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# ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE

BOROUGH OF CREWE.

BY

ANDREW J. LAIRD, M.D., D.P.H. (Camb),

Medical Officer of Health, and  
Medical Superintendent of Borough Isolation Hospitals.

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1905.

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# BOROUGH OF CREWE.

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HEALTH COMMITTEE,

1904—1905.

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*Chairman—*

COUNCILLOR HENRY TAYLOR

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*Members—*

HIS WORSHIP THE MAYOR (Alderman A. G. Hill).

ALDERMAN W. McNEILL.

ALDERMAN R. PEDLEY.

ALDERMAN G. WALLIS.

COUNCILLOR J. A. ATKINSON.

COUNCILLOR F. MANNING.

„ A. H. BADGER.

„ R. D. SHARPE.

„ Dr. T. H. BAILEY.

„ T. SMITH.


„ H. HOPTROFF.

„ E. VAUGHAN.

„ J. KNOTT.

„ W. WILLIAMS





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HEALTH DEPARTMENT,  
MUNICIPAL OFFICES,  
CREWE,  
24th February, 1906.

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

GENTLEMEN,

I have the honour to present to you the Annual Report upon the health of the Borough for the year 1905.

The report is arranged as in former years and consists of a statistical record of mortality and sickness, and also contains a general account of the sanitary condition of the Borough with a summary of the work done by the Health Department and at the Isolation Hospital.

In spite of the steadily declining birth rate the report shews that upon the whole the year has from a hygienic standpoint been a satisfactory one. The general death-rate is the lowest on record. The mortality among infants is (with the year 1902 when it reached a similar figure) also the lowest recorded, while (especially during the latter half of the year) the town has had a quite phenomenal freedom from infectious disease.

I am, Gentlemen,

Your obedient servant,

*Arthur L. Laird.*

*Medical Officer of Health.*

# BOROUGH OF CREWE.

## Statistical Summary for 1905.

|  |          |     |            |     |     |     |     |          |              |
|--|----------|-----|------------|-----|-----|-----|-----|----------|--------------|
| Area of Borough                        | ...      | ... | ...        | ... | ... | ... | ... | ...      | 2,185 acres. |
| Population at Census, 1901             | ...      | ... | ...        | ... | ... | ... | ... | ...      | 42,074       |
| Estimated population to middle of 1905 | ...      | ... | ...        | ... | ... | ... | ... | ...      | 46,578       |
|  |          |     |            |     |     |     |     | 1904     | 1905         |
| Average number of persons per acre     | ...      | ... | ...        | ... | ... | ... | ... | 21·08    | 21·3         |
| Birth-rate per 1,000 living            | ...      | ... | ...        | ... | ... | ... | ... | 30·9     | 28·2         |
| Death-rate                             | ...      | ... | ...        | ... | ... | ... | ... | 14·6     | 13·5         |
| Death-rate from zymotic diseases       | ...      | ... | ...        | ... | ... | ... | ... | 1·6      | 1·67         |
| Infant mortality, per 1,000 births     | ...      | ... | ...        | ... | ... | ... | ... | 160      | 131          |
| Total occupied houses                  | ...      | ... | ...        | ... | ... | ... | ... | 9,617    | 9,724        |
| Plans of new buildings passed          | ...      | ... | ...        | ... | ... | ... | ... | 157      | 89           |
| Rateable value (General District Rate) | £142,702 |     |            |     |     |     |     | £144,556 |              |
| Rateable value (Borough Rate)          | ...      | ... | £153,081   |     |     |     |     | £154,936 |              |
| Amount raised by 1d. rate              | ...      | ... | £594 11 10 |     |     |     |     | £602 6 4 |              |

Charter of Incorporation granted April 27th, 1877.

Commission of the Peace granted April 7th, 1881.

### Adoptive Acts in force in Crewe.

Infectious Diseases (Prevention) Act, 1890, adopted January, 1891.

Public Health Acts Amendment Act, 1890, adopted February, 1891.

Infectious Diseases (Notification) Act, 1889, adopted October, 1896.



## Geology.

The soil upon which Crewe and the neighbouring villages are built consists wholly of drift deposits. The whole of the Borough is built upon a re-deposited boulder clay (red, blue and yellow bricks clays), intersected here and there with irregular lines and pockets of sand and gravel, probably the remains of old river and brook courses.

This clay deposit and an underlying bed of stratified clay lie in a hollow of stratified drift sand, and attain a depth of from 12 to 100 feet.

The drift sand rises to the surface in a bay-like curve in the outlying villages of Wistaston, Shavington, Weston, Crewe Green, and Haslington.

The whole of these deposits appear to be laid in a deep hollow in the Keuper; a brook, which passes through the centre of the Borough, appearing to have cut down to this formation.

## Elevation.

The Borough is situated upon the Valley Brook, a tributary of the river Weaver. The mean elevation is about 170 feet above sea level, and varies from 113 feet at the lowest part of the Sewage Farm to 200 feet at Hightown.

### HEIGHT ABOVE SEA LEVEL.

|   |     |     |          |
|---|-----|-----|----------|
| Sewage Farm (West of Queen's Park)      | ... | ... | 113 feet |
| The Valley                              | ... | ... | 145 „    |
| Market Square (south-west corner)       | ... | ... | 184 „    |
| Isolation Hospital                      | ... | ... | 182 „    |
| Nantwich Road (east end)                | ... | ... | 188 „    |
| Hightown (St. Paul's Church—north side) | ... | 200 | „        |

## Area.

The Borough has a total area of 2,185 acres, comprising the Civil Parish of Monks Coppenhall and parts of the Civil

Parishes of Church Coppenhall, Shavington-cum-Gresty, and Wistaston, the three last named parts being added on 24th March, 1894, by Order of the Local Government Board.

### Density.

The average density of the Borough is equal to 21·3 persons to the acre.

### Population.

In estimating the population the same method has for the sake of uniformity, been adopted as has been used in former reports. This is based upon the number of inhabited houses as obtained from the rate-books, less the number of empty houses, and the resultant multiplied by the average number of persons per house as obtained from the last census.

|   |        |        |
|---|--------|--------|
| Houses on Rate Books, September 30th 1905 | ...    | 10,179 |
| Empty Houses, Midsummer 1905              | ... .. | 455    |
| Total occupied houses                     | ... .. | 9,724  |
| Persons per house (census 1901)           | ... .. | 4·79   |
| Population Midsummer, 1905                | ... .. | 46,578 |

This differs from the method used by the Registrar General, who estimates the population upon the assumption that the same annual rate of increase will be maintained from 1901 to the next census at 1911, as existed in the period 1891 to 1901.

Both methods are subject to error, which increases with the length of time from the last census. In the method used in these reports, the factor for multiplication (the average number per house) varies—*e.g.*, at the 1891 census it was 5·011, while at the last census in 1901 it had diminished to 4·79; but on the whole it is probably best suited to places of the size of Crewe, more especially when the population is liable to great fluctuation as the result of the condition of the labour market.



For the reason stated in my last annual report it is extremely probable that the method used has given a lower estimate of the population than is actually the case. There is good reason to believe that the average number of persons per house has increased owing to the depression of trade in the town, and the fact that in many instances two families have united and now occupy one house. This is confirmed also by the information regarding empty houses supplied by the Assistant Overseer. The percentage of these is even higher than last year which was the greatest since 1894, the first year for which the return is given.

