT.

Name and situation of Artizans' Block Dwellings.	No. of Tenements.					No. of Inhabitants.
	One Room.	Two Rooms.	Three Rooms.	Four Rooms.	Five, or more Rooms.	
Bridgewater House, Fann Street	...	12	...	...	...	18
City Buildings, Moor Lane	...	20	12	...	...	57
Total Two "Blocks"	...	32	12	...	...	75

EAST DISTRICT.

Name and situation of Artizans' Block Dwellings.	No. of Tenements.					No. of Inhabitants.
	One Room.	Two Rooms.	Three Rooms.	Four Rooms.	Five, or more Rooms.	
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 Street Without 	12	10	3	...	...	55
Total Two “ Blocks ” 	35	186	45	...	...	935

These ten Blocks, containing 436 tenements, are inhabited by 1,345 persons = 3·08 persons to each tenement.

PRINTERS' STRIKE.

During the Printers' Strike in the early part of the year daily inspections were made of the sleeping and dining accommodation provided on the premises for the men and women who did not go out on strike.

It was necessary in some cases to suggest amendments to the various owners. These were at once acceded to and the required improvements made.

During this temporary arrangement no case of serious illness was reported in the person of any of the occupants.

COMMON LODGING-HOUSE,

116, MIDDLESEX STREET.

The Salvation Army "Working Men's Hotel and Shelter," opened on the 7th February, 1906, at 116, Middlesex Street, is the only Common Lodging-House in the City. Accommodation is provided for 450 persons, and the charge for the hotel

portion is 5*d.* per night, and for the Shelter 2*d.* per night. These prices include what is termed by the fraternity "a bath and a bake" (a bath and disinfection of clothing). Food can be purchased at the Hotel cheaply. The premises are periodically inspected and always found to be well managed and kept in a cleanly condition. During the year there has been no repetition of the nuisance formerly complained of, caused by a number of men congregating outside waiting for admission and spitting on the pavement. As men so waiting number on occasions over 100, this nuisance was very real, and the cessation is doubtless due to the action of the Authorities, who refuse admission to applicants if they have been waiting about in the immediate vicinity of the premises before the doors open at 5 p.m.

DRAINAGE PLANS.

In the course of the year, 407 plans have been submitted with regard to proposed reconstruction of water-closets or drains in the City.

Of these, 367 were approved, 28 revised and approved, and 12 not approved.

In all cases where, on revision, it was found that the plans were not in accordance with the Corporation Bye-laws, the matter was submitted to the judgment of the Sanitary Committee.

STREET GULLIES.

The gradual substitution of properly trapped gulleys for those formerly existing, has greatly reduced the number of complaints received of offensive smells arising from those receptacles, 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 7 cases were reported by your officers. On the service of the statutory notice of abatement the overcrowding was discontinued in each instance.

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 44 cases so investigated in 1911, it was found necessary to reconstruct the sanitary system in 3 instances, and to make minor amendments to soil and waste pipes, water closets, &c., in 19 others.

HOUSE, TRADE AND OTHER REFUSE REMOVAL.

The City Engineer informs me that the refuse removed from the City in 1911 consisted of 28,113 cartloads of street sweepings and slops, and 50,470 loads of house and trade refuse, a total of 78,583 loads. The total for the year 1910 was 80,404. 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, &c.

RAILWAY STATIONS.

Periodical inspections were made of the sanitary accommodation provided at the twenty-five Railway Stations in the City.

In 13 of them the Companies they belong to have been called upon to effect sanitary improvements. The defects, for the most part, have been due to the lack of proper cleaning and to defective drains and sanitary fittings. In all cases the necessary works have been satisfactorily carried out.

LEGAL PROCEEDINGS.

In four cases only, out of 813 notices issued during the year by the District Inspectors, was it found necessary in consequence of non-compliance, to refer the matter to the City Solicitor with a view to taking such steps as he deemed necessary to ensure the required sanitary improvements being carried out.

In each instance, however, the notices were subsequently complied with, without the matter being taken into Court.

The following are the cases referred to:—

86, Upper Thames Street	Offensive fumes and smoke from oil engine.	Abated.
5, Old Swan Lane -	- Defective drains and water closets -	Works carried out by owner.
1-6, Bridgewater Place	- Insufficient W.C. accommodation -	Works completed.
20, Fenchurch Street	- W.C. constructed in contravention of Bye-laws.	W.C. removed.

SUMMER FLUSHING OF COURTS.

There are 266 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

73,761,668 gallons of water were used. Of these courts and alleys, 9 were flushed six times a week, 21 five times a week, 2 four times a week, 27 three times a week, 128 twice a week, and 80 once a week.

Disinfectants were also freely applied where desirable.

The condition of the approaches to Billingsgate Market and the Custom 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 96 courts and narrow passages situated in various parts of the City, the walls of which, unless cleansed regularly, 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 1911, 24 were situated in the East District, 39 in the Middle District, and 33 in the West District.

REMOVAL OF FISH OFFAL.

The contract with Messrs. F. S. Hempleman and Co., for the removal of fish offal, expired on the 21st May, 1910, and on the recommendation of the City Engineer and your Medical Officer of Health, was renewed for a further period of 12 months.

The conditions of the contract, which was originally entered into in May, 1906, and has since that date been in continual operation, require that the Contractor shall collect and remove, free of charge, between the hours of 7 p.m. and 9 a.m., all fish offal from the Corporation Markets and Fishmongers' premises in the City, to the entire satisfaction of the Medical Officer of Health, in specially constructed galvanised iron bins of a pattern approved by that Officer, and to thoroughly cleanse and disinfect such bins before returning them to the Markets and shops.

The undertaking of the Contractor to remove the material during the evening hours instead of the morning in order to obviate the necessity of the offal remaining in the City all night, has been attended with the success anticipated, no complaints having been received this year of smells arising from all night storing of such offensive matter.

Before arrangements were made for the removal of fish offal by a Contractor, it was dealt with by the Corporation's own Officers in the ordinary way as trade refuse, but the present method is both a financial and hygienic advance.

REMOVAL OF HUMAN REMAINS.

During the year only two cases have arisen of the disturbance of human remains in the City. A small quantity of bones were discovered by the workmen engaged in excavations at the Church of St. Bartholomew-the-Great, and also at No. 27, Cloth Fair. In both cases the remains were dealt with under the supervision of your Medical Officer of Health.

HYGIENE OF HAIRDRESSERS' AND BARBERS' SHOPS.

The Hairdressers' establishments throughout the City remain under the constant supervision of your officers, and there are now 29 proprietors of these places who hold certificates that they have undertaken to comply with the Regulations of the Corporation for the conduct of their business.

One new firm has been placed on the Register, two saloons have been closed, and in two cases there were changes of ownership.

The following establishments are now on the Register :—

Jacob Arbeiter, 9, Duke Street.
 The Army and Navy Toilet Club, 35, Bucklersbury.
 Chester and Co., 42, Old Broad Street.
 Civil Service Supply Association, 136-140, Queen Victoria Street.
 William Clarke, 5, Birchin Lane.
 Samuel Cohen, 120, Newgate Street.
 Fox's Paragon Toilet Club, 60, Fore Street.
 Frederick G. Foerstel, 1, Telegraph Street.
 Franz Friedel, 35, Moorgate Street.
 Kaspar Gleinser, 137, Fenchurch Street.
 Carl Hartmann, 5, Queen's Head Passage, Newgate Street.
 Phillip George Hoerr, 1, Cullum Street.
 Anton Kaiser, 4, Liverpool Street.
 Kingstone and Hubbard, 8-10, Ludgate Arcade.
 The King Street Toilet Club, 6, King Street, Cheapside.
 Charles Lehman, 8-9, Aldermanbury Postern.
 Heinrich A. E. Leopold, 8, Masons' Avenue.
 Charles Massberg, 12, Cullum Street.
 Marsh, Decker and Prince, 36, Coleman Street.
 Albin Antony May, 77, Fetter Lane.
 Paul Michaelis, 3, Queen Street.
 Thomas W. Monk, 5, Angel Court.
 The New Baltic Toilet Co., 37, St. Mary Axe.
 Pierre Pozzi, 16, Lawrence Lane.
 Ernst Robert and Erich Beyer, 13, Pilgrim Street.
 Stephen J. Schuster, 125, Wood Street.
 Arthur Jules Schweitzer, Royal Hotel, Victoria Embankment.
 Henry Theobald, 109, Bishopsgate.
 Joseph Witte, 151, Aldersgate Street.

WELL WATER SUPPLY IN THE CITY.

The investigation into the character of the water as obtained from wells sunk in the City has been continued during the year.

In all, 12 separate City buildings have been added to the already large number that derive their supply of this necessary element from this source. In 10 of these, new wells were sunk; and in the two other cases, existing and disused wells were re-bored to the water bearing strata, and fitted with modern appliances for pumping.

Samples of the water from all these wells were taken and submitted to Dr. Teed for chemical analysis, and a satisfactory report received in each case.

RATS AND PLAGUE.

In June considerable publicity was given in the Press to the appearance of Plague amongst rats, at a wharf on the banks of the Thames at Wapping, at a distance of less than a mile from the Tower Bridge.

The presence of plague amongst rats, although undoubtedly indicating the necessity for special precautions, is not in itself a reason for any special alarm.

Plague has occurred in rats in the Port of London for three years in succession, and its presence in these rodents may offer a possible source of infection to human beings.

So far as this year's outbreak is concerned, a number of dead rats were found, which on examination were shown to have suffered from plague.

Information was at once forwarded to the Local Government Board, and an inspection of the whole of the wharves on the river within the City limits was commenced.

The result of this inspection showed that, so far as the City was concerned, the wharves are invaded by but comparatively few rats, and that there has been no change in their condition, such as would indicate the existence of plague amongst them.

In order to accurately define the position, in the absence of any indication of mortality amongst rats, I submitted 15 live specimens for bacteriological examination to Dr. Klein, who reported all free from any evidence of disease.

The negative results obtained *qua* plague are a source of satisfaction, but having in mind the fact, that the plague bacillus in the rat and the human being is in all cases identical, there was undoubted reason for some uneasiness on the part of those responsible for keeping plague out of this country.

PUBLIC HEALTH LEGISLATION, 1911.

The following measures for safeguarding the Public Health interests were introduced into Parliament during 1911:—

- The Sale of Margarine Bill, 1911 (see p. 63). (Dropped.)
- Slaughter of Animals Bill (see p. 63). (Dropped.)
- Poultry Act, 1911 (see p. 62). (Passed.)
- City of London (Various Powers) Act, 1911 (see p. 62). (Passed.)
- Rag Flock Act (see p. 64). (Passed.)
- Protection of Animals Act (see p. 61). (Passed.)
- Shops Act. (Passed.)

Departmental Orders and Regulations were issued as under:—

- Compulsory Notification of Ophthalmia Neonatorum (see p. 25).
- Compulsory Notification of Cerebro-Spinal Fever (see p. 23).
- Compulsory Notification of Chicken-pox (see p. 23).
- Public Health (Tuberculosis) Regulations, 1911 (Hospitals) (see p. 26).
- Public Health (Tuberculosis) Regulations, 1911 (Compulsory Notification) (see p. 28).
- Memorandum, Local Government Board, *re* Public Health (Regulations as to Food) Act, 1907—Foreign Meat (Official Certificate) (see p. 66).
- Memorandum, Local Government Board, *re* Food Poisoning (see p. 66).

The following official publications were also issued during the year, and contain a mass of information which will be found of the greatest service to those interested in the welfare of the community from a Public Health point of view.

Final Report of Royal Commission on Human and Animal Tuberculosis (see p. 44).

Report of Dr. Hamill on Presence of Calcium Sulphate in Baking Powder and Self-Raising Flour (see p. 64).

Report of Dr. Hamill on Nutritive Value of Bread made from different varieties of Wheat Flour.

Report (I) on Bleaching of Flour and the addition of so-called "improvers" to Flour (Dr. Hamill); (II.) on the Chemical changes produced in Flours by Bleaching (Dr. G. W. Monier-Williams).

Report of the late Dr. H. Timbrell Bulstrode on Shellfish other than Oysters in relation to Disease (see p. 83).

PROTECTION OF ANIMALS ACT, 1911,

The Protection of Animals Act, which received the Royal Assent on the 18th August, 1911, consolidates, amends, and extends certain enactments relating to animals, and to knackers, and makes further provisions in respect thereto.

The principal provisions of the Act are confined to the prevention of cruelty to animals and the infliction of increased penalties for offences of this nature, and as such, hardly comes within the purview of your Medical Officer of Health.

Section 5 is the only part that has any relation to the work of the Sanitary Committee—as the Sanitary Authority for the City of London.

This section enacts that no person shall carry on the trade or business of a knacker without a licence, such licence to have attached to it certain prescribed fixed conditions as well as any others which the Licensing Authorities, for sanitary purposes or to prevent cruelty, may think it desirable to attach.

The fixed conditions referred to are somewhat stricter than those heretofore imposed.

Section 2 of the Public Health (London) Act, 1891, is repealed so far as knackers and knackers' yards are concerned, Section 5 of the new Act being substituted therefore, and for the purposes of that section the Common Council is the Authority in the City of London.

The placing on the Statute Book of any measure giving increased power to Sanitary Authorities in relation to the trade of a knacker is eminently satisfactory, but the successful passage of this measure through the Houses of Parliament will not in any way affect the Corporation, as by virtue of Section 97 of the City of London Sewers Act, 1848, the establishment of the trade or business of a knacker within the City limits is forbidden under a penalty not exceeding Five Pounds, and the like penalty for every day after the first upon which such offence shall be continued.

The expression "knacker" within the meaning of the Act means "a person whose trade or business it is to kill any cattle not killed for the purpose of the flesh being sold as butchers' meat."

POULTRY ACT, 1911.

This is a Government measure, and enacts that the Diseases of Animals Act, 1894, as amended by any subsequent enactment, shall have effect as if, among the purposes for which Orders may be made under Section 22 of that Act, there were included the following :—

(1) For prohibiting live poultry from unnecessary suffering while being conveyed by land or water and in connection with their exposure for sale and their disposal after sale.

(2) For requiring the cleaning or disinfection of receptacles or vehicles used for the conveyance of live poultry.

Orders under this Act, which received the Royal assent on the 18th August, 1911, will be made in due course by the Board of Agriculture and Fisheries.

THE CITY OF LONDON (VARIOUS POWERS) ACT, 1911.

The only section of the above mentioned Act affecting public health is 39, which extends the provision of Section 47 of the Public Health (London) Act, 1891.

“ 39.—(1). Where any animal or article has been seized within the City of London under Section 47 of the Public Health (London) Act 1891 and has been condemned as diseased or unsound or unwholesome or unfit for the food of man any person who sent consigned or delivered *or caused to be sent consigned or delivered such animal* or article for sale or for deposit for the purpose of sale or of preparation for sale shall be liable on summary conviction to a fine not exceeding fifty pounds or at the discretion of the Court without the infliction of a fine to imprisonment for a term of not more than six months with or without hard labour unless he proves that at the time of the commission of such act he did not know and had no reason to believe that such animal or article was in such condition.

“(2). Where any offence under this section appears to have been wholly or partially committed or has taken place outside the City of London the Corporation or their Officers may take or cause to be taken against any person in respect of such offence any proceedings in relation to such offence with the same incidence and consequences as if such offence were committed or took place wholly within the City.”

Hitherto considerable difficulty has been experienced in fixing the responsibility for sending unsound meat to the Central Markets, as the person to whom the animal or article *belongs or did belong* at the time of sale or deposit for the purpose of sale was the only person against whom proceedings could be taken, and it is obvious that the words “belongs or did belong” raise at once the question of ownership, thus leaving a loophole for any person not being the actual owner to send diseased meat into the Market without fear of legal consequences.

The following is one case of many that have made it abundantly clear that the law requires strengthening on this point.

A farmer owned a sheep that died in a field. A labourer who found it sent for the bailiff, who cut its throat and then handed it over to a local butcher, who

dressed the carcase and sent it to the Central Markets, Smithfield, where it was seized, taken before a Magistrate, condemned as being unfit for food, and ordered to be destroyed.

The butcher was subsequently summoned for being the person to whom the meat belonged at the time it was deposited for the purpose of sale at the Market.

The above facts were proved in evidence, and the butcher himself even admitted he took all responsibility, but as he satisfied the Court that he derived no benefit from the transaction, and that the whole of the proceeds would have gone to the farmer's agent, the summons was dismissed on the ground that defendant was not liable as owner.

In this instance the accused, probably for trade purposes, was willing to take responsibility, but the Magistrate could not place this to his disadvantage, and looked upon him merely as an agent.

This is a typical case illustrating the escape of the owner because he had no knowledge and the butcher because he was not the owner, and the widening of the powers of the Corporation so as to include agents or others responsible for sending unsound meat to the Central Market was essential if they were to efficiently discharge their duties as the sanitary authority for the City.

SALE OF MARGARINE BILL.

The above Bill was described as "a Bill to provide for the further prevention of the fraudulent sale of Margarine," and sought to make it an offence to manufacture, import, store, sell, offer for sale, or otherwise deal in Margarine which, or any part of the constituents of which, contained any colouring matter.

It was further, an offence against the provisions of the Bill, if any colouring matter, or substance capable of being used as a colouring matter, were found in any Margarine factory, or in any premises where the manufacture or sale of Margarine is carried out, or where Margarine is stored for the purpose of sale.

SLAUGHTER OF ANIMALS BILL.

As introduced into the House of Commons, this Bill proposed to amend the law relating to the slaughtering of animals for human food and its principal provisions were :—

(1) The licensing of any person carrying on the business of a slaughterer of animals. Such licence to be an annual one, and revokable in case of drunkenness on the licensed premises ;

(2) The licensing of the actual killer. Here also the licence is to be an annual one, and revokable in the case of drunkenness on the licensed premises ;

(3) The stunning of all animals before killing. The term "animals" is to include cattle, sheep, goats, swine, horses, asses or mules ; an "approved" instrument is to be employed for slaughter ; in the City Bye-laws, only bull, ox, cow, heifer or sheep are required to be stunned, there being technical objections to the inclusion of other animals ;

(4) The making of Bye-laws by every Local Authority, and the penalty for non-compliance with any bye-law so made, is one not exceeding £5, and £2 per day for a continuing offence. The licence may also be revoked.

When a licence is refused by the Local Authority, appeal is allowed to the Local Government Board.

The Local Authority in the case of the City is the Mayor, Aldermen and Councillors of the City in Common Council assembled.

Generally, the Bill was one that merited approval, and the clause providing for the licensing of the actual killer was an especially wise provision, the principle of which has been agreed to by the Sanitary Committee, but rejected by the Court of Common Council.

Under the existing law, there is in many districts no adequate control over slaughterhouses, and in some areas there is no attempt made to control this business at all.

The slaughterhouse plays an exceedingly important part in the condition of meat foods as presented to the public, and much obviously depends upon the manner in which the business is conducted, and it is a matter of regret, that a measure aiming at an uniform system of licensing and regulating has been dropped.

RAG FLOCK ACT, 1911.

The Rag Flock Act, placed on the Statute Book during the year, makes it an offence for any person to sell, or have in his possession, or to use for the purpose of making any article of upholstery, cushions, or bedding, any flock manufactured from rag, unless such flock conforms to a standard of cleanliness to be prescribed by regulations, to be hereafter made by the Local Government Board.

Contravention of the Act, renders any person summarily convicted liable to a penalty not exceeding, in the case of a first offence, ten pounds, or in the case of a second or subsequent offence, fifty pounds.

Provision is made for the protection of any person who purchased the flock under a warranty, that it complied with the prescribed standard of cleanliness, and who took reasonable steps to ascertain, and did in fact believe in the accuracy of the statement contained in the warranty.

For the purposes of this Act, the Corporation of London is defined as the Local Authority in the City.

Dr. J. M. HAMILL'S REPORT to the Local Government Board on the presence of Calcium Sulphate in Baking Powder and Self-raising Flour.

The attention of the Local Government Board has in recent years been repeatedly directed by Public Analysts and others interested in the food supply of the community to the fact that certain baking powders and self-raising flours have been found to contain considerable percentages of calcium sulphate, which substance is not generally considered to form an indispensable ingredient to these articles.

As there appeared to be considerable doubt as to the signification of its presence, the Local Government Board instructed Dr. Hamill to make enquiries with the object of ascertaining the circumstances attending the addition of calcium sulphate to baking powders and self-raising flours.

The investigator, in the course of his enquiry, consulted Public Analysts, chemical advisers of baking powders, manufacturers and others.

For the sake of convenience the report is divided into ten parts, as follows :—

- (1.) The nature and varieties of baking powders.
- (2) The possible sources of calcium sulphate in baking powders.
- (3.) Preparation of acid calcium phosphate for use in baking powder and self-raising flour.
- (4.) The strength of acid calcium phosphate preparations.
- (5.) Formulæ for compounding "phosphate" baking powders.
- (6.) A comparison between "phosphate" baking powder and ordinary ("tartaric") baking powder.
- (7.) Self-raising flour.
- (8.) A consideration of the arguments adduced by manufacturers and others in defence of the presence of calcium sulphate in acid calcium phosphate used for baking powder and self-raising flour.
- (9.) General conclusions and recommendations.
- (10.) Addendum—Report by Mr. C. H. Cribb, B.Sc., F.I.C., on the alleged utility of calcium sulphate in "phosphate" baking powders.

After dealing at considerable length with his subject, the details of which it is unnecessary here to discuss, Dr. Hamill reviews the results of his investigation in the following terms :—

"Acid calcium phosphate of the lowest commercial quality, containing large proportions of calcium sulphate as an impurity, is used to a considerable extent by makers of self-raising flour, confectioners, wholesale cake-makers, &c. Less commonly, this low grade phosphate is an ingredient of baking powders sold as such to the public. Where the maker concerned buys his acid phosphate as such and selects the lowest grade as the cheapest, he may obtain a slight additional profit from its employment, which, however, may be counter-balanced by the lower efficiency of the article. It does not appear that the consumer derives any benefit: on the contrary, he is liable to be prejudiced by the use of this material, for the reasons given above.

"If acid phosphates of relatively low commercial quality and purity are used in food preparation, the interests of the majority of the traders concerned, as well as those of the public, would be served by the existence of an understanding as to the degree of impurity which should entail their rejection as food ingredients. Apart from any administrative action which may be recommended to public authorities on this matter, I have reasons to believe that recommendations as an outcome of my enquiry would now be welcomed by many traders as a basis for action by them, and the following are made with this object :—

- "(a) Manufacturers of acid phosphates should not prepare even their cheapest qualities of acid phosphate for sale as a food ingredient in such a way that it contains more than 10 per cent. of calcium sulphate, and should be in position to guarantee that

"this figure is not exceeded. Phosphate preparations should not be sold under names which may lead the purchaser to believe that he is buying preparations of tartaric acid or cream of tartar.

"(b) Bakers, self-raising flour makers and others using acid phosphates in the preparation of food, should either limit themselves to acid phosphate of high commercial quality, containing a negligible amount of calcium sulphate and pure in other respects, or if they use lower grades should in all cases stipulate that calcium sulphate is not to exceed 10 per cent.

"(c) Vendors of baking powders containing acid phosphates should stipulate that the powders do not contain any higher proportion of calcium sulphate than would be contributed by a commercial acid phosphate containing 10 per cent. of calcium sulphate. They should not receive or sell such baking powders under descriptions which may lead the purchaser to believe that he is buying preparations of tartaric acid or cream of tartar.

Action by Local Authorities under Sale of Food and Drugs Acts.

"In view of the considerations set out above, it would seem desirable that local authorities under the Sale of Food and Drugs Act should from time to time invite reports from the Public Analyst as to the proportions of calcium sulphate in a series of samples taken in the district of (a) baking powders which appear to contain acid phosphate of lime, (b) acid phosphates supplied to confectioners, &c., (c) self-raising flour. Attention could in this way be drawn to those articles which showed a conspicuous excess of this impurity, and where necessary the institution of proceedings under Section 6 of the Sale of Food and Drugs Act, 1875, should be considered."

I may add that it has been suggested that the presence of calcium sulphate or plaster of paris in baking powder or self-raising flour is responsible in no small degree for the prevalence of appendicitis and other intestinal disorders, but the knowledge available on this subject does not enable us to make any authoritative statement.

However this may be, it would appear undesirable that such articles as baking powder or self-raising flour, which are used to a large extent in cooking, should contain more than a negligible quantity of any ingredient about which any doubt exists as to its effect upon the digestive organs of the community.

FOOD POISONING.

LOCAL GOVERNMENT BOARD MEMORANDUM.

With a view to obtaining more combined and uniform action throughout the country in connection with the investigation of outbreaks of illness suspected to have been caused by food poisoning, a Memorandum was in September last issued by the Local Government Board to all Sanitary Authorities in England and Wales.

In explaining the procedure that should be adopted in investigations of such a nature, the Board suggests that where a Medical Officer of Health becomes aware of the occurrence of a considerable number of cases of food poisoning in his district he should report it to the Board forthwith, and ultimately furnish a copy of any special report he may make as to the result of his enquiries into the outbreak.

As a matter of fact a Medical Officer of Health is already required, under the Board's General Order of the 13th December, 1910, to furnish them with information

of any *serious outbreak of epidemic disease* occurring in his district, and the Memorandum now under review enlarges this obligation in order to embrace isolated incidences of food poisoning, *e.g.*, one or two members of a household suffering in consequence of the consumption of canned foods from a particular tin.

It is obvious that such isolated cases do not in themselves constitute "serious outbreak of epidemic disease in the district," but it is within the realms of possibility that other samples of the same brand of food may be involved in similar cases of illness elsewhere. In point of fact, isolated cases have been brought to the knowledge of the Board, earlier information of which would have materially aided the adoption of effective preventive measures.

In any minor outbreak, where the implicated food has been prepared in the district, the Memorandum suggests the advisability, as soon as the Medical Officer of Health has established the probability that a particular food is at fault, of at once proceeding to make investigations into the conditions of its preparation, and of obtaining samples for chemical and bacteriological examination.

This is doubtless a new departure in many parts of the country, but in the City of London for some years past considerable importance has been attached to the value of chemical and bacteriological aid in definitely establishing the connection of any suspected foodstuffs with incidence of illness, and the Corporation have for this purpose retained the services of experts in these two branches of science.

As the Memorandum points out, however, it is neither desirable or necessary to await the result of scientific examinations of the samples before instituting enquiries that may throw light on the point as to how the poisonous elements (bacterial or other) gained access to the food.

On immediate information the principal authority could obtain the complete history of all the cases attacked, and supplementary enquiries could be made later on the result of laboratory findings.

In order to secure uniformity in the methods of investigation, a form of enquiry under the following headings was appended to the Memorandum.

1. Headings of enquiry into outbreaks of poisoning by meat foods.
2. Enquiries into affected households.
3. Enquiries at places of preparation where food implicated has been prepared in the district.
4. Collection and examination of material for bacteriological examination.

The Board added, that while neither medical practitioners nor the general public are under Statutory obligation to report cases of food poisoning to the Medical Officer of Health, it would be generally appreciated if it were understood that Local Authorities, with a view to safeguarding the public health, were prepared to institute any necessary enquiries and investigations.

In order, therefore, that general publicity might be given to the matter, a circular letter, of which the following is a copy, was issued to all medical men practicing

within the City limits, intimating the Corporation's readiness to conduct investigations into suspected cases of food poisoning, and inviting early information of all such as came to their knowledge.

" GUILDHALL,

" LONDON, E.C.

" 11th November, 1911.

" DEAR SIR,

" I am directed by the Corporation of London to forward for your information the accompanying copy of a Memorandum issued by the Local Government Board with reference to cases of illness attributable to food poisoning.

" The object of the Board is to obtain more combined and co-operative action by the various Sanitary Authorities throughout the country in connection with the investigation of outbreaks of illness suspected to be due to this cause, and more particularly to obtain as complete information as possible regarding isolated incidences of food poisoning, as it is quite possible that other samples of the same food may be involved in similar cases of illness elsewhere.

" The Corporation, as you are no doubt aware, has always been prepared to investigate any case that occurs within the City, and hopes that it may receive your assistance and co-operation by the early intimation to the Medical Officer of Health (Dr. William Collingridge) at Guildhall, E.C., of any suspected cases of food poisoning that may come to your knowledge.

" I am, Dear Sir,

" Yours faithfully,

" JAMES BELL."

SMOKE NUISANCES.

Thirteen cases of smoke nuisances were reported during 1911. The number of observations recorded amounted to 334, as against 360 noted in 1910.

