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THE SIXTY-FIFTH  
**ANNUAL REPORT**  
UPON THE  
**HEALTH OF LEICESTER,**

**For the Year 1913,**

BY

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

*Medical Officer of Health ; Medical Superintendent of the Borough  
Isolation Hospital ; Chief Administrative Tuberculosis Officer.*

INCLUDING

REPORT ON TUBERCULOSIS.

REPORT on the SANATORIUM AND ISOLATION  
HOSPITAL.

REPORT on the INFANTS' MILK DEPOT.

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.

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LEICESTER :

GEO. PALMER, 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 preventing 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.

MR. ADNITT	MR. HOLMES
ALD. BANTON, J.P.	„ HUDSON
MR. BRYAN (deceased)	„ JOHNSON
ALD. CHAPLIN, J.P.	„ MITCHELL
MR. CROSSLEY, J.P.	„ PERKINS
„ FOLWELL	„ J. W. SMITH
„ GEARY	„ C. SQUIRE
„ HAND	„ WALKER
„ HEATH	„ WILFORD
„ HILL	ALD. YEARBY

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, Sanatorium and Dispensary  
(Chairman, Ald. Windley).
- Cleansing and Refuse Disposal (Chairman, Mr. Walker).
- Sanitary Inspection and Accounts (Chairman, Ald. Yearby).



## SANITARY STAFF.

<i>Chief Sanitary Inspector</i>	...	...	...	FRANCIS BRALEY. <sup>1</sup>
<i>Food Inspectors</i>	...	...	...	M. TYLDESLEY. <sup>1, 2</sup> F. SOWERBUTTS. <sup>1, 2, 3, 4</sup>
<i>District Inspectors</i>	...	...	...	T. BENT. <sup>1</sup> H. STOKES. <sup>1</sup> A. G. STANYON. T. HINES. <sup>1</sup> A. T. PRICE. <sup>1</sup>
<i>Health Visitors</i>	...	...	...	MRS. HARTSHORN. Miss J. WHYTE. <sup>1, 5</sup> (resigned).
<i>Clerks</i>	...	...	...	T. P. POYNOR. C. H. LANGRAN. G. B. NEALE.
<i>Disinfecting Men</i>	...	...	...	G. GLOVER. C. GREGORY.

## INFANTS' MILK DEPOT.

<i>Manageress</i>	...	...	...	MRS. STANION. <sup>6</sup>
-------------------	-----	-----	-----	----------------------------

## ISOLATION HOSPITAL AND SANATORIUM.

<i>Resident Medical Officer to Isolation Hospital and Sanatorium, and Assistant Medical Officer of Health</i>	A. E. S. MARTIN, F.R.C.S.I., D.P.H. (resigned) <sup>8</sup>
<i>Matron of Isolation Hospital</i>	Miss E. A. DAVIES. <sup>7</sup>

## TUBERCULOSIS DISPENSARY.

<i>Senior Medical Officer and Assistant Medical Officer of Health</i>	...	...	WYVILLE S. THOMSON, M.D., D.P.H.
<i>Assistant Medical Officer</i>	...	...	DORA E. L. BUNTING, M.D., D.P.H.
<i>Nurses</i>	...	...	MRS. S. CALVERT. <sup>7</sup> Miss F. SPRIGG. <sup>5, 7</sup>
<i>Clerk</i>	...	...	Miss E. CHAPLIN.
<i>Medical Officer of Health, Medical Superintendent of the Isolation Hospital and Sanatorium, and Chief Administrative Tuberculosis Officer</i>	...	...	C. KILLICK MILLARD, M.D., D.Sc.

1. Holds Certificate of the Royal Sanitary Institute for Inspector of Nuisances.

2. Holds Certificate of the Royal Sanitary Institute for Inspector of Meat, &c.

3. Holds Certificate of the Sanitary Inspectors' Examination Board for Sanitary Inspector

4. Holds Special Certificate of the Sanitary Inspectors' Examination Board for Inspector of Meat, &c.

5. Holds Certificate of the Central Midwives' Board

6. Holds Certificate of the Royal Sanitary Institute for Health Visitor.

7. Holds Certificate as fully Trained Nurse.

8. Succeeded by H. T. Howell, M.R.C.S.

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BOROUGH OF LEICESTER.

96 GREAT TOWNS.

(For Comparison.)					Average.
Birth-rate	...	...	...	...	25.4
Death-rate	...	...	...	...	14.5
Infant Mortality	...	...	...	...	116





## TOWN HALL, LEICESTER.

*May, 1914*

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 1913. Once again the retrospect may be regarded as a favourable one. The general death rate was only 1.36 per 1000 population, and, compared with the revised rates for previous years, it has only been lower on one occasion, viz., in 1910.*

*The infant mortality, at one time so excessive in Leicester, was only 119 per 1000 births. With the exception of the previous year this also is the lowest figure on record.*

*The birth-rate was 22.8, which is a fraction higher than in the previous year. It is probable, however, that the population of the Borough is slightly under-estimated, in which case this increase may only be apparent. The number of illegitimate births, which has been increasing in Leicester for several years past, showed some decrease in 1913.*

*Scarlet fever which began to decline about the middle of the year 1912 has continued abnormally low all through 1913, and has been less prevalent in the Borough than for many years. The type continues very mild.*

*Enteric fever has also been exceptionally low, only 21 cases being reported.*

*The subject of the treatment of tuberculosis, owing to its importance and the attention it is now receiving in consequence of the National Insurance Act, is dealt with at some length in a special report (Appendix I).*

*Very much more work, both at the Sanatorium and Dispensary, has been accomplished during the year than in previous years.*

*The subject of cancer is also dealt with. A serious increase in the deaths from this disease is taking place in Leicester, as in other places.*

*The Infants' Milk Depot continues to prosper. Its popularity with the public is well maintained, and financially it again showed (for the third year in succession) a balance on the right side. I believe that it is doing a very important and useful work.*

*The question of housing has received much attention, and a great deal of work has been done in getting old houses which have been condemned made habitable and put into thorough repair. The number of houses dealt with in this way has been very much greater than in previous years.*

*I have pleasure in once again acknowledging the assistance and hearty co-operation accorded me by my medical colleagues, by Chief Inspector Braley, by Miss Davies (Matron at the Isolation Hospital and Sanatorium), and by the other members of the staff.*

*I have also to thank the members of the Sanitary Committee for the courtesy and consideration they have always extended to me, and I wish specially to mention my indebtedness to Ald. T. Windley. His position as Chairman of the Sanitary Committee for nearly 38 years is quite unique, and his experience in municipal sanitation is probably unrivalled.*

*I am, Gentlemen,*

*Your obedient servant,*

*C. Killick Millard*

*Medical Officer of Health.*







# Medical Officer of Health's Report

FOR THE YEAR 1913.

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## 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 8,582 acres, extending about four Miles from East to West, and about five 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.

The population of the Borough, estimated to the middle of 1913, was 230,970. It indicates an increase over the population of the previous year of 1,676. The natural increase, however, or excess of births over deaths, during 1913 was 2,190, which is probably nearer the truth. Owing to the trade prosperity which

has fortunately prevailed in Leicester for several years it is probable that the increase of population is now considerably greater than that which took place in the last intercensal period, and judging from the excess of births over deaths since the census was taken in 1911, I am of opinion that the population of the Borough at the present time is at least 234,000. Allowing for immigration, however, it is quite possible that the population is over 235,000.

#### NUMBER OF INHABITED AND EMPTY HOUSES.

The number of inhabited houses in the Borough on July 1st, 1913, was 52,888. The number of empty houses and premises was 920, compared with 1,479 twelve months ago—a decrease of 559.

The number of “empties” in the Borough, both of houses and business premises, is lower now than it has been for very many years. Five years ago the number of “empties” was no less than 3033. (Table 17.)

#### RATEABLE VALUE AND RATES.

The *Rateable Value* of the Parish on November 1st, 1913, was:—

	£	s.	d.
Buildings ... ..	1,104,315	0	3
Agricultural Land ... ..	12,721	5	9
	<hr/>		
	£1,117,036	6	0

The *Poor Rates* for the year, 1913-14, were 1/11 in the £.

The *General District Rates* for the year, 1913-14, were:—

Portion of Borough liable to School expenses, 5/11 in the £.

Braunstone portion of Saint Mary (not liable to Elementary Education expenses), 4/4½ in the £.

#### MARRIAGES.

The number of marriages registered in the Borough during 1913 was 1901, compared with 1876 in the previous year.

The *Marriage-rate* was 16·46, compared with an average for the previous ten years of 16·55.

Of the total marriages, 1136 took place in Anglican and 765 in Nonconformist places of worship. Marriages were most frequent in the third quarter of the year, and least so in the first quarter.

#### BIRTHS.

The number of births registered in Leicester during the year was 5278 (including 56 births occurring at the Poor Law Infirmary, which is just outside the Borough). Of this number 2690 were males and 2588 were females. This is an increase of 96 on the figures for the previous year, this being the first time that the number of births has increased for many years.

The *Birth-rate* was 22·85 per 1000 population, compared with 22·59 in the previous year. This apparent increase in the birth-rate may quite possibly be due, wholly or in part, to the population of the Borough being under-estimated.

The birth-rate in the 96 Great Towns during 1913 was 25·4 so that Leicester continues below the average.

*Illegitimate Births.*—These numbered 239 during the year, or 4·5 per cent. of the total births. This is a decrease on the previous year, which is all the more welcome as illegitimacy has been on the increase in Leicester for several years. This is shown in the following table. The rate is given both as a proportion of the total births—this is rather misleading as these are diminishing owing to the fall in the birth-rate—and also as a rate per 100,000 population.

#### ILLEGITMACY IN LEICESTER.

Year.	Population.	No. of Illegitimate Births.	Percentage of Total Births.	Rate per 100,000 Population.
1907	221,000	196	3·5	88·6
1908	223,000	227	4·0	101·8
1909	224,000	227	4·2	101·3
1910	226,000	236	4·4	104·4
1911	227,000	240	4·5	105·7
1912	229,000	267	5·1	116·5
1913	231,000	239	4·5	103·4



In consequence of the increase in illegitimacy in Leicester in the years 1908-12 I have thought it desirable to ascertain how the Borough compares with other large towns. In Table 15 will be found particulars as to the birth-rate and illegitimate-rate in 30 of the largest towns in the country. The average illegitimate-rate for these towns is 106 per 100,000 population, whilst the figures for Leicester are shown above. From this it appears that Leicester last year was a little below the average.

The rate varies remarkably in different towns, some towns having a much worse reputation in this respect than others.

*Still-births.*—Although still-births have to be notified by midwives they are not notifiable if attended by medical men, so that the actual number can only be ascertained indirectly. The number of burials of still-born infants during the year at the Borough Cemeteries was as follows:—

Gilroes Cemetery	...	...	...	73
Welford Road Cemetery	..	..	..	127
Belgrave Cemetery	...	..	...	14
Total	...	...	...	214

This is equivalent to 4·5 per cent. of the live births.

During the four previous years the percentages were 3·8, 3·9, 4·5 and 4·7.

#### DEATHS.

After making the necessary corrections for institutions and for "transferable deaths,"\* the number of deaths of residents of Leicester for the year 1913 was found to be 3088, of which 1641 were males and 1447 were females.

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\* The corrections for 1913 were as follows:—99 deaths of non-residents occurring at the Leicester Royal Infirmary, 17 deaths of non-residents occurring at other hospitals, or nursing homes, 8 deaths at private houses, 1 death in H.M. Prison, and 1 death in the canal have been deducted from the deaths registered in Leicester; whilst 26 deaths of patients at the Borough Isolation Hospital and 323 deaths at the Leicester Poor Law Infirmary have been added, these institutions being outside the Borough. 48 transferable deaths occurring away from Leicester have also been added.

*Death-rate.*—The death-rate, or proportion of deaths per 1000 population, was **13·36**.

The revised death-rates for the past ten years are as follows :—

1903	...	14·22	} average 14·38.	1908	...	13·98	} average 13·48.
1904	...	15·05		1909	...	14·03	
1905	...	14·01		1910	...	12·40	
1906	...	15·18		1911	...	13·40	
1907	...	13·48		1912	...	13·59	
1913	...	...	...	...	...	13·36.	

The death-rate in 1913 was the lowest on record with the exception of that for the year 1912.

## STATISTICS OF OTHER GREAT PROVINCIAL TOWNS.

Owing to the Registrar General not furnishing the necessary information in his Annual Summary I am not able to give the usual table showing how Leicester statistics compare with the other great centres of population. From another source I have obtained information relating to 15 towns, and of these only one town, Portsmouth, has a lower death-rate than Leicester.

## INFANT MORTALITY.

The number of deaths of infants under one year of age was 630, equivalent to an *Infant Mortality* per 1000 births of 119·3.

With the one exception of the previous year, which was quite abnormally low, this is the lowest infant mortality hitherto recorded. The following figures indicate how remarkably the infant mortality figure in Leicester has decreased.

### INFANT MORTALITY IN LEICESTER.

Quinquennial Period.				Average Rate.
1892—1896	...	...	...	194.4
1897—1901	...	...	...	189.2
1902—1906	...	...	...	158.1
1907—1911	...	...	...	128.5
1912 (an abnormal year)	...	...	...	109.0
1913	...	...	...	119.3

When it is remembered that at one time Leicester held a very unenviable position as a town with an exceptionally high infant death-rate, it is gratifying to know that Leicester now compares favourably with other large towns of equal size.

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

In Table 35 particulars are given of the causes of deaths at different age-periods in weeks and months during the first year of life. Of the 630 deaths, 144, or 23 per cent., occurred in the first week; 220, or 35 per cent., occurred in the first month; and 346, or 55 per cent., in the first three months. Of the deaths in the first month of life, the principal causes were premature birth (105), debility and marasmus (47), and convulsions (11). Deaths due to premature birth are due to causes over which a sanitary authority at present has but little control though it is quite possible that in the future we shall regard them as essentially preventable.

### DEATHS AMONGST ILLEGITIMATE CHILDREN.

There were 49 deaths of illegitimate infants, equal to a death-rate of 205 per 1,000 illegitimate births, compared with a rate of 119 for all infants. In making a comparison between the mortality of legitimate and illegitimate infants it is only fair to point out that illegitimacy occurs chiefly amongst a social class with whom infant mortality is in any case above the average.



## ZYMOTIC MORTALITY.

There were 174 deaths from the seven principal zymotic diseases, viz. :—

Smallpox ...	...	...	...	Nil
Measles ...	...	...	...	31
Scarlet Fever ...	...	...	...	7
Diphtheria ...	...	...	...	19
Whooping Cough ...	...	...	...	11
Enteric Fever ...	...	...	..	1
Diarrhoea ...	...	...	...	105
Total ...	...	...	...	174

The *Zymotic Death-rate* was '75 as compared with '92 in the previous year. It is actually the lowest rate on record, although the rate for 1910 was almost equally low.

## CANCER.

The deaths from cancer and other forms of malignant disease during 1913 numbered 252, compared with 226 in 1912, this being, I regret to say, the highest figure hitherto recorded. Of the total, 118 were in males and 134 in females. The cancer rate was 109 per 100,000.

As I mentioned in last year's report, there has been during the past 26 years, and especially during the past 17 years, a serious increase in cancer mortality in Leicester in common with the rest of the country. The cancer-rate in Leicester is now double what it was 17 years ago. Naturally this alarming fact, for which no satisfactory explanation has hitherto been adduced, gives cause for much uneasiness. Probably no disease is more dreaded, especially after middle age is reached, than is that which we are now considering. The very fact that a person is suffering from cancer is mentioned by his friends almost with bated breath. It is unnecessary to dwell here upon the long drawn out misery and suffering which a death from malignant disease so often implies. As regards the hope of recovery, a few genuine cases do appear to get well spontaneously, or at least to



become quiescent, but such cases are extremely rare. The vast majority of cases pass on to a fatal termination.

As regards remedial measures once the disease has supervened, many lines of treatment have been advocated, but it may safely be said that the treatment offering the best hope of escape at the present time is early removal by the surgeon's knife wherever, owing to the situation of the disease, this course is practicable. Radium appears capable of curing some superficial forms of cancer but usually can only cause amelioration.

As to the cause of cancer, it is deeply to be regretted that the etiology of the disease is still most obscure. All sorts of theories have been put forward as to its causation, but none of these, so far as I know, has been able to justify itself. It is sincerely to be hoped, in the interests of suffering humanity, that the investigations now being made by the Imperial Cancer Research Fund may be able to throw some light upon this terribly important problem.

#### CANCER IN LEICESTER COMPARED WITH OTHER TOWNS.

In Table 7 the cancer mortality is given for 15 of the Great Provincial Towns for 1913. The rates will be found to range from 200 per 100,000 population in Stoke-on-Trent and 180 in Salford down to 90 in Portsmouth and 87 in Edinburgh. It is satisfactory to find that Leicester comes third lowest, with 92 per 100,000, in this list of towns which have been taken quite at random.

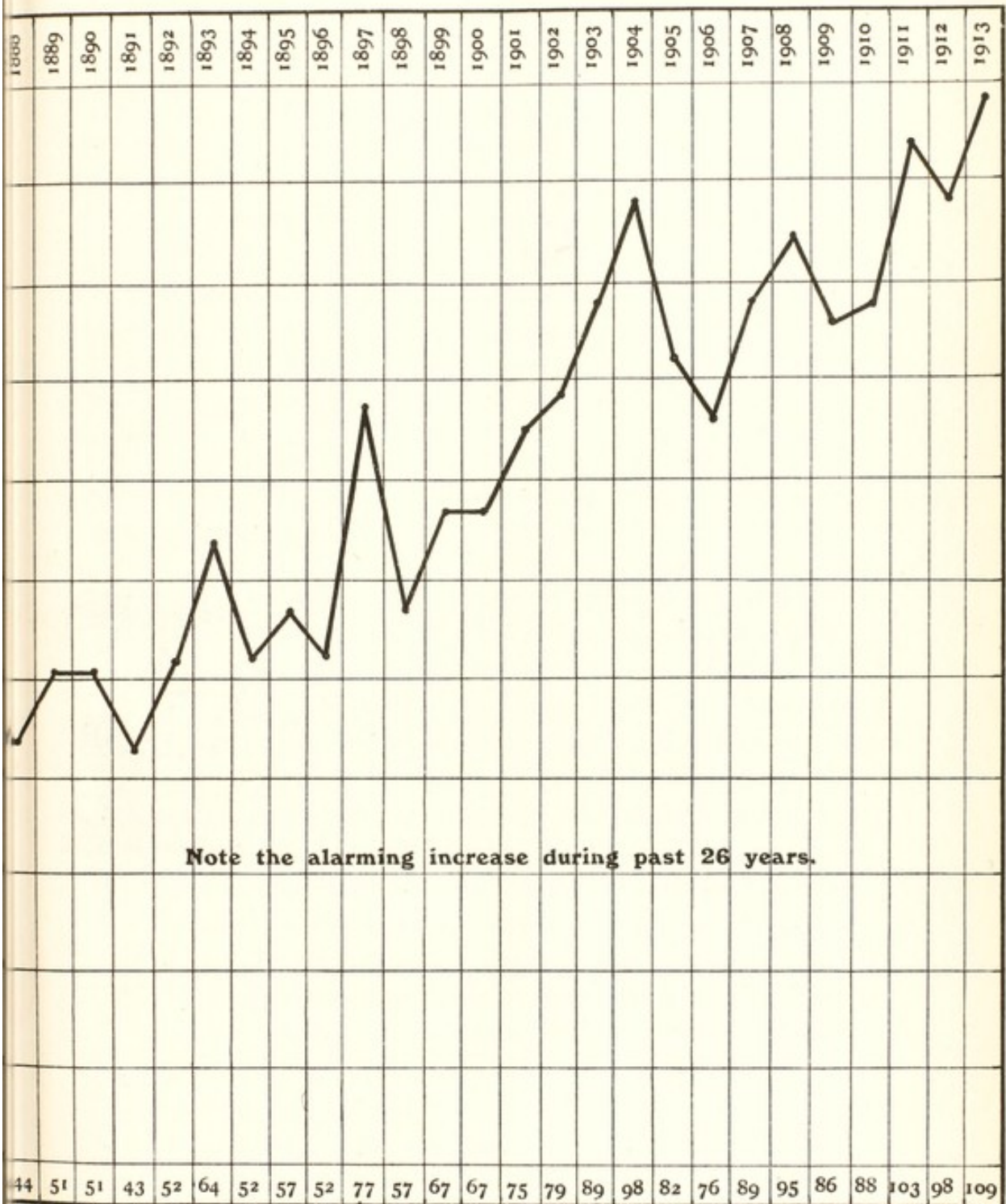
In my last report I gave a similar table comparing the cancer-rate in Leicester in 1910-11 with other towns, and this also showed that Leicester compared favourably.

#### ORGANS OF THE BODY CHIEFLY AFFECTED.

In Table 33 the cancer deaths in Leicester during the past year are classified according to the organs affected and to age and sex. It is, of course, well known that certain organs of the body are more liable to be attacked by cancer in males, others

DIAGRAM I.

CANCER DEATH RATE—per 100,000 Population.







in females. Thus the generative organs, especially the breast and the uterus, are very liable to be attacked in women, and this chiefly accounts for the fact that more females fall victims to the disease than is the case with males.

There are other organs of the body, however, common to both sexes, in which there is also a different incidence of the disease. The most striking illustration of this occurs in the case of cancer of the tongue, one of the most terrible forms of this dreaded disease. It is well known that cancer of the tongue is very much more common in men than in women. In Leicester the disparity is so remarkable that I feel I must draw special attention to it. During the last four years, 1910-1913, there have been 30 deaths registered as due to cancer of the tongue, and *all but one* were in males.

Sir Frederick Treves, in his work on Surgery, 1896 edition, writes as follows:—

“Carcinoma of the tongue is one of the most frequent, and certainly one of the most terrible, forms of cancer to which the human body is liable. . . . One variety of carcinoma alone affects the tongue—namely, the squamous epithelioma. This disease is all but unknown before thirty years of age, infrequent between thirty and forty years, distressingly common after forty years, especially so between forty and seventy, after which time the tendency to its development apparently decreases. The disease has greatly increased in frequency during the last quarter of a century. . . . “It is far more frequent in men than in women, owing to the fact that smoking, spirit-drinking, and syphilis, inducing leucoplakia and other forms of chronic disease, are more common in the male sex. Irritation from any cause, especially when prolonged or oft-repeated, tends to the development of epithelioma. . . .

“Epithelioma usually commences on the margin or tip of the tongue, and may appear at first as a papillary growth, an ulcer, a crack, a nodule, or as a firm infiltrated lump.”



As regards the predisposing causes mentioned by Sir Frederick Treves it seems very probable that the constant irritation to the membrane of the mouth caused by smoking may play a very important part, and, of course, smoking is infinitely more common in men than in women. The other causes mentioned, viz., alcohol and syphilis, are not sufficiently restricted to the male sex, one would think, to account for the very great preponderance of cases occurring in that sex.

Cancer of the lip and cancer of the jaw are also more common in males, there having been 17 deaths in males in Leicester from these two forms in the last four years compared with only two in females.

Differences in the incidence of cancer on the two sexes also occur in the case of other organs where no very obvious or apparent explanation is to be found in any difference in the habits of the sexes. Thus cancer of the stomach is rather more common in males (in the last four years in Leicester there have been 85 deaths in males and 71 deaths in females) but cancer of the liver and cancer of the intestines are more common in females (76 and 53 deaths in females, compared with 50 and 34 in males). In the case of these organs, however, the difference in the incidence on the two sexes is not nearly so striking as in the case of cancer of the tongue.

I may add that the figures for Leicester are not peculiar to our own town, the same difference between the incidence of the various forms of cancer on the two sexes obtaining throughout the country, though in the case of cancer of the tongue they are not quite so striking.

Thus, the deaths from cancer of the tongue in England and Wales for the ten years, 1901-10, as given by the Registrar General, were as follows:—

Males	...	...	7,092
Females	...	..	854

## WARD STATISTICS.

(See Tables 1-6.)

### DEATH-RATES.

As usual Knighton Ward has the lowest death-rate viz., only 8.0, the second place of honour being secured by Spinney Hill, 9.9, followed closely by Westcotes, 10.4, the Abbey, 10.6, and Aylestone, 10.7.

At the other end of the scale we find Wyggeston, 19.3; St. Margaret's, 18.7; and Newton, 18.4. For three years in succession Newton Ward has escaped the unenviable pre-eminence of recording the highest mortality in the Borough, so it is no longer quite fair to regard this Ward as the least healthy in the town.

### BIRTH-RATES.

As usual De Montfort Ward has the lowest birth-rate, viz., only 11.9; Knighton comes next with 16.3; and Wycliffe third with 17.9.

The Wards with the highest birth-rate were Wyggeston, 28.5; Latimer, 28.4; St. Margaret's, 28.1; and Aylestone, 24.5. Aylestone is the antithesis of De Montfort Ward, and usually shows a greater excess of births over deaths than any other Ward. For seven years in succession the number of births in Aylestone Ward has more than doubled the number of deaths. In Wyggeston Ward, on the other hand, whilst the birth-rate was high the death-rate was also high.

### INFANT MORTALITY.

The Wards with the lowest rate of infant mortality were Knighton, 60 per 1000 births; De Montfort, 78; West Humberstone, 85; and Aylestone, 88; while those with the highest rates were St. Margaret's, 209; Wyggeston, 198; and Newton, 169.