The distribution of the population in the four wards is shewn below :—

### Population of the Wards.

| Ward.          | Population at census,<br>1901. | Estimated population<br>on basis of new houses<br>containing 4·79<br>persons. |          |        |
|----------------|--------------------------------|---|----------|--------|
|                |                                | Males.  | Females. | Total. |
| Central ... .. | 9,349                          | 5,249   | 5,101    | 10,350 |
| West ... ..    | 9,464                          | 5,469   | 5,009    | 10,478 |
| North ... ..   | 10,160                         | 5,744   | 5,502    | 11,246 |
| South ... ..   | 13,101                         | 7,442   | 7,062    | 14,504 |
| Borough ..     | 42,074                         | 23,904  | 22,674   | 46,578 |



### Housing.

The Assistant Overseer (Mr. A. Maywhort) has kindly allowed me to extract from the rate books the following information with regard to the total number of houses, and the number of unoccupied houses :—

#### Number of Houses on the Rate Book, Sept. 30th 1905.

|                               |                       |               |
|-------------------------------|-----------------------|---------------|
| Houses rated under ...        | £5 per annum ...      | 172           |
| "    "    at £5 and under £10 | "    "    ... ..      | 7,089         |
| "    "    £10                 | "    "    £20 ... ..  | 2,439         |
| "    "    £20                 | "    "    £30 ... ..  | 260           |
| "    "    £30                 | "    "    £40 ... ..  | 94            |
| "    "    £40                 | "    "    £50 ... ..  | 42            |
| "    "    £50                 | "    "    £60 ... ..  | 17            |
| "    "    £60                 | "    "    £70 ... ..  | 16            |
| "    "    £70                 | "    "    £80 ... ..  | 5             |
| "    "    £80                 | "    "    £90 ... ..  | 8             |
| "    "    £90                 | "    "    £100 ... .. | 6             |
| "    "    £100                | "    "    £200 ... .. | 25            |
| "    "    above £200          | "    "    ... ..      | 6             |
| Total ... ..                  |                       | <u>10,179</u> |

As compared with 1904 :—

|                                  |                     |    |
|----------------------------------|---------------------|----|
| Houses rated at £5 and under £10 | shew an increase of | 70 |
| "    "    " £10                  | "    "    £20       | 67 |
| "    "    " £30                  | "    "    £40       | 1  |

The numbers of houses at other valuations remain the same.

## Empty Houses.

Table 1.

| RATEABLE VALUE.   | Under<br>£5. | £5, and<br>under<br>£10. | £10, and<br>under<br>£20. | £20, and<br>under<br>£30. | £30, and<br>under<br>£80. | TOTAL. |
|---|--------------|--------------------------|---------------------------|---------------------------|---------------------------|--------|
| Central Ward ...  | ...          | 67                       | 7                         | 1                         | 5                         | 80     |
| West Ward ...   | ...          | 104                      | 4                         | 4                         | ...                       | 112    |
| North Ward ...  | 3            | 131                      | 30                        | 1                         | 1                         | 166    |
| South Ward ...  | 1            | 33                       | 59                        | 2                         | 2                         | 97     |
| Borough of Crewe ...  | 4            | 335                      | 100                       | 8                         | 8                         | 455    |
| Empty houses, percent.<br>of houses on Rate Books<br>in each group. | } 2·3        | 4·7                      | 4·1                       | 3·0                       | 4·6                       | 4·4    |

There is an increase of 31 empty houses as compared with 1904.

The houses rated under £5, shewing an increase of 4  
 The houses rated at £5 and under £10, „ „ „ „ 33  
 „ „ „ „ £10 „ „ £20 shewing a decrease of 13  
 „ „ „ „ £20 „ „ £80 shewing an increase of 7

The following figures denote the percentage of empty houses to total houses on the rate books for the last eleven years:—

|          |          |          |     |
|----------|----------|----------|-----|
| 1894 ... | 2·0      | 1899 ... | 2·2 |
| 1895 ... | 2·4      | 1900 ... | 2·6 |
| 1896 ... | 2·8      | 1901 ... | 3·3 |
| 1897 ... | 2·6      | 1902 ... | 3·0 |
| 1898 ... | 2·7      | 1903 ... | 2·6 |
|          | 1904 ... | 4·2      |     |
|          | 1905 ... | 4·4      |     |

In the columns shown below are given the number of plans passed every year since 1891, and the number of habitation certificates granted since 1897. The figures for 1905 shew a

continued reduction, the number of plans passed and the number of habitation certificates granted being the lowest on record:—

### New Houses.

|              |      |      |     |     |     |     |     |
|--------------|------|------|-----|-----|-----|-----|-----|
| Plans passed | 1891 | ...  | ... | ... | ... | ... | 139 |
| "            | "    | 1892 | ... | ... | ... | ... | 169 |
| "            | "    | 1893 | ... | ... | ... | ... | 157 |
| "            | "    | 1894 | ... | ... | ... | ... | 238 |
| "            | "    | 1895 | ... | ... | ... | ... | 283 |
| "            | "    | 1896 | ... | ... | ... | ... | 317 |
| "            | "    | 1897 | ... | ... | ... | ... | 441 |
| "            | "    | 1898 | ... | ... | ... | ... | 308 |
| "            | "    | 1899 | ... | ... | ... | ... | 385 |
| "            | "    | 1900 | ... | ... | ... | ... | 201 |
| "            | "    | 1901 | ... | ... | ... | ... | 243 |
| "            | "    | 1902 | ... | ... | ... | ... | 400 |
| "            | "    | 1903 | ... | ... | ... | ... | 225 |
| "            | "    | 1904 | ... | ... | ... | ... | 157 |
| "            | "    | 1905 | ... | ... | ... | ... | 89  |

### Habitation Certificates :—

|   |   |                    |     |     |     |     |
|---|---|--------------------|-----|-----|-----|-----|
| " | " | 1897 ( 11 months ) | ... | ... | ... | 234 |
| " | " | 1898               | ... | ... | ... | 327 |
| " | " | 1899               | ... | ... | ... | 248 |
| " | " | 1900               | ... | ... | ... | 230 |
| " | " | 1901               | ... | ... | ... | 226 |
| " | " | 1902               | ... | ... | ... | 257 |
| " | " | 1903               | ... | ... | ... | 304 |
| " | " | 1904               | ... | ... | ... | 181 |
| " | " | 1905               | ... | ... | ... | 135 |

### Marriages.

The number of marriages during the year was 261, of which 172 took place in the Established Churches, and 89 in the Non-conformist and Catholic places of worship.



If the marriage rate, as it undoubtedly is in a working-class community, be taken as an index of the prosperity or otherwise of trade, the increase in the rate, slight though it is, is a source of gratification.

| Year. | No. of Marriages. | Marriage-rate. | Marriage-rate in<br>England and Wales. |
|-------|-------------------|----------------|--|
| 1897  | 244               | 12·64          | 16·0                                   |
| 1898  | 272               | 13·76          | 16·2                                   |
| 1899  | 315               | 15·56          | 16·5                                   |
| 1900  | 304               | 14·68          | 16·0                                   |
| 1901  | 250               | 11·80          | 15·9                                   |
| 1902  | 310               | 14·32          | 15·9                                   |
| 1903  | 297               | 13·05          | 15·6                                   |
| 1904  | 242               | 10·50          | 15·2                                   |
| 1905  | 261               | 11·2           | —                                      |

### Births.

The total number of births registered within the Borough during 1905 was 1,318, of which number 707 were males and 611 females.

The birth-rate per 1,000 of the population was 28·2 being 2·7 per 1,000 lower than 1904.

The birth-rate for England and Wales in 1905 was 27·2 per 1,000 of the population, and is lower than the rate in any year on record.

Of the births registered 39 or 2·9 per cent. were illegitimate, as compared with 43 or 3·0 per cent. in 1904.

The following figures in parallel columns shew the birth-rate in the Borough of Crewe as compared with the rest of the country since 1893:—

| Year | Crewe. | England & Wales. |
|------|--------|------------------|
| 1893 | 35·2   | 30·7             |
| 1894 | 33·9   | 29·6             |
| 1895 | 33·6   | 30·3             |
| 1896 | 31·8   | 29·6             |
| 1897 | 33·1   | 29·6             |
| 1898 | 34·5   | 29·3             |

|      |     |      |     |      |
|------|-----|------|-----|------|
| 1899 | ... | 34·6 | ... | 29·1 |
| 1900 | ... | 34·3 | ... | 28·7 |
| 1901 | ... | 30·9 | ... | 28·5 |
| 1902 | ... | 32·6 | ... | 28·6 |
| 1903 | ... | 31·9 | ... | 28·4 |
| 1904 | ... | 30·9 | ... | 27·9 |
| 1905 | ... | 28·2 | ... | 27·2 |

From these figures it is seen that Crewe shares the steady diminution in the birth-rate with the rest of the country; and not only has the rate (the lowest on record) declined, but even with an increased population the actual number of births is 107 less in 1905 than in the preceding year.