The service of notices upon offenders resulted in the abatement of the nuisances in all cases, and there has been no occasion to take further action in the matter.

The necessity for amendment in the law with a view of strengthening your powers and those of the Metropolitan Borough Councils for more completely abating smoke nuisances has been frequently referred to in my former reports, in which attention is directed to the fact that in existing circumstances no prosecution of offenders is possible unless proof can be furnished that the smoke emitted be "black," in addition to proving that the premises complained of are not used as a private dwelling house, in which case the smoke that may be emitted may be, and frequently is, unlimited.

The action taken in former years has undoubtedly resulted in a great reduction of the smoke nuisance in the City, and a frequent source of complaint is now from occupiers of offices annoyed by smoke from neighbouring chimneys at an inconveniently low level, an annoyance which often, when brought to the notice of the offenders, is promptly abated.

FACTORY AND WORKSHOP ACT, 1901.

FACTORIES, WORKSHOPS AND WORKPLACES.

The work under the above Act continues to steadily increase.

The premises registered now number 3,985, and represent 8,031 workrooms, &c.

A new register is made each year, containing only such information as is necessary for the current year's work. This has been found advantageous in facilitating the work of inspection, as well as for reference, all the premises being entered in alphabetical and numerical order. The system also serves a useful purpose in the preparation of the figures required to be supplied under the Act to H.M. Home Office each year, the Register not being complicated with dead matter relating to previous years,

In the reference book for the year there are 4,941 entries relating to the work, and 3,507 notices were served.

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

	Premises.	Workrooms, &c.
Factories - - - - -	781	3,168
Workshops - - - - -	2,171	3,830
Workplaces :—		
Kitchens of Restaurants, Tea-rooms, &c. - - - - -	883	883
Stables - - - - -	25	25
Other places - - - - -	125	125
TOTALS - - - - -	3,985	8,031

Of the 3,168 Factory Workrooms registered, 1,866 were occupied by men only, 504 by women only, and 798 by men and women.

Of the 3,830 Workshops registered, 2,043 were occupied by men only, 981 by women only, 777 by men and women, and 29 were " Domestic Workshops."

The number of workers employed was as follows :—

	<i>Men.</i>	<i>Women.</i>
Factories - - - - -	19,726	19,002
Workshops - - - - -	8,464	11,790
Workplaces (Kitchens, &c.) - - - - -	5,612	6,105
Totals - - - - -	33,802	36,897

The following is a summary of inspections of separate Workrooms, &c., since the passing of the Act :—

FACTORIES.	Workshop Inspectors.	Women Inspectors.	TOTALS.
1904—Inspections during the year	39	39	78
1905 " " "	625	110	735
1906 " " "	1,496	212	1,708
1907 " " "	1,731	656	2,387
1908 " " "	2,745	580	3,325
1909 " " "	3,331	607	3,938
1910 " " "	3,787	993	4,780
1911 " " "	3,649	680	4,329

WORKSHOPS.

1902—Inspections during the year	341	140	481
1905 " " "	1,306	719	2,025
1908 " " "	3,034	1,634	4,668
1911 " " "	3,775	1,772	5,547

WORKPLACES.

1902—Inspections during the year	78	390	468
1905 " " "	555	299	854
1908 " " "	705	372	1,077
1911 " " "	977	145	1,122

FACTORIES.

These places have been inspected as usual during the year, but it should be mentioned that the responsibility of the Local Authority with respect to the general arrangement of Factories is limited, their principal duty being in respect to the provision of suitable and sufficient water-closet accommodation for persons of both sexes employed, and the abatement of general nuisances under the Public Health Acts.

Any defects remediable under the Factory Acts, which are discovered in the course of inspection, are referred to H.M. Inspector of Factories, and 37 cases were so dealt with.

* DETAILS OF FACTORY INSPECTIONS, 1911.

Initial inspections (workrooms)	-	-	201	
Periodical inspections -	-	-	3,448	
Re-inspections (sanitary work needed) -	-	-	887	
			—	4,536
Notices served—				
Intimation -	-	-	223	
Statutory -	-	-	25	
			—	248

* For details of Women Sanitary Inspectors' work, see page 78.

DEFECTS REMEDIED.

Drains relaid or amended	-	-	-	6
Soil pipes repaired or renewed	-	-	-	9
Urinals repaired or renewed	-	-	9	.
„ cleansed	-	-	63	
			—	72
Sink wastes amended	-	-	-	26
Rain-water pipes repaired	-	-	-	2
Cisterns cleansed or covered	-	-	-	6
Refuse receptacles provided	-	-	-	11
Water-closets—				
Separate and suitable provided	-		16	
Additional provided	-	-	9	
Lobbies constructed	-	-	27	
Ventilated	-	-	30	
Floors made impervious	-	-	139	
Pans cleansed	-	-	755	
Walls and ceilings cleansed	-	-	325	
Flush improved	-	-	33	
			—	1,334
General defects remedied	-	-	-	274
				—
Total defects remedied	-	-	-	1,740

WORKSHOPS.

Since 1902, it has been the special duty of Local Authorities to see to the conditions of all Workshops, but H.M. Inspector still has power to deal with any default under the Act, and it is so far satisfactory to find that but comparatively few complaints are received from this source.

The insanitary conditions generally observed have, as usual, related to dirty conditions and improper and unsuitable water-closet accommodation, the latter owing principally to constant changes in the business arrangements.

* DETAILS OF WORKSHOP INSPECTIONS, 1911.

New workshops notified by H.M. Factory Department	-	216
No Abstract of Act affixed where women and young persons were employed—cases notified to H.M. Factory Inspector	-	113
Matters referred by Workshop Inspectors to District Inspectors	-	101
Domestic workshops on register	-	29
Statutory Certificates for cleansing issued by Medical Officer of Health	-	184
Outworkers working in the City notified to the Corporation	-	686
Outworkers notified by Corporation to outside districts	-	16,405

* For details of Women Sanitary Inspectors' work, see p. 78.

Complaints—

From H.M. Factory Inspector	-	-	38	
General	-	-	28	
Total number of complaints				— 66
Initial inspections (workrooms)	-	-	314	
Periodical inspections	-	-	3,461	
Re-inspections (sanitary work in hand)	-	-	2,244	
Notices served—				— 6,019
Intimation	-	-	609	
Statutory	-	-	204	
				— 813

DEFECTS REMEDIED.

Walls, ceilings, and approaches cleansed	-	-	552	
Ventilation improved	-	-	38	
Overcrowding abated	-	-	7	
Drains relaid or amended	-	-	19	
Soil pipes repaired or renewed	-	-	17	
Urinals repaired or renewed	-	-	3	
„ flush improved	-	-	1	
„ cleansed	-	-	20	
				— 24
Sink wastes amended	-	-	54	
Rain-water pipes repaired	-	-	15	
Cisterns cleansed or covered	-	-	12	
Refuse receptacles provided	-	-	40	
Water-closets—				
Separate and suitable provided	-	-	37	
Additional provided	-	-	2	
Lobbies constructed	-	-	51	
Ventilated	-	-	41	
Floors made impervious	-	-	96	
Pans cleansed	-	-	574	
Walls and ceilings cleansed	-	-	320	
Flush improved	-	-	56	
				— 1,177
General defects remedied	-	-	372	
Total defects remedied				— 2,327

WORKPLACES.

(KITCHENS OF RESTAURANTS, &c).

Workplaces unlike Factories and Workshops may be established without notice being given to any Authority.

In previous reports I have repeatedly referred to this, and still hope that this defect may not remain much longer unremedied. Especially does this apply to places where food is stored or prepared. Any place, however unsuitable, may now be used for the purpose so long as nuisance cannot be proved.

The kitchens were visited as usual, and generally speaking, an improvement in their condition was observable. Other places occupied by provision merchants, grocers, fried fish shops, fruiterers, greengrocers, &c., were also inspected.

* DETAILS OF WORKPLACE INSPECTIONS, &c., 1911.

Initial inspections	-	-	-	-	-	51
Periodical inspections	-	-	-	-	-	926
Re-inspections (sanitary works)	-	-	-	-	-	621
Total inspections	-	-	-	-	-	<u>1,598</u>
Notices served—						
Intimation	-	-	-	-	-	237
Statutory	-	-	-	-	-	46
Total Notices served	-	-	-	-	-	<u>283</u>
DEFECTS REMEDIED.						
Drains relaid or amended	-	-	-	-	-	7
Kitchens—						
Walls and ceilings cleansed	-	-	-	-	-	277
Light and ventilation improved	-	-	-	-	-	23
						<u>300</u>
Water-closets—						
Separate accommodation provided for sexes	-	-	-	-	-	30
Arrangements improved	-	-	-	-	-	112
						<u>142</u>
Water supply improved	-	-	-	-	-	9
Refuse receptacles provided	-	-	-	-	-	33
General defects remedied	-	-	-	-	-	481
						<u>972</u>
Total defects remedied during the year	-	-	-	-	-	<u>972</u>

BAKEHOUSES.

Bakehouses are scheduled as Workshops (Part II., Sixth Schedule), and are required to be registered by the Local Authority (Sec. 132).

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

ABOVEGROUND BAKEHOUSES.

§90, Bishopsgate Street Without.	†155, Minories.
§Great Eastern Hotel, Liverpool Street	†85, Middlesex Street.
†61, Middlesex Street.	†4, Water Lane.

UNDERGROUND BAKEHOUSES.

188, Aldersgate Street.	48, Knightrider Street.
§81, Bishopsgate Street Without.	18, Long Lane.
†4, Broadway.	†37, Middlesex Street.
95, Cannon Street.	§†63 to 65, „
8, Copthall Avenue.	†122, „
15, Cornhill.	31, Newbury Street.
†67, Farringdon Street.	3, Pancras Lane.
§†88, „ „	21, Stoney Lane.
†93, Fetter Lane.	68, St. Mary Axe.
†12, Gracechurch Street.	†75, St. Paul's Churchyard.
§8 to 14, King Street, Snow Hill.	194, Upper Thames Street.

SUMMARY.

Aboveground bakehouses	-	-	-	-	-	6
Underground bakehouses	-	-	-	-	-	22

Total number of bakehouses in the City 28

* For details of Women Sanitary Inspectors' work, see page 78.

† Established during 1903.

‡ These have been established at least 25 years.

§ Factory Bakehouses (power is used).

These places were duly inspected, 116 visits being made, and with but few exceptions, were found to be kept in good condition and up to the standard required by the Act. The defects noticed consisted of untidy conditions and want of cleanliness, &c., but these were remedied without delay.

The Bakehouse formerly at Nos. 93-4, Upper Thames Street, has been discontinued.

SANITARY DEFECTS IN FACTORIES AND WORKSHOPS NOTIFIED IN 1910 BY H.M. INSPECTOR OF FACTORIES.

H.M. Inspector of Factories complained of Sanitary defects at 38 premises, and these were disposed of before the end of the year.

When upon inspection, dirty conditions or want of ventilation are found to exist in factories, H.M. Inspector is notified, any necessary work in this connection being carried out under his supervision.

<i>Year.</i>	<i>No. of Complaints received.</i>									
1902	-	-	-	-	-	-	-	-	-	54
1905	-	-	-	-	-	-	-	-	-	32
1908	-	-	-	-	-	-	-	-	-	19
1911	-	-	-	-	-	-	-	-	-	38
Average										<u>35.75</u>

OUTWORKERS AND "HOME" WORKERS.

As heretofore, the provisions of the Act relating to Outworkers were carried out. The Lists of the Names and addresses of outworkers receiving work from the City, were duly received both in February and August, without the necessity of legal proceedings. Over 1,500 lists were received, containing over 1700 names, &c., which were transmitted, with other details concerning each case, to the several Local Authorities, as required by the Act.

There are but few "home" workers in the City, and these, together with the outworkers employed in the City, are dealt with by your Women Inspectors, excepting where men only are employed.

The following figures show the steady increase of numbers :—

<i>Year.</i>	<i>Number of Lists received.</i>		<i>Outworkers Employed in City.</i>		<i>Outworkers Employed outside City.</i>		<i>Total number of Outworkers.</i>
1902	...	—	...	17	...	3,752	3,769
(NOTE.—1st Notice issued to all employers at 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

Where employers had neglected either to keep lists at their premises or to send them as required to the Corporation, notice was served, and in all cases complied with.

No case of infectious disease occurred at an outworker's place of employment in the City, but 2 "contacts" with Scarlet Fever were reported. Enquiries were made in each case, and all necessary precautions taken.

THIS TABLE WAS ISSUED BY THE LOCAL GOVERNMENT BOARD BY REQUEST OF THE SECRETARY OF STATE.

FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.

1911.

1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF NUISANCES.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
Factories (including Factory Laundries) ...	4,329	256	—
Workshops (including Workshop Laundries) ...	5,547	833	—
Workplaces (other than Outworkers' premises included in Part 3 of this Report.)	1,122	359	—
Total ...	10,998	1,448	—

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES

Particulars. (1)	Number of Defects.			Number of Prose- cutions. (5)
	Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	
<i>Nuisances under the Public Health Acts :—*</i>				
Want of cleanliness	1,080	940	—	—
Want of ventilation	79	70	—	—
Overcrowding	16	13	—	—
Want of drainage of floors	—	—	—	—
Other nuisances	1,503	1,439	—	—
Sanitary accommodation {	insufficient	32	30	—
	unsuitable or defective	3,166†	2,695	—
	not separate for sexes... ..	91	67	—
<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)	2	—	2	—
Total	5,969	5,254	2	—

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

† These figures include individual defects in water closets.

NATURE OF WORK. *	OUTWORKERS' LISTS, SECTION 167.					
	Lists received from Employers.					
	Sending twice in the year.			Sending once in the year.		
	Lists. †	Outworkers. †		Lists.	Outworkers.	
(1)	(2)	Contractors. (3)	Workmen. (4)	(5)	Contractors. (6)	Workmen. (7)
Wearing Apparel—						
(1) making, &c. ...						
(2) cleaning and washing ...	1,304	2,658	12,334	66	72	286
Household linen ...	2	...	6			
Lace, Lace Curtains and Nets ...	4	...	11	1	...	8
Curtains and furniture hangings ...	8	...	118			
Furniture and Upholstery ...	2	...	14			
Electro Plate ...						
File making ...						
Brass and brass articles ...						
Fur pulling ...						
Cables and Chains ...	50	174	229	2	1	6
Anchors and Grapnels ...						
Cart Gear ...						
Locks, Latches and Keys ...						
Umbrellas, &c. ...						
Artificial Flowers ...	50	11	534	3	1	7
Nets, other than Wire Nets ...	14	35	258	3	...	34
Tents ...						
Sacks ...						
Racquet and Tennis Balls ...						
Paper Bags and Boxes ...						
Brush making ...	2	4				
Pea picking ...	4	...	38			
Feather sorting ...						
Carding, &c., of Buttons, &c. ...						
Stuffed Toys ...						
Basket making ...						
TOTAL ...	1,440	2,882	13,542	75	74	341

* 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 class only, but the outworkers should be assigned in columns 3 and 4 (or 6 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 above numbers, as there will be two lists for each employer—in some previous returns odd numbers have been inserted. The figures in the August lists of the same employer the same outworker's name will often be repeated.

4.—REGISTERED WORKSHOPS.

Important classes of workshops, such as workshop bakehouses, may be enumerated here.	Workshops on the Register (S. 135) at the end of the year.		Number.
	(1)	(2)	
General Workshops ...			3,802
Workshop Bakehouses (including six Factory Bakehouses) ...			28
Total number of Workshops on Register ...			3,830

NOTE.—The Factory and Workshop Act, 1901 (S. 135), requires the Medical Officer of Health in his Annual Report to the District Council to report specifically on the administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so unnecessary to include in the copy sent to the Home Office the portions which do not relate to factories, workshops, workplaces, Memorandum of December, 1904. A further Memorandum, on the Home Work Provisions of the Factory Act was issued to all District Councils and Medical Officers of Health in October, 1906.

Notices served on employers as to keeping or sending lists.	Prosecutions.			OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
	Failing to keep or permit inspection of lists.		Failing to send lists.	Instances.	Notices served.	Prosecutions.	Instances.	Orders made (S. 110).	Prosecutions (Sections 109, 110).
	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
2,009	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.

number of workers in each class of work, the list should be included among those in column 2 (or 5 as the case may be) against the principal to show that this has been done.

statutory duty of sending two lists each year and of the entries of names of outworkers in those lists. The entries in column 2 must necessarily column 3 and 4 will usually be (approximately) double of the number of individual outworkers whose names are given, since in the February

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) ...	113
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) ...	38
Other ...	37
Underground Bakehouses (S. 101) :—	
Certificates granted during the year ...	None.
In use at the end of the year ...	22

Dated 31st December, 1911.

(Signature) W. COLLINGRIDGE, Medical Officer of Health.

Council to report specifically on the administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so unnecessary to include in the copy sent to the Home Office the portions which do not relate to factories, workshops, workplaces, Memorandum of December, 1904. A further Memorandum, on the Home Work Provisions of the Factory Act was issued to all District Councils and Medical Officers of Health in October, 1906.

WOMEN SANITARY INSPECTORS.

In reporting on the provisions of the Factory and Workshops Act, 1901, in my Annual Report of that year, I pointed out that in order adequately to carry out the duties imposed on the Corporation, the services of a Woman Sanitary Inspector would be required.

The appointment of one Inspector only was urged in the first place, in order that the system might have a trial before making another appointment. The result was most satisfactory, and more than bore out the expectations of your Medical Officer, and experience has shown the special value of this work in protecting the health of women workers. Any prejudice which may have existed against the appointment of women as Inspectors has long since been dispelled, and their presence is appreciated both by employers and employed.

As it is now ten years since the appointment of the first woman Inspector in the City, it may be of interest to review briefly the work carried out by your Women Inspectors during that period.

The figures showing the work done during the ten years, 1902-1911, are as follows :—

INSPECTIONS AND RE-INSPECTIONS.—VISITS.

Year.	Factories.	Workshops, including Domestic Workshops.	Work-places. Kitchens.	Offices.	Infants.	TOTAL.
1902 (9 months)	2	174	521	—	—	697
1903	57	619	72	48	—	796
1904	96	611	46	21	—	774
1905	43	966	690	52	—	1,751
1906	221	1,297	294	46	556	2,414
1907	661	1,397	282	24	658	3,022
1908	597	1,814	523	32	942	3,908
1909	631	1,811	166	68	885	3,561
1910	1,016	2,160	329	140	379	4,024
1911	694	1,891	277	172	593	3,627
TOTAL ...	4,018	12,740	3,200	603	4,013	24,574

In addition to the above, the Ladies' Waiting Rooms at Railway Stations and the Underground Conveniences for Women have been inspected.

The first appointment was made in February, 1902, and the duties then undertaken were the inspection of factories, workshops, laundries, and workplaces (kitchens of restaurants, &c.), where women were employed, and also the inspection of ladies' waiting rooms at railway stations. Re-inspections were made of premises where defects had been found in order to see that the necessary improvements were properly carried out. In addition to these duties your woman inspector investigated all complaints as to insanitary conditions affecting women workers.

A large amount of clerical work was involved, including the keeping of Registers of workshops, &c.; records of sanitary work done and nuisances abated; diary; writing reports on various subjects; and correspondence.

The above-mentioned duties have since been continuously carried out, and each year fresh fields of work have presented themselves.

Thus in 1903 the inspection of—

- (1) Offices where women clerks were employed,
- (2) Outworkers' premises, and
- (3) Domestic workshops, were added to the list.

In 1904, owing to the large number of workshops and factories where women were employed, which were found to exist in the City, it was decided to appoint a second woman inspector, who began work in January, 1905. In this year the number of inspections and re-inspections of factories, workshops, and kitchens more than doubled the number carried out during the preceding year, and the inspection of underground conveniences for women was begun, and reports thereon were furnished for the information of the Streets Committee.

The year 1906 saw the beginning of a new and important branch of public health work, which aimed at the reduction of Infantile mortality. The duties involved were assigned to Miss Pole, who had had previous experience in this capacity. Lists of all the infants born within the City were compiled from the Registrar's Returns, the mothers were visited, and advice was given as to the feeding and care of the children. Attention was given to the sanitary condition of the house, and any defects found were referred to the Inspector of the District for remedy.

The value of this initial work cannot be over-estimated.

Miss Pole's devoted work among the mothers was greatly appreciated by them and will have a lasting effect.

Her retirement in November, 1911, was a real loss to the Department, and the work she carried out so well has laid the foundation for subsequent development.

The inspection of factories, workshops, kitchens, and offices was continued as in previous years, and the ladies' waiting rooms at railway stations and the underground conveniences for women were inspected four times during the year instead of twice.

In 1907, a Select Committee of the House of Commons sat to consider and report upon the conditions of labour in trades in which home-work is prevalent, and your senior woman inspector, Miss Safford, was authorised to give evidence on behalf of the Corporation. A *précis* of the evidence given appeared in my Annual Report for that year.

The ordinary routine inspections and re-inspections of premises where women were employed were kept up, as well as the work in connection with infants.

The Notification of Births Act, 1907, came into force on the 19th February, 1908, and greatly increased the clerical work. A list of all the births notified was required to be sent to the London County Council weekly, and duplicate lists to the Registrars at the close of each month. A considerable amount of correspondence was entailed in calling the attention of doctors and midwives to their obligations under the new Act.

In this same year, the Home Office asked for special returns as to the Industrial Employment of Women, before and after child-birth, with the view of considering the advisability of introducing further legislation, restricting the employment of married women. Exhaustive enquiries were made with regard to births taking place in the City, and the results were tabulated on forms provided by the Home Office. This enquiry extended over a period of two years.

The number of factories and workshops on the Register continued to increase, and in view of this fact, and of the additional duties imposed on your Women Inspectors by the Notification of Births Act and the Home Office enquiry, it was found necessary to increase the staff, and a third Woman Inspector was appointed in June, 1908.

Under the Children Act, 1908, your Women Inspectors were appointed to carry out the provisions dealing with Infant Life Protection.

No special features marked the years 1909-1910, the usual routine inspection and re-inspection of the various workplaces previously enumerated were carried out, also the work under the Notification of Births Act. The Home Office enquiry was completed early in 1910, and the resulting information was supplied to the Under-Secretary of State for the Home Department.

During 1911, the following number of inspections and re-inspections have been made:—

		Inspections.	Re-Inspections.	Total.
Factories	- -	680	14	694
Workshops	- -	1,737	118	1,855
Domestic Workshops]	-	35	—	35
Workplaces (Kitchens)	-	145	132	277
Offices -	-	150	22	172
Outworkers' premises	-	83	—	83
Total	-	<u>2,830</u>	<u>286</u>	<u>3,116</u>

The number of women employed in the above premises is 21,260.

The defects found may be classified as follows:—

Sanitary accommodation dirty or defective	-	-	327
„ „ insufficient	-	-	12
„ „ not kept separate	-	-	28
			<u>367</u>
Walls and ceilings dirty	-	-	- 144
Ventilation insufficient	-	-	- 27
Workshops overcrowded	-	-	- 9
General defects	-	-	- 87
Total	-	-	<u>634</u>

Defects found in premises where both men and women are employed, and also defects involving structural or drainage work, are referred to the Workshop and District Inspectors in order to avoid overlapping.

In addition to the above list of Inspections, the Ladies' Waiting Rooms at Railway Stations and the Underground Conveniences for Women have been inspected, and the work under the Notification of Births Act has been carried out. All complaints

received alleging insanitary conditions in premises where women work have been investigated by your Women Inspectors.

Towards the end of the year arrangements were made with the London County Council (being the Local Education Authority in the City), whereby action taken by them under the Children Act, 1908, in connection with the compulsory cleansing of school children living within the City is notified to your Medical Officer, in order that the homes of the children may be inspected, and if necessary, may be disinfected, under powers conferred on the Corporation by the London County Council (General Powers) Act, 1904.

The children concerned live almost exclusively in tenement houses, which are under regular inspection by the District Inspectors. The matter is to a great extent one of personal hygiene, and there is usually an infant in the family who is visited by the Inspector working under the Notification of Births Act; it would therefore seem desirable that your Woman Inspector who already visits the homes in connection with infants should undertake the new duties in connection with the older children.

UNDERGROUND WORKROOMS.

As I stated in my last Annual Report, further restriction upon the use of underground workplaces is, in my opinion, necessary, and the compulsory notification of their establishment, as obtains in the cases of factories and workshops, would be a step in the required direction.

This matter is an important one, as affecting the preservation of the health of workers in underground premises, and it must be obvious that some higher standard should be required than obtains in the case of aboveground workrooms, which have the advantage of light and ventilation.

I understand that the Women's Industrial Council are promoting a Bill dealing with the subject, which will be introduced into the House of Lords by the Duke of Devonshire early in next session.

The Bill, if passed as framed, will greatly increase the powers and duties of the Corporation in connection with underground workplaces.

It is entitled "The Factory and Workshop Act, 1912," and its provisions are as follows :—

1. (1) Save as in this Act provided, no underground premises shall be used for the purpose of a factory, workshop, or workplace, for any business, process of trade, or manufacture specified in the First Schedule of this Act unless they were so used at the time of the passing of this Act.
- (2) On and after the first day of February One Thousand nine hundred and thirteen, no underground factory, workshop or workplace shall be so used, unless duly certified by the District Council to be suitable, regard being had to the nature of such business, process of trade or manufacture.
- (3) For the purposes of this Act underground premises shall mean any premises any part of which is so situate that the surface of the floor is more than three feet below the surface of the footway of the adjoining street, or of the ground adjoining or nearest to the room.
2. (1) Underground premises shall not be certified by the District Council as suitable unless the Council are satisfied that such underground premises are suitable as regards construction, natural lighting, the maintenance of a reasonable temperature, ventilation, freedom from damp, and in all other respects.

(2) Provided that in no case shall such underground premises if erected after the 31st December, 1917, be certified as suitable unless they abut upon an open area, such open area being at least four feet wide in every part thereof, and be imperviously paved. The open area shall extend the entire frontage thereof, and upwards from six inches below the level of the floor of such underground premises.

3. If an underground factory, workshop or workplace is not kept in conformity with this Act the occupier thereof shall be deemed to have committed an offence against the provisions of the principal Act and be liable to the penalties imposed by Sections 125 and 135 of that Act.

4. (1) Where it appears to any District Council that it is expedient for protecting the health of the person or persons employed to prohibit work being carried on in any underground factory, workshop or workplace, the District Council shall forthwith give notice to the owner and occupier of the premises of the withdrawal of the certificate of such underground factory, workshop or workplace, and shall order the closing of such underground factory, workshop or workplace within twenty-eight days of the service of the notice upon such owner and occupier.

(2) Provided that such order shall not prevent the premises being used for the purpose of storage.

5. In the event of a refusal or withdrawal of a certificate by the District Council, the occupier of an underground factory, workshop or workplace may within twenty-one days of such refusal by complaint apply to a court of summary jurisdiction, and if it appears to the satisfaction of the court that the underground factory, workshop, or workplace is suitable for use as regards construction, natural light, maintenance of reasonable temperature, ventilation, freedom from damp and in all other respects, the court shall thereupon grant a certificate of suitability of the underground factory, workshop or workplace, which shall have the like effect as if granted by the District Council.

6. Where any premises are occupied as an underground factory, workshop or workplace, and the certificate required by this Act cannot be obtained, unless structural alterations are made, and the occupier alleges that the whole or part of the expense of the alterations ought to be borne by the owner, he may by complaint apply to a court of summary jurisdiction, and that court may make such order concerning the expenses or their apportionment as appears to the court to be just and equitable under the circumstances of the case, regard being had to the terms of any contract between the parties or in the alternative the court may at the request of the occupier determine the lease.

As respects every underground factory, workshop or workplace, the provisions of this Act shall be enforced by the District Council of the District in which the premises may be situated, and not by an Inspector under the principal Acts, and for the purposes of this Act the Medical Officer of Health and the Inspector of Nuisances of the District Council shall have and may exercise all the powers of entry, inspection, taking legal proceedings and otherwise of an Inspector under the principal Acts.

7. The Secretary of State may by special order, and is hereby empowered to make, alter and amend regulations as to structure, natural lighting, maintenance of reasonable temperature, ventilation, freedom from damp, arrangements for carrying off dust and fumes, and in all other respects, and further to extend the provisions of this Act to any underground factory, workshop or workplace in which any class of business, manufacture or process is carried on, but the provisions of this Act shall not apply to any underground room used simply for the purpose of storage.