### AVERAGE RATES FOR PAST FIVE YEARS.

Obviously the average rates taken over several years are a much more trustworthy index of the relative condition of the

different districts. These are given in Table 4. For convenience the Wards with the highest and lowest rates are shown below:—

PERIOD, 1909-1913.

DEATH-RATE.

LOWEST.			HIGHEST.		
Knighton	...	7.6	Wygggeston	...	18.7
Spinney Hill	...	9.7	Newton	...	18.2
Westcotes	...	10.2	Wycliffe	...	15.7
Aylestone	...	10.7	St. Margaret's	...	15.6

BIRTH-RATE.

LOWEST.			HIGHEST.		
De Montfort	...	12.5	Wygggeston	...	31.0
Knighton	...	16.7	Latimer	...	26.9
Charnwood	...	17.5	St. Margaret's	...	26.5
St. Martin's & Wycliffe	...	18.1	West Humberstone	...	26.4

INFANT MORTALITY.

(Per 1000 Births.)

LOWEST.			HIGHEST.		
Knighton	...	61	Newton	...	190
Spinney Hill	...	83	St. Margaret's	...	179
Westcotes	...	95	Wygggeston	...	171
Aylestone	...	96	St. Martin's	...	148

As regards the death-rate it has been pointed out in previous reports that districts on the outskirts of the Borough all tend to have a low death-rate, whilst those in the centre tend to have a high rate. Whilst this may be partly accounted for by difference in social status there is no doubt as to the great superiority of the suburbs from the point of view of healthiness. Fortunately, the tendency is for the population to increase in the outlying districts where density of population is much less, whilst the central districts are being depleted and the space utilised for factories. Undoubtedly the tendency is a good one and should be encouraged.



## THE INFLUENCE OF IMPROVED MEANS OF TRANSIT ON HEALTH.

In this connection reference must be made to the important part which a quick and cheap tram or motor 'bus service is calculated to play in improving the health of a community by enabling the population to live spread out on the outskirts of a town. The Leicester Tramways Committee deserve some of the credit for the improvement in Leicester death-rate, and they are heartily to be congratulated on the increased facilities now being granted in the shape of cheap return tickets, "transfer" tickets, and half fares for children. Nothing is more calculated to encourage the population to forsake the congested and comparatively unhealthy central districts than speedy, convenient and cheap means of transit.

## INFLUENCE ON HEALTH OF BAD TEETH

I wish to draw attention to the serious menace to health involved by dental caries (decaying teeth). Dental caries is so common—it would be no exaggeration to say it, is well-nigh universal amongst the working classes—that it is apt to be treated lightly and to be taken as a matter of course. Every medical man and every dentist, however, is well aware that decaying teeth have a highly detrimental and very debilitating influence upon the health of persons suffering from them. The attack of "face ache" and of dental abscess, though very painful whilst they last, are not really so serious or so far reaching in their effect as the chronic ill-health, due to septic absorption from the mouth, which many persons suffer from for years and which often entirely disappears when all decaying teeth and stumps are removed.

Amongst the "better" classes dental caries is also common, but in their case it is more usual for teeth when they begin to decay to be "stopped" or extracted, in which case little or no ill effects such as we are considering result.

Unfortunately good dentistry costs money and the "stopping" of teeth is a "luxury" which has hitherto been quite out of reach of the working classes. The most they have been able



to do is to have them extracted as they become decayed and when most of the teeth have gone to get artificial ones. In actual practice what usually happens is that as long as the teeth do not ache nothing is done. The decaying teeth are allowed to slowly crumble away till only the stumps remain.

Since our Tuberculosis Dispensary has been established we have made a practice of examining the teeth in the case of all patients passing through our hands and we have felt very strongly the great need of facilities for the poor to obtain efficient dental treatment. Certainly the present state of affairs is most unsatisfactory from every point of view. No doubt any system of efficient dental treatment for the poor, either free or on a contributory basis, would be costly, but it is probable that it would be a first-rate investment from the point of view of national efficiency. I cannot conceive of a better work for a millionaire wishing to benefit his country than to utilise his wealth by endowing some national scheme for bringing dental facilities within reach of the working classes.

#### THE SCHOOL DENTAL CLINIC.

In this connection I must refer with the greatest approbation to the beginning which has been made by our Educational Authority in connection with the medical treatment of school children. A Dental Clinic has been started and a part time Dental Officer engaged. It would be difficult to exaggerate the importance and ultimate effects of this far reaching step. That the provision at present made is quite insufficient to deal with more than a small proportion of the school children will no doubt be conceded by all, but a beginning having been made the work—if found to justify itself, as I have little doubt it will—can be easily extended.

## PART II.

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### ZYMOTIC DISEASES.

#### SMALLPOX.

During the year one case of smallpox occurred in Leicester, this being the first case for seven years. The patient was a woman, Mrs. B—, aged 27, who came to Leicester in June on a visit, with her husband and step-daughter, from Brazil. She was a native of Leicester but had emigrated to Brazil some years previously. On the voyage back to England she had come in contact on board ship with a man who was suffering from an un-recognised attack of smallpox. The case was typical of the kind frequently seen in vaccinated subjects, and which at the present day constitutes the great difficulty in the way of stamping out smallpox. He suffered from an indefinite illness accompanied by an eruption of spots. He was confined to his cabin for a few days, during which time he was attended by the ship's doctor. He then resumed his place at the dining table and sat near the B's. About a week later the ship arrived at Liverpool and the passengers were examined by the Port Medical Officer before landing. The man in question was then recognised as having recently suffered from a slight attack of modified smallpox. He was at once isolated and the names and addresses of all the other passengers were taken and forwarded to the Medical Officers of Health of the districts to which they were destined. In this way the names of Mrs. B. and her husband were sent to your Medical Officer of Health. They were at once visited and were kept under daily observation. At the end of a week Mrs. B. began to feel indisposed. She was visited by your Medical Officer who found the symptoms to be suggestive of the early stages of smallpox. Knowing that she had been exposed to infection she was removed to the Smallpox Hospital as a "suspect," and two days later the typical eruption of smallpox appeared and made the diagnosis conclusive. Her husband, after being re-vaccinated, was allowed to accompany his wife

to the hospital where he was put into quarantine. He had been re-vaccinated some years before, and it is not surprising, therefore, that he showed no symptoms of the disease. His wife, who had been vaccinated in infancy only (two marks), had a mild, discrete and uncomplicated attack and made an uninterrupted recovery.

No further cases resulted.

Simultaneously their daughter (unvaccinated), who had been with them on board ship, and who had gone to stay with grandparents at Nuneaton, developed the disease. The Authorities of that town had been similarly warned from Liverpool, so that her case, also, was detected immediately and no further cases resulted from it. She had a severe confluent attack and was, I understand, badly marked.

In addition to the above, two cases of suspected smallpox were reported in August, at a time when your Medical Officer of Health was away on his holiday. They were two men, brothers—one of whom belonged to Leicester—who had been abroad, and who it was thought possible had been infected on board ship. They were removed to the Smallpox Hospital, but after being detained for two or three days they were discharged, as it was decided that they were not cases of smallpox.

### 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 ...	52	44	96	793
Second Quarter...	123	46	169	888
Third Quarter ...	46	47	93	878
Fourth Quarter...	43	35	78	832
Total for year 1913	264	172	436	3391

In the previous year the figures were:—Total vaccinations, 447; public, 241; private, 206; exemptions, 3173.



The vaccinations in 1913 amounted to 8·2 per cent. of the births registered, whilst the exemptions amounted to 64·2 per cent.

The total vaccinations in Leicester continue to decrease, but last year the public vaccinations, curiously, showed a slight increase.

During the past 15 years, whilst 86,421 children have been born, only 12,299 vaccinations, or 14·9 per cent. of the births, have been registered. If we assume that about 15 per cent. of the children born have died, the proportion of the remainder, *i.e.*, of the population of Leicester under 15 years of age, who have been vaccinated is probably only about 16 or 17 per cent., leaving 83 or 84 per cent. unvaccinated at the present time.

#### CHADWICK LECTURES ON THE VACCINATION QUESTION.

During the year, your Medical Officer of Health was invited by the Chadwick Trustees to give a course of lectures on some public health subject, and it was suggested that he should choose the subject of vaccination.

With the consent of your Committee the offer was accepted and a course of three lectures, entitled "The Vaccination Question in the Light of Modern Experience," was prepared. The lectures were delivered in London early in the present year, 1914, the subject of each lecture being indicated by its title:—

- 1.—The Vaccination Question at the Present Day.
- 2.—Vaccination and Smallpox in Britain since the "Royal Commission."
- 3.—The Experience of Leicester and its Bearing on the Vaccination Question.

It has been decided to publish the lectures (somewhat amplified) as it seemed desirable that the experience of Leicester, which has played such a leading and important part in this great controversy, should be put permanently on record.



## SCARLET FEVER.

(Table 24.)

(Cases, 548; Deaths, 7; Case-mortality, 1·3 per cent.;  
Removed to Hospital, 384.)

The number of fresh cases of scarlet fever notified during the year was 548, against 1298. The type of the disease continued very mild, there being 7 deaths, equivalent to a fatality of only 1·3 per cent. After being somewhat prevalent in the Borough for several years, a marked decline set in during the first quarter of 1913 and has continued ever since. It is ten years since so few cases of scarlet fever were notified in Leicester, and, in consequence, the demand made upon the accommodation at the Isolation Hospital has been comparatively light, and this has set free extra accommodation for the treatment of tuberculosis.

The relative prevalence of the disease during the year 1913 was as follows:—

			Cases.
First Quarter	...	...	141
Second Quarter	...	...	113
Third Quarter	...	...	103
Fourth Quarter	...	...	191
First Quarter (1914)	...	...	118

### PRIMARY AND SECONDARY CASES.

By a "primary" case is meant the first case in any outbreak occurring in a household, subsequent cases being referred to as "secondary." In 1913, out of a total of 548 cases of scarlet fever reported there were 450 "primary" and 98 "secondary" cases.

### RETURN CASES.

During the year, 394 scarlet fever patients were discharged from hospital, and in 12\* instances, or 3·0 per cent., the return home was followed within a period of six weeks by a further

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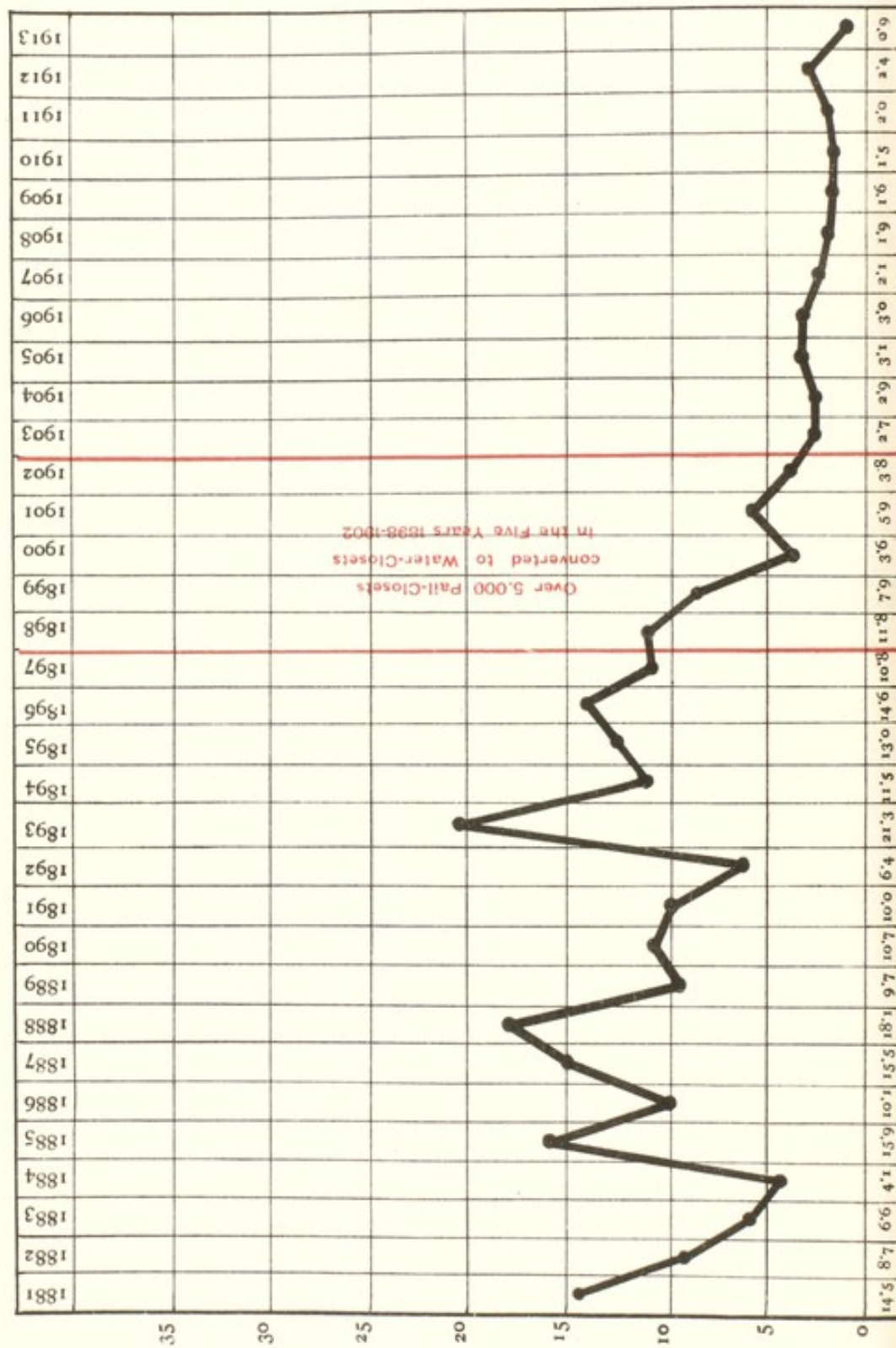
\* The number of "infecting" cases was 12 but the total number of return cases was 13.



DIAGRAM II.

# ENTERIC FEVER IN LEICESTER.

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





case, commonly referred to as a "return case." This is a smaller proportion than usual, and is no doubt due to the low infectivity of the present type of scarlet fever in Leicester.

### TYPHOID OR ENTERIC FEVER.

(Cases, 21; Deaths, 1.)

It is one of the gratifying features about Leicester's health statistics that typhoid fever—the etiology of which is so closely connected with insanitary conditions—has been declining more or less for the past twelve years. It is true that there was a slight increase in 1911 and 1912, but this was accounted for by special outbreaks—one due to the consumption of mussels from contaminated "layings," and the other due to ice-cream infected by a man who had suffered from a slight unrecognised attack. In 1913 no such special factor was at work, and the number of cases of the disease reported was only 21. The lowest figure previously recorded was 36 in 1910. Moreover—and this is still more remarkable—only a single death occurred, the lowest figure previously being five, in 1909. There is good reason to hope that this very serious and fatal disease will before long be permanently banished from the Borough. To bring home what this means we may mention that less than twenty years ago, with a smaller population, it was a common experience to have over 200 cases in a year, whilst in 1893 nearly 400 cases were reported. Of the 21 cases occurring last year, 12 were removed to hospital.

### DIPHTHERIA.

(Cases, 187; Deaths, 19; Case Mortality, 10·1 per cent.)

The number of cases of diphtheria reported during the year was 187, compared with 220 in the previous year. The number of fatal cases was 19. 133 cases were removed to hospital, or 71 per cent. In 82·3 per cent. of the households attacked only a single case occurred, no spread of infection to the other members of the family taking place. As also happened in the previous year, an unusually large proportion of the cases were of the laryngeal type, many of them calling for operative treatment. In almost all of these cases the patient was removed



to the Isolation Hospital, and particulars are given in the Hospital Report. The disease was rather more prevalent during the last quarter of the year.

First quarter	..	...	...	40 cases.
Second	"	...	...	44 ..
Third	"	...	...	41 ..
Fourth	"	...	...	62 ..

### EPIDEMIC DIARRHŒA AND ENTERITIS.

(Diarrhœa Deaths, 105; Enteritis Deaths, 49.)

It is better to consider these two diseases together, as some medical men use the terms as though they were synonymous. Strictly speaking only "epidemic" or "zymotic" enteritis should be classed with epidemic diarrhœa, but in practice so many medical men omit to use the qualifying word "epidemic" or "zymotic," that the most satisfactory course is to group the two diseases together.

In 1913 the deaths were considerably above the average for the last five years. In the early part of August it looked as if we were again going to escape lightly but, unfortunately, the cases dragged on into the autumn, and the aggregate was greatly increased.

### FLIES AS A FACTOR IN THE SPREAD OF DIARRHŒA.

The present-day view—which has very strong evidence in support of it—is that the principal factor in the dissemination of the infection of bowel complaints is the common house fly. Poisons are generated in the decomposing organic matter in which flies breed. Flies, after crawling over filth and becoming loaded with germs, find their way into houses—often travelling a considerable distance for this purpose—and then settle on all kinds of food left uncovered, especially on milk. The latter, particularly in hot weather, forms an excellent culture medium for germs which multiply in it with great rapidity; infants are fed on the milk and epidemic diarrhœa supervenes. Once the disease has appeared flies may directly carry the infection by

settling on the *dejecta* and then flying off to infect milk or to settle on the lips of others.

Whilst it is desirable to destroy flies in houses as much as possible, the proper and most effective way of reducing the number of flies is to attack their breeding places, which are to be found in accumulations of decomposing organic matter anywhere. Certain conditions are necessary for the rapid breeding of flies, viz., decomposing organic matter in which the young larvæ can feed; a certain amount of moisture—not too wet and not too dry—and a high temperature. Under favourable circumstances about ten days elapse from the time the eggs are laid until the young flies are mature. Therefore a weekly removal of refuse should go far towards preventing the multiplication of flies. It is probably in accumulations of matter which are undisturbed for longer intervals than ten days that the chief breeding places of flies are to be found.

Much important research work on the habits and life history of the house fly has been recently carried out, and these inquiries are still being pursued. It has been proved that house flies will travel a considerable distance from the places where they were born to the houses in which they take up their abode.

The presence of a fly-infested area in a town is not only an indication of faulty sanitation, but it is a menace to surrounding districts.

### PUERPERAL FEVER.

(Cases, 18; Deaths, 2.)

The cases and deaths from puerperal fever in 1913 were 18 and 2 respectively, as compared with 10 and 4 in the previous year. In addition to the deaths from puerperal fever there were 11 deaths from other accidents of childbirth, many of these being quite unavoidable so far as our present knowledge extends. The number of deaths from puerperal fever is smaller than usual.

During the past eight years (1906-13) there have been 38,294 children born, and there have been 28 deaths from puerperal fever and 101 deaths from other causes connected with childbirth. In other words one woman has lost her life in childbirth for every 337 children born alive.

## TUBERCULOSIS.

The number of deaths registered from all forms of tuberculosis in 1913 was 383, this number being made up as follows :—

Pulmonary Tuberculosis (including phthisis) ...	301
Abdominal Tuberculosis (tabes mesenterica, tub. peritonitis, tubercular enteritis) ... ..	17
Cerebral Tuberculosis (hydrocephalus, tubercular meningitis) ... ..	35
Other forms of Tuberculosis ... ..	30
	<hr/>
	383

The *Tuberculosis rate* was 1.65. Although a fraction higher than the corresponding figures for 1912 and 1911 (1.62 and 1.55) it is below the average for the past ten years, which was 1.72.

## NOTIFICATION OF ALL FORMS OF TUBERCULOSIS.

In February, 1913, an Order of the Local Government Board came into operation which, in addition to simplifying the procedure in connection with the notification of pulmonary tuberculosis, made compulsory the notification of all other forms of tuberculosis. The immediate effect of this Order was to cause a larger number of notification certificates to be sent in relating to cases of tuberculosis of joints, bones, glands, skin (lupus), &c.

## PHTHISIS.

Phthisis was responsible for 301 deaths, or 17 more than in the previous year. I believe that probably some of this increase is apparent rather than real and is due to the greatly increased attention now being paid to the disease, the result being that a certain number of doubtful and obscure cases are diagnosed as "phthisis" which otherwise might have been attributed to some other disease. The *Phthisis-rate* was 1.30. Details as to the number of deaths from phthisis and the phthisis-rate in past years are given in Table 31.



#### AGE, SEX AND OCCUPATION.

Of the 301 deaths 169 were in males and 132 in females. The age distribution and occupation are given in Table 31. As usual a large number of the male deaths, viz., 63, occurred amongst workers in the shoe trade.

#### TREATMENT OF TUBERCULOSIS.

So much is now being done by the Sanitary Committee in the way of providing treatment for tuberculosis, both for persons insured under the National Insurance Act and for the non-insured, that it has been thought desirable to issue a special report on this part of our work.

This report will be found in Appendix I.

#### OPHTHALMIA NEONATORUM.

(Inflammation of the Eyes of the Newly-born.)

During the year the Town Council, on the recommendation of the Sanitary Committee and with the sanction of the Local Government Board, included Ophthalmia Neonatorum amongst the list of diseases to which the Infectious Diseases (Notification) Act applied, and accordingly the disease became compulsorily notifiable by medical men. This provision came into operation in September. During the remainder of the year the number of cases notified was 15.

Early in the present year, 1914, the Local Government Board issued a special Order making the disease compulsorily notifiable throughout the country, thereby superseding the first named provision. The new Order makes notification also compulsory for midwives, who receive a fee of one shilling for each notification. Medical men receive the same fees as under the Notification Act.





## 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 1913 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 ... ..	251	112	None
Workshops ... ..	609	42	None
Workplaces ... .. (other than Outworkers premises)	None	None	None
Total ... ..	860	154	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 ...	41	37	None	None
Want of Ventilation ...	3	3	"	"
Overcrowding ... ..	None	None	"	"
Other Nuisances ... ..	147	134	"	"
Sanitary Accommodation				
Insufficient ... ..	15	11	"	"
Offences under the Factory and Workshop Act ...	None	None	"	"
Total ... ..	206	135	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)	82	1376	67	936

The number of addresses of out-workers received from other Councils was 27.

The number of addresses of out-workers forwarded to other Councils was 429.

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 258. There were no special instances found of out-work being done on unwholesome or infected premises.

### 4.—Registered Workshops.

The number of workshops on the Register is 961.

### 5.—Other Matters.

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

Failure to affix Abstract of Act	..	...	...	3
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Action taken in matters referred by H.M. Inspector:

Notified by H.M. Inspector	...	...	...	74
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Reports sent to Inspector	...	...	...	72
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Other	...	...	...	—
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Underground Bakehouses in use at end of year	...	2
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Certificates granted during the year	...	None
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## ADMINISTRATION OF THE MIDWIVES ACT, 1902.

The number of certified midwives practising in the Borough at the end of the year was 33, compared with 29 for the previous year. During the twelve months one midwife has died and one has given up practice, whilst six fresh midwives have started practice in the Borough.



Inspection of midwives required by the Act is carried out by the Medical Officer of Health assisted by one of the Health Visitors who is a qualified midwife. No midwife was reported to the Central Midwives' Board during the year. With a few exceptions the practice carried on by the midwives in the Borough may be described as satisfactory. The less satisfactory midwives are almost all elderly women, and they are dropping out and becoming less in number each year. The new-comers are almost all young women who have seriously taken up midwifery as a profession and have passed the examination of the Central Midwives' Board. Speaking generally, they are better educated, better trained and of a better class than most of the old midwives who were in practice before the Act came into force. Six of the midwives now practising in the Borough were trained at the Maternity Hospital in Causeway Lane. This institution, in addition to being a valuable training school for would-be midwives, is doing very useful work for lying-in women.

The number of *Still-births* notified by midwives during the year was 73, and there were 169 notifications of having advised sending for medical help. There is still a tendency amongst some of the older midwives to fail in their obligation to advise calling in a doctor when complications occur. They seem to think that to do this implies lack of ability on their part. I am repeatedly cautioning certain midwives, and pointing out to them that the rules of the Central Midwives' Board gives them no discretion in this matter.

#### **Notification of Births.**

Hitherto we have depended in Leicester upon a system of voluntary notification of births by midwives. Some midwives notify regular, but others fail to do so. During the year the number of births reported was 2454, in addition to two births notified by medical men.

The Sanitary Committee have now decided to adopt the Notification of Births Act, and thus to fall into line with the practice of most other large towns. Experience has shown that the working of this Act need not be the cause of any friction.

### DISINFECTION.

The method of disinfection for infected rooms at present carried out in Leicester is (*a*) by formaldehyde gas; (*b*) by spraying with a solution of formaldehyde. The number of houses or parts of houses disinfected during the year was 1206.

*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 147 houses were removed to the Station and disinfected, viz.:—

Mattresses	...	...	...	3
Beds	...	...	...	179
Pillows and Bolsters	...	...	...	563
Blankets	...	...	...	255
Counterpanes	...	...	...	92
Sheets	...	...	...	8
Other articles	...	...	...	97
				<hr/> 1197

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

Scarlet Fever (nursed at home)	1 instance.
Enteric Fever	... 10 ..
Phthisis (chiefly fatal cases)	.. 136 ..

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.