The natural increase of the population, or the number by which the births exceed the deaths, is shewn below:—

| Year. | Births. | Deaths. | Natural Increase. |
|-------|---------|---------|-------------------|
| 1893  | 1,228   | 694     | 534               |
| 1894  | 1,215   | 520     | 695               |
| 1895  | 1,237   | 608     | 629               |
| 1896  | 1,200   | 568     | 632               |
| 1897  | 1,278   | 627     | 651               |
| 1898  | 1,365   | 699     | 666               |
| 1899  | 1,400   | 695     | 705               |
| 1900  | 1,420   | 677     | 743               |
| 1901  | 1,311   | 710     | 601               |
| 1902  | 1,412   | 648     | 764               |
| 1903  | 1,454   | 651     | 803               |
| 1904  | 1,425   | 673     | 752               |
| 1905  | 1,318   | 629     | 689               |

### Deaths.

The total number of deaths registered within the Borough during 1905 was 602, giving a *gross* death-rate of 12·9 per 1,000.

Of the 602 deaths 319 were of males, and 283 of females.

Seven of the deaths were of persons belonging to other districts, and must therefore be deducted; while 34 deaths of persons belonging to the Borough, but who died outside, must be added. This gives a correct number of 629 and a *corrected* death-rate of 13·5 per 1,000.



In England and Wales the death-rate in 1905 was 15·2 per 1,000. The rates in the 76 large towns, and the 141 smaller towns, were respectively 15·7 and 14·4.

The table given below shews that the death-rate is the lowest of any year during the last decennium, and is 2·4 per 1,000 of the population below the average mortality rate for that period. It also shows that the reduction took place entirely during the last six months of the year. The causation of this fall is shewn by succeeding tables where it will be seen that the saving of life was almost solely among infants under one year of age. The factors which contributed to this saving are discussed under the heading of infantile mortality.

TABLE 2.—Comparing the actual number of **Deaths** and the **Death-rate** of previous years:—

| YEAR.              | 1st<br>Quarter. | 2nd<br>Quarter. | 3rd<br>Quarter. | 4th<br>Quarter. | Whole<br>year. | Death-rate<br>for<br>whole year |
|--------------------|-----------------|-----------------|-----------------|-----------------|----------------|---------------------------------|
| 1895 ..            | 171             | 115             | 164             | 158             | 608            | 16·5                            |
| 1896 ...           | 137             | 125             | 107             | 199             | 571            | 15·1                            |
| 1897 ...           | 182             | 141             | 166             | 138             | 627            | 16·2                            |
| 1898 ...           | 196             | 164             | 190             | 149             | 699            | 17·6                            |
| 1899 ...           | 209             | 142             | 182             | 162             | 695            | 17·1                            |
| 1900 ...           | 212             | 159             | 148             | 158             | 677            | 16·3                            |
| 1901 ...           | 156             | 163             | 193             | 198             | 710            | 16·7                            |
| 1902 ...           | 173             | 161             | 135             | 179             | 648            | 14·9                            |
| 1903 ...           | 173             | 151             | 166             | 161             | 651            | 14·3                            |
| 1904 ...           | 159             | 145             | 171             | 198             | 673            | 14·6                            |
| Mean—<br>10 years) | 176             | 146             | 162             | 170             | 655            | 15·9                            |
| 1905 ...           | 190             | 163             | 129             | 147             | 629            | 13·5                            |



**The Principal causes of Death.** These are shewn in the following summary in order of their importance :—

|   |     |     |
|---|-----|-----|
| Diseases of the Respiratory organs<br>( excluding Consumption ) | ... | 108 |
| Tubercular diseases ( including Consumption of Lung )           | ... | 68  |
| Diseases of the Circulatory system                              | ... | 60  |
| Malignant Disease (Cancer, etc.)                                | ... | 28  |
| Whooping Cough  | ... | 28  |
| Diarrhœa and Enteritis  | ... | 27  |
| Premature birth   | ... | 23  |
| Measles   | ... | 22  |
| All other causes  | ... | 265 |

An examination of Table 3, and comparison of the figures for 1905 with the average for the last ten years, shews that the reduction in the mortality has taken place chiefly among infants under one. The only age period shewing any great increase is from 65 onwards.

Table 3.—Apportioning the Deaths during 1905 to the various age-periods:—

|                            | Under 1 yr. | 1 to 5. | 5 to 15. | 15 to 25 | 25 to 65 | 65 upwards | TOTAL. |
|----------------------------|-------------|---------|----------|----------|----------|------------|--------|
| Borough of Crewe, 1895 ... | 198         | 90      | 31       | 30       | 169      | 90         | 608    |
| „ „ 1896 ...               | 166         | 90      | 26       | 32       | 151      | 103        | 568    |
| „ „ 1897 ...               | 189         | 95      | 19       | 19       | 182      | 123        | 627    |
| „ „ 1898 ...               | 232         | 100     | 20       | 40       | 173      | 109        | *674   |
| „ „ 1899 ...               | 231         | 86      | 30       | 27       | 172      | 128        | *674   |
| „ „ 1900 ...               | 196         | 67      | 34       | 27       | 223      | 108        | *655   |
| „ „ 1901 ...               | 234         | 81      | 36       | 29       | 189      | 123        | *692   |
| „ „ 1902 ...               | 184         | 79      | 28       | 20       | 189      | 119        | *619   |
| „ „ 1903 ...               | 210         | 72      | 22       | 28       | 178      | 120        | *630   |
| „ „ 1904 ...               | 226         | 88      | 29       | 25       | 174      | 112        | *654   |
| Average for 10 years ...   | 206         | 85      | 27       | 28       | 180      | 113        | 640    |
| Borough of Crewe, 1905 ... | 171         | 92      | 20       | 27       | 158      | 127        | *595   |
| Central Ward ...           | 23          | 12      | 3        | 3        | 46       | 39         | 126    |
| West Ward ...              | 41          | 25      | 5        | 2        | 35       | 26         | 134    |
| North Ward ...             | 55          | 21      | 4        | 4        | 33       | 29         | 146    |
| South Ward ...             | 52          | 34      | 8        | 18       | 44       | 33         | 189    |

\*In addition to the above figures 34 deaths in 1905, 19 in 1904, 21 in 1903, 29 in 1902, 18 in 1901, 22 in 1900, 21 in 1899, and 25 in 1898, occurred in persons temporarily resident outside the Borough, whose former addresses could not be ascertained.

As compared with 1904, the Central Ward shews an increase in its mortality of 5 per cent.—while the other Wards each shew a decrease: in the West, of 14·6; in the North, of 13·1; and in the South, of 9·5 per cent.

### Mortality in Relation to Season.

The only marked rise in the general mortality was in the first two months of the year. This resulted from an increased mortality from diseases of the lungs and from debility among children and old people, and also from Measles and Whooping Cough.

The infantile death rate shews an unusual feature, viz., an entire absence of what we are unfortunately accustomed to expect, an autumnal rise owing to the outbreak of summer diarrhœa among infants. The great increase in April was caused by a rise in the number of deaths from Measles and Whooping Cough.

TABLE 4.

| Month.         | Total No.<br>of deaths. | Death rate. | Deaths under<br>one year. | Infantile.<br>death rate. |
|----------------|-------------------------|-------------|---------------------------|---------------------------|
| January ... .. | 77                      | 19·8        | 14                        | 102                       |
| February... .. | 65                      | 16·7        | 13                        | 121                       |
| March ... ..   | 48                      | 12·3        | 14                        | 123                       |
| April ... ..   | 54                      | 13·9        | 19                        | 223                       |
| May ... ..     | 53                      | 13·9        | 17                        | 166                       |
| June ... ..    | 56                      | 14·4        | 14                        | 114                       |
| July ... ..    | 43                      | 11·0        | 15                        | 138                       |
| August ... ..  | 40                      | 10·3        | 9                         | 78                        |
| September ...  | 46                      | 11·8        | 17                        | 134                       |
| October ... .. | 54                      | 13·9        | 16                        | 131                       |
| November ...   | 51                      | 13·1        | 16                        | 175                       |
| December ...   | 42                      | 10·8        | 9                         | 98                        |
| Whole year ... | 629                     | 13·5        | 173                       | 131                       |



### Uncertified Deaths.

These are deaths the causes of which have not been certified by a medical practitioner or by the Coroner after inquest.

