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THE SIXTY-THIRD

ANNUAL REPORT

UPON THE

HEALTH OF LEICESTER,

For the Year 1911,

BY

C. KILLICK MILLARD, M.D., D.Sc.,

*Medical Officer of Health ; Medical Superintendent of the Borough
Isolation Hospital ; Public Analyst for the Borough.*

INCLUDING


REPORT on the INFANTS' MILK DEPOT.
REPORT on the ISOLATION HOSPITAL.
REPORT of the PUBLIC ANALYST.
REPORT of the CHIEF INSPECTOR.
REPORT of the FOOD INSPECTORS.
REPORT of the HEALTH VISITORS.
REPORT of the REFUSE DISPOSAL DEPARTMENT.
REPORT of the STREET CLEANSING DEPARTMENT.

LEICESTER :
G. I. M. ALMER, PRINTER, ALBION STREET.

By the order of the Local Government Board, dated March 23, 1891, Article 18, Section 14, it is prescribed that the Medical Officer of Health shall "prepare an Annual Report, to be
"made to the end of December in each year, comprising
"a summary of the action taken during the year for pre-
"venting the spread of disease, and an account of the
"sanitary state of his district generally at the end of
"the year. The report shall also contain an account of the
"inquiries which he has made as to conditions injurious to
"health existing in his district, and of the proceedings in
"which he has taken part or advised under the Public
"Health Act, 1875, so far as such proceedings relate to
"those conditions; and also on account of the supervision
"exercised by him, or on his advice, for sanitary purposes
"over places and houses that the Sanitary Authorities have
"power to regulate, with the nature and results of any
"proceedings which may have been so required and taken
"in respect of the same during the year. The report shall
"also record the action taken by him, or on his advice,
"during the year, in regard to offensive trades, to dairies,
"cowsheds, and milkshops, and factories and workshops.
"The report shall also contain tabular statements (on forms
"to be supplied by the Local Government Board, or to the
"like effect) of the sickness and mortality within the district,
"classified according to diseases, ages, and localities."

By the instructions of the Local Government Board, the Medical Officer of Health must send a copy of the Annual Report to the Local Government Board, and one to the County Council.

By the Factory and Workshop Act of 1901, the Medical Officer is required to specifically report on the administration of that Act in workshops and workplaces in his district, and to send a copy of the report to the Secretary of State.



BOROUGH OF LEICESTER.

SANITARY COMMITTEE.

Chairman :

ALDERMAN WINDLEY, J.P.

Vice-Chairman :

ALDERMAN LAKIN.

ALD. BANTON, J.P.	MR. HUDSON
MR. BRYAN	„ PERKINS
ALD. CHAPLIN, J.P.	„ J. W. SMITH
MR. CROSSLEY, J.P.	„ C. SQUIRE
„ FOLWELL	„ SUTTON
„ HAND	„ WALKER
„ HEATH	„ WILFORD
„ HILL	„ YEARBY
„ HOLMES	

The Committee meet every Friday in the Committee Room, Town Hall, at 3-30 p.m.

The Committee is divided into the following Sub-Committees :—

Isolation Hospital and Zymotic Diseases (Chairman, Ald. Lakin).
Cleansing and Refuse Disposal (Chairman, Mr. Walker).
Sanitary Inspection and Accounts (Chairman, Mr. Yearby).
Dispensary and Milk Depot.

SANITARY STAFF.

Chief Sanitary Inspector :

FRANCIS BRALEY,¹

Food Inspectors :

M. TYLDESLEY,¹ F. SOWERBUTTS,^{1, 2}

District Inspectors :

T. BENT,¹ H. STOKES,¹ J. H. GRAY,¹
A. G. STANYON, T. HINES.

Health Visitors :

MRS. HARTSHORN, MISS. J. WHYTE,^{1, 3}
MISS J. S. WHYTE,^{3, 4}

Clerks :

T. P. POYNOR, C. H. LANGRAN, G. B. NEALE.

Disinfecting Men :

G. GLOVER, C. GREGORY.

Matron of Isolation Hospital :

MISS E DAVIES,⁴

Manageress of the Infants' Milk Depot :

MRS. STANION,¹

*Medical Officer to Tuberculosis Dispensary and Assistant
Medical Officer of Health :*

J. BELL FERGUSON, M.B., D.P.H.

*Resident Medical Officer to Isolation Hospital and Assistant
Medical Officer of Health :*

F. CUTHBERT WALKER, M.D., D.P.H.

Medical Officer of Health and Public Analyst :

C. KILICK MILLARD, M.D., D.Sc.

1. Holds Certificate of the Royal Sanitary Institute.

2. Holds Special Food Certificate, Inspectors' Examination Board.

3. Holds Certificate of Central Midwives' Board.

4. Holds Certificate as fully Trained Nurse.

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SUMMARY OF STATISTICS

FOR THE YEAR 1911.

BOROUGH OF LEICESTER.

Population (estimated) at Mid-year 1911	227,634
Population at Census, 1911, 227,242.					
Marriages	...	...	...	...	1891
Marriage-rate	...	...	...	...	16.61
Births	...	...	...	...	5,222
Birth-rate	...	...	...	...	22.94
Deaths (corrected)	...	...	...	...	3,051
Death-rate	...	...	...	...	13.40
Infant Mortality (per 1,000 Births)	...	...	...	...	130.0
Zymotic-rate	...	...	...	...	1.41
Diarrhœa-rate	...	...	...	...	.73
Respiratory-rate	...	...	...	...	1.76
Cancer-rate	...	...	...	...	1.03
Tuberculosis-rate	...	...	...	...	1.55
Phthisis-rate	...	...	...	...	1.26

Area of Borough (in acres)	...	...	...	8,586
Number of persons per acre at Census, 1911	...	...	...	26.4
Number of persons per Tenement at Census, 1911	...	...	...	4.41
Number of Inhabited Tenements, Census, 1911	...	...	...	51,481
Number of Empty Houses, July, 1911	...	...	...	1,751
Rateable value (November 1st, 1911)	...	...	...	£1,104,111
Rates in the £, 1911-12:			s. d.	
Poor Rate	...	...	...	1 10
General District Rate	...	...	...	5 9½

Borough extended in year 1891.

77 GREAT TOWNS.

(For Comparison.)

					Average.
Birth-rate	25.5
Death-rate	15.5
Infant Mortality	141



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TOWN HALL, LEICESTER.

April, 1912.

To the Chairman and Members of the Sanitary Committee.

Gentlemen,

I have the honour to present to you my Annual Report on the Health of Leicester for the year 1911. The retrospect is again a favourable one, and although the death-rate for the year, viz.: 1.340, was slightly higher than in 1910, when it was the lowest on record, it is actually lower than in any year prior to 1910, if allowance be made for the error in the estimation of the population revealed by the last Census.

In order that a true comparison with previous years may be made, the population of the Borough has been re-estimated for the nine years, 1902-1910, on the basis of the last Census, and the various rates based on population have been re-calculated.

In comparison with other great towns, Leicester continues to hold a very enviable position. Out of the 37 great provincial boroughs with populations of over 100,000 only one—viz., Coventry—had a lower death-rate in 1911 than Leicester. This is excluding boroughs in the Metropolitan Outer Ring, such as Croydon, which are really suburbs of the Metropolis.

The number of births in Leicester continues to fall, and the birth-rate was again the lowest on record.

Although the past summer was exceptionally hot and dry, the infantile mortality was not increased so much as might have been expected; and though the deaths from epidemic, diarrhœa were more numerous than in the last few years, they did not approach the high figures often reached in the past.

The number of cases of typhoid fever was a little higher than usual, owing to an outbreak of this disease which occurred at the end of the year, and which was traced to the consumption of mussels.

Diphtheria, unfortunately, was also more prevalent, and was of a severe type.

During the year a Municipal Tuberculosis Dispensary was established in Leicester and is doing excellent work.

The Municipal Infants' Milk Depot continues to prosper. The number of infants on the books during the year was the highest hitherto recorded, indicating its sustained popularity, whilst the receipts during the financial year ending March, 1912, more than balanced the payments; so that the Milk Depot may now be regarded as self-supporting.

Owing to the impetus given by the Housing, Town Planning, &c., Act, increased attention has been given to the condition of houses in the Borough, and the number of houses condemned as unfit for habitation was considerably greater than in previous years. The standard of repairs and improvements now required to be carried out in houses which have been condemned will, I believe, have an excellent effect.

I have pleasure in acknowledging the assistance and loyal co-operation of the Assistant Medical Officers of Health, Chief Inspector Braley, the Matron at the Hospital, and the various other members of the Sanitary and Hospital Staffs.

I have also to thank the members of the Sanitary Committee for the consideration they have always extended to me, and I wish specially to mention the Chairman, Ald. T. Windley, whose unrivalled experience in the work of the Sanitary Committee, of which he has been Chairman for nearly 36 years, places him in an unique position for directing and inspiring the work of the Health Department.

I am, Gentlemen,

Your obedient servant,

C. Killick Millard

Medical Officer of Health.

Medical Officer of Health's Report

FOR THE YEAR 1911.

PART I.

STATISTICAL.

SITUATION AND SOIL.

The County Borough of Leicester lies in Lat. 52 deg., 38 Min. North, and Long. 1 degree, 8 Min. West, in the North of the County of Leicestershire, on the banks of the River Soar, a tributary of the Trent. The subsoil is for the most part upper keuper red and grey marls and boulder clay, except in the Belgrave and Western districts where considerable areas of gravel and sand are found.

AREA AND ALTITUDE.

The Borough has an area of 8,586 acres, extending about four miles from East to West, and about four miles from North to South. The area built upon extends about three miles each way. The altitude varies from about 165 feet at Belgrave to 305 feet at Stoneygate above mean sea level at Liverpool.

POPULATION.

During the year under review the Census (1911) has been taken, and Leicester's true position as regards population has been revealed.

As was anticipated, the population of the Borough was found to have been over-estimated. The Census, taken at the end of March, showed the population to be 227,242, and this estimated at the middle of the year became 227,634 against the old estimate of 252,530, a deficiency of 25,288.

This difference in population, of course, makes a difference in the death-rate and in the other rates based on population. It has been necessary, therefore, to revise the population figures for the years in the past intercensal period, and to recalculate the principal statistics for those years. The revised figures for the death-rate are given below (p. 17) and will also be found with the other revised rates in Tables 9 and 14.

NATURAL INCREASE IN POPULATION.

The natural increase in population, or excess of births over deaths, in 1911, was 2171.

GROWTH OF LEICESTER IN PAST DECADES.

The following figures, showing the population of the Borough at each Census during the past century, indicate the increase which has taken place. It will be seen that during the past intercensal period the rate of increase has been much lower than in any previous period.

Year.	Population.	Increase.	Percentage Increase.
1801 ...	17,005		
1811 ...	23,146 ...	6,141 ...	36·1
1821 ...	31,036 ...	7,890 ..	34·1
1831 ...	38,904 ...	7,868 ...	25·3

BOUNDARIES EXTENDED IN 1836.

1841 ...	50,806 ...	11,902 ...	30·6
1851 ...	60,584 ...	9,778 ...	19·2
1861 ...	68,052 ...	7,468 ...	12·3
1871 ...	95,220 ...	27,168 ...	39·9
1881 ...	122,376 ...	27,156 ...	28·5

BOUNDARIES EXTENDED IN 1891.

1891 ...	174,624 ...	52,248 ...	42·7
1901 ...	211,579 ...	36,955 ...	21·2
1911*	227,242 ...	15,663 ...	7·4

* From Preliminary Census Report.

INHABITED TENEMENTS.

The number of inhabited tenements at the Census, 1911, was 51,481, and the number of persons per tenement was 4·41.

The number of empty houses on July 1st, 1911, was 1,751—a decrease on the previous year of 513. Of these empties 66 per cent. were cottages, and a large proportion of these are old and of an inferior class.

RATEABLE VALUE AND RATES.

The *Rateable Value* of the Parish on November 1st, 1911, was :—

	£	s.	d.
Buildings	1,091,332	4	9
Agricultural Land	12,779	1	0
	<hr/>		
	£1,104,111	5	9

The *Poor Rates* for the year, 1911-12, were 1/10 in the £.

The *General District Rates* for the year, 1911-12, were :—

Portion of Borough liable to School expenses, 5/9½ in the £.

Braunstone portion of Saint Mary (not liable to Elementary Education expenses), 4/4 in the £.

MARRIAGES.

The number of marriages registered in the Borough in 1911 was 1891, equal to a *Marriage-rate* of 16·61.

The number of marriages was 45 less than in the previous year.

MARRIAGE-RATE IN LEICESTER.

(Revised Figures.)

1905	...	...	...	17·26
1906	...	...	...	15·16
1907	...	...	...	16·67
1908	...	...	...	16·03
1909	...	...	...	15·75
1910	...	...	...	17·12
1911	...	...	...	16·61

By the courtesy of the Superintendent Registrar (Alderman T. Smith, J.P.) I am able to give the following figures:—

MARRIAGES IN LEICESTER IN 1911.

		At Established Churches.	At Nonconformist Churches and at Registry Office.	Total.
First Quarter	...	129	121	250
Second	"	395	220	615
Third	"	316	203	519
Fourth	"	297	210	507
		<hr/> 1137	<hr/> 754	<hr/> 1891

BIRTHS.

The number of births registered in Leicester during 1911 was 5222, of which 2667 were males, and 2555 were females. This number is 158 less than in the previous year, and is the lowest figure reached since the actual number of births began to decrease nine years ago. The maximum was reached in 1902, when the number of births was 6313. Since then the number of births has fallen continuously, the figures for 1911 being 1091 less than it was nine years before, a decrease of 17·2 per cent.

The decrease is all the more striking when it is remembered that during the same period the population has increased by 13,000.

The continued shortage of births in Leicester is having its inevitable effect in reducing the number of children at school age, and the Education Committee are beginning to be seriously affected by this, as the grant received from the Government is based upon the number of scholars attending. But although the attendance is getting smaller, the same number of schools has to be maintained; indeed, owing to the shifting of the population into the outskirts, some new schools have been necessary.

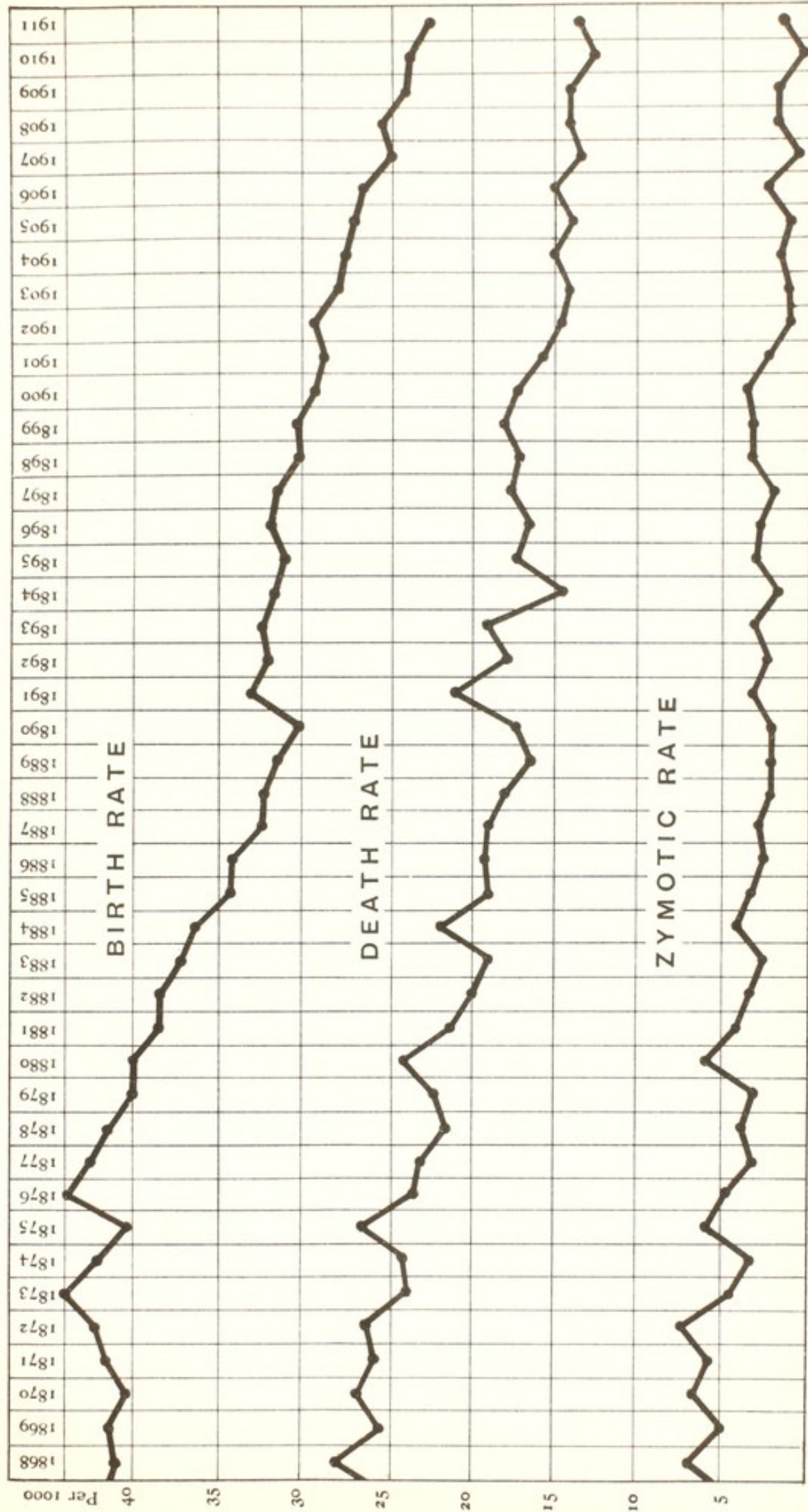
The *Birth-rate* was **22·94** per 1000 of the estimated population, compared with 23·79 for the previous year (recalculated on the revised population). The rate was again the lowest on record. The birth-rate has been falling for so many years in Leicester that this statement may seem monotonous.

The birth-rate in the 77 Great Towns in 1911 was 25·5, so that Leicester continues to be below the average.

DIAGRAM 1.

SHOWING DECREASE IN BIRTH-RATE, DEATH-RATE, AND ZYMOTIC-RATE IN LEICESTER.

1868 - 1911.



The figures from which this Chart is drawn will be found on Table 9.

The question of the causes of the decreasing birth-rate has been considered in previous Annual Reports. There is no room for doubt that the chief factor is the volitional reduction in the size of families. Large families—*i.e.*, families of six or eight and upwards—are becoming quite exceptional in all ranks of society, except the very lowest. The slum dweller still reproduces at a rate far in excess of any other class. This lavish creation of life, however, is largely neutralised by the excessive mortality amongst infants and young children which still exists amongst this class. Thus, the average birth-rate last year in Newton, St. Margaret's, Wyggeston and Latimer Wards was 28·6, and the average infant mortality was 184. As a contrast, the average birth-rate in Westcotes, Spinney Hill and Knighton was only 19·2, whilst the infant mortality was only 63!

If we exclude the births of those infants who fail to survive the first year of life, the "surviving" birth-rates in the two contrasted districts become 23·4 and 18·0 respectively, and if we were to deduct those who died during childhood, the difference would be still further diminished. This consideration goes a long way towards allaying the fear that the falling birth-rate of the superior classes, and the comparatively high birth-rate of the very lowest class, threatens the quality of the race.

In discussing the question of the falling birth-rate it should always be remembered that the phenomenon is not peculiar to this country or even to Europe. It is being manifested, in varying degree, in almost every civilized country in all parts of the globe, and may in fact be regarded as a world-wide movement.

Illegitimate Births.—These numbered 240, or 4·5 per cent. of the total births.

Still-births.—The number of still-births occurring can only be arrived at indirectly, the registration of still-births not being obligatory. The number of burials of still-born infants during the year at the Borough Cemeteries was as follows:—

Gilroes Cemetery	...	...	...	...	127
Welford Road Cemetery	...	...	...	...	68
Belgrave Cemetery	...	...	...	...	8
Total					203

This is equivalent to 3·8 per cent. of the live births.

DEATHS.

During the year 1911 a new scheme for securing greater accuracy in the death records of different localities has been introduced by the Registrar General whereby the deaths of persons occurring when absent from their usual place of residence are transferred to their proper districts. Hitherto, these deaths have been excluded from the returns of the district in which they occurred, and where, therefore, they were registered; but although individual medical officers of health have made praiseworthy efforts to transfer such deaths to their proper districts there has been no universal system for doing this, and no guarantee that they would be included in the returns of the district to which they were transferred, consequently it happened that most of these deaths were not included in any local returns. Now, however, this is changed; all these "transferable" deaths are collected by the Registrar General, and transmitted to the medical officer of health for the districts to which they appear to belong. They are then investigated by the medical officer of health, and if found to be correct he notifies the Registrar General of his willingness to include them in the local returns.

In Leicester a correction of this kind has always been made as regards institutional deaths, but the new system has involved the inclusion, for 1911, of 38 other deaths of residents of Leicester occurring in various parts of the country. In spite of this, however, the total number of corrected* deaths was only 3051 (males 1520, females 1531). This figure was 245 more than in the previous year, 1910, but the latter was an abnormally favourable year, with quite the lowest death-rate on record. Excluding 1910, the number of deaths for 1911 compares very favourably with previous years, and in only one other year—viz., in 1907—

* The corrections were as follows:—97 deaths of non-residents occurring at the Leicester Infirmary, 1 death of a non-resident occurring at the Home Hospital, 3 deaths occurring at the Nursing Home, Victoria Road, 1 death at the Home, Stoneygate, and 8 deaths at private houses have been deducted from the deaths registered in Leicester; whilst 28 deaths of patients at the Borough Isolation Hospital and 296 deaths at the Leicester Poor Law Infirmary have been added, these institutions being outside the Borough. 38 transferable deaths occurring away from Leicester have also been added.

has the figure been lower, in spite of the fact that the population is increasing. The record for the past year must, therefore, be regarded as very satisfactory, and especially so in view of the very low death-rates which have now prevailed in Leicester for several years.

Death-rate.—The death-rate, or proportion of deaths per 1000 population, was 13·40. As already mentioned, the fact that the population of the Borough was found by the Census to have been over-estimated to the extent of 24,896 has necessitated the death-rates for the past nine years, since the previous Census, being recalculated on the basis of the revised population. The old and revised figures are shown in the following Table:—

Year.	Old Estimate.		Revised Estimate.	
	Population as estimated from 1901 Census.	Death-rate as calculated upon old estimate of population.	Population as re-estimated in light of 1911 Census.	Death-rate as re-calculated upon new estimate of population.
1902	216,389	14·65	213,974	14·82
1903	220,272	13·91	215,461	14·22
1904	224,186	14·56	216,958	15·05
1905	228,132	13·42	218,464	14·01
1906	232,111	14·39	219,980	15·18
1907	236,124	12·65	221,508	13·48
1908	240,172	12·98	223,046	13·98
1909	244,255	12·90	224,595	14·03
1910	248,374	11·29	226,154	12·40

From these figures it will be seen that the death-rate during 1911, although 1·0 per 1000 higher than in 1910, was lower than in any previous year.

STATISTICS OF OTHER GREAT PROVINCIAL TOWNS.

One of the most satisfactory features as regards the health statistics of Leicester for a number of years past is the favourable

comparison which it has been possible to draw between Leicester and other great provincial towns. The statistics for the year 1911 prove to be no exception. The comparison is restricted, as in past years, to those towns with populations over 100,000, but boroughs in the London Outer Ring, *e.g.*, Croydon, East and West Ham, Tottenham, &c., several of which have death-rates lower than Leicester, are excluded as being really suburbs, and largely containing a selected population. Several additional provincial towns were found at the recent Census to have attained to a population of 100,000, viz., Coventry, Halifax, Middlesbrough, South Shields, Swansea, Stockport, and these are, therefore, included for the first time. On the other hand, Wolverhampton has been omitted, as the population has fallen below 100,000.

Death-rate.—There are now 37 great provincial towns with populations of over 100,000, and it is a remarkable and gratifying fact that in only one of these, viz., in Coventry (one of our new competitors), was the death-rate for 1911 lower than in Leicester.

The figures, as recorded by the Registrar General, for the great provincial towns with the lowest death-rates are as follows :

Town.		Population.		Death-rate, 1911.
Coventry	...	107,307	...	13.1
Leicester	...	227,632	...	13.3
Brighton	...	131,441	...	13.8
Cardiff	...	182,734	...	14.0
Norwich	...	121,677	...	14.1
Portsmouth	...	232,253	...	14.1
Derby ...	...	123,637	...	14.3

By way of contrast may be quoted a few towns at the other end of the scale :—

Town.				Death-rate, 1911.
Oldham	...		...	17.6
Sunderland	...	...	...	17.9
Burnley	...	...	...	18.0
Middlesbrough	...	...	...	19.4
Stoke-upon-Trent	...	...	...	19.9
Liverpool	...	...	...	20.0

Infant Mortality.—Another favourable comparison can be drawn as regards infant mortality, and this is specially satisfactory, because at one time, as is well known, Leicester bore a bad reputation in this respect. During 1911 only six out of the 37 towns had a lower infant mortality than Leicester.

Zymotic Diseases.—As regards scarlet fever, in only six of the 37 towns was the mortality from this lower than in Leicester. This indicates how very mild the prevailing type of scarlet fever in Leicester was. As regards diphtheria, only four towns; as regards typhoid, nine towns; and as regards diarrhoea and enteritis, eight towns had a lower mortality than Leicester.

In only seven of the 37 towns was the birth-rate lower than in Leicester.

It may be observed that these are the Registrar General's figures, and are based on the results of the recent Census.

The figures for all the great provincial towns will be found in Table 7.

INFANT MORTALITY.

The number of deaths of infants under one year of age was 679 (males 406, females 273). This represents an *Infant Mortality*, per 1,000 births, of 130.0.

Although this is a slightly higher figure than in the three years immediately preceding, it is much below the average of earlier years, as shown below, and in view of the fact that the summer of 1911 was an exceptionally hot one, and, therefore, conducive to infant mortality, the result must be looked upon as very satisfactory. Certainly, in no previous hot summer has so low an infant mortality been reached.

It is not unreasonable to believe that the efforts which have been made in recent years to combat infant mortality—i.e., the visitation of births, the establishment of the Infants' Milk Depôt, abolition of pail closets, improved scavenging, &c.—are bearing fruit.

INFANT MORTALITY IN LEICESTER.

Period.				Average.
1892—1896	...	...	...	194·4
1897—1901	...	...	..	189·2
1902—1906	...	...	..	158·1
1907—1910 (4 years)	...	...	...	128·2
1911 (very hot summer)	...	...	...	130·0

DEATHS OF INFANTS AT SUCCESSIVE AGES DURING FIRST YEAR OF LIFE.

In Table 37 particulars are given of the causes of deaths at different age-periods in weeks and months during the first year of life. Of the 679 deaths, 125, or 18 per cent., occurred in the first week; 223, or 32 per cent., occurred in the first month; and 341, or 50 per cent., in the first three months. Of the deaths in the first month of life, the principal causes were premature births (96), debility and marasmus (59), and convulsions (12).

DEATHS AMONGST ILLEGITIMATE INFANTS.

There were 46 deaths of illegitimate infants, equal to a death-rate of 191 per 1,000 illegitimate births, compared with a rate of 130 for all infants. The contrast which always exists between the mortality of legitimate and illegitimate infants is a striking proof of the preventableness of infant mortality.

ZYMOTIC MORTALITY.

There were 322 deaths from the seven principal zymotic diseases, viz. :—

Smallpox	...	...	...	Nil
Measles ...	...	...	...	71
Scarlet Fever	...	...	...	9
Diphtheria	...	...	...	21
Whooping Cough ...	...	...	...	43
Enteric Fever	...	...	...	11
Diarrhœa	...	...	...	167
Total	...	...	...	322

The *Zymotic Death-rate* was 1.41, against 0.69 in 1910, the increase being due to the larger number of deaths from diarrhoea and measles.

CANCER.

The deaths from cancer and other forms of malignant disease in Leicester in 1911 numbered 238, of which 110 were in males and 128 in females, the ratio being as 100 to 116.

As compared with 20 years ago the mortality from cancer has seriously increased in Leicester; but during the past decade, fortunately, the increase has been only slight.

Thus, in the three years, 1902-4, the cancer deaths amounted to 6.0 per cent. of the total deaths, whilst in the last three years, 1909-11, the percentage was 6.7.

There has, however, been some increase in the proportion of male deaths, and a slight decrease in the female deaths, though the latter are still much the more numerous.

A few years ago the Committee of the Liverpool Cancer Research deemed it their duty, in view of the prevalence of cancer, to call attention to what could be done to combat the disease, and their remarks may be quoted here:—

“No specific cure for cancer is yet known, but, as with consumption, the earlier the treatment is commenced the greater is the chance for its success. Unfortunately, a large number of people put off seeking the advice of their doctor instead of going to him immediately they notice anything wrong.

“It may be pointed out that certain organs are more often affected than others. In men, cancer of the gullet, stomach, and intestines; in women, cancer of the breast and womb, account for about two-thirds of all cases of cancer. There are, of course, many other only slight ailments of these organs.

“The Committee feel that they cannot too strongly state how important it is that the disease should be recognized at the earliest possible moment. This recognition can only be attained by the patient going to his or her doctor for examination at the very beginning of illness.”

WARD STATISTICS.

(See Tables 1-7.)

DEATH-RATES.

(Table 3.)

As is almost always the case, Knighton Ward comes out with the lowest rate, viz., only 7·4 per 1000 population. The second place of honour is secured by Spinney Hill with 9·3, whilst Aylestone comes third with 10·2, followed by the Abbey with 10·5. West Humberstone, which for several years has had a very low rate, is not quite so favourable as usual, having a rate of 13·2.