8. This Act may be cited as the Factory and Workshop Act 1912 and shall be construed as one with the Factory and Workshop Acts of 1901 and 1907, and the Factory and Workshop Acts 1901 and 1907, and this Act may be cited together as the Factory and Workshops Acts 1901 to 1912.

9. This Act shall come into operation on the

SCHEDULE I.

This Act shall apply to the following classes of business, processes of trade, or manufacture:—

The making, cleansing, washing, altering, ornamenting, finishing, and repairing of wearing apparel and any work incidental thereto,	Watch and Clock Making and Repairing, Fancy Jewellery work, Laundries, Typewriting,
Hair-work,	Preparation of food for sale in Restaurants and Coffee-houses,
Lace or Embroidery-making,	
Upholstery and Carpet making,	

And other occupations incidental to any of the foregoing.

Perhaps the most interesting feature in the Bill is the recognition, for the first time in health legislation, of the importance of natural light as being a condition essential to health. The power of sunlight in destroying disease germs, or at least in attenuating their virulence, is well known, and dearth of sunlight is one of the most potent pre-disposing causes of phthisis. In the efforts which are being made to combat this disease the insistence on a reasonable amount of daylight in work rooms would be a powerful weapon.

REPORT ON SHELLFISH, OTHER THAN OYSTERS, IN RELATION TO DISEASE, by the late Dr. H. Timbrell Bulstrode.

For some years, sanitarians have awaited the results of the investigations conducted at the instance of the Local Government Board, the object of which was to ascertain whether there is need for some control over the collection, cultivation, and cleansing of certain shellfish, other than Oysters, which are eaten either raw or imperfectly cooked, and which have been shown by circumstantial evidence to have been from time to time instrumental in producing outbreaks of gastro-enteritis.

Dr. Timbrell Bulstrode was appointed investigator, and his report to the Local Government Board on the results of his labours, presented in the early part of this year, is a highly instructive and comprehensive work on this important question.

“As regards oysters, it was shown by the author's Report to the Local Government Board in 1896, that there was urgent need for reform in the matter of ‘fattening’ and storage of these molluscs, and at certain places the pollution to which the oysters were exposed was gross, obvious and indisputable. It is instructive to note that in connection with oysters procured from places obviously exposed to pollution there have been subsequently well-marked outbreaks of enteric fever and other illness directly attributable to the oysters in question.

“Material improvement has taken place at some of the worst places in the condition under which oysters are prepared for markets. This is due in part to the outbreaks of enteric fever which occurred before and since the issue of that Report, and to the attention drawn to the subject by Reports made by medical officers of health. But notwithstanding such improvement, much still remains to be done before the public can consume oysters, bought promiscuously, with a reasonable degree of safety.”

Although the Report by title refers to shellfish other than oysters, these latter to some extent are dealt with.

The Report deals with the places from which mussels and cockles are found, and maps are given illustrating the text.

“ Mussels and cockles are found very largely at or near the mouths of estuaries, a fact which renders them liable to be affected by the pollutions which are not uncommonly brought down by the waters of such estuaries.”

Dr. Bulstrode points out that :—

“ Fortunately, the history of past outbreaks of enteric fever and gastro-enteritis which have been associated with the consumption of shellfish has shown that the shellfish in question have been collected from localities and beds which were obviously liable to pollution ; and, although having regard to the history of water-borne epidemics of enteric fever and cholera, it cannot be affirmed that distant sources of pollution may not at times be operative for harm, it is quite clear that were all the proximate sources of pollution removed, there would be a very material decrease in the number of cases of enteric fever which are now attributable to shellfish.”

And after dealing with difficulties and limitations of bacteriological analysis he states that in the meantime a useful provisional standard is one based on topographical and epidemiological grounds.

“ No pretence is made that a standard thus based is satisfactory or final, but it is one which, if intelligently acted upon, should lead to very great improvement in the conditions under which shellfish are now gathered, and which may not improbably save from greater disaster an important industry.”

The instructive part of the Report deals with the control and purification of sewage, which, as he points out, has not been adequately appreciated by those who have had to deal with the pollution of shellfish, pollution either in its scientific, practical, or legal aspects.

“ Unfortunately, however, the difficulties connected with sewage purification have not yet been exhausted, and the important additional statement has to be made that at present there is no practical method of sewage treatment apart from sterilisation which will afford guarantee against the presence of organisms of intestinal origin in the effluent. With the discovery of ‘septic tank’ treatment it was hoped that a method for the destruction of pathogenic organisms had been secured, but recent work has shown that neither the septic tank alone nor in combination with ‘bacterial’ filter beds will suffice to remove the sewage organisms ; and in dealing with the sewage problem this is one of the difficulties which have to be faced.”

Attention is called to the practice, in constructing a sewerage system, of constructing the sewers of such a size and gradient as will enable the dry weather flow to pass to the outlet at a certain velocity, and this renders it necessary to construct storm overflows, which come into operation when the dry weather flow has perhaps been diluted five or six times or more.

It has been shown by the Royal Commission on Sewage Disposal that the liquid escaping from these storm overflows is at times exceedingly foul, and one that bacteriologically differs little from crude sewage.

Clearly, as long as these stormflows exist, there is risk of contamination whatever the process of treatment of the sewage at the outfall may be; and that further, the Sewage Disposal Works are unable to deal with more than a certain quantity, and that the surplus is either discharged after no treatment at all, or after passage through "storm water tanks," or is simply passed at an accelerated rate through the filters.

Beyond this there is the fact that—

" Obviously shipping as a possible polluting factor is most likely to be mainly
" a source of anxiety in estuaries such as the Thames and the Mersey, which
" large liners carrying sometimes many hundreds of passengers and crew are
" accustomed to traverse, or in estuaries like the Medway and harbours such as
" Portsmouth, where large vessels, each carrying population of village or small
" town dimensions are to be found at anchor.

" But the same source of pollution is by no means negligible in smaller
" places, where the shipping consists of a few steamers and some coasting craft,
" or even in centres where there is a considerable fishing fleet.

" It is clear that in places such as those where, perhaps, extensive sewage
" purification schemes have been undertaken that vicarious pollution by shipping
" may not improbably lead to condemnation, bacteriologically, of shellfish or water,
" or to the involvement of such shellfish in an epidemiological sense."

The report gives an outline sketch indicating the chief centres of the mussel and cockle industry in England and Wales, with descriptions of the methods of collection and cleansing of these shellfish and the degree of control at present exercised over their manipulation.

MUSSELS.

It points out that the practice at times adopted of bringing the mussels back to the harbour or town to wash and pack is at times a disastrous one for their purity, since mussels collected from localities where they are little if at all exposed to the risk of specific contamination are brought back and in not a few instances washed in close proximity to sewage outfalls.

" It would seem, indeed, as if some of the mussel gatherers had supreme
" contempt for the sewage of towns, since they may be seen over and over again
" either raking for, hand picking, or washing mussels actually at the very mouths
" of sewers or drains."

" At the present time such control as is exercised over the collection of mussels
" has relation solely to the commercial aspects of these shellfish, and it is exercised
" through the medium of byelaws made and enforced by the several Sea Fisheries
" Committees."

These bye-laws relate to size and close season only.

" But the important point to note is that at the present time there are no
 " restrictions prohibiting either the collection of mussels, from the vicinity of sewage
 " outfalls, or the deposition of such shellfish either for storage or growth in similar
 " positions. Moreover, there is nothing to prevent the mussels from being washed
 " actually at the mouths of sewers, and a perusal of the body of this Report will
 " serve to show that all these practices not infrequently obtain."

COCKLES.

The precise condition in which Cockles are sent for immediate consumption varies in different parts of the country.

A detailed account is given of the method adopted at Leigh-on-Sea.

On the methods adopted, Dr. Bulstrode comments as follows :—

" It will be seen by the above description, that these boiled or sterilized
 " cockles are afforded opportunity of becoming polluted by the water in which
 " they are washed after being boiled, and it is believed that in at least one notable
 " instance, specific contamination of cockles was thus caused.

" Sometimes, too, cockles collected from sources remote from pollution, are
 " laid down to clean themselves of sand in creeks, or positions where they may
 " become specifically contaminated, and a point such as this is worth remembering,
 " when cockle borne outbreaks of Enteric Fever or other illness are under
 " investigation."

The number of persons engaged in the mussel and cockle industry must be large, as in one district alone, the Lancashire and Western, 591 families are wholly or partially dependent on the trade.

The sources of supply of the chief towns are given, and the report goes on to state :—

" There is no valid reason for believing that the conditions as regards risk of
 " contamination to shellfish are any better in foreign countries or in other parts of
 " the British Isles, than they are in England and Wales, and as is now well known,
 " shellfish-borne outbreaks of enteric fever have occurred in almost every country
 " of Europe as well as in the United States of America. Detailed information is
 " available as regards the condition under which Oyster culture in France is
 " conducted, and from the official report of Dr. Mosny to the French Government,
 " it would appear that at the time such report was made, not a few of the oyster
 " layings around the French coasts were liable to be specifically contaminated."

" As has been said a large quantity of mussels from Holland are imported
 " into this country, mainly for immediate consumption, and it has within recent
 " years been the practice to forward with each consignment a certificate from the
 " Netherlands Government testifying that the mussels in question had come from
 " unpolluted sources. It is therefore important to note that Dr. Collingridge, who
 " has always been fully alive to the possibility of the pollution of foreign shellfish,
 " refers in his annual report for 1908 to cases of enteric fever occurring in the

“Boroughs of Islington and Wandsworth, and which were attributed to the consumption of mussels, which on enquiry were found probably to have come from Holland, and Dr. Klein, to whom mussels alleged to have come from the same source were submitted, found evidence of what he regarded as faecal contamination. Consequently the Consul-General of the Netherlands was communicated with upon the matter.

“The type of enteric fever caused by shellfish is not improbably a severe one, with a high fatality rate and a short incubation period.”

In dealing with the evidence available as to the connection between Enteric Fever and Shellfish, the report states :—

“Such evidence must of necessity be circumstantial, since absolute proof in dealing with epidemiological problems, such as are here involved, is practically unattainable. Moreover, the evidence in this instance must be not only circumstantial but largely cumulative, that is to say made up of a succession of associated events repeated sufficiently often to bestow upon them a definite value *qua* evidence. It is, of course, of little importance to know that certain persons who develop enteric fever have consumed raw shellfish, since this fact in the present state of our knowledge merely implies that such persons have recently eaten something which is believed under certain circumstances to be capable of causing enteric fever or other gastric disturbances. But this fact alone has little, if any, more value than the bald statement that the patient had consumed water or milk, had inspired drain air, consumed raw vegetables, or lived in a house where the conservancy system of excrement disposal obtains, all of which articles or circumstances are to be thought of as being capable of inducing attacks of enteric fever.

“It is clearly essential to know, not only at what date or dates, shellfish had been eaten, but also to what other sources of infection, if any, the patient had been exposed.

“But not infrequently, the mere statement ‘had eaten shellfish’ is considered sufficient for the inference that this was the cause of the illness, no other possible sources of infection having been looked for, or at least, discussed, albeit other cases of enteric fever are ascribed to other causes, such as those above referred to.

“But even if the shellfish could be shown to have come from a source liable to pollution, and to have been consumed raw, at a date consistent with its causation of enteric fever, the two events need by no means be causatively related, since for example, had the case in question been one of a group which had apparently been infected by milk, water, or foods other than shellfish, the cumulative evidence pointing to the latter agents would outweigh that in connection with a single event.

“It must not be forgotten, too, that the etiological value which is to be attached to the circumstances of an enteric fever patient having eaten shellfish within say three weeks of the onset of the disease, depends very largely upon the proportion of the population which habitually or even occasionally consumes shellfish.

"If the consumption of shellfish in any given locality is a more or less routine custom, indulged in at times by a large percentage of the population, it will, of course, be probable that in some instances there will be an association in point of time between the shellfish eating and the onset of enteric fever, without there being necessary causal relationship between the two events; in fact, were the consumption of shellfish as common as the consumption of milk, the value of the statement that a patient had eaten shellfish within a short period prior to attack, would, having regard to the relatively small number of cases of enteric fever, have no more etiological significance considered alone than the statement that the patient had consumed milk, both of which articles are liable to be contaminated by polluted water."

It is pointed out that the proportion of persons consuming mussels and cockles, though variable, is probably small.

Reference is made to well attested shellfish-borne outbreaks of enteric fever and gastro-enteritis, as also to cases of mussel poisoning.

Dr. Bulstrode then discusses the question of the influence of polluted shellfish in maintaining enteric fever prevalence, and states that :—

"In addition to shellfish borne outbreaks there is evidence of a somewhat different but cumulative very strong character which goes to show that in some towns at least shellfish have had an important share in producing and maintaining the prevalence of enteric fever, and although there are difficulties in dealing with some of the evidence adduced, owing to the paucity and relative unreliability of the data available, it may be said generally that the amount of enteric fever attributed to shellfish by medical officers of health is increasing in direct proportion to the amount of attention devoted to the subject, and the care which is exercised in the detailed investigation of individual cases or groups of cases. It is well to bear this fact prominently in mind."

But the report carefully points out that the danger is not entirely confined to shellfish, presumably contaminated on the beds or layings, or in storage, but they may also be polluted in the wholesale or retail premises, in which they are kept.

"In so far as the retailers are concerned it is important to remember that much shellfish is sold by hawkers with fish barrows, and that such persons are not unlikely to inhabit districts and localities where sanitary imperfections are common, and where medical advice is only sought when disease is well developed.

"The occurrence of a recognised or unrecognised case of enteric fever in the house of one of these shellfish hawkers might therefore not improbably result in the specific contamination of the shellfish, with consequences similar to those which are believed to have ensued in Merthyr Tydvil in 1903."

On the question of infected shellfish in the production of enteric fever amongst visitors at seaside resorts, it is stated that

"There can be little question that occasionally infected shellfish consumed by visitors at holiday resorts is responsible for some of the enteric fever occurring in our large towns and in other inland places,"

and numerous instances are quoted.

Summarising the evidence on the above points the following conclusions are arrived at :—

“ 1. That oysters, mussels, and cockles are at times responsible for isolated cases and groups of cases of enteric fever, of gastro-enteritis, and of mytilotoxine poisoning.

“ 2. That such shellfish have also to be held responsible for extensive outbreaks of enteric fever and gastro-enteritis, and that the amount of mischief in this latter sense has not hitherto been adequately appreciated.

“ 3. That these shellfish have also been shown to have played, and to be still playing, an important part in certain towns in maintenance of enteric fever prevalence.

“ 4. That for the most part the specific contamination of such shellfish takes place on the beds or layings, in the storage ponds, or in the process of ‘ washing,’ but that occasionally the shellfish may become infected by the retailer.”

Evidence is given pointing to the conclusion that shellfish which have been cooked are less liable to act as disease disseminators than shellfish from the same source eaten raw.

“ It must be regarded as being in accordance with expectations that the exposure of shellfish to heat should reduce the chances of such shellfish transmitting disease dependent upon vegetable organisms, and this general statement will remain true although it can be shown that the application of heat in the process of ‘ boiling ’ or ‘ steaming ’ shellfish is not as a rule sufficiently prolonged or intense to effect the entire sterilisation of the shellfish in question.

“ There seems need for a better appreciation on the part of the public of the fact that some risk must attend the consumption of all raw foods, whether vegetable or animal.

“ As regards vegetable foods eaten raw or uncooked, mention may be made of watercress, which is not infrequently collected from sources liable to sewage contamination, and washed in water sometimes similarly liable, as well as of lettuces, mustard and cress, cabbage, celery, horse-radish, strawberries, and radishes, all of which latter, being in contact with the earth, are liable to be contaminated by manure, while fruits such as blackberries, raspberries, gooseberries, plums, &c., which grow at some elevation from the ground, are only liable to contamination by the employment of dirty hands in the process of gathering, and by infected dust or dirt after collection. In the case of many fruits, however, the risk of infection is reduced by the practice of peeling them prior to consumption.

“ With respect to animal foods, the only one of material consequence other than shellfish, which is consumed raw, is milk, which, as everyone is aware is frequently responsible for outbreaks of enteric fever, and doubtless to some extent for the introduction of bovine tuberculosis into the animal economy. By careful boiling, however, risks in the above sense can be avoided.

“ It is a curious circumstance that the only animals eaten raw and actually living are certain shellfish such as oysters, mussels, and cockles ; or rather the

"only shellfish which is as a matter of custom almost invariably eaten quite raw
 "is the oyster. Other shellfish such as lobsters, crabs and shrimps are always
 "well boiled before consumption, and although these crustaceans are sometimes
 "caught or stored in polluted localities, there is not sufficient evidence to involve
 "them as having been responsible for outbreaks of enteric fever, although of
 "course numerous persons have within three weeks of the consumption of these
 "articles of food developed enteric fever."

The remaining part of the report is occupied with a discussion as to the part believed to have been played in reduction of enteric fever prevalence in certain towns by limitation of the consumption of shellfish.

The report fully deals with the remedy, pointing out clearly that the law as at present interpreted, does not prohibit the discharge of sewage into tidal water, and comments upon the Oyster Bill, 1899, with reference to the authorities proposed to arm with power to prevent the sale of oysters from polluted sources.

Dr. Bulstrode sums up his report as follows :—

"(a) That both enteric fever and gastro-enteritis are not infrequently caused by
 "the consumption of mussels or cockles eaten raw or imperfectly cooked.

"(b) That the shellfish here in question are in many instances collected from
 "natural scalps, beds or layings which are liable to become specifically polluted by
 "sewage.

"(c) That even when these shellfish are procured from localities remote from
 "the risks of pollution, they are at times washed, stored, or laid down in dangerous
 "proximity to sewer or drain outfalls.

"(d) That the shellfish with which this report is concerned may occasionally
 "become polluted, either specifically or otherwise, by the treatment to which they
 "are subjected by the sellers.

"(e) That at the present time there is practically no control in a sanitary
 "sense exercised over places from which these shellfish are collected, or wherein
 "they are laid down, washed, or stored.

"(f) That large quantities of the shellfish here under consideration are
 "introduced into England and Wales from Scotland and Ireland, and that, therefore,
 "any regulations or restrictions to be effectual should apply to all parts of Great
 "Britain and to Ireland.

"(g) That as large quantities of shellfish are introduced into this country
 "from abroad, notably from Holland, France and America, any legislation directed
 "to the control of the home industry must also take account of foreign
 "importations.

"(h) That so long as the state of affairs revealed in this report obtains,
 "both with regard to home and foreign shellfish, those persons who desire to avoid
 "contraction of shellfish-borne enteric fever or gastro-enteritis should either abstain
 "entirely from such shellfish as mussels or cockles, or consume them only after
 "they have been actually at the boiling point for at least five minutes.

"The remedy for the condition of affairs revealed in this report is obvious, and
 "it consists in devising means whereby shellfish for human consumption, whether
 "oysters, mussels, or cockles, shall no longer be laid down, stored, or washed in or
 "gathered from positions liable to contamination. Adequate precautions also
 "necessitate provision for the periodical inspection of and reports upon places from
 "which shellfish are procured, or in which they are cleansed and prepared for
 "market.

"It would clearly be desirable while regulating the shellfish beds and layings
 "of England and Wales, at the same time to control the shellfish supplies of
 "Ireland, Scotland, Holland, France, and America, some of which at least are
 "known to be subject to contamination in no less degree than those of England
 "and Wales."

INSPECTION OF FISH AND PREVALENCE OF TYPHOID FEVER IN 1910.

Incidences of cases of typhoid fever in London have shown a marked decline during the past 25 years, but even now this disease is remarkably prevalent in the Metropolis.

The study of the cases notified show that they display a marked tendency to occur in groups, and more especially affect the poorer areas, the same localities in some instances being attacked year after year.

During 1910 there occurred an outbreak of the epidemic which affected mainly the districts of Bethnal Green, Stepney and Poplar.

In these circumstances, Dr. Hamer, of the London County Council, visited the implicated districts with a view to investigating whether or no some special cause or causes could not be ascertained to which the prevalence of the disease could be attributed.

The results of Dr. Hamer's enquiries have now been printed by order of the Public Health Committee of the London County Council.

Having, by a process of hypothetical deduction, eliminated water and milk as possible causes, and shown that the outbreak was an explosive one, and therefore not to any extent accounted for by personal infection, Dr. Hamer turned his attention to the question of food inspection, and came to the conclusion that two articles of food were under suspicion, viz., mussels and fried fish, which had been partaken of by a considerable percentage of the patients within the month preceding the onset of the illness, and on further inspection he formed the opinion that mussels might be disregarded, leaving only the question of fried fish.

On this point, he states that of the total number of cases notified in Bethnal Green (79) there were 68 with a history of having eaten fried fish within a month of the onset of the illness, and that limiting consideration to the area of special prevalence, out of 50 cases, 49, or 98 per cent. of the patients had obtained fried fish from shops in the area, and that the 50th case was subsequently found to have been notified in error.

These 49 sufferers derived their supply from three shops only, and two of these shops are supplied by one man from Billingsgate, thus practically confining the supply to two sources.

Dr. Hamer pointed out that the amount of fried fish eaten in Southwark and Bethnal Green is far larger than in any other part of London, and it has already been shown that typhoid fever mainly occurs in a class of population among whom fried fish eating is particularly common.

Analysis of the history with regard to fish eating, of the sufferers in the outbreak, lead the Investigator to group the London cases, topographically, into 31 clusters or groups.

These 31 clusters centre round 24 shops or stalls, and 7 market streets in which, presumably, a single shop or stall was at fault, but a more precise indication of the offending market is impossible. In addition to the 31 London groups, there are those occurring outside the Metropolis, *i.e.*, Tottenham and Edmonton, and further some scattered groups of cases in Bermondsey, Lewisham, Battersea and Acton.

"It was clearly important to ascertain whether the 31 London retail supplies which thus fell under suspicion were in any way associated one with another. Were they in fact derived from common wholesale sources? It was ascertained in every instance the retail supply was obtained direct from Billingsgate, and in all instances in which information with reference to this point could be obtained, the fish falling under suspicion was 'plaice' (including 'flounders' and 'dabs'), and was, moreover, what is known as 'late steamer fish.' This exclusive derivation from Billingsgate is not, at first sight, remarkable, but having in view the fact that quite a considerable percentage of the small retail shops have fish sent direct from the coast by rail, it is *a priori* exceedingly unlikely that among 31 retail vendors questioned, no single one would be so supplied. As regards the Billingsgate fish, roughly two-thirds is 'rail,' and one-third 'steamer fish,' and though the category 'late steamer fish'* is one difficult to define precisely, it may certainly be assumed that considerably less than one-tenth of the fish sold at Billingsgate could be thus classified."

Dr. Hamer ascertained that in every instance where the retail supply fell under suspicion they were derived direct from Billingsgate, and in all instances in which information with reference to this point could be obtained, the fish falling under suspicion was "plaice," including flounders and dabs, and was, moreover, known as what is described as "late steamer fish."

In Tottenham and Edmonton, evidence pointed to particular fish shops having been concerned in supplying the patients.

The circumstance of the outbreak of typhoid fever under investigation raises the question with regard to London generally, and suggests that other widely scattered and sporadic cases may also be due to fish inspection.

* The fish sold between, say 9 and 10 a.m., after the higher-priced fish has been disposed of, would appear to be that referred to.

The occurrence of 50 cases all in a limited area in the district of Bethnal Green enabled a close analysis of the facts in relation to possible cause to be made, and from this the fish hypothesis emerges as the only possible explanation.

There were contemporaneous excessive prevalences of typhoid fever in nine other boroughs of London and in Tottenham and Edmonton, in all of which the fish hypothesis might also explain the prevalences.

In 1906, between the 1st and 20th June, 100 cases of typhoid fever occurred in seven areas in London, and of the London sufferers, 92 per cent. had eaten fried fish during the four weeks preceding the attack.

Having come to the conclusion, that there was some casual relation between enteric fever and fried fish, the Investigator further considers the question as to the way in which such relation may be brought about.

(1) He points out that the kind of fish was plaice, that some plaice was especially open to suspicion, and that there is a possibility that the question of failure to remove the gut (that is imperfect cleansing of the fish) was an important one in connection with communication of infection.

(2) That the fish was already infected before reaching the vendor. This fact was already apparent in 1900, inasmuch as that in that year at least three widely separated populations in different parts of London obtained fish from retail vendors having no association one with another, were involved in the typhoid prevalence, and states that it has been suggested that the possibility of contamination of small fish in the "nursery grounds" in the North Sea, is not so remote as might at first be supposed.

Attention is called to the fact that the question of legislating with a view to limit the destruction of small plaice has received much attention of late years from the fear of depleting the North Sea, and suggests that the question may have importance from an epidemiological point of view as well as from its industrial aspect.

It is stated in the Plaice Fisheries Report that at Billingsgate a 20 centimeter limit (that is 7.874) is imposed, and that this is not at all times strictly observed.

Dr. Hamer points out that during the period in which special attention has been paid to the question of depletion, the amount of small plaice brought to Billingsgate has undoubtedly diminished, and further that the typhoid fever in London has also shown a decline.

A quotation taken from the Report presented by Dr. Hamer in 1906 is of such importance that I have deemed desirable its inclusion in these columns in full.

"The fish trade has its own Inspectors appointed by the Fishmongers' Company, and action in particular instances, more particularly as regards shellfish, has been taken by the City Corporation, but no systematic control by a sanitary authority such as is now regarded as necessary in the case of other sorts of food, has hitherto been instituted. A considerable experience of the condition of the fish arriving at shops in the poorer parts of London, acquired by officers of the London County Council, more particularly during recent years, shows that the inspection carried out at Billingsgate affords no sufficient security against the consumption of fish unfit for food."

This report to the London County Council was considered by the Sanitary Committee of the Corporation, and that Committee, on 10th June, 1909, issued a report submitting a memorandum on a scheme, the acceptance of which, it was believed by the Committee, would render persons sending unwholesome fish to the City fish markets liable to incur the same risk of prosecution as obtains in the case of the salesmen in the Meat and Provision Markets.

• The Report continues :—

“During the past summer there has again been evidence of the need of preventing the sale of unwholesome fish. Some of the retail vendors, in the areas affected by excessive prevalence of typhoid fever, have told me that they have experienced special difficulty during last August with regard to small plaice. *The Fish Trades Gazette* records that on the 9th August ‘small plaice was abundant at low figures,’ on 10th August such plaice ‘was exceptionally plentiful and cheap,’ and on the 11th August ‘heavy quantities of small plaice met a poor market at low figures.’ As has been pointed out, the evidence obtained in this investigation points to ‘steamer plaice’ as having been at fault, and I therefore made special enquiries in this connection at Billingsgate. No steamer plaice was, I was told, condemned during August.

“It is the custom with many ‘friers’ not to go to Billingsgate until the higher priced fish has been disposed of. Numbers of men do not attempt to buy in the early morning. There is, therefore, special need of inspection in the case of this ‘late fish.’ In the Plaice Fisheries Report, it is stated that at Ramsgate, the ‘small stuff’ is given to the crew as a perquisite, or ‘sold to hawkers and others on the open space outside the market.’

“At Billingsgate, the ‘late fish’ falls largely into the hands of costers and small ‘friers,’ and in the absence of a complete system of inspection at the market, the question as to whether the fish should be sold or not is left to the discretion of the coster or ‘frier.’

“Plaice is practically the only fish used by vendors of fried fish which is not gutted as a matter of course at sea. I was informed at Billingsgate that the nature of the food (shellfish, &c.) of the plaice makes it possible to retain the gut without injuring the fish, whereas the character of the intestinal contents of fish consuming ‘softer’ food necessitates removal of the gut forthwith. The practice of gutting plaice seems, however, to be coming steadily into favour as years go by, but the London Steamer companies do not, as a rule, attempt to gut the small plaice.

“The extent to which the fish sold by fried fish vendors has been found to be imperfectly gutted has been referred to in previous reports.

“In dealing with small ‘dabs,’ which are sold at times when there are heavy quantities available, at $\frac{1}{2}d.$ a pound, or say three or four a penny, cleansing is doubtless often left to be carried out by the purchaser, if performed at all.

“It is a suggestive fact that in the instances last summer, in which several members of one family were simultaneously attacked by typhoid fever, there was generally speaking a history of the consumption by all the sufferers in each family, of small plaice or dabs. The fact that most or all of the consumers of

"these fish were attacked, points to a degree of infectiousness which requires some special explanation, and such explanation, the absence of gutting of these small fish would possibly supply.

"It is clearly desirable in the interest of the public health, as it appears to be admitted by many of those who are in a position to have an opinion, it is also in the interest of the fish trader, that no plaice which has not been gutted should be exposed for sale in the Market."