| Year        | Uncertified<br>deaths. | Percentage of<br>total deaths. |
|-------------|------------------------|--------------------------------|
| 1893 ... .. | 8                      | 1.1                            |
| 1894 ... .. | 8                      | 1.5                            |
| 1895 ... .. | 6                      | 0.98                           |
| 1896 ... .. | 4                      | 0.7                            |
| 1897 ... .. | 3                      | 0.4                            |
| 1898 ... .. | 3                      | 0.4                            |
| 1899 ... .. | 8                      | 1.1                            |
| 1900 ... .. | 10                     | 1.4                            |
| 1901 ... .. | 11                     | 1.5                            |
| 1902 ... .. | 3                      | 0.4                            |
| 1903 ... .. | 6                      | 0.9                            |
| 1904 ... .. | 3                      | 0.4                            |
| 1905 ... .. | 3                      | 0.4                            |

### Still-born Children.

The number of still-born children interred in the Cemetery and Coppenhall Churchyard during the year was 69 or 5.2 per cent. of the number of births. This is above the average for previous years, and exactly the same proportion as last year. There was a considerable excess of males, even making allowance for the fact that more males are born than females, the numbers being 32 males and 19 females. In 18 cases the sex was not stated.

| Total    Percentage<br>number of total births |    |     |     | Total    Percentage<br>number of total births |    |     |     |
|---|----|-----|-----|---|----|-----|-----|
| 1890 ...                                      | 36 | ... | 3.9 | 1898 ...                                      | 56 | ... | 4.1 |
| 1891 ...                                      | 30 | ... | 3.0 | 1899 ...                                      | 63 | ... | 4.5 |
| 1892 ...                                      | 51 | ... | 4.8 | 1900 ...                                      | 55 | ... | 3.8 |
| 1893 ...                                      | 48 | ... | 3.9 | 1901 ...                                      | 63 | ... | 4.8 |
| 1894 ...                                      | 37 | ... | 3.0 | 1902 ...                                      | 86 | ... | 6.0 |
| 1895 ...                                      | 71 | ... | 5.8 | 1903 ...                                      | 64 | ... | 4.4 |
| 1896 ...                                      | 65 | ... | 5.4 | 1904 ...                                      | 75 | ... | 5.2 |
| 1897 ...                                      | 56 | ... | 4.2 |   |    |     |     |

1905 ... 69 ... 5.2

Average of last 15 years (1890—1904) ... 4.4

**Street Register.**

| Class. | Name of Street.  | No. of<br>deaths<br>1905. |
|--------|--|---------------------------|
| 1      | West Street ... ..   | 19                        |
| 2      | Alton Street ... ..  | 15                        |
| 3      | { Flag Lane ... ..<br>New Street ... ..<br>Walthall Street ... ..  | { 11                      |
| 4      | { Nantwich Road ... ..<br>Underwood Lane ... ..  | { 10                      |
| 5      | { Alexandra Street ... ..<br>Beech Street ... ..<br>Wistaston Road ... ..  | { 9                       |
| 6      | { Albert Street ... ..<br>Gresty Road ... ..<br>Lord Street ... ..<br>Mill Street ... ..<br>Oakley Street ... ..<br>Thomas Street ... ..                 | { 8                       |
| 7      | { Bedford Street ... ..<br>Hope Street ... ..<br>Meredith Street ... ..<br>Minshull New Road ... ..<br>Naylor Street ... ..                              | { 7                       |
| 8      | { Farrington Street ... ..<br>Manchester Street ... ..<br>Nelson Street ... ..<br>South Street ... ..<br>Stafford Street ... ..<br>William Street ... .. | { 6                       |

### Coroner's Inquests.

INQUESTS were held by the Coroner as to the cause of death in 36 cases. These were eventually returned as due to Natural Causes in 11 cases, Accident or Negligence, (such as falls, burns, overlying, improper feeding, &c.,) in 22 cases, and Suicide in 3 cases.

The proportion of inquests per 1,000 deaths was 54, as compared with 66·8 in the year 1904.

### Infantile Mortality

|   |        |     |
|---|--------|-----|
| Number of deaths under one year                 | ... .. | 173 |
| Deaths per 1,000 births                         | ... .. | 131 |
| Deaths—England and Wales—per 1,000 births       | ...    | 128 |
| Deaths—76 great towns—per 1,000 births          | ... .. | 140 |
| Deaths—141 smaller towns—per 1,000 births...    | ...    | 132 |
| Deaths—Rural England and Wales—per 1,000 births |        | 113 |

The mortality under this heading shews a decrease of 42 deaths as compared with 1904, while the death-rate per 1,000 births is 3 above the rate for England and Wales.

The year has been remarkable for the reduction in the mortality among infants under one year old. The number of deaths was 173, as compared with 228 for the preceding year, and is the lowest for eight years. The rate per 1,000 births, 131, is 24 below the average of the last ten years. The causes of this diminution are to be found in the diminished number of deaths from epidemic diarrhœa.

The causes of death are given in considerable detail in Table V. in the Appendix.

The diseases which show a substantial reduction are:—

Wasting diseases with 55 deaths as compared with 77 in 1904.

Diarrhœal diseases with 22 deaths as compared with 53 in 1904, and Convulsions with 5 deaths as compared with 13 in 1904.



Tubercular diseases and diseases of the respiratory system shew slight decreases.

The only group shewing an increase of any importance is the group of the common infectious diseases, the increase under this heading being entirely due to the mortality from Whooping Cough and Measles during the first half of the year.

TABLE 5.—Rate of Mortality during the past 9 years of children under one year of age, from principal infantile diseases, per 1,000 births.

|                     |     | 1897.                                      |     | 1898.                                      |     | 1899.                                      |     | 1900.                                      |     | 1901.                                      |     | 1902.                                      |     | 1903.                                      |     | 1904.                                      |     | 1905.                                      |     |
|---------------------|-----|--|-----|--|-----|--|-----|--|-----|--|-----|--|-----|--|-----|--|-----|--|-----|
|                     |     | Total deaths.<br>Rate per 1,000<br>births. |     | Total deaths.<br>Rate per 1,000<br>births. |     | Total deaths.<br>Rate per 1,000<br>births. |     | Total deaths.<br>Rate per 1,000<br>births. |     | Total deaths.<br>Rate per 1,000<br>births. |     | Total deaths.<br>Rate per 1,000<br>births. |     | Total deaths.<br>Rate per 1,000<br>births. |     | Total deaths.<br>Rate per 1,000<br>births. |     | Total deaths.<br>Rate per 1,000<br>births. |     |
| From all causes     | ... | 189  | ... | 232  | ... | 231  | ... | 196  | ... | 238  | ... | 186  | ... | 211  | ... | 228  | ... | 173  | ... |
| Ditto               | ... | ...  | 146 | ...  | 169 | ...  | 165 | ...  | 138 | ...  | 181 | ...  | 131 | ...  | 145 | ...  | 160 | ...  | 181 |
| Diarrhoea           | ... | 45   | ... | 34   | ... | 34   | ... | 26   | ... | 48   | ... | 23   | ... | 10   | ... | 30   | ... | 12   | ... |
| Ditto               | ... | ...  | 35  | ...  | 24  | ...  | 24  | ...  | 18  | ...  | 36  | ...  | 16  | ...  | 6   | ...  | 21  | ...  | 9   |
| Lung diseases       | ... | 46   | ... | 37   | ... | 39   | ... | 23   | ... | 33   | ... | 36   | ... | 40   | ... | 37   | ... | 30   | ... |
| Ditto               | ... | ...  | 35  | ...  | 27  | ...  | 28  | ...  | 16  | ...  | 25  | ...  | 25  | ...  | 27  | ...  | 26  | ...  | 23  |
| Convulsions         | ... | 15   | ... | 10   | ... | 22   | ... | 18   | ... | 10   | ... | 15   | ... | 14   | ... | 13   | ... | 5  | ... |
| Ditto               | ... | ...  | 11  | ...  | 7   | ...  | 16  | ...  | 12  | ...  | 7   | ...  | 10  | ...  | 9   | ...  | 9   | ...  | 3   |
| Premature Birth     | ... | 2)   | ... | 22   | ... | 27   | ... | 25   | ... | 28   | ... | 28   | ... | 25   | ... | 26   | ... | 23   | ... |
| Ditto               | ... | ...  | 15  | ...  | 16  | ...  | 19  | ...  | 17  | ...  | 21  | ...  | 19  | ...  | 17  | ...  | 18  | ...  | 17  |
| Tabes Mesenterica   | ... | 8  | ... | 15   | ... | 14   | ... | 12   | ... | 15   | ... | 7  | ... | 10   | ... | 13   | ... | 15   | ... |
| Ditto               | ... | ...  | 6   | ...  | 10  | ...  | 10  | ...  | 8   | ...  | 11  | ...  | 4   | ...  | 6   | ...  | 9   | ...  | 11  |
| Measles             | ... | 1  | ... | 8  | ... | 0  | ... | 2  | ... | 1  | ... | 5  | ... | 0  | ... | 3  | ... | 7  | ... |
| Ditto               | ... | ...  | 0.8 | ...  | 5   | ...  | 0   | ...  | 1   | ...  | 0.7 | ...  | 3   | ...  | 0   | ...  | 2   | ...  | 5   |
| Whooping Cough      | ... | 16   | ... | 3  | ... | 17   | ... | 4  | ... | 8  | ... | 4  | ... | 14   | ... | 6  | ... | 14   | ... |
| Ditto               | ... | ...  | 12  | ...  | 2   | ...  | 12  | ...  | 2   | ...  | 6   | ...  | 2   | ...  | 9   | ...  | 4   | ...  | 10  |
| Tubercular diseases | ... | 0  | ... | 3  | ... | 4  | ... | 6  | ... | 14   | ... | 5  | ... | 6  | ... | 9  | ... | 4  | ... |
| Ditto               | ... | ...  | 0   | ...  | 2   | ...  | 3   | ...  | 4   | ...  | 10  | ...  | 3   | ...  | 4   | ...  | 6   | ...  | 3   |
| Debility            | ... | 12   | ... | 54   | ... | 30   | ... | 53   | ... | 59   | ... | 29   | ... | 39   | ... | 47   | ... | 29   | ... |
| Ditto               | ... | ...  | 9   | ...  | 39  | ...  | 21  | ...  | 37  | ...  | 45  | ...  | 20  | ...  | 26  | ...  | 32  | ...  | 22  |
| Other causes        | ... | 23   | ... | 46   | ... | 44   | ... | 27   | ... | 22   | ... | 34   | ... | 53   | ... | 44   | ... | 34   | ... |
| Ditto               | ... | ...  | 17  | ...  | 33  | ...  | 31  | ...  | 19  | ...  | 16  | ...  | 24  | ...  | 36  | ...  | 31  | ...  | 26  |