At the other end of the scale we find Wyggeston Ward, 18·0 per 1,000; Newton, 17·8; and St. Margaret's, 16·3. Although the contrast between the Wards in Leicester with the highest and lowest rates is still painfully great, there is cause for gratification that in the worst Ward in Leicester the figure is lower than the rate for some entire towns. Thus, the death-rate for 1911 was, in Liverpool, 20·0 per 1000 population.

BIRTH-RATES.

(Table 3.)

As usual, De Montfort Ward has a birth-rate (14·2) much below any other Ward. Possible causes for this have been suggested in previous Reports. Happily, the birth-rate in De Montfort was last year slightly greater than the death-rate. In previous years it has actually been less. Next in order to De Montfort comes Charnwood, 16·1; and Wycliffe, 17·8.

The highest birth-rates were in Wyggeston, 32·0 per 1,000; St. Margaret's, 27·9; Latimer, 27·6; and Newton, 27·0. Although these rates seem high nowadays, it should be remembered that not so many years ago the average birth-rate for the whole town stood at a much higher figure.

The Ward with the greatest difference between birth-rate and death-rate was West Humberstone, (which also had this distinction last year), the birth-rate being 27·7, and the death-rate only 13·2. In this Ward the number of births exceeded the deaths by 281.

INFANT MORTALITY.

(Table 3.)

There were only eight deaths in Knighton in children under one year of age, equivalent to an infant mortality of only 29 per 1,000 births. This is, of course, an extremely low figure, and much below its own average for the past five years, which was 56. Such low figures in districts where the environment is favourable prove conclusively that infant deaths are essentially preventable. Next to Knighton we have Spinney Hill, 66; Aylestone, 76; and Belgrave, 88. At the other extreme we have Newton with 195; St. Margaret's, 188; and Latimer, 186.

Considering the hot summer these figures, high though they are, are not so excessive as might have been anticipated. Thus in Newton Ward in 1908 the infant mortality was 239, and in 1909 it was as much as 243.

ZYMOTIC MORTALITY.

(Table 5.)

Here again there is a very striking contrast between certain Wards, such as, on the one hand, Knighton, De Montfort, Aylestone and Wycliffe; and the less favoured ones such as Newton, St. Margaret's and Wyggeston, where it was as much as five times as great. The diarrhoea-rate was highest in Wyggeston, 1.6; Latimer, 1.3; West Humberstone, 1.1; The Castle, 1.0; and St. Margaret's, 1.0. Knighton Ward, on the other hand, entirely escaped, whilst Spinney Hill, Westcotes and Belgrave only had a rate of 0.3 per 1000.

PHTHISIS-RATE.

Newton Ward had the highest rate (2.8), West Humberstone coming second (2.1), and The Castle, Westcotes and St. Martin's "tying" for third place with 1.8 per 1,000 population. The lowest rates were in Knighton, 0.4; Belgrave and Aylestone, 0.7; Spinney Hill, De Montfort and The Abbey, 0.8.

AGE-DISTRIBUTION AND CAUSES OF DEATH.

The age-distribution and principal causes of death in each Ward are shown in Table 6.

WARD AVERAGES.

(Table 4.)

Obviously Ward statistics are more valuable if the average for several years be contrasted. This is done in Table 4.

The Wards with the lowest and highest average rates for the five years, 1907-1911, were as follows:—

DEATH-RATE.

LOWEST.			HIGHEST.		
Knighton	...	7.6	Wyggeston	...	18.3
Westcotes	...	9.2	Newton	...	18.2
Spinney Hill	...	9.8	Wycliffe	...	15.8
Aylestone	...	10.4	St. Margaret's	...	15.5

BIRTH-RATE.

LOWEST.			HIGHEST.		
De Montfort	...	12.4	Wyggeston	...	30.7
Knighton	...	18.0	West Humberstone	...	27.9
Wycliffe	...	18.5	Newton	...	27.2
Charnwood	...	18.7	Latimer	...	27.1

INFANT MORTALITY.

LOWEST.			HIGHEST.		
Knighton	...	56	Newton	...	194
Spinney Hill	...	90	Wyggeston	...	193
Westcotes	...	100	St. Martin's	...	178
Aylestone	...	104	St. Margaret's	...	177

Speaking generally, the least healthy parts of the Borough, judged by the mortality figures, are the districts at the centre of the town; whilst the most healthy districts are on the outskirts. There is an intermediate area represented by such wards as Charnwood, De Montfort, The Castle, and Latimer.

We are justified, therefore, in encouraging the natural tendency of the population to leave the centre of the town and migrate to the outskirts, where there is less congestion and more breathing space. The closing of old cottage property in the centre, to be replaced by business premises and factories, is, therefore, in the right direction; whilst the provision of increased tramway facilities is obviously to be commended as having a beneficent influence on the public health.

PART II.

ZYMOTIC DISEASES.

SMALLPOX.

(For Statistics of this Disease see Table 24 at end of Report.)

During the past year the country has continued very free from this disease, the only outbreak of much note being that in the East End of London in the early part of the year, which was referred to in the last Annual Report.

It is now five years since the Leicester Smallpox Hospital was last used, or six years if the single case in 1906 be excepted. Such a long spell of immunity must necessarily raise hopes that smallpox, as has been the case with some other diseases, is being gradually exterminated, and that serious epidemics have become a thing of the past. It would be a mistake, however, to be too sanguine about this very desirable consummation. A similar immunity has been enjoyed by the town before, to be followed by a widespread epidemic. Thus, no single case of smallpox occurred in Leicester in the five years, 1896-1900. Then, in 1901, four cases occurred; in 1902, 18 cases, and in the two years, 1903 and 1904, no less than 727!

It is true that in some respects the country is better prepared than ever before to deal energetically with this disease whenever it does appear, and although smallpox is specially amenable to public health measures of prevention there are certain factors in connection with its mode of spreading which still baffle us and make it sometimes very difficult to control. This was well exemplified during the epidemic of 1903 in the sudden outburst of cases in April, when after a fortnight's lull, during which almost the only cases were a few "contacts" under observation, 156 cases occurred in the space of four weeks without any satisfactory clue being obtained as to the cause. The fact, however, that such a serious outbreak was quickly got under control was certainly a triumph for the so-called "Leicester Method" of dealing with smallpox. During the last of the four

weeks referred to 48 cases had occurred. In the following weeks the numbers were 22, 14, 10, 4, 2 and 1. Such an experience can only be regarded with mixed feelings—of concern that such an outbreak could be possible, and of gratification that the town emerged from the ordeal with unexpected success.

I have ventured to refer to this experience because many of those who criticise Leicester's policy as regards compulsory vaccination appear to be strangely ignorant that the "Leicester Method" has ever undergone such a supreme test. The "powder barrel" theory, which was so much in vogue in the early days, is not quite dead even yet.

VACCINATION.

The following figures show the number of vaccinations registered and the "exemptions" granted during each quarter of the year:—

	Public.	Private.	Total Vaccinations.	Exemptions Granted.
First Quarter ...	70	81	151	700
Second Quarter...	53	72	125	712
Third Quarter ...	31	73	104	779
Fourth Quarter...	33	62	95	773
Total for year 1911	187	288	475	2964

In the previous year the figures were:—Total vaccinations, 564; public, 181; private, 383; exemptions, 2,335.

The vaccinations in 1911 amounted to 9·0 per cent. of the births registered, whilst the exemptions amounted to 56·7 per cent.

Vaccination in Leicester continues to decrease, and the figures recorded for 1911 were the lowest during the past decade.

During the past 14 years, whilst 82,113 children have been born, only 11,415 vaccinations, or 13·9 per cent. of the births, have been registered. If we assume that about ten per cent. of the children born died unvaccinated, the proportion of the population of Leicester under 15 years of age who have been vaccinated is probably only about 15 per cent., leaving 85 per cent. unvaccinated.

SCARLET FEVER.

(Cases, 1,309; Deaths, 9; Case-mortality, 0·7 per cent.)

Although the number of fresh cases of scarlet fever notified during 1911 was rather more numerous than in the previous year, numbering 1,309 against 1,013, the type of the disease was extremely mild. The total number of deaths was only 9, equivalent to a fatality of 0·7 per cent. of the cases notified. Only twice before in the records of the Borough has such a low fatality been recorded. In the previous five years the deaths have averaged 33.

The relative prevalence of the disease during the year was as follows:—

	Cases.
First Quarter	209
Second Quarter	312
Third Quarter	150
Fourth Quarter	638

During the third quarter the notifications fell off very much, consequently the admissions to Hospital were comparatively few, and it was possible to close two of the pavilions at the Isolation Hospital. It was during this time that the experiment was tried of admitting "pre-tubercular" cases to the Hospital, these being treated in one of the empty blocks which had, of course, been previously disinfected.

Although it is sometimes suggested that scarlet fever has been more prevalent in the Borough than was formerly the case, this is not really true if a sufficient number of years be taken and allowance be made for the increase in the population of the Borough. The average attack-rate per 50,000 population during the past decade was considerably below what it was in the previous one, in spite of the fact that prior to the year 1900 only first cases in a house were notified.

SCARLET FEVER—AVERAGE ATTACK-RATE.

Period.	Attack-rate per 50,000 Population.
1880—89*	277
1890—99*	333
1900—1909	253
1910—1911 (two years)	245

* Only first cases in a house notified prior to 1900.

It is probable that the explanation of the impression that scarlet fever has been exceptionally prevalent during recent years is to be found in the fact that during the two years, 1903-4, scarlet fever diminished very remarkably, and the number of cases notified was very greatly below the average. Curiously, those years happened to be smallpox years; but, though it was a very fortunate conjunction, I am not prepared to say it was more than a coincidence. Still, when the disease resumed its normal proportions it was perhaps naturally regarded as an increased prevalence. The actual figures for each year since 1877 will be found in Table 25. A study of this Table will show how enormously the mortality caused by this disease has declined.

For example, whilst last year only nine deaths were caused by scarlet fever in a population of 227,000, there were no less than 119 deaths in 1880, followed by 184 deaths in 1881, although at that time the population was 100,000 less than it is now.

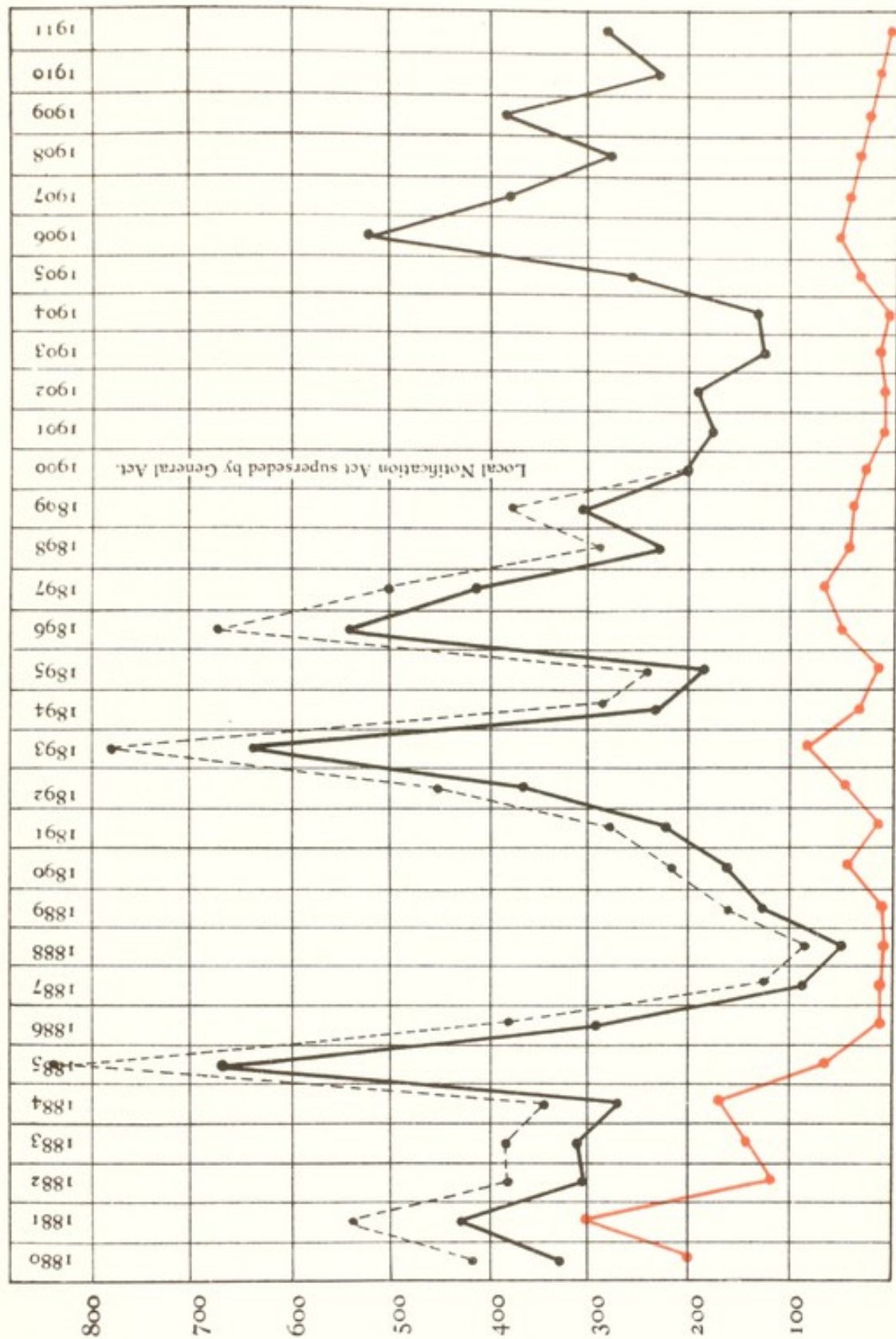
As regards the effects of hospital isolation, it must be admitted that it produces little effect so far as reducing the number of cases is concerned. The justification of this measure must be found rather in the great boon it undoubtedly confers upon the public. It is only when an attempt is made to reduce the proportion of cases admitted to hospital that we realise how much the public appreciate this great convenience. There would, undoubtedly, be much dissatisfaction and no little hardship if the facilities which have now been provided so long were withdrawn. At the same time it is only reasonable, seeing that scarlet fever is now such a mild disease compared with what it was in former years, to reduce the expense involved by treatment in hospital by cutting down the time of detention. There is good reason to believe that the prolonged stay in hospital at one time enforced, (6-8 weeks) is no longer necessary.

As a matter of fact, we have in Leicester for a number of years abandoned the orthodox six weeks minimum stay in hospital, and many of our cases are discharged after four or five weeks; nor have we had reason to think that this shortening of the period of detention has had any material effect in increasing the number of cases which carry out infection. A certain

NOTIFIABLE DISEASE IN ENGLAND, 1880-1911.

Notifications per 50,000 population (BLACK curve).

Deaths per 200,000 " (RED curve).



N.B. Prior to 1900 only first (primary) cases in a house were notifiable.

The dotted curve represents an addition of one fourth for secondary cases not notified prior to 1900.

The figures from which Diagram is drawn will be found in Table 25.

number of such cases will always occur, no matter how long the patients are detained.

THE EUCALYPTUS INUNCTION TREATMENT.

In last year's Report reference was made to the method of treating scarlet fever by means of inunction of the whole surface of the body with eucalyptus oil, which, it was claimed, cut short the disease and prevented the spread of infection. It was stated that having given the treatment a trial we were unable to satisfy ourselves that these claims could be justified. Further experience was obtained at the Isolation Hospital during the past year, but this only confirmed us in the opinion that the eucalyptus inunction treatment was not of sufficient value to justify us in continuing it.

SECONDARY CASES.

The term "secondary" cases implies cases which follow upon a previous case in the same house. During 1911, out of the total of 1,309 cases reported, 1,101 were primary and 208 were secondary.

"INFECTING" CASES AND "RETURN" CASES.

(Table 26.)

During 1911 there were 820 patients discharged from the Hospital, and in 47 instances the return home was followed (within six weeks) by one or more further cases. There were thus 47 "infecting" cases, and these gave rise to 55 "return" cases. The percentage of "infecting" or of primary "return" cases was 5.7, calculated upon the number of patients discharged.

SECOND ATTACKS OF SCARLET FEVER.

During the year there were 18 instances amongst the cases notified in which there was a definite history of the patient having had the disease before. In ten of these the patient had been removed to hospital, and in five or six of the cases treated at home it was stated that the patient had desquamated. In the case of one of the patients it was stated to be the third attack, he having had scarlet fever four years ago at home, and again a year ago when he was treated in hospital. The intervals between the first and second attacks varied from eight months to eight years, one to three years being the most usual interval.

DIPHTHERIA.

(Cases, 246; Deaths, 21; Case Mortality, 8·5 per cent.)

Diphtheria was more prevalent than has been the case for several years, 246 cases being notified, compared with 114 in the previous year. The increase occurred almost entirely in the last quarter of the year. Westcotes Ward suffered rather more heavily than other wards, having six fatal cases; whilst no fatal case occurred in St. Margaret's, Wyggeston, De Montfort, West Humberstone or Aylestone. Out of the 21 fatal cases, 17 were in children below the age of five.

176 of the cases, or 71 per cent., were removed to hospital, including a number of urgent cases calling for immediate operative treatment.

As regards the etiology of the cases, this was usually very obscure. 216 cases, or 87 per cent., occurred as single cases in a house, no other member of the family being attacked. As has been noted in previous years, there was no special incidence upon the poorest districts or those in which the houses were least sanitary. On the other hand it was frequently found to occur in modern and apparently well-built houses. As mentioned above, Westcotes Ward, a well-to-do district, had six fatal cases; whilst St. Margaret's and Wyggeston, two of the poorest districts, had none. The drains in infected houses were tested as a routine practice, and in a certain number, as in almost all property, defects of one kind or another were found, principally escapes at the gully traps in the yard—a common weak point. I am not inclined, however, to regard these defects, where they existed, as an important factor, but in all cases the owners were at once called upon to make them good.

For a number of years, Leicester has suffered very little from diphtheria, much less, indeed, than most towns. Even with the increased mortality from the disease in 1911, Leicester compares very favourably. Thus, the mortality from diphtheria in Leicester in 1911 was 9 per 100,000 population, and the average for the previous six years was 6·5. In 77 principal towns of the country the average for 1911 was 17.

TYPHOID OR ENTERIC FEVER.

(Cases, 47: Deaths, 11: Case Mortality, 23·4 per cent.)

For many years the number of cases of typhoid fever in Leicester has been decreasing in a way which is very remarkable, and, of course, most satisfactory. As has been pointed out in previous reports, much, if not most, of this decline must be attributed to improvement in sanitation, more especially to the abolition of pail closets. The figures for 1911, however, were less satisfactory than usual, 47 cases being reported, against 36 in the previous year. The increase is accounted for by the outbreak referred to below. 37 of the cases were removed to the Borough Isolation Hospital.

TYPHOID FEVER AND MUSSELS.

Towards the end of the year 1911 (early in December) an outbreak of typhoid fever occurred in the Borough, which was clearly traced to the consumption of mussels. The facts were as follows:—During October and November, 1911, only six cases of typhoid fever had been reported, and in only one of these was there a history of having eaten mussels. From the 1st December, 1911, to the 4th January, 1912, twenty-four notifications of this disease were received. One of these may be excluded as not being a case of typhoid fever. Of the remaining twenty-three there was a clear history of the patient having recently eaten mussels in seventeen instances (probably in eighteen). Of these seventeen "mussel" cases, the patients appear to have eaten the mussels raw in at least nine instances. Many of the cases were very severe, and five of them proved fatal. In several instances it was impossible to trace the source of the mussels, as they had been purchased from casual hawkers whose names and addresses were not known; but in ten instances it was possible to ascertain the wholesale merchant, and through him to ascertain where the mussels came from. In all these cases it was discovered that the mussels were consigned from Lymington, in Devonshire, on the river Exe. (In one instance mussels were also obtained from Ireland.) Approximately about half the mussels brought to Leicester market come from Lymington, and the other half from various other sources, principally from Teignmouth.

The following facts relating to the Lympstone layings are taken from a report on shellfish by the Fishmongers' Company:— On October 14th, 1903, an inspector of the Fishmongers' Company took a sample of mussels from a consignment sent to the London market, stated to have come from the Star Cross and Lympstone layings, and had them examined bacteriologically by Professor Klein. All the mussels were found to be polluted. On September 9th, 1907, another sample of mussels from Lympstone was taken and submitted to Professor Klein, who found the mussels decidedly unclean. The inspector of the Fishmongers' Company then visited the mussel grounds in the river Exe, which are situated within a couple of miles of Topsham, and extend down the river to Star Cross. He took with him the Sanitary Inspector of Lympstone. The report states that "It was evident that certain of the mussel beds were utterly unfit for preparing mussels for market, owing to their proximity to sewer outfalls. The places in close proximity to the mussel beds, which undoubtedly contaminated them, were found to be Topsham, Lympstone, and Star Cross respectively."

Further samples of mussels taken at various points along the "back of the ridge" opposite Lympstone on September 28th, 1907, were found to be decidedly unclean. Experiments were then made to determine whether placing the mussels in clean water for a time prior to their being put on the market would result in a sort of natural purification taking place, and the results of these experiments appear to show that a considerable measure of purification could in this way be obtained. Some difficulty, however, appears to have been experienced in finding a really unpolluted area in which the polluted mussels could be relaid to purify themselves.

On 26th November, 1907, the Fishmongers' Company wrote to several mussel merchants at Lympstone, and neighbouring places, that unless the mussels were relaid in purer surroundings they were not in a fit state for consumption.

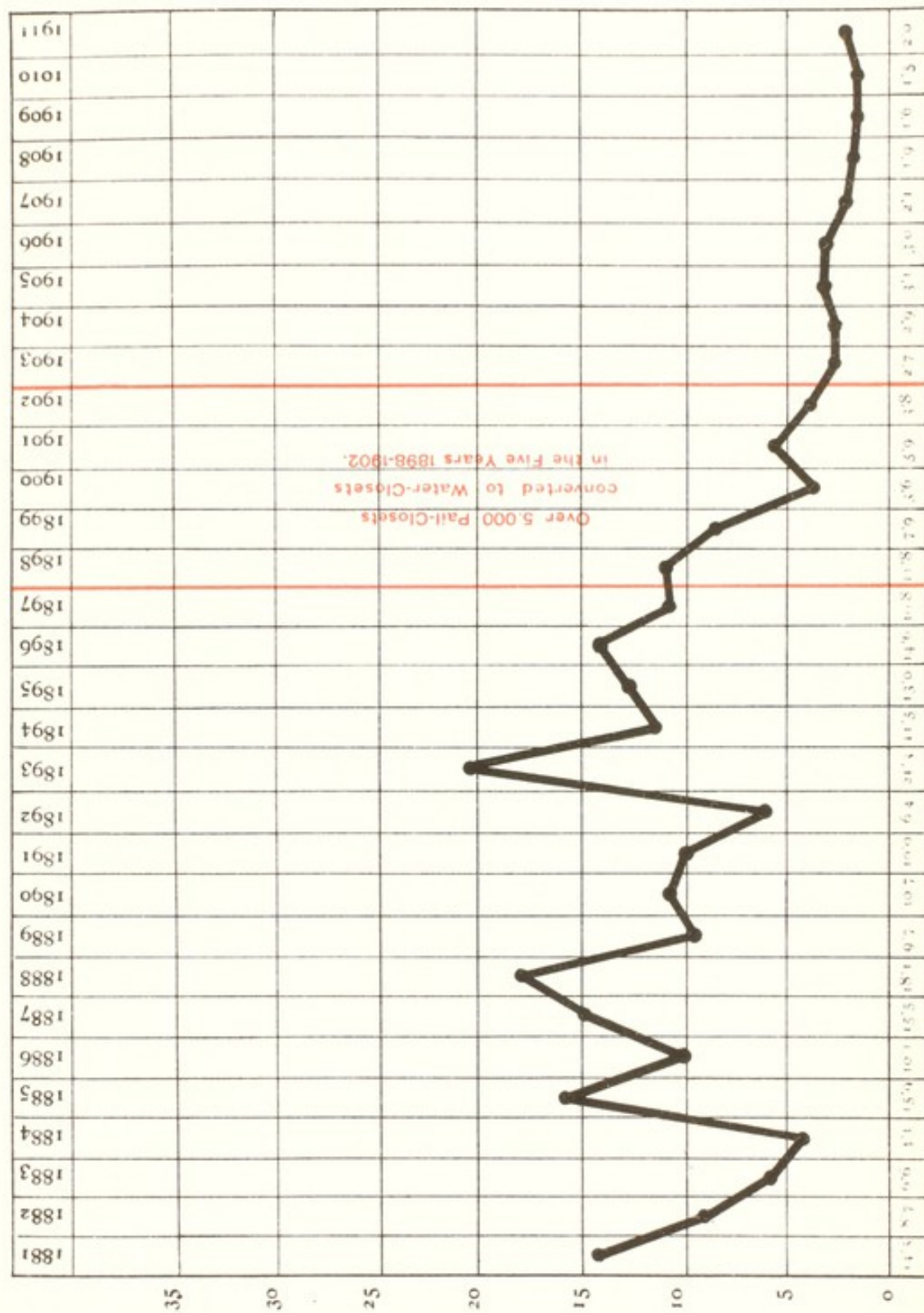
From the above extracts from the report of the Fishmongers' Company it is quite evident that the mussels derived from Lympstone and neighbourhood were liable to pollution.

This question of danger from polluted shell-fish is a very big one, and it is impossible for Local Authorities individually to

DIAGRAM II.

ENTERIC FEVER IN LEICESTER.

Notification per 10,000 Population. Showing marked Decrease following Abolition of Pail-Closets.



See Table 28.

adequately protect themselves, especially as it is impossible to tell without bacteriological examination whether shell-fish is contaminated or not.

Government action is clearly called for, and the proper course would seem to be that no shell-fish should be sold except from beds which are subject to systematic official inspection and duly certified as free from liability to pollution.

Returning to the outbreak in Leicester, as soon as the probable source of infection became apparent, steps were taken to stop the supply of mussels coming to Leicester from the localities under suspicion. The wholesale fish merchants were visited, and the facts laid before them. Subsequently a formal letter was sent to them by the Medical Officer of Health, at the direction of the Sanitary Committee. They readily agreed to discontinue getting mussels coming from the Exe or Teign.

A poster warning the public against eating mussels, unless thoroughly cooked was also issued. In consequence of this poster the consumption of mussels, either raw or cooked, fell off very greatly for a time. The outbreak of typhoid quickly ceased although, as might be expected, owing to the long incubation period of the disease, and the difficulty of diagnosing it in its very early stages, some cases continued to occur after the supply of mussels had been cut off. In practically all of such cases as did occur, however, there was a history of having eaten mussels some weeks before.

An intimation of the outbreak was sent to the Medical Officer of Health for the County of Devon, who investigated the condition of the suspected "layings," and reported thereon to the Devonshire County Council. The following is an extract from his report:—"We have made investigations of the layings
" of mussels in different parts of the River Exe, and had
" bacteriological examinations made of the shell-fish, and the
" water in which they are bathed. These results showed that
" the mussels and the river contain large quantities of micro-
" organisms found in sewage, and we are of opinion that owing to
" the large amount of sewage entering the estuary, mussels taken
" from any part might be the means of causing disease, especially
" if eaten raw"

As regards the condition of the river Teign, the report stated that this had also been examined, and was also found to be dangerously polluted. "In the face of the above conditions, the mussel industry in these two rivers, giving employment to 150 men, with an annual taking of about £2000, must in time practically cease for want of markets unless the Board of Agriculture come to the rescue of these fishermen."

It should be mentioned that the Fishmongers Company, which has special powers as regards the sale of fish in London, prohibited the sale of mussels from Lymington in the London market some years ago, and this prohibition has remained in force ever since.

DIARRHŒA.

(Deaths, 167.)