### SMOKE PREVENTION.

Smoke observations are made by the inspectors systematically, and whenever the amount of black smoke observed reaches a certain limit an informal caution is sent to the firm whose chimney has been at fault. In the great majority of instances this is found to be sufficient. If, however, the offence is repeated, the offender is requested to appear before the Sanitary



Committee and give any explanation he may have. It is only in exceptional cases that a prosecution has to be resorted to.

During the year 2472 observations were made, 22 cautions were issued, and there were no prosecutions.

It is a most important matter for the health and comfort of the inhabitants that the atmosphere of a large town should be kept as pure as is reasonably possible. Experience shows, so far at least as our town is concerned, that smoke nuisances are nearly always due to carelessness in stoking. If prosecutions were resorted to rather more frequently it would almost certainly have a beneficial effect in making stokers more careful.

A serious attempt is now being made by the Corporation to popularise and encourage the use of gas fires as a substitute for coal fires for domestic heating, and certainly, should gas fires come to displace coal on a large scale, it will go far to prevent pollution of the atmosphere, for, owing to their great number, domestic coal fires are one of the principal sources of atmospheric contamination.

#### HOUSING OF THE WORKING CLASSES.

The important work of improving the housing condition of the Borough has been actively carried on during the year, and the amount of work done, as measured by the actual number of houses dealt with, has again been much greater than in former years.

As has been pointed out in previous reports, one of the chief defects in the housing conditions in Leicester is want of repair. There is a great deal of old cottage property which requires completely over-hauling and putting into a thorough state of repair. This can only be done by the expenditure of a considerable amount of money, which owners naturally hesitate to make except under compulsion.

The procedure now being followed in Leicester is this: The District Inspectors make house to house inspections, and on finding any house which they think requires to be dealt with, the



particulars as to condition, etc., are entered up in a book kept for the purpose. The Medical Officer of Health, accompanied by the Chief Inspector, then visits and inspects, and if the house appears to the Medical Officer to be one which should be condemned, it is certified accordingly and brought before the Sanitary Committee. Houses which are thought not to be worth repairing are dealt with under the Housing and Town Planning Act and a Closure Order is forthwith made. The house has then to be closed and the owner has the option of either thoroughly repairing it, or, after three months, of having a Demolition Order made.

Houses which are thought to be repairable, and in which the defects are not very serious, are usually dealt with under the local Act (The Leicester Improvement Act, 1868,) as the procedure is much simpler. The Medical Officer of Health is then instructed to write to the owner informing him that the house has been condemned as unfit for habitation and that unless he intimates his willingness to put it into proper repair a Closing Order will be made. At the same time a printed statement\* of the repairs and alterations requiring to be done to render houses fit for habitation is sent to him, and he is asked to call and see the Chief Inspector before beginning the work of repair. This request is almost always complied with, and it is then usually arranged that the owner's builder shall visit the premises with the Chief Inspector so that the necessary work can be pointed out on the spot. The builder then gives the owner an estimate for carrying out the work, and if this is accepted the owner sends a copy of what has been agreed upon to the Sanitary Office.

An important part of the work still remains, viz., to see that the work is properly carried out. Many small owners of property know comparatively little about builders or builders' repairs, and consequently are very much at the builder's mercy, and unless carefully watched the work is not always done as it should be. Chief Inspector Braley has devoted a very great deal of his time during the year to seeing that these repairs are

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\* A copy of this statement appears at the end of this section.

properly carried out. For this purpose it is usually necessary to pay repeated visits during the time the work is being executed.

The following description of the nature of the repairs and improvements carried out on houses which have been condemned, gives an idea of the thorough character of the work which is now being done in connection with housing in Leicester.

“Roofs have been made thoroughly sound and weather proof, and gutters and spouting been renewed. Bulged walls have been taken out and re-built; the perished bricks have been removed and made good and the whole of the walls thoroughly re-pointed; damp courses have been provided. Old plaster has been hacked off, the whole surface has been re-plastered, and ceilings taken down or repaired. Many red brick and quarry floors have been taken up and re-laid. Old windows have been taken out and proper sash frames provided, arranging for both top and bottom sash to open. In some cases York lights have been provided for the rooms where old ones had previously existed. In numerous instances new doors have replaced the old ones, and where possible fanlights have been fixed over the front doors; cupboards, ventilated to the outer air, have been provided in which to keep food. New bannister rails and skirtings have been fixed; many staircases have been entirely renewed. In every case where no boiler had been provided fire grates have been put in consisting of both boiler and oven. Where there has been more than one downstairs room, porcelain sinks, with a tap over, have been fixed, and a drain and gully made to receive the waste water has been fixed outside the building. The paving in numerous instances has been thoroughly re-laid, and where no paving has existed concrete or blue brick paving has been provided. Many urinals have been abolished, and the closet seats arranged to lift up and the risers removed. Where new drains have been laid the smoke test has been applied, and in other cases where necessary. The whole of the old woodwork has been re-painted, and where necessary it has been burnt off. All the old paper on the walls has been removed, and in numerous instances where rooms were previously papered they have now been colour



washed. Outbuildings have been put into thorough repair. Many "coppers" in the sculleries have been re-built, and in several instances where they had not previously existed they have been provided."

In order to assist Mr. Braley in this work and enable more houses to be dealt with, an additional inspector has just been appointed with special knowledge of the building trade.

The following statement shows the number of houses dealt with during 1913:—

Number of dwelling houses inspected under and for the purpose of Section 17 of the Housing, Town Planning, &c., Act, 1909, ... ..	10,427
Number of dwelling houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation ... ..	316
Number of representations made to the local authority with a view to the making of Closing Orders ...	316
Number of Closing Orders actually made—	
(Housing and Town Planning Act) ... 143	} 157
Local Act ... .. 14	
Number of dwelling houses the defects in which were remedied without the making of Closing Orders ...	54
Number of dwelling houses which after the making of Closing Orders were put into a fit state for human habitation ... ..	22
General character of the defects found to exist, { general dilapidation and want of repairs.	
Number of dwelling houses in which repairs are in hand ... ..	89



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 water-proof, gutters and spouting to be put in perfect order and renewed if necessary.

Walls to be repaired and made thoroughly sound. Perished brick-work 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 re-glazed, and where necessary sashes to be renewed and proper window sills provided.

All woodwork such as doors, windows, cupboards, skirtings, bannister rails, &c., to be repaired and made thoroughly sound. All hinges and fastenings to be put in good condition and made to work properly. Stair-cases 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 repainted 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 out-buildings, entries, &c., to be lined or colour-washed where necessary.

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

### WATER SUPPLY.

The water supply of the Borough is derived from two sources.

(a) Upland surface water from the Charnwood Forest collected in three reservoirs; only two of these are being used at the present time. This is the original source of supply.

(b) Upland surface water supplied by the Derwent Valley Water Board. This source of supply became available in 1912. The water is organically pure and very soft.

The history of this great water supply undertaking is too well known to call for further reference here.

The two waters are usually mixed before being supplied in the Borough.

### 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 Belgrave Sewage Farm was abolished and the sewage

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

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 nine 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 bacterial beds, which cover an area of about twelve acres.

After this preliminary bacterial classification, 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 1,710 acres. The portion not available for sewage is used for grazing when it is not convenient for the bullocks to be upon the sewage 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).

#### **FOOD INSPECTION.**

The Corporation employs two special Food Inspectors, whose whole time is devoted to the inspection of meat and



other foods, and of premises where food is manufactured or prepared for sale, including cow-sheds and dairies.

A special report prepared by the Inspectors of Food upon the year's work is appended (Appendix VI).

A diagramatic record is now kept of each carcass condemned on account of tuberculosis, showing as far as possible the exact distribution of the disease and the organs and glands affected.

### **SLAUGHTER HOUSES.**

In addition to private slaughter houses, of which there are 68 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, 4500; 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 1913, 37 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, the total number of examinations or interviews being 76, whilst the number of reports was 45.

### **CREMATION.**

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

The number of cremations performed in 1913 was only 8, the average for the ten years the crematorium has been in



operation being 13. The small number was due to the crematorium being closed for repairs during part of the year.

#### THE LEICESTER HEALTH SOCIETY.

Reference must be made here to the good work being done by the Leicester Health Society in organizing and developing Schools for Mothers. Three such schools now exist, viz., Bedford Street, Belgrave Hall, and East Park Road.

The Society has engaged a nurse (Miss Prior), who now devotes her whole time to the work of the Society.

#### INFANT CONSULTATION CENTRE FOR NEWTON WARD.

A new movement with the object of ameliorating the conditions of infant life has been inaugurated during the year and is about to begin operations. It has been started as a memorial to the late Mrs. H. H. Peach, who was greatly interested in this and kindred philanthropic work. It is proposed to limit the work to one Municipal Ward, and Newton Ward has been selected as having a very high infant mortality.\*

The work is being financed out of a special fund raised for the purpose by voluntary subscription.

This new enterprise is calculated to be of great value and I hope to refer to it at greater length in my next report when experience has been obtained of it in actual operation.

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\* For several years Newton Ward had a higher infant mortality than any other Ward, but last year, 1913, there was an improvement (see Table 3).



## APPENDIX I.

## BOROUGH OF LEICESTER.

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# Treatment of Tuberculosis

DURING THE YEAR 1913.

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## REPORTS BY THE MEDICAL OFFICERS.

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### I.—GENERAL OUTLINE OF SCHEME FOR DEALING WITH TUBERCULOSIS IN LEICESTER.

By C. K. MILLARD, M.D., D.Sc.

Medical Officer of Health and Chief Administrative  
Tuberculosis Officer.

### II.—REPORT ON THE WORK OF THE TUBERCULOSIS DISPENSARY.

By W. S. THOMSON, M.D. D.P.H.,

Assistant Medical Officer of Health,  
Medical Officer at the Dispensary.

### III.—REPORT ON THE WORK OF THE SANATORIUM.

By A. E. S. MARTIN, F.R.C.S., I.

Resident Medical Officer at Sanatorium (Resigned).





## GENERAL OUTLINE OF SCHEME FOR DEALING WITH TUBERCULOSIS IN LEICESTER.

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By C. K. MILLARD, M.D., D.Sc.,

*Medical Officer of Health and Chief Administrative Tuberculosis  
Officer.*

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In introducing the reports of Drs. Thomson and Martin on the Tuberculosis Dispensary and Sanatorium respectively, during the year 1913, I wish to make a few preliminary observations as to the scheme which has been adopted in Leicester for providing treatment for persons suffering from tuberculosis.

In Leicester, as elsewhere, the whole question of the treatment of tuberculosis has entered upon an entirely new phase since the passing of the National Insurance Act, with its special provision for the treatment of insured persons suffering from tuberculosis as one of the specific "benefits" promised under the Act.

In addition to this, through the operation of what is often referred to as the "Hobhouse Grant," the Government has offered to defray out of the National Exchequer half of any expenditure incurred by a local authority in providing treatment for non-insured persons, provided that the Local Government Board approve of the whole scheme and methods adopted.

Leicester has taken full advantage of this Hobhouse Grant from the outset, and by providing for non-insured as well as insured persons has recovered from the Government half the deficit incurred (*i.e.*, the excess of expenditure over and above the amount received from the Insurance Committee).

Owing to the fact that the Corporation had undertaken the treatment of cases of pulmonary tuberculosis before the Insurance Act came into operation,\* the Borough was in a much better position than most towns for providing "Sanatorium Benefit." It so happened that the Borough was (at the time the Insurance Act came into force), and still is, very free from the infectious diseases usually treated at the Isolation Hospital, so that it was an easy matter to increase the accommodation for consumptive patients; whilst it was also a simple matter to equip additional rooms and increase the staff at the Tuberculosis Dispensary.

The following figures, showing the number of cases which have been dealt with during the year, give some idea of the amount of tuberculosis work which has been accomplished.

(a.) **DISPENSARY.**

Patients examined and (in case of insured persons)			
reported upon to Insurance Committee	...	...	659
Patients re-examined	...	...	402
"Contacts" examined	...	..	341
Visits to patients homes by Dispensary Nurses	...	...	1664
Visits to patients homes by Medical Officers	...	...	259
Patients treated at Dispensary (for varying periods			
but usually for several months)	...	...	338
Specimens of sputum examined for Tubercle Bacilli	...	...	136

(b.) **SANATORIUM.**

Total number of patients treated	..	...	445
Average number of days stay in Sanatorium			
(adults and children)	...	...	45.9

**THE PROCEDURE ADOPTED.**

The Tuberculosis Dispensary has been made the centre from which the organisation of the work dealing with consumptive

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\* Wards have been set apart for consumptive patients at the Borough Isolation Hospital ever since 1902; whilst a Municipal Tuberculosis Dispensary was established in October, 1911.



patients is carried on. The notification certificates received by the Medical Officer of Health at the Town Hall are at once forwarded to the Dispensary, and all clerical work—keeping of registers, filing of records, correspondence relating to patients, etc.—is done by the Dispensary Clerk, whose time is fully occupied.

From the Dispensary all notified cases of consumption are visited, and patients wishing to apply for sanatorium benefit, or to gain admission to the Sanatorium, usually make their application through the Dispensary.

At the same time close co-operation is maintained between the Dispensary and Sanatorium. This is eminently desirable as both institutions are integral parts of the same scheme, and patients are constantly being transferred from one institution to the other. The fact that the Chief Administrative Officer (the Medical Officer of Health) is also Medical Superintendent of the Sanatorium necessarily facilitates and promotes this co-operation. He is daily at the Sanatorium, and, therefore, in contact with the Medical Officer in charge of that institution; and he visits the Dispensary one afternoon a week to interview patients applying for admission to the Sanatorium. He has frequent other interviews and keeps closely in touch with the Medical Officer in charge of the Dispensary. He attends the meetings of both the Sanitary Committee and the Borough Insurance Committee, acting as medical adviser to both bodies, and thus forms a personal link between the two. So far this arrangement has worked very satisfactorily and I believe it is the right one. A similar arrangement is being adopted in a large number of towns.

Full particulars of the important work carried on at the Dispensary will be found in Dr. Thomson's exhaustive report, which will well repay study. The work at the Sanatorium has been dealt with, rather more briefly, by Dr. Martin.\*

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\* Since the termination of the year under review Dr. Martin has resigned his position, having been appointed Tuberculosis Officer for Sunderland. He has been succeeded by Dr. H. Tylford Howell.

## TREATMENT ADOPTED.

HYGIENIC TREATMENT.—At the Sanatorium the usual sanatorium *regime* is followed, consisting of fresh air, good food and carefully-regulated rest, exercise and work. Considerable importance is attached to physical exercises, especially breathing exercises, and a Physical Exercise Instructor has been appointed, who visits the Sanatorium three times a week, and, subject to the supervision of the Medical Officer, is responsible for instructing the patients in this part of the treatment. The physical exercises are carefully graded, and the Medical Officer decides when a patient is fit to begin exercises, and what grade he is capable of doing.

The *special* treatment adopted, both at the Dispensary and Sanatorium, is by means of tuberculin.\* All patients considered suitable are given the option of receiving this treatment, but there is no compulsion of any kind. As regards the Dispensary, however, it is usually felt that patients not desiring tuberculin treatment, can, in most cases, be dealt with equally well by their own doctors at their homes. Consequently, a much larger proportion of the patients receiving treatment at the Dispensary is having tuberculin than is the case with those at the Sanatorium.

## RESULTS OF TREATMENT.

As to the results obtained, it may be said that the great majority of the patients who go to the Sanatorium derive considerable immediate benefit. In a number of these cases the benefit would appear to be permanent. It is also true, unfortunately, that many other cases relapse, sooner or later, and lose what they have gained at the Sanatorium.

This, of course, is the experience of all similar institutions. It has long been recognised that there are distinct limitations to the power of sanatorium treatment to achieve permanent results. As regards the value of tuberculin treatment, Dr. Thomson has

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\* The preparations of tuberculin chiefly used are those known as "P.T.O.," "P.T.," "T." and "B.E."



been at pains to arrive at some results which can be expressed in statistical form, and Tables 3, 5 and 7 will be found instructive. He also gives particulars of illustrative cases which apparently derived great benefit. It is difficult to prove the value of any line of treatment in a disease such as tuberculosis, but one may be allowed to express an opinion. Personally, after some considerable experience, I am satisfied that, for the present, tuberculin holds the field as the chief, if not the only, remedy—tried on a large scale—which can claim in any way to be regarded as a specific. Some patients do very well under tuberculin, and appear to derive great benefit even without the advantage of sanatorium treatment; but I do not think, and I never have thought, that tuberculin alone would enable us to dispense with sanatorium treatment except in a few cases. The best results, I am satisfied, are to be obtained by combining both lines of treatment. Used skilfully and with discrimination, by those who have given the subject special attention, I believe that tuberculin can be safely and advantageously used, and I know of no other remedy at present likely to displace it.

At the same time, tuberculin, like sanatorium treatment, has certain very definite limitations. In some cases it is contra-indicated and in others of doubtful value. Its action may be briefly and popularly described as that of stimulating and calling into activity the patient's own powers of resistance. Obviously, unless the patient has some reserve powers of resistance upon which to draw, little benefit is to be expected from tuberculin.

Our practice in Leicester has been to grant the undoubted advantage of a stay in the Sanatorium to as many patients as possible—to let them have the benefit of the fresh air, regulated regime, rest and good food—and whilst there, as soon as all pyrexia (fever) has disappeared, and if the patient is willing and is considered suitable, to begin treatment with tuberculin. After leaving the Sanatorium the patients are transferred to the Dispensary and the tuberculin treatment is then continued for as many months as may be necessary. This in no way interferes with the patient returning to work, as the treatment at the Dispensary is given in the evening for those cases who find that time more convenient. No doubt the plan of



admitting freely to the Sanatorium, without exercising a rigid selection or accepting only the earliest cases, makes great demands upon the available accommodation, and has made it impossible, with our present accommodation, to keep patients in as long as is the case in many other sanatoria. None the less I am satisfied that, in Leicester at any rate, the policy pursued is the right one and makes for the greatest good of the greatest number.

#### "HOSPITAL" CASES.

Some of the patients who apply for sanatorium treatment are in a comparatively advanced stage of the disease, when little hope of permanent arrest remains. Yet in many of these cases the home conditions of the patient are such that they cannot be properly looked after at home. It is eminently desirable, for the sake of their relatives as well as for themselves, that such cases should be removed to an institution. Separate wards in a sanatorium are undoubtedly the proper place for these cases, and when our new buildings are erected such accommodation will be available. In the meanwhile we are doing the best we can with such separate accommodation as we are able to provide.

#### NEW BUILDINGS.

This leads me to say that the plans for the new sanatorium buildings, to be erected on the site adjoining the Isolation Hospital, have at length been approved by the Local Government Board, and it is expected that building operations will begin shortly. The plans provide for a sanatorium block to accommodate 48 patients, and a hospital block for 24 patients. The necessary administrative offices and staff quarters will be provided in the present Isolation Hospital buildings.

#### TUBERCULOSIS IN CHILDREN.

At present 32 tuberculous children are being treated at the Anstey Lane Hospital—the old Smallpox Hospital. It is proposed to continue this arrangement for the present. The site is good and the buildings, though old, are answering the purpose satisfactorily.

The Education Committee have provided a teacher, and a modified curriculum—on the lines of an open-air school—is being carried out. The children are thoroughly happy and derive undoubted benefit from their stay at the hospital. The usual duration of stay is from two to three months.

#### **SURGICAL TUBERCULOSIS.**

At present cases of surgical tuberculosis are being dealt with at the Royal Infirmary. Occasional cases of tuberculous glands in children have been admitted to the Sanatorium; also one case of tuberculosis of the spine.

#### **ARRANGEMENT BETWEEN CORPORATION AND INSURANCE COMMITTEE.**

The provisional arrangement which at present exists between the Corporation and the Borough Insurance Committee is that the Insurance Committee shall pay to the Corporation a lump sum of £2,750 per annum, in return for which the Corporation are prepared to provide 36 beds at the Borough Sanatorium for the use of insured persons, and to treat at the Tuberculosis Dispensary insured persons up to 100 at a time. The Corporation also undertakes to examine at the Dispensary all insured persons applying for sanatorium benefit, and to report upon such cases to the Insurance Committee. Moreover, as already mentioned, the Medical Officer of Health is allowed to act as Medical Adviser to the Insurance Committee.

#### **PROVISION OF SLEEPING SHELTERS FOR CONSUMPTIVES.**

During the year, with the consent of the Local Government Board, the Corporation purchased twelve wooden sleeping shelters, to be loaned, free of charge, to consumptive patients for use at their homes. There has not been quite so much demand for these shelters as was anticipated. Of course, only a few of the patients who would otherwise be glad of them have the necessary amount of ground. In two cases this difficulty has been got over by patients obtaining permission for the shelters to be fixed, in one case in a field, and in another in an allotment garden.

#### DOMICILIARY TREATMENT.

Insured persons who apply for sanatorium benefit and who, for one reason or another, are not granted institutional treatment, are placed on "domiciliary treatment," and their own medical attendant is informed of this. Domiciliary treatment is also granted to those patients who have finished their time at the Sanatorium or Dispensary, and who still require medical supervision. Under the regulations made by the Local Government Board medical men on the "panel" are required to send in a report on domiciliary cases not less often than once in three months, giving certain particulars. Some medical men are not quite as regular in sending in these reports as they might be.

The Insurance Committee also grant extra nourishment (milk, butter, eggs and meat) to certain cases in receipt of domiciliary treatment, if recommended by the medical attendant.

#### AFTER-CARE.

A voluntary After-Care Committee has been formed from the members of the Sanatorium Benefit Sub-Committee of the Insurance Committee, and is doing excellent work in visiting and keeping in touch with insured patients after they leave the Sanatorium or Dispensary. The Committee has kindly consented to extend their operations to include children.

C. KILLICK MILLARD,

*Medical Officer of Health*



# REPORT

ON THE

## TUBERCULOSIS DISPENSARY

For the Year 1913.

By WYVILLE S. THOMSON, M.D., D.P.H., Edin.

*Senior Medical Officer.*

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### TUBERCULOSIS DISPENSARY.

The Leicester Municipal Tuberculosis Dispensary was opened on the 14th October, 1911. The premises, which belong to the Corporation, are situated in St. Nicholas Square. This is near the centre of the town, being about five minutes' walk from the Clock Tower and is on the route of the Narborough Road, Fosse Road and Western Park cars.

When first opened only the ground floor was required, the front room, which is a large one, being used as a waiting room, with parts partitioned off for dressing rooms; and the back room was converted into a consulting room. The room behind this was used as a Dispensary for the drugs. The staff at this time consisted of one Medical Officer, one nurse, and male attendant. Even with this limited staff and accommodation the results of the work proved very encouraging; but as the number of patients rapidly increased it was soon found that to do the work efficiently, an increased staff and more accommodation was necessary. When the Insurance Act came into force, with the offer of a Government Grant towards the cost of providing dispensaries, the Sanitary Committee decided to have the remaining rooms of the building renovated and re-decorated. The rooms of the ground floor were considerably altered and improved, and used for the same purpose as before. Those of the second floor were utilised as waiting room, consulting room

and office, and the two rooms on the top flat were fitted up as laboratory and retiring room. Lavatory accommodation was provided, and two large gates were erected at the entrance at the side of the Dispensary in order to shut out the noise of the front street from the consulting rooms. A second Medical Officer and nurse, and also a clerk, were appointed, so that the staff now consists of two Medical Officers, two nurses, clerk and male attendant.

#### HOURS OF ATTENDANCE.

The Dispensary is open for the treatment of patients on Mondays, Tuesdays, Thursdays and Fridays from 10 till 1, and from 6 till 8 in the evening for those who are at work.

New patients are seen every afternoon (except Saturday) between 3 and 5.

[It is important to note that new patients, under medical attendance, desiring to be examined at the Dispensary, should bring a letter or card from their doctor, unless the case has been reported.]

#### MODE OF PROCEDURE WITH NOTIFIED CASES.

Every case notified as suffering from pulmonary tuberculosis is visited by a nurse from the Dispensary who takes notes about the patient's condition, and whether he desires Sanatorium or Dispensary Treatment; also the names of contacts and whether it is desired to have these contacts examined.

At the same time the house is inspected, and the nurse advises that the patient should sleep alone in the bedroom, wherever this is possible, and that the windows be kept well open both by day and night. Advice, both verbal and printed, is given regarding the spread of the disease and the necessity for care in the disposal of the sputum. Every patient requiring it is supplied with a pocket sputum flask.

On this report being referred to the Medical Officer a time is arranged for the patient to come to the Dispensary to be examined. If the house has been found to be damp or in an

insanitary condition this is reported to the Sanitary Inspector. When the patient calls at the Dispensary, he is first seen by the nurse, who takes the "history" of the case.

While the patient is undressing preparatory to examination, the "history" is considered by the Medical Officer. The patient is then shown into the consulting room, and examined by the Medical Officer, a written record of the patient's condition being made.

If there is any doubt as to the diagnosis, a specimen of sputum is obtained, if possible, for examination for tubercle bacilli.

Occasionally, when physical signs are suggestive though not definite, and no tubercle bacilli have been found in the sputum, a test dose of tuberculin is given. Before doing this the nurse teaches the patient how to take the temperature, and supplies him with a thermometer and chart.

If confined to bed, or too ill to visit the Dispensary, one of the Medical Officers calls and examines the patient at home.