### Particulars of Deaths of Illegitimate Children during 1905.

| Age.     | Sex.    | Cause of Death.  |
|----------|---------|--|
| 3 years  | F. .... | Gastritis: Exhaustion.   |
| 10 „     | F. .... | Tubercular Meningitis.   |
| 3 months | F. .... | Syncope following acute bronchitis accelerated by want of medical attention. |
| 7 „      | M. .... | Convulsions due to improper feeding.   |
| 3 „      | F. .... | General Debility, General Oedema.  |
| 7 „      | M. .... | Meningitis, Convulsions.   |
| 26 days  | M. .... | Mal-nutrition: Exhaustion.   |
| 3 months | M. .... | Bronchitis.  |
| 4 „      | M. .... | Convulsions.   |
| 2 days   | M. .... | Premature birth, Debility.   |

Comparing death-rates per 1,000 births of each class among legitimate and illegitimate children.

|  | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 |
|--|------|------|------|------|------|------|------|------|------|
| Infantile death-rate of legitimate children.   | 144  | 166  | 162  | 138  | 180  | 130  | 147  | 159  | 131  |
| Infantile death-rate of illegitimate children. | 172  | 255  | 228  | 125  | 200  | 156  | 71   | 162  | 256  |

### Vaccination.

I am obliged to the Registrar of the Sub-District of Crewe (Mr. T. W. Lovatt) for his kindness in supplying the following information.

| YEAR  | 1898 | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 |
|---|------|------|------|------|------|------|------|------|
| Births registered ... ..  | 1365 | 1400 | 1420 | 1311 | 1412 | 1454 | 1436 | 1318 |
| Successfully vaccinated ... ..  | 913  | 945  | 990  | 900  | 1016 | 1060 | 1050 | 1014 |
| Certificates of insusceptibility  | 1    | 3    | 5    | 6    | 3    | 2    | 5    | 3    |
| Certificates of exemption (Conscience Clause) ... ..                            | 35   | 66   | 40   | 33   | 22   | 33   | 21   | 44   |
| Had smallpox ... ..   | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  |
| Died unvaccinated ... ..  | 159  | 155  | 133  | 143  | 128  | 140  | 133  | 101  |
| Postponed by medical certificate  | 75   | 61   | 43   | 24   | 33   | 43   | 35   | 30   |
| Removal to other districts ... ..   | 52   | 44   | 59   | 49   | 51   | 56   | 50   | 49   |
| In abeyance ... ..  | 130  | 126  | 150  | 156  | 159  | 120  | 142  | 77   |
| Percentage successfully vaccinated ... ..                                       | 66   | 67   | 69   | 68   | 71   | 72   | 73   | 77   |
| Percentage successfully vaccinated excluding those who died unvaccinated ... .. | 75   | 75   | 76   | 77   | 79   | 75   | 80   | 83   |



### Zymotic Diseases.

The diseases belonging to this group shew a very considerable decrease, due to a diminution of 50 per cent. in the number of cases notified.

The mortality from the seven principal diseases in this group, known as the Zymotic death rate, shews a slight increase. This resulted entirely from the increased number of deaths from Whooping Cough and Measles. From the following table it will be seen that 93 per cent. of these deaths occurred under 5 years of age.

TABLE 6.—Number of **Deaths** from the Seven Principal Zymotic Diseases during 1905, in the Borough of Crewe :—

|   | Under<br>5 years. | Over<br>5 years. | Total. | Rate per<br>1,000. |
|---|-------------------|------------------|--------|--------------------|
| Smallpox ... ..                           | ...               | ...              | ...    | ...                |
| Diphtheria and Membranous<br>Croup ... .. | 4                 | ...              | 4      | 0·08               |
| Scarlet Fever ... ..                      | 4                 | ...              | 4      | 0·08               |
| Enteric Fever ... ..                      | ...               | 4                | 4      | 0·08               |
| Measles ... ..                            | 22                | ...              | 22     | 0·47               |
| Whooping Cough ... ..                     | 27                | 1                | 28     | 0·6                |
| Diarrhoea ... ..                          | 16                | ...              | 16     | 0·34               |
| Totals ... ..                             | 73                | 5                | 78     | 1·67               |

The mortality from these diseases was in England and Wales 1·52, in the 76 large towns 1·88, in the 141 smaller towns 1·50, and in rural England and Wales 1·09.

Of the **Notifiable Diseases** 245 notifications were received, being 214 less than 1904.

For comparison the corresponding figures for 1904 for each notifiable disease are given :—

| Year.         | Small-pox. | Diphtheria and Membranous Croup. | Scarlet Fever. | Enteric Fever. | Erysipelas. | Puerperal Fever. | Total. |
|---------------|------------|----------------------------------|----------------|----------------|-------------|------------------|--------|
| 1904          | 0          | 53                               | 351            | 2              | 52          | 1                | 459    |
| 1905          | 0          | 47                               | 147            | 10             | 31          | 10               | 245    |
| Decrease 1904 | ...        | 6                                | 204            | ...            | 21          | ...              | 214    |

From this it will be seen that Scarlet Fever contributed 60 per cent. of the cases notified.

**Age Distribution.**—Only 1.6 per cent. of the notifiable diseases occurred during the first year of life, while 30 per cent. were from one to five years of age, and 44.8 per cent. from five to fifteen years of age. 23.6 per cent. of the cases notified were over fifteen years of age.

**Local Distribution.**—The Central Ward had the smallest number of notified infectious cases, viz., 27, the West having 58, the North, 64, and the South 96.

The distribution of the deaths, the case fatality, and the monthly incidence are given in the following tables.