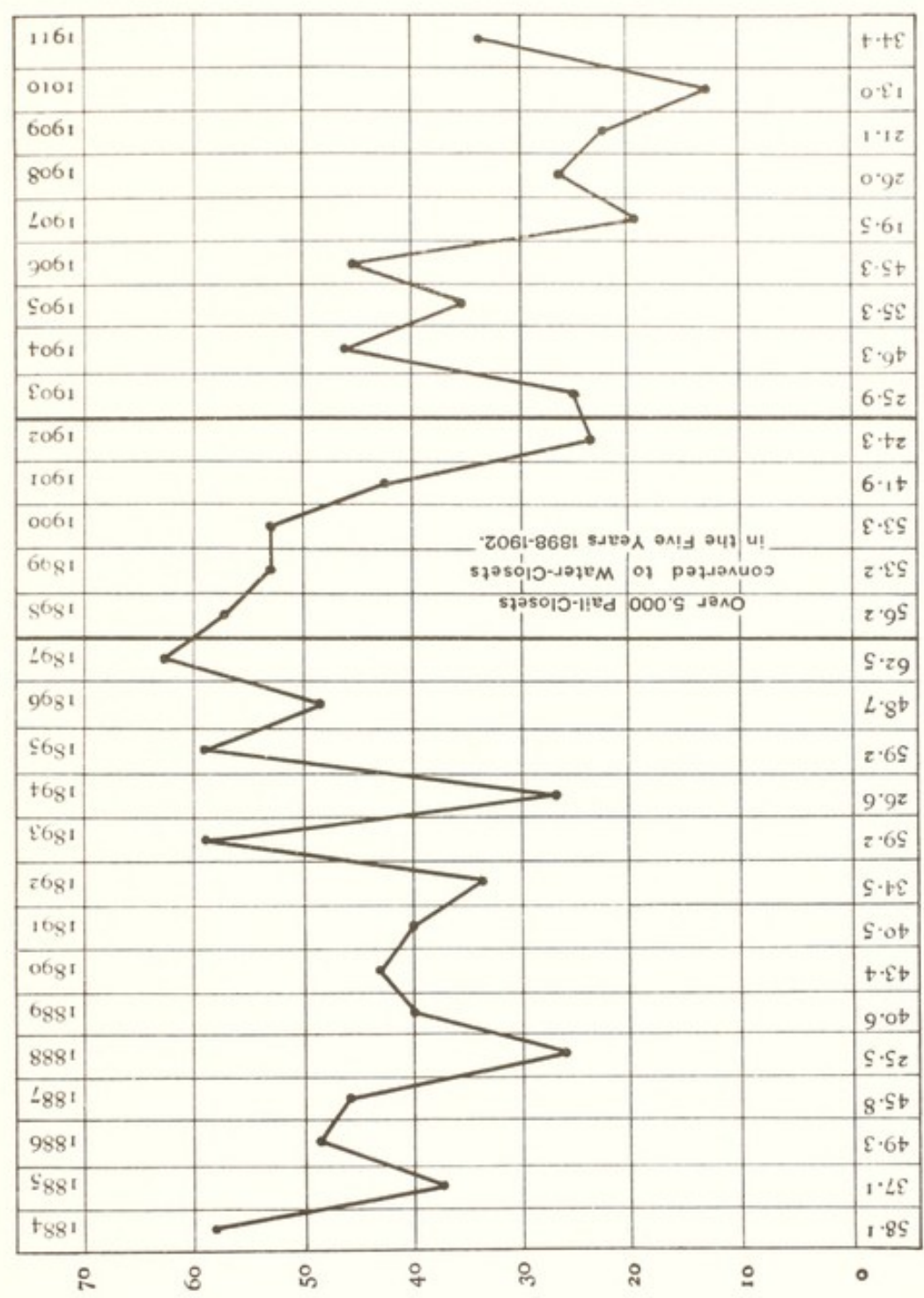
Although the number of fatal cases of diarrhœa was higher than has been the case for the past few years, the figure is not unsatisfactory in view of the fact that last summer was exceptionally hot, and when compared with the figures for hot summers in the past. The summer of 1911 was hotter, judged by the mean earth temperature, than any summer since 1899, twelve years ago, when the deaths from diarrhœa numbered 292, or nearly twice as many. This proves that a real improvement is being effected quite independent of climatic or meteorological conditions, and it is reasonable to attribute this to the various public health measures that have been and are being carried out in the town.

Allowance must no doubt be made for the fact that the infant population in Leicester, amongst whom diarrhœa deaths almost entirely occur, is declining. Accordingly, in Table 30, in which are given the diarrhœa and enteritis statistics for past years, the rate is worked out as a proportion of the births instead of the general population. From Table 30 the following figures are taken :—

Quinquennial Period.	Average Annual Number of Diarrhœa and Enteritis Deaths per 1000 Births.		
1894—1898	59
1899—1903	46
1904—1908	40
1909—1911 (3 years)	21

The real improvement which is taking place is obvious.

DIAGRAM IV.
DIARRHOEA AND ENTERITIS DEATHS UNDER ONE YEAR OF AGE.
per 1,000 Births.



the early part of the year under review, the down turning seen



The real improvement which is taking place is obvious.

THE SEA-WATER TREATMENT OF DIARRHŒA.

During the month of September, an interesting experiment was made in connection with the sea-water treatment of infantile diarrhœa. Considerable attention had been drawn to this treatment in the public press owing to the activity of the Quinton Polyclinic in Poland-street, Soho. This institution, named after the originator of the treatment, M. Quinton, of Paris, had recently been opened in London for the special purpose of applying the sea-water treatment which was advocated for a number of other diseases besides diarrhœa. After hearing a report by the Medical Officer of Health as to what he had seen when visiting the Quinton Polyclinic it was decided by the Sanitary Committee to give this method of treatment a trial, and arrangements were accordingly made for applying it to a limited number of cases at the Infants' Milk Depôt, where a room was equipped for the purpose. The treatment consists in injecting a considerable quantity of specially prepared sea-water ("marine plasma") subcutaneously. The injections were given by the Medical Officer of Health personally. Altogether some ten cases of infantile diarrhœa were treated, most of these being sent by medical men. The number of cases was too small to draw any final conclusion as to the value of the treatment, but it may be stated that several cases appeared to improve very rapidly and remarkably; some improved slowly; whilst in three cases there was no real improvement, and the cases ultimately proved fatal. Two or three additional cases discontinued the treatment after one or two injections. As regards the rapid improvement in the general condition which certainly follows upon the injections of sea-water in some cases, it is claimed that very striking results can also be obtained by the injection of ordinary salt and water, and in view of the great draining of fluids from the tissues of the body as the result of severe diarrhœa it is easy to understand why this should be. Whether the results obtained by sea-water injections are superior to those injections obtained by ordinary saline injections, I am unable to say.

MEASLES.

(Deaths, 71.)

Measles assumed epidemic proportions in the Borough in the early part of the year under review, the town having been

very free from it during 1910. Although very wide spread and causing much regrettable loss of life, the number of deaths, 71, was fortunately considerably less than in the two last epidemic years, 1908 and 1909, when 167 and 109 deaths were caused by it. As usual, the deaths occurred almost entirely in very young children. In only six cases were the victims over five years of age, whilst 19 were below 12 months of age. The epidemic lasted till the middle of the year, and during the latter half of the year the town was free from the disease. During the epidemic the Sanitary Committee issued a poster warning the public against the danger of measles.

WHOOPIING COUGH.

(Deaths, 43.)

Whooping cough, like measles, is essentially a disease of young children. Of the 43 fatal cases all but two occurred in children below five years of age, and the majority were under two years.

PUERPERAL FEVER.

(Cases, 19; Deaths, 7.)

Both the cases notified and the deaths registered from puerperal fever in 1911 were rather more numerous than usual.

In addition to the deaths from puerperal fever, there were 14 deaths due to other causes connected with child-birth. Many of the latter must be looked upon as quite unavoidable.

During the six years, 1906-11, there have been 33,112 births registered in the Borough—*i.e.*, this number of children have been born alive. In addition, there have been a considerable number of still-births, which at present do not require to be registered. During the same period the total number of deaths from puerperal fever has been 22, and there have been 76 deaths from other causes connected with child-birth, a total of 98. In other words, one woman has lost her life for every 337 children born alive.

Of course, in addition to the women who have lost their lives, a much larger number have suffered serious, in some cases life-long, injury to their health.

TUBERCULOSIS.

The number of deaths from all forms of tuberculosis in 1911 was 354, or four less than in the previous year. The *Tuberculosis-rate* was 1.55 per 1,000 of the population. After correcting the rates of the last five years in the light of the recent Census this becomes the lowest rate since 1891.

PHTHISIS.

Pulmonary Tuberculosis: Consumption.

Phthisis, the most important of the tubercular diseases, was responsible for 288 deaths in 1911, or seven more than in the previous year. The *phthisis-rate* was 1.26 per 1,000 population. Details as to the number of deaths from phthisis and other forms of tuberculosis are given in Table 32. The following figures for the past eight years indicate some improvement:—

Year.					Deaths from Phthisis per 1,000 Population.
1904	...	...	...	...	1.63
1905	..	...	...	...	1.32
1906	..	...	...	...	1.54
1907	..	...	...	...	1.24
1908	...	...	...	...	1.28
1909	...	...	...	...	1.29
1910	...	...	...	...	1.24
1911	...	...	...	...	1.26

AGE AND SEX.

Of the 288 deaths from phthisis, 166 were in males and 122 in females. It is usually the case that the deaths of males exceed those of females, the latter sex not being so subject to the disease. The age distribution is given in Table 33. Fifty-five per cent. of the deaths were in persons between the ages of 20 and 40 years, just the prime of life.

OCCUPATION.

As usual, a large proportion of the persons dying from phthisis were employed in the shoe trade, the figures for 1911 being, as regards males, 30 per cent. Until the detailed figures of the 1911 Census are available, showing the proportion of the

male population employed in the shoe trade, it is not possible to determine how far there is an undue incidence upon this particular trade.

NOTIFICATION.

It will be recollected that in 1908 the Local Government Board issued an order making pulmonary tuberculosis a compulsory notifiable disease in the case of all Poor Law patients.

In March, 1911, the Board issued a further order (Public Health (Tuberculosis) Regulations, 1911) making notification of pulmonary tuberculosis compulsory in the case of all patients attending hospitals or similar institutions.

In November, 1911, they issued a further order, to take effect on January 1st, 1912, making notification compulsory in all cases of pulmonary tuberculosis.

The second order, issued in March of the past year, resulted in a considerable increase in the number of cases notified, and the last order will, of course, still further increase the number.

The new departure is to be welcomed as being calculated to help forward the campaign against consumption. It is now several years since the Leicester Corporation petitioned the Local Government Board for powers to make phthisis compulsorily notifiable in Leicester, but at that time the Board did not think the time was ripe for such a step, and declined to grant the necessary sanction.

A letter calling attention to the new regulations was sent at the end of the year to each medical man practising in the Borough by the Medical Officer of Health, together with a book of notification forms.

The number of fresh cases notified during the year was as follows:—

Hospital and Dispensary cases	...	157
Poor Law cases	...	170
Private Practice cases	...	187
Total	...	514

With the new regulations in force, under which all cases of pulmonary tuberculosis have to be notified, it will shortly be

possible to estimate the number of cases of consumption that will have to be dealt with under the National Insurance Act.

SANATORIUM TREATMENT OF CONSUMPTIVES.

The number of consumptive patients admitted to the Groby Road Hospital for treatment was 186, compared with 119 in the previous year. This is the largest number treated in any one year, the increase being due partly to the larger number of beds which it was possible to reserve for this disease in the early part of the year, and partly to the policy of keeping patients for shorter periods than previously, which has been adopted since facilities have been provided for continuing treatment after patients have left the Hospital. Full particulars as to the practice in Leicester of admitting patients to the Borough Isolation Hospital were given in the Report for 1910.

"PRETUBERCULAR" CASES.

During the summer of 1911 a new departure was made in the way of admitting to the Borough Isolation Hospital a number of delicate children—61 in all—who were apparently predisposed to tuberculosis. This was rendered possible by the small number of cases of scarlet fever in hospital during the summer months, which enabled one ward-block to be set apart for this purpose. The so-called "pre-tubercular" children ranged from about 6 to 14 years of age—all were ailing and unable to attend school—many had not been to school for months. In a number of cases there was a family history of consumption, either a parent or brother or sister having died of the disease. Many of the children had chronic coughs and were puny and emaciated. In most of the cases the home conditions were unsatisfactory, either from poverty, lack of proper attention, or other causes.

Whilst it may not be strictly scientific to group these cases together into one class under the designation of "pre-tubercular," it is certainly convenient from the practical point of view.

The experiment was begun in May and continued through the summer months. About 25 patients were under treatment at a time, and the total number dealt with was 61. Most of the cases were sent by the School Medical Officer, Dr. Allan Warner,

As many as possible of the patients slept out on the ward verandahs in the open air, and all the children spent the greater part of the day in the open air. A considerable portion of the grounds was specially reserved for them; and swings, see-saw, sand heaps, &c., were provided. The glorious weather of the summer of 1911 was, of course, greatly in their favour. The immediate result was, in most cases, very satisfactory. The children put on weight in some cases very rapidly and improved wonderfully in appearance. Two of the cases, however, made no improvement and proved fatal. The average time the cases remained in hospital was about eight weeks. As was to be expected, many of the children soon relapsed on returning to their homes and the old unfavourable environment; but six months later, Dr. Warner, who investigated the cases, reported that 20 were back at school and four were at work. Of the remainder, 28 were at home, five were in the Poor Law Infirmary, one had emigrated, and one had died.

On the whole, the result must be regarded as satisfactory. The children were for a short time placed in a very favourable environment, with good food and abundance of fresh air, and some of them certainly derived permanent benefit.

THE MABLETHORPE OPEN-AIR SCHOOL.

A somewhat similar experiment was carried out during the past year by the Education Committee, who accepted an offer from the Leicester Summer Camp Committee to place at their disposal the Camp premises at Mablethorpe, after the ordinary season had closed, for use as an open-air school. Forty boys and girls, selected by the School Medical Officer as being delicate and predisposed to disease, were sent to Mablethorpe at the expense of the Education Committee, and kept there for a couple of months, special teachers being provided, and lessons being conducted out of doors on the recognised lines of open-air schools. Judging from Dr. Warner's report, the results obtained appear to have been highly satisfactory, and the Education Committee are certainly to be congratulated on their new departure, which it is to be hoped they will be able to repeat during the present year.

TUBERCULOSIS DISPENSARY.

The principal forward move during the year in the local campaign against consumption was the opening of a municipal tuberculosis dispensary.

During the summer the Chairman of the Sanitary Committee (Ald. Windley) and the Medical Officer of Health, at the request of the Sanitary Committee, visited several existing tuberculosis dispensaries, including institutions known as tuberculin dispensaries, and subsequently they presented a full report on the question. As the result of this report the Sanitary Committee unanimously resolved to establish a municipal dispensary in Leicester, and this was opened on October 14th.

Premises belonging to the Corporation, situated in St. Nicholas Square, and formerly used as a retail shop, were adapted for the purpose. The front room was converted into a well-lighted and ventilated waiting-room, with a portion partitioned off into dressing-rooms; whilst the back room was made into a consulting-room. One room upstairs was fitted up as an office, and the remainder of the premises are for the present unused.

The method and procedure adopted in carrying on the dispensary are a combination of those known as the "Edinburgh dispensary system," recommended by Dr. Phillip, with those of the "tuberculin dispensary," as carried on by Dr. Camac Wilkinson. The preventive aspect of the work is emphasised, and visits are paid to the homes of cases by both the dispensary doctor and nurse to seek out unrecognised cases, and, if possible, prevent the spread of the disease; but the treatment employed is by means of tuberculin instead of by drugs. This is practically the procedure adopted at the Portsmouth "tuberculin dispensary." The term "tuberculin dispensary," however, is open to some objection, hence the original name of "tuberculosis dispensary," as introduced by Dr. Phillip, at Edinburgh, is probably the best one to employ.

The equipment of the dispensary was comparatively simple. In addition to ordinary furniture, such as tables and chairs, a weighing machine, laryngoscope, and the necessary syringes, stoppered bottles, &c., for giving tuberculin injections, with a supply of specially printed forms and a vertical filing cabinet, very

little was required. The staff consists of a medical officer, who has also been appointed Assistant Medical Officer of Health, a trained nurse, and a man (part time) who comes morning and evening to keep the premises clean and in order.

Prior to the opening of the dispensary, a considerable number of consumptive patients who had begun the tuberculin treatment at the Borough Sanatorium at Groby Road, and who wished to continue it, were being treated by the Medical Officer of Health at the Town Hall. When the dispensary was opened in October, these patients, to the number of over 60, were transferred to the dispensary.

It was found quite unnecessary to advertise the institution in any way, but a notification of the opening, and of the hours for seeing new cases, was sent to each medical practitioner in the Borough by the Medical Officer of Health. In this letter the objects of the new institution were explained, and the co-operation of the medical men invited. It is pleasant to be able to record that this co-operation has been willingly granted, and a large proportion of the new cases applying have been sent by their own medical attendants.

At the Leicester dispensary we observe one precaution which should, I think, always be taken. Whenever a patient presents himself for examination, and it is found that he is already under a medical man, but has not been sent by the latter, we make it a rule to notify the medical man, and enquire if he has any objection to the patient receiving treatment at the dispensary. It would be a wise step, and would check what is known as "hospital abuse," if a similar precaution were taken at the out-patient department of all general hospitals.

During the first three months the dispensary was open 128 new patients applied for treatment, but 51 of these had to be refused for one reason or another as unsuitable, chiefly because the disease was in too advanced a stage to offer a reasonable prospect of success. The remainder were either sent to Groby Road Sanatorium for preliminary treatment or taken on at once for treatment as out-patients at the dispensary. As the patients left the sanatorium they were admitted as patients at the dispensary, and the tuberculin treatment continued. In this way the

number of patients under treatment had risen to 130 by the end of the three months.

The dispensary is worked as follows:— Four mornings a week (Monday, Tuesday, Wednesday and Friday, from 9-30 a.m. to 1 p.m.) are devoted to administering the tuberculin treatment. On two afternoons (Monday and Wednesday, 3 to 5 p.m.) new patients are examined; and during the remainder of the week the Medical Officer is examining old patients by appointment, paying visits in the town, or directing the work of the Health Visitors in connection with consumption.

THE NATIONAL INSURANCE ACT AND TUBERCULOSIS.

The great Measure providing for National Insurance against sickness has now become an accomplished fact, and is expected to come into operation, as regards contributions, in July of the present year. The benefits, other than sanatorium benefit, will come into operation six months later. From the public health point of view the Act is calculated to have the most far reaching consequences for good.

BENEFITS.

The "benefits" conferred on insured persons under the Act are (Section 86) as follows:—

(a) Medical treatment and attendance, including provision of medicines, &c. ("Medical Benefit.")

(b) Treatment in sanatoria or other institutions or otherwise when suffering from tuberculosis ("Sanatorium Benefit.")

(c) Periodical payments, for a period not exceeding 26 weeks, whilst rendered incapable of work by some specific disease, or by bodily or mental disablement ("Sickness Benefit.")

(d) In the case of the disease or disablement continuing after the determination of "Sickness Benefit," periodical payments so long as so rendered incapable of work ("Disablement Benefit.")

(e) Payment in the case of the confinement of the wife of an insured person, or of any other person who is an insured person, of a sum of thirty shillings ("Maternity Benefit.")

(f) Certain further benefits ("Additional Benefit.")

Sickness benefit, disablement benefit and maternity benefit are to be administered by and through an approved society when the insured persons are members of such a society, and in other cases by and through the Insurance Committees. Medical and sanatorium benefits are, in all cases, to be administered by and through the Insurance Committees.

SANATORIUM BENEFITS.

The provisions which most closely concern local authorities are those relating to sanatorium benefit. Sect. 16 provides:— For the purpose of administering sanatorium benefit, Insurance Committees shall make arrangements, to the satisfaction of the Insurance Commissioners, (*a*) with a view to providing treatment for insured persons suffering from tuberculosis . . . in sanatoria or other institutions with persons or local authorities (other than Poor Law authorities) having the management of sanatoria or other institutions approved by the Local Government Board; and (*b*) with a view to providing treatment for such persons otherwise than in sanatoria or other institutions with persons and local authorities (other than Poor Law authorities) undertaking such treatment in a manner approved by the Local Government Board.

The sums available per annum for sanatorium benefit amount to one shilling and fourpence for each insured person.

The Insurance Committee for a county or county borough has power to extend sanatorium benefit to the dependants of insured persons; and if the money available for sanatorium benefit is insufficient, the Treasury and the council of the county or borough have power to make good the deficiency.

It is evident from the above outline that the National Insurance Act will necessitate much further provision for the institutional treatment of tuberculosis than at present exists, and where, as in Leicester, the local authority are already treating the disease, it seems the proper and most advantageous course that such further provision as is necessary should be made by them. No doubt, as soon as the Insurance Committee for Leicester is appointed they will approach the Corporation with a view to an arrangement being made.

The expression, "treatment in sanatoria or other institutions," evidently contemplates treatment at a tuberculosis dispensary as an alternative to, or as supplementing, sanatorium treatment. Fortunately, in Leicester, a tuberculosis dispensary already exists, and it could, without difficulty, be extended. As regards the beds reserved for the treatment of consumption at the Isolation Hospital, although this accommodation has answered its purpose very well in the past, much further provision will certainly have to be made to meet the new requirements of the Act. Fortunately, an excellent site, the property of the Corporation, exists adjoining the Hospital grounds, upon which a sanatorium block to accommodate, say 50 patients, could soon be erected, and it could easily be administered from the Administrative Block of the Hospital. There would be obvious convenience and economy in such an arrangement.

PART III.

GENERAL.

ADMINISTRATION OF FACTORY AND WORKSHOPS ACT, 1901,

In connection with Factories, Workshops, Workplaces, and Home Work.

Report of the Medical Officer of Health for the year 1911 for the County Borough of Leicester.

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	27	20	None
Workshops	616	75	None
Workplaces (other than Outworkers premises)	None	None	None
Total	643	95	None

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

Particulars. (1)	Number of Defects.			Number of Prosecu- tions. (5)
	Found. (2)	Remedied (3)	Referred to H.M. Inspector. (4)	
Nuisances under the Public Health Acts:				
Want of Cleanliness ...	37	37	None	None
Want of Ventilation ...	8	8	"	"
Overcrowding	None	None	"	"
Other Nuisances	70	55	"	"
Sanitary Accommodation				
Insufficient	4	4	"	"
Offences under the Factory and Workshop Act ..	None	None	"	"
Total	119	104	None	None

3.—Home Work.

The number of lists received from employers was as follows :

	Twice in the Year.		Once in the Year.	
	Lists.	Outworkers	Lists.	Outworkers.
Wearing Apparel (making)	64	1703	59	762

The number of addresses of out-workers received from other Councils was 37.

The number of addresses of out-workers forwarded to other Councils was 250.

No notices were served on occupiers as to keeping or sending lists, and there were no prosecutions.

The number of inspections of outworkers' premises was 139; there were no instances found of out-work being done on unwholesome or infected premises.

4.—Registered Workshops.

The number of workshops on the Register is 842.

5.—Other Matters.

Matters notified to H.M. Inspector of Factories :—

Failure to affix Abstract of Act	...	..	None
Action taken in matters referred by H.M.			

Inspector :

Notified by H.M. Inspector	...	...	19
Reports sent to Inspector	...	...	16
Other ...	...	...	Nil
Underground Bakehouses in use at end of year	...	...	3

ADMINISTRATION OF THE MIDWIVES ACT, 1902.

The number of Certified Midwives practising in the Borough is now 31. A list of their names and addresses is given in Table 35. During the year one midwife died, two left the town, and three ceased to practice. On the other hand, two who had temporarily retired resumed practice, and there was one new-comer. There is no reason to think that there is now, or that there is likely to be, any shortage of certified midwives in a large populous centre like Leicester. It is otherwise, however, with the sparsely populated country districts, where it is difficult

for a properly trained woman to earn an adequate livelihood, and apparently a shortage at present exists in the County of Leicester.

The midwives in the Borough have been twice inspected during the year. The inspection takes place at the Town Hall, and the midwives are given a choice of times so as to be able to suit their convenience as far as possible. They bring their case-books and midwifery bags, and on the whole these were found to be satisfactory. In addition to these formal inspections the Medical Officer of Health frequently has to send for individual midwives in consequence of special occurrences or complaints. Thus, a midwife is always interviewed in the event of a case of puerperal fever occurring in her practice, and the case is then inquired into.

Charge of negligence against a Midwife.—Towards the end of the year, the Medical Officer of Health had to report adversely upon the practice of certified midwife, No. 231, and the Sanitary Committee directed that the facts should be reported to the Central Midwives' Board. The charge of negligence related to two distinct cases, and in both (one a case of severe hemorrhage, which proved fatal, and the other a case of retained membranes) there had been a failure on the midwife's part to advise that a medical man should be sent for as required by the rules. The Central Midwives' Board found the charges proven, and removed the midwife's name from the Roll. She was advanced in years, and in any case would have been obliged to retire soon on account of failing health and strength.

The number of *Still-births* notified by midwives was 63, and there were 69 intimations of having advised sending for medical help.

Voluntary Notification of Births.

The arrangement by which births attended by midwives are notified to the Medical Officer of Health continues to work fairly satisfactorily, and 2365 notifications were received. Books of special forms, ready stamped, are supplied for the purpose.

THE NOTIFICATION OF BIRTHS ACT.

This Act has not been adopted in Leicester. The question has been several times discussed, but a strong division of opinion

exists on the Town Council as to the desirability of putting it in force. The medical men in the town strongly opposed the motion for its adoption, and it was suggested that if it were not carried the local medical men would be quite willing to notify *voluntarily* any birth where they considered that the services of the Health Visitor would be advantageous. This they were invited to do. The number of cases thus notified during 1911 was 39.

DISINFECTION.

The method of disinfection for infected rooms at present carried out in Leicester is (a) by formaldehyde gas; (b) by spraying with solutions of formaldehyde. The number of houses or parts of houses disinfected during the year was 1963.

Steam Disinfecting Station.—This is situated at the Mill Lane Destructor, being removed thence from the old fever hospital on Freake's Ground, after the hospital was closed. During the year, the following articles of bedding, clothing, &c., from 184 houses were removed to the Station and disinfected, viz. :—

Mattresses	...	...	...	24
Beds	...	...	...	240
Pillows and Bolsters	...	...	...	635
Blankets	...	...	...	263
Counterpanes	...	...	...	147
Sheets	...	...	...	29
Other articles	...	...	...	95
				1433

The nature of the infection on account of which the above articles were disinfected, was :—

Scarlet Fever (nursed at home)	8 instances.
Enteric Fever	... 25 "
Phthisis (chiefly fatal cases)	... 151 "

In cases where the patient is promptly removed to Hospital, it is not the practice in Leicester to remove the bedding, &c., for steam disinfection, as this is not considered necessary.

CONVERSION OF PAIL CLOSETS TO WATER CARRIAGE.

Powers for the compulsory conversion of pail closets and privies to water closets were obtained by Leicester under a Provisional Order from the Local Government Board in 1896. The Corporation were authorized to contribute towards the expense of conversion, such contributions being made from a special loan. The main process of conversion occupied about five years, 1898-1902, during which period 5349 closets were dealt with; but since then nearly 1000 of the more difficult cases, which were left till the last, were dealt with, bringing up the total closets converted to 6269. The total amount of the contributions was £14,576, or an average of £2 6s. per closet converted.

In no case was it necessary to actually take a case into court, and much credit attaches to Chief Inspector Braley, who carried out the negotiations with the property owners, and to whose tact and perseverance the successful carrying through of the scheme, at a cost considerably below what was estimated, is certainly due.

From the public health point of view the result of the conversions has been very satisfactory, and there has been a marked decline in both enteric fever and diarrhœa. From the financial point of view it has also been satisfactory, as there is the saving on the cost of scavenging to be set off against the amount of the interest and sinking fund on the loan.

The total number of water closets in the Borough is now 61,132. The regulation flush is two gallons.

SMOKE PREVENTION.

Smoke observations are taken systematically, and whenever the amount of black smoke observed reaches a certain limit an informal caution is sent by the Chief Inspector. If the nuisance continues the offender is sent for by the Sanitary Committee and cautioned, the next step being a prosecution. It is very seldom, however, that the latter course has to be taken.

During the year, 3459 observations were made by the inspectors, and 17 cautions were issued.

Fortunately, Leicester suffers less from the pollution of the atmosphere by smoke than most large manufacturing towns.

The general introduction of gas cooking stoves, which are now to be found in almost every working-class home in Leicester, has greatly reduced the amount of smoke produced by domestic chimneys, especially in summer time. The smoke from domestic chimneys, owing to the great number of them, is really of greater importance as regards the pollution of the atmosphere than that from factory chimneys, although the latter, being much more conspicuous, are often thought to be chiefly to blame. On the other hand it is only the latter that can be effectually dealt with under the Public Health Acts.

Useful work is being done in the Country by the Smoke Abatement League, formed two years ago, in educating public opinion, and a conference is to be held under the League's auspices this summer. It cannot be too strongly impressed upon manufacturers that a smoking chimney represents waste of fuel, and that, in the long run, it is in the true interest of the proprietor that furnaces should consume their own smoke.

HOUSING OF THE WORKING CLASSES.

During the past year, owing to the impetus given by the Housing, Town Planning, &c., Act, increased attention has been given to the condition of houses, and the number of houses condemned by the Medical Officer of Health was greater than in previous years.

Altogether the number was 104, but 37 of these were all the property of one owner.

The result of condemning was as follows:—

Repaired	...	...	...	...	35
Converted into Factories or Warehouses	..				20
Closed	...	...	...	...	28
Demolished	...	...	...	...	10
In abeyance	...	...	...	...	11
Total					104

In Leicester, special powers for closing houses are possessed under a Local Act (1868), the procedure under which is simpler than under the Housing, Town Planning, &c., Act. Closing Orders, therefore, are, as a rule, only made under the latter if it

is thought probable that a Demolition Order will subsequently be required.

In addition to the houses condemned as unfit for habitation, 37 houses were certified by the Medical Officer of Health as filthy and unwholesome and ordered to be cleansed and purified under Section 120, Public Health Act, 1875. 420 other houses were cleansed by the owners upon receipt of informal notices from the Sanitary Inspectors.

WORK REQUIRED TO BE DONE TO RENDER HOUSES FIT FOR HABITATION.

In order that owners and house-agents may know the work required to be done to render a house fit for habitation after it has been condemned, the following statement was prepared and has been approved by the Sanitary Committee:—

HOUSING, TOWN PLANNING, &C., ACT, 1909.

THE LEICESTER IMPROVEMENT, &c., ACT, 1868.

Repairing Old Houses condemned as Unfit for Habitation.

Particulars of work required to be executed in order to render dwelling houses fit for habitation after Closing Orders have been made.

All roofs to be made thoroughly sound and weather-proof, gutters and spouting to be put in perfect order and renewed if necessary.

Walls to be repaired and made thoroughly sound. Perished brickwork to be made good. Re-pointing to be done where necessary. Bulged portions to be taken out and re-built.

A damp course to be provided to all house walls.

Dampness of walls to be remedied by appropriate measures.

Ventilation bricks to be provided beneath all wooden floors where practicable.

All old defective plaster on walls and ceilings to be hacked off and the whole surface re-plastered.

Ceilings to be repaired and made thoroughly sound.

Red brick or quarry floors when damp and laid directly on the soil to be taken up, the earth removed, and the floor relaid on six inches of ashes or concrete. In every case the floor to be made smooth and even, all perished bricks to be replaced, and where necessary the whole floor to be relaid. Wooden floors and plaster floors to be made sound and repaired where necessary.