All patients are advised as to treatment. The majority are sent in the first instance to Groby Road Sanatorium, and when discharged from this institution suitable cases are "taken on" at the Dispensary. Some may be advised to have Dispensary treatment without going to the Sanatorium. Others are recommended to remain under their own doctor.

When a patient commences treatment at the Dispensary, he is supplied with a chart on which to record his temperature morning and evening. A time is fixed for his attendance at the Dispensary, and by keeping to the appointed time, tedious waiting and crowding in the waiting room is avoided.

For the convenience of Insured Patients, the special forms required to be filled up, under the Insurance Act, are kept at the Dispensary. This saves the applicant the trouble of calling at the offices of the Insurance Committee.



The following table gives the number of examinations made by the Medical Officers during the year:—

FIRST EXAMINATIONS.				RE-EXAMINATIONS.			
Men	...	...	247	Men	...	...	114
Women	...	...	284	Women	...	...	212
Children	...	...	128	Children	...	...	76
Total	...	...	659*	Total	...	...	402*

The 659 primary examinations are made up as follows:—

- (a) First examination of notified cases.
- (b) Patients sent by medical men for diagnosis.
- (c) Patients not under a medical man calling for advice on their own initiative.

#### EXAMINATION OF CONTACTS.

In all cases where it is desired, arrangements are made for the examination of contacts provided they are not already under medical attendance. This now forms an important part of the work of the Dispensary.

By a careful examination of contacts, many cases are discovered in an early stage of the disease and means taken for their care and treatment.

In June, 1913, the Sanitary Committee decided to admit tuberculous children to the Borough Sanatorium—and some thirty beds are now available for this purpose. This provision has proved of great advantage.

The following table shows the number of contacts examined.

Men.	Women.	Children.	Total.
20	63	258	341

Of the 341, 54 were found to be definitely phthisical, 59 were suspicious, and 248 were negative.

\* These numbers do not include examinations of contacts.

## VISITS.

During the year 1,664 visits were paid by the Dispensary nurses, viz., 960 first visits and 680 re-visits; and 259 visits have been paid by the Medical Officers.

The 960 primary visits paid by the nurses have been, in the majority of instances, to persons notified as suffering from pulmonary tuberculosis. The number of such notifications during the past year has been so high that little time was available for the visitation of cases notified as suffering from the other forms of tuberculosis (glands, joints, etc.). However, whenever time has permitted, visits have also been paid to these cases, and advice, verbal and printed, has been given.

Some of the 680 re-visits made by the nurses have been to patients who have ceased attending the Dispensary in order to find out the reason of their absence. Others are made to homes which, though not bad enough to report to the Sanitary Inspector, had been found at a previous visit to be in a dirty condition, and to see whether the instructions given were being followed.

Thirteen visits have been paid to Factories by the Senior Medical Officer in company with the Chief Sanitary Inspector to see that efficient ventilation is being maintained in the work-rooms.

## DISINFECTION.

Disinfection of rooms is carried out:

- (1) On receiving notification of death of a consumptive patient:
- (2) When a consumptive person removes to another house;
- (3) Whenever a householder desires disinfection on account of tuberculosis in the house.

In order that we may learn of the removal of a consumptive patient to another house the nurse, when first visiting, leaves an addressed post card with each notified case and requests that

it be posted in the case of removal. The sender is instructed to fill in the old address and also the one to which the patient is about to remove. On receipt of this post card, steps are taken to have the house disinfected before the in-going tenant takes possession. Unfortunately people often omit to send these post cards when they come to remove.

#### BACTERIOLOGICAL WORK.

During the first half of the year, all specimens of sputum were examined by the Medical Officer at the Sanatorium. During the last six months these examinations have been made at the Tuberculosis Dispensary, and have numbered 136. Of these 84 have been sent by thirty medical men in the town, and 52 specimens have been taken at the Dispensary.

The result of the examinations was as follows :—Positive 42; negative 87; doubtful 7.

It should be understood that the Medical Officers are prepared as a matter of courtesy, to examine sputum from doubtful or suspected cases of tuberculosis for medical practitioners free of charge. Specimen bottles for collecting samples may be obtained from the Sanitary Office or Dispensary.

#### REPORT ON THE YEAR'S WORK.

##### NUMBER OF PATIENTS DEALT WITH.

On the 2nd January, 1913, there were 162 patients attending the Dispensary. During the year 338 new patients were admitted and 328 were discharged, leaving 172 attending the Dispensary on 1st January, 1914.

The following table gives the number of insured and non-insured patients and children.



**TABLE 1.****Showing Number of Patients dealt with.****(a) Patients attending on January 2nd, 1913.**

Insured Men	..	...	...	21
" Women	...	...	...	25
Non-insured Men	...	...	...	33*
" " Women	...	...	...	51*
Children	...	...	...	32
Total	...	...	...	162

**(b) New Cases admitted during 1913.**

Insured Men	...	..	...	104
" Women	..	...	...	107
Non-insured Men	...	...	...	17
" " Women	...	...	...	31
Children	...	...	...	79
Total	...	...	...	338

**(c) Patients Discharged during 1913.**

Insured Men	...	...	...	81
" Women	...	...	...	83
Non-insured Men	...	...	...	41
" " Women	...	...	...	62
Children	...	...	...	61
Total	...	...	...	328

**(d) Patients remaining on January 1st, 1914.**

Insured Men	..	...	..	44
" Women	...	...	...	49
Non-insured Men	...	...	...	9
" " Women	...	...	...	20
Children	...	...	...	50
Total	...	...	...	172

\* Many of these patients were really insured, but had not applied for Sanatorium Benefit.

The following Table shows the length of time that the patients remained under treatment at the Dispensary.

<b>TABLE 2.</b> <b>Duration of Treatment at the Dispensary.</b>								
	Under 1 Week	Weeks 1-4	Months 1-3	Months 3-6	Months 6-9	Months 9-12	Months over 12	Total
Insured Men ...	5	11	20	27	12	3	3	81
.. Women ...	1	13	17	29	12	8	3	83
Non-insured Men ...	2	2	6	3	12	9	7	41
.. Women	0	3	9	16	10	12	12	62
Children ...	0	3	16	14	17	7	4	61
Total ...	8	32	68	89	63	39	29	328

Three hundred and twenty eight patients were discharged during the year. The following table shows result of treatment after classification into stages. (Turban classification.)

**TABLE 3.**  
**Showing Results of Treatment.**

STAGE I. (Early Cases.)

	Much Improved.	Improved.	No Improve- ment.	Worse.	Total.
Insured Men ...	4	14	8	0	26
.. Women	5	14	9	1	29
Non-insured Men	3	3	2	0	11
.. Women	7	3	2	2	14
Children ...	10	12	10	0	32
Total ...	32	46	31	3	112

Table 3.—continued.

## STAGE I.—II.

	Much Improved.	Improved.	No Improvement.	Worse.	Total.
Insured Men ...	4	7	2	1	14
"    Women	3	5	6	0	14
Non-insured Men	1	7	2	0	10
"    "    Women	1	5	3	1	10
Children ...	3	3	4	3	13
Total ...	12	27	17	5	61

## STAGE II.

	Much Improved.	Improved.	No Improvement.	Worse.	Total.
Insured Men ...	1	2	8	3	14
"    Women	4	5	16	1	26
Non-insured Men	4	7	4	0	15
"    "    Women	4	7	9	1	21
Children ...	1	5	2	0	8
Total ...	14	26	39	5	84



Table 3,—continued.

## STAGE II.—III.

	Much Improved.	Improved.	No Improvement.	Worse.	Total.
Insured Men ..	0	3	4	6	13
"    Women	0	0	1	1	2
Non-insured Men	1	0	1	0	2
"    "    Women	0	5	3	3	11
Children ...	0	0	1	1	2
Total ...	1	8	10	11	30

## STAGE III. (Advanced Cases.)

	Much Improved.	Improved.	No Improvement.	Worse.	Total.
Insured Men ...	0	2	4	7	13
"    Women	1	1	3	6	11
Non-insured Men	1	1	1	0	3
"    "    Women	1	0	0	3	4
Children ...	0	0	0	1	1
Total ...	3	4	8	17	32

Adding together the totals in each stage gives the following results :—

**TABLE 3 (a). Summary.**

			Much Improved	Improved	No Improvement	Worse.	Total.
Stage I.	...	...	32	46	31	3	112
Stage I-II.	...	...	12	27	17	5	61
Stage II.	...	...	14	26	39	5	84
Stage II-III.	...	...	1	8	10	11	30
Stage III.	...	...	3	4	8	17	32
Total	...	...	62	111	105	41	319*

\* Nine additional cases included in the number shown as discharged in Table I. were made up as follows :—

Three cases were only temporarily discharged, four cases were non-pulmonary (viz., tubercular mastitis, lupus and arthritis) and two cases proved to be non-tubercular.

#### TUBERCULIN TREATMENT.

During the year 246 of the patients discharged, or 75 per cent., received Tuberculin treatment at the Dispensary.

In 62 cases, however, this method was stopped within three months, either because it was found to be unsuitable or because the patient desired to give up treatment.

In 184 cases Tuberculin was continued for over three months; in 112 for over six months; and in 26 cases for over twelve months.

The following table shows the length of time during which insured and non-insured patients and children received Tuberculin treatment.

**TABLE 4.****Length of Tuberculin Treatment.**

	Under 1 week.	1-4 weeks.	1-3 months.	3-6 months.	6-12 months.	Over 12 months.	Total.
Insured Men ...	2	7	12	26	9	3	59
.. Women ...	1	10	9	20	18	3	61
Non-insured Men	1	1	5	5	20	6	38
.. .. Women	0	1	4	13	24	11	53
Children ... ..	0	2	7	8	15	3	35
Total ... ..	4	21	37	72	86*	26*	246

\*Only 43 patients were ~~able~~ able to complete a full course of Tuberculin.

The following table shows the length of time during which patients discharged during the year have been at work:—

**TABLE 5.****Working Capacity of Dispensary Patients.****(a) At Work since leaving the Sanatorium.**

	Under 1 month.	1-2 months.	2-3 months.	3-6 months.	6-9 months.	9-12 months.	Over 12 months.	Total
Insured Men ...	1	3	2	13	7	6	2	34
.. Women ...	1	3	5	6	9	5	4	33
Non-insured Men	0	0	1	4	5	5	12	27
.. .. Women	0	0	2	3	4	4	9	22
Total ... ..	2	6	10	26	25	20	27	116



**(b) At Work since commencing treatment at the  
Dispensary. (Where patients have not been  
to the Sanatorium.)**

	Under 1 month.	1-2 months.	2-3 months.	3-6 months.	6-9 months.	9-12 months.	Over 12 months.	Total.
Insured Men ...	0	0	0	1	1	2	1	5
"    Women ...	1	0	0	2	2	1	0	6
Non-insured Men	0	1	0	3	1	4	0	9
"    "    Women	0	0	2	2	2	2	11	19
Total ...	1	1	2	8	6	9	12	39

N.B.—This gives a total of 155 out of the 267 adult patients discharged during 1913 and includes a few treated here as children, who have since this time commenced work. This number is not quite complete, as there are 28 Dispensary patients from whom we have been unable to obtain reports.

Of the 172 patients remaining on the books on the 1st January 1914, 50 were children and 122 were adults. The following table gives the number of adults at work and those not at work:—

**TABLE 6.**

<b>At work.</b>			<b>Not at work.</b>		
Insured Men	...	29	Insured Men	...	15
"    Women	...	31	"    Women	...	18
Non-insured Men	...	4	Non-insured Men	...	5
"    "    Women		11	"    "    Women		9
Total	...	75*	Total	...	47

\* The majority of these were not at work when they commenced treatment.

## AFTER-RESULTS OF TREATMENT.

Early in 1914, a printed Inquiry Form was sent to those patients treated during 1913, either at Groby Road Sanatorium or the Dispensary, exclusive of those who had previously died—48 in number.

This form contained questions, to be answered by the patient, relating to his present condition, fitness for work, how long employed since treatment began, &c.

Altogether 349 of these forms were sent out and 305 have been returned, filled up as required. The remaining patients have been lost sight of or have failed to return the form.

The following table has been drawn up after grouping these reports into four classes: Class I means "Very Satisfactory"; Class II "Fairly Satisfactory"; (in both these classes the adult patients are generally at work, or in the case of children at school); Class III means "Indifferent Health"; and Class IV "Getting Worse."

**TABLE 7.**  
**REPORTS RECEIVED FROM THE PATIENTS.**

**(a) Insured Men.**

	Class I.	Class II.	Class III.	Class IV.	Total.
Treated at Sanatorium and Dispensary ...	19	16	9	5	49
Treated at Dispensary only ...	5	2	1	0	8
Treated at Sanatorium only ...	2	6	7	10	25
Total ...	26	24	17	15	82

**Table 7.—continued.****(b) Insured Women.**

	Class I.	Class II.	Class III.	Class IV.	Total.
Treated at Sanatorium and Dispensary ...	20	20	7	5	52
Treated at Dispensary only ...	2	2	6	0	10
Treated at Sanatorium only ...	6	2	6	4	18
Total ...	28	24	19	9	80

**(c) Non-Insured Men.**

	Class I.	Class II.	Class III.	Class IV.	Total.
Treated at Sanatorium and Dispensary ...	16	8	5	0	29
Treated at Dispensary only ...	3	0	1	1	5
Treated at Sanatorium only ...	0	0	0	0	0
Total ...	19	8	6	1	34

**(d) Non-Insured Women.**

	Class I.	Class II.	Class III.	Class IV.	Total.
Treated at Sanatorium and Dispensary ...	6	12*	4	1	23
Treated at Dispensary only ...	6	12	5	1	24
Treated at Sanatorium only ...	0	0	2	2	4
Total ...	12	24	11	4	51

\* One patient was treated at Ventnor, and not at Groby Road.



Table 7.—continued.

## (e) Boys.

	Class I.	Class II.	Class III.	Class IV.	Total.
Treated at Sanatorium and Dispensary ...	5	1	4	2	12
Treated at Dispensary only ...	8	2	2	1	13
Treated at Sanatorium only ...	0	4	0	0	4
Total ...	13	7	6	3	29

## (f) Girls.

	Class I.	Class II.	Class III.	Class IV.	Total.
Treated at Sanatorium and Dispensary ..	6	3	2	0	11
Treated at Dispensary only ...	8	4	4	0	16
Treated at Sanatorium only ...	0	1	0	1	2
Total ...	14	8	6	1	29

## ILLUSTRATIVE CASES.

CASE 1. I. F.—Girl, aged 13. Ailing for some months. *Symptoms*: cough, expectoration, night sweats, loss of strength, pains in chest, shortness of breath. Had previously had pneumonia (mother was rather advanced case, but did well at Sanatorium and Dispensary). Examination of chest showed disease was early (stage I.), general condition was poor, and temperature swinging. Was treated at Sanatorium (6 weeks) and Dispensary (8 months). Started work two months before discharge from Dispensary. *On discharge*, physical signs were found to have

entirely disappeared. Temperature was normal. Looked very well and felt well. Gained  $18\frac{1}{2}$  lbs. while attending Dispensary. Had no cough, no expectoration, no night sweats, etc. *Report*, received February 5th, 1914, states that patient remains well: has no cough, no expectoration, etc., and is still gaining weight. Has been at work for three months. She writes: "I thank you very much for what you have done for me, and also for mother."

CASE 2. H. G.—Boy, aged 13. Duration of illness six months. *Symptoms*: cough, expectoration, night sweats, loss of weight, loss of strength, repeated haemoptysis during the previous six months, pains in chest, shortness of breath, etc. Uncle died of phthisis eight years previously. Examination of chest showed disease in stage I,—II. General condition was poor, and temperature unsettled, reaching  $99.4^{\circ}$  in the evening. Was treated throughout at the Dispensary, which he attended for eleven months. Had full course of tuberculin. Started work three months after treatment began. *On discharge*, physical signs were only slight: disease apparently arrested; general condition much improved, had gained  $10\frac{1}{2}$  lbs. in weight; had no cough, no expectoration, no haemorrhage, etc.; was working full time. *Report*, received March 5th, 1914, states that present condition of health is very good: that he has no cough, no expectoration, no night sweats, and has had no more haemorrhage; that he is gaining weight, that he is working full time and has been at work 14 months since he commenced treatment at Dispensary. He writes: "I thank you very much for the treatment I received, and I think it has done me a great amount of good."

CASE 3. E. C.—Woman, aged 20. Duration of illness five months. Off work for same length of time. *Symptoms*: cough, expectoration, loss of weight and strength, pains in chest, shortness of breath, and very easily exhausted. Examination of chest showed disease to be in stage I—II. General condition was poor. Temperature in evening,  $99^{\circ}$ . Was treated first at Sanatorium (1 month) then at Dispensary (9 months). Had a complete course of tuberculin. Commenced work three months after leaving Sanatorium. *On discharge*, physical signs had almost entirely disappeared. Had no cough, no expectoration,

gained 5 lbs. in weight, felt well and strong. At work full time. (This patient was re-examined on February 11th, 1914, when chest condition was found to be very satisfactory). *Report*, received March 4th, 1914, states that health at that time was excellent; she had no cough, no expectoration, no night sweats, weight was keeping up. Temperature was normal. She was working full time and had been at work for 14 months since treatment began.

CASE 4. H. I.—Married Woman, aged 29. Duration of illness five years. *Symptoms*: cough, expectoration, night sweats, loss of weight and strength, pains in chest, shortness of breath. Had had pleurisy nine years previously. Father and brother had died of phthisis. On examination, disease was found to be in stage II., and general condition was poor. Was treated in Sanatorium for one month, and at Dispensary for 12 months. Received tuberculin treatment for eight months but did not complete full course. Began to improve soon after treatment commenced, and in three months was able to begin work. *On discharge*, lung condition was much improved. No cough, no expectoration, gained almost two stones in weight. General condition satisfactory. *Report*, received March 6th, 1914, states that present state of health is very good, that there is no cough, no expectoration, no night sweats, and that she has been at work for 16 months since treatment commenced. She writes: "I was greatly benefitted by the treatment and wish to thank all for kindness received."

CASE 5. F. T.—aged 19, male. Duration of illness about one year. Away from work eight months. Was refused admission to Northwood, and also Groby Road Sanatorium, condition of lungs being considered too far advanced for Sanatorium treatment (this was in 1912), so was treated throughout at Dispensary. *Symptoms*: cough, expectoration, haemoptysis (greatest quantity  $\frac{1}{2}$  pint), pains in chest, hoarseness of voice, shortness of breath. Examination of chest showed disease had reached stage II. Larynx was also involved. Treatment lasted nine months. Had a full course of tuberculin. Was able to commence work (part time) two months after treatment began, and soon did seven



hours work per day. *On discharge*, no signs of activity; disease appeared to be entirely arrested. No cough, no expectoration, weight increasing, working overtime. *Report*, received March 3rd, 1914, states: no cough, no expectoration, gaining weight, temperature keeping normal, working full time and has been at work for 18 months. He writes: "I believe the injections were decidedly beneficial in enabling me to resist any danger of relapse."

CASE 6. B.S.R.—aged 25, male. Duration of illness stated to be three months, but had weak chest and cough since infancy. Away from work nine days. *Symptoms*: cough, expectoration, loss of weight, hæmoptysis on three occasions, vomiting, severe pains in chest, shortness of breath. Had previously suffered from pleurisy. Mother died of phthisis. Examination of chest showed disease to be in Stage I—II. Was first treated in Groby Road Sanatorium (ten weeks); then at Dispensary (six months). Had full course of tuberculin. *On discharge*, no signs of activity; disease apparently arrested; cough slight, no expectoration, weight increased, no more hæmorrhage. Working full time. *Report*, received February 1st, 1914, states: present state of health is good; cough slight, expectoration only occasionally, no more hæmorrhage. Weight keeping up. Temperature normal. Working full time, and has worked for twelve months since leaving the Sanatorium.

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The following are some of the "Remarks" made by patients in the reports of their progress:—

E. R. (age 15): "I feel very much better since I have been under your treatment."

B. P. (age 17): "It gives me great pleasure in taking this advantage in expressing my thanks for the good I have received through your kind treatment."

M. G. (age 32): "I am very thankful indeed for the treatment which I have received under your care. I am quite sure it has done me good. Thanking you very much for your kindness."

I. S. (age 22): "Pleased to say I am feeling quite well and strong again. Thanking you for what you have done for me."

H. I. (age 25): "Since going through the treatment I have felt a lot better in myself."

W. S. (age 29): "Since I finished with the treatment, I have had very good health, so I think I owe a lot to Sanatorium and Dispensary treatment."

S. J. (age 36): "I think that the twelve months that I attended the Dispensary has done me a great deal of good, as I don't feel any of the effects of my illness at all now. Thanking you very much for the relief of my complaint."

C. B. (age 17): "Pleased to say I have not had a day's illness since I left the Sanatorium."

I. L. (age 33): "Am very pleased I went to the Sanatorium, as I am very glad to say I am in better health than I have been in for over eight years."

WYVILLE S. THOMSON.

*Medical Officer.*

## III.

## REPORT

ON THE

## WORK OF THE SANATORIUM

DURING 1913.

By A. E. S. MARTIN, F.R.C.S., I.

*Resident Medical Officer (Resigned).*

## PHTHISIS.

The accommodation for consumptive patients has been greatly increased during the past year, there being now available fifty beds for adults, and thirty beds for children.

The numbers for the year are as follows:—

Remaining December 31st, 1912	...	...	25
Admitted during the year (Adults)	...	340	} 445
" " " (Children)	...	105	
Discharged during the year (Adults)	...	312	} 390
" " " (Children)	...	78	
Died ..	...	...	6
Remaining December 31st, 1913	...	...	74

The results of treatment in the 312 adult patients discharged (of whom 256 were insured persons) were as follows:—

Much Improved.	Improved.	No improvement.	Worse.	Died.
67	147	63	29	6

The average stay of these patients was ... 44·5 days.

The average gain in weight was... 6·9 lbs.



The following table shows the stage of the disease in which the 256 insured patients were admitted and the results obtained :

**Results of Treatment of Insured Patients at Sanatorium.**

	Much Improved.	Improved.	No Improvement.	Worse.	Died.	Total.
Stage I ...	30	25	6	0	...	61
Stage I—II ...	10	26	8	1	...	45
Stage II ..	7	32	9	3	...	51
Stage II—III ...	5	22	15	3	1	46
Stage III ...	3	12	21	13	4	53
Total ...	55	117	59*	20	5	256

A number of the patients in Stages II.—III. and III. were in a hopeless condition on admission and no improvement could be expected; five of these died in the Sanatorium and in at least 26 others the disease proved fatal within seven months of their discharge. Nevertheless, for isolation and educational purposes it is advisable that these cases should continue to be admitted.

Amongst the patients in whom the disease was in a fairly early stage some remarkably good results were obtained; as instances the following cases may be mentioned:—

(74/13). W.F. Male, age 15 years. Stage I.: was at the Sanatorium for six weeks, leaving in May. Had to be conveyed to the Sanatorium in the ambulance as he was in a state of collapse after very severe hæmoptysis which it was thought for some time might prove fatal. Improved greatly, gained 10½ lbs. in weight: has since been passed for the Royal Navy.

(147/13). H.H. Male, age 20 years. Stage II.: was at the Sanatorium for eight weeks, leaving in August. Had been quite unfit for work for a couple of months previously, and was

\* Amongst the 59 patients who showed no improvement are included seven who, for various reasons, left the Sanatorium within ten days of their admission.

obliged to have a conveyance to take him to the Sanatorium; gained 10 lbs. in weight, is now working full time and still retaining his gain in weight, and says he never felt better in his life.

(299/13). C.Y. Female, age 28 years. Stage II.: had been ill more or less for twelve months; was at the Sanatorium eight weeks, gained 17 lbs. in weight, discharged in November. Extremely ill and emaciated on admission, having lost about two stones in weight. She was able to go for long walks, and do light work on discharge; five months afterwards she is still doing well, and steadily gaining in weight.

Several similar cases might be cited, but the above will show what marked improvement may accrue from even short periods of residence in a Sanatorium.

#### CHILDREN.

In June it was found possible, owing to the small number of scarlet fever patients in hospital, to set aside No. 1 Block for the treatment of children suffering from pulmonary tuberculosis.

In November, however, the scarlet fever numbers increased, and No. 1 Pavilion had to be again given up to the treatment of this disease.

The consumptive children were then transferred to the Anstey Lane Hospital, where they still continue to be treated.

The numbers for the year were as follows:

Admitted	...	...	105
Discharged	...	...	78
Average stay in hospital	...	53.4	days.
Average gain in weight	...	5.4	lbs.

The general condition in nearly all the patients showed marked improvement, and the results obtained have been on the whole very satisfactory.

A. E. S. MARTIN,

*Resident Medical Officer.*





## APPENDIX II.

[The portion of the Sanatorium and Hospital Report dealing with the treatment of tuberculosis has been transferred to and incorporated with the Special Report dealing with this disease. See Appendix I.—C.K.M.]

# REPORT

## ON THE

### BOROUGH SANATORIUM AND ISOLATION HOSPITAL

FOR THE YEAR 1913.

By **ALBERT E. S. MARTIN, F.R.C.S.I., D.P.H.,**

*Resident Medical Officer\* and Assistant M.O.H.*

On 31st December, 1912, there were 115 patients remaining in the Hospital. During the year 978 patients were admitted, 914 were discharged, and 26 died, leaving 153 in Hospital on 31st December, 1913.