TABLE 7.—Number of deaths from the Seven Principal Zymotic Diseases in the various **Wards** during 1905:—

|  | Central. | West. | North. | South. |
|--|----------|-------|--------|--------|
| Smallpox ... ..                        | ...      | ...   | ...    | ...    |
| Diphtheria and Membranous Croup ... .. | 0        | 2     | 1      | 1      |
| Scarlet Fever ... ..                   | 0        | 0     | 3      | 1      |
| Enteric Fever ... ..                   | 1        | 0     | 0      | 3      |
| Measles ... ..                         | 1        | 4     | 2      | 15     |
| Whooping Cough ... ..                  | 6        | 5     | 12     | 5      |
| Diarrhoea ... ..                       | 3        | 3     | 3      | 7      |
| Totals ... ..                          | 11       | 14    | 21     | 32     |

TABLE 8.—Case fatality of **Notifiable** Zymotic Diseases:—

| Disease.                        | Cases Notified. | Deaths. | Case Fatality per cent. |
|---------------------------------|-----------------|---------|-------------------------|
| Smallpox ... ..                 | ...             | ...     | ...                     |
| Diphtheria and Membranous Croup | 47              | 4       | 8·5                     |
| Scarlet Fever ... ..            | 147             | 4       | 2·7                     |
| Enteric Fever ... ..            | 10              | 4       | 40                      |
| Erysipelas ... ..               | 31              | 1       | 3·2                     |
| Puerperal Fever ... ..          | 10              | 5       | 50                      |



TABLE 9.—Shewing the number of Notifications received each month during the year:—

|               | Small-pox. | Diphtheria and Membranous Croup. | Scarlet Fever. | Enteric Fever. | Erysipelas. | Puerperal Fever. | Totals |
|---------------|------------|----------------------------------|----------------|----------------|-------------|------------------|--------|
| January ...   | ...        | 6                                | 24             | 1              | 2           | 1                | 34     |
| February ...  | ...        | 6                                | 26             | ...            | 2           | 3                | 37     |
| March ...     | ...        | 9                                | 16             | ...            | 1           | 3                | 29     |
| April ...     | ...        | 5                                | 11             | 1              | 3           | 1                | 21     |
| May ...       | ...        | 4                                | 16             | 2              | 1           | ...              | 23     |
| June ...      | ...        | ...                              | 16             | ...            | 1           | ...              | 17     |
| July ...      | ...        | 2                                | 7              | 1              | 4           | ...              | 14     |
| August ...    | ...        | 2                                | 4              | ...            | 4           | ...              | 10     |
| September ... | ...        | 3                                | 10             | 4              | 5           | 1                | 23     |
| October ...   | ...        | 2                                | 5              | ...            | 2           | ...              | 9      |
| November ...  | ...        | 5                                | 9              | 1              | 2           | ...              | 17     |
| December ...  | ...        | 3                                | 3              | ...            | 4           | 1                | 11     |
| Totals ...    | ...        | 47                               | 147            | 10             | 31          | 10               | 245    |

TABLE 10.—Comparing the number of notifications with previous years:—

|                                | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 |
|--------------------------------|------|------|------|------|------|------|------|------|------|
| Smallpox ...                   | ...  | 1    | ...  | ...  | ...  | 1    | 5    | ...  | ...  |
| Diphtheria and Memb. Croup ... | 66   | 40   | 46   | 36   | 112  | 136  | 150  | 53   | 47   |
| Scarlet Fever ...              | 201  | 57   | 50   | 211  | 160  | 96   | 212  | 351  | 147  |
| Enteric Fever ...              | 32   | 32   | 30   | 22   | 15   | 17   | 11   | 2    | 10   |
| Erysipelas ...                 | 115  | 49   | 62   | 44   | 41   | 40   | 40   | 52   | 31   |
| Puerperal Fever ...            | 7    | 4    | 10   | 7    | 1    | 5    | 6    | 1    | 10   |
|                                | 421  | 183  | 198  | 320  | 329  | 295  | 424  | 459  | 245  |



### Notification of Infectious Diseases.

The cost of notification fees paid to Medical Practitioners and the cost of notification per 1,000 of the population has been as under:

|                     |     |     |     |     |          | Cost per 1,000 of<br>the population. |
|---------------------|-----|-----|-----|-----|----------|--------------------------------------|
| 1896 (three months) | ... | ... | ... | ... | £19 5 0  |                                      |
| 1897                | ... | ... | ... | ... | £52 15 0 | £1 7 4                               |
| 1898                | ... | ... | ... | ... | £22 17 6 | £0 11 7                              |
| 1899                | ... | ... | ... | ... | £24 12 4 | £0 12 1                              |
| 1900                | ... | ... | ... | ... | £38 7 8  | £0 18 9                              |
| 1901                | ... | ... | ... | ... | £41 0 7  | £0 19 4                              |
| 1902                | ... | ... | ... | ... | £36 6 0  | £0 16 9                              |
| 1903                | ... | ... | ... | ... | £52 0 7  | £1 2 10                              |
| 1904                | ... | ... | ... | ... | £53 11 0 | £1 3 2                               |
| 1905                | ... | ... | ... | ... | £31 7 6  | £0 13 5                              |

### Disinfection.

During the year 276 houses were disinfected, the number of houses disinfected after the occurrence of notifiable infectious diseases being 223: after deaths from Measles, 19; after deaths from Phthisis, 17; after deaths from Whooping Cough, 14; and after deaths from Influenza, 3. In addition to the above, eight schools were disinfected during the year.

The bedding and clothing from these houses, as well as seventy-eight sets of bedding from the Cottage Hospital, were removed to the Isolation Hospital, and disinfected by passing through the Washington Lyon disinfecter.

The following quantities of disinfectants were used during the year:—

2 tons of Carbolic Powder (15%) used chiefly for nightsoil purposes.

$\frac{1}{2}$ -ton of Izal Powder, used chiefly for distribution to householders.

10 gallons of Izal Fluid, used in houses where cases of infectious disease occurred.

50 lbs. of Formalin Tablets for room disinfection.

### Bacteriological Examinations.

TABLE 11.—The following Table shews the number of examinations made during the year, by arrangement with Prof. Delepine, Owen's College, Manchester:—

| Nature of Specimen.         | Negative. | Positive. | Totals. |
|-----------------------------|-----------|-----------|---------|
| Typhoid Fever, Blood Serum  | 7         | 6         | 13      |
| Diphtheria, Throat Swabs... | 11        | 9         | 20      |
| Phthisis, Sputa ... ..      | 17        | 19        | 36      |
| Totals ... ..               | 35        | 34        | 69      |

### Smallpox.

There were no cases notified during the year.

The number of deaths occurring from Smallpox in the Borough of Crewe during each year since 1874 is as follows:—

|           |     |          |           |     |           |
|-----------|-----|----------|-----------|-----|-----------|
| 1874      | ... | 4 deaths | 1882      | ... | 0 deaths. |
| 1875      | ... | 1 „      | 1883      | ... | 1 „       |
| 1876-1879 | ... | 0 „      | 1884      | ... | 1 „       |
| *1880     | ... | „        | 1885-1905 | ... | 0 „       |
| 1881      | ... | 0 „      |           |     |           |

\*No record.

### Diphtheria and Membranous Croup.

|                           |     |     |     |     |     |     |
|---------------------------|-----|-----|-----|-----|-----|-----|
| Cases notified            | ... | ... | ... | ... | ... | 47  |
| Deaths                    | ... | ... | ... | ... | ... | 4   |
| Fatality per cent         | ... | ... | ... | ... | ... | 8.5 |
| Cases removed to hospital | ... | ... | ... | ... | ... | 27  |

Cases and deaths in previous years since 1897.

|            |     |       |       |       |       |       |       |       |       |
|------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Year       | ... | 1897. | 1898. | 1899. | 1900. | 1901. | 1902. | 1903. | 1904. |
| Cases      | ... | 66    | 40    | 46    | 36    | 112   | 136   | 150   | 53    |
| Deaths     | ... | 11    | 3     | 14    | 4     | 16    | 28    | 18    | 3     |
| Fatality % | ... | 16.6  | 7.5   | 30.4  | 11.1  | 14.2  | 20.5  | 12.0  | 5.6   |

The number of cases reported during the year was 6 less than during 1904, but the fatality shews a slight increase, four deaths being recorded as against three last year.