At the time that this matter was under the consideration of your Committee and the Court of Common Council, it was resolved that your Medical Officer of Health should arrange for the supervision of Billingsgate Market to be carried out by the existing staff. It was at that time hoped that such arrangement could be carried out, but it has, however, since been found that in consequence of the very large increase of work thrown upon your meat Inspectors, it is not possible to spare an officer for this purpose.

It is important that the supervision should be constant, and it is further necessary that such officer should have expert knowledge of fish inspection, and the appointment of a special officer to act in regard to fish is now under the consideration of the Sanitary Committee.

SHELLFISH AND ENTERIC FEVER.

OYSTERS.

From time to time I have submitted samples of Oysters as sold in the City of London for bacteriological examination, and the results obtained have demonstrated how essential it is that a careful and constant supervision should be exercised over this species of food, which is so peculiarly susceptible to the influence of sewage or other contamination that may be present in its natural element.

A further investigation has been completed, and the following is Dr. Klein's report upon the twelve samples submitted to him :—

<i>Date.</i>	<i>Sample No.</i>	<i>Result.</i>
13th February	1	No B. coli per 1/80 oyster. No B. coli per 1/40 oyster. No B. coli per 1/4 oyster. B. enteritidis sporogenes per 1/4 oyster. Satisfactorily clean.
13th February	2	No B. coli per 1/80 oyster. No B. coli per 1/40 oyster. No B. coli per 1/4 oyster. B. enteritidis sporogenes per 1/2 oyster. Satisfactorily clean.
15th February	3	B. coli per 1/4 oyster. No B. coli per 1/40 oyster. No B. coli per 1/80 oyster. Enteritidis spores per 1/4 oyster, not per 1/8 oyster. Oysters passable.

<i>Date.</i>	<i>Sample No.</i>	<i>Result.</i>
15th February	4	No B. coli per $\frac{1}{4}$ oyster. No B. coli per 1/40 oyster. No B. coli per 1/80 oyster. B. enteritidis sporogenes per $\frac{1}{2}$ oyster, not per $\frac{1}{4}$ oyster. Satisfactorily clean.
17th February	5	No B. coli per 1/3 oyster. No B. coli per 1/6 oyster. No B. coli per 1/60 oyster. B. enteritidis sporogenes per 1/6 and 1/3 oyster. Passable.
17th February	6	No B. coli per 1/7 oyster. No B. coli per 1/14 oyster. No B. coli per 1/140 oyster. No B. enteritidis sporogenes per 1/7 or 1/14 oyster. Satisfactorily clean.
20th February	7	B. coli per $\frac{1}{4}$ oyster. B. coli per $\frac{1}{8}$ oyster. No B. coli per 1/40 oyster. B. enteritidis sporogenes per $\frac{1}{4}$ and $\frac{1}{8}$, not per 1/16 oyster. Passable.
20th February	8	B. coli per $\frac{1}{8}$ oyster. No B. coli per 1/16 oyster. No B. coli per 1/80 oyster. No B. enteritidis sporogenes per $\frac{1}{8}$ or 1/16 oyster. Satisfactorily clean.
22nd February	9	B. coli per 1/3 oyster. No B. coli per 1/6 oyster. No B. coli per 1/30 oyster. B. enteritidis sporogenes per 1/6, not per 1/12 oyster. Passably clean.
22nd February	10	No B. coli per 1/5 oyster. No B. coli per 1/10 oyster. No B. coli per 1/50 oyster. B. enteritidis per 1/10, not per 1/15 oyster. Satisfactorily clean.
1st March... ..	11	No B. coli per $\frac{1}{4}$ oyster. No B. coli per $\frac{1}{8}$ oyster. No B. coli per 1/40 oyster. B. enteritidis sporogenes per $\frac{1}{2}$, not per $\frac{1}{4}$ oyster. Satisfactorily clean.
1st March... ..	12	No B. coli per 1/6 oyster. No B. coli per 1/12 oyster. No B. coli per 1/60 oyster. No B. enteritidis sporogenes per $\frac{1}{4}$ or $\frac{1}{8}$ oyster. Satisfactorily clean.

(Signed) E. KLEIN.

From the above satisfactory report it would appear that the efforts that have been made to protect the public from a source of danger have not been altogether unproductive, but I am of opinion that it would be extremely inadvisable for responsible

authorities to relax their vigilance in this matter because an isolated series of samples proved clean and wholesome.

That shellfish are still subject to the suspicion has being evidenced during the past year in much the same manner as heretofore.

In February last a case of enteric fever occurred in an outlying district in which enquiry suggested oysters as a possible cause.

The patient had been in the habit of partaking of oysters for lunch two or three times a week since the beginning of the year, at a retailer's shop in the City. A sample of the oysters on sale at this establishment was submitted to Dr. Klein, who reported thereon, as follows :

No *B. coli* per $\frac{1}{2}$ oyster. On one of two Drigalski plates inoculated with fluid amounting to $\frac{1}{5}$ oyster, there were three bluish colonies resembling somewhat those of Gaertner-Paratyphoid Typhoid colonies. Sub-cultures made in the different media show that the colonies do not belong to either.

Result : Oysters satisfactorily clean.

(Signed) E. KLEIN.

This case illustrates one of the greatest difficulties that we have to meet in satisfactorily tracing any connection between shellfish and reported case of illness.

The date of the onset of the illness was 1st February, and it was not until the 8th March that the suggested connection with contaminated oysters was brought to my notice, and although it would appear as a result of the examination that the oysters were not responsible for the illness in this particular case, the unavoidable lapse of time must not be omitted from consideration.

It will be readily seen that oysters eaten at the beginning of February may possibly be contaminated, while the sample from the same layings taken a month or five weeks later may, on examination, give negative results *qua* disease.

WINKLES AND ENTERIC FEVER.

Enquiries into a case of enteric fever occurring in April last, elicited the fact that the patient had been in the habit of regularly eating winkles purchased from a local vendor, who in turn obtained his supplies from a wholesale dealer in Billingsgate Market.

A sample of the suspected winkles was submitted to Dr. Klein for bacteriological examinations who reported thereon, as follows :—

“Fluid from 12 winkles was collected and analysed for specific pollution with the following results :—

“(a) The winkles contained *B. coli communis* to the amount of 38-40
“per winkle.

"(b) There were present cocci (*Staphylococcus Aureus* ?) to the amount of several 6-8 hundred per winkle.

"(c) There were present no microbes belonging to the Gaertner-Typhoid group."

"From this analysis it follows that the winkles were distinctly unclean, but "no specific pathogenic microbes were discovered in them."

It will be seen, therefore, that although there was no specific connection between the winkles examined and the incidence of the case of enteric fever, the shellfish were unquestionably polluted and unfit for human food.

In these circumstances I communicated with the dealer from whom the samples had been purchased, and obtained from him an undertaking not to sell any more winkles from the same source as those referred to in Dr. Klein's report.

This case affords another indication of the unsatisfactory manner in which the shellfish industry of this country is conducted, and illustrates well the lack of powers with which sanitary authorities are armed to fight this important question of shellfish pollution. Although we were successful in stopping the sale of these winkles by one dealer, there is no doubt that they are being sold, if not in London, elsewhere.

The time has undoubtedly arrived when some legislative measure should be placed on the Statute Book prohibiting altogether the sale of shellfish from any polluted source.

It is surely an anomaly that the protection afforded to consumers of meat and other foods should be withheld from the consumer of shell-fish, and until stringent powers are granted with this object, the consumption of shellfish must be attended with some amount of risk.

WINKLES AND ENTERIC FEVER

REPORT OF THE VETERINARY INSPECTOR.

According to the statistics of the Superintendent of the Central Markets, Smithfield, the weight of produce marketed during the year ending 31st December, 1911, constituted a record. The following figures obtained from the same source are interesting.

COMPARISON—1911 AND 1910.

Source of Supply or Classification.	1911. Tons.	Ratio per cent.	1910. Tons.	Ratio per cent.	Difference. Tons.	Ratio per cent.
United Kingdom	99,038	22·8	94,497	22·5	4,541 inc.	4·8
U.S.A. and Canada—British killed	29,048	6·7	29,714	7·1	666 dec.	2·2
U.S.A.—Chilled and Frozen ...	8,022	1·9	14,489	3·4	6,467 dec.	44·6
South American	152,312	35·1	122,346	29·2	29,966 inc.	24·5
Continent	48,523	11·2	52,772	12·6	4,249 dec.	8·1
Australasia	96,780	22·3	105,732	25·2	8,952 dec.	8·5
Meat, Poultry and Provisions ...	433,723	100·0	419,550	100·0	14,173 inc.	3·4
Fish	1,593	—	1,699	—	106 dec.	6·2
Total tonnage ...	435,316		421,249		14,067 inc.	3·3

When to the above figures are added the details *re* Leadenhall Markets and City Shops, Cold Stores, Aldgate Market and Slaughterhouses, some idea may be formed as to the amount of work done during the year *re* meat and food inspection.

At times the work has taxed the efforts of the staff to the utmost.

A considerable quantity of the meat deposited on the markets imported from foreign countries bears an official stamp, showing that such meat has been examined and certified free from disease. The results of our examinations show that in the case of certain countries, a considerable amount of reliance can be placed on the value of the stamp affixed. This makes the work of inspection in the markets somewhat easier.

Unfortunately the same cannot be said for meat arriving from all parts of the United Kingdom, there being no official indication on any carcase to show where it has come from or if it has been inspected, with the result that every piece of British meat placed on the market has to be treated by the Inspectors as unexamined. This not only creates much work, but no credit can be given to provincial towns where a good system of meat inspection may exist, as we have no knowledge from whence the meat has come. Some criticism against our system of inspection has been made lately by persons who have little, if any, knowledge of the quantities of meat passing through the markets, or the difficulties to be contended with. That criticism I have no doubt you will deal with, but I may state, from practical experience, that any person who suggests that every piece of meat leaving the markets should be *officially* inspected, only exhibits his lack of knowledge of the subject.

The Meat Inspectors endeavour to the best of their abilities to secure a pure food supply to the public, but the responsibility of the condition of the meat sold by the salesmen legally rests with them, and let it be said that they recognise their duty to the public and act up to it by giving the Inspectors every assistance. The wonder is, considering the quantities of meat dealt with, so very little escapes careful observation.

During the year the Argentine Board of Agriculture has stationed in London one of their Veterinary Surgeons (Dr. Castillo), whose duty is to see Argentine meat which has been condemned, note the cause, and report to his Board with suggested remedies for the defects.

The undermentioned countries are now represented in London by :—

Dr. Wray	-	-	-	United States of America.
Dr. Castillo	-	-	-	South America.
Mr. Crabb, M.R.C.V.S.	-	-	-	New Zealand.
Dr. Berger (not permanently)	-	-	-	Holland.
Mr. C. Cummins Cherry, B. V.Sc.	-	-	-	Australia.

There has been a considerable reduction in the number of quarters of beef deposited on the market in a mouldy condition ; this shows that more care has been taken in the handling of the meat from the time the animals are killed until the beef is deposited on the markets, and proves what was stated in the last Annual Report, that the remedy, viz., "hygienic handling, sterilization, and rapid transport in modern vessels," is in the hands of the importers themselves. I understand that a line of ships carrying meat from Argentina are being fitted with the "Linley Process," so we may expect a further reduction in the quantities of mouldy beef seen on the markets.

EXPORTATION OF MEAT TO THE CONTINENT.

During the year strenuous endeavours have been made to obtain markets for meat on the Continent with apparently a measure of success ; should the trade develop, there seems little doubt that meat will be shipped direct from the producing countries, not *via* England.

In order to meet the requirements of the Continental Sanitary Authorities, the meat sent from London was examined, a label and seal affixed, and a Veterinary Surgeon's Certificate granted. The following table shows the work done :—

EXAMINATION OF MEAT FOR EXPORT, &c.

CERTIFICATES GRANTED BY THE VETERINARY INSPECTOR.

Destination.	Fore-quarters of Beef.	Hind-quarters of Beef.	Flanks of Beef.	Briskets of Beef.	Silversides of Beef.	Buttocks of Beef.	Rumps & Loins of Beef.	Carcasses of Lamb.	Carcasses of Sheep.	Ox Tongues.	Baskets of Suet.
Belgium	63	63	—	—	—	—	—	—	40	—	—
France	25	25	—	—	—	—	—	80	30	10	—
Holland	168	397	509	350	23	13	—	—	—	—	32
Unknown	6	—	—	—	—	—	—	—	—	—	—
Switzerland	198	431	—	—	—	—	125	783	628	60	—
TOTAL	460	916	509	350	23	13	125	863	698	70	32

The Laboratory fitted up for the department is proving very useful, by its aid the detection of Anthrax in the carcase of a pig deposited on the market was quickly accomplished. A considerable amount of microscopical work has been done in ascertaining whether disease was localised or generalised in carcasses, particularly *re* the diseases of pigs.

The want of uniformity in dealing with pig carcasses, in which the lymph glands of the head only exhibit a caseous condition, which may or may not be due to tubercle bacillus, is still one of the most difficult problems meat inspectors have to deal with.

In some places a pig carcase showing such lesions is at once, without any microscopical examination, certified to be tubercular and destroyed, while in other places the same carcase would unhesitatingly be dealt with by cutting away the head, after carefully ascertaining no other lesions were present, and passing the carcase, this action being approved of by the Medical Officers of Health, whose anxiety for the purity of the food supplied to the public is undoubted.

If the Local Government Board would, after enquiry, issue further instructions, breeders, feeders, the butcher trade, and meat inspectors would experience a sense of relief.

In conversation with farmers and pig breeders who attend the markets, I have been surprised at their lack of knowledge *re* tuberculosis; the majority of them have never seen a post-mortem case of the disease, and therefore, could not recognise the lesions, hence diseased carcasses may be sent to markets without any guilty knowledge on the part of the consignors.

County Councils might do some good by arranging a few lectures and demonstrations at various centres, to which farmers, breeders, and feeders should be invited; education is required in helping to reduce a disease so prevalent.

The following table shows the amount of tuberculous meat siezed at the Central Markets, Smithfield, and it is worth noting, that in the majority of cases the disease could only be detected by a person who had a knowledge of the position of the glands, from which it would appear that the senders had no guilty knowledge.

TUBERCULOUS MEAT AND OFFAL.

	Nos.	lbs.
Beef Carcases - - -	1	480
„ Quarters - - -	12	2,360
„ Pieces - - -	—	900
Pork Carcases - - -	476	44,767
„ Pieces - - -	—	1,368
Veal Carcases - - -	2	146
„ Pieces - - -	—	30
Tongues, Ox - - -	5	25
Lungs, „ - - -	96	960
Livers, „ - - -	126	1,260
Stomachs „ - - -	8	200
		52,496 lbs.
1911 - - -		23 tons 8 cwts. 1 qr. 12 lbs.
1910 - - -		22 tons 4 cwts. 2 qrs. 6 lbs.

SWEDISH MEAT.

By an arrangement entered into between the Medical Officers of the City and Port, meat imported from Sweden is delivered direct into the Central Markets without examination at the Port, on condition that such meat is not to be sold until examined by the City Meat Inspectors.

The following particulars show the variety of the goods imported, also the result of the inspection :—

RECORD OF SWEDISH MEAT NOTIFIED TO ARRIVE ON THE MARKET
UNEXAMINED AT THE PORT OF LONDON.

13 Baskets and 20 Calves'	949 Heads.
Sweetbreads.	102 Hearts.
134 Ox Tails	83 Livers.
1 Basket of Offal.	327 Tongues.
53 Sheep's Tops.	3,458 Kidneys.
208 Calves' Tops.	474 Plucks.
404 Sides of Beef.	240 Feet.
2,716 Calves.	577 Sets of Offal.
422 Pigs.	5 Hampers of Suet.

RESULT OF EXAMINATION.

6 Calves and pieces of Veal	-	-	Decomposition.
2 Calves	-	-	Cachexia.
1 Calf	-	-	Pleurisy and Hydræmia.
1 Calf	-	-	Osteo Malacia.
9 Pigs	-	-	Tuberculosis.
14 Sucking Pigs	-	-	Decomposition.
5 Stone of Kidneys	-	-	Decomposition.

AUSTRALIAN MEAT.

The same system of examination and record keeping *re* Australian beef has been maintained since the first consignment was notified to this Department, the whole of it being carefully examined. From information supplied, it appears that the new staff of Meat Inspectors took up duty in Australia in the month of February, and the results of their work could not be seen until the middle of the summer.

These results have not been so satisfactory as those concerned in this country desire, but it is easy for those who have control of a large inspection staff to understand how many difficulties there are in organising a new system of meat inspection, especially at centres so widely apart as in Australia, *e.g.*, finding the suitable men for each part of the work, &c.

Nevertheless there is an improvement shown in some of the latest consignments, and it is to be hoped that the improvement will not only be maintained, but that we may be able to state in the next Annual Report the important fact that Australian beef is now arriving free from parasitic nodules.

The following table shows the number of quarters of beef dealt with, and the results :—

Number of forequarters of beef	-	-	-	25,755
Number in which parasitic nodules were found	-	-	-	0
Number of hind-quarters of beef	-	-	-	44,734
Number in which nodules were found	-	-	-	8,090
Average percentage in which nodules were found	-	-	-	18
Highest percentage found in one consignment	-	-	-	40·4
Lowest do. do. do. do.	-	-	-	5
Number of buttocks	-	-	-	1,371
Do. do. in which nodules were found	-	-	-	364
Average percentage in which nodules were found	-	-	-	22

It is pleasant to record that fewer poor quality Australian sheep carcasses have been seen on the market during this year, but there can still be seen a percentage of inferior quality carcasses amongst good quality carcasses, which leads us to believe that some breeders pay more attention to "breeding for wool" than "breeding for mutton." The handling of carcasses en route appears far from satisfactory judging by the condition of some of the carcasses exposed for sale on the market.

LEADENHALL MARKET AND CITY SHOPS.

As the two additional Inspectors have had their duties confined to Aldgate Market and Slaughterhouses, we have been able to give more attention to Leadenhall Market and City Shops, with good results.

The following record shows the variety of knowledge required by the City Inspectors, and the figures for this year show the result of careful and systematic inspection, viz., an increase of nearly twenty-five tons of unsound food destroyed.

UN SOUND FOOD DESTROYED.

Blackbirds	-	-	6	Quail	-	-	811
Blackcock	-	-	1	Rabbits	-	-	5,861
Capercaillie	-	-	5	Snipe	-	-	478
Curlew	-	-	20	Thrushes	-	-	13
Chickens and Poussins	-	-	785	Turkeys	-	-	583
Ducks	-	-	3,038	Teal	-	-	171
Felts	-	-	47	Woodcock	-	-	77
Fowls	-	-	6,447	Widgeon	-	-	33
Geese	-	-	153	Game, Unclassified	-	-	2,866
Grouse	-	-	3,060	Pigs	-	-	48
Game, Black	-	-	1,464	Pig's Head	-	-	1
Guinea Fowl	-	-	449	Pig's Fry	-	-	1
Hazel Hens	-	-	2,922	Pieces of Pork	-	-	9
Hares	-	-	1,286	Sides of Bacon	-	-	128
Heron	-	-	1	Pieces of Bacon	-	-	48
Larks	-	-	69	Barrels of Sheep's Tongues	-	-	4
Landrail	-	-	10	Barrel of Tongues	-	-	1
Ortolan	-	-	200	Pieces of Beef	-	-	13
Oyster Bird	-	-	1	Calf's Pluck	-	-	1
Partridges	-	-	733	Deer	-	-	2
Ptarmigan	-	-	639	Pieces of Venison	-	-	122
Plovers	-	-	1,268	Hedge Hogs	-	-	2
Pigeons	-	-	794	Otter	-	-	1
Pintails	-	-	4	Eggs	-	-	468
Pheasants	-	-	1,243				
1911, Total Weight	-	-	87,391 lbs ; or 39 tons 0 cwts. 1 qr. 3 lbs.				
1910 Ditto	-	-	31,901 lbs ; or 14 tons 4 cwts. 3 qrs. 9 lbs.				

COLD STORES.

As each year shows an increase in the amount of meat imported into this country, so the work *re* meat inspection at the Cold Stores has to keep pace with it.

At present there are within the City of London 12 Cold Stores with a capacity of 1,008,000 carcasses of mutton or 252,000 quarters of beef. During the year 1912 the number of Stores will be increased to 13, and the capacity to 1,098,000 carcasses of mutton or 273,000 quarters of beef.

It is difficult to keep constant watch over the condition of all goods entering and leaving the Stores at all hours, night and day.

Generally the proprietors give the Meat Inspectors every information and assistance required, but occasionally information is received, not from the source it ought to come from, that goods of a doubtful condition are in a Store.

The Public Health Act gives power to prosecute in such cases, and it is to be hoped that it will be unnecessary to bring the section of the Act into operation.

As the Corporation has now arranged to return to the owners the residual value (less expenses, &c.) of all meat (other than diseased meat) destroyed, ex Cold Stores, a considerable amount of extra work will in future require to be done by the clerical staff.

The following record shows the variety of goods placed in Cold Stores and subsequently found unfit for human food.

UN SOUND FOOD EX COLD STORES.

Article.	Quantity.	How packed.	Origin.	Cause for destruction.	Tons	cwts.	qrs.	lbs.
Beef Quarters...	57	—	South America	Mouldy and decomposed	4	1	2	21
Ditto ...	2	—	Ditto ...	Brine stained ...	0	2	3	12
Beef Pieces ...	Unenumerated	—	Ditto ..	Mouldy and decomposed	4	12	2	14
Ditto ...	Ditto ...	—	Ditto ...	Brine stained ...	1	1	1	0
Beef Quarters...	Ditto ...	—	Unascertained	Mouldy and decomposed	0	3	0	26
Beef Pieces ...	Ditto ...	—	Ditto ...	Ditto ...	10	14	1	8
Ditto ...	Ditto ...	—	Australian ...	Parasitic Disease ...	4	16	3	1
Ditto ...	Ditto ...	In tins ...	United States of America.	Decomposed ...	1	3	0	1
Beef Skirts ...	Ditto ...	In boxes ...	South America	Ditto ...	4	18	1	21
Beef Head Meat	Ditto ...	In bags ...	Ditto ...	Ditto ...	24	14	3	27
Birds ...	Ditto ...	In hamper ...	Unascertained	Ditto ...	0	0	1	2
Ditto ...	Ditto ...	In bag ...	Ditto ...	Ditto ...	0	0	2	10
Ducks ...	Ditto ...	In case... ..	China ...	Ditto ...	0	2	2	20
Feet (Calves)...	Ditto ...	In bags ...	Unascertained	Ditto ...	0	19	1	10
Fish ...	Ditto ...	In boxes ...	Ditto ...	Ditto ...	1	0	2	9
Fowls ...	Ditto ...	In hampers ...	Ditto ...	Ditto ...	0	3	0	24
Game ...	Ditto ...	Ditto ...	Ditto ...	Ditto ...	0	5	3	0
Hearts ...	Ditto ...	In bags and cases	South America	Ditto ...	27	14	0	26
Hearts (sheep)	Ditto ...	In boxes ...	Ditto ...	Decomposed ...	2	11	0	0
Kidneys (sheep)	Ditto ...	Ditto ...	Ditto ...	Ditto ...	4	16	1	1
Carried forward ...					94	3	0	9

Article.	Quantity.	How packed.	Origin.	Cause for Destruction.	Tons. cwt. qrs. lbs.
				Brought forward ...	94 3 0 9
Kidneys (sheep)	Unenumerated	In hampers ...	Unascertained	Decomposed ...	0 9 0 5
Ditto ...	Ditto ...	In boxes ...	Australia ...	Ditto ...	0 11 2 2
Kidneys (ox) ...	Ditto ...	In bags and cases	South America	Ditto ...	3 0 0 1
Lamb (carcases)	69		Unascertained	Mouldy and decomposed	0 18 2 10
Mutton	546		Australia ...	Ditto ...	7 10 3 8
(carcases)					
Ditto ...	275		Unascertained	Ditto ...	5 13 2 23
Ditto ...	3,043		South America	Ditto ...	96 16 3 12
Mutton (pieces)	Unenumerated		Australia ...	Ditto ...	1 14 2 10
Ditto ...	Ditto ...		Unascertained	Ditto ...	0 3 1 6
Ditto ...	Ditto ...		New Zealand	Ditto ...	0 2 3 5
Ditto ...	Ditto ...		South America	Ditto ...	11 16 3 18
Meat (walrus)	Ditto ...		Unascertained	Ditto ...	0 7 0 16
Livers (ox) ...	Ditto ...	In boxes and crates	South America	Decomposed ...	0 10 3 15
Livers (sheep)	Ditto ...	In boxes ...	Ditto ...	Ditto ...	0 7 2 9
Offal (mixed)...	Ditto ...	In bags ...	Unascertained	Ditto ...	0 6 3 15
Ditto ...	Ditto ...	Ditto ..	South America	Ditto ...	1 18 2 15
Pheasants ...	Ditto ...	In hampers ...	British ...	Ditto ..	0 0 2 18
Plucks (sheep)	Ditto ...	In boxes ...	South America	Ditto ...	0 15 3 25
Pork ...	Ditto ...		Unascertained	Ditto ...	0 5 2 20
Poultry ...	Ditto ...	In cases ...	China ...	Ditto ...	0 0 3 26
Rabbits ...	1,179	Ditto ...	Australia ...	Ditto ..	0 18 3 18
Ditto ...	Unenumerated	Ditto ...	Ditto ...	Ditto ...	16 19 3 16
Sausages ...	Ditto ...	In box ...	South America	Ditto ...	0 0 2 4
Sweetbreads ...	Ditto ...	Ditto ...	Ditto ...	Ditto ...	0 0 1 9
Ditto ...	Ditto ...	Ditto ...	Australia ...	Ditto ...	0 1 0 25
Tails (ox) ...	Ditto ...	In case ...	South America	Ditto ...	2 2 3 24
Ditto ...	Ditto ...	In pack ...	Ditto ...	Ditto ...	0 0 2 12
Tripe ...	Ditto ...	In case ...	Ditto ...	Ditto ...	0 0 3 10
Tongues (ox)...	Ditto ...	Ditto ...	Ditto ...	Ditto ...	2 0 2 27
Tongues (sheep)	Ditto ...	Ditto ...	Unascertained	Ditto ...	0 2 2 25
Tongues ...	Ditto ...	In tins ...	United States of America.	Ditto ...	0 8 3 25
Turkeys ...	Ditto ...	In cases ...	Unascertained	Ditto ...	0 13 0 14
Turtle (pieces)	Ditto ...	In case ...	Ditto ...	Ditto ...	0 0 0 10
Venison	Ditto ...		British ...	Ditto ...	0 1 4 6
(carcase)					
Venison (pieces)	Ditto ...		Russia ...	Ditto ...	7 1 2 2
Veal (pieces)...	Ditto ...		British ...	Ditto ...	0 0 2 26
				1911 Totals ...	258 10 3 17
				1910 Totals ...	260 4 3 23

ALDGATE MARKET AND SLAUGHTERHOUSES.

The two additional inspectors entered on their duties during the month of January, and the result of their year's work has fully justified their appointment.

The new Bye-laws did not come into operation until the month of June, since then there has been a continuous inspection of all animals killed at these slaughterhouses.

No. 19 Bye-law provides that—

Every occupier of a Slaughterhouse who shall intend to slaughter any animal in such Slaughterhouse, or to cause or to permit any animal to be slaughtered therein, at any time other than between the hours of seven o'clock in the forenoon and three o'clock in the afternoon on a Sunday, or between the hours of six o'clock in the forenoon and nine o'clock in the afternoon on any other day, shall give to the Corporation at least three hours' notice in writing of such intention, which shall be delivered or sent to their Veterinary Inspector at his office.

Such person shall state in every such notice the address of such Slaughterhouse, and the time at which the slaughtering is intended to be commenced, and he shall sign such notice or cause the same to be signed by his duly authorised agent.

The following table shows the result of this Bye-law during the time it has been in operation (from June until 31st December) :—

No. of Notices Received.	Extra hours of duty performed by the Inspectors.				No. of Animals killed.		
	Before 6 a.m.		After 9 p.m.		Cattle.	Sheep.	Calves.
	Hours.	Minutes.	Hours.	Minutes.			
40	5	0	100	30	750	525	132

No. 20 Bye-law provides that—

An occupier of a Slaughterhouse shall not allow any person to remove from the Slaughterhouse, without reasonable excuse, the carcass or any organs of any animal until the same have been inspected and passed by the Inspector or other person authorised by the Corporation.