The admissions show a decrease of 188 compared with those of the previous year, this being chiefly due to a great diminution in the number of cases of scarlet and enteric fevers. There was, however, a large increase in the number of phthisis patients.

The particulars of the admissions were as follows:

Tuberculosis	...	...	..	445
Scarlet Fever	..	...	...	384
Diphtheria	...	...	...	133
Enteric Fever	...	..	...	12
Smallpox ...	...	...	...	1
Unclassified	...	...	...	3
Total	...	...	...	978

\*Dr. Martin has since resigned, having been appointed Tuberculosis Officer, Sunderland.

The Leicester Sanatorium and Isolation Hospital is situated on Groby Road,  $2\frac{1}{2}$  miles from the centre of the town and one mile beyond the Borough Boundary. The site, which covers sixteen acres is a particularly good one, being on rising ground with a gentle slope to the south. The Hospital was opened in 1900, and provided accommodation for nearly 200 patients.

The Smallpox Hospital (which is at present being used for the treatment of consumptive children) 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 galvanized iron. It is capable of providing accommodation for 60 patients if required.

### SCARLET FEVER.

The number of admissions for 1913 was 384, as compared with 601 in 1912; 873 in 1911; 739 in 1910.

The remarkable and gratifying decrease in the number of cases admitted will be observed from the above figures, the admissions being the lowest recorded for the past nine years.

The type of the disease also has on the whole been remarkably mild, though a few of the cases were of a very virulent type.

The diminution in the numbers allowed of two of the scarlet fever blocks being utilized for the treatment of other diseases for a considerable part of the year.

The fatal cases numbered six, equivalent to a case-mortality of 1.5. The case-mortality for previous years has been as follows: 1912, 1.2; 1911, 0.7; 1910, 1.6.

Three of the fatal cases were of a severe septic type, and occurred in children under 10 years of age. Of the remaining three, one was a child of six years who developed tubercular meningitis when convalescent; another occurred in a woman

of 23 who developed uræmia; she had, previous to contracting scarlet fever, suffered from serious kidney trouble.

During the month of November a case of scarlet fever was admitted, being at the same time in the incubation stage of measles; this infection was conveyed to three other patients.

Another outbreak of measles occurred in a similar manner in December, and the infection was conveyed to five other patients. One of these cases unfortunately proved fatal.

The average stay in hospital of all scarlet fever cases (including the fatal cases) was 40.7 days.

### DIPHTHERIA.

The number of cases admitted was 133, as compared with 143 in 1912; 176 in 1911; and 70 in 1910.

Many of the cases, especially during the first part of the year, were of an extremely severe type.

The case-mortality was 9.02, as against 10.4 in 1912, 6.8 in 1911, and 7.1 in 1910.

The striking feature of the admissions during the year was the large number of cases in which the larynx was involved. No less than 40 of these needed operative interference, 24 required intubation only (in some cases repeated), in six other cases intubation had to be followed by tracheotomy, while in ten cases tracheotomy was resorted to at once.

The deaths amongst operation cases numbered 8, as follows:—

Intubation alone	...	...	...	4
Intubation followed by tracheotomy	...	...	...	2
Tracheotomy alone...	...	...	...	2
				—
				8

The mortality of operation cases is low considering the desperate condition in which many of them were admitted.



Some 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 3·7 days.

The average stay in hospital of all diphtheria patients (including the fatal cases) was 37·9 days.

### UNCLASSIFIED CASES.

These numbered three as follows :—

Suspected smallpox	...	...	2
Cellulitis (abdominal parietes)	...	...	1

The average stay of these cases was 3·6 days. None of the cases proved fatal.

### ENTERIC FEVER.

Twelve\* patients were admitted during the year as suffering from this disease. Three of these cases assumed a rather severe type, and two deaths occurred.

The average stay of these patients in hospital was 57·6 days

### SMALLPOX.

One case of imported smallpox was admitted during the year. It was of the mild, discreet type, and the patient made a good recovery. The stay in hospital was 28 days.

### BACTERIOLOGY.

Facilities are afforded to practitioners within the borough to have specimens of throat swabs or blood examined free of charge, as an aid to diagnosis in doubtful cases of diphtheria and enteric fever.

---

\*Two of these patients were found not to be suffering from enteric.

Over 150 specimens have been bacteriologically examined during the year.

Swabs (for diphtheria bacilli)	...	105
Blood (Widal)	... ..	26
Sputum <sup>†</sup> (for tubercle bacillus)	...	19

### STAFF.

The health of the Staff during 1913 has been satisfactory.

Two nurses developed scarlet fever.

One nurse developed diphtheria.

One maid developed diphtheria.

One nurse developed acute appendicitis.

One nurse developed acute rheumatism.

The nurse who developed acute appendicitis had to be removed to the General Hospital for operation. All recovered completely.

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<sup>†</sup>The work of examining sputa was transferred to the Tuberculosis Dispensary in the early part of the year.

## GIFTS RECEIVED AT THE HOSPITAL DURING 1913.

---

Ambler, Mrs.	...	...	Dolls and Toys.
Bailey, Mr.	...	...	Books and Magazines.
Baker, Mrs. (Blackheath)	...	...	Dolls and Toys.
Bowmar, Mr. (New Parks)	...	£2 2s.	and Books.
Ellingworth, Miss (St Martin's)	...	...	Dolls and Toys.
Ellis, Mrs. James	...	...	Ditto.
Everard, Mrs. B. N.	...	...	Ditto.
Faire, Lady	...	...	Books and Magazines.
Freer, Mrs.	...	...	Dolls and Toys.
Gedge, Rev. Canon	...	...	Woollen Clothing, Toys, Games, &c.
Girls' School (Friar Lane)	...	...	Dolls and Toys.
Haines, Mrs. (Morland Avenue)	...	...	Doll.
Hall, Mrs. (Ashby Road)	...	...	Books and Magazines.
Hodgson, Miss (Fosse Road)	...	...	Ditto.
Jameson, Mrs. (Stuart Street)	...	...	Dolls and Toys.
Kemp, Mrs. (Ashleigh Road)	...	...	Ditto.
Kemp, Mr. (Kate Street)	...	...	Ditto.
King, Miss (Lansdowne Road)	...	...	Large Doll.
Knapp, Mrs. (Wentworth Road)	...	...	Books and Magazines.
Holy Trinity Sale of Work (per Miss Shaw)	...	...	Large Doll, &c.
Lakin, Dr.	...	...	Books and Magazines.
Linsley, Mrs. (New Oxted, Surrey)	...	...	Dolls.
Moore Miss (West Walk)	...	...	Books and Magazines.
Oliver, Mrs. (Knighton Fields)	...	...	Dolls, &c.
Payne, Mrs. (Howard Road)	...	...	Doll's Houses, &c.
Patient	...	...	Large Doll.
Pickerstein, Miss	...	...	Magazines (monthly)
Potter, Mrs. (Guilford Road)	...	...	Books.
Pridmore, Mrs.	...	...	Ditto.



## GIFTS RECEIVED AT THE HOSPITAL. - Continued.

Primitive Methodist Church,		
	Fosse Road	Flowers and Plants.
Prince of Peace Lodge of Good		
	Templars	Ditto.
Roberts Miss (Patient)	...	Large Doll.
St. Augustine's Sunday School		Flowers and Plants.
St. Luke's Sunday School		
	Children	Dolls, Toys, &c.
St. Michael's Sunday School		Flowers and Plants.
St. Saviour's Bazaar	...	Large Doll.
Thomson, Mrs. (Groby)	...	Books and Magazines.
Taylor, Miss	...	Dolls and Toys.
The Vicar Newtown Linford	...	Books.
Walker, Mr. (Humberstone Gate)		10/-
Westcotes Sunday School	...	Flowers and Plants.
Wigg, Miss O. (Evesham Road)		Dolls and Toys.
Windley, Miss	...	Books and Magazines.
Windley, Ald T.	...	Ditto.
Westgate, Mrs. (Howard Road)		Ditto.
White, Mrs. (Newport Street)...		Ditto.
Williamson, Miss (Mere Road)		£3 3s.
Yates, Mrs. (Westcotes Drive)...		Books and Magazines.

The usual Tables are appended.

A. E. S. MARTIN,

*Resident Medical Officer.*

**TABLE A.**  
**Number of Patients Admitted, Discharged and Died during 1913.**

DISEASE.	Remaining 31st December, 1912.	Admitted during Year.	Discharged during Year.	Died during Year.	Remaining 31st December, 1913.
Scarlet Fever ... ..	74	384	394	6	58
Diphtheria ... ..	12	133	115	12	18
Enteric Fever .. ...	4	12	11	2	3
Tuberculosis (Adults ... Children ...)	25	340	312	6	47
	0	105	78	0	27
Smallpox ... ..	0	1	1	0	0
Unclassified ... ..	0	3	3	0	0
<b>TOTAL</b> ... ..	<b>115</b>	<b>978</b>	<b>914</b>	<b>26</b>	<b>153</b>

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.			Tuberculosis.			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 Days' Stay per Patient.	No. of Patients Admitted.	Average Patients in Hospital Each Day.	Average Days' Stay per Patient.	No. of Patients Admitted.	Average Days' Stay per Patient.	No. of Patients Admitted.	Average Patients in Hospital Each Day.	Average Days' Stay per Patient.	
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	293	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	16.0	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	10.5	56.0	2	65.0	1765	204.4	42.2	
1907	1196	154.5	47.1	102	8.1	29.1	35	5.0	52.1	...	...	82	14.7	65.6	5	19.1	1420	182.6	46.9	
1908	866	149.3	48.1	92	12.5	49.8	29	4.9	61.7	...	...	91	15.2	60.8	21	18.6	1099	147.8	49.1	
1909	1166	123.0	37.9	83	9.4	40.7	19	3.0	61.2	...	...	104	15.3	53.5	10	16.6	1382	149.3	39.4	
1910	739	78.2	38.6	70	7.1	37.1	26	3.1	44.7	...	...	119	17.7	54.5	5	6.6	959	106.4	40.5	
1911	873	73.7	30.8	176	13.9	28.6	37	3.6	47.0	...	...	201	27.1	48.9	64*	45.0	1351	127.3	34.4	
1912	801	80.9	36.9	143	16.7	42.8	39	7.2	68.1	...	...	169	22.6	49	14	14.5	1166	128.1	40.1	
1913	384	42.8	40.7	133	13.8	37.9	12	1.8	56.2	1	28	445†	55.9	45.9	3	3.6	978	114.3	40.4	

\* 61 of these were "Pretubercular" cases.

† The number of tubercular children admitted in 1913 was 105 and the average stay in the Sanatorium was 53.4 days.



**TABLE C. \***

**BOROUGH OF LEICESTER. ISOLATION HOSPITAL.**

**Receipts and Payments during two years ending**  
**31st March, 1914.**

	Year 1912-13.			Average Cost per patient day.		Year 1913-14.			Average Cost per patient day.	
	£	s.	d.	s.	d.	£	s.	d.	s.	d.
<b>PAYMENTS.</b>										
Salaries and Wages ...	1859	1	2	0	10·82	1906	1	5	0	10·06
Meat ...	277	6	10	0	1·61	364	5	3	0	1·92
Other Provisions ...	1249	0	4	0	7·27	1323	5	4	0	6·98
Furniture, Fittings and Domestic Utensils ...	127	17	4	0	0·74	347	10	3	0	1·83
Bedclothing, Towelling, &c. ...	117	18	10	0	0·69	169	14	11	0	0·90
Fuel, Light and Water ...	1041	8	7	0	6·06	1156	5	4	0	6·10
Rates, Insurance and Telephone ...	377	9	2	0	2·20	385	4	4	0	2·04
Alterations and Repairs ...	210	4	0	0	1·22	412	12	2	0	2·18
Horsehire, Horsekeep and Ambulance ...	166	1	3	0	0·97	131	12	2	0	0·69
Drugs and Medical Appliances...	324	10	8	0	1·89	312	2	2	0	1·65
Advertising, Printing and Stationery ...	37	14	8	0	0·22	39	5	4	0	0·21
Grounds: Gardeners' Wages, Materials, &c. ...	371	12	6	0	2·16	386	8	2	0	2·04
Cleaning Materials ...	30	7	0	0	0·18	77	7	1	0	0·41
Sundries ...	51	2	9	0	0·30	116	12	3	0	0·61
<b>Total Payments</b> ...	<b>6241</b>	<b>15</b>	<b>1</b>	<b>3</b>	<b>0·33</b>	<b>7128</b>	<b>6</b>	<b>2</b>	<b>3</b>	<b>1·62</b>
<b>RECEIPTS.</b>										
Maintenance of Consumptive Patients ...	154	10	0	0	0·90	8	9	0	0	0·05
Ditto (Leicester Insurance Committee) ...	512	3	1	0	2·98	1700	14	2	0	8·98
Other Maintenance Receipts ...	3	9	0	0	0·02	26	12	0	0	0·12
Pumping Cemetery Sewage ...	75	0	0	0	0·44	75	0	0	0	0·40
Sale of Hay, &c. ...	16	10	5	0	0·10	47	15	6	0	0·25
Sale of Thermometers and Sundries ...	9	7	0	0	0·05	55	17	11	0	0·29
Government Grant towards cost of Treatment of Tuberculosis ...	...	...	...	...	...	1585	17	0	0	8·38
<b>Total Receipts</b> ...	<b>770</b>	<b>19</b>	<b>6</b>	<b>0</b>	<b>4·49</b>	<b>3500</b>	<b>5</b>	<b>7</b>	<b>1</b>	<b>6·47</b>
<b>Net cost (excluding Loan Charges)</b> ...	<b>£ 5470</b>	<b>15</b>	<b>7</b>	<b>2</b>	<b>7·84</b>	<b>3628</b>	<b>0</b>	<b>7</b>	<b>1</b>	<b>7·15</b>
<b>No. of Patient days</b> ...	<b>41,233</b>				<b>45,475</b>					

W. PENN-LEWIS,

May, 1914.

*Borough Treasurer.*

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

**TABLE D.**  
**Details of Fuel used during the two years ending 31st March, 1914.**

Particulars.	Rate per Ton.	Year 1912-13.		Year 1913-14.	
		Weight.	Value.	Weight.	Value.
	s. d.	T. C. Q.	£ s. d.	T. C. Q.	£ s. d.
Coal	10 7	120 8 0	63 14 3	40 18 3	21 13 3
"	11 4	...	...	113 19 1	64 11 10
"	13 3	2 13 2	1 15 6	...	...
"	15 3	17 10 2	13 7 3	5 10 1	4 4 2
"	16 0	...	...	16 6 1	13 1 1
Slack	8 3	200 14 3	82 16 0	...	...
"	8 9	10 15 2	4 14 3	...	...
"	11 3	911 18 2	512 19 2	422 8 3	237 12 5
"	17 5	...	...	938 11 0	535 15 3
"	11 8	...	...	17 17 0	10 8 3
Firewood, &c.	...	...	1 15 0	...	1 8 2
*Coke and Cartage	...	*134 13 0	101 10 0	15 18 0	14 16 10
*Various prices during coal strike.		1398 13 3	£782 11 5	1571 9 1	£903 11 3

W. PENN-LEWIS,

*Borough Treasurer.*

May, 1914.





## APPENDIX III.

## REPORT

ON THE

## MUNICIPAL INFANTS' MILK DEPOT

FOR THE YEAR 1913.

The Leicester Municipal Infants' Milk Depot has now completed seven years of existence, having been opened in July, 1906.

During this period many other Infants' Milk Depots in the country have become extinct, having been closed either because of the heavy pecuniary loss incurred by them, or by their ceasing to gain the support of the public and especially of those classes for whom they were provided. It is the more satisfactory, therefore, that the Leicester Milk Depot has not only risen in public estimation, and more than maintained its popularity, but is now paying its way, and for the last three years it has shown a balance on the right side.

## LEICESTER INFANTS' MILK DEPOT.

Year.	Number of New Cases brought to Depot.	Average Number of Infants on the Books.	Gross Takings.			Excess of Payments over Receipts.		
			£	s.	d.	£	s.	d.
1907	672	202	913	8	0	339	5	3
1908	632	195	872	11	7	167	14	6
1909	639	216	868	12	11	110	17	1
1910	854	274	1043	11	6	43	10	4
1911	939	325	1347	16	11	41	3	7
1912	898	377	1456	8	7	87	2	1
1913	941	386	1541	19	7	53	9	9

A statement is given at the end of the report showing details of the payments and receipts for 1913.

Dried milk continues to be used to the entire exclusion of other forms of milk, and it has proved so satisfactory that there is no likelihood of any change in this respect.

The following are the numbers for the year 1913:—

Infants remaining on the books, December			
31st, 1912	...	...	379
New Cases admitted during 1913	...	...	941
			<hr/> 1320
Infants discharged or died during 1913 ...			
			929
Number remaining on the books, December			
31st, 1913	...	...	391
			<hr/> 1320

The maximum number on the books during the year was 424, which occurred during the month of August. The minimum, 359, occurred in February. The average number for the year was 386, as against 377 in the previous year.

There were 11 sets of twins, 112 instances of second babies, 25 instances of third, and sixth of fourth, brought to the Depot. The fact that we have so many "old customers"—i.e., mothers who come to the Depot with subsequent babies—is a gratifying proof of the satisfaction which the Milk Depot gives.

452 cases, or nearly 50 per cent., stated that they had come to the Milk Depot on the advice of medical men—another gratifying fact. I take this opportunity of expressing my appreciation of the support which the general practitioners in the Borough have accorded to the Milk Depot ever since it was started.

A considerable number of cases also were advised to come by the Matron at the Maternity Hospital (Miss Gray) or by the Royal Infirmary staff.

#### BRAND OF MILK USED.

Milk manufactured by the "Hatmaker" process is chiefly used, but in special cases we employ the milk known as "Trumilk."

### PRICE OF THE MILK.

The price charged for the milk depends upon the percentage of fat—there being three grades—and also upon the season.

During the past summer the prices charged per lb. were as follows :—

Full Cream	...	...	...	1/-
Three-quarter Cream	...	...	...	10d.
Half Cream	...	...	...	9d.

The wholesale prices usually go up in October or November, and the above prices are then increased by about 2d. per lb. Last winter, however, we did not have to raise the price until January.

### AMOUNT OF MILK USED.

The amount of milk used averages about  $5\frac{1}{2}$  hundredweight per week.

### REDUCED CHARGE FOR THE MILK IN SPECIAL CASES.

A considerable number of cases, where the parents were in straitened circumstances, were allowed to have the milk at a reduced price, and the number thus being supplied at the end of the year was 43.

A few cases in specially hard circumstances were allowed to have the milk gratuitously, the value of the milk thus given away being £7 14s. 0½d.

A certain number of infants from outside the Borough were supplied with milk, a small extra charge being made. The cases came from Anstey, Birstall, Blaby, Countesthorpe, Hinckley, Newbold Verdon, Oadby, Syston, Thurmaston, Wanlip, Whetstone, Wigston and Ullesthorpe. Milk has also been sent to Rotherham, Stamford, London, and Skegness, to persons who had removed from Leicester and were anxious to continue having the milk, and were willing to pay the postage.



## ARRANGEMENTS FOR SENDING OUT THE MILK.

Most customers call once a week for a fresh supply of milk, but where desired the milk is sent through the parcels department of the Tramways. To meet the needs of the Aylestone district, which is so far away, arrangements have recently been made, as an experiment, with a retail chemist in the district to keep a stock of our milk for the convenience of mothers whose infants are "on the Depot."

## CO-OPERATION WITH OTHER BODIES.

The Charity Organisation Society has continued to co-operate, paying for the milk in special cases. The number of cases helped by this Society has been four: the average period per case being 18 weeks, and the amount paid to the Corporation being £6 14s. 3d. This was rather less than in previous years.

The Board of Guardians have helped three cases in a similar way, though for shorter periods as a rule. The amount paid was (approximately) £4 10s. 0d. This also is less than usual.

The following table shows the periods for which infants remained on the Depot.

### COMPLETED CASES DURING 1913.

Not more than					
1 week	...	...	...	...	126
2 weeks	...	...	...	...	58
4 "	...	...	...	...	85
2 months	...	...	...	...	94
3 "	...	...	...	...	69
4 "	...	...	...	...	41
5 "	...	...	...	...	45
6 "	...	...	...	...	38
7 "	...	...	...	...	44
8 "	...	...	...	...	42
9 "	...	...	...	...	43
10 "	...	...	...	...	42
11 "	...	...	...	...	53
12 "	...	...	...	...	86
Over 12 months	...	...	...	...	63

Excluding the 126 who only had the milk for one week or less, there were 25 deaths of babies whilst on the Depot. 19 of these were sick or in feeble health when first brought. The causes of death were:—Seven by marasmus, four by convulsions, two by bronchitis, seven by diarrhœa, two by measles, one by hæmorrhage and heart failure, and in two cases inquests were held.

### INFANT CONSULTATIONS.

An "Infant Consultation" is held in connection with the Milk Depot on two afternoons a week and constitutes a most important part of the work of the Depot. The Medical Officer of Health or one of his colleagues attends, and all mothers whose infants are not thriving on the milk, as shown by the weight or otherwise, and who are not already under a doctor, are advised to bring them to see him. Recent admissions to the Depot are also advised to come and see the doctor on "consultation" days. The usual attendance varies from 20 to 40, depending largely upon the weather.

### STAFF.

The Infants' Milk Depot continues under the charge of Mrs. Stanion, who has been Manageress of the Depot since it was started. It is undoubtedly very largely owing to her enthusiasm and capable management, coupled with her tactful and kindly manner that the Depot has been so successful.

Mrs. Stanion is assisted by her sister in law, Miss E. Stanion, to attend on four days a week. This arrangement enables Mrs. Stanion to devote a part of her time to visiting cases in their own homes, and also to helping at one of the schools for mothers carried on under the auspices of the Leicester Health Society.

C. K. MILLARD,

*Medical Officer of Health.*

*May, 1914.*

## BOROUGH OF LEICESTER.

## INFANTS' MILK DEPOT.

Receipts and Payments during year ended 31st<sup>o</sup> March, 1914.

PAYMENTS.	£	s.	d.	£	s.	d.
Wages ... ..	100	2	0			
Purchase of Milk ... ..	1222	6	0			
Railway Carriage and Delivery of Milk ... ..	7	11	8			
Bottles, Stoppers, &c. ..	15	6	9			
Rent, Rates and Insurance ...	54	7	11			
Fuel, Light and Water ...	14	17	9			
Telephone ... ..	7	4	3			
Printing and Stationery ..	34	14	10			
Fittings and Repairs ..	7	17	2			
Sundries ... ..	24	1	6			
				1488	9	10
RECEIPTS.						
Sale of Milk, &c. ..				1541	19	7
Receipts in excess of Payments				£53	9	9

W. PENN-LEWIS.

*Borough Treasurer.*

May, 1914.



## APPENDIX IV.

## PUBLIC ANALYST'S REPORT

FOR THE YEAR 1913.

*To the Chairman and Members of the Sanitary Committee.*

GENTLEMEN,

The Report of the Public Analyst for the year 1913 can only be a very brief one owing to the fact that I only occupied the position for the last quarter of the year. Dr. Millard's tenure of office was to have terminated at the end of the second quarter, but as the new appointment had not then been made, he continued nominally to fill the post throughout the third quarter. During this quarter, however, only a few samples of milk were analysed.

With the new appointment of Public Analyst an entirely new arrangement has been begun. For many years past the position of Public Analyst has been combined with that of Medical Officer of Health, but owing to the increasing duties of the latter post Dr. Millard felt obliged to ask to be relieved of his work as Public Analyst. It was, therefore, decided to separate the two appointments, as has now been done in practically every other large town. It was also decided to combine the post of Public Analyst with that of Analyst to the Water Committee and Analyst to the Sewage Farms Committee, and a joint Committee, representing these two Committees and the Sanitary Committee, was formed for the purpose of making the appointment.

In consequence of the circumstances mentioned above, the number of samples analysed during the year is less than usual. Particulars will be found in Tables A and B. Twelve samples of milk were found to be adulterated, and in four of these proceedings were instituted, but in one of them the proceedings

were subsequently withdrawn. In the remaining three instances, fines of £1, £5, and £20 were inflicted. The latter fine is, I believe, the most substantial hitherto imposed in the Borough. The circumstances made the offence a very flagrant one, and there is little doubt that adulteration on a considerable scale had been going on. Several of the other adulterated samples were connected with this case. The vendors of the remaining samples were cautioned.

Your obedient servant,

S. F. BURFORD,  
*Public Analyst.*

*Corporation Buildings,*  
*Leicester.*  
*April, 1914.*

**TABLE A.**  
**Summary showing Samples taken and submitted for Analysis during 1913.**

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) ...	29	3	30	1	18	1	66	7	143	12
" (Separated) ...	...	...	...	...	...	...	...	...	...	...
Coffee ...	12	...	...	...	...	...	6	...	18	...
Cocoa ...	...	...	...	...	...	...	...	...	...	...
Lard ...	12	...	...	...	...	...	12	...	24	...
Mustard ...	12	...	...	...	...	...	6	...	18	...
Flour ...	...	...	...	...	...	...	...	...	...	...
Butter ...	36	...	...	...	...	...	42	...	78	...
Bread ...	6	...	...	...	...	...	6	...	12	...
Margarine ...	...	...	...	...	...	...	...	...	...	...
Rum ...	...	...	...	...	...	...	1	...	1	...
Gin ...	...	...	...	...	...	...	2	...	2	...
Whisky ...	...	...	...	...	...	...	2	...	2	...
Brandy ...	...	...	...	...	...	...	1	...	1	...
Total ...	107	3	30	1	18	1	144	7	299	12

\* Of the total samples, 78 samples of butter, 24 of lard, 18 of coffee and 18 of mustard were taken informally.