Almost one-half of the cases were from the South Ward, the distribution being:—South Ward 21, West Ward 13, North Ward 7, and Central Ward 6.

At no time during the year did the disease show any tendency to become epidemic.

The number of deaths from Diphtheria and Membranous Croup occurring in the Borough of Crewe during each year since 1874, is given below:—

|                   |                   |                   |
|-------------------|-------------------|-------------------|
| 1874 ... 0 deaths | 1884 ... 4 deaths | 1894 ... 2 deaths |
| 1875 ... 7 „      | 1885 ... 4 „      | 1895 ... 2 „      |
| 1876 ... 7 „      | 1886 ... 5 „      | 1896 ... 10 „     |
| 1877 ... 2 „      | 1887 ... 16 „     | 1897 ... 11 „     |
| *1878 ...         | 1888 ... 14 „     | 1898 ... 3 „      |
| 1879 ... 2 „      | 1889 ... 8 „      | 1899 ... 14 „     |
| *1880 ...         | 1890 ... 4 „      | 1900 ... 4 „      |
| 1881 ... 1 „      | 1891 ... 3 „      | 1901 ... 16 „     |
| 1882 ... 4 „      | 1892 ... 9 „      | 1902 ... 28 „     |
| 1883 ... 6 „      | 1893 ... 19 „     | 1903 ... 18 „     |
|                   |                   | 1904 ... 3 „      |
| <b>1905</b> ...   | ... 4 deaths.     |                   |

\* No record.

The average annual number of deaths for 30 years since 1874—7.

### Scarlet Fever.

|                           |     |     |     |     |     |
|---------------------------|-----|-----|-----|-----|-----|
| Cases notified            | ... | ... | ... | ... | 147 |
| Deaths                    | ... | ... | ... | ... | 4   |
| Fatality per cent.        | ... | ... | ... | ... | 2·7 |
| Cases removed to hospital | ... | ... | ... | ... | 120 |

(Or 81 % of those notified).



## Cases and deaths in previous years since 1897.

| Year               | 1897. | 1898. | 1899. | 1900. | 1901. | 1902. | 1903. | 1904. |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cases              | 201   | 57    | 50    | 211   | 160   | 96    | 212   | 351   |
| Deaths             | 7     | 3     | 1     | 8     | 6     | 3     | 9     | 11    |
| Fatality per cent. | 3.4   | 5.2   | 2.0   | 3.7   | 3.7   | 3.1   | 4.2   | 3.1   |

The number of cases notified was 204 less than in 1904, and is just slightly under the average annual number. The fatality rate is also low. Enquiries made into each case as it arose showed that the disease was spread entirely by means of personal contact either at home or more commonly at school.

The following table shows the number of cases occurring in each ward and also the seasonal distribution of the disease. The greatest reduction was in the West and South Wards. Two thirds of the cases occurred during the first half of the year, and school closure for the annual holidays seemed to determine the practical disappearance of the disease for a time, the number of cases notified from July onward being only 38, as against 109 in the first six months of the year.

|           |     |     |     | Central. | West. | North. | South. |
|-----------|-----|-----|-----|----------|-------|--------|--------|
| January   | ... | ... | ... | —        | 3     | 9      | 12     |
| February  | ... | ... | ... | 2        | 4     | 14     | 6      |
| March     | ... | ... | ... | 1        | 2     | 10     | 3      |
| April     | ... | ... | ... | 3        | 1     | 5      | 2      |
| May       | ... | ... | ... | 3        | 0     | 4      | 9      |
| June      | ... | ... | ... | 1        | 0     | 5      | 10     |
| July      | ... | ... | ... | —        | 6     | —      | 1      |
| August    | ... | ... | ... | —        | 4     | —      | —      |
| September | ... | ... | ... | —        | 5     | 3      | 2      |
| October   | ... | ... | ... | —        | —     | 2      | 3      |
| November  | ... | ... | ... | —        | 3     | —      | 6      |
| December  | ... | ... | ... | 1        | 1     | —      | 1      |
|           |     |     |     | 11       | 29    | 52     | 55     |

The number of deaths from Scarlet Fever occurring in the Borough of Crewe during each year since 1874, is as follows :—

|                   |                   |                   |
|-------------------|-------------------|-------------------|
| 1874 ... 9 deaths | 1884 ... 0 deaths | 1894 ... 8 deaths |
| 1875 ... 43 „     | 1885 ... 13 „     | 1895 ... 22 „     |
| 1876 ... 4 „      | 1886 ... 9 „      | 1896 ... 18 „     |
| 1877 ... 22 „     | 1887 ... 7 „      | 1897 ... 7 „      |
| 1878 ... many „   | 1888 ... 8 „      | 1898 ... 3 „      |
| 1879 ... 77 „     | 1889 ... 16 „     | 1899 ... 1 „      |
| *1880 ...         | 1890 ... 0 „      | 1900 ... 8 „      |
| 1881 ... 28 „     | 1891 ... 2 „      | 1901 ... 6 „      |
| 1882 ... 7 „      | 1892 ... 3 „      | 1902 ... 3 „      |
| 1883 ... 7 „      | 1893 ... 19 „     | 1903 ... 9 „      |
|                   |                   | 1904 ... 11 „     |
| <b>1905</b> ...   | ...               | 4 deaths.         |

\* No record.

The average annual number of deaths for 30 years since 1874—11.

### Enteric Fever.

|                    |     |     |     |     |    |
|--------------------|-----|-----|-----|-----|----|
| Cases notified     | ... | ... | ... | ... | 10 |
| Number of deaths   | ... | ... | ... | ... | 4  |
| Fatality per cent. | ... | ... | ... | ... | 40 |

Cases and deaths in previous years since 1897.

| Year              | 1897. | 1898. | 1899. | 1900. | 1901. | 1902. | 1903. | 1904. |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cases ...         | 28    | 32    | 30    | 22    | 15    | 17    | 11    | 2     |
| Deaths ...        | 3     | 7     | 4     | 10    | 3     | 2     | 4     | 1     |
| Fatality per cent | 10·7  | 21·8  | 13·3  | 45·4  | 20·0  | 11·7  | 36·4  | 50    |

The number of cases of Enteric Fever reported was small, although an increase on the preceding year. Three of the cases were imported from other districts, the patients returning to their homes in Crewe owing to their illness. The others were sporadic cases, two or three of which proved on continued observation to be suffering from some other disease. The seasonal distribution was :—January 1 case, April 1 case, May 2 cases, July 1 case, August 1 case, September 3 cases, and November 1 case,



The number of deaths from Enteric Fever occurring in the Borough of Crewe during each year since 1874, is as follows :—

|                   |                    |                   |
|-------------------|--------------------|-------------------|
| 1874 ... 4 deaths | 1884 ... 13 deaths | 1894 ... 5 deaths |
| 1875 ... 15 „     | 1885 ... 4 „       | 1895 ... 6 „      |
| 1876 ... 8 „      | 1886 ... 7 „       | 1896 ... 9 „      |
| 1877 ... 12 „     | 1887 ... 11 „      | 1897 ... 4 „      |
| *1878 ..          | 1888 ... 6 „       | 1898 ... 7 „      |
| 1879 ... 6 „      | 1889 ... 0 „       | †1899 ... 4 „     |
| *1880 ...         | 1890 ... 11 „      | 1900 ... 10 „     |
| 1881 ... 9 „      | 1891 ... 4 „       | 1901 ... 3 „      |
| 1882 ... 10 „     | 1892 ... 3 „       | 1902 ... 2 „      |
| 1883 ... 4 „      | 1893 ... 9 „       | 1903 ... 4 „      |
|                   |                    | 1904 ... 1 „      |
| 1905 ...          | ... 4 deaths.      |                   |

\* No record. † Death also occurred in a non-resident.

The average annual number of deaths from Enteric Fever for 30 years since 1874—6.

### Diarrhœal Diseases.

The diseases grouped under this heading include all the forms of diarrhœa, known variously as epidemic and zymotic enteritis, epidemic and summer diarrhœa; dysentery and dysenteric diarrhœa, choleraic diarrhœa, cholera (not Asiatic) and cholera nostras; enteritis (non-tuberculous); and gastritis and gastro-intestinal catarrh.