Every room in the house to be properly lighted and ventilated : where necessary new windows to be provided or existing windows enlarged. Every window to be capable of being opened and fixed open, and in the case of sash windows both the top and bottom sashes to be made to open. Broken panes to be reglazed, and where necessary sashes to be renewed and proper window sills provided.

All woodwork such as doors, windows, cupboards, skirtings, banister rails, &c., to be repaired and made thoroughly sound. All hinges and fastenings to be put in good condition and made to work properly. Staircases to be thoroughly sound and re-built or repaired as may be necessary.

Every living room to be provided with a suitable closed cupboard, and where there is no separate pantry the cupboard, if possible, to be ventilated into the outer air.

A sound firegrate of approved construction, comprising both oven and boiler, to be provided. Chimneys to be in good working order.

In the case of all houses with two or more down-stair rooms, the water to be brought inside the house and a proper sink and waste pipe provided.

The paving outside the house to be made thoroughly sound and relaid where necessary. Where no paving exists sufficient blue brick paving to be provided.

The water closet to be in thorough repair and the roof weather-proof: the w.c. to be properly lighted and ventilated, the flushing cistern in good order, and the woodwork and pan sound.

Drains to be tested and made thoroughly sound, and approved gulleys to be provided where necessary.

All old paint on woodwork, both inside and outside the building, to be re-painted two coats and burnt off if required. All old paper to be removed before re-papering. Walls to be re-papered or colour-washed.

Where outbuildings exist these are to be put into thorough repair. All outbuildings, entries, &c., to be lime or colour-washed where necessary.

Approved by the Sanitary Committee, February 23rd, 1912.

This statement is likely to be very useful in assisting us to get thorough repairs executed after a house been condemned.

In this connection I wish to record the great assistance rendered me by Chief Inspector Braley in interviewing owners of property, builders, &c., and seeing that the necessary work is carried out. His long experience and well-known tact are invaluable.

WATER SUPPLY.

The great event of the present year will be the completion of the great Derwent Valley Water Scheme, by means of which Leicester, in conjunction with Sheffield, Nottingham and Derby, will obtain an almost unlimited supply of pure soft water from the watershed of the River Derwent, in North Derbyshire. It is expected that the water will arrive about midsummer.

Owing to the prolonged dry weather during the past summer and autumn, the three main reservoirs of the Corporation, at Thornton, Cropstone and Swithland, were depleted to a quite exceptional extent. Restriction of the supply was deferred as long as possible, but eventually, in the last quarter of the year, it was found necessary to shut off the water during the night time.

SEWAGE DISPOSAL.*

The sewage of the Borough of Leicester was first pumped up to Beaumont Leys Farm in the year 1890.

The total lift is nearly 170 feet above the outfall sewer.

* The facts relating to Sewage Disposal have been kindly supplied by Mr. E. G. Mawbey, M. Inst. C.E., Borough Engineer.

The Belgrave Sewage Farm was abolished and the sewage from the Belgrave district first pumped to Beaumont Leys Farm in 1905.

The total lift in this case is 175 feet above the outfall sewer.

The total dry weather flow is about eight million gallons per day.

On reaching the Beaumont Leys Sewage Farm, the whole of the sewage is subjected to preliminary bacterial treatment for clarification before final purification on the land.

It is first passed through subsidence tanks, and then treated in first-contact bacteria beds, which cover an area of about twelve acres.

After this preliminary bacterial clarification, the sewage is finally purified by broad irrigation over about 1,350 acres of land, which consists largely of old pasture and rye grass.

The final effluent from the land is discharged partly into the River Soar, within the Borough, and partly into the Rothley Brook, on the Anstey side of the farm, which also eventually discharges into the River Soar.

The total area of the farm is 1,700 acres. The portion not available for sewaging is used for grazing when it is not convenient for the bullocks to be upon the sewaged area.

PUBLIC BATHS.

There are now five public baths in Leicester, viz., Bath Lane, Vestry Street, Cossington Street (Belgrave), Spence Street (West Humberstone), and Knighton Fields Road (Aylestone). The last named was opened in 1910, and differs from the others in being provided with a patent purification plant, whereby the water is continuously being strained, filtered and aerated (except when the pump is not working). The satisfactory results obtained by this process were referred to in the last Annual Report.

A further innovation, of a different nature, has now been introduced at the Aylestone baths, viz., "mixed" bathing. This has been successfully tried in a number of other towns, so that there is not much doubt that it will also prove satisfactory in Leicester, in which case it will do much to popularise bathing

and afford much greater facilities, especially as regards women and girls, to learn to swim. From the public health point of view the new departure must be heartily welcomed, and it is to be hoped that it may soon be found feasible to extend the same facilities to the other public baths.

INSPECTION OF MEAT AND OTHER FOOD.

There are two special Food Inspectors, whose time is devoted to the inspection of food, and especially meat.

A special report by them upon the year's work appears in Appendix V.

A voluntary arrangement has existed in Leicester for many years, whereby butchers and others having anything doubtful request the Food Inspector to see it. If he is unable to "pass" it, the meat or other article is voluntarily surrendered, and it is then destroyed free of charge at the Corporation destructors. A similar arrangement exists in many towns and works well, and it is, no doubt, in the public interest.

SLAUGHTER HOUSES.

In addition to private slaughter houses, of which there are 66 in different parts of the Borough, Leicester possesses a Corporation Abattoir, situate on the Aylestone Road, comprising eighteen slaughter houses. Twelve of these were erected about thirty years ago, and the other six in 1896. Seventeen are let to private tenants, some of whom sub-let to others; whilst only one is reserved for casual slaughtering. The rent received amounts to between £300 and £400. The approximate number of animals slaughtered annually is—beasts, 4,500; sheep, 10,000; pigs, 15,000. Both the private slaughter houses and those belonging to the Corporation have been repeatedly visited during the year by the Meat Inspectors.

THE WORKMEN'S COMPENSATION ACT, 1907.

During the year 1911, 53 cases of accident or injury to Corporation employees were referred to the Medical Officer of Health for examination and report. Many of these cases had to be seen more than once.

PTOMAINE POISONING.

In June, 1911, an outbreak of ptomaine poisoning occurred in Leicester, and although, fortunately, none of the cases proved fatal, a number of persons were made seriously ill for the time being.

The outbreak was clearly traced to the consumption of a particular batch of potted meat (beef), manufactured by a firm in the town. Altogether upwards of 60 people, all of whom had partaken of the potted meat, were taken ill, the symptoms being violent diarrhoea, vomiting, and pains in the abdomen and limbs, and pyrexia coming on a few hours (in some cases not till 18 hours) afterwards. In almost all of the cases the symptoms were so severe as to necessitate a medical man being called in. The illness lasted from 24 hours to several days. In one instance, some ladies returning to their home in the South of England took with them a dish of the potted meat, some of which they gave to some friends living in the flat below them. All who partook of the meat (in the two families) were taken ill. The remainder of the potted meat was then given to the care-taker with instructions to burn it; but as it looked all right, and she was sceptical as to its being the cause of the illness, she did not destroy it, but had it for her tea with two other persons. All these were taken ill in precisely the same way as the others. The Medical Officer of Health for the district was called in, and it was through him that the facts in this group of cases came to my notice. It is noteworthy that all those who had partaken of the potted meat agree that they noticed nothing suspicious or peculiar about it as regards taste, smell or appearance.

As soon as the occurrence of the outbreak was brought to the knowledge of the Health Department, which was not until a day or two after the meat had been consumed, full investigation was made. The premises were found to be in a satisfactory condition as regards cleanliness, and, generally speaking, as regards structure also. The process of potting meat appeared to be carried on carefully and in a cleanly manner. The proprietor had, indeed, been at considerable trouble and expense to render the premises satisfactory. The premises were, however, also used as a slaughter house for pigs, and although the meat potting was carried on in separate rooms from the slaughter house, the same

men were employed. We were told that the two operations were carried on on different days. The weather at the time was exceptionally hot, and the potted meat, after manufacture, was left all night in a warm room. As already stated, all the cases of illness had apparently been caused by one particular batch, but nothing exceptional could be discovered as regards the making of this batch or the materials used to account for its developing poisonous qualities. We were, unfortunately, unable to obtain any samples of the potted meat in question—any that had not been eaten having been thrown away before we appeared on the scene. The Medical Officer of Health of the town already referred to was, however, more successful, he having been called in as a medical practitioner when the victims were first taken ill. He informed me that he obtained some of the potted meat and had examined it bacteriologically and had found many micro-organisms, chiefly streptococci, and a stout bacillus resembling Gaertner's bacillus, both morphologically and in its reaction to various methods of staining.

There can be little doubt that some extraneous organism, *e.g.*, Gaertner's bacillus, had in some way or other gained access to the potted meat, and almost certainly during the process of manufacture, as only the one batch was involved; and this, under the favourable conditions provided by the exceptionally warm weather, would multiply very rapidly. It is known that such organisms may be present in highly dangerous numbers without affecting the taste or smell of the meat, or being accompanied by any obvious signs of putrefaction.

Fortunately, outbreaks of meat poisoning are rare, but when they do occur they are apt to be very serious. The practice of manufacturing potted meat on premises used also for slaughtering, although not unusual on account of the obvious convenience, is far from being ideal, and possibilities for contamination must exist which would not be the case where the process of potting is carried on at a distance from the slaughter house.

It only remains to add that almost simultaneously with this outbreak a few other cases occurred presenting similar symptoms which could not be traced to this source.

As a result of an inspection of the premises where the brawn was prepared, the Medical Officer of Health made suggestions as to certain structural alterations, with a view to more completely cutting off the room where the meat was cooked, chopped and prepared from the slaughter house. This the proprietor readily consented to, and very substantial improvements have been effected at not inconsiderable expense.

CLEANSING OF PERSONS ACT, 1897.

During the year representations have been made as to the need for a public cleansing station in Leicester, and the question has been raised as to the desirability of exercising the powers conferred by the Cleansing of Persons Act, 1897, which enables local authorities to provide facilities, free of charge, for the cleansing of persons who may have become infested with vermin.

The question is, undoubtedly, a very important one. It is certainly most desirable in the interests of the community, that any verminous persons who wish to be cleansed and to have their clothing purified should have facilities for doing this. A number of local authorities have already taken action in this direction, and your Chairman (Ald. Windley) and the Medical Officer of Health took the opportunity last summer of visiting two of the principal cleansing stations in London, viz., those at Marylebone and St. Pancras.

A report on the subject has been prepared by the Medical Officer of Health and is now under consideration.

CREMATION.

The Leicester Crematorium was opened by the Corporation in 1902. It is situated at the Gilroes Cemetery, Groby Road, and constitutes an annexe to one of the two cemetery chapels.

The number of cremations performed in 1911 was 13, the average for the eight years the crematorium has been in operation being the same figure.

REPORT

ON THE

INFANTS' MILK DEPOT

FOR THE YEAR 1911.

The Leicester Municipal Infants' Milk Depot has now been in existence for over five years, having been opened in July, 1906.

It is satisfactory to record that whereas many other Infants' Milk Depots in other towns have been closed, after a few years existence, either because they failed to be appreciated by the public, or because of the heavy expense entailed, the Leicester Milk Depot has on the other hand never been in a more flourishing condition. It has steadily increased in popularity as it became more and more known, and at the same time the cost of upkeep to the rates (*i.e.*, excess of expenditure over income) has been steadily diminished. This is shown by the following figures:—

LEICESTER INFANTS' MILK DEPOT.

Year.	Number of New Cases brought to Depot.	Average Number of Infants on the Books.	Cost of Upkeep. Excess of Payments over Receipts.*
			£ s. d.
1907	672	202	339 5 3
1908	632	195	167 14 6
1909	639	216	110 17 1
1910	854	274	43 10 4
1911	939	325	Nil.

* Hitherto the payments debited to the Milk Depot account have included an annual payment of £25 made to the Leicester Health Society by the Sanitary Committee in recognition of the work done by the Society's Health Visitors in visiting the homes of infants on the Milk Depot, and for assisting at the infants consultations held at the Milk Depot twice a week. This payment would be more correctly debited to the general expenses of the Sanitary Department, as in the case of the salaries paid to the Corporation's own Health Visitors, and in future it is proposed to do this.

It will be seen that the work of the Milk Depot has not only greatly increased, so far as the number of cases dealt with is concerned, but the cost of upkeep has so far decreased that during the past year the receipts have more than balanced the payments—*i.e.*, the Milk Depot has been self-supporting. Moreover the interior of the premises has been renovated, and the cost of this has been included in the year's payments.

This very satisfactory state of affairs from the financial point of view has undoubtedly been chiefly due to the substitution of dried milk for the prepared sterilised milk, put up in small bottles, at first employed. This latter form of milk has been the kind supplied at most of the milk depots which have failed. It is very costly to prepare, and can only be supplied to the poor at a heavy loss. Moreover, and this of course is the most important point, it is not so satisfactory as a food for infants.

A further reference to the use of dried milk will be made later.

The following letter is a sample of the testimony not infrequently received from mothers, and, at the risk of appearing to imitate the vendors of patent medicines, I am inserting it to show that parents are not ungrateful for the benefits conferred upon their infants by the Milk Depot.

[COPY OF LETTER SENT TO MANAGERESS.]

Alma Street, Newfoundpool.

July 26th, 1911.

Dear Sir or Madam,

Just a line which I feel my duty to write in praise of Depot dried milk, which without doubt has saved our baby's life. Our Doctor said she was wasting away, and now I am proud she is two years and four months to-day and weighs 28 pounds, and is now the bonniest of our children. People say she is a wonder, *they* did not think she would live.

I remain, yours respectfully,

A. H. D.

The minimum number of infants on the books during 1911 was in January when it was 267, and the number increased till it reached a maximum in December of 381, this being the highest figure hitherto attained.

A number of infants were brought from outside the Borough, viz., from Birstall, Thurmaston, Syston, Wigston, Whetstone, &c. A small extra charge is made in these cases.

As in previous years there were a number of "old customers," *i.e.*, mothers who returned to the Depot with a fresh baby. Thus, there were 89 instances of *second* babies, 11 of *third* babies, and 7 of *fourth* babies. This is satisfactory as proving that mothers appreciate the benefit of the Milk Depot.

There were eight sets of twins brought to the Depot during the year.

461 infants were stated to have been brought on the advice of medical men. The co-operation of the medical practitioners in the Borough has been of great assistance and is much appreciated.

Classifying the completed cases during 1911 according to the time they remained on the Depot, we find:—

PERIOD ON THE DEPOT.					NO. OF CASES.
Not more than					
1 week	...	...	...	...	162
2 "	...	...	...	...	63
4 "	...	...	...	...	85
2 months	...	...	...	...	95
3 "	...	...	...	...	67
4 "	...	...	...	...	36
5 "	...	...	...	...	35
6 "	...	...	...	...	51
7 "	...	...	...	...	38
8 "	...	...	...	...	24
9 "	...	...	...	...	29
10 "	...	...	...	...	28
11 "	...	...	...	...	39
12 "	...	...	...	...	52
Over 12	...	...	...	...	57

861

Excluding the 162 cases which did not have the Depot Milk for more than a week, there were 24 deaths of infants whilst on the Depot. The great majority of these cases were not in good health at the time they were first brought to the Depot. Nine

of the deaths were caused by diarrhœa, one by diphtheria, three by bronchitis, two by measles, and nine by other causes.

CO-OPERATION OF OTHER BODIES.

The Charity Organisation Society, as in previous years, have helped by paying for the milk in special cases brought to their notice. During 1911 they assisted in 12 instances, including one case of twins. The average period per case for which they paid was $12\frac{1}{2}$ weeks, the total amount paid being £14 4s. 8d.

The Guardians likewise have paid for 21 cases, including one of twins, the average period being $4\frac{1}{2}$ weeks, and the total amount paid being £7 15s. 0d.

Cases have been sent to the Depot by the Workhouse Aid Committee, the R.S.P.C.C., the Maternity Hospital, and the General Infirmary.

REDUCED CHARGE FOR THE MILK IN SPECIAL CASES.

In a certain number of cases, where poverty has existed and parents have had a difficulty in paying the ordinary price charged for the milk, they have been allowed to have it at a reduced price, which just covers the actual cost of the milk purchased wholesale, but leaves no margin towards the cost of up-keep of the Depot. Thus, of 376 cases remaining on the books on December 31st, 117 were having the milk at a reduced price. In still other cases it has occasionally been necessary to give the milk, temporarily, free of charge. The value of milk thus given away during the year was £6 17s. 9d.

The Health Society continues to co-operate closely, as has been the case ever since the Milk Depot started. The Society's Health Visitor (Miss Dorothy Lenn) devotes a portion of her time to visiting the homes of infants on the Depot, and during the year she paid 585 of such visits. She also attends the Infants' Consultations held at the Depot twice weekly.

In recognition of her services the Sanitary Committee contribute £25 per annum towards her salary. This work, though very valuable, would otherwise be done by the Corporation

Health Visitors; and although in the past the above contribution has been debited, as referred to above, to the Milk Depot account, it is proposed in future to regard it as part of the general expenses of the Sanitary Department, as it is not essential to the work of the Milk Depot.

DELIVERY OF MILK.

In a certain number of cases where the people live at a distance from the Milk Depot, the dried milk is delivered weekly or as required through the Parcel Department of the Tramways, a charge of one penny per delivery being made. The majority of customers, however, prefer to fetch the milk, and many of them have to walk long distances to get to the Depot.

There is, undoubtedly, a need for branch depots in some of the outlying districts, where the milk could be obtained without having to come to Belgrave Gate each week.

An experiment is now being made in one district (Gartree Street). Mrs. Beddow, wife of the Minister of Wycliffe Church, having kindly volunteered to stock and distribute the Milk Depot milk at a house used for social work in connection with the above church.

INFANT CONSULTATIONS.

Undoubtedly, one very important part of the work of an infants' milk depot is the advice given to mothers as to the rearing of their infants. Infant consultations are held twice a week, on Monday and Wednesday afternoons, and mothers are encouraged to bring their infants to be weighed and inspected by the doctor (the M.O.H. or Assist. M.O.H.) The number of infants being fed from the Depot is now so great that after a few weighings, at intervals of about a fortnight, mothers are not pressed to bring their infants, except in such cases as are not progressing satisfactorily.

The attendance at the Infant Consultations varies considerably, being dependant largely upon the weather, but on a fine afternoon the number is usually about 30, but may reach 40 or 50.

THE USE OF DRIED MILK.

It is now over four years since the use of dried milk was begun in place of the specially prepared bottled milk. At first it was only used tentatively, and in cases in which the bottled milk was apparently not suiting. The results obtained were so satisfactory that the use of dried milk was gradually extended, until in 1911 it had entirely taken the place of the bottled milk, which was then discontinued. The question of the suitability of dried milk as a food for infants, and of the advantages of using it at infants' milk depots, was gone into at some length in the last Annual Report.

The Food Department of the Local Government Board being interested in the question, Dr. Coutts, one of the medical staff of the Board, paid a visit to Leicester to make enquiries on the spot. In order that he might judge how far the medical practitioners in Leicester shared the good opinion of your Medical Officer of Health in regard to dried milk, an inquiry was addressed by the latter to 60 of the medical men in general practice in the Borough.

The result of this inquiry is shown below.

DRIED MILK AS A FOOD FOR INFANTS.

Result of Inquiry addressed by the Medical Officer of Health to Medical Practitioners in Leicester, February, 1912.

QUESTIONS.

The questions asked were as follows:—

1.—Have you had any cases of infants in your practice who have been fed on dried milk? If possible, give an indication of the approximate number.

2.—What is your opinion as to the value of dried milk as a food for infants as a substitute for liquid cow's milk?

3.—Have you come across any cases of rickets or scurvy which you were inclined to attribute to the use of dried milk? If you can give the names and addresses of such cases it will be regarded as a favour.

4.—Have you come across any specific cases where any other bad results followed the prolonged use of dried milk, and which in your opinion could reasonably be attributed to such use? Kindly give the names and addresses of such cases.

5.—Remarks.

REPLIES.

The results of the inquiry may be summarised as follows. Sixty inquiry forms were sent out, and 53 replies were received. Of these 14 stated that the writers had not had experience of dried milk. The remainder, 39 in number, may be classified as follows:—

(a) Favourable	...	...	...	...	30
(b) Doubtful	...	...	...	...	7
(c) Adverse	...	...	...	...	2

(a) FAVOURABLE.

The following are examples of the favourable replies:—

1.—Has had experience of between 40 and 50 (probably more). Writes: "With the exception of an isolated case here and there, I have had unqualified success. . . . Dried milk in my opinion, for very young infants, far surpasses the former Pasteurised or sterilised milks in common use some years ago." He has seen no bad results, but usually recommends the use of orange or grape juice. Generally discontinues the milk after six months.

2.—Has had a large experience, from 20 to 30 per annum for some years. "I find children do better with dried milk as a rule than with any other form of milk I have tried." Has had no bad results which he could attribute to the use of the milk.

3.—Has had considerable experience, probably over 100 or more. "I have every reason to be satisfied with it, but I always select the cases." Has not seen any untoward results. Always prescribes fruit juice.

4.—Has had a good many cases. Has a very good opinion of dried milk. Has seen no bad results. "Most of the cases treated with dried milk put on weight rapidly."

5.—"I consider dried milk the very best substitute for liquid cow's milk." Has come across no untoward results.

6.—Has had about 30 cases in his practice which have been fed on dried milk. "Very satisfactory, especially in the summer months when liquid cow's milk is so apt to become infected. . . . My own child, now one year old, was fed on dried milk during the summer and autumn months, and was then, and is now, perfectly well." Has come across no bad results.

7.—Has had experience of about 50 cases. "In the majority of cases just as good (as liquid cow's milk), very much better when the mothers are ignorant or lazy, especially in hot weather. My experience has been that it is an excellent food." Has had no bad results.

8.—Has had experience of a great number but cannot give exact figure. Considers that dried milk is preferable to liquid milk, specially in summer. Has seen no bad results.

9.—Has had experience of upwards of 100 cases. Considers that dried milk is better than liquid milk. Has had no bad results. "I frequently recommend dried milk, and speaking generally the result has been good."

10.—Considers dried milk "very suitable, especially for working class people, who often have a difficulty with cow's milk especially in hot weather." Has had no bad results. Has only found one case in which the milk did not agree.

11.—Has had experience of a dozen or more cases. "In several cases I believe it has been of great benefit. The dried milk seemed to be easily assimilated and retained in the stomach when cow's milk was rejected. Several mothers informed me that the dried milk got at the Municipal Infants' Milk Depot had improved the health of their infants very much." Has not come across any bad results.

12.—Has had a very large experience of dried milk. "The results in the very large majority of my cases have been good. In a very few cases the dried milk did not do well (the children not gaining weight, &c.) and a change was made." Has come across no bad results.

13.—Has seen a considerable number of children fed on dried milk principally in the O.P. department at the Infirmary. "In my opinion infants fed on dried milk have thriven quite as well as if fed on liquid cow's milk. I consider that dried milk has the advantage over liquid cow's milk as a food for infants, especially as regards convenience of supply and storage, and less liability to contamination." Has come across no bad results.

14.—"I have had a number of cases where I have recommended dried milk, but am not able to say how many. In most cases I have found it do well, though some few have not been able to take it." Has come across no bad results.

15.—Has had about 40 or 50 cases. "I have found it very useful, and infants get on very well with it. People like it, as it saves a lot of trouble in preparing the fresh milk every day. In my opinion it is much safer as regards infection. . . . In my opinion the dried milk should be much more popular."

(b) DOUBTFUL.

As regards the seven medical men whose replies were classified as "Doubtful," some of these qualified their answers by stating that they had seen one or more cases in which they were inclined to attribute bad results. In no case, however, could they give the name and address of any such case.

(c) ADVERSE.

The two replies which were unfavourable were to the following effect.

16.—Has had experience of dried milk, but is unable to give the number. "I do not consider it satisfactory as a substitute for liquid cow's milk. I have seen cases of rickets which might be attributed to the dried milk, but am sorry that I am unable to give names."

17.—Has seen "dozens" of cases fed on dried milk. "I do not like it, and do not recommend it. . . . In fact I have never seen it do any good at all." Has seen rickets and diarrhoea which he attributed to the use of dried milk. (As no names or addresses could be given it has not been possible to investigate these cases.—C.K.M.).

It should be observed that in many, though not all, of the cases referred to in the above replies, the dried milk was obtained at the Corporation Infants' Milk Depot.

The above replies indicate that a large majority of the medical practitioners in Leicester entertain a high opinion of the value of dried milk as a food for infants. It may be added that the form of dried milk employed at the Milk Depot is chiefly that made by the "Hattmaker" process, but the preparation known as "Trumilk" is also employed though to a less extent.

The following are examples of satisfactory cases:—

KATHLEEN M—— (No. 183). Was brought to the Depot when three months old. Reported to have been healthy when born, but not thriving, and appeared to be in poor health when first seen. Dried milk (Trumilk Brand) was prescribed and steady improvement followed. At twelve months old looked the picture of health, and had increased during the nine months from 8 lbs. 14 ozs. to 24 lbs.

JESSIE W—— (No. 150). Brought to the Depot when four months old on advice of medical man. Was in very poor health and had lost 1 lb. in weight the previous week. Mother stated that she had tried almost every kind of food. Dried milk (Hattmaker) was prescribed, and steady improvement began and was maintained until the baby was twelve months old, when the milk was discontinued. Weight when brought, 9 lbs. 13 ozs.; weight at twelve months old, 24 lbs. 8 ozs.

CLIFFORD B—— (No. 333). Brought to the Depot when five months old on advice of medical man. Looked miserable and puny, and stated to have been delicate from birth. Mother

could not get a food to suit. Made very slow progress at first, but afterwards rapid improvement set in. Weight when first brought (five months old), only 7 lbs. 7 ozs.; weight at twelve months, 22 lbs.

OLIVE B——. Brought to the Depot when seven weeks old; delicate from birth. Mother had tried various foods without success. Improvement slow at first, afterwards more rapid, and at twelve months old she was a very fine child. Weight when brought, 7 lbs. 9 ozs.; at ten months old, 21 lbs. 8 ozs.

WALTER C—— (No. 535). Brought to the Depot when six weeks old on advice of medical man. This was a case of premature birth (eight months). Mother could not get a food to suit. The child seemed to improve at once, and at twelve months old was a fine healthy child.

VICTOR D—— (No. 452). Brought to the Depot when one month old on advice of medical man. Mother stated that the Doctor told her that bringing the baby to the Depot was the last resource. No food had seemed to suit. Steady improvement set in, and at twelve months old the child had increased from 9lbs. to 21 lbs. 8 ozs.

MRS. STANION, who has been Manageress of the Depot since it was first opened, continues to render excellent service, and I gladly acknowledge the large share she has had in making the Depot the success it undoubtedly is. She is the right woman in the right place.

C. KILLICK MILLARD,

Medical Officer of Health.

Town Hall, Leicester,

March, 1912.

BOROUGH OF LEICESTER.
INFANTS' MILK DEPOT.

Receipts and Payments during year ended 31st March, 1912.

PAYMENTS.	£	s.	d.	£	s.	d.
Wages	57	11	0			
Purchase of Milk	1060	6	7			
Railway Carriage and Delivery of Milk	10	14	2			
Bottles, Stoppers, &c.	21	8	4			
Rent, Rates and Insurance	46	9	9			
Fuel, Light and Water	17	8	10			
Telephone	7	5	2			
Printing and Stationery	18	1	0			
Fittings and Repairs	25	0	7			
Sundries	17	7	11			
Health Visitor (part salary)	25	0	0			
				1306	13	4
RECEIPTS.						
Sale of Milk, &c.				1347	16	11
Receipts in excess of Payments				£41	3	7

W. PENN-LEWIS,

May, 1912.

Borough Treasurer.

APPENDIX II.

REPORT

ON THE

BOROUGH ISOLATION HOSPITAL

FOR 1911.

By C. F. WALKER, B.A., M.D., B.S., D.P.H.,

Resident Medical Officer and Assistant Medical Officer of Health.

On 31st December, 1910, there were 91 patients remaining in the Hospital. During the year, 1351 patients were admitted, 1255 were discharged, and 29 died, leaving 158 in Hospital on 31st December, 1911.

The admissions showed an increase of 392 on the previous year, this being chiefly due to an increase in scarlet fever and diphtheria. There was also an increase in the number of enteric fever and of phthisis patients.

The particulars of the admissions were as follows:—

Scarlet Fever	...	...	...	873
Diphtheria	...	...	...	176
Enteric Fever	...	...	...	37
Phthisis	...	...	...	201
" Pre-tubercular "	...	...	...	61
Unclassified	...	...	...	3
Total	...	...	...	1351

The Leicester Isolation Hospital is situated on the Groby Road, two and a half miles from the centre of the town, and one mile beyond the Borough boundary. The site, which covers sixteen acres of land, is a particularly good one, being on rising ground with a gentle slope to the south. The Hospital was opened in 1900, and provides accommodation for nearly 200 patients.

The Smallpox Hospital is on the Anstey Lane, a quarter of a mile away from the Isolation Hospital. It stands on four acres of ground, and consists of wooden buildings covered with galvanised iron. It provides accommodation for 60 patients.

SCARLET FEVER.

The number of admissions for 1911 was 873, as compared with 739 in 1910, and 1166 in 1909.

The increase was due to the increased prevalence of the disease during the last quarter of the year. During the first half of the year the numbers remained exceptionally low, and it was found possible to close one of the wards.

The type of disease has been extraordinarily mild, the fatal cases numbering only 6, equivalent to a case-mortality of only 7 per cent. The case-mortality for the preceding years has been: 1910, 1.6; 1909, 1.4; 1908, 2.2; 1907, 3.0 per cent.

All six fatal cases were in children under five years of age, and four of these were under two years. All were of exceptionally severe septic type, and in three diphtheria was also present.