**TABLE B.**  
**Particulars of Adulterated Samples in 1913.**

No. of Sample.	Nature of Sample.	Nature and Amount of Adulteration.	Action Taken and Remarks.
73	New Milk	12.9 per cent. of added water	Vendor prosecuted. Fined £5.
106	New Milk	10.0 per cent. of added water	Vendor cautioned.
Special	New Milk	23.3 per cent. deficient in fat	Taken informally. Followed by Formal Sample No. 73
129	New Milk	8.8 per cent. of added water	No proceedings instituted, as their was reason to think that the retailer was not the real offender.
145	New Milk	13.9 per cent. of added water	Vendor cautioned.
*203	New Milk	22.0 per cent. of added water	Prosecution instituted and withdrawn.
204	New Milk	22.0 per cent. of added water	Vendor prosecuted. Fined £1 and costs.
206	New Milk	14.0 per cent. of added water	Vendor prosecuted. Fined £20 and costs.
221	New Milk	14.0 per cent. of added water	Vendor prosecuted.
222	New Milk	23.0 per cent. of added water	Vendor cautioned.
*224	New Milk	33.0 per cent. of added water	
288	New Milk	4.0 per cent. of added water	

\* The milk from which these samples were obtained was found to have been supplied originally by the vendor of samples Nos. 221 and 222.

## APPENDIX V.

## CHIEF INSPECTOR'S REPORT

UPON THE

WORK OF THE SANITARY DEPARTMENT

DURING 1913.

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*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 1913. The appended Tables show the number and the nature of nuisances abated.

I am, Sir,

Your obedient servant,

FRANCIS BRALEY, CERT. ROY. SAN. INST.,

*Chief Inspector.*

*8th May, 1914.*

## STATEMENT A.

Showing the work done by the Sanitary Staff during the  
year 1913 and also in 1912.

	No. of Visits.	
	1913.	1912.
Systematic House to House Inspection ...	10,427	12,971
Investigations of Complaints ...	26,100	26,400
Visits to ascertain the progress of Sanitary and Informal Orders ...	20,434	19,707
Visits in connection with Infectious Diseases ...	3,797	8,256
Visits to Common Lodging Houses ...	567	565
Visits to Bakehouses ...	551	564
Visits to Canal Boats ...	108	121
Visits to Workshops ...	609	628
Visits to Factories ...	251	—
Visits to Fried Fish Shops ...	225	227
Visits to Caravans ...	97	135
Visits to Marine Stores ...	30	17
Visits to Home-workers ...	258	116
Visits to Births ...	9,500	6,472
Visits to Dairies and Milk Shops ...	916	467
Visits to Cowsheds ...	262	240
Visits by Meat Inspectors ...	13,446	14,016
	<u>87,578</u>	<u>90,902</u>
Samples of Food, &c., purchased for Analysis under Adulteration Acts ...	298	402
Observations for the purpose of Smoke Preven- tion ...	2,472	3,575
Stacks reported for Smoke Nuisance ...	22	22
Houses Disinfected by the Sanitary Staff ..	1,206	2,100
Articles Disinfected by Steam ...	1,194	1,183
Swine reported to Medical Officer of Health ...	60	140
Filthy Houses " " " ...	37	56
Dilapidated Houses " " " ...	368	109
Prosecutions under the Public Health and Local Acts ...	4	5
Letters (including Complaints of Nuisances) received ...	2,806	3,189
Letters (including School and Sanitary Notices) sent out from the Offices ...	7,987	8,210
Drains Tested (Smoke and Fluid) ...	354	462



## 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	...	...	...	...	24
„ repair ditto ditto	...	...	...	...	3
„ provide Ash-bins	...	...	...	...	2,109
„ erect new Water Closets	...	...	...	...	12
„ repair, alter or rebuild Closets	...	...	...	...	2
„ fix Closet Hoppers and Syphons	...	...	...	...	77
„ fix Flushing Apparatus and lay on Water Supply	...	...	...	...	21
„ repair ditto ditto ditto	...	...	...	...	64
„ alter and ventilate Soil Pipes	...	...	...	...	4
„ stop up or disconnect Cellar Drains	...	...	...	...	1
„ lay New Drains	...	...	...	...	1
„ relay or repair Defective Drains	...	...	...	...	85
„ clear Choked Drains	...	...	...	...	418
„ cleanse or repair Cisterns	...	...	...	...	31
„ fix lead or iron Sink Wastes	...	...	...	...	31
„ fix Gullies	...	...	...	...	84
„ reset Gullies or provide new Gratings	...	...	...	...	43
„ erect, alter, screen or repair Urinals	...	...	...	...	19
„ repair, rehang or provide new Doors for Closets and Dwellings	...	...	...	...	39
„ repair, renew and make good Spouting	...	...	...	...	141

## STATEMENT B.—Continued.

	No. of Orders.
To cleanse and limewash Closets and Passages ...	110
.. pave Yards and Passages, or repair Paving ...	213
.. provide new or relay and repair Floors ...	110
.. repair Roofs ... ..	114
.. cleanse and limewash Houses ... ..	307
.. ventilate Dwellings ... ..	17
.. remove Manure and Offensive Matter ...	4
.. remove Animals kept in such a condition as to be a nuisance ... ..	11
.. alter Chimneys and miscellaneous ...	225
.. reduce Number of Persons occupying Houses ...	33
.. repair Staircases ... ..	18
.. fix 4-inch Ventilating Pipes ... ..	14
.. repair Walls ... ..	26
.. insert Damp-proof Courses .. ..	78
.. arrange windows to open... ..	96
	<u>*4,585</u>

\* The 4585 Defects ordered to be remedied were contained in 4359 Notices,  
and of these 160 were Formal and 4199 Informal Orders.

# STATEMENT C.

Showing the Localities of Sewer Gas Escapes.

	No.
Into Breakfast Rooms, Sitting Rooms, and Dining Rooms	1
„ Houses from Rat Holes ... ..	1
„ Kitchens and Sculleries ... ..	3
„ Basement Kitchens and Cellars ... ..	9
„ Lobbies and other parts of Houses ... ..	2
„ Internal Water Closets ... ..	3
„ External Water Closets ... ..	51
„ Yards, from around badly set Gullies, defective Drains, etc. ... ..	71
From Soil Pipes ... ..	13
„ Heads and Joints of downright Rain Water Pipes ...	6
„ Untrapped Rain Water Cisterns ... ..	3
„ Gullies in Stables .. ...	2
„ Ventilating Pipes ... ..	6
	171
And in connection with Houses in which Infectious Diseases have arisen ... ..	62
Total ... ..	233



## 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, &c., in the same yard.

	No.
Defective and Foul Ashpits ... ..	3
„ and dilapidated Closets ... ..	1
„ and choked Drains ... ..	9
„ and unventilated Soil Pipes ... ..	1
„ Urinal, Bath and Lavatory Wastes ... ..	1
„ Paving and Surface Channels ... ..	20
„ Untrapped or badly set Gullies to Sink and Yard Drains ... ..	11
„ Water Closet Hoppers and Flushing Apparatus	16
„ Spouting ... ..	4
Foul Brick and Defective Shafts to Sinks ... ..	1
Foul and Defective Rain Water Cisterns ... ..	1
Filthy Urinals, Closets and Passages ... ..	3
Filthy Houses... ..	12
Escapes of Sewer Gas into:	
External Closets ... ..	22
Living Rooms and Sculleries ... ..	2
Yards, from defective Drains, badly set Gullies, or Rain Water Pipes connected direct with the Sewers or Drains ... ..	38
Total ... ..	145

## 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 ... ..	2
.. provide Ash-bins ... ..	3
.. provide Ventilation ... ..	3
.. erect New Water Closets ... ..	15
.. provide Light, Ventilation and Lobbies to Closets ...	81
.. fix Closet Basins and Syphons... ..	10
.. fix 4-inch Ventilating Pipes ... ..	13
.. repair Flushing Apparatus and lay on Water Supply	13
.. alter and ventilate Soil Pipes ... ..	1
.. relay and repair defective Drains ... ..	1
.. clear choked Drains ... ..	10
.. fix Traps or Gully Gratings ... ..	4
.. erect, alter, screen, or repair Urinals ... ..	2
.. provide new, or relay or repair Floors ... ..	2
.. repair Roofs ... ..	3
.. cleanse and limewash Workshops ... ..	41
.. repair Walls ... ..	2
Total ... ..	206

## STATEMENT F.

**Showing the number of Offensive Trades carried on, and  
Registered and Licensed Premises within the Borough requir-  
ing the constant attention of the Inspectors.**

DESCRIPTION OF TRADE.							No.
Slaughter Houses (Registered)	...	...	...	...	...	...	68
" " (Public)	...	...	...	...	...	...	18
Tripe Houses	...	..	...	...	...	...	27
Common Lodging Houses	...	...	...	...	...	...	30
Bakehouses	...	...	...	...	...	...	255
Cowsheds	...	...	...	...	...	...	46
Milk Shops and Dairies	...	..	...	...	...	...	1374
Tallow Melters	...	...	.	...	...	...	1
Chemical Works	...	...	..	...	...	...	2
Tanners and Fellmongers	...	...	...	...	...	...	2
Bone Boilers	...	...	...	...	...	...	1
Knacker's Yard	...	...	...	...	.	...	1
Gut Scrapers	...	...	...	...	..	...	2







## APPENDIX VI.

# REPORT

## OF THE

# INSPECTORS OF FOODS.

**Messrs. MARTIN TYLDESLEY & FREDK. SOWERBUTTS.**

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During the year 1913 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' yard; 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 the year for tuberculosis was as follows:—

Beef	...	...	...	102 carcasses.
				19 quarters.
Pork	...	...	...	16 carcasses.

In addition to the above carcasses, 1 ton 7 cwt. 1 qr. 0 lbs. of offals were destroyed on account of localised tuberculosis.

There was one summons issued during the year which was dismissed.

There was one registered slaughter-house closed during the year.

MARTIN TYLDESLEY,  
FREDERICK SOWERBUTTS,

*Inspectors of Foods.*





## APPENDIX VII.

# REPORT

OF THE

## HEALTH VISITORS.

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## (A) MRS. HARTSHORN'S REPORT.

*To the Medical Officer of Health.*

SIR,—I beg to submit my Annual Report on particulars of work done by me during the year 1913.

**BIRTHS.**

During the year 1269 births were notified on my district. None were doctor's cases. Nine notifications were accompanied by a request "not to visit," ten were dead when visited, and 21 were premature births.

72 of the births were visited by me during the absence of my colleague through illness.

After a first visit had been made 510 were passed on to the "Voluntary Health Visitors."

The majority of these babies were breast fed, and the tendency to breast feeding appears to be by no means on the wane, although there still prevails amongst the few the adherence of the old fashioned methods of bread sop, oatmeal, and a combination of other foods, this usually occurring where the infants are taken charge of by the grandmothers.

The discontinuing of breast feeding arises from various causes, such as mothers returning to work, insufficient breast milk often caused by insufficient nourishment, etc.

**ILLEGITIMATE BIRTHS.**

26 were illegitimate births.

#### DISCHARGE FROM EYES.

50 babies had discharge from eyes. Five proved to be ophthalmia and were treated either at the Infirmary or by private doctors, the others being more or less serious in character.

#### RE-VISITS.

3098 re-visits were made during this period to watch the progress of child and the carrying out of instructions.

In all cases printed instructions and a special handbill is left dealing with the "danger of fire to young children." In very many homes now the children are thus safe-guarded.

With few exceptions the infants are doing well. The final visits are incomplete owing to the extra work I have been called upon to do.

#### HOMEWORKERS, &c.

151 homes of outworkers have been visited. The homes were for the most part fairly clean. 32 visits were also paid to workrooms and 21 to restaurant kitchens.

#### SPECIALS AND COMPLAINTS.

18 visits were made for the purpose of enquiring into the question of deaths of infants, 28 visits and re-visits have been made *re* dirty homes, neglected children, etc., four of which, after repeated visits had been made without any improvement being effected, were reported to N.S.P.C.C., and one case was referred to the Relieving Officer.

#### MILK DEPOT.

Occasionally I attended at Milk Depot in the afternoons during the absence of the Manageress.

Yours obediently,

H. HARTSHORN

**(B) MISS 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, 1913.

**BIRTHS.**

1,186 births were notified in my district, three of these were notified by doctors, but as one was a still birth, one dead when visited, and on the third notification a request was made "not to visit," no further action has been taken in these cases. On 30 notifications a special request was made "not to visit," and on three the midwife reported the baby as dead; all the remainder, 1,150 in number, were visited at least once. 72 were visited by Mrs. Hartshorn during my illness, and 15 by Miss Cornwell, who was appointed temporary, in February, for a short time.

In 15 instances the baby was found to be dead when visited, due in most cases to premature birth, two had been still births but not notified as such.

After a first visit has been made to the births occurring in Latimer Ward, they are passed on to the Voluntary Health Visitors, the number being 267 for the year. In some of these cases I make special re-visits for discharging eyes, ophthalmia, etc. The majority of the babies are breast fed. Where the mothers have returned to work and the babies put out to nurse, these babies are closely followed up, and the temporary homes, feeding and care, kept under supervision. Some cases are lost sight of through the parents removing from the district.

**ILLEGITIMATE.**

24 of the births were illegitimate.

**OPHTHALMIA NEONATORUM.**

In September, 1913, this was made a notifiable disease, since then there have been eleven cases notified in my district; of these six were notified by private doctors and five by the doctor at the Royal Infirmary. Of the six notified by private doctors, three



were attended at birth by doctors, one was born in the maternity hospital, one was attended by the district midwife from the maternity hospital, and one attended by a midwife. Of the five notified by the Royal Infirmary, one was attended by a doctor and four were attended by midwives.

26 re-visits were made to these cases to see that everything necessary was being done for the child and that the doctor's orders were being carried out.

There were 30 cases found to have some discharge from one or both eyes: only two were serious and I immediately sent these to the Royal Infirmary; these cases I have already dealt with. The remainder were not serious and soon recovered with prompt home treatment.

#### RE-VISITS.

3,613 re-visits have been made during the year, to note the progress of the child and to give further advice where necessary.

#### INFANTILE DEATHS.

34 visits were made in the Abbey and Newton Wards for information regarding the high death-rate in the Newton Ward, the result of which was placed before you in a special report.

#### WORKSHOPS.

60 workshops where women are employed and 23 restaurant kitchens were inspected. These were all found in a satisfactory condition with the exception of one restaurant kitchen. Verbal notice was given to the manager and the necessary cleansing was carried out.

#### HOMEWORKERS.

183 homes of outworkers have been visited, in five cases the homes were in a dirty condition; the remainder were clean. In ten instances phthisis existed in the home.

#### SPECIAL VISITS.

60 visits and re-visits were made to homes kept in a dirty condition: 25 to babies suffering from diarrhoea during the

summer: 7 to children over one year of age suffering from measles, pertussis and diarrhœa; 7 on a complaint from the district nurse, *re* the dirty condition and offensive smell in a house occupied by a woman suffering from cancer of the uterus. An effort was made to have the woman removed to North Evington Infirmary but she refused to go. She has since died.

#### MIDWIVES.

Two afternoons were occupied in assisting with the inspection of midwives, and one visit was made to a midwife in her own home.

#### SCHOOL FOR MOTHERS.

Three afternoons I did the infant consultations at the St. Barnabas' School for Mothers; one morning and four afternoons at the Milk Depôt during the absence of the manageress.

Your obedient servant,

J. WHYTE,

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



## APPENDIX VIII.

## 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, 1913:—

Population of Borough ...	...	230,970
Area in acres ...	...	8,582
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 galvanized iron bins, of which there are 55,543. 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 27s. per week for collectors and 28s. for drivers; the latter have to attend to their horses, while 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, 32s. per week; drivers, 34s. 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	...	...	88
Ash-pit Men	..	...	16
Foremen ..	...	...	2
Wagoners	...	...	3
Wharf Men	...	...	8
"Tip" Men at Destructors	...	...	4
Old Men, Sorting Refuse	...	...	4
Mess Room Attendants	...	...	2
Total	...	...	127

The number of horses is 43.

	1913	1912	
Portable Ash-bins collected weekly	55,543	55,105	438 more
Portable Ash-bins collected twice a week...	492	492	...
Ashpits emptied every month	572	605	33 less
Manure-pits emptied at short intervals	191	188	3 more

#### AMOUNT OF REFUSE COLLECTED.

	TONS. 1913	TONS. 1912	TONS.
From Portable Ash-bins	36,984	37,521	537 less
From Ash-pits	5,373	5,648	275 less
Trade Refuse	2,216	2,068	148 more
Various (Specials)	98	119	21 less
From Knighton District (House Refuse)	2,154	2,179	25 less
Total Tons	46,825	47,535	710 less

Of the above quantity, 2,326 tons were taken to Manure Wharves and Tips; the remainder was burnt at the Destructors. The amount of stable manure collected was 6,173 cart loads, including 538 loads from the Beast Market.

The sales of manure during 1913 were as follows:—

	TONS.	£	s.	d.
489 Railway Wagon loads, weight	2,871	485	10	0
76 Cart loads     ...     ...     ...	76	8	5	6
Total     ...     ...     ...	2,947	493	15	6
Previous year     ...     ...     ...	3,992	540	15	0

### TRADE REFUSE.

3,870 loads of trade refuse (weight, 2,216 tons) were removed and taken to the Destructors, the payment received amounting to £483 15s. 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.

2,383 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 men, the other half being retained by the Corporation. The amount received by the men averaged

11d.	per week for the first quarter.
1/2	"     "     second quarter.
1/3	"     "     third quarter.
1/2	"     "     fourth quarter.

### HOSPITAL SATURDAY SOCIETY.

All workers in this department subscribe one penny weekly, the total amount raised last year being £27 5s. 11d.

## DESTRUCTORS.

## AMOUNT OF REFUSE RECEIVED AT THE DESTRUCTORS.

	Nedham Street.	Mill Lane.	Lero.	West Humber- stone.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.
Delivered by Corpora- tion           ...   ...	10,648	11,341	10,916	11,594	44,499
Delivered by Trades- men           ...   ...	234	887	721	59	1,901
Total for 1913   ...	10,882	12,228	11,637	11,653	46,400
Total for 1912   ..	11,424	12,402	12,234	11,644	47,704

J. L. FREER,

*Superintendent.*

## APPENDIX IX.

## 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 1913:—

### STREET CLEANSING.

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

			Hand-swept.	Machine-swept.
Once per week	...	...	37 miles	20 miles
Twice	"	...	7½ "	23 "
Three times per week	...	...	½ mile	10½ "
Four	"	...	¼ "	3½ "
Six	"	...	½ "	10½ "
			45¾ miles	67½ miles

Total length of roads swept, 113¼ miles.

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

The number of streets swept is 924, and they are attended to in the following manner:—number swept once a week, 523; twice per week, 228; three times per week, 62; four times weekly, 24; six times, 87. In addition, 82 streets are also swept on Sundays. Thus a length of over 241 miles is down to be swept each week.

### STREET GULLIES.

The number of gullies emptied during the year was 109,906, as compared with 105,974 in the year 1912. The actual number of gullies in the streets cleansed by this department is 9,674. The grates, therefore, are emptied about once in 4½ weeks, as against once in five weeks last year. We are, as far as possible, endeavouring to increase the attention given to gully emptying.



## COURTS AND BACKWAYS.

238 courts and alleys are down for attention, and these were swept once a week during the year.

## LOADS OF SWEEPINGS COLLECTED.

The total loads of sweepings collected during the year were:—dry, 8,469; sludge, 3,489; a total of 11,958, as compared with 13,742 in the previous year. The difference is entirely due to the amount of mud removed in 1912 owing to the wet weather experienced.

## STAFF, &amp;c.

Superintendent	...	...	...	1
Foreman	...	...	...	2
Clerk	...	...	...	1
Gangers	...	...	...	10
Sweepers	...	...	...	44
Carters	...	...	...	20
Truckmen and Youths	...	...	...	7
Paper Collectors	...	...	...	4
Street Swillers	...	...	...	3
Orderly Boys	...	...	...	8
Court Cleaners	...	...	...	2
Horsekeepers	...	...	...	2
Tipmen	...	...	...	3
Old Men	...	...	...	4
Blacksmiths, Painters, Wheelwrights, Joiner, Railway Wagon Repairer, &c.				11
Urinal Cleaners	...	...	...	4
Lavatory Attendants	...	...	...	4
Total...	...	...	...	130

The hours worked each week are the same as last year, viz.:—54 hours on day work and 48 hours on night work. The wages paid to all able-bodied men is now 28s. per week.

### SANDING AND GRAVELLING.

The number of loads of sand and gravel spread during the year was 1,644, as compared with 1,669 in the previous year. The dry season accounted for the decrease.

### SNOW REMOVAL.

We had two falls of snow last year—a heavy fall in January and a light one in March.

The total number of loads removed was 4,613, as against 2,049 in 1912. The total cost in excess of our own Staff was £501 7s. 7d., made up as follows:—Overtime (own men), £35 19s. 1d.; Highway and Sewerage Department's men, £164 8s. 11d.; "Casuals," £198 19s. 1d.; and horse hire, £102 0s. 6d.

### STREET WATERING, &c.

There were nine hired horses engaged in street watering during the past summer, and four of our own men and horses engaged in the work in dry weather.

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

1913.	Loads Spread.	Quantity in Gallons.	£	s.	d.
April ... ..	29	52,200	3	7	8
May ... ..	488	878,400	56	18	8
June ... ..	681	1,225,800	79	9	0
July ... ..	714	1,285,200	83	6	0
August ... ..	619	1,114,200	72	4	4
September ... ..	207	372,600	24	3	0
	2,738	4,928,400	319	8	8
Previous year ...	2,082	3,747,600	242	18	0

These tanks work to instructions supplied daily by this Department. The cost of watering last year was considerably more than in 1912 owing to the dry summer experienced.

Eighty-nine macadam roads were treated with  $80\frac{1}{2}$  tons of calcium chloride at a cost (exclusive of carting and spreading) of £222 11s. 9d.; 54 roads were treated with granular calcium at a cost of £157 7s. 8d.; and 35 roads treated with liquid calcium cost £65 4s. 1d.

In 1912, eighty-three roads were treated with 65 tons of calcium chloride at a total cost of £180 18s. 6d.

### ANNUAL STATEMENT OF RECEIPTS FROM CONVENIENCES.

Convenience.	Amount Received.			Amount Received Previous Year.		
	£	s.	d.	£	s.	d.
Horsefair Street (Ladies') ...	127	8	9	128	18	0
Belgrave Gate (Ladies') ...	3	9	1	4	9	1
Belgrave Gate (Gent's) ...	10	9	11	10	12	7
Humberstone Gate ...	143	1	2	132	15	2
Waterloo Street ...	3	9	10	3	7	9
Haymarket ...	6	17	11	6	8	9
Northampton Square ...	6	10	10	6	0	4
Russell Square ...	1	4	7	1	12	9
Infirmity Square ...	0	11	2	2	14	10
	£303	3	3	£296	19	3

The number of persons using the w.c.'s at Humberstone Gate Convenience was 21,764, and 12,570 persons made use of the lavatory accommodation, the amounts taken being £90 13s. 8d. and £52 7s. 6d. respectively.

In 1912, the number of persons using the w.c.'s was 20,161, and 11,701 patronised the lavatories. The sum received from the w.c.'s amounted to £84 0s. 1d., and £48 15s. 1d. was obtained from the lavatories.

At the Ladies' Convenience, Horsefair Street, the amounts taken were as follows: lavatories, £5 4s. 3d.; care of parcels and bicycles, £7 4s. 2d.; use of w.c.'s, £115 0s. 4d.; a total of £127 8s. 9d., against £128 18s. 0d. in 1912.



## ROLLING STOCK.

Street sweeping carts, 24; sludge carts, 26; market cart, 1; orderly bin cart, 1; gravel carts, 7; watering carts and vans, 23; orderly trucks, 13; gravel trucks, 8; snow ploughs, 12; channel scraper 1; snow scrapers, 5; horse brushes, 14; dray, 1; a total of 136 vehicles.

## HOSPITAL FUND.

All adults in this Department subscribe one penny weekly, and all boys one penny monthly, to the above fund; the amount subscribed last year reaching the sum of £25.

## SUMMARY OF MATERIALS HANDLED.

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

	1913.	1912.
Sweepings collected (dry) ... ..	8,469	7,412
" " (sludge) ... ..	3,489	6,019
Horse Manure collected (orderly boxes) ... ..	902	905
Market Refuse ... ..	823	858
Horse Manure, re-carted to gardens ... ..	570	379
Sweepings " " ... ..	846	740
Loads of Snow removed ... ..	4,613	2,049
Loads of Gravel spread ... ..	1,544	1,669
Loads of Water spread (own carts) ... ..	14,745	9,960
Miscellaneous ... ..	794	851
Stable Refuse to Jarvis Street ... ..	312	312
	<hr/> 37,107 <hr/>	<hr/> 31,154 <hr/>

There is an increase of 5,953 loads handled, which is entirely due to "snow removal" and "water spread." A large decrease is shown in the loads of sweepings collected, which is accounted for by the very dry season experienced in 1913, whereas the year 1912 was very wet.