From a long experience of meat inspection in public and private slaughterhouses, I am of opinion that these two Bye-laws are the most important that have ever been drafted, in securing an inspection of every carcass and organ, and it is gratifying to report that there has been no offence against these Bye-laws, and that the butchers have rendered to the Inspectors every help and information required.

As the following table shows, compared with the figures for 1910, the number of cattle killed is considerably less ; this may be accounted for by the difficulty butchers experienced in obtaining cattle for some time during the year owing to the outbreak of Foot and Mouth Disease, but there is shown an increase in the number of sheep and calves slaughtered.

NUMBER OF ANIMALS KILLED AT ALDGATE.

	1911.	1910.
Cattle	11,407	13,760
Sheep	21,628	16,304
Calves	10,955	7,672
Goats	9	—
Totals	<u>43,999</u>	<u>37,736</u>

CARCASSES AND PORTIONS SEIZED AND DESTROYED.

REASON FOR DESTRUCTION.	BEEF.			MUTTON.			VEAL.		
	Carcases.	Quarters.	Pieces.	Carcases.	Quarters.	Pieces.	Carcases.	Quarters.	Pieces.
Asphyxia	...	...	...	10	...	...	18	...	...
Decomposition	...	3	6	...	2	30	...	...	1
Hydræmia	2	...	...	126	...	...	...	...	...
Immature	...	...	...	...	...	...	8	...	...
Injuries	...	1	4	1	7	12	4	1	3
Pleurisy (acute)	1	...	...	1	...	...	...	...	...
Pleurisy (chronic)	...	...	...	...	4	7	...	...	...
Pneumonia	...	...	...	...	...	...	1	...	...
Tuberculosis	42	25	14	...	...	...	3	...	...
Umbilical Pyæmia	...	...	...	...	...	...	2	...	...
Total for 1911 ...	45	29	24	138	13	49	36	1	4
Total for 1910 ...	6	29	...	86	21	...	25	2	...

Weight :—19 tons 11 cwts. 3 qrs. 24 lbs.

Tuberculosis as usual heads the list of diseases rendering carcasses or portions of carcasses unfit for human food, 2·3 per cent. of cattle, and ·03 per cent. of calves being found affected with this disease.

Public Health Officers often state that the reason for so few cases of tubercular disease being found in private slaughterhouses is, "the butchers kill only the best home-fed oxen in which there is little or no disease."

Our experience does not agree with that statment, for of 267 cattle found affected with tuberculosis, 187 were fat, healthy looking home-bred oxen, 5 were bulls, and 75 were cows.

In oxen, the disease was generally found confined to one or two organs, *e.g.*, head, lungs, or liver; common lesions being retropharyngeal glands and lungs, or retropharyngeal glands and mesenteric glands.

As regards sheep, the most common cause for destruction was parasitic infection accompanied by hydræmia, a condition causing breeders and veterinary surgeons a considerable amount of anxiety at the present time.

The following table shows the number of diseased organs seized and destroyed, and the cause for their destruction.

RECORD OF ORGANS SEIZED AT ALDGATE.

REASON FOR DESTRUCTION.	EX OXEN.									EX SHEEP.								EX CALVES.									
	Heads.	Tongues.	Lungs.	Hearts.	Livers.	Stomachs.	Mesenteries and Intestines.	Kidneys.	Spleens.	Heads.	Tongues.	Lungs.	Hearts.	Livers.	Stomachs.	Mesenteries and Intestines.	Kidneys.	Spleens.	Heads.	Tongues.	Lungs.	Hearts.	Livers.	Stomachs.	Mesenteries and Intestines.	Kidneys.	Spleens.
Abscesses ...	21	9	19	...	251	6	1	...	...	...	...	3	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...
Actinomycosis ...	65	58	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bacterial Necrosis ...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Blood Aspiration ...	...	...	58	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cavernous Angioma ...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis ...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Decomposition ...	...	10	1	1	...	3	1	3	3	8	2	44	6	...	1	1	4	136	...	...	...	...	50	...	...	...	...
Fatty Infiltration ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hepatitis ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Injuries ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Nephritis (Embolie)	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...
„ (Pyelo)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Parasitic Diseases ...	...	...	46	...	794	...	...	...	...	...	...	178	...	837	...	...	...	...	...	...	...	...	...	...	...	...	...
Pericarditis ...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pleurisy ...	...	...	12	...	...	...	...	...	...	...	...	20	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Pneumonia ...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis ...	205	74	187	7	132	66	105	72	54	...	...	...	...	...	...	...	...	...	2	3	4	2	...	1	3	4	3
Unwholesome ...	4	6	3	44	...	3	4	12	5	131	131	123	219	158	131	133	256	159	29	25	32	34	...	31	27	59	29
Totals for 1911 ...	296	157	330	53	1188	78	111	89	62	139	133	368	225	995	132	134	263	160	70	28	40	36	50	32	30	63	32
Totals for 1910 ...	26	58	223	8	530	13	7	24	7	11	...	66	66	637	...	...	...	...	2	...	2	2	2	...	...	...	...

Total weight—16 tons 0 cwt. 3 qrs. 26 lbs.

SUMMARY OF UNSOUND FOOD DESTROYED.

	Tons.	cwt.	qrs.	lbs.
Central Markets, Smithfield ...	1,857	14	0	14
Cold Stores ...	258	10	3	17
Leadenhall Market and City Shops ...	39	0	1	3
Aldgate Markets and Slaughterhouses ...	35	12	3	22
Total for 1911 ...	2,190	18	1	0
Total for 1910 ...	1,637	12	3	0
Increase ...	553	5	2	0

During the year 34 Naval Officers and 19 Army Officers attended courses of instruction in Meat Inspection at the Markets.

In concluding this report I have pleasure in stating that the members of the meat inspection staff carried out their duties in a loyal and satisfactory manner.

T. DUNLOP YOUNG,
Veterinary Inspector.

EXPORT OF FOOD OF ANIMAL ORIGIN TO ARGENTINA.

In consequence of a Decree issued on the 4th October, 1906, by the Argentine Government, requiring that all pigs and other imported animal products should be accompanied by a certificate to the effect that the factory where the goods were prepared was under sanitary supervision. The Local Government Board, after consultation with the Board of Agriculture and the Board of Trade, formulated certain conditions under which meat products would be accompanied by an official certificate approved by the Argentine Authorities in respect of meat products exported from Great Britain. (The official certificate can only be issued by an official designated to act as "certifying officer" duly appointed by the Local Government Board.)

These conditions were duly set forth in a Memorandum, issued in November, 1907, by the Local Government Board, for the guidance of persons engaged in the export of meat products to the Argentine.

A further Memorandum, extending these provisions to meat and other foods of animal origin, was issued by the Local Government Board in

One of the conditions agreed to is that traders in England and Wales who prepare or pack foods of animal origin for export to Argentina, and who desire that such exportation should be accompanied by an official attestation of precautions taken to safeguard the wholesomeness of the foods in question, should apply to the Local Government Board for the appointment of an official to act as "Certifying Officer," and the applicant must undertake to give all necessary facilities to this officer as regards access, inspection, stamping, &c.

The duty of the "Certifying Officer" is to keep himself informed by personal inquiry and other ways as to :—

(1) Structure and character of premises on which the foods are prepared, stored, or packed (as the case may be), in regard to opportunities of objectionable or unwholesome contamination of these foods at any stage of their preparation, storage, or packing.

(2) Cleanliness and wholesomeness of methods employed in preparing, storing, or packing the foods in question.

(3) Precautions taken to avoid the utilization for food purposes of diseased, unsound, or unwholesome meat, or other material of animal origin in any portion of the premises, and arrangements safely to dispose of any material which on account of disease, unsoundness, unwholesomeness, or other reason, is unfit for human food.

The Certificate issued by the Certifying Officer must state that the exporting establishment is under the system of sanitary supervision prescribed by the Memorandum under review.

If the information obtained by the Certifying Officer in regard to (1), (2), and (3) is not satisfactory, certification is to be withheld, and information thereof forthwith forwarded to the Board by the Certifying Officer, who will, as and when requested by that Authority, give such information as may be required by them in regard to the methods of inquiry, inspection, and certification which have been adopted.

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

The extension of these provisions has been rendered necessary by the decision of the Argentine Government to prohibit the importation of cheese into the Republic unless accompanied by a certificate of a similar nature to that previously required for meat food products only, and the Memorandum is substantially the same as that issued in October, 1907, with the necessary amendment embodying "other foods of animal origin."

Perusal of the Memorandum would lead one to suppose that before a Certifying Officer appointed for meat food products only could act in a like capacity in regard to export of such articles as cheese, &c., formal application to the Local Government Board by the exporters for the appointment of such an officer would be necessary.

This course was, however, not adopted by the Board, the powers of the "Certifying Officer" already designated in relation to meat being apparently automatically enlarged so as to embrace their obligations under the new Memorandum.

There are now six firms of exporters on the register who have been in the habit of making periodical shipments of ham, bacon, meat, cheese, &c., and in the capacity of "Certifying Officer" I have, since November, 1907, issued 211 certificates, 190 relating to hams, 19 to cheese, and 2 to bacon.

*Table showing the average deliveries at the Central Meat Market, and other details for successive quinquennial periods during the past 35 years :—

Quinquennium.	Annual Average General Supply.			Seizures by Inspectors.			% of Bad Meat.
	Tons	cwt.	qrs.	Tons	cwt.	qrs.	
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
Years 1909-1911	424,444	18	0	1,803	2	0	·424

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

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

			BRITISH.		*Foreign Killed.	AMERICAN.		Australian and New Zealand.
			Country Killed.	Town Killed.		Home Killed.	American Killed.†	
			<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
1907	...	...	17.4	3.1	13.1	16.1	24.6	25.7
1908	...	...	17.3	4.2	14.3	13.4	26.1	24.7
1909	...	...	17.8	4.9	13.6	10.6	27.5	25.3
1910	...	...	16.8	5.7	12.6	7.1	32.6	25.2
1911	...	...	17.4	5.4	11.2	6.7	37.0	22.3

* 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 :—

	1907.	1908.	1909.	1910.	1911.
	Tons.	Tons.	Tons.	Tons.	Tons.
Average daily delivery into the Markets -	1,358	1,335	1,368	1,371	1,390
‡ Minimum delivery on any one day -	204	192	229	219	171
Maximum delivery on any one day - -	2,594	3,235	3,918	3,200	3,066
The heaviest weight previously recorded on any one day (21st December, 1896) was - - - 4,159 tons.					

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

One ton in every 193 tons of meat paying toll in the Central Markets, Smithfield, was condemned last year, as compared with one ton in 256 in 1910.

UN SOUND MEAT, 1911.

The meat, &c., seized by your Inspectors as unfit for food is classified as under :—

1911.	Diseased.	Unsound.	Unwholesome.	Poultry.	Offal.	Fish.	Total.
	tons. cwts. qrs. lbs.	tons. cwts. qrs. lbs.	tons. cwts. qrs. lbs.	tons. cwts. qrs. lbs.	tons. cwts. qrs. lbs.	tons. cwts. qrs. lbs.	tons. cwts. qrs. lbs.
First Quarter ...	29 10 1 23	532 17 2 27	21 14 0 21	22 7 2 5	14 4 1 9	1 11 1 0	622 5 2 1
Second „ ...	16 14 0 4	520 0 0 22	15 13 2 18	13 11 0 1	27 8 0 5	0 0 2 4	593 7 1 26
Third „ ...	7 7 0 15	406 11 0 17	14 4 2 17	48 6 3 18	69 7 3 6	0 0 6 10	545 19 0 27
Fourth „ ...	31 14 0 10	317 13 3 13	19 0 0 27	42 16 1 20	65 11 2 5	1 0 3 13	477 17 0 4
Total ...	85 5 2 24	1,777 2 3 23	70 12 3 27	127 1 3 16	176 11 2 25	2 14 0 27	2,239 9 1 2

The above figures include 34,541 separate seizures.

The percentages of meat seized under a summary of the various headings of the above Table and for the preceding five years, were as follows :—

Year.						Diseased.	Unsound.*	Unwholesome.
						Per Cent.	Per Cent.	Per Cent.
1906	...	...	...	...	...	8.6	88.1	3.3
1907	...	...	...	...	...	15.1	77.4	7.5
1908	...	...	...	...	...	14.2	78.2	7.5
1909	...	...	...	...	...	7.5	87.5	5.0
1910	...	...	...	...	...	7.1	84.2	8.7
Average for 5 years						10.5	83.1	6.4
1911	...	...	...	...	...	3.8	93.1	3.1

* Including poultry, offal and fish.

The percentage of *diseased* meat seized was the lowest yet recorded in the City.

TUBERCULOUS MEAT.

An account has been kept of the meat seizures during the year on account of Tuberculosis, and of the diseased meat recorded above, 23 tons 8 cwts. 2 qrs. 24 lbs., or 20 per cent., was found to be tuberculous.

The percentages during the five years 1906, 1907, 1908 1909 and 1910, was 29, 56, 54, 50 and 18 respectively.

CENTRAL MARKETS, SMITHFIELD.

Table showing Weight of Meat delivered, and Meat seized as unsound, during each Month of the Years 1910 and 1911.

MONTH.		Meat delivered at the Market, 1910.			Meat seized by the Inspectors, 1910.			Meat delivered at the Market, 1911.			Meat seized by the Inspectors, 1911.			
		Tons	cwts.	qrs.	Tons	cwts.	qrs.	Tons	cwts.	qrs.	Tons	cwts.	qrs.	lbs.
January	...	35,837	0	0	75	14	0	37,618	0	0	219	2	3	16
February	...	32,227	0	0	132	3	3	34,225	0	0	174	17	1	8
March	...	36,060	0	0	99	5	0	38,397	0	0	223	4	2	13
April	...	35,394	0	0	151	11	1	34,593	0	0	150	18	3	0
May	...	33,046	0	0	84	2	0	37,939	0	0	261	5	3	0
June	...	33,427	0	0	68	1	1	38,070	0	0	195	13	2	0
July	...	33,986	0	0	136	14	3	32,123	0	0	138	3	0	0
August	...	33,005	0	0	87	14	1	31,959	0	0	260	8	1	0
September	...	34,639	0	0	67	17	2	35,665	0	0	192	12	0	0
October	...	35,235	0	0	133	0	0	37,883	0	0	134	0	0	0
November	...	38,420	0	0	251	13	1	38,899	0	0	202	17	2	0
December	...	38,275	0	0	349	15	3	36,353	0	0	113	9	1	0
TOTALS...		419,551	0	0	1,637	12	3	433,724	0	0	2,266	12	3	9

DISEASED MEAT PROSECUTIONS, 1911.

Date of Hearing.	Where Heard.	Before whom.	Occupation of Person Summoned.	Defendant's Place of Business.	Result.
1911. Nov. 17	Guildhall -	Sir Marcus Samuel, Bart.	Butcher- -	Hockerhall, Bishops Stortford	Fined £10 and £2 2s. costs or 1 month's imprisonment.

FISH SUPPLIES.

234,468 tons of fish, of which 163,377 were land-borne and 71,091 water-borne, were received at or near Billingsgate Market during the year.

There was a decrease of 6,591 tons in the land deliveries, and an increase of 1,784 tons in the deliveries by water.

MONTHLY FISH RETURNS, 1911.

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 1911.†

Month.	Weight of Fish Delivered.		Total.	Weight of Fish Condemned.			Ratio of Fish Condemned to that Delivered.	
	By Land.	By Water.		Tons.	cwt.	qrs.		Per cent.
JANUARY	Tons. 14,871	Tons. 5,223	Tons. 20,094	37	4	0	1 in 540·161 tons, or about	·184
FEBRUARY	13,818	5,313	19,131	53	4	1	1 " 359·520 " "	·278
MARCH	15,051	8,261	23,312	57	3	0	1 " 407·909 " "	·245
APRIL... ..	12,243	5,953	18,196	78	14	3	1 " 231·097 " "	·432
MAY	14,487	6,428	20,915	211	15	3	1 " 98·754 " "	1·012
JUNE	13,293	5,183	18,476	167	3	0	1 " 110·538 " "	·904
JULY	13,164	5,432	18,596	324	16	2	1 " 57·249 " "	1·746
AUGUST	11,880	6,444	18,324	356	10	3	1 " 51·394 " "	1·945
SEPTEMBER	14,049	7,441	21,490	239	18	2	1 " 89·564 " "	1·116
OCTOBER	14,370	6,551	20,921	117	19	0	1 " 177·371 " "	·563
NOVEMBER	13,854	4,209	18,063	53	10	3	1 " 337·389 " "	·296
DECEMBER	12,297	4,653	16,950	137	11	3	1 " 123·194 " "	·811
TOTAL	163,377	71,091	234,468	1,835	12	0	1 " 127·461 " "	·782

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

MONTHLY DELIVERIES OF FISH AT LONDON CENTRAL MARKETS,
SMITHFIELD, 1911.

					Tons	Cwts.	Qrs.
January	-	-	-	-	135	7	0
February	-	-	-	-	138	12	0
March	-	-	-	-	145	11	0
April	-	-	-	-	142	13	0
May	-	-	-	-	136	5	0
June	-	-	-	-	123	0	0
July	-	-	-	-	123	0	0
August	-	-	-	-	95	0	0
September	-	-	-	-	114	6	0
October	-	-	-	-	139	7	0
November	-	-	-	-	132	1	0
December	-	-	-	-	132	9	0
TOTAL					1,557	11	0

Of the above, 7 tons 14 cwts. 0 qrs. 27 lbs. were seized by your Officers, and those of the Fishmongers' Company as unsound, equal to .494 per cent. or 1 ton in 200 tons.

WEIGHT OF FISH DELIVERED, FISH SEIZED AS UNSOUND, AND PERCENTAGE OF FISH CONDEMNED
TO THAT DELIVERED, AT OR NEAR BILLINGSGATE MARKET DURING 1911 AND THE FIVE
YEARS 1906-1910.

YEAR.	Weight of Fish Delivered.		TOTAL.	Weight of Fish Condemned.	Ratio of Fish Condemned to that Delivered.
	By Land.	By Water.			
	Tons.	Tons.	Tons.	Tons cwts. qrs.	
1906	157,591	55,483	213,074	1,444 17 3	1 ton in 147 tons, or .678%
1907	162,115	71,630	233,745	783 16 0	1 " 297 " .335 "
1908	177,892	63,295	241,187	1,236 12 3	1 " 195 " .511 "
1909	179,157	68,918	248,075	946 15 1	1 " 262 " .383 "
1910	169,968	69,307	239,275	1,288 15 0	1 " 184 " .538 "
Average (5 years)	169,345	65,726	235,071	1,140 3 1	1 ton in 206 tons, or .485 %
1911	163,377	71,091	234,468	1,835 12 0	1 ton in 127 tons, or .782 %

INSPECTION OF FOOD AT RIVERSIDE WHARVES, &c.

As the result of the daily inspection of the City wharves, 166 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 and vegetables	-	-	44	14	0
Condensed milk	-	-	20	15	1
Miscellaneous tinned food	-	-	14	10	3
Fruit pulp	-	-	15	15	1
Fruit and vegetables	-	-	92	16	2
Miscellaneous food	-	-	1	14	3
Total	-	-	190	6	2

The greater portion of the above was removed at the written request of the owners. Section 47 (8) of the Public Health (London) Act, 1891, provides that—

“Where a person has in his possession any article which is unsound or unwholesome or unfit for the food of man, he may, by written notice to the Sanitary Authority, specifying such article, and containing a sufficient identification of it, request its removal, and the Sanitary Authority shall cause it to be removed as if it were trade refuse.”

This provision takes away the ground of a common defence in prosecutions for being in possession of unsound food. It has often been suggested that the food was set aside with the intention of destroying it before it was discovered by the Inspector. This power to notify the Sanitary Authorities under this section affords a test where this line of defence is adopted.

Additional powers with regard to dealing with imported food have now been conferred upon your Officers by the Regulations made by the Local Government Board under the provisions of the Public Health (Regulations as to Food) Act, 1907.

ICE CREAM.

In 1911 there were 243 premises in the City where ice creams were sold, as compared with 241 in 1910.

In 108 instances the ice cream sold at these establishments was manufactured under supervision within the City, and in 135 cases the commodity was prepared in other districts and brought into the City ready for sale. In the latter cases, letters of enquiry relating to the conditions of manufacture were sent to the Medical Officer of Health of the Borough in which the ice creams were made. In no case was there an unsatisfactory reply, which illustrates the great improvement that has taken place in the production of this article during the last two years.

These places may be classified as under :—

	Number	Place of Manufacture.	
		In the City.	In other Districts.
Tea shops... ..	126	41	85
Confectioners	26	16	10
Small confectioners and light refreshment shops	91	52	39

With two exceptions, the 91 small confectioners and refreshment shops were kept by foreigners.

ITINERANT ICE CREAM VENDORS.

In the course of the year 21 itinerant vendors were found in the City, only four less than last year. It was ascertained that in all cases the material they were selling was manufactured outside the City.

As in the case of the ice cream sold at shops, the same enquiries were made as regards the condition of the place and mode of manufacture. Two unsatisfactory replies were received, and although an outlook was kept for these offending vendors, they were seen no more in the City, the enquiries instituted by the authorities at their place of abode having probably aroused suspicion and fear of consequences.

One itinerant vendor of ice cream was summoned for failing to exhibit a name and place of manufacture of the ice cream on the barrow from which he was selling, contrary to the provisions of the London County Council (General Powers) Act, 1902, Sections 42, 43, and 44.

A fine of 10s. and 3s. costs was imposed.

DAIRIES, COWSHEDS AND MILKSHOPS ORDERS.

At the end of the year there were 639 purveyors of milk registered in the City of London, as compared with 638 in 1910, an increase of one only.

The sale of milk was discontinued at 32 premises, and the owners' names removed from the Register; 33 new premises were added, and 28 changes of ownership necessitating re-registration occurred.

Section 5 of the London County Council (General Powers) Act, 1908, provides that any Sanitary Authority in the Metropolis may remove from or refuse to enter on the Register the names of dairymen or purveyors of milk whose premises are, in the opinion of such Sanitary Authority, for any reason unsuitable for the sale of milk thereon. Any person feeling aggrieved by any decision of a Sanitary Authority under the provisions of this section has the right of appeal within twenty-one days from the date of such decision to a Court of Summary Jurisdiction.

This very necessary Act has had a most beneficial effect in enabling the Authorities to deal with the sale of milk in small chandler and grocery shops, either by the adoption of more precautionary measures for the proper storage of milk at such shops, or the prevention of the sale of milk on such premises altogether.

In two instances during the past year the registrations have been withheld until the proprietors had constructed a special cabinet in which the counter-pan in use was kept. Both were grocers' shops and quite clean, but the large accumulation of goods stored about the shop rendered necessary special measures against the contamination of the milk from dust and other sources of danger.

The walls, ceiling and floor of a registered milk shop were found to be in a dirty condition; these premises were in the occupation of a foreigner, who at once complied with the notice served on him and cleansed the shop throughout, and has since kept the premises in good condition.

In no instance has a case of infectious disease been reported as having occurred at a registered milk shop during the year.

A list of Registered Dairymen and Purveyors of Milk in the City is given in Appendix D.

SALE OF FOOD AND DRUGS ACTS.

During the year 1,209 articles of food were analysed under the Sale of Food and Drugs Acts, 1875 to 1899. Of this number, 122 were taken as test samples without the formalities of the Act being observed—these samples being made up as follows: 12 samples of drugs (purchased in small quantities, when the larger purchase necessary for division into 3 parts, required by the Act, would have excited suspicion), 2 of lemonade (itinerant vendors), 1 of sherbert water (itinerant vendor), 75 of milk, 30 of butter, and 2 of cider.

Of the former samples, 27, or 2·4 per cent., were certified by the Public Analyst to be adulterated or not up to the standard, as compared with 2·8 in 1910.

A summary of the Quarterly Reports on all samples examined by the Public Analyst, showing both those taken in accordance with the Act and those taken otherwise, and the percentage of adulteration of each individual article, is given on pages 122 and 123. In ten years the percentage of adulteration has steadily fallen from 13·11 per cent. in 1901, to that of 2·5 this year—the lowest on record.

The percentage of adulteration of samples taken in England and Wales in 1877 was 16·2, and this has continuously fallen to 7·6 in 1910, the latest year available.

The accompanying Table has been partly compiled from the Annual Reports of the Local Government Board, to which are added some figures for the City of London, and London as a whole:—

YEAR.	Total Number of Samples Examined in England and Wales.	Number Examined in the City of London.	Percentage of Total Number Examined in City of London.	Number of Persons to each Sample examined.		
				England and Wales.	*City of London.	London.
1881	17,823	162	·92	1,462	318	760
1891	29,028	169	·42	999	227	580
1901	67,841	854	1·26	479	32	291
1909	97,985	1,190	1·31	330	15	202
1910	100,301	1,202	1·19	359	14	187

* The figures in this column are based on the Imperial night census.

MILK.

A decrease in milk adulteration during 1911 is shown by the following Table:—

Year.	No. of Samples Examined.	Found Genuine.	Found Adulterated.	Percentage of Adulterated Samples.
1901	392	209	83	21·2
1902	599	519	80	13·3
1903	517	457	60	11·6
1904	452	417	35	7·7
1905	481	445	36	7·5
1906	556	513	43	7·7
1907	472	432	40	8·4
1908	469	440	29	6·2
1909	520	495	25	4·8
1910	474	454	20	4·2
1911	453	438	15	3·3

Taking into consideration the abnormal absence of rain in the Summer season, and the consequent shortness of pasturage, the above low percentage of adulteration is remarkable, milk during the period of the hot weather being scarce was therefore demanding high prices, and the incentive to adulterate was greater to vendors so disposed, and it is a matter of congratulation to find that the City milk supply fully maintained its high character during this trying period.

The extent of sophistication of milk samples was in percentages of added water varying from 5 to 35 per cent. ; abstracted fat from 7 to 17 per cent. ; in one case only was a sample found to be both adulterated with added water and deprived of part of its fat. The sample containing the 35 percentage of added water was taken at the Railway Station, from a churn of milk consigned by an Essex farmer.

Out of the 453 samples of milk submitted to the Public Analyst, in two cases boric acid was found, in one instance $30\frac{1}{2}$ grains to the gallon was discovered to be present in the sample purchased from a person selling in the street, and in the other sample purchased at a small retailer's shop the preservative was present in the milk, but the quantity could not be determined on account of the smallness of the sample submitted.

It is satisfactory to note that the above are the first cases of preservatives being found in milk sold in the City of London for many years—both samples of milk were obtained in the month of June.

The following Table shows the relation between place of purchase and adulteration :—

Where Purchased.	No. of Samples taken.		No. Adulterated.		Percentage of Samples Adulterated.	
	1910.	1911.	1910.	1911.	1910.	1911.
At shop	435	386	13	5	2·9	1·3
In the street... ..	16	37	—	1	—	2·7
During delivery ...	23	11	7	6	30·4	54·5
Total	474	434	20	12	4·2	2·8

The considerable increase in the percentage of adulterated milk taken in course of delivery is accounted for by four samples taken at railway stations, which were being consigned by suspected vendors, all four of which proved to be sophisticated, the adulteration in two cases (the same vendor) being 5 per cent. of added water, and in the other two, 32 and 35 per cent. respectively (same vendor).

The fines inflicted for samples taken in course of delivery were as follows :—Two samples each with 5 per cent. added water, taken at railway stations, £10 and £3 3s. costs, the other two samples, similarly taken, for adulteration of 32 and 35 per cent. added water respectively, £10 and £5 5s. costs.

Of those taken from wholesale dealers delivering at shops, one, showing 14 per cent. of added water, a fine of £5 and 17s. 6d. expenses was awarded, and in the other (a second offence) the amount mulcted was £25 and £3 3s. costs.

Warranties were pleaded in three milk prosecutions ; the summonses were dismissed in two cases, the defendant paying the cost of 17s. 6d. in one of these. In the other case, although the defendant pleaded a "Warranty," he failed to establish the same. The case presented interesting features.

The defendant swore that the churn of milk from which the sample was taken was one of three churns received by him from an Essex farmer at Liverpool Street Station at about 10.30 on the morning of the date of the offence, and further that the particular churn from which the sample had been sold to the Inspector was under his personal supervision during the whole of the day (the sample being taken at 6 p.m.), and that he himself had fetched it from the station.