The average period of isolation was 30.8 days, this being by far the shortest recorded during the past ten years (*see* Table B). This is due to the practice adopted during the year of disregarding late desquamation in discharging patients, and also to the mild character of the disease.

The eucalyptus oil treatment, commenced in 1910, was continued in a modified form throughout the year. Reference will be made to this by the Medical Officer of Health in his General Report.

During the month of November there occurred a small outbreak of this disease in the Diphtheria Pavilion, a patient having been admitted there in the incubation stage of scarlet fever. During the next few weeks several cases occurred in succession, about half a dozen in all. All the cases made good recoveries, and by using part of the Isolation Block, and thoroughly disinfecting both diphtheria wards, it was found possible to stamp out the outbreak by the end of the year.

DIPHTHERIA.

The number of diphtheria cases admitted was 176, being a large increase on the previous year. Although many were of the severest type, especially during the latter part of the year, the case mortality was only 6.8 per cent., as against 7.1 per cent. in 1910, and 9.6 per cent. in 1909.

Operations performed for laryngeal obstruction numbered 58, of which no fewer than 48 took place during the last three months of the year. Altogether 31 patients were operated on: of these 21 required intubation only (in some cases repeated); in four other patients intubation had to be followed by tracheotomy, while in six cases of great urgency tracheotomy was resorted to at once. The deaths of operation cases numbered 8, as follows:

Intubation alone	...	...	...	2
Intubation followed by tracheotomy	...	...	...	2
Tracheotomy alone	...	...	...	4

The mortality of the tracheotomy cases is apparently high, but it should be borne in mind that all these cases were in a desperate condition, intubation having either been impossible or having failed to give relief.

As showing the desperate condition in which many of the laryngeal cases were admitted, it may be stated that one child died of laryngeal obstruction in the ambulance on the way to the Hospital, while no fewer than three others, although operated upon immediately on arrival, actually ceased to breathe before the operation commenced, or before it could be completed. It is gratifying, however, to be able to record that the operation, followed by subsequent artificial respiration, was successful in resuscitating two of these patients, who made good recoveries. The third also rallied, and was making satisfactory progress, when he died of sudden heart failure a week after admission.

Many of the non-laryngeal cases were also of an extremely virulent type, and of these four died, making a total of twelve deaths from diphtheria. The average time which these patients had been ill before admission was between six and seven days. Four of the deaths occurred within 24 hours, and eight within 48 hours, after admission to Hospital.

The average stay in Hospital of all diphtheria patients (including the fatal cases) was 28.6 days.

ENTERIC FEVER.

Thirty-seven cases were admitted as enteric fever during the year, but three of these proved not to be that disease. Of the remaining 34 genuine cases eight proved fatal. During the latter

part of the year there was a considerable increase in the number admitted, traceable to the consumption of contaminated shell-fish. Reference is made to this by the Medical Officer of Health in his General Report.

About half the number admitted were cases of a very severe type.

Of the eight deaths, four were due to exhaustion and heart failure, two to intestinal hemorrhage, one to peritonitis, while the remaining case died during convalescence from an incurable spinal disease from which he had suffered for years.

The average stay of patients in Hospital was 47 days.

UNCLASSIFIED CASES.

These numbered three, as follows:—

Pleurisy	...	...	...	...	1
Hemorrhagic Enteritis			...	...	1
Obscure pulmonary disease			...	...	1

The average stay of these patients was 50 days. None of the cases proved fatal.

PHTHISIS.

During the year 201 cases were admitted, of whom one died having developed symptoms of tubercular meningitis two days after admission. The great majority of the patients showed a very striking improvement under combined tuberculin and sanatorium treatment.

The average length of time that each patient remained at the Sanatorium was 48.9 days.

TUBERCULIN TREATMENT.

Towards the middle of the year, treatment by means of tuberculin was definitely adopted as a routine practice in the case of all patients for whom it was not contra-indicated. The method adopted was that by progressively increasing doses, beginning with the preparation known as "P.T.O." as recommended by Dr. Camac Wilkinson. This question is dealt with by the Medical Officer of Health in his report.

"PRE-TUBERCULAR" CASES.

During the past summer it was possible, owing to the small number of patients in Hospital, to set aside a block for the treatment of children suspected of being predisposed to consumption, and 61 such cases were admitted. As this subject has been discussed by the Medical Officer of Health in his Report, it is unnecessary to refer to it further beyond saying that the average gain in weight (excluding two of the cases who died) was $5\frac{1}{2}$ lbs.

BACTERIOLOGY.

The work of the laboratory is still carried on as in previous years. Facilities are afforded to the practitioners within the Borough to have specimens of sputum, throat swabs, or blood examined free of charge, as an aid to diagnosis in doubtful cases of phthisis, diphtheria and enteric fever.

More work has been done in this department than in any previous year, upwards of 250 specimens having been bacteriologically examined.

STAFF.

The health of the Staff during 1911 has been satisfactory. One nurse contracted enteric fever, but made a good recovery. Two probationer nurses suffered from diphtheria, and one from scarlet fever: they also recovered completely.

HONORARY CHAPLAIN.

The Hospital owes a debt of deep gratitude to the Honorary Chaplain, the Rev. Canon Gedge, who still continues his voluntary ministrations to the sick. His weekly visits to the Hospital are gratefully appreciated, both by the patients and by the Staff.

The continued work of the Church-workers' Guild, which conducts a Sunday evening service for the consumptive patients, is also much appreciated.

GIFTS TO THE HOSPITAL

DURING 1911.

All Souls' Church Bazaar	...	Dolls and scrap books.
All Saints' School	...	Flowers and plants.
Anstey Adult School	...	Flowers.
Bankart Mr. (Morland Avenue)	...	Toys.
Barker, Miss (Mountsorrel)	...	Bags of sweets.
Billson, Mr.	...	Christmas cards.
Burrows, Mr.	...	Papers and magazines.
Cooper, Miss (Anstey Grange)	...	Papers and magazines.
Casson, Rev. J. (St. Augustine's Vicarage)	...	Plants and flowers.
Cox, Mrs.	...	Papers.
Cooper, Miss F. (an old patient)		Large doll & 1 doz. small dolls.
Donisthorpe, Mrs.	...	Scrap book and toys.
Day, Miss Nora	...	Toys.
Ellis, Mrs. James	...	Papers and magazines.
Ellis, Mrs. Bancroft	...	Toys and books.
Ellis, Mrs. (Granby Street)	...	Bags of sweets and toys.
Ellis, Mrs. (Bonsall Street)	...	Scrap books.
Gedge, Rev. Canon	...	Socks, vests, toys, games, etc.
Girling, Mrs.	...	Cards and toys.
Haines, Mrs.	...	Large doll from St. Saviour's Sale of Work.
Haines, Mrs.	...	Books.
Harrison, Mrs.	...	Books, etc.
Hodgson, Miss	...	Magazines.
Keary, Mrs.	...	Toys and books.
King, Miss L.	...	Dressed doll.
Kemp, Mr.	...	Toys, etc.
Lee, Mrs.	...	Papers (monthly).
Lakin, Dr.	...	Xmas pictures and magazines.
"Leicester Mail"	...	Toys.
Mitchell, Messrs. (High Street)		Toys.
Roberts & Roberts, Messrs.	...	Sweets, nuts and fruit.

GIFTS TO THE HOSPITAL.—Continued.

Smith & Son (G.C.R. Bookstall)	Magazines and books.
Samuels, Miss	... Toys.
Thompson, Mr. Arnold	... Toys and balls.
Victoria Road U.M.F. Church	... Books.
Windley, Ald. T.	... Magazines.
Williams, Rev. (Anstey Vicarage)	Magazines (monthly).
Yates, Mrs.	... Toys and books.
Vaughan, Mrs. (the late)	... Monthly magazines
Per Miss Pickerstein.	(for Nurses and Patients).

The usual Tables are appended.

C. F. WALKER.

*Resident Medical Officer and
Assistant Medical Officer of Health.*

TABLE A.
Number of Patients Admitted, Discharged, and Died during 1911.

DISEASE.	Remaining, 31st December, 1910.	Admitted during Year.	Discharged during Year.	Died during Year.	Remaining, 31st December, 1911.
Scarlet Fever	60	873	820	6	107
Diphtheria	2	176	148	12	18
Enteric Fever	5	37	20	8	14
Phthisis	24	201	205	1	19
"Pretubercular"	0	61	59	2	0
Unclassified	0	3	3	0	0
Total	91	1351	1255	29	158

TABLE B.

Showing, for the different diseases, the number of patients admitted, the average number in Hospital each day, and the average stay in Hospital. (Year ending December 31st.)

	Scarlet Fever.				Diphtheria.				Enteric Fever.				Smallpox.				Phthisis.				Other Diseases.				Total.			
	No. of Patients Admitted.	Average Patients in Hospital Each Day.	Average Days' Stay per Patient.	No. of Patients Admitted.	Average Patients in Hospital Each Day.	Average Days' Stay per Patient.	No. of Patients Admitted.	Average Patients in Hospital Each Day.	Average Days' Stay per Patient.	No. of Patients Admitted.	Average Patients in Hospital Each Day.	Average Days' Stay per Patient.	No. of Patients Admitted.	Average Patients in Hospital Each Day.	Average Days' Stay per Patient.	No. of Patients Admitted.	Average Patients in Hospital Each Day.	Average Days' Stay per Patient.	No. of Patients Admitted.	Average Patients in Hospital Each Day.	Average Days' Stay per Patient.	No. of Patients Admitted.	Average Patients in Hospital Each Day.	Average Days' Stay per Patient.				
1901	491	54.4	40.5	592	49.4	30.5	60	7.4	45.4	4	29.0	...	...	...	...	...	...	...	...	...	...	1147	111.7	35.5
1902	588	72.4	45.0	183	20.7	41.3	54	6.0	40.6	18	37.7	...	...	...	...	...	...	...	...	...	...	843	101.0	43.7
1903	130	16.0	45.0	47	3.4	26.5	24	3.3	50.4	388	32.2	63	...	39.5	...	...	...	...	...	...	...	652	63.8	35.7
1904	239	28.1	43.0	26	2.1	30.5	37	4.5	45.0	203	29.6	121	...	31.6	...	...	...	...	...	...	...	716	69.1	35.2
1905	739	82.4	40.7	89	6.3	26.1	43	5.3	45.2	5	35.0	157	...	37.3	...	...	...	...	...	...	...	1037	111.0	39.0
1906	1471	172.5	42.8	166	14.0	30.8	58	7.2	45.5	1	30	69	...	56.0	...	...	...	...	...	...	...	1765	204.4	42.2
1907	1196	154.5	47.1	102	8.1	29.1	35	5.0	52.1	...	...	82	...	65.6	...	...	...	...	...	...	...	1420	182.6	46.9
1908	866	149.3	48.1	92	12.5	49.8	29	4.9	61.7	...	...	91	...	60.8	...	...	...	...	...	...	...	1099	147.8	49.1
1909	1166	123.0	37.9	83	9.4	40.7	19	3.0	61.2	...	...	104	...	53.5	...	...	...	...	...	...	...	1382	149.3	39.4
1910	739	78.2	38.6	70	7.1	37.1	26	3.1	44.7	...	...	119	...	54.5	...	...	...	...	...	...	...	959	106.4	40.5
1911	873	73.7	30.8	176	13.9	28.6	37	3.6	47.0	...	...	201	...	48.9	...	...	...	...	...	...	...	1351	127.3	34.4

* 61 of these were "Pretubercular" cases.

TABLE C.†

BOROUGH OF LEICESTER. ISOLATION HOSPITAL.

Receipts and Payments during two years ending
31st March, 1912.

	Year 1910-11.			Average Cost per patient day.	Year 1911-12.			Average Cost per patient day.
PAYMENTS.	£	s.	d.	s. d.	£	s.	d.	s. d.
Salaries and Wages ...	1701	18	3	0 10·81	1813	0	0	0 8·49
Meat ...	230	19	0	0 1·47	267	6	9	0 1·25
Other Provisions ...	1031	5	3	0 6·55	1277	16	0	0 5·98
Furniture, Fittings and Domestic Utensils ...	109	7	1	0 0·69	119	15	2	0 0·56
Bedclothing, Towelling, &c. ...	83	16	7	0 0·53	121	7	1	0 0·57
Fuel, Light and Water ...	852	14	0	0 5·42	874	17	11	0 4·10
Rates, Insurance and Telephone ...	338	3	5	0 2·15	338	11	3	0 1·59
Alterations and Repairs ...	429	10	8	0 2·73	459	1	0	0 2·15
Horsehire, Horsekeep and Ambulance ...	107	17	4	0 0·69	135	4	10	0 0·63
Drugs and Medical Appliances...	225	6	7	0 1·43	315	4	0	0 1·48
Advertising, Printing and Stationery ...	30	7	1	0 0·19	44	11	0	0 0·21
Grounds: Gardeners' Wages, Materials, &c. ...	298	19	10	0 1·90	*434	17	1	0 2·04
Cleaning Materials ...	19	12	11	0 0·12	14	6	7	0 0·07
Sundries ...	46	16	9	0 0·30	66	18	5	0 0·31
Total Payments ...	5506	14	9	2 10·98	6282	17	1	2 5·43
RECEIPTS.								
Maintenance of Consumptive Patients ...	151	15	0	0 1·80	340	12	2	0 2·18
Maintenance of Scarlet Fever Patients (Guardians) ...	22	14	3		...			
Other Maintenance Receipts ...	13	16	0		27	13	2	
Pumping Cemetery Sewage ...	75	0	0		75	0	0	
Sale of Hay ...	18	0	0		21	0	0	
Miscellaneous ...	1	7	8		2	3	7	
Total Receipts ...	282	12	11	0 1·80	466	8	11	0 2·18
Net cost (excluding Loan Charges) ...	£ 5224	1	10	2 9·18	5816	8	2	2 3·25
No. of Patient days ...	37,779				51,240			

W. PENN-LEWIS,

May, 1912.

Borough Treasurer.

† This Table takes the place of Tables C and D in previous Reports.

* Includes £76 12s. 1d. for repairs to Macadam Roads.

TABLE D.

Details of Fuel used during the two years ending 31st March, 1912.

Particulars.	Rate per Ton.	Year 1910-11.			Year 1911-12.		
		Weight.		Value.	Weight.		Value.
		T.	C.	Q.	£	s.	d.
Coal	612	10	0
"	...	138	13	3	62	8	3
"	...	59	15	1	27	7	11
"	...	17	4	2	11	8	4
"	...	9	8	0	6	9	3
Slack
"	...	944	16	0	413	7	0
"	...	411	7	0	186	16	5
Firewood, &c.	3	17	4
Coke
		1581	4	2	£711	14	6
					1623	18	2
					£702	3	4

W. PENN-LEWIS,

Borough Treasurer.

May, 1912.

APPENDIX III.

PUBLIC ANALYST'S REPORT

FOR THE YEAR 1911.

TOWN HALL, LEICESTER.

*March, 1912.**To the Chairman and Members of the Sanitary Committee.*

GENTLEMEN,

My Report as Public Analyst for the year 1911 is as follows :

The total number of samples purchased by your Inspectors under the Food and Drugs Acts and submitted for analysis was 392. The nature of the samples is shown in Table A. No samples were submitted by private individuals.

Milk.—The number of samples of new milk submitted was 153, or rather less than usual. In view of the large number of milk vendors in the Borough (about 1200), and of the ease with which milk lends itself to adulteration, this number can hardly be looked upon as sufficient, and an effort will be made during the current year to increase the number to over 200. It is also proposed to pay special attention to such milk vendors who have been found in the past to be selling milk of poor quality.

Of the 153 samples examined 10 were certified as adulterated. Five of these contained added water, the amount ranging from 8 to 12 per cent.; and five were deficient in fat, the highest deficiency being 23 per cent. Prosecutions were undertaken in five instances, and in four of these convictions followed, and fines amounting to £11, exclusive of costs, were inflicted.

False Warranty.—In the remaining instance the case was dismissed, a warranty defence being set up by the defendant, (the retailer), which was accepted by the Bench. The wholesale vendor, a farmer at Whetstone, was then prosecuted for giving a false warranty, and was convicted and fined £10. This result

must be regarded as satisfactory. In too many cases where a warranty defence is set up it is so difficult to decide whether the real culprit is the retailer or the wholesale vendor that further action is not proceeded with.

Cautions.—In four cases where the amount of adulteration was only slight, the vendor was cautioned either by the chairman at a meeting of the Sanitary Committee, or by letter from the Town Clerk. In the remaining case no action was taken as the sample although deficient in non-fatty solids was fairly rich in fat.

Condensed Milk.—Twelve samples were submitted for analysis, but all were found to be genuine. Ten of these were machine-skimmed, and only contained traces of fat, but the fact of these being machine-skimmed was declared on the label. Unfortunately, the full significance of this statement is not properly appreciated by the poor, who purchase machine-skimmed condensed milk very largely on account of its cheapness. It is, of course, quite unsuitable as a food for infants, and there is great danger of rickets and other disorders occurring in infants fed on such food for any length of time. Some brands now state on the label that the milk is not a suitable food for young infants. The remaining two samples of condensed milk were "full-cream," and were found to contain 10 per cent. and 9.2 per cent. of fat respectively.

Preservatives in Milk.—Owing to pressure of other work but few samples of milk were examined for preservatives during the year 1911, but such examination is now being made more systematically.

Butter.—131 samples of butter were submitted during the year, and four of these were found to be adulterated. Proceedings were instituted in two cases, and fines of £2 and £5 and costs were inflicted. A large proportion of the butter samples were taken informally, this method of procedure being recommended by the Board of Agriculture as a useful preliminary step. It has the advantage of enabling a much larger number of samples to be taken in a given time. If any of the samples are found to be wrong a formal sample is then taken.

Coffee.—Twenty-four samples of coffee were taken, and in one instance the sample was found to be a mixture of coffee and chicory. As, however, only the price of a mixture had been charged, and it was the first known offence, the vendor was let off with a caution.

Water Analysis.—Samples of water from the Corporation Reservoirs have been sent by the Waterworks Engineer each quarter, and were found to be up to the usual standard.

I append the usual Tables.

Your obedient servant,

C. KILLICK MILLARD,

Public Analyst.

TABLE A.
Summary showing Samples taken and submitted for Analysis during 1911.

Nature of Samples.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total for Year.	
	Samples taken.	Found Adulterated.	Samples taken.	Found Adulterated.	Samples taken.	Found Adulterated.	Samples taken.	Found Adulterated.	Samples taken.	Found Adulterated.
Milk (New)	19	2	25	2	19	1	90	5	153	10
" (Condensed)	...	...	...	...	...	...	12	...	12	...
Coffee	...	...	6	...	...	...	18	1	24	1
Lard	...	...	...	...	...	...	12	...	12	...
Mustard	...	...	6	...	...	...	18	...	24	...
Flour	...	...	...	...	...	...	12	...	12	...
Butter	27	2	12	1	30	...	62	1	131	4
Bread	...	...	...	...	...	...	6	...	6	...
Margarine	...	...	...	...	...	...	6	...	6	...
Rum	...	...	...	...	...	...	3	...	3	...
Gin	...	...	...	...	...	...	3	...	3	...
Whisky	...	...	...	...	...	...	3	...	3	...
Brandy	...	...	...	...	...	...	3	...	3	...
Total	46	4	49	3	49	1	248	7	392	15

TABLE B.
Particulars of Adulterated Samples in 1911.

No. of Sample.	Nature of Sample.	Nature and amount of adulteration.	Action taken.
8	Milk	8.8 per cent. added water	Prosecution. Fined 40s. and costs.
17	Butter	100 per cent. of foreign fat	Prosecution. Fined 40s. and costs.
37	Butter	92 per cent. of foreign fat	Prosecution. Fined £5 and costs.
44	Milk	8.7 per cent. added water	Prosecution. Warranty defence set up and case dismissed.*
77	Milk	16 per cent. added water	Prosecution. Fined £5.
92	Butter	7.5 per cent. foreign fat	No action taken.
99	Milk	8.33 deficient in fat	Cautioned by Committee.
107	Milk	8.33 deficient in fat	Vendor cautioned.
226	Milk	10 per cent. added water	No action taken. Sample very rich in fat (41%).
263	Milk	12.2 per cent. added water	Prosecution. Fined 20s. and costs.
271	Milk	23.3 per cent. deficient in fat	Prosecution. Fined £3 and costs. Defendant failed to appear.
284	Butter	100 per cent. foreign fat	Sample was taken informally. Further sample taken formally but found to be genuine.
369	Coffee	46 per cent. of chicory	Cautioned by Town Clerk. The price charged by vendor was only 1s. per lb.
382	Milk	6.6 per cent. deficient of fat	Cautioned by Committee.
397	Milk	6.6 per cent. deficient of fat	Cautioned by Committee.

* In this case the wholesale vendor was subsequently prosecuted for giving a false warranty, and was convicted and fined £10.

APPENDIX IV.

CHIEF INSPECTOR'S REPORT
UPON THE
WORK OF THE SANITARY DEPARTMENT
DURING 1911.

To the Medical Officer of Health.

SIR,—I beg to submit the following report of work done by the Inspectors in the Sanitary Department during the year 1911. The appended Tables show the number and the nature of nuisances abated.

I am, Sir,

Your obedient servant,

FRANCIS BRALEY, CERT. SAN. INST.,

Chief Inspector.

16th April, 1912.

STATEMENT A.

Showing the work done by the Sanitary Staff during the
year 1911 and also in 1910.

	No. of Visits.	
	1911.	1910.
Systematic House to House Inspection ...	13,344	15,839
Investigations of Complaints ...	22,480	20,801
Visits to ascertain the progress of Sanitary and Informal Orders ...	18,158	18,729
Visits in connection with Infectious Diseases ...	8,600	6,552
Visits to Common Lodging Houses ...	534	549
Visits to Bakehouses ...	549	566
Visits to Canal Boats ...	107	107
Visits to Workshops ...	616	664
Visits to Fish Shops ...	269	157
Visits to Caravans ...	144	136
Visits to Marine Stores ...	14	12
Visits to Home-workers ...	139	141
Visits to Births ...	7,535	4,314
Visits to Dairies and Milk Shops ...	848	924
Visits to Cowsheds ...	212	220
	<u>73,549</u>	<u>69,711</u>
Samples of Food, &c., purchased for Analysis under Adulteration Acts ...	400	414
Observations for the purpose of Smoke Prevention ...	3,457	3,438
Stacks reported for Smoke Nuisance ...	17	15
Houses Disinfected by the Sanitary Staff ..	1,963	1,531
Articles Disinfected by Steam ...	1,433	1,367
Swine reported to Medical Officer of Health ...	69	12
Filthy Houses " " " ...	48	74
Dilapidated Houses " " " ...	75	92
Prosecutions under the Public Health and Local Acts ...	14	3
Letters (including Complaints of Nuisances) received ...	3,709	3,591
Letters (including School and Sanitary Notices) sent out from the Offices ...	7,484	6,048
Drains Tested (Smoke and Fluid) ...	558	465

STATEMENT B.

During the year Formal and Informal Notices have been served
to abate Nuisances as follows:—

					No. of Orders.
To abolish Manure-pits and Ash-pits	...	...	...	...	72
.. repair ditto ditto	...	...	...	...	6
.. provide Ash-bins	...	...	...	...	2,528
.. erect new Water Closets	...	...	...	...	14
.. repair, alter or rebuild Closets	...	...	...	...	1
.. fix Closet Hoppers and Syphons	...	...	...	...	75
.. fix Flushing Apparatus and lay on Water Supply	...	...	...	...	39
.. repair ditto ditto ditto	...	...	...	...	57
.. alter and ventilate Soil Pipes	...	...	...	...	1
.. stop up or disconnect Cellar Drains	...	...	...	...	4
.. lay New Drains	...	...	...	...	2
.. relay or repair Defective Drains	...	...	...	...	99
.. clear Choked Drains	...	...	...	...	508
.. cleanse or repair Cisterns	...	...	...	...	26
.. fix lead or iron Sink Wastes	...	...	...	...	30
.. fix Gullies	...	...	...	...	136
.. reset Gullies or provide new Gratings	...	...	...	...	65
.. erect, alter, screen or repair Urinals	...	...	...	...	29
.. repair, rehang or provide new Doors for Closets and Dwellings	...	...	...	...	42
.. repair, renew and make good Spouting	...	...	...	...	314

STATEMENT B.—Continued.

	No. of Orders.
To cleanse and limewash Closets and Passages	255
„ pave Yards and Passages, or repair Paving	314
„ provide new or relay and repair Floors	80
„ repair Roofs	175
„ cleanse and limewash Houses	420
„ ventilate Dwellings	6
„ remove Manure and Offensive Matter	10
„ remove Animals kept in such a condition as to be a nuisance	23
„ alter Chimneys and miscellaneous	309
„ reduce Number of Persons occupying Houses	24
„ repair Staircases	25
„ fix 4-inch Ventilating Pipes	17
„ repair Walls	45
„ insert Damp-proof Courses	123
	<u>*5874</u>

* The 5874 Defects ordered to be remedied were contained in 4457 Notices,
and of these 206 were Formal and 4251 Informal Orders.

STATEMENT C.

Showing the Localities of Sewer Gas Escapes.

Into Breakfast Rooms, Sitting Rooms, and Dining Rooms	3
.. Houses from Rat Holes	9
.. Kitchens and Sculleries	7
.. Basement Kitchens and Cellars	19
.. Lobbies and other parts of Houses	7
.. Internal Water Closets	6
.. External Water Closets	75
.. Yards, from around badly set Gullies, defective Drains, etc.	122
From Soil Pipes	18
.. Heads and Joints of downright Rain Water Pipes ...	22
.. Untrapped Rain Water Cisterns	3
.. Gullies in Stables	1
.. Ventilating Pipes	9
	<hr/>
	301
And in connection with Houses in which Infectious Diseases have arisen	65
	<hr/>
Total	366

STATEMENT D.

In connection with Infectious Diseases Inspection, the following defects were found, either in the houses referred to in the certificates, or in the houses, closets, etc., in the same yard.

	No.
Defective and Foul Ashpits	1
„ and dilapidated Closets	1
„ and choked Drains	22
„ and unventilated Soil Pipes	1
„ Urinal, Bath and Lavatory Wastes	2
„ Paving and Surface Channels	19
„ Untrapped or badly set Gullies to Sink and Yard Drains	5
„ Water Closet Hoppers and Flushing Apparatus	5
„ Spouting	4
Foul Brick and Defective Shafts to Sinks	1
Foul and Defective Rain Water Cisterns	2
Filthy Urinals, Closets and Passages	3
Filthy Houses	24
Escapes of Sewer Gas into:	
External Closets	18
Living Rooms and Sculleries	1
Yards, from defective Drains, badly set Gullies, or Rain Water Pipes connected direct with the Sewers or Drains	46
Total	155

STATEMENT E.

In connection with the Inspection of Factories and Workshops,
the following Sanitary defects have been found, and Formal and
Informal Notices served.

	No. of Orders.
To abolish Manure and Ash-pits	1
.. provide Ash-tubs or Bins	12
.. erect New Water Closets	4
.. fix Closet Basins and Syphons... ..	7
.. repair Flushing Apparatus and lay on Water Supply	4
.. alter and ventilate Soil Pipes	2
.. relay and repair defective Drains	2
.. clear choked Drains	9
.. fix Traps or Gully Gratings	2
.. erect, alter, screen, or repair Urinals	3
.. provide new, or relay or repair Floors	4
.. repair Roofs	9
.. cleanse and limewash Workshops	37
.. repair Walls	1
.. fix 4-inch Ventilating Pipes	4
.. provide Light and Ventilation	8
Total	<u>119</u>

STATEMENT F.

Showing the number of Offensive Trades carried on, and
Registered and Licensed Premises within the Borough
requiring the constant attention of the Inspectors.

DESCRIPTION OF TRADE.								No.
Slaughter Houses (Registered)	...	...	...	...	...	...	...	66
" " (Public)	...	...	...	...	...	...	...	18
Tripe Houses	...	...	...	...	...	...	...	36
Common Lodging Houses	...	...	...	...	...	...	...	31
Bakehouses	...	...	...	...	...	...	...	253
Cowsheds	...	...	...	...	...	...	...	52
Milk Shops and Dairies	...	...	...	...	...	...	...	1219
Tallow Melters	...	...	...	...	...	...	...	1
Chemical Works	...	...	...	...	...	...	...	2
Tanners and Fellmongers	...	...	...	...	...	...	...	2
Bone Boilers	...	...	...	...	...	...	...	1
Knacker's Yard	...	...	...	...	...	...	...	1
Gut Scrapers	...	...	...	...	...	...	...	2

STATEMENT G.

Showing the quantity of Meat, etc., condemned by the Inspectors
of Foods during the year 1911.

MEAT, ETC., CONDEMNED AND DESTROYED.

						Tons.	Cwts.	Qrs.	Lbs.
Meat	...	...	...	...	...	79	11	1	7
Fish	....	....	...	...	...	32	19	3	2
Fruit	...	....	...	...	...	1	0	3	3
Vegetables ..	...	...	...	...	...	1	17	2	0
Rabbits	...	...	...	...	...	...	2,250		
Preserved Foods	...	...	...	...	...	...	5,582		
Oysters	...	...	...	...	...	...	8,039		
Poultry	....	....	...	...	...	...	1,211		
Eggs	....	...	...	...	...	...	2,030		
Hares	....	...	...	...	...	...	103		
Game	...	...	...	...	...	...	292		
Yeast	....	...	...	...	...	...	1,234 lbs.		

APPENDIX V.

REPORT

OF THE

INSPECTORS OF FOOD.

Messrs. MARTIN TYLDESLEY & FREDK. SOWERBUTTS.