H. F. WIGFIELD,

*Cleansing Superintendent.*





## APPENDIX X.



## STATISTICAL TABLES.

(For List of Tables see page vi. of Report).

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

WARD. (1)	Area in Acres. (2)	No. of Inhabited Tenements Census 1911. (3)	No. of Inhabited Tenements July, 1913. (4)	No. of Persons per Tenement Census 1911. (5)	Population Census 1911. (6)	Estimated Population, 1913. (7)
1. St. Martin's	81	602	579	4.49	2704	2599
2. Newton	153	2207	2199	4.20	9274	9235
3. St. Margaret's	274	3097	3104	4.27	13254	13254
4. Wyggeston	111	3383	3441	4.31	14594	14830
5. Latimer	250	3691	3751	4.04	17127	17404
6. Charnwood	116	1959	2004	4.32	8464	8657
7. Wycliffe	147	2725	2732	4.29	11712	11720
8. De Montfort	350	1692	1691	4.40	7458	7440
9. The Castle	370	3137	3132	4.34	13645	13592
10. Westcotes	801	5577	5866	4.22	23554	24754
11. The Abbey	891	4436	4538	4.66	20699	21147
12. Belgrave	1013	3699	3801	4.34	16081	16496
13. West Humberstone	887	3929	4126	4.74	18635	19557
14. Spinney Hill	702	5359	5544	4.42	23717	24504
15. Knighton	910	3555	3824	4.20	14931	16060
16. Aylestone	1530	2433	2556	4.68	11393	11962

TABLE 2.

Births, Deaths, and Deaths under 1 year in each Municipal Ward in 1913, and previous years.

NAME OF WARD.	1907			1908			1909			1910			1911			1912			1913		
	Deaths under 1 year.			Deaths under 1 year.			Deaths under 1 year.			Deaths under 1 year.			Deaths under 1 year.			Deaths under 1 year.			Deaths under 1 year.		
	Total Births.	Total Deaths.	Total Deaths under 1 year.	Total Births.	Total Deaths.	Total Deaths under 1 year.	Total Births.	Total Deaths.	Total Deaths under 1 year.	Total Births.	Total Deaths.	Total Deaths under 1 year.	Total Births.	Total Deaths.	Total Deaths under 1 year.	Total Births.	Total Deaths.	Total Deaths under 1 year.	Total Births.	Total Deaths.	Total Deaths under 1 year.
1. St. Martin's	57	45	11	54	51	12	51	28	6	59	40	13	49	32	7	40	32	5	51	34	7
2. Newton	287	150	40	478*	188	55	474*	179	53	255	151	40	251	166	49	235	174	44	236	170	40
3. St. Margaret's	372	215	68	357	238	64	341	194	53	339	193	63	371	217	70	369	200	59	373	249	78
4. Wyggeston	404	282	94	456	278	100	441	274	73	453	230	82	468	263	79	474	317	69	438	287	87
5. Latimer	478	267	80	480	265	73	417	229	55	468	259	80	473	255	88	478	274	60	496	233	53
6. Charnwood	181	108	27	187	100	23	168	83	10	154	101	23	137	128	23	141	103	15	164	118	23
7. Wycliffe	197	162	28	190	276	29	176	172	32	218	146	15	209	161	35	195	233	21	210	126	21
8. De Montfort	93	89	14	84	105	15	90	103	16	86	76	13	106	94	12	93	105	10	89	86	7
9. The Castle	349	185	43	314	207	41	296	218	58	305	198	48	322	203	49	298	196	40	302	215	39
10. Westcotes	534	190	44	485	174	52	471	245	50	496	219	56	486	260	46	475	264	36	452	258	42
11. The Abbey	531	264	73	487	245	67	494	274	69	546	201	59	488	218	53	498	221	40	527	226	57
12. Belgrave	454	212	47	451	206	54	394	216	42	414	170	48	349	189	31	401	214	42	377	225	45
13. West Humberstone	496	187	47	484	269	58	476	238	65	523	197	49	517	236	75	445	284	39	502	211	43
14. Spinney Hill	507	240	59	541	266	47	532	259	56	465	230	37	450	222	30	484	244	37	504	245	46
15. Knighton	280	99	16	284	135	17	270	120	18	251	113	18	270	111	8	254	127	21	263	129	16
16. Aylestone	261	111	28	274	115	30	275	129	32	295	126	34	275	117	21	302	130	27	294	129	26

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 since 1909, the figures being obtained by the courtesy of the Matron of the Maternity Hospital.

\* Includes births occurring at Maternity Hospital.



**TABLE 3.**  
**Vital Statistics in each Municipal Ward in 1913 and previous three years.**

NAME OF WARD.	1910				1911				1912				1913			
	Death Rate.	Birth Rate.	Infant Mortality.	Death Rate.	Birth Rate.	Infant Mortality.	Death Rate.	Birth Rate.	Death Rate.	Birth Rate.	Infant Mortality.	Death Rate.	Birth Rate.	Infant Mortality.	Death Rate.	Birth Rate.
1. St. Martin ...	14.0	20.7	220	11.8	18.1	142	11.5	14.4	11.5	14.4	125	13.0	19.6	137	13.0	19.6
2. Newton ...	16.4	27.7	156	17.8	27.0	195	18.7	25.2	18.7	25.2	187	18.4	25.5	169	18.4	25.5
3. St. Margaret's ...	13.9	24.4	185	16.3	27.9	188	15.1	27.7	15.1	27.7	159	18.7	28.1	209	18.7	28.1
4. Wyggeston ...	15.6	30.8	181	18.0	32.0	168	21.6	32.2	21.6	32.2	145	19.3	29.5	198	19.3	29.5
5. Latimer ...	14.8	26.9	170	14.8	27.6	186	15.8	27.7	15.8	27.7	125	13.3	28.4	106	13.3	28.4
6. Charnwood ...	11.3	17.3	149	15.0	16.1	167	12.1	16.6	12.1	16.6	106	13.6	18.9	140	13.6	18.9
7. Wycliffe ...	14.2	19.2	68	14.9	17.8	167	20.0	16.7	20.0	16.7	107	11.7	17.9	100	11.7	17.9
8. De Montfort ...	10.2	11.5	151	12.6	14.2	113	14.4	12.8	14.4	12.8	107	11.5	11.9	78	11.5	11.9
9. The Castle ...	13.8	21.3	157	14.8	23.5	152	14.4	21.9	14.4	21.9	134	15.8	22.2	129	15.8	22.2
10. Westcotes ...	8.8	19.9	112	11.0	20.6	94	10.8	19.4	10.8	19.4	75	10.4	18.2	92	10.4	18.2
11. The Abbey ...	9.4	25.7	108	10.5	23.5	108	10.5	23.7	10.5	23.7	80	10.6	24.9	108	10.6	24.9
12. Belgrave ...	10.2	24.9	115	11.7	21.7	88	13.1	24.5	13.1	24.5	104	13.6	22.8	119	13.6	22.8
13. West Humberstone ...	11.0	25.2	93	13.2	27.7	145	14.6	23.0	14.6	23.0	87	11.3	25.6	85	11.3	25.6
14. Spinney Hill ...	9.2	18.4	79	9.3	18.9	66	10.0	19.8	10.0	19.8	76	9.9	20.5	91	9.9	20.5
15. Knighton ...	7.0	15.7	71	7.4	18.0	29	8.1	16.2	8.1	16.2	82	8.0	16.3	60	8.0	16.3
16. Aylestone ...	10.7	25.2	115	10.2	24.1	76	10.9	25.5	10.9	25.5	89	10.7	24.5	88	10.7	24.5
Whole Borough ...	11.29	21.66	126.4	13.40	22.94	130.0	13.59	22.59	13.59	22.59	109.0	13.36	22.85	119.3	13.36	22.85

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, 966; 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 since 1909 been distributed, the figures being obtained by the courtesy of the Matron.

**TABLE 4. MUNICIPAL WARDS.****Average Rates for Five Years, 1909-1913.**

WARD. (1)	Average Rates.		
	Death-rate. (2)	Birth-rate. (3)	Infant Mortality. (4)
1. St. Martin's ...	12.0	18.1	148
2. Newton ...	18.2	25.9	190
3. St. Margaret's ...	15.6	26.5	179
4. Wyggeston ...	18.7	31.0	171
5. Latimer ...	14.3	26.9	143
6. Charnwood ...	12.2	17.5	124
7. Wycliffe ...	15.7	18.1	124
8. De Montfort ...	12.5	12.5	125
9. The Castle ...	14.8	21.9	153
10. Westcotes ...	10.2	19.4	95
11. The Abbey ...	10.8	24.3	108
12. Belgrave ...	12.3	23.5	106
13. West Humberstone ...	11.7	26.4	109
14. Spinney Hill ...	9.7	19.7	83
15. Knighton ...	7.6	16.7	61
16. Aylestone ...	10.7	24.6	96
Whole Borough ...	13.36	22.85	119.3

## MUNICIPAL WARDS. TABLE 5.

Zymotic-rates, Diarrhœa-rates and Phthisis-rates  
in 1913.

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

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 1913.

WARD.	(1)	0 to 1 year.	1 to 5.	5 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.
No. 1. St. Martin's...	...	7	3	14	10	34	...	...	1	...	...	...	1	2	...	...	4	25	...	32
" 2. Newton ...	...	40	12	61	57	170	...	4	...	1	2	...	3	10	5	20	40	92	3	160
" 3. St. Margaret's ...	...	78	17	91	63	249	...	...	...	...	3	...	1	6	15	26	32	159	11	243
" 4. Wyggeston ...	...	87	26	97	77	287	...	...	...	3	...	...	3	6	35	29	50	164	3	281
" 5. Latimer ...	...	53	22	85	73	233	...	3	1	1	3	...	3	11	12	28	37	141	4	222
" 6. Charnwood ...	...	23	7	46	42	118	...	1	...	3	1	...	1	6	...	12	23	72	3	112
" 7. Wycliffe ...	...	21	7	60	114	202	...	2	...	...	1	...	3	6	2	12	25	154	3	196
" 8. De Montfort ...	...	7	2	34	43	86	...	...	1	...	...	...	...	1	...	4	14	66	1	85
" 9. The Castle ...	...	39	13	51	72	215	...	5	...	1	1	...	1	8	8	23	32	139	5	207
" 10. Westcotes ...	...	42	14	102	100	258	...	1	1	...	4	...	5	11	1	22	42	175	7	247
" 11. The Abbey ...	...	57	15	87	67	226	...	...	1	1	2	...	3	7	4	19	44	147	5	219
" 12. Belgrave ...	...	45	19	81	80	225	...	3	...	...	...	...	3	6	8	23	30	155	3	219
" 13. West Humberstone...	...	43	19	130	90	282	...	4	...	...	1	...	...	5	7	31	41	194	4	277
" 14. Spinney Hill ...	...	46	19	92	88	245	...	1	1	1	1	...	...	4	3	28	39	165	6	241
" 15. Knighton ...	...	16	2	54	57	129	...	...	1	...	...	1	2	4	...	11	12	101	1	125
" 16. Aylestone ...	...	26	9	49	45	129	...	5	...	...	...	...	1	6	1	12	20	89	1	123
Union Workhouse ...	...	...	1	3	7	11	...	...	...	...	...	...	...	...	...	...	1	10	...	11
Borough Asylum ...	...	...	...	42	29	71	...	...	...	...	...	...	...	...	...	6	2	63	...	71
Workhouse deaths at Poor Law Infirmary ...	...	1	2	16	46	65	...	...	...	...	...	...	...	...	...	8	11	46	...	65

Deaths in Institutions have been subtracted from the Wards in which the Institutions are situated; and (except in the case of the Workhouse and Asylum) have been distributed to the Wards to which they belong. Deaths of persons transferred from the Workhouse to the Poor Law Infirmary, however, have not been distributed, as the home addresses of such persons are not obtainable.



TABLE 7.

Vital Statistics of 15 Great Provincial Towns of over 100,000 Population  
(arranged in Alphabetical order) for the year 1913.

TOWNS.	Estimated Population 1913	Death-rate (Corrected for Institutions only).	Birth-rate.	Deaths under 1 year per 1000 Births.	Death-rates per 1000 persons living from :—					
					Scarlet Fever.	Pulmonary Tuber- culosis.	Pneumonia.	Bronchitis.	Cancer.	Diarrhea and Enteritis (all ages).
Birmingham	859,644	14.9	27.3	129	0.20	1.19	1.13	1.19	1.02	1.11
Bradford	290,540	15.11	19.62	127	0.03	0.99	0.86	1.39	1.18	0.74
Edinburgh	320,300	15.6	19.5	101	0.11	1.13	1.14	0.87	1.24	0.29
Glasgow	1,021,500	17.2	27.9	129	0.1	1.4	1.7	1.2	1.0	0.70
Hull	287,032	14.6	27.5	130	0.00	1.04	1.1	1.3	0.9	1.17
Leeds	457,295	15.7	23.6	13.6	0.03	1.20	1.25	1.40	1.21	0.85
<b>Leicester</b>	<b>230,970</b>	<b>13.36</b>	<b>22.85</b>	<b>119</b>	<b>0.03</b>	<b>1.30</b>	<b>1.03</b>	<b>0.92</b>	<b>1.09</b>	<b>0.66</b>
Liverpool	756,553	18.0	29.8	132	0.07	1.5	1.7	1.7	0.9	1.20
Newcastle-on-Tyne	271,295	17.0	27.5	122	0.08	1.2	1.2	1.1	1.0	0.70
Nottingham	264,735	14.31	22.64	131	0.06	1.13	1.13	1.32	1.18	0.84
Portsmouth	241,256	12.23	24.4	90	0.08	0.96	0.67	0.90	0.92	0.59
Salford	233,849	16.3	26.2	143	0.1	1.4	1.7	1.8	1.0	0.80
Sheffield	471,662	15.8	28.2	129	0.16	1.17	1.62	1.36	0.95	1.01
Stoke-on-Trent	239,284	18.7	31.3	169	0.01	1.2	1.4	2.0	0.75	1.33
West Ham	294,223	14.42	30.51	107	0.05	1.11	1.26	1.42	0.82	1.28

TABLE 8.

Deaths in each Ward from Phthisis during the Ten Years, 1904-1913.

No. OF WARD.	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	Total Deaths from Phthisis in 10 years.	Average Annual Phthisis Rate.
1. St. Martin's	7	5	8	2	4	1	2	5	0	1	35	1.34
2. Newton	18	20	23	12	17	15	16	26	19	20	186	2.01
3. St. Margaret's	27	24	29	20	19	13	14	23	26	26	221	1.66
4. Wyggeston	35	30	31	26	31	26	27	20	28	29	283	1.90
5. Latimer	35	26	25	32	24	24	22	26	21	28	263	1.51
6. Charnwood	16	17	19	15	11	9	10	12	6	12	127	1.46
7. Wycliffe	14	15	15	24	18	22	11	7	11	4	141	1.31
8. De Montfort	12	9	14	5	3	4	3	6	5	4	65	.87
9. The Castle	21	19	29	19	19	12	19	25	22	23	208	1.53
10. Westcotes	25	18	23	12	17	31	25	31	30	22	234	.94
11. The Abbey	19	19	25	35	33	21	26	17	19	19	233	1.10
12. Belgrave	13	13	26	20	18	24	18	12	17	23	184	1.11
13. West Humberstone	8	2	11	21	13	23	24	33	32	25	192	1.02
14. Spinney Hill	25	15	20	18	21	29	27	20	17	28	220	.89
15. Knighton	10	7	9	6	8	15	5	6	10	11	87	.54
16. Aylestone	24	14	17	6	19	12	16	9	9	12	138	1.15
Union Workhouse	33	23	10	...	...	...	...	...	...	...	66	...
Borough Asylum	11	12	5	2	12	9	11	5	2	6	75	...
Poor Law Infirmary (from Workhouse)	...	...	...	...	...	...	5	4	10	8	27	...
Transferable death (Ward not known)	...	...	...	...	...	...	...	1	...	...	1	...
TOTAL	353	288	339	275	287	290	281	288	284	301	2986	1.29
General Infirmary	6	6	9	2	2	4	6	7	1	3	46	...
Poor Law Infirmary	...	...	...	36	30	53	36	45	53	43	296	...

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 Infirmary 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 68 years, 1846-1913.

Year.	Estimated Population.	Marriage Rate.	Birth Rate.	Death Rate.	Zymotic (Death) Rate.	Infant Mortality.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
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	208.9
1866	81,197	24.94	42.02	23.33	3.37	205.1
1867	83,970	22.18	41.66	24.59	4.31	226.2
1868	86,837	22.62	41.32	28.15	7.88	256.6
1869	89,804	21.12	41.87	25.60	5.10	229.0
1870	92,873	21.22	40.90	27.33	7.24	235.2
1871	95,823	23.06	41.55	26.07	5.83	252.4
1872	98,251	23.90	42.36	26.95	8.23	231.3
1873	100,741	24.00	44.14	23.83	5.05	208.4
1874	103,294	20.90	42.34	24.29	3.83	222.6
1875	105,913	22.36	40.31	27.28	6.56	242.0
1876	108,599	22.64	44.02	23.58	5.26	199.9
1877	111,355	21.24	42.68	23.48	3.21	188.7
1878	114,182	19.38	41.85	21.89	4.18	205.2
1879	117,083	19.48	40.11	22.64	3.06	187.3
1880	120,059	19.60	40.04	24.73	6.48	220.1
1881	123,146	18.66	38.26	21.55	4.45	204.8
1882	126,275	19.02	38.46	20.04	3.23	194.4



TABLE 9.—Continued.

Year.	Estimated Population.	Marriage Rate.	Birth Rate.	Death Rate.	Zymotic (Death) Rate.	Infant Mortality.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1883	129,483	18.64	37.26	19.18	2.56	190.7
1884	132,773	17.34	36.53	22.12	4.20	233.5
1885	136,147	16.36	34.39	19.39	3.32	193.5
1886	139,606	17.46	34.80	19.62	2.81	216.5
1887	143,153	16.60	32.79	19.10	3.05	215.8
1888	146,790	15.48	32.79	18.16	2.45	204.7
1889	150,520	16.08	31.82	16.63	2.30	209.6
1890	154,344	16.52	30.44	17.79	2.18	203.7
1891*	177,353†	19.16	33.58	21.22	3.39	214.5
1892‡	180,550	16.71	32.21	18.00	2.57	197.7
1893	183,900	15.85	32.65	19.72	3.56	220.4
1894	187,250	16.70	32.01	14.57	1.93	161.9
1895	190,600	16.41	31.28	17.41	3.01	206.6
1896	194,100	17.52	32.00	16.88	2.98	185.7
1897	197,600	16.78	31.63	17.98	1.97	206.0
1898	201,250	17.78	30.56	17.29	3.41	191.1
1899	204,900	17.58	30.61	18.18	3.41	196.0
1900	208,600	17.30	29.75	17.87	3.60	174.1
1901	212,498	17.17	29.03	15.71	2.34	178.0
1902§	213,974	16.36	29.50	14.82	1.56	153.3
1903	215,461	16.56	27.93	14.22	1.48	161.3
1904	216,958	17.00	27.56	15.05	2.01	161.1
1905	218,464	17.26	26.95	14.01	1.69	146.5
1906	219,980	16.16	26.66	15.18	2.46	166.2
1907	221,508	16.67	24.98	13.48	.96	130.1
1908	223,046	16.03	25.46	13.98	1.62	129.7
1909	224,595	15.75	24.18	14.03	1.37	126.6
1910	226,154	17.12	23.79	12.40	.76	126.3
1911	227,634	16.61	22.94	13.40	1.41	130.0
1912	229,294	16.36	22.59	13.59	.92	109.0
1913	230,970	16.46	22.85	13.36	.75	119.3

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 Fourth 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 1913 and previous years.**

	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Zymotic Diseases (except Diarrhoea) ...	222	205	177	171	291	146	250	212	118	166	206	89
Diarrhoea ... ..	137	133	289	211	258	73	120	106	70	167	24	105
Euteritis ... ..	42	52	35	32	25	58	63	29	27	52	21	49
Cancer ... ..	171	192	213	180	168	199	214	195	200	236	226	252
Phthisis ... ..	272	266	353	288	339	275	287	290	281	288	284	301
Apoplexy and Paralysis ...	207	179	201	165	185	150	169	170	170	129	168	169
Convulsions ... ..	120	117	107	89	98	85	103	83	72	59	60	60
Heart Disease ... ..	343	322	301	313	322	369	312	357	328	344	394	369
Bronchitis and Pneumonia ...	480	421	405	397	422	461	422	535	389	374	509	453
Premature Birth ... ..	151	154	111	147	156	133	113	106	125	109	115	116
Atrophy and Debility ... ..	191	168	187	173	160	119	121	132	151	122	99	113
Old Age ... ..	214	218	240	247	297	242	205	214	213	216	193	187
Violence ... ..	110	88	87	84	96	85	88	86	90	88	115	80
Ill-defined and not specified causes ...	53	45	49	48	85	31	61	40	40	60	34	43

**TABLE 11.**  
**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)		
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
1912	52,373	1876	5182	3118	565	846	1080	600	212
1913	52,888	1901	5278	3088	630	836	1078	637	174

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 sixteen years.**

TABLE 12.

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

Year.	(1) Deaths of Children under one year per 1000 Births, = Infant Death-rate.	(2) Deaths of Children under one year of age per 1000 of Total Deaths.	(3) Deaths of Children under five years of age per 1000 of Total Deaths.	(4) Deaths of Persons over sixty per 1000 of Total Deaths.	(5) Deaths in Public Institutions per 1000 of Total Deaths.
1898	191	311	489	222	116
1899	196	330	458	237	145
1900	174	290	436	231	156
1901	178	328	429	247	165
1902	153	327	410	261	145
1903	161	323	426	311	194
1904	161	298	384	274	184
1905	146	281	374	292	223
1906	166	296	418	260	199
1907	130	240	330	310	220
1908	129	236	355	305	162
1909	126	218	319	340	192
1910	126	242	317	319	189
1911	130	222	316	339	191
1912	109	181	271	346	192
1913	119	204	270	349	206

TABLE 13.

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

DISEASE.	1908		1909		1910		1911		1912		1913	
	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	737	120.7	688	126.6	680	126.3	679	130.0	565	109.0	630	119.3
Atrophy and Debility	113	19.8	117	21.5	147	27.3	111	21.2	93	17.9	106	20.0
Diarrhoea	103	18.1	91	16.7	58	10.7	146	27.9	21	4.0	91	17.2
Convulsions	86	15.1	70	12.8	63	11.7	52	9.9	43	8.2	48	9.0
Lung Diseases	88	15.4	91	16.7	103	19.1	66	12.6	107	20.6	91	17.2
Premature Birth	113	19.8	106	19.5	125	23.2	109	20.8	115	22.1	116	21.9
Tubercular Diseases	31	5.4	22	4.0	24	4.4	21	4.0	22	4.2	13	2.4
Measles	34	5.9	23	4.2	3	.5	19	3.6	26	5.0	7	1.3
Whooping Cough	19	3.3	26	4.7	32	5.9	19	3.6	20	3.8	4	0.7



TABLE 14.

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

DISEASE.	1910				1911				1912				1913			
	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 ...	208	·83	7·4		367	1·6	12·0		254	1·1	8·1		220	0·9	7·1	
Parasitic ...	0	·00	·00		0	·00	·00		0	·00	·00		0	·00	·00	
Dietetic ...	6	·02	·2		7	·03	·2		8	·03	·25		11	·04	·35	
Constitutional ...	613	2·4	21·8		654	2·8	21·4		656	2·8	21·0		714	3·0	23·1	
Local ...	1341	5·4	47·7		1412	6·2	46·2		1609	7·0	51·6		1571	6·8	50·8	
Developmental ...	508	2·0	18·1		463	2·0	15·1		441	1·9	14·1		449	1·9	14·5	
Violence ...	90	·3	3·2		88	·3	2·8		115	·50	3·6		80	·34	2·5	
Ill-defined ...	40	·1	1·4		60	·2	1·9		34	·14	1·0		43	·18	1·3	

\* Calculated on the unrevised population.

**TABLE 15.**  
**Illegitimacy in 30 large towns, 1913.**

Name of Town.	Population.	Number of Births.	Birth-rate.	Number of Illegitimate Births.	Illegitimate Birth-rate per 100,000 population.
Birkenhead ...	135,740	3,907	28·7	124	91
Blackburn ...	133,931	2,915	21·7	127	94
Bolton ...	183,879	3,999	21·7	157	85
Bradford ...	290,540	5,811	19·6	311	107
Brighton ...	133,096	2,485	18·3	188	141
Burnley ...	109,021	2,488	22·8	138	126
Cardiff ...	186,554	4,900	26·2	197	105
Coventry ...	115,064	2,999	26·0	60	52
Halifax ...	101,800	1,871	18·3	100	98
Huddersfield ...	110,882	2,196	19·5	99	87
Hull ...	287,032	7,904	27·5	365	127
Leicester ...	230,970	5,278	22·8	239	103
Liverpool ...	756,553	22,555	29·8	756	99
Manchester ...	731,556	19,052	25·6	769	105
Middlesbrough ...	104,767	3,361	31·1	139	132
Newcastle-on-Tyne ...	271,295	7,480	27·5	325	110
Norwich ...	123,288	2,718	22·0	135	109
Nottingham ...	264,735	6,102	22·6	403	152
Oldham ...	149,936	3,465	23·2	166	110
Plymouth ...	113,083	2,634	23·2	146	129
Portsmouth ...	241,256	5,989	24·4	244	101
Rhondda ...	162,137	5,505	34·0	147	90
Salford ...	233,849	6,430	26·2	196	83
Sheffield ...	471,662	13,290	28·2	614	130
South Shields ...	110,513	3,495	31·1	125	113
Southampton ...	122,412	2,957	23·8	115	93
Stockport ...	112,480	2,606	23·1	94	84
Stoke-on-Trent ...	239,284	7,643	31·8	374	156
Sunderland ...	152,380	4,792	31·4	163	106
Swansea ...	118,900	3,332	28·0	74	62

Average illegitimate rate = 106.