The prosecution was able to prove that the numbers of the churns consigned to this vendor on the day in question differed from those mentioned in the Notice of Warranty, and that the defendant did not personally fetch the milk from the station. Your inspector had taken the precaution of obtaining samples of milk on their arrival at Liverpool Street Station from the churns which were actually consigned to the vendor, and the Public Analyst's certificate showed that the contents of these churns were exceptionally good milk, *i.e.*,

Fat.	Solids, not fat.	Water.
(i.) 3.45 per cent.	9.19 per cent.	87.36 per cent.
(ii.) 3.60 „	9.08 „	87.32 „
(iii.) 3.75 „	9.15 „	87.10 „

whereas the sample purchased at the defendant's shop showed 17 per cent. of added water.

The Alderman who heard the case expressed his appreciation of the way the case had been conducted by the Prosecution and said it was seldom guilt had been more clearly brought home to an offender than in the present instance. A fine of £20 and £2 2s. costs was inflicted.

BUTTER.

502 samples of butter were taken, of which 9, or 1.7 per cent., were certified as being adulterated.

The figures for 1911 and ten previous years are given hereunder :—

Year.	No. of samples taken.	No. of samples found Genuine.	No. of Samples found Adulterated.	Percentage of Adulterated Samples.
1901	241	226	15	6.2
1902	299	292	7	2.34
1903	368	367	1	.27
1904	442	429	13	2.94
1905	354	350	4	1.14
1906	328	311	17	5.18
1907	411	398	13	3.16
1908	381	376	5	1.30
1909	457	452	5	1.09
1910	484	477	7	1.4
1911	502	493	9	1.7

Attention has again been given, as in the past, to the mean fraud perpetrated on the public by unscrupulous Coffee-house keepers who sold bread spread with margarine in place of the slices of bread and butter asked for. This substitution was discovered to have been made in 6 cases of the 144 samples procured. Proceedings were taken against 3 of the offenders, and fines of 2s. 6d. and 38s. 6d. expenses, 5s. and 21s. expenses, and 2s. 6d. and 17s. 6d. were inflicted, which must be admitted were exceedingly lenient penalties. In 2 cases the vendors had vacated their places of business before the summonses could be served, and in the other case the vendor was cautioned. The percentages of margarine present in the samples varied from 35 per cent. to 100 per cent.

Date.		Samples taken.		Cases of Substitution.		Percentage Substituted Samples.
1903	...	71	...	19	...	26·7
1904	...	101	...	12	...	11·8
1905	...	16	...	Nil.	...	Nil.
1906	...	87	...	12	...	13·8
1907	...	184	...	8	...	4·3
1908	...	112	...	1	...	0·9
1909	...	115	...	1	...	0·9
1910	...	110	...	5	...	4·5
1911	...	144	...	6	...	4·1

In the cases of the 3 adulterated samples purchased at provision shops, one was dismissed, a fine of £2 and 17s. 6d. costs was inflicted in another case, and in the third the defendant gave notice of a warranty. This he was not able to substantiate as he relied on a receipted bill as *being* a warranty. The Alderman refused to recognise this, but thought the defendant had paid butter price for the margarine and ordered him to pay the costs—30s. During examination the defendant stated he had been in business 32 years and did not know the difference between butter and margarine.

COFFEE.

It is satisfactory to report that none of the 18 samples of coffee examined during the year were reported against.

In 1901 the percentage adulterated was 9·1.

MUSTARD.

17 samples of this article were examined, and in no case was adulteration detected.

In 1901 the percentage adulterated was 13·0.

COCOA.

8 samples of cocoa were submitted to examination, and all were satisfactory.

DRUGS.

Of the 48 samples of drugs procured at the various chemists' establishments in 1911 within the City, only one was found to be deficient. This was a sample of lime water 15 per cent. deficient in lime, and the vendor was cautioned.

The following Table includes particulars of drug adulteration in the City during the past ten years :—

			Samples taken.		Found genuine.		Found adulterated.		Percentage of adulteration.
1901	...	...	111	...	103	...	8	...	7·2
1902	...	...	79	...	74	...	5	...	6·3
1903	...	...	65	...	60	...	5	...	7·7
1904	...	...	52	...	48	...	4	...	7·7
1905	...	...	61	...	56	...	5	...	8·2
1906	...	...	47	...	42	...	5	...	10·6
1907	...	...	65	...	59	...	6	...	9·2
1908	...	...	57	...	55	...	2	...	3·5
1909	...	...	86	...	84	...	2	...	2·3
1910	...	...	40	...	40	...	Nil.	...	Nil.
1911	...	...	48	...	47	...	1	...	2·0

CIDER.

The two samples of cider submitted were returned as genuine, but as they were certified to contain 5 per cent. and $5\frac{1}{2}$ per cent. of absolute alcohol by volume, respectively, and had been purchased at unlicensed premises, the matter was referred to the Board of Agriculture and Fisheries.

LEMONADE.

The sample submitted was of the variety known as "Home-made" lemonade, and was dispensed from a large glass vase, into which a metal syphon was inserted, the said tube being fitted with a tap. Metallic contamination resulted from this mode of serving the beverage, the Public Analyst reporting 0.00055 per cent. of lead (in combination) to be present in the sample. The vendor was cautioned, and the practice was at once discontinued.

 SAMPLES TAKEN WITHOUT FORMALITY FOR TEST PURPOSES.

122 samples were taken without the recognised formalities being observed, the object usually being to avoid publicity, or to obtain a continuity of evidence anterior to the taking of samples formally with a view to strengthening the position of the prosecution.

Of the samples so examined 42 were taken at the Railway Stations, at the same time and from the same churns as the sample required for bacteriological purposes were obtained, and these, together with 3 samples taken on arrival at Liverpool Street Station with the view to discredit the genuineness of a warranty defence, were all returned as genuine.

Of the 30 samples of milk taken informally at shops, 3 (all at the same shop) were found to be adulterated. An official sample taken at the shop (reported elsewhere) resulted in a fine of £20 and £2 2s. costs.

Of the 30 butter samples taken without formality, 3 were found to be margarine; these were all obtained on succeeding nights at the same shop, the subsequent summary proceeding taken in regard to the formal sample purchased resulted in the defendant being required to pay the costs which amounted to 30s. (This case is reported elsewhere.)

One of the 12 samples of drugs informally purchased was that of mercury ointment. The sample was found to be deficient in mercury to the extent of 32.1 per cent., but being labelled "*mild* mercury ointment," no action could be taken.

SALE OF FOOD AND

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	197	193	4	2.0	77	75	2	2.6
Butter	205	202	3	1.4	91	89	2	2.2
Coffee	10	10	...	...	6	6	...	...
Mustard	8	8	...	...	8	8	...	...
Cocoa	...	...	...	...	6	6	...	...
Olive Oil	3	3	...	...	...	...	...	...
Drugs	...	...	...	...	36	55	1	2.8
Pepper	...	...	...	...	1	1	...	...
Golden Syrup	1	1	...	...	...	...	...	...
Rum	5	5	...	...	...	...	...	...
Gin	...	...	...	...	...	...	...	...
Whisky	5	4	1	20.0	...	...	...	...
Vinegar	...	...	...	...	...	...	...	...
Cayenne Pepper	...	...	...	...	2	2	...	...
Lemonade	...	...	...	...	...	...	...	...
Skimmed Milk	...	...	...	...	...	...	...	...
	434	426	8	1.8	227	222	5	2.2
INFORMAL SAMPLES—								
Cider	2	2	...	...	...	...	...	...
Drugs	...	...	...	...	...	...	...	...
Lemonade	...	...	...	...	...	...	...	...
Sherbert Water	...	...	...	...	...	...	...	...
Milk	...	...	...	...	53	53	...	...
Butter	1	1	...	...	12	12	...	...
Total of Informal Samples	3	3	...	...	65	65	...	...
TOTAL SAMPLES FOR YEAR	437	429	8	1.8	292	287	5	1.7

DRUGS ACTS, 1875-1907.

Quarter of the year 1911.

Quarter ending 30th September.				Quarter ending 31st December.				Total for 1911.			
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.
51	45	6	11.7	128	125	3	2.3	453	438	15	3.3
67	66	1	1.5	139	136	3	2.1	502	493	9	1.7
...	...	...	...	2	2	...	...	18	18	...	...
...	...	...	...	1	1	...	...	17	17	...	...
...	...	...	...	2	2	...	...	8	8	...	...
...	...	...	...	...	...	...	...	3	3	...	...
...	...	...	...	12	12	...	...	48	47	1	2.0
...	...	...	...	1	1	...	...	2	2	...	...
...	...	...	...	...	...	...	...	1	1	...	...
...	...	...	...	...	...	...	...	5	5	...	...
6	6	...	...	...	...	...	...	6	6	...	...
5	5	...	...	...	...	...	...	10	9	1	10.0
...	...	...	...	10	10	...	...	10	10	...	...
...	...	...	...	...	...	...	...	2	2	...	...
1	...	1	100.0	...	...	...	...	1	...	1	100.0
1	1	...	...	...	...	...	...	1	1	...	...
131	123	8	6.1	295	289	6	2.0	1,087	1,060	27	2.4
...	...	...	...	...	...	...	...	2	2	...	...
12	11	1	8.3	...	...	...	...	12	11	1	8.3
2	2	...	...	...	...	...	...	2	2	...	...
1	1	...	...	...	...	...	...	1	1	...	...
...	...	...	...	22	19	3	13.6	75	72	3	4.0
...	...	...	...	17	14	3	17.7	30	27	3	10.0
15	14	1	6.6	39	33	6	15.4	122	115	7	5.3
146	137	9	6.1	334	322	12	3.5	1,209	1,175	34	2.8

SALE OF FOOD AND DRUGS ACTS, 1875-1907.

1911.

RESULTS OF PROSECUTIONS.

FIRST QUARTER.					
Sample.			Nature and Extent of Adulteration.		
					Result.
90	Milk	...	5 per cent. added water	...	} £10 and £3 3s. costs.
101	"	...	5 per cent. added water	...	
271	"	...	14 per cent. added water	...	£5 and 17s. 6d. expenses.
285	Butter	...	50 per cent. margarine	...	2s. 6d. and 38s. 6d. expenses.
286	"	...	35 per cent. margarine	...	5s. and 21s. expenses.
363	"	...	100 per cent. margarine	...	2s. 6d. and 17s. 6d. expenses.

SECOND QUARTER.

709	Butter	...	100 per cent. margarine	...	Dismissed.
-----	--------	-----	-------------------------	-----	------------

THIRD QUARTER.

763	Milk	...	7 per cent. added water	...	Warranty pleaded, summons withdrawn on payment of costs, 17s. 6d.
815	"	...	11 per cent. added water	...	£5 and £1 1s. costs.
819	"	...	11 per cent. added water	...	Dismissed, warranty proved.
837	"	...	6 per cent. added water	...	2s. 6d. and 17s. 6d. expenses.
844	"	...	35 per cent. added water	...	£5 and £5 5s. costs.
845	"	...	32 per cent. added water	...	£5.

FOURTH QUARTER.

837	Milk	...	6 per cent. added water	...	2s. 6d. and 17s. 6d. expenses.
960	"	...	17 per cent. fat abstracted, and 6 per cent. added water.	...	Withdrawn on payment of costs, 17s. 6d.
969	"	...	13 per cent. added water	...	£25 and £3 3s. costs.
1163	Butter	...	100 per cent. margarine	...	Ordered to pay costs £1 10s.
1204	"	...	90 per cent. margarine	...	£2 and 17s. 6d. expenses.
1208	Milk	...	17 per cent. added water	...	£20 and £2 2s. costs.

SUMMARY.

			£	s.	d.		£	s.	d.
First Quarter : Fines	...	...	15	10	0	Expenses	7	17	6
Second Quarter	"	...	...	...	...	"	...	...	...
Third Quarter	"	...	15	2	6	"	8	1	0
Fourth Quarter	"	...	47	4	6	"	9	7	6
			£77	17	0		£25	6	0

By direction of the Sanitary Committee seven persons were cautioned as to the questionable or unsatisfactory character of articles sold by them.

MEDICAL EXAMINATIONS

In accordance with the Standing Order of the Court that no person shall enter an army or the expedition or any of its branches without previously passing a medical examination to the satisfaction of the Commanding Officer of the expedition, the following persons were examined during 1915, all of whom were reported by the examining officers as physically fit for service. The officers examining the persons were: The following persons were reported to be unfit for duty.

In addition to the foregoing medical examinations were made of persons engaged in the "Civil" Department, being those transferred to the City of London. The following persons were reported to be physically fit for duty, and the following persons were reported to be unfit for duty.

I have the honor to be

Very truly yours,

Your obedient servant,



Public Health Department

London, E.C.

Appendix A
 CITY OF LONDON MORTALITY
 STREET LISTS
 CONTAINING THE NAMES OF THE DECEASED IN EACH STREET

APPENDICES.

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STREET LISTS.

STREET OR PLACE.	No. of House.	Sex.	Age.	Date of Death.	Certified Cause of Death.	Remarks.
Albion Buildings	21	F	78	22 May, 1911	Chronic Bronchitis	
" " " " " " " "	22	F	81	24 July "	Cerebral Hæmorrhage	
Aldermanbury	15 & 16	M	76	8 "	Carcinoma	
Aldgate	4	M	63	28 April "	Morbus Cordis	
Aldgate High Street	32	F	20 m'ths	6 Oct. "	Whooping Cough	
" " " " " " " "	56	M	47	10 "	Morbus Cordis	
Arthur Street West	10	F	1 day	18 April "	Congenital Morbus Cordis	
Austin Friars	22	M	58	7 Jan. "	Syncope	
Back Court, Cloth Fair	18	F	51	23 April "	Bronchitis	
Bank Buildings, Princes Street	1	M	3 m'ths	26 Sept. "	Epidemic Diarrhœa	
Barker's Buildings	12	M	50	31 Aug. "	Tuberculosis	
Bartholomew Close	11	M	40	10 Jan. "	Suicide—Cut-throat	Inquest
" " " " " " " " " " " " " " " " " "	—	M	44	17 Feb. "	Respiratory Failure	Died in St. Bart.'s
" " " " " " " " " " " " " " " " " "	44	F	41	4 May "	Hæmorrhage	
Bartholomew House—Cloth Fair	11	F	74	12 Nov. "	Morbus Cordis	
Bartholomew Place	5	M	52	20 Sept. "	Cirrhosis	
Bevis Marks	17	F	60	21 Dec. "	Pneumonia	
Bishopsgate	19	F	47	28 Jan. "	Lardaceous Disease of Spleen	
" " " " " " " " " " " " " " " " " "	310	M	64	1 Mar. "	Heart Failure	Died in St. Bart.'s
" " " " " " " " " " " " " " " " " "	300	F	2	9 May "	Bronchitis	
" " " " " " " " " " " " " " " " " "	278	M	69	19 "	Senile Cardiac Degeneration	
" " " " " " " " " " " " " " " " " "	300	M	8 m'ths	8 Aug. "	Enteritis	
" " " " " " " " " " " " " " " " " "	300	F	8 m'ths	10 "	Enteritis	
" " " " " " " " " " " " " " " " " "	32	F	27	3 Sept. "	Tuberculosis	
" " " " " " " " " " " " " " " " " "	—	M	35	18 "	Pneumonia	
—City Police Hospital	—	M	35	18 "	Bronchitis	
Blomfield House, King Street, Snow Hill	12	F	87	14 Mar. "	Bronchitis	
Brushfield Street	14	F	73	8 Feb. "	Chronic Bronchitis	
Carter Lane	71	M	3 m'ths	11 "	Marasmus	
Church Passage	5	F	88	23 Mar. "	Senile Decay	
Circus, Minorities	7	F	65	17 Sept. "	Valvular Disease of Heart	
Cloth Fair	8	F	3	2 July "	Tubercular Meningitis	
Cockerell's Buildings	7	M	13 hours	13 April "	Oedema of Brain	Died in St. Bart.'s
" " " " " " " " " " " " " " " " " "	8	F	43	27 "	Chronic Alectatis	
Crutched Friars	13	M	21	23 Nov. "	Hodgkin's Disease	
Dean Street	1r	M	57	29 April "	Pulmonary Tuberculosis	
Deanery, St. Paul's	—	M	92	2 Aug. "	Pneumonia	
East Passage	28	F	53	10 Dec. "	Chronic Bronchitis	
Eldon Street	29	F	78	13 Mar. "	Senile Decay	
Farringdon Street	80	F	49	25 Nov. "	Influenza	
" " " " " " " " " " " " " " " " " "	28	F	66	12 Dec. "	Heart Failure	Died in St. Bart.'s
Fenchurch Street	107	M	67	23 April "	Heart Failure	Inquest
" " " " " " " " " " " " " " " " " "	107	M	21 m'ths	24 Aug. "	Gastro-Enteritis	
Fenton's Buildings, Bartholomew Close	3	M	49	23 Feb. "	Syncope	Died in St. Bart.'s
Finchbury Pavement	71	M	53	5 July "	Tubercular Laryngitis	
" " " " " " " " " " " " " " " " " "	11 & 13	F	43	4 Aug. "	Fatty degeneration of Heart	
Fleet Street	185	M	86	15 June "	Heart Failure	Inquest
" " " " " " " " " " " " " " " " " "	147	F	16	30 July "	Appendicitis	
" " " " " " " " " " " " " " " " " "	49	M	57	19 Aug. "	Apoplexy	
Furnival Street	26	M	57	21 Feb. "	Acute Pleuro-pneumonia	
Great New Street	20	M	63	7 "	Epithelioma of Tongue	
" " " " " " " " " " " " " " " " " "	4	F	66	29 Mar. "	Chronic Bronchitis	
" " " " " " " " " " " " " " " " " "	12	M	63	31 July "	Morbus Cordis	
Guildhall School of Music	—	F	69	30 May "	Cirrhosis of Liver	
Harcourt Buildings	6	F	7 weeks	3 Feb. "	Convulsions	
Hart Street	3	M	58 days	23 Aug. "	Heart Disease	
Holborn	20 to 23	M	2 m'ths	1 Dec. "	Convulsions	Inquest
Holborn Buildings	6	F	10 m'ths	1 Jan. "	Measles	
" " " " " " " " " " " " " " " " " "	6	M	15 m'ths	16 June "	Drowning	Inquest
Houndsditch	6	M	76	25 Feb. "	Asthma	
Huggin Court	1	F	21 days	8 Aug. "	Diarrhœa	
Hutchison Avenue	26	F	58	24 Feb. "	Broncho-pneumonia	
" " " " " " " " " " " " " " " " " "	2	M	31 hours	15 April "	Inanition	Inquest
" " " " " " " " " " " " " " " " " "	13	F	95	7 May "	Senile Decay	
Hutchison Street	15	M	1 day	11 "	Atelactasis	
" " " " " " " " " " " " " " " " " "	9	M	26</			

STREET OR PLACE.	No. of House.	Sex.	Age.	Date of Death.	Certified Cause of Death.	Remarks.
Martin Lane	6	M	47	29 April, 1911	Cancer	
Middlesex Passage, Cloth Fair	2	M	73	8 Jan. "	Chronic Bronchitis	
" " " " " " " " " " " " " " " "	5	F	75	28 Aug. "	Chronic Bronchitis	
Middlesex Street	69	F	76	24 May "	Bright's Disease	
" " —Salvation Army Shelter	—	M	41	26 Aug. "	Alcoholic Poisoning	Died in St. Bart.'s
Minories	95	M	66	3 Feb. "	Arterio-sclerosis	
Mincing Lane	38	F	54	7 Dec. "	Cerebral Tumour	
Moor Lane Chambers... ..	6	F	60	12 May "	Cerebral Haemorrhage	Inquest
Moorgate Street	56	M	71	18 Dec. "	Mitral Disease	
Neville's Court	11	M	10 mths.	16 May "	Pul. Tuberculosis	
New Street	16	M	49	26 March "	Syncope	
" " " " " " " " " " " " " " " "	24	M	81	18 "	Intestinal Obstruction	Died in St. Bart.'s
" " " " " " " " " " " " " " " "	6	M	60	25 June "	Chronic Bronchitis	
" " " " " " " " " " " " " " " "	3	M	89	20 July "	Bronchitis	
" " " " " " " " " " " " " " " "	6	F	17	1 Aug. "	Pul. Tuberculosis	
" " " " " " " " " " " " " " " "	10	F	54	28 "	Morbus Cordis	
New Bridge Street	6	M	1 day	6 Nov. "	Prematurity	
North Block	3	F	30	17 March "	Septicæmia	Died in St. Bart.'s
Old Broad Street	22	F	81	24 Sept. "	Senile Decay	
Old Jewry	6	M	46	9 April "	Chronic Pul. Tuberculosis	
" " " " " " " " " " " " " " " "	35	M	53	25 Aug. "	Empyema	Died in St. Bart.'s
Phil's Buildings, Houndsditch	7	F	28	18 Feb. "	Gastritis	
" " " " " " " " " " " " " " " "	5	F	65	29 March "	Morbus Cordis	
Police Buildings, Bishopsgate	35	M	1 day	10 June "	Infantile Convulsions	
Pope's Cottages	1	F	76	28 Nov. "	Chronic Bronchitis	
Princes Block	15	F	66	2 Jan. "	Influenza	
" " " " " " " " " " " " " " " "	53	F	56	5 Feb. "	Valvular Disease of Heart	
" " " " " " " " " " " " " " " "	5	F	79	23 "	Arterio-sclerosis	
" " " " " " " " " " " " " " " "	55	M	11 mths.	26 Aug. "	Gastro-Enteritis	
Queen Street	29	M	73	10 Jan. "	Cancer	
Queen Victoria Street	49	M	50	10 April "	Pneumonia	
Queen's Block	41	M	90	21 "	Senile Decay	
" " " " " " " " " " " " " " " "	35	F	56	7 Dec. "	Cardiac Fatty Degeneration	
Queen's Court, Minories	2	M	34	6 May "	Tubercular Peritonitis	
" " " " " " " " " " " " " " " "	4	F	51	6 Sept. "	Gastro-Enteritis	
Queen's Court	8	M	31	28 Dec. "	Chronic Pul. Tuberculosis	
River Thames—Blackfriars	—	M	30	27 June "	Drowning	Inquest
" " —Temple Stairs	—	M	25	27 March "	Drowning	Inquest
" " —Victoria Embankment	—	M	32	5 Sept. "	Drowning	Inquest
Robin Hood Court—Union	—	M	56	2 Aug. "	Bright's Disease	
" " " " " " " " " " " " " " " "	—	M	60	12 Oct. "	Influenza	
St. James Place	3½	F	90	4 July "	Bronchitis	
" " " " " " " " " " " " " " " "	1	F	89	19 Dec. "	Bronchitis	
St. Paul's Churchyard	80	M	16	24 Feb. "	Addison's Disease	Died in St. Bart.'s
Seething Lane... ..	35	M	71	30 Aug. "	Cerebral Thrombosis	
South Block	19	F	4	27 July "	Lymphangitis	
Staining Lane	3	F	47	20 May "	Morbus Cordis	
Stoney Lane	29	F	42	27 Feb. "	Burning	Inquest—Accidental
Swan Lane	15	M	29	19 Jan. "	Pul. Tuberculosis	
Swan Street	8	M	9 m'ths	1 Aug. "	Acute Bronchitis	
Thavies Inn	8	F	64	13 Jan. "	Mitral Disease	
Three Crane Court	1	F	48	8 Sept. "	Gastro-Enteritis	
Vine Street	8	F	63	5 Jan. "	Acute Bronchitis	
Warwick Lane... ..	4	M	67	1 Feb. "	Intestinal Nephritis	
West Smithfield	61	F	74	15 Nov. "	Chronic Enteritis	
Widgegate Street	26	F	70	14 Jan. "	Bronchitis	
" " " " " " " " " " " " " " " "	20	F	66	28 May "	Broncho-Pneumonia	

Appendix B.

LIST OF INFECTIOUS CASES,
1911.

STREET LISTS.

Compiled from Notifications received.

STREET OR PLACE.	No. of House.	Sex.	Age.	Disease.	Date of Notification.
1911.					
Bartholomew Close ...	9	F	5	Scarlet Fever ...	27th March.
Ditto ...	12	F	6	Ditto ...	12th March.
Beech Street ...	43	M	57	Phthisis ...	10th November.
Billiter Street ...	22	M	24	Typhoid Fever ...	7th October.
Bishopsgate ...	306	F	21	Scarlet Fever ...	3rd May.
Bow Lane, New Court ...	...	M	32	Scarlatina ...	14th April.
Charles Street ...	62	M	37	Phthisis ...	13th August.
Cloak Lane Police Station ...	...	M	45	Erysipelas ...	21st November.
Cloth Fair ...	6	F	51	Phthisis ...	18th February.
Copthall Avenue ...	17	F	45	Erysipelas ...	18th December.
Crosby Square ...	4	M	26	Enteric Fever ...	24th December.
Crown Place ...	7	F	17	Erysipelas ...	3rd February.
Dean Street "A" Block ...	8	M	9	Diphtheria ...	31st January.
Ellison Street ...	8	M	48	Erysipelas ...	19th March.
Farringdon Street ...	17	F	32	Enteric Fever ...	25th August.
Ditto ...	17	M	32	Ditto ...	25th August.
Gracechurch Street ...	30	F	14	Scarlatina ...	25th September.
Ditto ...	30	F	17	Ditto ...	25th September.
Ditto ...	52	F	7	Enteric Fever ...	15th September.
Greystoke Place ...	9	F	4½	Diphtheria ...	10th December.
Harrow Alley ...	35	F	15	Erysipelas ...	14th June.
High Street, Aldgate ...	59	M	3	Chicken-pox ...	3rd April.
Holborn Circus ...	7	M	20	Erysipelas ...	5th October.
Hutchison Avenue ...	23	M	3	Ophthalmia Neonatorum.	15th April.
Ditto ...	18	F	1	Scarlet Fever ...	29th November.
King Street, Snow Hill ...	24A	M	28	Erysipelas ...	24th July.
Knight-rider Street ...	39	M	27	Scarlet Fever ...	13th October.
Leadenhall Street ...	138	M	5	Diphtheria ...	16th December.
London Wall ...	65	M	6	Ditto ...	15th November.
Ditto ...	73	F	20	Ditto ...	26th February.
Long Lane ...	80	F	1	Chicken-pox ...	4th July.
Ditto ...	86	F	1	Ditto ...	1st June.
Magpie Alley ...	...	F	8	Scarlet Fever ...	30th June.
Ditto ...	...	M	5	Ditto ...	3rd July.
Middle Street ...	2	F	1	Diphtheria ...	7th June.
Milton Street ...	31	M	16	Erysipelas ...	7th February.
Montague Court, Little Britain ...	5	F	36	Phthisis ...	19th January.
Ditto ...	6	M	3	Membranous Croup	7th July.
Moorgate Street ...	71	F	21	Phthisis ...	14th November.
New Street ...	7	F	2	Chicken-pox ...	20th March.
New London Street ...	2	F	20	Erysipelas ...	10th July.
Old Broad Street ...	57½	F	4	Scarlet Fever ...	18th September.
Old Jewry... ...	32	M	32	Phthisis ...	10th June.
Phil's Buildings ...	5	F	57	Erysipelas ...	24th July.
Pope's Cottages ...	1	F	37	Puerperal Fever	27th October.
Princes Block ...	18	F	4	Scarlet Fever ...	18th September.
Queen's Block ...	19	F	6	Diphtheria ...	15th December.
Queen's Court ...	1	M	24	Typhoid Fever ...	9th June.
Railway Place ...	1	M	16	Erysipelas ...	21st October.
Red Cross Street Fire Station ...	...	M	2	Diphtheria ...	31st July.
Robin Hood Court Infirmary ...	...	M	39	Erysipelas ...	14th August.
Rose Alley... ...	19	M	30	Ditto ...	27th April.
Ditto ...	33	M	6	Diphtheria ...	14th December.
Ditto ...	46	M	12	Scarlatina ...	7th August.