During the year 1911 inspection has been made of the following: Wholesale fish, fruit and vegetable markets (daily); retail fish market (daily, Mondays excepted); general markets (Wednesday and Saturday); meat market (Saturday); cattle markets (fat and store stock); Corporation and private slaughter houses; butchers', fishmongers', fruiterers', and greengrocers' shops; hawkers' carts and barrows; pork pie manufactories; restaurants; tripe auction; tripe boilers' premises; jam manufactory; cold air stores (Corporation and private); gut scrapers' premises; knackers' yards; and cowsheds.

The amount of food voluntarily surrendered or seized is given in Statement G in the Chief Inspector's Report.

The number of carcasses destroyed during 1911 and in the previous year for tuberculosis was as follows:—

	1910.	1911.
Beef	97	114 carcasses.
	17	16 forequarters.
		2 hindquarters.
Pork	12	25 carcasses.

In addition to the above carcasses, 3 tons 5 cwt. 1 qr. 17 lbs. of offals were destroyed during 1911 on account of localised tuberculosis. The corresponding weight in 1910 was 3 tons 8 cwt.

The number of carcasses condemned during the year for tuberculosis exceeds that of the previous year, and partially accounts for the large increase in the weight of meat destroyed. This is the outcome of the issue of the notice prohibiting

"stripping" during the latter part of 1910. We are now better able to come to a definite conclusion as to the extent of the disease, as the whole of the carcase is presented for inspection.

The large increase in the quantity of fish destroyed was caused by the excessively hot weather and by the railway strike. Large quantities of fish were deposited in Leicester because of the inability of the railway companies to unload elsewhere, and the market was consequently glutted. The weather being hot, and ice unobtainable, the fish could not be kept.

There were six prosecutions during the year for exposing unsound meat for sale, and fines inflicted to the amount of £85 and costs, ranging from £5 to £40. There was also one prosecution for exposing unsound fish for sale, and a fine of 40/- and costs was imposed. One tradesman was cautioned by the Committee for exposing unsound meat in the market.

MARTIN TYLDESLEY,

FREDERICK SOWERBUTTS,

Inspectors of Foods.

Town Hall, Leicester,

April, 1912.

APPENDIX VI.

REPORT

OF THE

HEALTH VISITORS.

(A) MRS. HARTSHORN'S REPORT.

To the Medical Officer of Health.

SIR,—I beg to present my Annual Report for the year 1911.

BIRTHS.

During the year, 1,238 visits were made by me to births notified by doctors and midwives. Of these 37 were notified by medical men, 475 were transferred to the "Health Visitors," while 41 were illegitimate.

By far the greater number of these have been breast-fed.

In all cases mothers and others having charge of these infants have had written and verbal instructions in the general rearing and feeding of same.

The giving of artificial food, or the discontinuing of breast feeding, arises from various factors, many being from unpreventable causes. In 109 cases the mother has returned to work.

In all cases a special printed handbill is left dealing with the "danger of fire to young children."

RE-VISITS.

1,615 re-visits have been made during this period to note progress of child and to observe the carrying out of instructions.

DISCHARGE FROM EYES.

64 babies had discharge from eyes. All but two were of a mild character. These were medically treated and recovered.

FINAL VISITS.

826 visits have been made at end of twelve months from date of birth. In 549 cases the infants were alive, and with few exceptions were doing well.

In 158 instances the address had been changed and the case lost sight of: 14 cases had left town or country; while 105 had died before attaining the age of twelve months.

PHTHISIS.

315 first visits have been made and 16 re-visits to persons suffering from phthisis. Instructions in all cases have been left with regard to minimising the infection, etc. Sputum flasks or cups have also been left where necessary or desired.

SPECIAL COMPLAINTS.

49 visits and re-visits have been made to filthy homes—*re* verminous heads, filthy bedding, neglect of children, immorality, etc. Certain of these were referred to the R.O., C.O.S. or N.S.P.C.C. according to the merits of the case. One was committed to prison for neglect of children.

WORKROOMS.

28 workrooms and cafes, where female labour is employed, have been visited and generally found to be satisfactory.

HOMEWORKERS.

The homes of 61 outworkers have been inspected, most of which were fairly satisfactory.

I attended Milk Depot during the summer vacation of the manageress, doing alternate duty.

H. HARTSHORN.

Town Hall, Leicester,
April, 1912.

(B) MISS J. WHYTE'S REPORT.

To the Medical Officer of Health.

SIR,—I beg to submit the following particulars of work done by me during the past year, 1911:—

BIRTHS.

1,162 births were notified in my district. On 41 of these notifications a special request was made not to visit, but all the

remainder, 1,121 in number, were visited at least once. In 21 instances the baby was found to be dead when the visit was paid, due in most cases to premature birth. 209 cases were passed on to the Voluntary Health Visitors.

There has been a considerable increase in the number of notifications of births during the three years I have worked for the Sanitary Committee, viz.: in 1909 the number was 811; in 1910 it was 1090; in 1911 it was 1162. 31 of the births were illegitimate children, and special visits were made to these to ensure proper care and feeding.

DISCHARGE FROM EYES.

26 cases were found to have some discharge from one or both eyes; these were not serious. Two had ophthalmia and were treated by private doctors on the advice of the midwife; both recovered in a very short time by being treated so promptly.

The majority of the babies are breast fed, but as many of the mothers have to return to factory work the baby has to be partly artificially fed. A number of these are given dried milk, which is generally advised.

RE-VISITS.

2248 re-visits have been made during the year to note the progress of the child, and to see that the advice given was being carried out.

FINAL VISITS.

737 visits were made when the child reached the age of twelve months. The majority of these were healthy children. 128 others who had been first visited twelve months before had removed, and were lost sight of. 105 others had died before reaching that age; whilst 120 were taken over by the Voluntary Health Visitors, and therefore no final visit was paid by me.

DIARRHŒA DEATHS.

Owing to the increased number of infantile deaths from epidemic diarrhœa during the summer, 40 special visits were made to the homes where such deaths had occurred to ascertain the home conditions and the feeding of the children. The majority of these had been artificially fed.

PHTHISIS.

227 visits were made to phthisis cases. 148 re-visits were made to ascertain that instructions were being carried out. Advice was given with regard to the prevention of spreading infection, literature and sputum bottles being left.

SPECIAL VISITS.

41 visits and re-visits were made to homes kept in a dirty condition; a few of these showed some improvement after repeated visiting. 19 visits were made to children reported to be neglected; some of these reports were unfounded, and a few I reported to the Inspector of the N.S.P.C.C.

WORKROOMS.

93 visits of inspection were made to workrooms, and all were found to be satisfactory. 75 visits were made to home-workers. In three cases the homes were in a dirty condition, and in seven instances phthisis existed in the home.

MIDWIVES.

Two afternoons were occupied in assisting the Medical Officer of Health with the inspection of midwives, and special investigations were made in one case in which the midwife was afterwards struck off the roll.

LEAVE OF ABSENCE.

I desire to take this opportunity of thanking the Chairman and members of the Sanitary Committee for their kindness in granting me leave of absence for the purpose of training for the certificate of the Central Midwives' Board. This certificate I was successful in obtaining. During my absence my sister, Miss J. S. Whyte, carried on my work.

J. WHYTE,

*Town Hall, Leicester,
April, 1912.*

Cert. Roy. San. Inst., C.M.B.

APPENDIX VII.

REFUSE DISPOSAL DEPARTMENT.

Report of the Superintendent, Mr. J. L. FREER.

I beg to submit the following particulars of work done in the Refuse Disposal Department during the past year, 1911:—

Population of Borough	...	...	227,634
Area (in acres)	...	...	8,586
Miles of Streets	...	...	185½

The *House Refuse* of the Borough is all collected by Corporation workmen, with the exception of one small district (Knighton) which is still scavenged by contract. Almost all houses are now provided with the portable covered galvanised iron bins, of which there are 54,702. The Borough is divided into seventeen districts. The men work in gangs of six, with two horses and carts to each gang. Each gang is able to collect fifty-one loads per week. The wages are 26s. per week for collectors and 27s. for drivers; the latter have to attend to their horses, whilst the collectors wash the carts and clean the harness. Drivers required for Sunday stable duty are granted an extra shilling.

Ash-pit and *Trade Refuse* and *Stable Manure* is collected as follows:—The town is divided into four districts. There are four gangs of four men each, with two horses and carts to each gang. The men are paid 5d. per ton of ash-pit refuse collected, and 5d. per load for trade refuse and stable manure, and their average earnings are:—Collectors, 30s. per week; drivers, 32s. per week. The drivers get the extra 2s. for attending to their horses and harness.

The Plant consists of 62 carts, 47 railway wagons, 3 slop carts, and 1 tip wagon.

The number of men employed is as follows:—

Portable Ash-bin Men	...	...	...	85
Ash-pit Men	...	...	...	16
Foremen	...	...	...	2
Wagoners	...	...	...	4
Wharf Men	...	...	...	8
"Tip" Men at Destructors	...	...	...	4
Old Men, Sorting Refuse	...	...	...	3
Total	...	...	...	122

The number of horses is 43.

	1911	1910	
Portable Ash-bins collected weekly	54,702	53,696	1,006 more
Portable Ash-bins collected twice a week	480	470	10 more
Ash-pits emptied every 8 or 10 weeks	671	678	7 less
Manure-pits emptied at short intervals	228	225	3 more

AMOUNT OF REFUSE COLLECTED.

	Tons.	Tons.	Tons.
From Portable Ash-bins	36,662	37,373	711 less
From Ash-pits	5,643	5,818	175 less
Trade Refuse	1,919	1,869	50 more
Various Refuse (Specials)	167	173	6 less
From Knighton District (House Refuse)	2,106	2,362	256 less
Total Tons	46,497	47,595	1,098 less

Of the above quantity, 2,309 tons were taken to Manure Wharves and Tips; the remainder was burnt at the Destructors. The amount of stable manure collected was 5,593 cart loads.

The sales of manure during 1911 were as follows:—

		Tons.	£	s.	d.
507	Railway Wagon loads, weight	3,741	506	10	0
12	Boat loads	470	74	11	0
92	Cart loads	92	10	11	6
	Total	4,303	591	12	6
	Previous year	4,599	631	19	0

TRADE REFUSE.

3,802 loads of trade refuse (weight, 1,919 tons) were removed and taken to the Destructors; the payment received amounting to £475 5s. 0d.

[NOTE.—A charge of 2s. 6d. per load is made for collecting and burning trade refuse, or 2s. per ton for burning only.]

DILAPIDATED DUST-BINS.

2,247 dilapidated dust-bins were reported: these are renewed by the landlord.

“TATTING.”

The saleable articles picked out of the house refuse are sold, and one-half of the proceeds is divided amongst the Ash-bin men and the Destructor firemen, the other half being retained by the Corporation. The amount received by the men averaged 6s. 6½d. per head per quarter.

HOSPITAL SATURDAY SOCIETY.

All workers in this department subscribe one penny weekly, the total amount raised last year being £26 12s. 9d.

DESTRUCTORS.

AMOUNT OF REFUSE RECEIVED AT THE DESTRUCTORS.

Delivered to Destructors.	Nedham Street.	Mill Lane.	Lero.	West Humber- stone.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.
By Corporation ...	10,509	11,421	11,959	10,299	44,188
By Tradesmen ...	356	881	911	60	2208
Total for 1911 ...	10,865	12 302	12,870	10,359	46,396

J. L. FREER,

Superintendent.

APPENDIX VIII.

STREET CLEANSING
DEPARTMENT.

Report of the Superintendent, Mr. H. F. WIGFIELD.

The following is a resumé of the work carried out by the above department during the year 1911:—

STREET CLEANSING.

The particulars of the streets swept are as follows, viz.:—

			Hand-swept.	Machine-swept.
Once per week	...	...	44 miles	15 miles
Twice .. ..	...	...	16 ..	12 ..
Three times per week	...	...	5 ..	7 ..
Four .. ..	...	...	1 $\frac{1}{4}$..	2 ..
Six .. ..	...	...	1 ..	10 ..

Upwards of eleven miles of streets are also hand-swept on Sundays.

The total length of roads swept is 113 miles.

The number of gullies emptied was 98,241, as compared with 100,650 in 1910. This difference is accounted for by the very dry summer in 1911.

The total number of streets swept remains the same, viz., 894, made up as follows:—

Number swept once a week, 539; twice per week, 196; three times per week, 66; four times weekly, 18; six times, 75; 78 streets are also hand-swept on Sundays. Thus a length of 239 miles is down to be swept each week.

In addition to the above streets, 240 Courts have been cleansed an average of once per week during the year.

Loads of sweepings collected: dry, 7,966; sludge, 4,744; a total of 12,710, as compared with 12,955 in the previous year. This reduction is again due to the extraordinary dry weather experienced in 1911.

The number of persons regularly employed in the department is 125.

The conditions of labour and the rates of pay remain the same as in the previous year, viz.:—27s. per week of 54 hours on day work, and 48 hours on night work.

SANDING AND GRAVELLING.

The number of loads of sand and gravel spread during the year was 1,547, against 1,692 in the previous year.

SNOW REMOVAL.

Not a single fall of snow of any consequence took place during the year under report.

In 1910, the extra cost over our own staff was £118 16s. 4d., and in 1909, £262 4s. 6d.

STREET WATERING.

There were eight hired horses engaged in street watering during the past summer: the same number as in the previous year. In addition to the above, four of our own men and horses were engaged in this work in dry weather.

The watering done by the Tramways Department with the three tanks was as follows:—

1911.	Loads Spread.	Quantity in Gallons.	£	s.	d.
April	364	655,200	42	9	4
May	621	1,117,800	72	9	0
June	550	990,000	64	3	4
July	817	1,470,600	95	6	4
August	481	865,800	56	2	4
September ...	494	889,200	57	12	8
	3,327	5,988,600	388	3	0
Previous year ...	2,270	4,086,000	264	16	8

The watering tanks work to instructions supplied daily by this Department. The cost of watering last year was considerably in excess of the average owing to the exceptional weather experienced. In 1906—the last very dry summer we had—two

of these tanks spread 5,505,400 gallons of water. Seventy-six macadam roads were treated with 115 tons of calcium chloride at a cost (exclusive of carting and spreading) of £307 5s. 0d.; 43 roads were treated with granular calcium at a cost of £199 19s. 6d.; and 33 roads treated with liquid calcium cost £107 5s. 6d. In 1910 about 80 tons of calcium chloride was spread at a total cost of £204 1s. 1d.

ANNUAL STATEMENT OF RECEIPTS FROM CONVENIENCES.

Convenience.	Amount Received.			Amount Received Previous Year.		
	£	s.	d.	£	s.	d.
Horsefair Street (Ladies) ...	122	19	10	...	122	10 4
Belgrave Gate (Ladies) ...	4	9	5	..	4	0 8
Belgrave Gate (Gents) ...	10	16	8	...	10	8 6
Town Hall Square (now closed) ..				...	5	14 0
Humberstone Gate ...	131	7	2	...	110	4 10
Waterloo Street ...	3	1	1	...	3	9 11
Haymarket ...	6	10	1	...	6	17 8
Northampton Square ...	6	9	2	...	6	6 7
Russell Square ...	2	5	3	...	2	10 8
Infirmary Square ...	5	9	9	...	3	17 5
	<hr/> £293 8 5 <hr/>			<hr/> £276 0 7 <hr/>		

The number of persons using the W.C.'s at Humberstone Gate Convenience was 19,674, and 11,852 persons made use of the Lavatory accommodation, the amounts taken being £81 19s. 6d. and £42 15s. 3d. respectively.

In 1910 the number of persons using the W.C.'s was 16,195 and 10,263 patronised the Lavatories.

At the Ladies' Convenience, Horsefair Street, the amounts taken were as follows: Lavatories, £5 15s. 7d.; Care of Parcels and Bicycles, £9 5s. 9d.; Use of W.C.'s, £107 18s. 6d.

The takings at the Humberstone Gate Convenience shows an increase of £21 2s. 4d. over the previous year.

ROLLING STOCK.

Street sweeping carts, 18; sludge carts, 24; market cart, 1; orderly bin cart, 1; gravel carts, 7; watering carts and vans, 23;

orderly trucks, 10; gravel trucks, 7; snow ploughs, 9; channel scraper, 1; snow scrapers, 5; horse brushes, 14; dray, 1; a total of 121 vehicles.

WORKSHOPS.

As in the previous year 11 men are employed in the workshops, viz.: 1 blacksmith; 1 joiner; 2 wheelwrights; 1 painter; 1 railway wagon repairer; and 5 labourers.

These men carry out all renewals and repairs, both in the Cleansing and Refuse Collecting Departments—a total of 237 vehicles, including 47 railway wagons.

HOSPITAL FUND.

All adults in the Department subscribe one penny weekly, and all boys one penny per month to the above fund; the amount subscribed last year being £23 16s. 8d.

The loads of material handled during the year were as follows:—

	1911.	1910.
Sweepings collected (dry)	7,966	7,453
" " (sludge)	4,744	5,492
Horse Manure collected (orderly boxes)	920	897
Market Refuse	861	898
Horse Manure, re-carted to gardens	534	420
Sweepings	676	713
Loads of Snow removed ... ..	...	976
Loads of Gravel spread	1547	1,692
Loads of Water spread (our carts)	17,344	7,438
Miscellaneous	902	850
Stable Refuse to Jarvis Street	312	312
	<hr/> 35,806 <hr/>	<hr/> 27,151 <hr/>

The increase of 8,655 loads as compared with the previous year is more than accounted for by the increase in the loads of water spread.

H. F. WIGFIELD,

Cleansing Superintendent.

APPENDIX IX.



STATISTICAL TABLES.

(For List see beginning of Report.)

MUNICIPAL WARDS. TABLE 1.
Area, Number of Inhabited Houses and Population.

WARD. (1)	Area in Acres. (2)	No. of Inhabited Tenements Census 1901. (3)	No. of Inhabited Tenements Census 1911. (4)	Increase in Inhabited Tenements during 10 years. (5)	Decrease in Inhabited Tenements during 10 years. (6)	No. of Persons per Tenement Census 1911. (7)	Population Census 1911. (8)
1. St. Martin's	...	808	602	...	206	4.49	2704
2. Newton ...	153	2442	2207	...	235	4.20	9274
3. St. Margaret's	274	2789	3097	308	...	4.27	13254
4. Wyggeston	111	3594	3383	...	211	4.31	14594
5. Latimer ...	250	3569	3691	122	...	4.64	17127
6. Charnwood	116	1988	1959	...	29	4.32	8464
7. Wycliffe ...	147	2760	2725	...	35	4.29	11712
8. De Montfort	350	1764	1692	...	72	4.40	7458
9. The Castle	370	3178	3137	...	41	4.34	13645
10. Westcotes ...	801	3713	5577	1864	...	4.22	23554
11. The Abbey	891	3756	4436	680	...	4.66	20699
12. Belgrave ...	1013	3046	3699	653	...	4.34	16081
13. West Humberstone	887	3336	3929	593	...	4.74	18635
14. Spinney Hill	702	4535	5359	824	...	4.42	23717
15. Knighton ...	910	2236	3555	1319	...	4.20	14931
16. Aylestone ...	1530	2033	2433	400	...	4.68	11393

TABLE 2.
Births, Deaths, and Deaths under 1 year in each Municipal Ward in 1911 and previous years.

NAME OF WARD.	1905			1906			1907			1908			1909			1910			1911		
	Total		Deaths under 1 year.	Total		Deaths under 1 year.	Total		Deaths under 1 year.	Total		Deaths under 1 year.	Total		Deaths under 1 year.	Total		Deaths under 1 year.	Total		Deaths under 1 year.
	Births.	Deaths.		Births.	Deaths.		Births.	Deaths.		Births.	Deaths.		Births.	Deaths.		Births.	Deaths.		Births.	Deaths.	
1. St. Martin's	55	47	9	55	70	13	57	45	11	54	51	12	51	28	6	59	40	13	49	32	7
2. Newton	305	205	80	321	238	83	287	150	40	478	188	55	474	179	53	255	151	40	251	166	49
3. St. Margaret's	387	202	66	417	210	72	372	215	68	357	238	64	341	194	53	339	193	63	371	217	70
4. Wyggeston	500	236	100	490	243	109	404	282	94	456	278	100	441	274	73	453	230	82	468	263	79
5. Latimer	495	233	75	515	261	80	478	267	80	480	265	73	417	229	55	468	259	80	473	255	82
6. Charnwood	194	111	22	210	153	35	181	108	27	187	100	23	168	83	10	154	101	23	137	128	23
7. Wycliffe	302	167	48	223	261	56	197	162	28	190	276	29	176	172	32	218	146	15	209	161	35
8. De Montfort	100	92	9	100	112	15	93	89	14	84	105	15	90	103	16	86	76	13	106	94	12
9. The Castle	370	170	47	316	213	63	349	185	43	314	207	41	296	218	58	305	198	48	322	203	49
10. Westcotes	483	225	56	508	255	61	534	190	44	485	174	52	471	245	50	496	219	56	486	260	46
11. The Abbey	584	237	86	551	292	84	531	264	73	487	245	67	494	274	69	546	201	59	488	218	53
12. Belgrave	478	199	72	502	220	84	454	212	47	451	206	54	394	216	42	414	170	48	349	189	31
13. West Humberstone	514	212	60	518	159	64	496	187	47	484	269	58	476	238	65	523	197	49	517	236	75
14. Spinney Hill	547	230	42	550	264	63	507	240	59	541	266	47	532	259	56	465	230	37	450	222	30
15. Knighton	258	99	24	261	129	22	280	99	16	284	135	17	270	120	18	251	113	18	270	111	8
16. Aylestone	316	145	67	288	174	71	261	111	28	274	116	30	275	129	32	295	126	34	275	117	21

N.B.—In order to make a fair comparison, all the deaths at the Borough Asylum and Union Workhouse have been subtracted, though not distributed. The Poor Law Infirmary at North Evington is just outside the Borough Boundary. The deaths occurring there have been distributed in their respective Wards with the exception of those transferred to the Infirmary from the Workhouse; these have been dealt with in the same way as Workhouse deaths. The births at the Maternity Hospital have been distributed to their respective Wards.

TABLE 3.
Vital Statistics in each Municipal Ward in 1911 and previous three years.

NAME OF WARD.	1908			1909			1910			1911		
	Death Rate.	Birth Rate.	Infant Mortality.	Death Rate.	Birth Rate.	Infant Mortality.	Death Rate.	Birth Rate.	Infant Mortality.	Death Rate.	Birth Rate.	Infant Mortality.
1. St. Martin ...	17.3	18.4	222	9.7	17.7	117	14.0	20.7	220	11.8	18.1	142
2. Newton ...	20.7	25.4	239	19.8	24.2	243	16.4	27.7	156	17.8	27.0	195
3. St. Margaret's ...	17.5	26.3	179	14.0	24.7	155	13.9	24.4	185	16.3	27.9	188
4. Wyggeston ...	19.5	32.0	219	18.9	30.5	165	15.6	30.8	181	18.0	32.0	168
5. Latimer ...	15.6	28.8	152	13.2	24.1	131	14.8	26.9	170	14.8	27.6	186
6. Charwood ...	11.2	20.9	123	9.3	18.8	59	11.3	17.3	149	15.0	16.1	167
7. Wycliffe ...	16.0	18.8	143	18.0	19.3	181	14.2	19.2	68	14.9	17.8	167
8. De Montfort ...	14.4	11.5	179	13.9	12.2	177	10.2	11.5	151	12.6	14.2	113
9. The Castle ...	14.8	22.5	131	15.3	20.8	195	13.8	21.3	157	14.8	23.5	152
10. Westcotes ...	7.4	20.8	107	10.0	19.3	106	8.8	19.9	112	11.0	20.6	94
11. The Abbey ...	12.2	24.4	138	13.3	24.1	139	9.4	25.7	108	10.5	23.5	108
12. Belgrave ...	12.8	28.2	120	13.1	24.0	106	10.2	24.9	115	11.7	21.7	88
13. West Humberstone ...	12.8	28.2	120	8.8	27.7	136	11.0	28.2	93	13.2	27.7	145
14. Spinney Hill ...	10.8	21.9	87	10.3	21.3	105	9.2	18.4	79	9.3	18.9	66
15. Knighton ...	9.2	19.3	60	7.8	17.7	66	7.0	15.7	71	7.4	18.0	29
16. Aylestone ...	10.3	24.3	109	11.1	23.8	116	10.7	25.2	115	10.2	24.1	76
Whole Borough ...	12.98	23.64	129.7	12.90	22.23	126.6	11.29	21.66	126.4	13.40	12.94	130.0

NOTE.—The population has been calculated from the number of inhabited houses in each ward.

Wycliffe Ward contains the Union Workhouse, and West Humberstone Ward the Borough Asylum. It is not possible to distribute the deaths in these institutions to their respective wards, but they have been subtracted from the wards in question in order to enable a fair comparison to be made. The population of these institutions (Workhouse, 965; Asylum, 887) has also been subtracted.

The Union Infirmary is just outside the Borough Boundary. The deaths occurring there have been distributed to their respective wards, with the exception of the deaths of persons who had been transferred to the Infirmary from the Workhouse. These have been treated in the same way as Workhouse deaths.

The Maternity Hospital, Causeway Lane, is in Newton Ward. The births which occurred there have been distributed.

TABLE 4. MUNICIPAL WARDS.**Average Rates for Five Years, 1907-1911.**

WARD.	Average Rates.		
	Death-rate.	Birth-rate.	Infant Mortality.
(1)	(2)	(3)	(4)
1. St. Martin's	13·6	18·8	178
2. Newton	18·2	27·2	194
3. St. Margaret's	15·5	26·1	177
4. Wyggeston	18·3	30·7	193
5. Latimer	14·8	27·1	161
6. Charnwood	11·8	18·7	129
7. Wycliffe	15·8	18·5	140
8. De Montfort	12·6	12·4	154
9. The Castle	14·3	22·6	151
10. Westcotes	9·2	20·8	100
11. The Abbey	11·7	24·8	126
12. Belgrave	12·2	25·4	106
13. West Humberstone	10·7	27·9	117
14. Spinney Hill	9·8	20·2	90
15. Knighton	7·6	18·0	56
16. Aylestone	10·4	24·1	104

MUNICIPAL WARDS. TABLE 5.

Zymotic-rates, Diarrhœa-rates and Phthisis-rates
in 1911.

WARD.			Zymotic- rate, exclusive of Diarrhœa.	Diarrhœa. rate.	Phthisis- rate.
(1)			(2)	(3)	(4)
1.	St. Martin's	...	·0	·3	1·8
2.	Newton	...	1·8	·7	2·8
3.	St. Margaret's	...	1·7	1·0	1·7
4.	Wyggeston	...	1·4	1·6	1·3
5.	Latimer	...	·9	1·3	1·5
6.	Charnwood	...	·9	·7	1·4
7.	Wycliffe	...	·3	·7	1·0
8.	De Montfort	...	·2	·6	·8
9.	The Castle	...	·8	1·0	1·8
10.	Westcotes	...	·6	·3	1·3
11.	The Abbey	...	·6	·5	·8
12.	Belgrave	...	·6	·3	·7
13.	West Humberstone	...	·7	1·1	2·1
14.	Spinney Hill	...	·5	·3	·8
15.	Knighton	...	·2	·0	·4
16.	Aylestone	...	·3	·7	·7

N.B.—The deaths occurring in the Leicester Infirmary have been distributed to their respective wards. Those occurring in the Workhouse and in the Borough Asylum, have had to be excluded, as the addresses of the patients are not obtainable. In the case of Wards 7 and 13 a deduction has been made from the population on account of the inmates of the Workhouse and Asylum respectively.

The Union Infirmary is just outside the Borough, and the deaths there are distributed to their respective wards, with the exception of the deaths of persons transferred to the Infirmary from the Workhouse. These have been treated in the same way as the Workhouse deaths.

TABLE 6.
Deaths in each Ward from all causes in 1911.

WARD.	0 to 1 year.			1 to 2.			3 to 60.			Over 60 years.			Total all ages.			Smallpox.			Measles.			Scarlet Fever.			Whooping Cough.			Diphtheria.			Typhoid Fever.			Other Zymotics.			Total.			Diarrhoea.			Phthisis.			Respiratory Diseases.			Other Causes.			Convulsions.			Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
No. 1. St. Martin's...	...	7	1	11	13	32	1	5	2	23	1	32</

Deaths in Institutions have been subtracted from the Wards in which the Institutions are situated; except in the case of the Workhouse and Asylum, the deaths have been distributed to the Wards to which they belong, with the exception of those transferred to the Poor Law Infirmary from the Workhouse; these have been dealt with in the same way as Workhouse deaths.

TABLE 7.