Leicester stands fourteenth in above list.

**TABLE 16.**  
**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
Census, 1911	...	227,922	4,674	22,833	22,343	22,002	21,946	40,867	35,460	26,619	18,273	11,112	4,731	990

**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	·31
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	·36
Census, 1911	...	100·0	2·0	10·0	9·8	9·6	9·6	17·9	15·6	11·7	8·0	4·8	2·0	·44

\*Abstracted from the Census Returns.

**TABLE 17.**  
**Showing Number of Empties in Leicester (supplied by Mr. W. Earp, Chief Assistant Overseer).**

DATE.	Houses.	Cottages.	Warehouses.	Workshops, &c.		Offices.	Total.
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	660	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
July 2, "	447	810	60	78		84	1,479
January 1, 1913	353	521	43	70		57	1,044
July 1, 1913	305	431	42	77		65	920
January 6, 1914	203	258	32	52		55	600



**TABLE 18.**  
**Showing mean Weekly Temperature of Earth at Depth**  
**of 1-ft. and 4-ft for the year 1913.**

Week ending.					1 foot.	4 feet.	Number of Deaths per week from Diarrhœa.
May	10	...	...	...	49.0	48.5	...
"	17	...	...	...	51.7	49.2	2
"	24	...	...	...	51.5	50.0	2
"	31	...	...	...	58.5	51.7	1
June	7	...	...	...	58.2	54.2	...
"	14	...	...	...	55.7	54.2	...
"	21	...	...	...	60.0	54.2	...
"	28	...	...	...	58.2	55.7	1
July	5	...	...	...	60.0	56.7	...
"	12	...	...	...	57.5	56.5	...
"	19	...	...	...	59.7	56.7	1
"	26	...	...	...	58.5	57.0	4
Aug.	2	...	...	...	59.0	57.2	1
"	9	...	...	...	58.5	57.5	2
"	16	...	...	...	59.2	57.5	8
"	23	...	...	...	59.5	57.5	7
"	30	...	...	...	59.3	58.0	3
Sept.	6	...	...	...	58.5	58.0	10
"	13	...	...	...	57.7	57.7	11
"	20	...	...	...	56.7	57.0	13
"	27	...	...	...	57.0	56.5	6
Oct.	4	...	...	...	57.7	57.0	4
"	11	...	...	...	54.7	56.5	11
"	18	...	...	...	54.0	55.5	4
"	25	...	...	...	54.0	55.0	4

**TABLE 19.**

**Monthly Rainfall and Temperature during 1913, as  
recorded at the Borough Asylum.**

Figures supplied by DR. J. F. DIXON.

MONTH.	Rainfall in Inches.	Mean Temperature Fahr.
January ... ..	3.02	38.5°
February ... ..	0.87	39.4°
March ... ..	3.78	43.83°
April ... ..	2.64	45.6°
May ... ..	1.72	51.45°
June ... ..	1.24	57.45°
July ... ..	1.08	57.90°
August ... ..	1.19	58.7°
September ... ..	2.06	56.93°
October ... ..	2.88	51.33°
November ... ..	2.74	45.6°
December ... ..	.87	40.2°
Total Rainfall in 1913 ... .. 24.09		
Rainfall in previous years:—		
1910 ... ..	26.75 inches.	
1911 ... ..	22.00 ..	
1912 .. ...	35.07 ..	

**TABLE 20.**  
**List of Registered Midwives practising in Leicester**  
**(January, 1914).**

Name.	Registered No.	Address.
*ASTLE, ALICE ... ..	29,261	16, Glenfield Road.
BECK, ANN ... ..	3,394	9, Spinney Hill Road.
†BLYTH, ELIZA ... ..	2,760	19, Baggrave Street.
BRANT, ELIZABETH ... ..	9,818	41, Dashwood Road.
*BUCKLAR, A. A. ... ..	25,486	87, Laurel Road.
†CASEY, M. M. G. ... ..	2,388	116 Wordsworth Road.
CHAMBERS, PRISCILLA ... ..	2,906	31, Upper Charles Street.
‡*COLEMAN, BEATRICE M. ... ..	36,726	16, Westbourne Street.
‡*FISHER, ROSETTA ... ..	30,582	15, Southgate Street.
‡*FOLWELL, MARIA ... ..		15, Southgate Street.
FREER, MARY ANN ... ..	406	52, Marjorie Street.
†GARDEN, AMY D. ... ..	571	16, Glenfield Road.
GAWTHORNE, FANNY ... ..	30,974	45, Aylestone Road.
*GOURLAY, JESSIE ... ..	32,667	99 Montague Road.
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.
‡*HARRATT, LIZZIE ANNIE ... ..	23,568	27, Ross's Walk.
*HUTCHINS, ADA ... ..	33,774	2, Shaftesbury Avenue.
LAPPAGE, MARY JANE ... ..	7,772	21, Dunton Street.
MONK, ELIZABETH ... ..	16,723	35, Guthlaxton Street.
MORRIS, ELIZABETH ... ..	799	302, Humberstone Road.
‡*NOON, L. A. ... ..	30,688	1, Spence Street.
POULTON, EMMA ... ..	1,258	210, Gresham Street.
RUSSON, EMMA ... ..	6,585	15, Moore's Road.
SHELLEY, MARGARET ... ..	57	71, Stanley Street.
SEARE, MARIE A. ... ..	11,811	42, Justice Street.
*SIMISTER, E. E. KEMSRY ... ..	28,446	98, St. Saviour's Road.
WESTON, ADELAIDE ... ..	689	105, Grasmere Street.
WOODWARD, CHARLOTTE ... ..	1,039	180, Grasmere Street.
WALKER, EMMA ... ..	4,330	11, Abbey Park Road.
*WALKER, LILY ... ..	34,040	11, Abbey Park Road.
TOTAL	33.	

\* Holds Certificate of Central Midwives' Board.

† Holds Certificate of London Obstetrical Society.

‡ Trained at Maternity Hospital, Causeway Lane.

TABLE 21.

Showing the number of Deaths from Zymotic Diseases in the Fourteen Years, 1900-1913.

DISEASE	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Small Pox ...	0	0	5	21	4	0	0	0	0	0	0	0	0	0
Measles ...	49	17	73	74	32	53	80	60	167	109	13	71	96	31
Scarlet Fever ...	28	6	11	15	4	36	52	44	29	23	15	9	13	7
Diphtheria ...	316	155	29	28	6	11	27	17	9	14	11	21	21	19
Whooping Cough ...	46	77	67	36	89	50	112	14	30	51	53	43	50	11
Enteric Fever ...	26	20	12	13	14	9	14	5	8	5	10	11	7	1
Diarrhea ...	286	224	137	133	289	211	258	73	120	106	70	167	23	105
Erysipelas ...	5	5	6	9	6	3	2	4	5	6	3	5	5	5
Influenza ...	41	13	14	6	17	2	0	17	15	19	13	10	15	19
Puerperal Fever ...	8	4	5	3	5	7	4	2	2	4	3	7	4	2
TOTALS ...	805	521	359	338	466	382	549	236	385	337	191	344	234	200



**TABLE 22.**  
**Showing the number of Notification Certificates for the Principal Zymotic Diseases for the**  
**Fourteen Years, 1900-1913.**

DISEASE.	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Small Pox ...	0	4	18	406	307	5	1	0	0	0	0	0	0	0
Scarlet Fever ...	839	758	826	533	554	1117	2301	1710	1206	1768	1013	1309	1298	548
Diphtheria ...	1452	1034	320	211	97	173	315	178	123	140	114	246	220	185
Enteric Fever ...	117	126	81	58	64	68	67	47	43	36	36	47	56	21
Erysipelas ...	306	181	225	214	239	253	158	166	162	196	156	143	170	192
Puerperal Fever ...	26	12	15	11	16	20	10	10	12	8	13	19	10	18
Phthisis ...	...	...	...	156	182	225	215	212	197	499	354	514	827*	872
Other forms ...	...	...	...	...	...	...	...	...	...	...	...	...	...	329†
Ophthalmia ...	...	...	...	...	...	...	...	...	...	...	...	...	...	15
TOTALS ...	2740	2115	1476	1389	1473	1861	3067	2323	1743	2647	1686	2278	2581	2180

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."

\*421 of these were private cases, 226 from Hospitals, 154 Poor Law, 3 from Schools, and 20 from Tuberculosis Dispensary not otherwise notified.

†First became notifiable February, 1913.

**TABLE 23.**  
**Showing Births, Vaccinations, and Smallpox in**  
**Leicester, 1838-1913.**

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	1†
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	...	...	6†
1848	2003	...	31	...	1885	4683	1842	...	...	8
1849	2171	1613	66	...	1886	4863	1122	...	...	1
1850	2239	1240	5	...	1887	4695	471	...	...	10†
1851	2437	1292	2	...	1888	4814	314	...	...	22†
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	320
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	307*
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	...	...
					1912	5182	447	3173	...	...
					1913	5278	436	3391	...	...

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.

\* These are the revised figures for the 12 months ending Dec. 31st, 1904. In the corresponding Table appearing in the Report for 1911 the figure is given as 321. The latter is the correct figure for the epidemic of 1903-1904, which begins in December, 1903.

† These figures have been corrected (for 1912 report) after reference to original reports.

**TABLE 24.**  
**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)
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
1912	14	1298	801	6.1	283.0	174.6	61.7	1.0
1913	7	548	384	3.0	118.6	83.1	70.0	1.2

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 25.**  
**Leicester. Scarlet Fever.—"Return" Case Statistics.**

YEAR.	1907	1908	1909	1910	1911	1912	1913
Total Cases Notified	1,710	1,206	1,768	1,013	1,309	1,298	548
Number of Patients Discharged from Hospital	1,209	851	1,165	778	855	824	394
Average Days Stay	47.1	48.1	37.9	38.6	30.8	36.9	40.7
Number of "Infecting" Cases	75	57	83	53	47	50	13
Percentage of "Infecting" Cases	6.2	6.7	7.1	6.8	5.5	6.0	3.3
Number of Deaths in Hospital	36	19	17	13	6	10	6
Case Mortality in Completed Cases	2.9	2.2	1.43	1.67	.70	1.2	1.5

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 26.**  
**Diphtheria Statistics, Leicester, 1858-1913.**

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.
1858	4	61	1880	23	87	192	
1859	10	150	1881	11	63	89	
1860	2	30	1882	5	38	40	
1861	4	58	1883	6	26	46	
1862	2	28	1884	11	84	83	
1863	7	93	1885	14	55	102	
1864	2	26	1886	4	51	29	
1865	3	38	1887	13	81	90	
1866	3	37	1888	13	67	89	
1867	3	36	1889	10	84	66	
1868	10	115	1890	11	75	71	
1869	9	110	1891	14	65	78	
1870	11	118	1892	10	67	55	
1871	7	74	1893	20	139	108	
1872	2	20	1894	12	66	64	
1873	7	69	1895	36	75	188	
1874	8	77	1896	53	170	273	
1875	7	66	1897	73	229	374	
1876	10	92	1898	63	218	313	
1877	9	80	1899	222	892	1083	
1878	5	44	1900	316	1452	1514	
1879	11	94	1901	155	1034	729	592
			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
			1912	21	220	91	143
			1913	19	187	82	133

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 27.**  
**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. <sup>†</sup> (6)
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
1912	56	7	·24	·03	39
1913	21	1	·09	·00	12

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 28.**  
**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	1·05	
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	
1912	96	·41	
1913	31	·13	

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

**TABLE 29.**  
**Diarrhœa and Enteritis Statistics.**

Year.	No. of Diarrhœa Deaths.	No. of Enteritis Deaths.	Diarrhœa <i>plus</i> Enteritis.		Diarrhœa <i>plus</i> 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.	
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
1912	24	21	45	0.19	34	6.5	57.6
1913	105	49	154	0.66	128	24.2	57.4



**TABLE 30**  
**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)
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
1912	284	123	89	38	373	162
1913	301	130	82	35	383	165

\* 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 31.

## Age and Sex Distribution of Deaths from Phthisis in 1913.

Age Period.	Males.	Females.	Total.
0 to 5 ...	3	1	4
5 " 10 ...	...	2	2
10 " 20 ...	8	12	20
20 " 30 ...	40	50	90
30 " 40 ...	42	34	76
40 " 50 ...	34	20	54
50 " 60 ...	32	4	36
60 " 70 ...	8	7	15
70 " 80 ...	2	2	4
Over 80 ...	...	...	...
Total ...	169	132	301

## Occupations of Persons Dying from Phthisis in 1913.

	M.	F.		M.	F.
SHOE TRADE:					
Finishers ...	20	...	Tram Conductors ...	3	...
Clickers ...	11	...	Porters ...	3	...
Riveters ...	9	...	Vanmen ...	6	...
Pressmen ...	6	...	Stokers ...	1	...
Machinists ...	1	4	Hawkers ...	3	...
Various ...	16	3	Gardeners ...	2	...
Total in Shoes ...	63	7	Music Teacher ...	...	1
			Printers ...	4	...
			Various ...	28	8
Hosiery Trade* ...	12	23	Occupations not stated		
Labourers ...	12	...	(includes Married		
Clerks ...	7	1	Women, Widows,		
Tailoring Trade ...	3	4	Children, and		
Painters ...	2	...	Persons of no		
Mechanics ...	5	...	occupation) ...	12	87
Cigar Hands ...	...	1			
Cardboard Box Hands	1	...	Total ...	169	132
Bakers... ...	2	...			

\* 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 32.**  
**Cancer Statistics for past Twenty-seven Years.**

YEAR.	40 to 60 Years.				Over 60 Years.				Total of Cancer Deaths all ages.		Cancer death-rate per 100 000 of Population.
	Males.		Females.		Males.		Females.		Males.	Females.	
	Cancer Deaths.	Percentage of Total Deaths.	Cancer Deaths.	Percentage of Total Deaths.	Cancer Deaths.	Percentage of Total Deaths.	Cancer Deaths.	Percentage of Total Deaths.			
1887	7	3.7	23	12.1	19	7.2	24	9.2	29	51	55
1888	11	6.3	23	12.9	7	2.7	16	5.1	21	45	44
1889	13	6.7	25	15.0	16	6.4	19	7.3	32	46	51
1890	10	4.8	25	12.2	12	3.8	23	6.5	23	56	51
1891	8	4.1	34	17.5	8	2.6	20	5.2	19	59	43
1892	14	6.2	28	14.0	18	5.8	22	6.0	38	57	52
1893	9	3.6	43	17.0	17	5.2	39	9.2	28	90	64
1894	11	5.2	34	17.3	13	5.0	29	9.3	28	70	52
1895	14	5.9	38	16.0	12	3.2	35	8.5	29	81	57
1896	18	8.0	39	16.1	14	4.7	23	5.8	33	69	52
1897	19	8.4	55	21.5	28	7.8	36	9.2	51	102	77
1898	24	9.7	31	15.2	23	6.2	29	7.1	50	66	57
1899	20	7.5	35	13.5	39	9.1	35	7.4	62	77	67
1900	25	8.1	41	13.8	24	5.9	33	7.2	57	83	67
1901	26	9.9	46	18.4	24	6.2	48	10.8	54	107	75
1902	21	8.0	51	19.9	39	9.8	43	9.9	63	108	79
1903	31	12.4	47	20.1	29	7.6	62	13.9	70	122	89
1904	35	12.2	43	16.4	51	11.3	63	12.4	94	119	98
1905	24	9.6	52	20.7	45	10.7	52	10.9	71	109	82
1906	22	7.4	34	15.9	40	9.8	55	11.8	69	99	76
1907	28	10.5	64	23.5	41	8.0	52	11.1	73	126	89
1908	29	9.5	50	20.2	53	12.2	60	11.5	90	124	95
1909	30	9.9	33	12.2	39	8.5	74	11.9	80	115	86
1910	43	15.2	42	16.6	44	10.5	53	11.6	94	106	88
1911	27	10.5	67	25.0	50	10.9	78	13.4	80	156	103
1912	30	9.1	60	21.1	53	10.2	60	10.7	86	140	98
1913	43	12.8	57	20.5	68	12.6	62	11.4	118	134	109



**TABLE 33.**  
**CANCER DEATHS, 1913.**

**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.	
Pylorus ... ..	...	...	3	1	1	2	4	3	7
Liver ... ..	2	...	3	6	8	10	13	16	29
Stomach ... ..	...	3	7	4	14	10	21	17	38
Intestines ... ..	...	2	6	3	2	8	8	13	21
Uterus ... ..	...	2	...	8	...	4	...	14	14
Breast ... ..	1	3	...	15	...	10	1	28	29
Rectum ... ..	1	...	5	3	12	4	18	7	25
Lung ... ..	...	...	...	...	1	...	1	...	1
Bladder ... ..	...	...	2	1	3	1	5	2	7
Tongue ... ..	...	...	6	...	5	...	11	...	11
Hip ... ..	...	1	1	...	...	...	1	1	2
Larynx ... ..	...	...	1	1	4	...	5	1	6
Ovary ... ..	...	2	...	3	...	2	...	7	7
Æsophagus ... ..	...	...	1	1	1	1	2	2	4
Kidney ... ..	...	...	...	2	1	1	1	3	4
Pelvis ... ..	...	...	...	...	...	1	...	1	1
Pancreas ... ..	...	...	2	...	1	...	3	...	3
Peritoneum ... ..	...	...	...	3	...	...	...	3	3
Eye ... ..	...	...	1	1	1	1	2	2	4
Jaw ... ..	...	...	2	1	2	1	4	2	6
Mouth ... ..	...	...	...	...	2	...	2	...	2
Thyroid ... ..	...	...	...	...	1	1	1	1	2
Pharynx ... ..	...	...	...	...	...	1	...	1	1
Cervical Glands ... ..	...	1	1	...	...	...	1	1	2
Prostate ... ..	...	...	...	...	1	...	1	...	1
Knee ... ..	1	...	...	...	...	...	1	...	1
Penis ... ..	1	...	...	...	...	...	1	...	1
Not Stated ... ..	1	1	2	4	8	4	11	9	20
Totals ... ..	7	15	43	57	68	62	118	134	252



**TABLE 34. (L.G.B. Table I.)**  
**Vital Statistics of whole District during 1913 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. (6)	Rate. (7)	Of Non-residents registered in the District. (8)	Of Residents not registered in the District. (9)	At all Ages.			
			Number. (4)	Rate. (5)					Under 1 Year of Age.		Number. (12)	Rate. (13)
									Number. (10)	Rate per 1000 Nett Births. (11)		
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
1912	229,294	5112	5182	22.59	2826	12.32	102	393	565	109.0	3118	13.59
1913	230,970	5222	5278	22.85	2817	12.19	126	397	630	119.3	3088	13.36
Total population at all ages		..	...	...	230,970	Area of District in acres (exclusive of area covered						
Number of inhabited houses		...	...	...	52,888	by water) ... .. 8,582						
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 35. (L.G.B. Table IV.)

## Borough of Leicester.

## INFANT MORTALITY DURING THE YEAR 1913.

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.	144	25	34	17	220	126	128	98	58	630
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...
Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...
Measles ... ..	...	...	...	...	...	1	...	4	2	7
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...
Whooping-cough ... ..	...	...	...	...	...	1	1	2	...	4
Diphtheria and Croup ... ..	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	1	...	...	...	1
Tuberculous Meningitis ... ..	...	...	...	...	...	...	1	3	1	5
Abdominal Tuberculosis ... ..	...	...	...	1	1	1	...	3	...	5
Other Tuberculous Diseases ... ..	1	...	...	...	1	...	1	1	...	3
Meningitis ( <i>not Tuberculous</i> ) ... ..	...	...	...	...	...	1	2	2	2	7
Convulsions ... ..	6	1	2	2	11	10	8	14	5	48
Laryngitis ... ..	...	...	...	...	...	...	...	1	...	1
Bronchitis ... ..	...	...	4	2	6	12	10	12	7	47
Pneumonia (all forms) ... ..	...	2	...	1	3	3	18	8	12	44
Diarrhœa ... ..	...	1	1	1	3	30	29	18	11	91
Enteritis ... ..	...	1	1	1	3	9	11	8	6	37
Gastritis ... ..	...	1	...	...	1	2	3	2	1	9
Syphilis ... ..	1	...	...	...	1	4	1	...	1	7
Rickets ... ..	...	...	...	...	...	...	...	1	1	2
Suffocation (overlying) ... ..	1	...	...	...	1	6	2	...	...	9
Injury at Birth ... ..	1	...	...	...	1	...	...	...	...	1
Atelectasis ... ..	5	2	1	...	8	...	...	...	...	8
Congenital Malformations ... ..	8	...	...	...	8	2	1	...	...	11
Premature Birth ... ..	83	12	8	2	105	9	1	1	...	116
Atrophy, Debility and Marasmus ... ..	28	4	11	4	47	26	24	6	3	106
Other Causes ... ..	10	1	6	3	20	8	15	12	6	61

Nett Births in the Year { legitimate, 5,039.  
illegitimate, 239.

630

Nett Deaths in the Year of { legitimate infants, 581.  
illegitimate infants, 49.



# MORTALITY TABLE.



CLASSIFICATION OF DEATHS IN 1913  
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
Tubes Mesenterica, Tub. Peritonitis and Tub.																				
Enteritis ... ..	5	.....	4	2	9	2	2	1	1	.....	.....	.....	.....	.....	.....	.....	3	3	12	5
Phthisis and Pulmonary Tuberculosis ... ..	.....	.....	3	1	3	1	8	15	82	84	66	23	10	9	.....	.....	160	131	169	132
Hydrocephalus and Tubercular Meningitis ... ..	3	3	6	9	9	12	7	3	3	1	.....	.....	.....	.....	.....	.....	10	4	19	16
Other forms of Tuberculosis ... ..	1	1	5	2	6	3	2	1	7	6	3	1	1	.....	.....	.....	13	8	19	11
Scrofula ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Anæmia, Chlorosis, Leucocythæmia ... ..	1	.....	.....	.....	1	.....	.....	.....	2	2	4	2	4	4	.....	.....	10	8	11	8
Diabetes ... ..	.....	.....	1	1	1	1	.....	1	1	2	5	6	7	12	.....	.....	13	21	14	22
Other Constitutional Diseases ... ..	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....
<b>CLASS V.</b>	12	4	20	16	32	20	23	25	105	112	124	90	89	83	2	9	343	319	375	339
<b>LOCAL DISEASES.</b>																				
<b>1.—Diseases of Nervous System.</b>																				
Inflammation of Brain or Membranes ... ..	4	3	6	1	10	4	7	3	1	1	.....	.....	2	2	.....	.....	10	6	20	10
Apoplexy, Softening of Brain, Paralysis ... ..	.....	1	.....	.....	.....	1	3	.....	1	3	14	23	44	59	8	13	70	98	70	99
Insanity, General Paralysis of Insane ... ..	.....	.....	.....	.....	.....	.....	1	1	5	1	7	1	3	1	.....	.....	16	4	16	4
Chorea ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Epilepsy .. ..	.....	.....	.....	.....	.....	.....	.....	.....	2	1	4	1	5	.....	.....	.....	2	11	2	13
Convulsions ... ..	31	17	6	2	37	19	.....	2	.....	.....	1	1	.....	.....	.....	.....	1	3	38	22
Laryngismus Stridulus ... ..	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Disease of Spinal Cord, Paraplegia, Paralysis ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	60
Agitans ... ..	1	2	.....	.....	1	2	.....	.....	1	1	2	.....	6	3	4	1	13	5	14	7
Other Diseases of Nervous System ... ..	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	2	1	1	.....	.....	3	3	3	3
<b>2.—Diseases of Organs of Circulation.</b>																				
Pericarditis and Endocarditis ... ..	.....	.....	.....	.....	.....	.....	1	1	4	.....	2	2	1	.....	.....	.....	8	3	8	3
Heart Disease ... ..	7	4	1	1	8	3	11	8	15	9	56	62	86	83	12	14	180	176	188	181
Aneurism ... ..	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	2	.....	1	.....	.....	.....	.....	.....	4	.....
Embolism, Thrombosis ... ..	.....	.....	.....	.....	.....	.....	.....	.....	3	3	1	5	7	5	1	3	13	16	13	16
Other Diseases of Blood Vessels ... ..	1	.....	.....	.....	1	.....	.....	.....	.....	1	3	1	2	2	.....	1	5	6	6	5















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# BOROUGH OF LEICESTER & ENVIRONS