STREET OR PLACE.	No. of House.	Sex.	Age.	Disease.	Date of Notification.
					1911.
St. Bartholomew's Hospital (including Nurses' Home).	...	...	...	Diphtheria, 5 cases; Scarlet Fever, 4 cases; Enteric Fever, 1 case.	
St. Dunstan's Hill, St. Dunstan's Buildings.	...	F	12	Scarlet Fever ...	2nd September.
St. Mary Axe	23	F	4	Ditto ...	16th May.
Seething Lane	38	M	3	Ditto ...	31st January.
Silver Street	23	F	8	Diphtheria ...	17th January.
South Block	9	F	1	Ditto ...	8th June.
Threadneedle Street, Bank of England ...	...	F	38	Erysipelas ...	27th June.
Throgmorton Street	38	F	39	Scarlet Fever ...	20th May.
Upper Thames Street	186	M	8	Diphtheria ...	14th September.
Vine Street	8	F	3	Ditto ...	12th December.
Walbrook	3	F	45	Erysipelas ...	16th November.
Water Lane (Apothecaries' Hall)	...	M	15	Scarlet Fever ...	13th August.
Watling Street	63	M	22	Enteric Fever ...	5th September.
West Smithfield	25	F	40	Diphtheria ...	18th April.
William Street	4	M	28	Scarlet Fever ...	14th January.
Wine Office Court	9	M	16	Phthisis ...	6th March.

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 Owner.	Tenements.	Lodgers.
11, Bartholomew Close ...	A. Clevely, 11, Bartholomew Close ...	4	7
43, do. ...	E. Haley, 2, Cross Key Court, London Wall ...	3	10
44, do. ...	T. Veil, 44, Bartholomew Close ...	2	4
85, do. ...	T. Gibson, The Charterhouse, Charterhouse Square ...	3	7
6, Bartholomew Place ...	Henry Hoggett, 6, Bartholomew Place ...	1	3
20, Bride Lane ...	T. Hargraves, 20, Bride Lane ...	3	6
5, Britton's Court ...	James Hurrell, 5, Britton's Court ...	2	2
1, Burgon Street ...	Mrs. Lewis Tripp, 1, St. Andrew's Hill ...	2	5
1, Chapel Place, Fetter Lane ...	C. H. Miller, 32, Fetter Lane ...	3	4
2, do. do. ...	Do. do. ...	2	4
6 and 7, Cloth Fair ...	Messrs. Heywood and Holland, 31, King Street, Cheapside.	3	7
8, do. ...	Do. do. do. ...	2	3
9, do. ...	Do. do. do. ...	4	8
18, do. ...	C. Brissmire, 18, Cloth Fair ...	4	10
19, do. ...	H. Field, 9, Gracechurch Street ...	3	6
21, do. ...	W. Phelan, 20, Cloth Fair ...	3	8
22, do. ...	J. Jackson, 22, do. ...	4	8
28, do. ...	Thomas M. James Janes, 191, Aldersgate Street ...	0	0
29, do. ...	Messrs. Heywood and Holland, 31, King Street, Cheapside.	1	2
31, do. ...	A. H. Price, 31, Cloth Fair ...	1	8
43, do. ...	Messrs. Heywood and Holland, 31, King Street, Cheapside.	2	6
44, do. ...	Do do. do. ...	4	7
45, do. ...	W. and J. Biggerstaff, 59, West Smithfield ...	2	7
1, Cockerill's Buildings ...	Margaret Walker, 1, Cockerill's Buildings ...	2	5
2, do. ...	E. Haley, 38, Bartholomew Close ...	3	12
3, do. ...	W. Birchard, 3, Cockerill's Buildings ...	3	5
4, do. ...	James Sard, 4, do. ...	2	5
5, do. ...	Charles Fox, 5, do. ...	4	11
6, do. ...	Stanley J. Torkington, 6, do. ...	4	10
7, do. ...	G. Demaria, 7, do. ...	2	4
8, do. ...	E. Haley, 38, Bartholomew Close ...	3	3
5, Currier's Row ...	G. Tabor, 5, Currier's Row ...	3	5
6, do. ...	Arthur Bedford, 6, do. ...	3	5
7, do. ...	William Bampton, 7, do. ...	2	14
12, do. ...	Mrs. Edwards, 12, do. ...	4	11
13, do. ...	H. Scowen, 13, do. ...	1	4
5, Dorset Street ...	H. Fenlon, 5, Dorset Street ...	5	6
7, do. ...	E. King, 23, Whitefriars Street ...	3	10
10, East Harding Street ...	Mrs. Ludlow, 10, East Harding Street ...	2	5
11, do. ...	F. Rayner, 11, do. ...	2	10
12, do. ...	M. Kersey, 12, do. ...	1	1
2, Evangelist Court ...	T. Brown, 2, Evangelist Court ...	3	9
1, Fenton's Buildings ...	Thomas Matthews, 46, Beech Street, E.C. ...	1	2
2, do. ...	Do. do. do. ...	3	7
3, do. ...	Do. do. do. ...	3	10
42, Fetter Lane ...	Mrs. Richards, 42, Fetter Lane ...	1	4
93, do. ...	J. Hook, 106, St. James' Road, Holloway ...	4	11
29, Fleet Lane ...	Messrs. Watney, Coombe and Reid, Pimlico ...	3	8
30, do. ...	Do. do. do. ...	2	4
31, do. ...	Do. do. do. ...	2	5
1, Great New Street ...	James Barnsley, 1, Great New Street ...	4	13
20, do. ...	G. Stanbury, 25, do. ...	6	20
2, do. ...	Sidney Gardner, 2, do. ...	7	15
3, do. ...	Do. do. ...	4	6
Carried forward		150	372

WEST DISTRICT—continued.

Situation of Premises.	Name and Address of Owner.	Tene-ments.	Lodgers.
	Brought forward	150	372
5, Green Dragon Court ...	H. Johnson, 5, Green Dragon Court ...	1	2
6, do. ...	C. Fleming, 6, do. ...	2	4
7, do. ...	Mrs. Sawyer, 7, do. ...	3	4
2, Greystoke Place ...	G. Reveirs, 4, Greystoke Place ...	3	6
3, do. ...	Michael Flynn, 3, do. ...	4	4
6, do. ...	William G. Cass, 6, do. ...	1	8
7, do. ...	Harriet Evans, 9, Greystoke Place ...	4	15
8, do. ...	Do. do. ...	2	12
9, Greystoke Place, Fetter Lane.	Do. do. ...	4	10
2, Gunpowder Alley ...	W. Harmer, 2, Gunpowder Alley ...	1	1
8, do. ...	T. Townsend, 259, Essex Road ...	2	2
7½, do. ...	Do. do. ...	3	10
6, Holborn Buildings ...	Prudential Assurance Co. ...	6	14
7, do. ...	Do. do. ...	7	16
3, Hosier Lane ...	John Sullivan, 3, Hosier Lane ...	1	2
4, do. ...	Phillips & Tribe, Cock Lane ...	1	6
5, do. ...	W. J. Lardner, 6, Hosier Lane ...	2	7
36, Hutton Street ...	A. E. Reeves, 35, Hutton Street ...	2	4
25, Kinghorn Street ...	W. Phelan, 20, Cloth Fair ...	3	6
25A, do. ...	Do. do. ...	4	13
1, Little Montague Court ...	J. Madley, 21, Little Britain ...	2	10
2, do. ...	Do. do. ...	5	17
54, Little Britain ...	Thomas N. Janes, 101, Aldersgate Street ...	1	2
79, Long Lane ...	Robert Dyas, 87, Fore Street ...	3	6
80, do. ...	L. M. Migliorini, 80, Long Lane ...	3	5
82, do. ...	Mrs. Fairhead, 82, do. ...	2	4
86, do. ...	E. Rees, 85, do. ...	1	4
1, Middlesex Passage ...	James Strugnell, 45, Bartholomew Close ...	4	11
2 and 3, do. ...	Do. do. ...	11	12
4, do. ...	J. Sturgeon, 6, Middlesex Passage ...	3	5
5, do. ...	Do. do. ...	3	4
6, do. ...	Do. do. ...	1	2
2, Middle Street ...	L. Meluish, 2, Middle Street ...	3	4
3, do. ...	Do. do. ...	4	6
4 and 5, do. ...	J. Hull & Sons, Bartholomew Close ...	12	18
6, do. ...	E. Haley, 38, do. ...	4	5
20, do. ...	T. Green, 20, Middle Street ...	2	3
1, Montague Court, Little Britain.	Mrs. E. Moloney, 1, Montague Court ...	3	4
2, do. ...	H. Sawyer, 2, do. ...	2	6
3, do. ...	James Long, 4, do. ...	3	8
4, do. ...	Do. do. ...	3	5
5, do. ...	R. Kerridge, 5, do. ...	2	4
6, do. ...	J. Hogan, 6, do. ...	3	11
7, Nevill's Court ...	E. H. Miller, 32, Fetter Lane ...	3	11
8, do. ...	Do. do. ...	3	4
9, do. ...	Do. do. ...	2	6
10, do. ...	Do. do. ...	6	10
11, do. ...	Goldsmiths' Company, Goldsmiths' Hall ...	8	15
12, do. ...	Do. do. ...	8	15
10, Newbury Street ...	Heeps, Son & Neve, 4, Old Jewry ...	2	4
11, do. ...	Do. do. ...	2	5
12, do. ...	Do. do. ...	3	8
14, do. ...	J. W. Neighbour, 93, Old Street ...	4	14
10, New Street Square ...	Herbert Mogridge, 10, New Street Square ...	1	4
1, Pope's Cottages ...	Edward Haley, 38, Bartholomew Close ...	6	6
2, do. ...	Do. do. ...	3	12
22, Primrose Hill ...	Thomas Palmer, 22, Primrose Hill ...	3	12
6, Temple Lane ...	John Allen, 34, New Bridge Street ...	4	10
7, do. ...	Do. do. ...	7	20
8, do. ...	Do. do. ...	7	16
5A, Took's Court ...	E. J. Hopkins, 5A, Took's Court ...	6	2
	Carried forward	364	848

WEST DISTRICT—*continued.*

Situation of Premises.	Name and Address of Owner.	Tenements.	Lodgers.
	Brought forward	364	848
57, West Smithfield ...	T. A. Allen, 57, West Smithfield... ..	6	14
9, The Broadway ...	T. Frost, 6, The Broadway	4	8
13, Wine Office Court ...	W. Deighton, 54, Great Percy Street, W.C. ...	4	10
14, do. ...	Do. do.	4	10
16, do. ...	Do. do.	4	9
17, do. ...	Do. do.	5	8
	TOTAL	391	907

Average number of lodgers to each tenement : 2.32.

WEST DISTRICT.

Houses demolished or closed in 1911 ... 13 and 14, Nevill's Court.
 5 and 6, Red Lion Passage.
 4, 5 and 6, Half-Moon Passage.
 19 and 20, Primrose Hill.

Tenement houses 121
 Cleansing notices served 159

MIDDLE DISTRICT.

Situation of Premises.	Name and Address of Owner.	Tenements.	Lodgers.
104, Aldersgate Street ...	William Harris, 158, Kingsland Road	2	2
1 and 2, Huggin Court, Little Trinity Lane ...	City Parochial Charities Trustees, 3, Temple Gardens.	6	15
9, Huggin Lane ...	H. Belcher, 8, Martin's Lane	3	3
10, do. ...	H. Willis, 10, Huggin Lane	4	5
2, Little College Street ...	George Shadbolt, 2, Little College Street ...	2	5
3, do. ...	W. Wild, 3, do.	2	4
15, Swan Lane ...	H. Postlewaithe, 15, Swan Lane	2	8
	TOTAL	21	42

Average number of lodgers to each occupied tenement : 2.

7 Cleansing Notices served.

7 Tenement houses on register.

The whole of the tenement houses in Shaftesbury Place, 31 in number, have now been demolished.

Situation of Premises.			Name and Address of Owner.			Tenements.	Lodgers.
27,	Aldgate	...	A. L. Poysner, 27, Aldgate	...	...	1	2
6,	do.	...	S. Yeomanson, 6, do.	...	...	3	10
7,	Artillery Lane...	...	J. Hart, 1, Wheeler Street, Spitalfields	...	...	8	19
9,	do.	...	John Tharp, 9, Norton Folgate	...	...	6	14
12,	do.	...	Mrs. McCarthy, Bridport Arms, Harrison Street, Gray's Inn Road.	...	...	7	11
14,	do.	...	Do. do. do.	...	...	5	8
16,	do.	...	Do. do. do.	...	...	6	18
18,	do.	...	Do. do. do.	...	...	2	5
20,	do.	...	B. Clements, 20, Artillery Lane	...	...	1	5
21,	do.	...	P. Donovan, 25, do.	...	...	4	7
9,	Brushfield Street	...	W. H. Recknell, 66, Green Lanes, N.	...	...	3	6
10,	do.	...	James Smith, 10, Brushfield Street	...	...	3	6
12,	do.	...	Luke Cohen, 12, Brushfield Street	...	...	3	6
14,	do.	...	F. J. Fitch, Bishopsgate Institute (on behalf of the Governors of the Bishopsgate Foundation).	...	...	6	9
19,	Carter Street, Hounds- ditch.	...	S. Dubowski, 29, Wentworth Street, E.	...	...	2	8
2,	Cavendish Court	...	A. J. Hawkins, 116, Albion Road, Dalston	...	...	3	7
1,	Circus, Minorities (in- cluding upper part of 90, Minorities).	...	S. Moses, 65, Mansell Street, Aldgate	...	...	5	26
2,	Circus, Minorities	...	T. Bohn, 6, Circus, Minorities	...	...	2	8
3,	do.	...	Eliz. Jones, on behalf of Mr. Johnson, 97-99, Southwark Bridge Road.	...	...	1	3
4,	do.	...	H. Grapes, 4, Circus, Minorities	...	...	2	3
5,	do.	...	C. Shipman, 5, do.	...	...	4	7
7,	do.	...	J. Roberts, 7, do.	...	...	4	7
11,	Clark's Place, Bishopsgate.	...	Laura Wells, 11, Clark's Place	...	...	1	1
2,	Montague Court, Bishopsgate.	...	Wm. Grouts, 7, High Street, Deptford	...	...	3	3
16,	do.	...	W. Cunningham, 16, Montague Court	...	...	2	2
3,	Crown Place, Aldgate	...	W. Braker, 3, Crown Place	...	...	4	6
6,	do.	...	A. Hayland, 6, do.	...	...	3	6
7,	do.	...	W. Harper, 7, do.	...	...	2	2
5,	Duke Street, Aldgate	...	S. Wallis, 78, Argyle Road, W. Ealing	...	...	2	2
10,	do.	...	J. A. Britton, 16 and 18, Houndsditch	...	...	3	8
6,	George Street, Minorities	...	Henry C. Geisler, 6, George Street	...	...	1	1
7,	do.	...	F. W. Loomes, 7, do.	...	...	3	11
117,	Gravel Lane	...	John Hunt, 117, Gravel Lane	...	...	3	6
118,	do.	...	Henry Goulston, 118, do.	...	...	4	4
1,	Hutchison Avenue	...	A. J. Hollington, Middlesex Street	...	...	1	3
2,	do.	...	I. Solomons, 2, Hutchison Avenue	...	...	5	5
3,	do.	...	F. Simons, 3, do.	...	...	3	8
4,	do.	...	Morris Cohen, 4, do.	...	...	2	8
6,	do.	...	M. Ferguson, 26, Finsbury Square	...	...	1	2
7,	do.	...	J. Ferguson, do.	...	...	1	1
9,	do.	...	Barnet Barnett, 7, Hutchison Avenue	...	...	4	7
10,	do.	...	C. Zeffie, do.	...	...	3	8
12,	do.	...	N. Foley, 26, London Street, Fitzroy Square	...	...	3	8
13,	do.	...	Theresa Ellis, 13, Hutchison Avenue	...	...	3	6
14,	do.	...	H. Messler, 14, do.	...	...	3	4
15,	do.	...	D. Joel, 15, do.	...	...	2	4
17,	do.	...	James Woolf, 18, Grenville Place, Maida Vale	...	...	3	8
18,	do.	...	S. Baker, 18, Hutchison Avenue	...	...	4	11
21,	do.	...	Sarah Aarons, 21, do.	...	...	3	8
22,	do.	...	Isaac Schwartz, 22, do.	...	...	5	8
23,	do.	...	Frances Woolf, 18, Grenville Place, Maida Vale	...	...	3	9
24,	do.	...	J. Levy, 24, Hutchison Avenue	...	...	2	6
25,	do.	...	L. Marks, 25, do.	...	...	2	6
26,	do.	...	Lewis Josephs, 26, do.	...	...	3	7
5,	Hutchison Street	...	B. Jacobs, 5, Hutchison Street	...	...	2	7
6,	do.	...	I. Soloman, 6, do.	...	...	3	5

EAST DISTRICT—continued.

Situation of Premises.			Name and Address of Owner.			Tenements.	Lodgers.
			Brought forward			173	476
10, Hutchison Street	...	...	S. Marks, 10, Hutchison Street	...	...	1	8
12, do.	...	...	M. Goldstein, 12, do.	...	...	2	3
16, do.	...	...	J. Noah, 16, do.	...	...	3	9
17, do.	...	...	J. Solomon, 17, do.	...	...	2	5
18, do.	...	...	B. Lazarus, 18, do.	...	...	1	4
19, do.	...	...	S. Ellis, 19, do.	...	...	1	2
20, do.	...	...	I. Edwards, 20, do.	...	...	1	6
Janes Buildings, Hutchison Street.			Blum, Whipps Cross, Walthamstow	...	...	3	7
28, Mansell Street, Aldgate			A. Woolf, 28, Mansell Street	...	...	3	7
30, do.	...	...	Maimes Elbaum, 30, do.	...	...	2	6
23, Middlesex Street	...	...	Charles Harford, 23, Middlesex Street	...	...	1	9
71, do.	...	...	S. Valentine, 71, do.	...	...	2	4
6, New Street, Gravel Lane			N. Woolf, 6, New Street	...	...	2	7
8, do.	do.	do.	B. Starker, 8, do.	...	...	3	3
9, do.	do.	do.	A. Schneider, 9, do.	...	...	2	8
10, do.	do.	do.	Moss Hillier, 10, do.	...	...	1	1
11, do.	do.	do.	Morris Jacobs, 11, do.	...	...	3	3
12, do.	do.	do.	S. Costa, 12, do.	...	...	3	12
12A, do.	Bishopsgate		Thos. Wicks, 12, do.	...	...	3	6
13, do.	Gravel Lane		W. Murray, 13, do.	...	...	3	8
14, do.	do.	do.	Joseph Panyer, 14, do.	...	...	2	7
15, do.	do.	do.	Harris Norden, 15, do.	...	...	2	3
16, do.	do.	do.	Simons Levey, 16, do.	...	...	3	8
17, do.	do.	do.	Marks Joseph, 17, do.	...	...	2	2
18, do.	do.	do.	Harris Zuzzie, 18, do.	...	...	3	10
19, do.	do.	do.	Mrs. Goodman, 19, do.	...	...	2	6
22, do.	do.	do.	A. Huffel, 22, do.	...	...	1	4
23, do.	do.	do.	I. Parker, 23, do.	...	...	2	7
24, do.	do.	do.	Joseph Levy, 24, do.	...	...	3	6
26, do.	do.	do.	Reynolds & Eason, 43, Bishopsgate Street Without	...	...	3	8
27, do.	do.	do.	Do. do. do.	...	...	3	9
28, do.	do.	do.	Do. do. do.	...	...	2	7
30, do.	do.	do.	Do. do. do.	...	...	3	5
32, do.	do.	do.	Henry Jacobs, 32, New Street	...	...	3	10
34, do.	do.	do.	T. Bonislove, 34, do.	...	...	1	1
36, do.	do.	do.	R. Singer, 36, do.	...	...	4	11
37, do.	do.	do.	B. King, 37, do.	...	...	2	2
40, do.	do.	do.	Mary Roach, 40, do.	...	...	1	2
1, Queen's Court, Vine St.			J. Levy, 7, The Circus	...	...	4	7
2, do.	do.	do.	Do. do. do.	...	...	3	10
3, do.	do.	do.	Do. do. do.	...	...	2	7
4, do.	do.	do.	Do. do. do.	...	...	2	10
2, Three Crown Court, Jewry Street.			Messrs. Smith, Son & Gowland, 11, Jewry Street	...	...	4	8
3, do.	do.	do.	Do. do. do.	...	...	5	8
1, Union Row, Minorities			A. H. Ridgway, 95, Minorities	...	...	3	8
2, do.	do.	do.	Lockharts, 2, Union Row	...	...	4	10
8, Vine Street, do.			J. Levy, 7, Circus, Minorities	...	...	6	19
9, do.	do.	do.	Do. do. do.	...	...	9	24
12, Widegate Street	...	...	A. Witherington, 12, Widegate Street	...	...	2	2
17, do.	...	...	A. Cohen, 17, Widegate Street	...	...	2	6
18, do.	...	...	S. Franks, 18, do.	...	...	2	5
20, do.	...	...	H. Dixon, 20, do.	...	...	2	10
21, do.	...	...	A. Field, 182, Hanbury Street	...	...	5	8
23, do.	...	...	Do. do. do.	...	...	6	2
24, do.	...	...	W. T. Crane, 25, Widegate Street	...	...	4	11
25, do.	...	...	Do. do. do.	...	...	3	9
2, Wrestler's Court	...	...	Arthur Volkman, 2, Wrestler's Court	...	...	1	1
3, do.	...	...	W. Adams, 3, do.	...	...	1	1
4, do.	...	...	F. Tyler, 4, do.	...	...	1	1
9, do.	...	...	Henry Allen, 9, do.	...	...	1	1
2, Goodman's Yard Minorities.			Messrs. Moss & Jameson, 77, Chancery Lane	...	...	4	7
5, Artillery Lane	...	...	J. Hart, 1, Wheeler Street, Spitalfields	...	...	8	23
			TOTAL			343	900

Average number of persons to each tenement : 2.62

EAST DISTRICT.

Houses demolished or closed during 1911 : 22, Artillery Lane.

Tenement houses ... 119.

Cleansing notices served ... 139.

Appendix D.

List of Persons registered under the Dairies, Cowsheds
and Milkshops Order.

1ST JANUARY, 1912.

Premises.	Person Registered.	Premises.	Person Registered.
24, Aldersgate Street ...	Robert Douglas.	7, Bell Yard ...	Jane Mary Ann Birch.
28/9, do. ...	"J.P." Restaurants, Ltd.	22, Billiter Street ...	John Stevenson, Andrew Ritchie, and Donald McDonald, trading as J. and B. Stevenson.
30, do. ...	John Thomas Gooden.		
42, do. ...	Nunzio Allocca.		
54, do. ...	Bartolerino Fabrizi.	23, do. ...	William Cole and Grant Ventnor Robert Riach.
67, do. ...	J. Lyons and Co., Ltd.		
72, do. ...	Slaters, Ltd.	9, Billiter Square ...	Callard, Stewart & Watt, Ltd.
73, do. ...	Nunzio Allocca.	5, Bishopsgate Church Passage.	Gerardo Lamberti.
84, do. ...	John Davies.		
90, do. ...	Bonaventura D'auria.	41, Bishopsgate St. W'n.	Romulatto Mansi.
92, do. ...	Joseph James Metcalf.	50, do. ...	W. Hill and Son, Ltd.
170, do. ...	Aërated Bread Co., Ltd.	57, do. ...	Slaters, Ltd.
179, do. ...	Nunzio Allocca.	66, do. ...	Fitch and Son, Ltd.
188, do. ...	William Robins Thatcher.	79, do. ...	J. Lyons and Co., Ltd.
193, do. ...	J. Lyons and Co., Ltd.	101, do. ...	Williamsons, Ltd.
55, Aldermanbury ...	Aërated Bread Co., Ltd.	107, do. ...	Aërated Bread Co., Ltd.
62, do. ...	Luigi Cattini.	15/6, Bishopsgate St. W't.	Aërated Bread Co., Ltd.
12 and 13, Aldgate ...	Lockharts, Ltd.	19, do. ...	J. Lyons and Co., Ltd.
15, do. ...	Francis William Yeomanson.	31, do. ...	Atanasio Diviani.
24, do. ...	J. Lyons and Co., Ltd.	42, do. ...	Empire Restaurant, Ltd.
28, do. ...	Dominico George.	51, do. ...	Antonetta Arpino.
7, Aldgate High Street	John Wattam.	77, do. ...	Gaston Debry.
73, do. ...	Express Dairy Co., Ltd.	90, do. ...	William Sandrock.
7, Artillery Lane ...	Louise Mellor.	145/7, do. ...	J. Lyons and Co., Ltd.
1, Austin Friars ...	Olive Marie Muriel Simonds.	23, Birchin Lane ...	Mary Ann Ivison and Jane Laver, trading as M. A. Ivison and Co.
6/7, Barbican ...	Aërated Bread Co., Ltd.		J. Lyons and Co., Ltd.
17, do. ...	Adolfo Cura and Alexandro Zanni.	Blackfriars Bridge Station	
20, do. ...	Lockharts, Ltd.	8/10, Blomfield Street...	"J.P." Restaurants, Ltd.
43a, do. ...	Lewis Thos. Owen and Percy John Randall.	16, do. ...	Ulrich Maino.
9, Bartholomew Close...	Price's Restaurants, Ltd.	4, Botolph Alley ...	Charles Peach.
21, do. ...	Charles Baker.	1, Bow Churchyard ...	Pasquale Mansi.
38, do. ...	Catherine Lewis.	2, Bow Lane ...	"J.P." Restaurants, Ltd.
89, do. ...	William Henry Letley.		
1, Basinghall Street ...	Aërated Bread Co., Ltd.	9, do. ...	Pasquale Mansi.
15, do. ...	Luigi Necchi.	11, do. ...	Beatie Scott.
16, do. ...	Pasquale Palumbo and Co.	38A, do. ...	Frien Manor Dairy Farm, Ltd.
29/30, do. ...	J. Lyons and Co., Ltd.	46, do. ...	P. Palumbo.
54, do. ...	Sidney Havard Willmott.	54, do. ...	Andrea Beschizza.
65/66, do. ...	Walter Peers Jackson.	43, Bread Street ...	Dominico Cavalli.
68, do. ...	Winifred Stenning.	33, Breams Buildings...	Thomas Henry Davis.
69, do. ...	Express Dairy Co., Ltd.	18, Bride Lane ...	Sarah Angle.
1, Gresham Buildings, Basinghall Street	London Café Co., Ltd.	20, do. ...	George Price.
50, Beech Street ...	John Richards.	3, Brushfield Street ...	Henry Pugh Lloyd.
4, Beehive Passage ...	Lockharts, Ltd.	3, Bridgewater Street	Charles Cromwell Crocker.
		5, Broad Street Place	Aërated Bread Co., Ltd.
		14, do. ...	Richard Mills & Co., Ltd.