VITAL STATISTICS OF 37 GREAT PROVINCIAL TOWNS* of over 100,000 Population (arranged in Alphabetical order.) (From figures supplied in advance by the Registrar General.) **For the year 1911.**

TOWNS.	Estimated Population 1911.	Death-rate (Corrected for Institutions only).	Birth-rate.	Deaths under 1 year per 1000 Births.	Death-rates per 1000 persons living from :—						
					Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Enteric Fever.	Diarrhoea and Enteritis, (under 2 years).	Principal Epidemic Diseases.
London ...	4,521,301	15.0	24.8	129	0.57	0.04	0.14	0.23	0.03	1.18	2.19
Birkenhead ...	131,325	15.6	28.6	134	0.18	0.03	0.19	0.24	0.07	1.64	2.35
Birmingham ...	525,903	16.8	28.1	164	0.57	0.12	0.12	0.19	0.06	1.68	2.74
Blackburn ...	133,153	16.1	21.5	188	0.23	0.08	0.21	0.41	0.07	1.47	2.47
Bolton ...	181,192	15.9	22.8	163	0.34	0.12	0.23	0.08	0.13	1.87	2.77
Bradford ...	288,695	14.9	19.0	138	0.04	0.03	0.17	0.33	0.15	0.68	1.40
Brighton ...	131,441	13.8	19.7	98	0.05	0.07	0.08	0.12	0.02	0.68	1.02
Bristol ...	357,493	15.1	21.8	141	0.46	0.04	0.11	0.40	0.04	0.96	2.01
Burnley ...	106,566	18.0	23.3	210	0.64	0.04	0.20	0.29	0.08	2.44	3.69
Cardiff ...	182,734	14.0	26.0	135	0.04	0.08	0.20	0.29	0.03	1.36	2.00
Coventry ...	107,307	13.1	27.0	107	0.61	0.29	0.16	0.28	0.01	0.73	2.08
Derby ...	123,637	14.3	23.9	123	0.45	0.02	0.19	0.19	0.06	0.68	1.59
Gateshead ...	117,092	16.1	30.5	136	0.67	0.03	0.25	0.24	0.02	1.17	2.38
Halifax ...	101,464	15.2	18.5	123	0.07	0.08	0.22	0.26	0.11	0.55	1.29
Huddersfield ...	108,157	15.0	19.7	132	0.16	0.14	0.20	0.10	0.07	0.83	1.50
Hull ...	278,984	16.7	28.6	155	0.36	0.05	0.08	0.36	0.23	1.98	3.06

Leeds ...	...	445,967	16.4	23.8	158	0.18	0.10	0.34	0.33	0.05	1.28	2.28
Leicester ...	...	227,632	13.3	22.7	132	0.31	0.04	0.09	0.19	0.04	0.89	1.56
Liverpool ...	...	747,566	20.0	30.2	154	0.42	0.17	0.16	0.32	0.04	1.96	3.07
Manchester ...	...	716,180	17.0	26.2	154	0.47	0.06	0.12	0.20	0.07	1.53	2.45
Middlesbrough ...	...	105,125	19.4	31.1	169	0.75	0.07	0.26	0.74	0.08	1.39	3.29
Newcastle-on-Tyne		267,116	16.1	26.6	136	0.47	0.05	0.14	0.48	0.04	0.84	2.02
Norwich ...	...	121,677	14.1	22.4	135	0.35	0.21	0.16	0.44	0.07	0.88	2.11
Nottingham ...	...	260,425	16.1	24.5	162	0.37	0.03	0.12	0.15	0.11	1.58	2.36
Oldham ...	...	147,754	17.6	23.7	160	0.45	0.03	0.07	0.09	0.02	1.55	2.21
Portsmouth ...	...	232,253	14.1	25.0	126	0.12	0.09	0.31	0.17	0.11	1.19	1.99
Plymouth ...	...	112,144	17.2	23.3	145	0.80	...	0.14	0.04	0.06	1.02	2.06
Preston ...	...	117,195	16.9	23.3	172	0.04	0.16	0.27	0.18	0.17	1.39	2.21
Rhondda ...	...	153,809	15.0	35.6	164	0.93	0.12	0.13	0.13	0.12	2.28	3.71
Salford ...	...	231,624	16.7	27.2	149	0.42	0.09	0.23	0.16	0.08	1.51	2.49
Sheffield ...	...	455,817	16.1	27.8	140	1.74	0.06	0.10	0.14	0.07	1.17	3.28
Southampton ...	...	119,386	15.2	23.9	134	0.08	0.04	0.18	0.15	0.03	1.29	1.77
South Shields ...	...	108,850	17.1	30.2	147	0.37	0.01	0.09	0.21	0.03	1.34	2.05
Stockport ..	..	109,100	15.7	23.4	170	0.32	0.04	0.08	0.09	0.09	1.05	2.27
Stoke-on-Trent ...	...	235,051	19.9	31.5	202	0.40	0.26	0.38	0.31	0.11	2.62	4.08
Sunderland ...	...	151,286	17.9	29.9	151	0.32	0.05	0.13	0.62	0.05	1.13	2.30
Swansea ...	...	115,180	16.2	29.1	136	0.28	0.02	0.41	0.14	0.01	1.22	2.08

* Croydon, West Ham, and other Boroughs in Greater London have been excluded as not being strictly comparable with the great provincial towns.

TABLE 8.
Deaths in each Ward from Phthisis during the Ten Years, 1902-1911.

No. OF WARD.	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	Total Deaths from Phthisis in 10 years.	Average Annual Phthisis Rate.
1. St. Martin's	3	6	7	5	8	2	4	1	2	5	43	1.59
2. Newton	5	7	18	20	23	12	17	15	16	26	159	1.71
3. St. Margaret's	17	21	27	24	29	20	19	13	14	23	207	1.56
4. Wyggeston	23	29	35	30	31	26	31	26	27	20	278	1.90
5. Latimer	19	26	35	26	25	32	24	24	22	26	259	1.51
6. Charnwood	6	10	16	17	19	15	11	9	10	12	125	1.47
7. Wycliffe	13	13	14	15	15	24	18	22	11	7	152	1.41
8. De Montfort	3	8	12	9	14	5	3	4	3	6	67	.89
9. The Castle	28	16	21	19	29	19	19	12	19	25	207	1.51
10. Westcotes	19	19	25	18	23	12	17	31	25	31	220	.93
11. The Abbey	17	14	19	19	25	35	33	21	26	17	226	1.09
12. Belgrave	10	8	13	13	26	20	18	24	18	12	162	1.00
13. West Humberstone	13	8	8	2	11	21	13	23	24	33	156	.87
14. Spinney Hill	25	22	25	15	20	18	21	29	27	20	222	.93
15. Knighton	19	6	10	7	9	6	8	15	5	6	91	.60
16. Aylestone	15	18	24	14	17	6	19	12	16	9	150	1.31
Union Workhouse	32	28	33	23	10	...	...	...	...	...	126	...
Borough Asylum	5	7	11	12	5	2	12	9	11	5	79	...
Poor Law Infirmary (from Workhouse)	...	...	...	...	...	...	...	...	5	4	9	...
Transferable death (Ward not known)	...	...	...	...	...	...	...	...	...	1	1	...
TOTAL	272	266	353	288	339	275	287	290	281	288	2939	1.29
General Infirmary	11	4	6	6	9	2	2	4	6	7	57	...
Poor Law Infirmary	...	...	...	...	...	36	30	53	36	45	200	...

N.B.—The deaths from Phthisis occurring at the Union Workhouse and at the Borough Asylum have been subtracted from Wycliffe and West Humberstone Wards respectively, but have not been distributed to the wards to which the persons belonged; whilst the deaths occurring at the General and Poor Law Infirmarys have been distributed, except in the cases of persons removed to the Poor Law Infirmary from the Workhouse, these have been treated in the same way as Workhouse deaths.

TABLE 9.

LEICESTER BOROUGH.

Showing estimated Population, Marriage-rates, Birth-rates, and Death-rates (General and Zymotic) per 1000 living during the last 67 years, 1845-1911.

Year.	Estimated Population.	Marriage Rate.	Birth Rate.	Death Rate.	Zymotic (Death) Rate.
(1)	(2)	(3)	(4)	(5)	(6)
1845	54,737	24.04	40.11	30.85	9.07
1846	55,707	21.00	39.72	29.48	8.11
1847	56,696	18.80	35.36	25.69	4.12
1848	57,705	20.86	34.71	25.77	5.87
1849	58,736	21.58	36.96	28.73	7.05
1850	59,788	24.04	37.45	23.64	4.13
1851	60,760	21.11	40.11	25.57	5.48
1852	61,467	22.96	38.83	28.84	8.42
1853	62,181	22.90	36.71	27.02	5.45
1854	62,903	20.40	39.06	25.11	6.65
1855	63,624	19.14	36.16	23.55	2.87
1856	64,366	20.02	37.32	21.16	3.10
1857	65,119	20.60	37.48	27.58	8.19
1858	65,835	19.14	34.54	28.76	8.07
1859	66,663	22.56	37.77	24.59	4.99
1860	67,456	19.80	38.05	20.47	1.27
1861	68,638	18.58	37.01	25.25	5.71
1862	70,986	21.30	38.07	23.38	3.01
1863	73,413	25.74	40.00	29.95	7.96
1864	75,922	25.68	41.01	26.96	5.41
1865	78,516	25.38	41.09	25.02	5.20
1866	81,197	24.94	42.02	23.33	3.37
1867	83,970	22.18	41.66	24.59	4.31
1868	86,837	22.62	41.32	28.15	7.88
1869	89,804	21.12	41.87	25.60	5.10
1870	92,873	21.22	40.90	27.33	7.24
1871	95,823	23.06	41.55	26.07	5.83
1872	98,251	23.50	42.36	26.95	8.23
1873	100,741	24.00	44.14	23.83	5.05
1874	103,294	20.90	42.34	24.29	3.83
1875	105,913	22.36	40.31	27.28	6.56
1876	108,599	22.64	44.02	23.58	5.26
1877	111,355	21.24	42.68	23.48	3.21
1878	114,182	19.38	41.85	21.89	4.18
1879	117,083	19.48	40.11	22.64	3.06
1880	120,059	19.60	40.04	24.73	6.48
1881	123,146	18.66	38.26	21.55	4.45
1882	126,275	19.02	38.46	20.04	3.23

TABLE 9.—Continued.

Year.	Estimated Population.	Marriage Rate.	Birth Rate.	Death Rate.	Zymotic (Death) Rate.
(1)	(2)	(3)	(4)	(5)	(6)
1883	129,483	18·64	37·26	19·18	2·56
1884	132,773	17·34	36·53	22·12	4·20
1885	136,147	16·36	34·39	19·39	3·32
1886	139,606	17·46	34·80	19·62	2·81
1887	143,153	16·60	32·79	19·10	3·05
1888	146,790	15·48	32·79	18·16	2·45
1889	150,520	16·08	31·82	16·63	2·30
1890	154,344	16·52	30·44	17·79	2·18
1891*	177,353†	19·16	33·58	21·22	3·39
1892‡	180,550	16·71	32·21	18·00	2·57
1893	183,900	15·85	32·65	19·72	3·56
1894	187,250	16·70	32·01	14·57	1·93
1895	190,600	16·41	31·28	17·41	3·01
1896	194,100	17·52	32·00	16·88	2·98
1897	197,600	16·78	31·63	17·98	1·97
1898	201,250	17·78	30·56	17·29	3·41
1899	204,900	17·58	30·61	18·18	3·41
1900	208,600	17·30	29·75	17·87	3·60
1901	212,498	17·17	29·03	15·71	2·34
1902§	213,974	16·36	29·50	14·82	1·56
1903	215,461	16·56	27·93	14·22	1·48
1904	216,958	17·00	27·56	15·05	2·01
1905	218,464	17·26	26·95	14·01	1·69
1906	219,980	16·16	26·66	15·18	2·46
1907	221,508	16·67	24·98	13·48	·96
1908	223,046	16·03	25·46	13·98	1·62
1909	224,595	15·75	24·18	14·03	1·37
1910	226,154	17·12	23·79	12·40	·76
1911	227,634	16·61	22·94	13·40	1·41

N.B.—The above figures, prior to the year 1890, are those supplied by Mr. J. T. Biggs to the Royal Commission on Vaccination, and are taken from the Commission's 4th Report.

* All figures after 1891 refer to extended Borough.

† This is the Population of the extended Borough. The figures in the other columns for same year refer to the old Borough.

‡ The figures for the nine years, 1892—1900, have been revised on the basis of the 1901 Census.

§ The figures for the years, 1902—1910, have been revised on the basis of the 1911 Census.

TABLE 10.

Number of Deaths from certain specified causes in 1911 and previous years.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Zymotic Diseases (except Diarrhoea) ...	519	297	222	205	177	171	291	146	250	212	118	166
Diarrhoea	286	224	137	133	289	211	258	73	120	106	70	167
Enteritis	90	78	42	52	35	32	25	58	63	29	27	52
Cancer	140	161	171	192	213	180	168	199	214	195	200	236
Phthisis	230	271	272	266	353	288	339	275	287	290	281	288
Apoplexy and Paralysis ...	164	182	207	179	201	165	185	150	169	170	170	129
Convulsions	134	159	120	117	107	89	98	85	103	83	72	59
Heart Disease	305	290	343	322	301	313	322	369	312	357	328	344
Bronchitis and Pneumonia ...	623	494	480	421	405	397	422	461	422	535	389	374
Premature Birth	135	130	151	154	111	147	156	133	113	106	125	109
Atrophy and Debility	187	204	191	168	187	173	160	119	121	132	151	122
Old Age	211	198	214	218	240	217	207	242	205	214	213	216
Violence	109	110	110	88	87	84	96	85	88	86	90	88
Ill-defined and not specified causes ...	38	42	53	4	49	48	85	31	61	40	40	60

TABLE II.

Showing the Number of Inhabited Houses, Marriages, Births, Deaths, Zymotic Deaths, and Deaths in Public Institutions.

Year. (1)	No. of Inhabited Houses. (2)	Marriages. (3)	Registered Births. (4)	Corrected Number of Deaths.				Deaths in Public Institutions. (9)	Deaths from Seven principal Zymotic Diseases. (10)
				Total all Ages. (5)	Under One Year. (6)	Under Five Years. (7)	Over 60 Years. (8)		
1894	38,818	1564	5995	2730	971	1301	564	383	363
1895	39,438	1564	5962	3320	1232	1611	774	406	573
1896	40,349	1701	6212	3277	1154	1624	689	441	580
1897	41,519	1658	6252	3553	1288	1758	746	340	645
1898	44,472	1789	6152	3480	1183	1703	773	406	687
1899	44,585	1801	6273	3727	1230	1707	897	543	699
1900	44,884	1805	6207	3729	1083	1627	863	583	751
1901	45,547	1825	6169	3338	1098	1435	827	553	499
1902	47,712	1752	6313	3172	981	1303	828	473	334
1903	48,348	1785	6018	3065	971	1279	954	583	320
1904	49,043	1845	5981	3266	964	1255	897	601	438
1905	49,348	1886	5888	3062	863	1148	897	685	370
1906	49,492	1778	5865	3341	975	1397	871	667	543
1907	48,825	1847	5534	2988	720	989	927	660	213
1908	49,174	1788	5680	3119	737	1109	952	507	363
1909	50,070	1769	5431	3153	688	1006	1073	608	308
1910	50,898	1936	5380	2806	680	890	897	533	172
1911	51,481	1891	5222	3051	679	965	1035	585	322

NOTE.—In 1891 (Census year) the Borough was extended.

No. of Inhabited Houses of old Borough was 29,288; of new Borough, 35,795.

TABLE 12.
Showing the Annual Death-rates of Children, and proportion of Deaths in Public Institutions
in a Thousand Deaths, for the past eighteen years.

(1) In Year.	(2) Deaths of Children under one year per 1000 Births, = Infant Death-rate.	(3) Deaths of Children under one year of age per 1000 of Total Deaths.	(4) Deaths of Children under five years of age per 1000 of Total Deaths.	(5) Deaths of Persons over sixty per 1000 of Total Deaths.	(6) Deaths in Public Institutions per 1000 of Total Deaths.
1894	151.9	355.6	476.5	206.5	140.2
1895	206.6	371.0	485.2	233.1	119.2
1896	185.7	352.1	495.5	301.8	134.5
1897	206.0	362.5	494.7	209.9	95.7
1898	191.1	311.2	489.3	222.1	116.6
1899	196.0	330.0	458.0	237.9	145.7
1900	174.4	290.4	436.3	231.4	156.3
1901	178.6	328.9	429.0	247.7	165.6
1902	153.3	327.0	410.7	261.0	145.3
1903	161.3	323.6	426.3	311.2	194.3
1904	161.1	298.2	384.2	274.6	184.0
1905	146.5	281.8	374.9	292.9	223.7
1906	166.2	296.8	418.1	260.7	199.6
1907	130.1	240.9	330.9	310.2	220.8
1908	129.7	236.2	355.5	305.2	162.5
1909	126.6	218.1	319.0	340.3	192.8
1910	126.3	242.3	317.1	319.6	189.9
1911	130.0	222.2	316.2	339.2	191.7

TABLE 13.
Rates of Mortality of Children under one year of age from the chief Infantile Diseases,
per 1000 Births.

DISEASE.	1906		1907		1908		1909		1910		1911	
	Total Deaths.	Rate per 1000 Births.	Total Deaths.	Rate per 1000 Births.	Total Deaths.	Rate per 1000 Births.	Total Deaths.	Rate per 1000 Births.	Total Deaths.	Rate per 1000 Births.	Total Deaths.	Rate per 1000 Births.
From all causes ...	975	166.2	720	130.1	737	120.7	688	126.6	680	126.3	679	130.0
Atrophy and Debility	127	21.7	112	20.4	113	19.8	117	21.5	147	27.3	111	21.2
Diarrhoea ...	223	38.0	66	12.0	103	18.1	91	16.7	58	10.7	146	27.9
Convulsions ...	79	13.5	72	13.1	86	15.1	70	12.8	63	11.7	52	9.9
Lung Diseases ..	113	19.3	125	22.8	88	15.4	91	16.7	103	19.1	66	12.6
Premature Birth ...	156	26.6	133	24.2	113	19.8	106	19.5	125	23.2	109	20.8
Tubercular Diseases ...	31	5.3	36	6.5	31	5.4	22	4.0	24	4.4	21	4.0
Measles ...	26	4.4	12	2.1	34	5.9	23	4.2	3	.5	19	3.6
Whooping Cough ...	52	8.9	9	1.6	19	3.3	26	4.7	32	5.9	19	3.6

TABLE 14.

Total Deaths, Death-rate, and Percentage of Deaths, from the eight principal groups of Diseases.

DISEASE.	1908			1909			1910			1911		
	Total Deaths.	Rate per 1000 Living.*	Relative Percentage of Total Deaths.	Total Deaths.	Rate per 1000 Living.*	Relative Percentage of Total Deaths.	Total Deaths.	Rate per 1000 Living.*	Relative Percentage of Total Deaths.	Total Deaths.	Rate per 1000 Living.	Relative Percentage of Total Deaths.
Zymotic ...	407	1.7	13.0	352	1.4	11.1	208	.83	7.4	367	1.6	12.0
Parasitic ...	0	.00	.00	0	.00	.00	0	.00	.00	0	.00	.00
Dietetic ...	4	.01	.1	8	0.3	.2	6	.02	.2	7	.03	.2
Constitutional ...	665	2.7	21.3	647	2.6	20.3	613	2.4	21.8	654	2.8	21.4
Local ...	1428	5.9	45.7	1544	6.3	48.9	1341	5.4	47.7	1412	6.2	46.2
Developmental ...	466	1.9	14.9	476	1.9	15.0	508	2.0	18.1	463	2.0	15.1
Violence ...	88	.3	2.8	86	.3	2.7	90	.3	3.2	88	.3	2.8
Ill-defined ...	61	.2	1.9	40	.1	1.2	40	.1	1.4	60	.2	1.9

* Calculated on the unrevised population.

TABLE 15.
Showing Age-Incidence of Deaths in Leicester since 1894.

Year.	Deaths under 5 years.		Deaths over 60 years.		Total Deaths.
	Number.	Percentage.	Number.	Percentage.	
(1)	(2)	(3)	(4)	(5)	(6)
1894	1,301	47·6	564	20·6	2,730
1895	1,611	48·5	774	23·3	3,320
1896	1,624	49·5	689	21·0	3,277
1897	1,758	49·4	746	20·9	3,553
1898	1,703	48·9	773	22·2	3,480
1899	1,707	45·8	897	24·1	3,727
1900	1,627	43·6	863	23·1	3,729
1901	1,435	42·9	827	24·7	3,339
1902	1,303	41·1	828	26·1	3,172
1903	1,279	41·7	824	26·9	3,065
1904	1,255	38·4	950	29·1	3,266
1905	1,148	37·5	897	29·3	3,062
1906	1,397	41·8	871	26·1	3,341
1907	989	33·1	927	31·0	2,988
1908	1,109	35·5	952	30·5	3,119
1909	1,006	31·9	1,073	34·0	3,153
1910	890	31·7	897	31·9	2,806
1911	965	31·6	1,035	33·9	3,051

TABLE 16.

**Occupations of Persons aged Ten Years and upwards in
Leicester. CENSUS 1901.**

MALES.				Number of Persons Engaged.
Commercial or Clerks	...	...	...	2020
Conveyance of Men, Goods and Messengers			...	6684
Agriculture, on Farms, Woods and Gardens			...	895
Engineering and Machine Making	...		...	2893
Cycles, Coaches and other Vehicles	...		...	661
Building and Works of Construction	...		...	7006
Wood, Furniture, Fittings and Decorations			...	1441
Brick, Cement, Pottery and Glass	...		...	253
Paper, Prints, Books and Stationery	...		...	1603
Hosiery Manufacture	...	...	...	3282
Other Textile Manufactures	...	...	...	781
Tailors	...	...	...	1129
Boot, Shoe, Slipper, Patten and Clog-makers			...	17770
Food, Tobacco, Drink and Lodging	...		...	5187
All other Occupations	...	...	...	14374
Total Occupied				65979
Retired or Unoccupied				10270
Total, Occupied or Unoccupied				76249

N.B.—Figures for 1911 Census not available at time of going to press.

TABLE 17.

**Occupations of Persons aged Ten Years and upwards
in Leicester. CENSUS 1901.**

FEMALES.	No. of Persons Engaged.		
	Unmarried.	Married or Widowed.	Total.
Midwives, Nurses, etc.	209	230	439
Teaching	989	36	1025
Art, Music, Drama, etc.	203	73	276
Domestic Service, Indoor	4535	364	4899
Charwomen, Laundry, etc.	519	1102	1621
Commercial, Clerks, etc.	491	8	499
Conveyance of Men, Goods & Messengers	301	8	309
Chemicals, Oil, Soap, etc.	287	103	390
Paper, Prints, Books and Stationery ...	1041	200	1241
Textile Fabrics, Hosiery	6522	2585	9107
Other Textile Manufactures	1245	812	2057
Dealers in Textiles, Drapers, etc. ...	469	96	565
DRESS :—			
Tailors	1102	362	1464
Milliners and Dressmakers	1975	619	2594
Shirt Makers, Seamstresses,	294	140	434
Boot, Shoe, Slipper, Patten, Clog Makers	5924	2867	8791
Other Workers	979	392	1371
Food, Tobacco, Drink, and Lodging ...	1953	1327	3280
All other Occupations	661	412	1073
Total Occupied	29699	11736	41435
Retired or Unoccupied	12833	34923	47756
Total, Occupied and Unoccupied ... (10 years old and upwards)	42532	46659	89191

N.B.—Figures for 1911 Census not available at time of going to press.

TABLE 18.*
Number of Persons living at different Age Periods in Borough of Leicester.

	All Ages.	Under 1 year.	Under 5 years.	5	10	15	20	30	40	50	60	70	80	90
Census, 1891	...	174,624	4,780	21,749	20,331	19,574	18,818	32,212	23,812	17,013	10,976	6,560	3,003	544
Census, 1901	...	211,579	5,273	24,266	21,873	21,431	22,224	41,519	30,405	22,400	14,586	8,377	3,680	773
														45

Proportion of Persons living at different Age Periods in Borough of Leicester

(expressed as percentage of total population).

	All Ages.	Under 1 year.	Under 5 years.	5	10	15	20	30	40	50	60	70	80	90
Census, 1891	...	100.0	2.7	12.4	11.6	11.2	10.8	18.4	13.7	9.7	6.3	3.8	1.7	.02
Census, 1901	...	100.0	2.5	11.4	10.3	10.1	10.5	19.6	14.3	10.6	6.8	3.9	1.7	.02
														.02

* Abstracted from the Census Returns.

N.B.—Figures for 1911 Census not available at time of going to press.

TABLE 19.
Showing Number of Empties in Leicester (supplied by Mr. W. Earp, Chief Assistant Overseer).

DATE.	Houses.	Cottages.	Warehouses.	Workshops, &c.	Offices.	Total.
July 1, 1907	848	2,348	76	87	72	3,431
January 1, 1908	821	2,384	68	54	68	3,393
July 1, "	839	2,279	61	76	78	3,333
January 1, 1909	700	2,147	65	49	72	3,033
July 1, "	798	1,993	76	76	78	3,021
January 4, 1910	715	1,849	80	67	70	2,781
July 1, "	728	1,536	76	111	64	2,515
January 3, 1911	630	1,325	54	67	68	2,174
July 3, "	579	1,172	60	90	89	1,990
January 2, 1912	505	898	48	55	69	1,575

TABLE 20.

Showing mean Weekly Temperature of Earth at Depth
of 1 ft. and 4 ft. for the Year 1911.

Week ending.					1 foot.	4 feet.	Number of Deaths per week from Diarrhoea.
May	6	...	...	...	52.0	49.7	...
"	13	...	...	...	52.7	50.0	...
"	20	...	...	...	53.0	50.2	...
"	27	..	...	...	53.7	50.7	...
June	3	...	...	...	56.2	53.0	...
"	10	...	...	...	58.5	54.2	1
"	17	...	...	...	59.5	56.0	2
"	24	...	...	...	58.5	55.5	...
July	1	...	...	...	59.0	55.5	1
"	8	...	...	...	61.5	56.0	...
"	15	...	...	...	64.0	57.7	2
"	22	...	...	...	63.5	59.0	...
"	29	...	...	...	60.5	60.0	4
Aug.	5	...	...	...	64.0	61.5	9
"	12	...	...	...	64.0	61.2	20
"	19	...	...	...	65.7	61.7	38
"	26	...	...	...	63.7	62.0	21
Sept.	2	...	...	...	61.5	60.7	25
"	9	...	...	...	61.5	60.2	15
"	16	...	...	...	60.5	60.5	8
"	23	...	...	...	57.5	58.7	6
"	30	...	...	...	56.0	57.5	4
Oct.	7	...	...	...	51.7	55.7	2
"	14	...	...	...	50.5	54.2	1
"	21	...	...	...	52.2	53.2	...
"	28	...	...	...	50.0	53.2	1

TABLE 21.

**Monthly Rainfall and Temperature during 1911 as
recorded at the Borough Asylum.**

Figures supplied by Dr. J. E. M. FINCH and Dr. J. F. DIXON.

MONTH.	Rainfall in Inches.	Mean Temperature Fahr.
January	·80	38·16°
February	1·72	39·57°
March	1·68	40·63°
April	1·03	45·48°
May	1·51	54·16°
June	1·87	59·62°
July	·11	64·55°
August	2·75	65·29°
September	1·44	57·63°
October	2·40	47·68°
November	2·45	42·3°
December	4·24	42·4°
Total Rainfall in 1911 22·00		

TABLE 22.

**List of Registered Midwives practising in Leicester.
(January, 1912.)**

Name.	Registered No.	Address.
BECK, ANN	3,394 ...	9, Spinney Hill Road.
† BLYTH, ELIZA	2,760 ...	19, Baggrave Street.
BRANT, ELIZABETH	9,818 ...	29, Derwent Street.
*BROWN, MAUD E.	25,841 ...	8, Cranmer Street.
*BUCKLAR, A. A.	25,486 ...	87, Laurel Road.
CHAMBERLAIN, ELIZABETH	374 ...	31, Upper Charles Street.
CHAMBERS, PRISOILLA	2,906 ..	29, Upper Charles Street.
†*FISHER, ROSETTA	30,582 ...	30, Friars Causeway.
FREER, MARY ANN	406 ...	52, Marjorie Street.
GIBSON, AGNES	10,403 ...	2, Southgate Street.
GAWTHORNE, FANNY	30,974 ...	348, Aylestone Road.
HUMPAGE, SARAH ANN	70 ...	27, Abbey Gate.
HOWSAM, MIRIAM	5,223 ...	90, Sylvan Street.
† HOWE, ALICE ELIZABETH	4,095 ...	6, Princess Road.
† HEPPLEWHITE, EDITH MARY	3,865 ...	144, Narborough Road.
†*HILL, MATILDA	28,009 ...	37, Denmark Road.
† HUTLEY, MARIA	14,562 ...	16, Glenfield Road.
†*HARRATT, LIZZIE ANNIE	23,568 ...	27, Ross's Walk.
LAPPAGE, MARY JANE	7,772 ...	21, Dunton Street.
MONK, ELIZABETH	16,723 ...	75, Upper Conduit Street.
MORRIS, ELIZABETH	799 ...	53, Overton Road.
†*NOON, L. A.	30,688 ...	1, Spence Street.
PLUMB, EMILY	231 ...	157, Cranbourne Street.
RUSSON, EMMA	6,585 ...	15, Moore's Road.
SHELLEY, MARGARET	57 ...	35, Stanley Street.
SEARE, MARIA A.	11,811 ...	42, Justice Street.
WESTON, ADELAIDE	689 ...	105, Grasmere Street.
WILLIAMS, KATE R.	1,241 ...	93, Hartopp Road.
WOODWARD, CHARLOTTE	1,039 ...	180, Grasmere Street.
WALKER, EMMA	4,330 ...	11, Abbey Park Road.
†*WATTS, EMILY	23,731 ...	98, St. Saviour's Road.
TOTAL	31.	

* Holds Certificate of Central Midwives' Board.

† Holds Certificate of London Obstetrical Society.

‡ Trained at Maternity Hospital, Causeway Lane.

TABLE 23.
Showing the number of Deaths from Zymotic Diseases in the Fourteen Years, 1898-1911.

DISEASE.	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Small Pox ...	0	0	0	0	5	21	4	0	0	0	0	0	0	0
Measles ...	211	31	49	17	73	74	32	53	80	60	167	109	13	71
Scarlet Fever ...	44	42	28	6	11	15	4	36	52	44	29	23	15	9
Diphtheria ...	63	222	316	155	29	28	6	11	27	17	9	14	11	21
Whooping Cough ...	19	84	46	77	67	36	89	50	112	14	30	51	53	43
Enteric Fever ...	27	28	26	20	12	13	14	9	14	5	8	5	10	11
Diarrhoea ..	323	292	286	224	137	133	289	211	258	73	120	106	70	167
Erysipelas ...	9	13	5	5	6	9	6	3	2	4	5	6	3	5
Influenza ...	14	6	41	13	14	6	17	2	0	17	15	19	13	10
Puerperal Fever ...	2	6	8	4	5	3	5	7	4	2	2	4	3	7
TOTALS ...	712	724	805	521	359	338	466	382	549	236	385	337	191	344

TABLE 24.

Showing the number of Notification Certificates for the principal Zymotic Diseases for the
Fourteen Years, 1898-1911.

Disease.	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Small Pox ...	0	0	0	4	9	406	321	5	1	0	0	0	0	0
Scarlet Fever ...	923	1247	839	758	826	533	554	1117	2301	1710	1206	1768	1013	1309
Diphtheria ...	218	892	1452	1034	320	211	97	173	315	178	123	140	114	246
Enteric Fever ...	237	162	117	126	81	58	64	68	67	47	43	36	36	47
Erysipelas ...	230	341	306	181	225	214	239	253	158	166	162	196	156	143
Puerperal Fever ..	11	18	26	12	15	11	16	20	10	10	12	8	13	19
Phthisis (Voluntary)	...	...	...	...	...	156	182	225	215	212	197	172	193	187
.. (Hospital)...	...	...	...	...	...	...	...	...	...	...	...	...	...	157
.. (Poor Law)	...	...	...	...	...	...	...	...	...	...	...	327	161	170
TOTALS ...	1619	2660	2740	2115	1476	1389	1473	1861	3067	2323	1743	2647	1686	2278

NOTE.—Prior to the year 1900 a Local Notification Act was in force, under which first cases only in a house were notifiable. The figures, therefore, prior to that year, refer to infected "houses," not "persons."

TABLE 25.
Showing Births, Vaccinations, and Smallpox in
Leicester, 1838-1911.

Year.	Births.	Vaccina- tions Registd. Public and Pvt.	Small- pox Deaths.	Small- pox Cases	Year.	Births.	Vaccina- tions Registd. Public and Pvt.	Exemp- tions Granted	Small- pox Deaths.	Small- pox Cases.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1838	1815	Not known	11	...	1875	4270	3527	...	1	Not known
1839	2024	...	50	...	1876	4781	3426	...	...	"
1840	1967	...	56	...	1877	4753	3653	...	6	12
1841	1972	...	31	...	1878	4779	3372	...	1	8
1842	1942	...	...	...	1879	4697	3146	...	...	...
1843	2035	...	...	...	1880	4860	2886	...	...	1
1844	2087	...	9	...	1881	4712	3417	...	2	6
1845	2197	...	164	...	1882	4857	3106	...	5	29
1846	2213	...	12	...	1883	4825	1958	...	3	12
1847	2005	...	1	...	1884	4851	1763	...	...	3
1848	2003	...	31	...	1885	4683	1842	...	...	8
1849	2171	1613	66	...	1886	4863	1122	...	...	1
1850	2239	1240	5	...	1887	4695	471	...	...	9
1851	2437	1292	2	...	1888	4814	314	...	...	21
1852	2387	1637	52	...	1889	4796	172	...	...	...
1853	2283	1843	11	...	1890	4699	131	...	...	...
1854	2467	2275	..	...	1891	4790	92	...	...	...
1855	2301	1771	...	...	1892	5816	133	...	6	38
1856	2402	1771	1	...	1893	6006	249	...	15	308
1857	2441	1880	17	...	1894	5995	133	...	...	8
1858	2276	2026	53	...	1895	5962	75	...	...	4
1859	2518	1447	3	...	1896	6212	86	...	...	...
1860	2567	1766	2	...	1897	6252	81	...	...	...
1861	2540	1614	1	...	1898	6152	92	...	...	...
1862	2723	1388	...	...	1899	6273	156	167	...	...
1863	2937	1608	5	...	1900	6207	343	598	...	...
1864	3114	1916	104	...	1901	6169	357	500	...	4
1865	3226	1183	10	...	1902	6313	1237	1500	5	18
1866	3412	1641	3	...	1903	6018	2487	1029	21	406
1867	3496	1544	2	...	1904	5981	1232	1044	4	321
1868	3588	3379	1	...	1905	5888	987	1112	...	5
1869	3760	3560	...	...	1906	5865	1073	1080	...	1
1870	3799	3103	...	...	1907	5534	1093	1256	...	...
1871	3982	3230	12	Not known	1908	5680	659	2401	...	...
1872	4162	4456	346	..	1909	5431	660	2367	...	...
1873	4447	3692	2	..	1910	5380	564	2335	...	...
1874	4374	3764	...	..	1911	5222	475	2964	...	...

The figures in this Table prior to the year 1890 are taken from the Fourth Report of the Royal Commission on Vaccination, App. 3, Tables, 5, 6 and 51. They were prepared and handed to the Royal Commission by Mr. J. T. Biggs.

In 1863-64, owing to the Smallpox epidemic which prevailed, there were 4,320 additional public vaccinations performed by the Medical Officers to the Guardians. These were chiefly vaccinations of children omitted in previous years. They are not included in the figures for the two years in question.

TABLE 26.
Scarlet Fever Statistics.

Year.	Actual Numbers Recorded.			Rates.				
	Deaths	Cases Notified	Cases removed to Hospital	Deaths per 100,000 Pop.	Cases Notified per 50,000 Pop. ‡	Cases Removed to Hospital per 50,000 Pop.	Per-centage removed to Hospital	Per-centage Fatality
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1877	33	...	38	29.6	...	17.1	...	...
1878	12	...	51	10.5	...	22.3	...	...
1879	105	...	247	89.9	...	105.5	...	...
1880	119	802	230	99.1	334.1	95.8	28.6	14.8
1881	184	1065	388	149.5	432.9	157.7	36.4	17.2
1882	72	763	460	57.1	302.7	182.5	60.2	9.4
1883	91	797	383	70.3	308.9	148.4	48.0	11.4
1884	63	701	354	47.5	263.5	133.1	50.4	8.9
1885	113	1816	900	82.9	667.6	330.8	49.5	6.2
1886	44	817	439	31.5	291.7	156.7	53.7	5.3
1887	5	272	151	3.5	95.1	52.7	55.5	1.8
1888	4	132	94	2.7	44.8	31.9	71.2	3.0
1889	6	409	327	3.9	136.3	109.0	79.9	1.4
1890	38	516	471	24.6	167.5	152.9	91.2	7.3
1891	17	794	636	9.6	224.2	179.6	80.1	2.1
1892	41	1331	733	22.6	367.6	202.4	55.0	3.0
1893	81	2308	none*	44.0	627.1	none	none	3.5
1894	30	855	413	16.0	228.6	110.4	48.3	3.5
1895	15	723	415	7.8	189.2	116.4	61.5	2.0
1896	48	2110	1008	24.7	543.8	259.7	47.7	2.2
1897	73	1645	1048	36.8	415.4	264.6	63.7	4.4
1898	44	923	699	21.8	229.6	173.8	75.7	4.7
1899	42	1247	866	20.5	305.6	212.2	69.4	3.3
1900	28	839	574	13.3	200.7	137.3	68.4	3.3
1901	6	758	485	2.9	178.7	114.3	63.9	.7
1902	11	826	579	5.1†	192.9†	135.2†	70.0	1.3
1903	15	533	130*	6.9	123.9	30.2	24.3	2.8
1904	4	554	239*	1.8	128.2	55.3	43.1	.7
1905	36	1117	739	16.5	256.1	169.4	66.1	3.2
1906	52	2301	1471	23.7	525.3	335.8	63.9	2.2
1907	44	1710	1196	19.9	386.8	270.5	69.9	2.5
1908	29	1206	869	13.0	270.4	194.8	72.0	2.4
1909	23	1768	1166	10.2	394.6	260.2	65.9	1.3
1910	15	1013	739	6.6	224.1	163.4	72.9	1.4
1911	9	1309	908	3.9	287.5	200.0	69.3	.7

Prior to the year 1900 a Local Notification Act was in force, under which first cases only in a house were notifiable. Allowance must be made for this in comparing with recent years.

* Smallpox Years. Hospital required during part of year for Smallpox.

† The rates for the years 1902-10 have been recalculated on population revised in the light of the 1911 Census.

‡ A diagram illustrating the figures in column 6 was given in the Annual Report for 1909.

TABLE 27.
Leicester. Scarlet Fever.—"Return" Case Statistics.

YEAR.	1905	1906	1907	1908	1909	1910	1911
Total Cases Notified	1,117	2,301	1,710	1,206	1,768	1,013	1,309
Number of Patients Discharged from Hospital	661	1,385	1,209	851	1,165	778	855
Average Days Stay	40.7	42.8	47.1	48.1	37.9	38.6	...
Number of "Infecting" Cases	24	104	75	57	83	53	47
Percentage of "Infecting" Cases	3.6	7.5	6.2	6.7	7.1	6.8	5.5
Number of Deaths in Hospital	20	37	36	19	17	13	6
Case Mortality in Completed Cases	3.4	2.6	2.9	2.2	1.43	1.67	.70

The term "Infecting" Case implies a case which on returning home is followed by one or more further cases in the same house, these cases being known as "Return" Cases.

TABLE 28.

Diphtheria Statistics, Leicester, 1857-1911.

Year. (1)	No. of Deaths. (2)	Deaths per Million Living. (3)	Year.	No. of Deaths.	No. of Notified Cases.	Deaths per Million Population.	No. of cases Removed to Isolation Hospital.
1857	5	76	1880	23	87	192	
1858	4	61	1881	11	63	89	
1859	10	150	1882	5	38	40	
1860	2	30	1883	6	26	46	
1861	4	58	1884	11	84	83	
1862	2	28	1885	14	55	102	
1863	7	93	1886	4	51	29	
1864	2	26	1887	13	81	90	
1865	3	38	1888	13	67	89	
1866	3	37	1889	10	84	66	
1867	3	36	1890	11	75	71	
1868	10	115	1891	14	65	78	
1869	9	110	1892	10	67	55	
1870	11	118	1893	20	139	108	
1871	7	74	1894	12	66	64	
1872	2	20	1895	36	75	188	
1873	7	69	1896	53	170	273	
1874	8	77	1897	73	229	374	
1875	7	66	1898	63	218	313	
1876	10	92	1899	222	892	1083	
1877	9	80	1900	316	1452	1514	
1878	5	44	1901	155	1034	729	592
1879	11	94	1902	29	320	*135	183
			1903	28	211	129	47
			1904	6	97	27	26
			1905	11	173	50	89
			1906	27	315	122	166
			1907	17	178	76	102
			1908	9	123	40	92
			1909	14	140	62	83
			1910	11	114	48	70
			1911	21	246	92	113

N.B.—The local Notification Act came into force in 1879, and from that year the number of Notifications (Diphtheria) received are added. The figures after 1891 refer to the extended Borough of Leicester. Prior to 1900, first cases only were notifiable.

* The rates for the years 1902-10 have been recalculated from the revised population in the light of the 1911 Census.

TABLE 29.
Enteric Fever.—Cases and Deaths in past years.

Year. (1)	Cases Notified. (2)	Deaths. (3)	Cases per 1000 Pop. (4)	Deaths per 1000 Pop. (5)	Cases removed to Hospital.† (6)
1884	55	16	·41	·12	
1885	216	36	1·59	·26	
1886	141	19	1·01	·13	
1887	222	31	1·55	·22	
1888	266	32	1·81	·22	
1889	147	22	·97	·14	
1890	165	24	1·07	·15	
1891	178	29	1·00	·16	
1892	116	17	·64	·09	
1893	392	47	2·13	·25	
1894	215	27	1·15	·14	
1895	248	38	1·30	·20	
1896	283	40	1·46	·21	
1897	215	38	1·08	·19	
1898	237	27	1·18	·13	
1899	162	28	·79	·14	
1900	117	26	·36	·12	
1901	126	20	·59	·09	60
1902*	81	12	·38	·05	54
1903	58	13	·27	·06	24
1904	64	14	·29	·06	37
1905	68	9	·31	·04	43
1906	67	14	·30	·06	58
1907	47	5	·21	·02	35
1908	43	8	·19	·03	29
1909	36	5	·16	·02	19
1910	36	10	·15	·04	26
1911	47	11	·20	·04	23

N.B.—Prior to the year 1900 the figures indicate first cases only in a house.

* The rates for the years 1902-10 have been revised in the light of the 1911 Census.

† Enteric Fever cases were not treated in the Isolation Hospital until the Groby Road Hospital was opened at the end of 1900.

TABLE 30.
Measles.—Deaths and Rates in past years.

Year.	Deaths.	Rate per 1000 Population.	Quinquennial Average.
1885	52	38	45
1886	43	31	
1887	87	61	
1888	77	52	
1889	62	41	
1890	30	19	44
1891	84	47	
1892	126	70	
1893	52	28	
1894	106	57	
1895	29	15	41
1896	120	62	
1897	12	06	
1898	211	105	
1899	31	15	
1900	49	23	23
1901	17	08	
1902*	73	34	
1903	74	34	
1904	32	14	
1905	53	23	39
1906	80	34	
1907	60	25	
1908	167	69	
1909	109	45	
1910	13	04	
1911	71	31	

*The rates for the years 1902-10 are calculated upon the unrevised population.

TABLE 31.
Diarrhœa and Enteritis Statistics.

Year.	No. of Diarrhœa Deaths.	No. of Enteritis Deaths.	Diarrhœa plus Enteritis.		Diarrhœa plus Enteritis under 1 year of age.		Mean Temperature 4ft. earth, 10 hottest weeks of year.
			Deaths.	Rate per 1000 Pop.	Deaths.	Rate per 1000 Births.	
1884	344	13	357	2.7	282	58.1	
1885	186	12	198	1.4	174	37.1	
1886	256	15	271	1.9	240	49.3	
1887	247	10	257	1.7	215	45.8	
1888	148	13	161	1.1	123	25.5	
1889	121	15	136	0.9	195	40.6	
1890	218	27	245	1.5	204	43.4	
1891	204	22	226	1.2	194	40.5	
1892	214	22	236	1.3	201	34.5	
1893	399	22	421	2.3	356	59.2	
1894	176	17	193	1.0	160	26.6	
1895	369	50	419	2.2	353	59.2	
1896	272	68	340	1.7	303	48.7	
1897	360	112	472	2.3	391	62.5	59.7
1898	323	86	409	2.0	346	56.2	59.3
1899	292	109	401	1.9	334	53.2	61.3
1900	286	90	376	1.8	331	53.3	59.7
1901	224	78	302	1.4	259	41.9	60.1
1902	137	42	179	0.84	154	24.3	57.6
1903	133	52	185	0.86	156	25.9	57.6
1904	275	35	310	1.43	277	46.3	59.5
1905	211	32	243	1.11	208	35.3	60.2
1906	258	54	312	1.42	266	45.3	59.8
1907	73	58	131	0.59	108	19.5	57.5
1908	120	63	183	0.82	148	26.0	58.6
1909	106	29	135	0.60	115	21.1	57.4
1910	70	27	97	0.43	70	13.0	57.0
1911	167	52	219	0.96	180	34.4	60.5

TABLE 32.**Weekly Deaths from Diarrhœa from 1900-1911.**

Week of the Year.	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
25th ...	3	1	2	0	0	0	1	0	6	0	2	2
26th ...	2	1	3	1	1	0	0	2	0	0	0	0
27th ...	4	1	2	0	1	1	1	2	1	0	0	1
28th ...	4	2	1	0	2	3	1	2	1	1	1	0
29th ...	12	4	1	3	5	3	1	0	2	2	0	2
30th ...	21	15	2	1	8	15	2	0	0	1	2	0
31st ...	16	17	0	9	21	18	3	1	1	3	1	4
32nd ...	25	17	0	9	30	33	10	0	10	2	1	9
33rd ...	27	24	2	9	43	24	18	1	12	7	1	20
34th ...	38	22	2	12	31	25	32	1	11	15	3	38
35th ...	38	27	3	15	30	25	35	2	13	22	6	21
36th ...	24	29	4	8	24	18	46	4	11	8	4	25
37th ...	12	16	6	10	24	15	28	2	3	9	13	15
38th ...	18	6	10	8	13	9	30	7	6	8	5	8
39th ...	11	8	19	6	8	3	11	9	2	9	8	6
40th ...	7	10	16	6	7	1	6	13	10	2	4	4
41st ...	4	5	19	2	3	1	8	10	4	1	4	2
42nd ...	2	2	10	1	6	3	1	3	7	1	0	1
43rd ...	3	2	8	2	4	1	4	4	5	3	4	0
44th ...	1	1	5	0	2	0	1	1	4	0	3	1

TABLE 33.
Showing Number of Deaths from Tubercular Diseases
in Leicester in past Years.

Year.	Phthisis.*		Other Tuberculous Diseases.		Total Tuberculous Deaths.	
	Deaths.	Rate per 100,000 Population.	Deaths.	Rate per 100,000 Population.	Deaths.	Rate per 100,000 Population.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1891	181	102	69	38	250	140
1892	216	119	124	69	340	188
1893	250	130	140	82	390	212
1894	207	110	104	56	311	166
1895	189	99	141	74	330	173
1896	220	113	128	66	348	179
1897	215	108	128	65	343	173
1898	221	109	137	68	358	177
1899	202	98	129	63	331	161
1900	230	110	144	69	374	179
1901	271	127	80	38	351	165
1902†	272	127	86	40	358	168
1903	266	123	111	51	377	175
1904	353	163	96	44	449	207
1905	288	132	87	40	375	171
1906	339	154	71	32	410	187
1907	275	124	99	44	374	169
1908	287	128	104	46	391	175
1909	290	129	82	36	372	166
1910	281	124	77	34	358	158
1911	288	126	66	28	354	155

* In comparing the Phthisis figures for the years prior to 1901 with the figures for later years, it will be noticed that an apparent increase in the phthisis rate has occurred. It will also be seen, however, that there has been a proportionate decrease in the rate for "other tubercular diseases." The explanation is that in 1901 a different method of classification was adopted whereby a certain number of cases which had hitherto been classified as other tubercular diseases were transferred to the heading of "phthisis." If the total deaths from tuberculous diseases be considered it will be observed that no increase, but, on the other hand, a decrease has taken place in the past decade as compared with the previous one.

† The rates for the years 1902-10 have been revised in the light of the 1911 Census.

TABLE 34.

Age and Sex Distribution of Deaths from Phthisis in 1911.

Age Period.				Males.	Females.	Total.
0 to 5	...	...	...	4	7	11
5 .. 10	...	...	...	1	2	3
10 .. 20	...	...	...	14	9	23
20 .. 30	...	...	...	36	40	75
30 .. 40	...	...	...	49	30	83
40 .. 50	...	...	...	24	21	45
50 .. 60	...	...	...	24	8	29
60 .. 70	...	...	...	12	3	15
70 .. 80	...	...	...	2	2	4
Over 80	...	...	...	...	...	...
Total	...	...	...	166	122	288

Occupations of Persons Dying from Phthisis in 1911.

				M.	F.					M.	F.
SHOE TRADE:											
Finishers	...	...	...	19	...	Porters	...	...	...	2	...
Clickers	...	...	...	9	...	Laundresses	...	...	...	...	...
Riveters	...	...	...	4	...	Vaumen	...	...	...	3	...
Pressmen	...	...	...	4	...	Domestic Servants	...	...	...	...	1
Machinists	...	...	...	...	9	Stokers	...	...	...	1	...
Warehousemen	...	...	...	1	...	Hawkers	...	...	...	3	...
Various	...	...	...	14	4	Carpenters	...	...	...	2	...
						Yarn Scourers	...	...	...	...	...
Total in Shoes	...	...	...	51	13	Printers	...	...	...	5	...
						Various	...	...	...	40	8
Hosiery Trade*	...	...	...	10	17	Occupations not stated					
Labourers	...	...	...	18	...	(includes Married					
Clerks	...	...	...	7	...	Women, Widows,					
Tailoring Trade	...	...	...	3	2	Children, and					
Shopkeepers	...	...	...	5	...	Persons of no					
Mechanics	...	...	...	...	...	occupation)				15	80
Cigar Hands	...	...	...	...	...	
Cardboard Box Hands	...	...	...	1	1	Total	...	...	...	166	122

* A large number of *married* women are engaged in the Hosiery Trade, but these are not included, for in the case of deaths of married women and widows, only the husband's occupation is registered.

TABLE 35.
Family History of Phthisis Cases Investigated, 1904-11.

YEAR. (1)	With history of Consumptive Parent. (2)	With history of Consumptive Brother or Sister. (3)	With history of both Consumptive Parent and Brother or Sister. (4)	Neither Parent nor Brother or Sister Consumptive. (5)	Total Cases Investigated. (6)
1904	21	31	12	112	176
1905	31	39	8	164	242
1906	9	27	18	106	160
1907	20	36	12	120	188
1908	32	29	16	113	190
1909	21	37	8	99	165
1910	16	27	10	120	173
1911*	42	82	25	264	413
Total 1904-11	192	308	109	1098	1707
Percentage ...	11.2	18.0	6.3	64.3	100.0

By adding Column 4 to Columns 2 and 3 respectively we find that 17.5 per cent. of the cases investigated gave a history of having had a consumptive parent, and 24.3 per cent. of having had a consumptive brother or sister. In round figures, one-sixth have had a consumptive parent; one-fourth had a consumptive brother or sister, and the remainder had neither parent nor brother or sister affected.

* Tuberculosis (Hospitals) Regulations came into force.

TABLE 36.
CANCER DEATHS, 1911.

Deaths of Males and Females from Cancer, arranged in age periods and according to parts of body affected.

Part of Body affected.	20 to 40 years.		40 to 60 years.		Over 60 years.		Totals.		Both Sexes.
	M.	F.	M.	F.	M.	F.	M.	F.	
Stomach	1	3	8	8	12	16	21	27	48
Liver	2	5	7	14	9	19	28
Intestines	1	...	2	6	2	7	5	13	18
Uterus	17	...	14	...	31	31
Breast	5	...	8	...	8	...	21	21
Rectum	1	4	7	8	7	12	15	27
Lung	1	1	1	1	2
Bladder	1	2	...	2	1	3
Tongue	3	1	3	...	6	1	7
Lip	1	...	1	...	2	...	2
Thyroid	2	...	...	...	2	...	2
Larynx	2	...	2	...	2
Throat	1	...	1	...	1
Æsophagus	3	1	1	3	4	4	8
Kidney	1	1	1	1	2
Pelvis	1	...	1	...	1
Pancreas	1	...	1	1
Mammæ	1	...	1	...	2	2
Jaw	2	...	2	...	2
Mouth	1	...	...	...	1	...	1
Face	2	...	2	2
Spleen	1	...	...	...	1	1
Brain	1	...	1	1
Not Stated	2	4	5	3	6	7	13	20
Totals	2	11	30	61	47	82	79	154	233

TABLE 37. (L.G.B. Table I.)
Vital Statistics of whole District during 1911 and previous Years. Borough of Leicester.

YEAR. (1)	Population estimated to middle of each year, revised in light of 1911 Census. (2)	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.				
		Un-corrected Number. (3)	Nett. Number. (4)	Rate. (5)	Number. (6)	Rate. (7)	Of Non-residents registered in the District. (8)	Of Residents not registered in the District. (9)	Under 1 Year of Age.		At all Ages.	
									Number. (10)	Rate per 1000 Nett Births. (11)	Number. (12)	Rate. (13)
1906	219,988		5865	26.66	3248		245	338	975	166.2	3341	15.18
1907	221,508		5534	24.98	2752		109	345	720	130.1	2988	13.48
1908	223,046		5680	25.46	2852		91	358	737	129.7	3119	13.98
1909	224,595		5431	24.18	2895		87	345	688	126.6	3153	14.03
1910	226,154		5380	23.79	2601		73	278	680	126.3	2806	12.40
1911	227,634	5160	5222	22.94	2799	12.29	110	362	679	130.0	3051	13.40
Total population at all ages		...	...	...	227,242	Area of District in acres (exclusive of area covered by water 8,586						
Number of inhabited houses		...	...	...	51,481	...						
Average number of persons per house		...	...	...	4.41	...						

NOTE.—This Table has been filled in in accordance with the instructions given on the form supplied by the Local Government Board. The population and rates for the years prior to 1911 have been revised in the light of the 1911 Census.

NOTE.—This Table has been filled in in accordance with the instructions given on the form supplied by the Local Government Board.
The population and rates for the years prior to 1911 have been revised in the light of the 1911 Census.

TABLE 38. (L.G.B. Table IV.)

Borough of Leicester.

INFANT MORTALITY DURING THE YEAR 1911.

Nett Deaths from stated causes at various Ages under
1 Year of Age.

CAUSE OF DEATH.				Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-3 Months	3-6 Months	6-9 Months	9-12 Months	Total Deaths Under 1 Year
All Causes	(Certified.	Uncertified.		125	40	24	34	223	118	136	109	93	679
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	1	1
Measles	...	...	...	...	...	...	...	...	...	3	6	10	19
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	1	2	3
Whooping-cough	...	...	...	...	...	...	...	...	3	5	6	5	19
Diarrhoea	...	...	...	1	1	...	5	7	36	48	33	22	146
Enteritis	...	...	...	...	1	1	1	3	6	15	6	4	34
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	1	1	3	5
Abdominal Tuberculosis	...	...	...	...	...	1	...	1	...	2	2	2	7
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	2	4	3	3	12
Congenital Malformations	...	...	...	...	1	...	...	1	...	...	...	...	1
Premature Birth	...	...	...	70	13	4	9	96	13	...	...	...	109
Atrophy, Debility and Marasmus	...	...	...	28	9	10	12	59	23	15	11	5	113
Atelectasis	...	...	...	2	4	2	1	9	1	...	...	...	10
Injury at Birth	...	...	...	2	...	...	...	2	...	...	...	...	2
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis	...	...	...	...	1	1	1	3	2	1	...	...	6
Rickets	...	...	...	...	...	...	...	...	...	...	2	4	6
Meningitis (<i>not Tuberculous</i>)	...	...	...	...	...	...	...	...	...	2	2	3	7
Convulsions	...	...	...	7	3	...	2	12	7	16	12	5	52
Gastritis	...	...	...	...	...	...	...	...	3	2	1	2	8
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	1	1
Bronchitis	...	...	...	1	1	1	...	3	4	12	10	5	34
Pneumonia (all forms)	...	...	...	...	...	1	...	1	6	5	8	12	32
Suffocation (overlying)	...	...	...	1	2	...	...	3	6	1	...	...	10
Other Causes	...	...	...	13	4	3	3	23	6	4	5	4	42

Nett Births in the Year (legitimate, 4,989.
(illegitimate, 233.

679

Nett Deaths in the Year of (legitimate infants, 633.
(illegitimate infants, 46.

MORTALITY TABLE.



CLASSIFICATION OF DEATHS IN 1911
ACCORDING TO CAUSE.

DEATHS—continued.

	0 to 1		1 to 5		Under 5		5 to 20		20 to 40		40 to 60		60 to 80		80 and upwards.		Over 5		All Ages. Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
(d) OF PARTURITION.																				
Abortion, Miscarriage ...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	1	1
Puerperal Convulsions ...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	1	1
Placenta Previa, Flooding ...	...	...	...	...	...	...	...	...	2	...	...	1	...	...	...	3	...	3	3	3
Other Accidents of Childbirth ...	1	...	...	...	1	...	...	...	7	...	...	1	...	...	...	8	1	8	9	9
7.—Diseases of Integumentary System.																				
Phlegmon ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ulcer, Caruncle ...	...	...	...	...	...	...	1	...	2	3	2	4	3	1	...	8	8	8	8	16
Other Diseases of Skin, &c. ...	1	1	...	...	1	1	...	...	...	...	...	...	...	...	...	...	1	1	1	2
8.—Diseases of Bones and Joints.																				
Caries and Necrosis ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	1
Anthraxis, Osteitis, Periostitis ...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	2	...	2	...	2
Other Diseases of Bones and Joints ...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	1	...	1	1
9.—Diseases of Organs of Special Sense.																				
Ear, Eye, Nose ...	2	1	...	...	1	2	1	1	...	2	2	...	...	1	...	3	4	5	6	11
10.—Diseases of Lymphatic System, &c.																				
Lymphatics and Spleen ...	...	...	...	...	...	...	2	...	...	...	...	...	...	1	...	2	1	2	1	3
Bronchocele, Addison's Disease ...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	1	1
Quinsy ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	119	88	62	53	181	141	34	32	50	80	145	155	255	293	16	30	500	590	681	1412

DEATHS—continued.

CLASS VIII.

DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES.

(*e.g.*, Dropsy, Abscess, Tumour, Hemorrhage, Mortification, Death from Natural Causes, &c.)

Class	0 to 1		1 to 5		Under 5		5 to 20		20 to 40		40 to 60		60 to 80		80 and upwards.		Over 5		All Ages.		Total.
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
I.—Zymotic Diseases	112	81	46	64	158	145	11	12	7	12	4	2	8	5	1	2	31	33	189	178	367
II.—Parasitic Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
III.—Dietic Diseases	...	...	...	...	...	...	1	...	...	...	4	...	2	...	...	...	7	...	7	...	7
IV.—Constitutional Diseases	18	11	22	16	40	27	30	29	83	84	86	101	69	90	3	12	271	316	311	343	654
V.—Local Diseases	119	88	62	53	181	141	34	32	50	80	145	155	255	293	16	30	500	590	681	731	1412
VI.—Developmental Diseases	146	89	8	3	154	92	1	...	...	...	...	...	48	50	38	80	87	130	241	222	463
VII.—Violent Deaths	10	2	5	3	15	5	11	2	13	9	12	5	6	7	2	1	44	24	59	29	88
VIII.—Ill-defined, &c.	1	2	1	3	2	5	6	4	9	6	6	5	7	8	2	...	30	23	32	28	60
Total	406	273	144	142	550	415	94	79	162	191	257	268	395	453	62	125	970	1116	1520	1531	3051

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