Premises.	Person Registered.	Premises.	Person Registered.
Broad Street Station	Aërated Bread Co., Ltd.	8, Copthall Avenue ...	Alexander Hampton
4, Broadway ...	Percy Robson.	10 & 12, do. ...	J. Lyons and Co. Ltd.
5, do. ...	Francisco Ropolio.	15, do. ...	James William Davis.
7, do. ...	J. Lyons and Co., Ltd.	28, Copthall Avenue ...	Pietro Bezchizza.
35, Bucklersbury ...	J. Lyons and Co., Ltd.	29, do. ...	The Capital & Counties Cafés, Ltd.
2, Budge Row ...	Jane Anderson Carnegie.	9, Cornhill ...	Aërated Bread Co., Ltd.
20, do. ...	J. Lyons and Co., Ltd.	7, Cripplegate Buildgs.	Aërated Bread Co., Ltd.
30, do. ...	"J.P." Restaurants, Ltd.	7, Crooked Lane ...	John Morgan Jones.
9, Bull's Head Passage	Pasquale Cocchi.	16, do. ...	Judah Harris.
1, Burgon Street ...	Vincent Infanti.	Crown Court (Old Broad Street)	J. Lyons and Co., Ltd.
1, Bury Street ...	Express Dairy Co., Ltd.	2, do. ...	Henry Charles Bainbridge.
1, Byward Street ...	Francesco Arpino.	13, Crutched Friars ...	Express Dairy Co., Ltd.
9, do. ...	Aërated Bread Co. Ltd.	7, Cullum Street ...	Antonio and Michele Precha
40/2, Cannon Street ...	Aërated Bread Co., Ltd.	16, do. ...	Luigi Cattini.
44, do. ...	J. Lyons and Co., Ltd.	26, do. ...	Egisto Landi.
49, do. ...	J. Lyons and Co., Ltd.	14, Cursitor Street ...	Martha Kersey.
50, do. ...	Slaters, Ltd.	3/5, Devonshire Street	Henry Pearce.
51, do. ...	Aërated Bread Co., Ltd.	8, do. ...	Mitchell's Dining Rooms, Ltd.
86, do. ...	Aërated Bread Co., Ltd.	7, Dorset Street ...	Guisepppe Indaco.
91, do. ...	W. Hill and Son, Ltd.	5, Dove Court (Old Jewry)	Mary Ann Donnelly.
95, do. ...	Madeline H. Oswald and Geo. Brown, trading as J. H. Brown.	12, Duke Street ..	Frank Dyson.
99, do. ...	J. Lyons and Co., Ltd.	41, do. ...	Luigi Cattini.
139, do. ...	London Café Co., Ltd.	50, do. ...	Joseph Alexander Williams.
145, do. ...	Ye Mecca, Ltd.	5, Eastcheap ...	Aërated Bread Co., Ltd.
147, do. ...	Aërated Bread Co., Ltd.	15, do. ...	Ye Mecca, Ltd.
153 and 155, Cannon St.	"J.P." Restaurants, Ltd.	28, do. ...	Aërated Bread Co., Ltd.
Cannon St. Station Approach	Aërated Bread Co., Ltd.	35, do. ...	J. Lyons and Co., Ltd.
3 & 4, Camomile Street	"J.P." Restaurants, Ltd.	49 & 51, Eastcheap, (Ceylon House)	"J.P." Restaurants, Ltd.
36, do. ...	Pietro Necchi.	16, Eldon Street ...	J. Lyons and Co., Ltd.
36a & 37, do. ...	Henry Douglas Fletcher.	18, do. ...	Bartolomeo Cattini.
46, Carter Lane ...	Albert George Bodenham.	25, do. ...	"J.P." Restaurants, Ltd.
54, do. ...	Reuben Josephus Phillips.	5, Falcon Square ...	Price's Restaurants, Ltd.
57a, do. ...	James Burgess.	2, Falcon Street ...	Nunzio Allocca.
75, do. ...	William Henry Clemence.	56, Fann Street ...	Henry Adams.
81, do. ...	William Henry Overhill.	59, do. ...	Serafino Fazzani.
12, Carthusian Street ...	Helen F. Higgins.	32, Farringdon Street...	Arthur Atkins.
60, Charles Street ...	George William Copeland.	33, do. ...	Friern Manor Dairy Farm Ltd.
25, Castle Street ...	Rosina Andrews.	39, do. ...	"J.P." Restaurants, Ltd.
18, Charterhouse Street	"J.P." Restaurants, Ltd.	40, do. ...	"J.P." Restaurants, Ltd.
23, Cheapside ...	J. Lyons and Co., Ltd.	62, do. ...	David and Robert Jones.
26, do. ...	Slaters, Ltd.	65, do. ...	Amerighi Guilio.
41, do. ...	Ideal Restaurants, Ltd.	67, do. ...	Lewis Bertram Heyward.
49, do. ...	J. Lyons and Co., Ltd.	70/1, do. ...	Geo. Jas. and Arthur J. Silverlock.
51, do. ...	Aërated Bread Co., Ltd.	79, do. ...	Edwin John Ridout.
66, do. ...	Tiffin, Ltd.	87, do. ...	Peter Zanchi.
74/5, do. ...	Slaters, Ltd.	88, do. ...	Frederick Philipp Weinl.
77, do. ...	Aërated Bread Co., Ltd.	1, Fen Court...	Rose Greenaway.
128, do. ...	J. Lyons and Co., Ltd.	2, do. ...	Aërated Bread Co., Ltd.
136, do. ...	Williamsons, Ltd.	15, Fenchurch Street ...	Aërated Bread Co., Ltd.
140, do. ...	Ye Mecca, Ltd.	30, do. ...	Rose Malyon.
150, do. ...	Aërated Bread Co., Ltd.	31, do. ...	J. Lyons and Co., Ltd.
7, Clark's Place ...	Jessie A. Harris.	47, do. ...	The Cabins, Ltd.
2, Cloak Lane ...	Romulatio Mansi.	51, do. ...	Fuller's, Ltd.
20, Cloth Fair...	William Mortimer Phelan.	62, do. ...	Aërated Bread Co., Ltd.
22, do. ...	Flora Jackson.	81, do. ...	Croci Carlo.
19, Cock Lane...	Jane Jones.	99, do. ...	Aërated Bread Co., Ltd.
23, Coleman Street ...	Ye Mecca, Ltd.	107, do. ...	"J.P." Restaurants, Ltd.
38, do. ...	Antonio and Valentine Ostacchini, trading as Ostacchini and Son.	161, do. ...	Maynards, Ltd.
74, do. ...	Bartolomeo Zaccarini.	164, do. ...	Slaters, Ltd.
74, Copthall Ave.(Throg- morton House)	Florence Le Breton.		

Premises.	Person Registered.	Premises.	Person Registered.
1, Fenchurch Buildings	"J.P." Restaurants, Ltd.	3, Godliman Street ...	Antonio Donatantonio.
1, Railway Approach	J. Lyons and Co., Ltd.	12, do. ...	Bartolomio Fabrizi, trading as Bartolomio Fabrizi and Co.
Fenchurch St. Station	Henry Christian Thomas Amendt.	21, do. ...	Express Dairy Co., Ltd.
19/20, Fetter Lane ...	"J.P." Restaurants, Ltd.	8, Gough Square ...	William Lloyd.
31, do. ...	Morgan Jones.	12, Gracechurch Street	Charles John Haag.
33, do. ...	Joseph Pratt.	31, do.	Fullers', Ltd.
42, do. ...	Teresa Cascella.	33, do.	Aërated Bread Co., Ltd.
44/5, do. ...	Stewart and Wight, Ltd.	41, do.	Maynards, Ltd.
49, do. ...	Albert Alexander Price.	51, do.	J. Lyons and Co., Ltd.
57, do. ...	Paul Quartermass.	72/3, do.	J. Lyons and Co., Ltd.
83, do. ...	Mary Harris.	77/78, do.	London Café Co., Ltd.
145, do. ...	Rafaelo Cattini.	119, Gravel Lane, Houndsditch.	William Cambridge.
1, Finsbury Pavement	Celestino Bertolini.	1, Great New Street...	Sarah Amelia Barnsley.
73, do. ...	Aërated Bread Co., Ltd.	12, do. ...	Maria J. L. Kersey.
Electra House, Finsbury Pavement.	Henry Phillips.	15, Great St. Helen's ...	Luigi Necchi, trading as Necchi and Co.
Finsbury Pavement House.	J. Lyons and Co., Ltd.	31, do. ...	Rose Malyon.
13, Fish Street Hill ...	Guileo Barbieri.	"Crosby House," Great St. Helen's.	Ye Mecca, Ltd.
22, do. ...	George Porteous Johnston.	12, Great Swan Alley ...	G. Payne, J. J. Rawlings trading as Sarah Rawlings and Co.
34, do. ...	Frederick Lewindon.	14, Great Tower Street	Stewart and Wight, Ltd.
37, do. ...	Pasqualino Palumbo.	17/8, do.	Aërated Bread Co., Ltd.
43, do. ...	Howard Kowin.	24/25, do.	Express Dairy Co., Ltd.
2, Fishmongers' Alley	Mary Jones.	28, do.	Antonio and Michale Precha,
16, Fleet Street ...	George Rice Bolton.	47, do.	Joseph Mariani.
23, do. ...	J. Lyons and Co., Ltd.	58, do.	Joseph James Medcalf.
61, do. ...	J. Lyons and Co., Ltd.	74, do.	J. Lyons and Co., Ltd.
62, do. ...	Matteo Mansi.	78, do.	Callard, Stewart and Watt, Ltd.
109, do. ...	Lockharts, Ltd.	96, do.	London Clerks' Café Co., Ltd.
116, do. ...	Aërated Bread Co., Ltd.	100, do.	Francisco Arpino.
131, do. ...	Express Dairy Co., Ltd.	1, Gresham Street ...	Aërated Bread Co., Ltd.
145, do. ...	Fuller's, Ltd.	1, do. ...	Friern Manor Dairy Farm, Ltd.
167, do. ...	Cabins, Ltd.	3, do. ...	Ye Mecca, Ltd.
173, do. ...	J. Lyons and Co., Ltd.	5, do. ...	Celeste Alzapiedi and Ernesto Fugaccia.
175, do. ...	Luigi Lieto.	11, do. ...	Pietro Barbieri
182/3, do. ...	"J.P." Restaurants, Ltd.	46, do. ...	J. Lyons and Co., Ltd.
190, do. ...	Aërated Bread Co., Ltd.	54, do. ...	Ye Mecca, Ltd.
30, Fleet Lane ...	Salvatore Ferrigno.	69, do. ...	Aërated Bread Co., Ltd.
31, do. ...	Albert Edwin Derry.	87, do. ...	Express Dairy Co., Ltd.
17, Fore Street ...	J. Lyons and Co., Ltd.	93A, do. ...	Raffaele Ferrara.
28, do. ...	William R. Child.	12, Grocers' Hall Court	Timothy Jones.
54, do. ...	J. Lyons and Co., Ltd.	7½, Gunpowder Alley	William James Argent.
56/7, do. ...	Aërated Bread Co., Ltd.	12, Harp Lane ...	Frederick C. H. Coles.
66, do. ...	Arthur Reginald Staines.	20/22, Holborn ...	Williamsons, Ltd.
70, do. ...	Lotti Sesia.	31, do. ...	Aërated Bread Co., Ltd.
84, do. ...	Lockharts, Ltd.	114/5, do. ...	Aërated Bread Co., Ltd.
90, do. ...	Rafaele Ferrara.	144, do. ...	Luigi Rattazzi.
108, do. ...	Elizabeth Charlotte Collett.	145, do. ...	Slaters, Ltd.
112, do. ...	Elizabeth and Rosa Osborn.	1/2, Holborn Viaduct ...	Aërated Bread Co. Ltd.
2, Foster Lane ...	Giovanni Diviani.	14, do. ...	J. Lyons and Co., Ltd.
5, do. ...	John Roberts.	65, do. ...	Express Dairy Co., Ltd.
41, do. ...	Arthur H. Hill, Margaret Hale, and Alice George, trading as Free and Co.	1, Honey Lane Market	Dominico Cavalli.
Freeman's Court, Cheap- side.	Arthur H. Hill, Margaret Hale, and Alice George, trading as Free and Co.	4, do. ...	J. Lyons and Co., Ltd.
2, Friday Street ...	Virgilio Zaccarini.	9, do. ...	John Gow.
31, do. ...	Claire Palmyra Jenman.	10, do. ...	John Thomas Gow.
65, do. ...	Aërated Bread Co., Ltd.	1, Hosier Lane ...	David Morgan.
1, Furnival Street ...	Henry Charles Leaver.	1, Houndsditch ...	Giovanni Devincenzi.
4, do. ...	Food Reform Co., Ltd.	52, do. ...	Ulisce Pollicci.
11, Garlick Hill ...	Walter Robert William Marchant.		
12, George Yard ...	Callard, Stewart and Watt, Ltd.		

Premises.	Person Registered.	Premises.	Person Registered.
90, Houndsditch ...	Luigi Cattini and Bartolomeo Beschizza.	140, Leadenhall Street... 8/9, Lime Street ...	Aërated Bread Co., Ltd. John Stevenson, Andrew Ritchie, and Donald McDonald, trading as J. and B. Stevenson.
105, do. ...	Bartolomeo Cattini.	15a, do. ...	Express Dairy Co., Ltd.
118, do. ...	Thomas Benjamin.	23, do. ...	J. Lyons and Co., Ltd.
1, Huggin Court ...	Emma Watts.	24, do. ...	Ye Mecca, Ltd.
10, Huggin Lane ...	Daniel Jones.	26, do. ...	Aërated Bread Co., Ltd.
19, Hutchison Avenue	Joseph Falk.	29, do. ...	Lozzaro Cattini.
13, Hutchison Street ...	Isidore Spivakoff.	34, do. ...	Agnes Powell.
15, do. ...	Jacob and Leah Miller.	49, do. ...	Ellen Gwendoline Vaughan.
36, Hutton Street ..	Alfred Ernest Reeve.	53, do. ...	Ulderico Maino.
3, Imperial Arcade ...	Friern Manor Dairy Farm, Ltd.	4, Little Britain ...	Frederick Pearce.
10, Ironmonger Lane...	Henry Francis Hardy.	17, do. ...	Sarah Page.
20, do. ...	Bertha Annie Gander.	19, do. ...	Express Dairy Co., Ltd.
27, do. ...	The Café Syndicate, Ltd.	25, do. ...	Mary Ann Davies.
28/9, do. ...	"J.P." Restaurants, Ltd.	33, do. ...	Welford and Sons, Ltd.
14, Ivy Lane ...	Joe Harris.	54, do. ...	Guiseppe Fazzani.
18, do. ...	Andrea Proto	2, Little College Street	Alice Maud Turner.
22, do.	West London Dairy Co., Ltd.	6, Little Trinity Lane	Agnes Howat.
39, Jewin Crescent ...	Giovanni Caccioli.	18, do. ...	Ettora Ferrari.
6, Jewin Street ...	E. Seton Karr.	37, Liverpool Street ...	David Lowrie.
9, do. ...	J. Lyons and Co., Ltd.	Liverpool Street Station.	H. C. T. Amendt.
24, do. ...	Margaret A. S. McFarlane, trading as Geo. McFarlane and Co.	4, Lombard Court ...	Ye Mecca, Ltd.
28, do. ...	Express Dairy Co., Ltd.	5, Lombard Street ...	Aërated Bread Co., Ltd.
31, do. ...	"J.P." Restaurants, Ltd.	74, do. ...	Aërated Bread Co., Ltd.
45, do. ...	William Roff.	319, London Central Markets.	Lockharts, Ltd.
8, Jewry Street ...	John Jones.	332, do. ...	Cream Dairy Co., Ltd.
32, do. ...	Angelo Beschizza.	3, London House Yard.	Giorgio Beschizza and Luigi Schia.
12, John Street ...	William Alston.	1a, London Street ...	Friern Manor Dairy Farm, Ltd.
32, King Street ...	Aërated Bread Co., Ltd.	4, do. ...	Croci Carlo.
8, King William Street	Slaters, Ltd.	8, do. ...	Ideal Restaurants, Ltd.
32, do. ...	Lockharts, Ltd.	19, do. ...	Aërated Bread Co., Ltd.
34, do. ...	J. Lyons and Co., Ltd.	34, London Wall ...	Andrew Glendinning.
37, do. ...	Francisco Arpino and Alfonso Mariani.	46/7, do. ...	J. Lyons and Co., Ltd.
41, do. ...	Romulatto Mansi.	49, do. ...	Ye Mecca, Ltd.
44, do. ...	Aërated Bread Co., Ltd.	55, do. ...	"J.P." Restaurants, Ltd.
50, do. ...	J. Lyons and Co., Ltd.	58a, do. ...	Express Dairy Co., Ltd.
51, do. ...	Mitchell's, Ltd.	151, do. (Salisbury House).	Aërated Bread Co., Ltd.
61, do. ...	J. Lyons and Co., Ltd.	52/53, Long Lane ...	Joseph Young.
64, do. ...	Aërated Bread Co., Ltd.	55, do. ...	Charles Sach.
25a, Kinghorn Street	William Phelan.	77, do. ...	Francis Arthur Lester.
King's Arms Yard	Ye Mecca, Ltd.	80, do. ...	Luigi Migliorina.
44, Knighttrider Street	Antonio Donatantonio.	85, do. ...	E. Rees and Son, Ltd.
48, do. ...	William Adamson.	56, Lower Thames St.	Herbert Child.
1, Laurence Lane ...	Angelo Beschizza.	75, do. ...	Thomas Deacon.
38, Leadenhall Market	Arthur H. Hill, Margaret Hale, and Alice George, trading as Free and Co.	129½, do. ...	Franks Bottilieri.
40, do. ...	Lewis Thomas Owen and Percy John Randall.	5, Ludgate Circus ...	J. Lyons and Co., Ltd.
50, do. ...	Henry George Saunders.	1, Ludgate Circus Buildings.	Slaters, Ltd.
54/5/6, do. ...	Lewis Dowling.	10/12, Ludgate Hill ...	J. Lyons and Co., Ltd.
4, Leadenhall Street...	Aërated Bread Co., Ltd.	16, do. ...	Callard, Stewart and Watt, Ltd.
6, do. ...	J. Lyons and Co., Ltd.	21, do. ...	J. Lyons and Co., Ltd.
24, do. ...	J. Lyons and Co., Ltd.	29, do. ...	Aërated Bread Co., Ltd.
27, do. ...	Slaters, Ltd.	38, do. ...	Aërated Bread Co., Ltd.
64, do. ...	J. Lyons and Co., Ltd.	54, do. ...	Express Dairy Co., Ltd.
67, do. ...	William Henry Neal.	56, do. ...	Ye Mecca, Ltd.
92, do. ...	Celestino Bertolini.	74, do. ...	J. Lyons and Co., Ltd.
96/98, do. ...	Aërated Bread Co., Ltd.	Ludgate Hill Station	J. Lyons and Co., Ltd.
101, do. ...	Ye Mecca, Ltd.	6, Maidenhead Court...	Matteo Mansi.
106, do. ...	Aërated Bread Co., Ltd.		

Premises.	Person Registered.	Premises.	Person Registered.
14, Maidenhead Court...	William John Palmer.	24, Newgate Street ...	Aërated Bread Co., Ltd.
20, do. ...	David Haydon.	33, do. ...	"J.P." Restaurants, Ltd.
9/10, Mark Lane ...	Leonard Ronaldson Church.	87, do. ...	J. Lyons and Co., Ltd.
48, do. ...	Liverpool China and Indian Tea Co., Ltd.	97, do. ...	Andrew Maroni.
69/70, do. ...	Ye Mecca, Ltd.	122/3, do. ...	Peter Diviani.
73, do. ...	Carlo Croci.	44, Noble Street ...	Antonio Ostacchini.
78, do. ...	Express Dairy Co., Ltd.	19/20, Old Bailey ...	Lockharts, Ltd.
80/81, do. ...	J. Lyons and Co., Ltd.	33, Old Broad Street ...	Aërated Bread Co., Ltd.
Mark Lane Station	J. Lyons and Co., Ltd.	40, do. ...	Aërated Bread Co., Ltd.
3, Mason's Avenue ...	Antonio Ostacchini.	2, Old Change ...	Andrea Marroni.
25, Middlesex Street (Middlesex House)	Mitchell's Dining Rooms, Ltd.	13a, do. ...	"J.P." Restaurants, Ltd.
36a, Milton Street ...	Hugh David Pugh.	6, Old Jewry ...	The Cabins, Ltd.
71, do. ...	Charles Gentry.	33, do. ...	Katherine Mellis.
76, do. ...	Andrew Annanson.	2, Pancras Lane ...	Frederick Walter Hicks.
1, Mincing Lane ...	Luigi Cattini and Giorgio Beschizza.	3, do. ...	Frederick Walter Hicks.
16, do. ...	Luigi Cattini and Giorgio Beschizza.	3, Paper Street ...	Albert Intrepidi.
17, do. ...	London Café Co., Ltd.	5/6, Paternoster Row	"J.P." Restaurants, Ltd.
30, do. ...	Slaters, Ltd.	12, do. ...	Giovanni Strinati.
2, Minories ...	"J.P." Restaurants, Ltd.	60, do. ...	J. Lyons and Co., Ltd.
99, do. ...	Walter Bugden.	5, Paul's Alley ...	Carlo Demaria.
136, do. ...	Elizabeth King.	8, Philpot Lane ...	Alberti Intrepidi.
155, do. ...	William McGavin Reid.	14, do. ...	Robert Arthur Buddicom, trading as Holland's Café.
9, Mitre Street ...	Henry William Richards.	22, do. ...	Alfred Walter Bennett.
10, Monkwell Street ...	Olimpio Pietroni.	21, Pilgrim Street ...	Galvani Andrea.
40½, do. ...	Sarah Newton.	32, do. ...	Priori Oreste.
"Monument Dairy," Monument Street.	Frederick Lewindon.	34, do. ...	Aërated Bread Co., Ltd.
Monument Station...	The Ideal Restaurants, Ltd.	30, Poppin's Court ...	Guiseppe Indaco.
43, Moor Lane ...	Bartolomeo Carreta.	31, Poultry ...	J. Lyons and Co., Ltd.
9, Moorfields ...	Romuloto Mansi.	35, do. ...	Andrew Glendinning.
28, do. ...	Express Dairy Co., Ltd.	1, Queenhithe ...	Albert Ashlee.
38, do. ...	Conti Celestino.	10, Queen Street ...	J. Lyons and Co., Ltd.
50, do. ...	James Charles Blackgrove.	40, do. ...	Egidio Fabrizi.
19, Moorgate Street ...	Alexander Hampton.	70, do. ...	Fredk. Chas. Weidig, trading as Weedon Bros.
28, do. ...	Aërated Bread Co., Ltd.	71, do. ...	Lockharts, Ltd.
37, do. ...	J. Lyons and Co., Ltd.	81, do. ...	Luigi Necchi.
40, do. ...	Cabins (1901), Ltd.	85, do. ...	Ellen Claire Aveline.
Moorgate Station Chambers.	Express Dairy Co., Ltd.	7, Queen Victoria Street	Express Dairy Co., Ltd.
2, Moorgate Station Buildings.	Fullers, Ltd.	17, do. ...	J. Lyons and Co., Ltd.
7, do. ...	Aërated Bread Co., Ltd.	35a, do. ...	Raffaele Ferraro.
1, New Basinghall St.	"J.P." Restaurants, Ltd.	105, do. ...	"J.P." Restaurants, Ltd.
4, New Bridge Street	"J.P." Restaurants, Ltd.	115, do. ...	Lockharts, Ltd.
13, do. ...	J. Lyons and Co., Ltd.	130, do. ...	Aërated Bread Co., Ltd.
40, do. ...	Aërated Bread Co., Ltd.	143, do. ...	J. Lyons and Co., Ltd.
44, do. ...	David Stewart.	148b, do. ...	Antonio Infanto.
3, New Broad Street...	J. Lyons and Co., Ltd.	175, do. ...	Seton and Co., Ltd.
4b, do. ...	The Capital & Counties Café Co., Ltd.	177, do. ...	Aërated Bread Co., Ltd.
13, do. ...	Richard Charles, trading as R. Charles and Co.	9/10, Redcross Street	J. Lyons and Co., Ltd.
13a, do. ...	Lockharts, Ltd.	23, Rood Lane ...	Rose Malyon.
16, do. ...	Aërated Bread Co., Ltd.	2/4, Ropemaker Street...	John Pearce.
28, do. ...	W. Hill and Son, Ltd.	12, Rose Street ...	Biagio Nappi.
64, do. ...	Aërated Bread Co., Ltd.	19, St. Bride Street ...	Express Dairy Co., Ltd.
9, Newbury Street ...	George Smith.	35, do. ...	Stewart and Wight,
1, New London Street	James Barrett.	3/4, St. Martin's Court...	"J.P." Restaurants, Ltd.
2, Newgate Street ...	J. Lyons and Co., Ltd.	21, St. Mary Axe ...	Ye Mecca, Ltd.
13, do. ...	Stewart and Wight, Ltd.	33/5, do. ...	Slaters, Ltd.
16, do. ...	Ernest Salusbury Price.	34, do. ...	Express Dairy Co., Ltd.
18, do. ...	Slaters, Ltd.	45, do. ...	Aërated Bread Co., Ltd.
		49, do. ...	J. Lyons and Co., Ltd.
		65/66, do. ...	Overhills, Ltd.
		18, St. Paul's Churchyard	"J.P." Restaurants, Ltd.
		53, do. ...	Nicholson's, Ltd.
		61, do. ...	J. Lyons and Co., Ltd.
		68a, do. ...	Fullers, Ltd.
		75, do. ...	Callard, Stewart and Watt, Ltd.

Premises.	Person Registered.	Premises.	Person Registered.
80, St. Paul's Churchyard	J. Lyons and Co., Ltd.	186, Upper Thames Street	Robert Waterson.
82, do. ...	Giorgio Beschizza.	194, do. ...	Robert Cooper.
St. Paul's Station ...	J. Lyons and Co., Ltd.	223, do. ...	Price's Restaurants, Ltd.
30/1, St. Swithin's Lane	Aërated Bread Co., Ltd.	224, do. ...	Robert Cooper.
135a, Salisbury Court ...	Matteo Mansi.	1, Walbrook ...	Fullers Limited.
19, Sherborne Lane ...	Edward William Davies.	4, do. ...	J. Lyons and Co., Ltd.
3, Ship's Tavern Passage	Friern Manor Dairy Farm, Ltd.	10/11, do. ...	Antonio and Michele Precha.
3b, Shoe Lane ...	Gerado Indaco.	14, do. ...	Ye Mecca, Ltd.
35/6, do. ...	"J.P." Restaurants, Ltd.	19/20, do. ...	J. Lyons and Co., Ltd.
96, do. ...	Edwin John Ridout.	34, do. ...	Aërated Bread Co., Ltd.
98, do. ...	Mrs. Laura Jones.	Warnford Court ...	Aërated Bread Co., Ltd.
109, do. ...	Charles Baker.	1A, Water Lane (Gt. Tower St.)	Egisto Landi.
110, do. ...	Priori Oreste.	2, Water Lane) Blackfriars).	Price's Restaurants, Ltd.
112, do. ...	Henry Wallwork.	4, Water Lane (Blackfriars).	Samuel Thomas Withers and William Henry Medway.
113, do. ...	Simeon Northam.	5, Water Lane (Blackfriars).	Priori Oreste.
18, Silver Street ...	Nunzio Allocca	7, Water Lane (Blackfriars).	"J.P." Restaurants, Ltd.
25, do. ...	Virgilio Zaccarini.	"Aldermary House," Watling Street.	Ye Mecca, Ltd.
27, do. ...	David Haydon.	73, Watling Street ...	Lockharts, Ltd.
1, Star Alley, Fen-church Street.	William Walter Knight.	57a, West Smithfield ...	J. Lyons and Co., Ltd.
18, South Place ...	Romualatto Mansi.	25, White Street ...	Mary Ann Keeble.
6, Stoney Lane ...	Pasquale Manno.	31, Whitecross Street...	Robert Douglas.
23, do. ...	Henry Jones.	5, Whitefriars Street	Vincenzo Mansi.
29, do. ...	Alfred Garcia.	7, do. ...	Vincenzo Mansi.
1, Telegraph Street...	Giovanni Rolle.	26, do. ...	Alfred Loveys.
17/8, do. ...	J. Lyons and Co., Ltd.	27, do. ...	George Robert Smith.
— do. ...	Ye Mecca, Ltd.	36/38, do. ...	Lockharts, Ltd.
1, Three Tuns Passage, Ivy Lane.	Annie McKay.	1, Whittington Avenue	Ye Mecca, Ltd.
27, Throgmorton Street	J. Lyons and Co., Ltd.	7, do. ...	Callard, Stewart and Watt, Ltd.
29, do. ...	Aërated Bread Co., Ltd.	10, do. ...	Antonio Cattini.
Trump Street (St. Laurence House)	The Siesta Café, Ltd.	12, Widegate Street ...	Edward Albert Withrington.
6, Tudor Street ...	John Pantalone.	21, do. ...	Alice Issacs.
10, do. ...	Frank Gowlett.	25, Wood Street ...	J. Lyons and Co., Ltd.
14, do. ...	Walter Thomas Beames.	42/43, do. ...	Cabins (1901), Ltd.
32, do. ...	Fanny Payne.	78, do. ...	Nunzio Allocca.
3, Union Court, Old Broad Street.	Express Dairy Co., Ltd.	80, do. ...	Ye Mecca, Ltd.
do. ...	Ye Mecca, Ltd.	130, do. ...	Express Dairy Co., Ltd.
8, Union Row, Minories.	Lockharts, Ltd.	Wool Exchange ...	Callard, Stewart and Watt, Ltd.
5, Upper Thames Street	Melchiorre Arpino.	8, Wormwood Street	William Henry Neal.
57, do. ...	George Chitty.	19, do. ...	Guilio Barbieri.
99, do. ...	The City Catering Co., Ltd.	22, do. ...	Aërated Bread Co., Ltd.
104, do. ...	John Morgan Jones and William Jones, trading as Jones Brothers.	36, do. ...	Emilio Fuggacia.
105, do. ...	Ercole Farnese.	38, do. ...	"J.P." Restaurants, Ltd.
138, do. ...	Stewart and Wight, Ltd.	2, Wrestler's Court ...	David Thomas.
172, do. ...	George Chitty.		

LONDON :

CHARLES SKIPPER & EAST, PRINTERS.
49, GREAT TOWER STREET, E.C.