The number of deaths registered from these causes was 29, a decrease of 19, as compared with 1904.

The influence of season on the prevalence of diarrhœal diseases is very marked; they are hot weather diseases, and prevail in epidemic form in summer and autumn, when the temperature of the soil reaches and is maintained at a high level. Twenty of the deaths occurred between the months of June and October, fourteen of them being in August, September and October,

From Table 5 in the Appendix it is seen that 22 of the deaths were among infants under one year. Enquiries were made into the circumstances attending each of these deaths, in the case of infants, with special reference to the feeding. Only one of the infants was entirely breast fed; four were fed at the breast for periods varying from a few days to six months, and then upon the bottle; one was fed throughout, partly at the breast, and partly with "sops"; the remainder were brought up entirely upon the bottle. In only one case was the boat-shaped bottle in use, the others had the rubber tube bottle.

The sanitary surroundings and general cleanliness of the house, and the nature of the sanitary conveniences in use were also noted. These enquiries have been going on for several years now, and the statement below is based upon enquiries made into these special points in connection with the deaths of 118 infants.

| Nature of sanitary convenience. | Total number of houses of each class (1905). | Number of deaths in each class. | Proportion per cent. of deaths in each class. |
|---------------------------------|--|---------------------------------|---|
| <b>WATER CARRIAGE SYSTEM—</b>   |  |                                 |   |
| Clean water closet ... ..       | 5,180  | 32                              | 0·61  |
| Slop water closet ... ..        | 1,010  | 12                              | 1·18  |
|                                 | 6,190  | 44                              | 0·71  |
| <b>DRY CONSERVANCY—</b>         |  |                                 |   |
| Pail ... ..                     | 3,182  | 46                              | 1·44  |
| Mixen ... ..                    | 1,245  | 25                              | 2·009   |
| Cesspool ... ..                 | 22   | 3                               | 13·63   |
|                                 | 4,449  | 74                              | 1·66  |

This examination shews very clearly the enormous difference between the clean water closet and the other methods of sewage disposal. Every method of dry conservancy, which means the storage, in fairly close proximity to dwelling houses, of excreta, for periods varying according to the size of the receptacle, compares most unfavourably with the water carriage system. The



work of abolishing the old system of mixens and cesspools has been progressing steadily for years. Unfortunately, however, the scarcely less offensive, and scarcely less insanitary pail closets shew a tendency to increase. There is probably little objection to these in purely rural districts, but in towns their multiplication is to be deprecated.

The number of deaths occurring from Diarrhœa in the Borough of Crewe each year since 1874 is as follows :—

|                    |                    |                    |
|--------------------|--------------------|--------------------|
| 1874 ... 21 deaths | 1884 ... 32 deaths | 1894 ... 13 deaths |
| 1875 ... 19 „      | 1885 ... 6 „       | 1895 ... 49 „      |
| 1876 .. 21 „       | 1886 ... 39 „      | 1896 ... 22 „      |
| 1877 ... 5 „       | 1887 ... 14 „      | †1897 ... 61 „     |
| 1878 ... 41 „      | 1888 ... 7 „       | 1898 ... 47 „      |
| 1879 ... 2 „       | 1889 ... 14 „      | ‡1899 ... 41 „     |
| *1880 ... „        | 1890 ... 15 „      | †1900 ... 35 „     |
| 1881 ... 0 „       | 1891 ... 11 „      | 1901 ... 62 „      |
| 1882 ... 16 „      | 1892 ... 24 „      | 1902 ... 29 „      |
| 1883 ... 10 „      | 1893 ... 93 „      | 1903 ... 11 „      |
|                    |                    | 1904 .. 34 „       |
| <b>1905</b> ... .. |                    | 16 deaths.         |

\* No record. † One case of Dysentery included in each year.

‡ One death of a non-resident included.

The average annual number of deaths for 31 years since 1874—26.

### Measles.

|                      |     |     |     |      |
|----------------------|-----|-----|-----|------|
| Number of deaths     | ... | ... | ... | 22   |
| Death-rate per 1,000 | ... | ... | ... | 0·47 |

The outbreak of Measles, which commenced in the autumn of 1904, continued during the early months of 1905. It then disappeared almost completely, the last cases being reported early in June. The epidemic might therefore be divided into two periods, the first during the latter half of 1904, with 13 deaths, and the second part occupying the first half of 1905, when



22 deaths occurred. Several schools were closed on this account, and every effort made to prevent its spread to the others by means of transference of scholars from one school to another. Notice of closure of each school was sent to teachers, both of day and Sunday schools, with a request that scholars from the infected school should be excluded from attendance.

There were 588 certificates granted for the exclusion of children from school on account of Measles as compared with 1,549 in 1904.

The number of deaths from Measles occurring in the Borough of Crewe during each year since 1874 is as follows:—

|                    |                    |                   |
|--------------------|--------------------|-------------------|
| 1874 ... 21 deaths | 1884 ... 1 death   | 1894 ... 0 deaths |
| 1875 ... 11 „      | 1885 ... 31 deaths | 1895 ... 7 „      |
| 1876 ... 2 „       | 1886 ... 0 „       | 1896 ... 9 „      |
| 1877 ... 0 „       | 1887 ... 32 „      | †1897 ... 1 „     |
| †1878 ... 30 „     | 1888 ... 7 „       | 1898 ... 35 „     |
| 1879 ... 1 „       | 1889 ... 8 „       | 1899 ... 10 „     |
| *1880 ... 0 „      | 1890 ... 14 „      | 1900 ... 17 „     |
| 1881 ... 9 „       | 1891 ... 1 „       | †1901 ... 3 „     |
| 1882 ... 1 „       | 1892 ... 5 „       | 1902 ... 18 „     |
| 1883 ... 18 „      | 1893 ... 34 „      | 1903 ... 0 „      |
| 1904 ... ..        | ... ..             | 13 deaths.        |
| <b>1905</b> ... .. | ... ..             | 22 „              |

\* No record. † The second half of the year only.

‡ One also occurred in a non-resident.

The average annual number of deaths from Measles for 31 years since 1874—11.

### Whooping Cough.

|                      |     |     |     |     |
|----------------------|-----|-----|-----|-----|
| Number of Deaths     | ... | ... | ... | 28  |
| Death-rate per 1,000 | ... | ... | ... | 0.6 |

The number of deaths registered is 16 more than that of the preceding year, 28 as against 12 in 1904. The number of

certificates granted for the exclusion of children from school on account of Whooping Cough was 170, as compared with 189 in 1904.

The number of deaths from Whooping Cough occurring in the Borough of Crewe during each year since 1874 is as follows :—

|                    |                    |                    |
|--------------------|--------------------|--------------------|
| 1874 ... 1 death   | 1884 ... 14 deaths | 1894 ... 19 deaths |
| 1875 ... 9 deaths  | 1885 ... 11 „      | 1895 ... 7 „       |
| 1876 ... 2 „       | 1886 ... 8 „       | 1896 ... 8 „       |
| 1877 ... 9 „       | 1887 ... 4 „       | 1897 ... 26 „      |
| *1878 ... 0 „      | 1888 ... 4 „       | 1898 ... 9 „       |
| 1879 ... 9 „       | 1889 ... 17 „      | 1899 ... 26 „      |
| *1880 ... 0 „      | *1890 ... 0 „      | 1900 ... 5 „       |
| 1881 ... 4 „       | 1891 ... 13 „      | 1901 ... 19 „      |
| 1882 ... 9 „       | 1892 ... 23 „      | 1902 ... 9 „       |
| 1883 ... 4 „       | 1893 ... 14 „      | 1903 ... 17 „      |
| 1904 ... ..        | 12 deaths.         |                    |
| <b>1905</b> ... .. | 28 „               |                    |

\* No record.

Average annual number of deaths for 29 years since 1874—11.

### Erysipelas.

|                    |     |     |     |     |     |
|--------------------|-----|-----|-----|-----|-----|
| Cases notified     | ... | ... | ... | ... | 31  |
| Number of deaths   | ... | ... | ... | ... | 1   |
| Fatality per cent. | ... | ... | ... | ... | 3·2 |

Cases and Deaths in the previous years since 1897.

| Year               | 1897. | 1898. | 1899. | 1900. | 1901. | 1902. | 1903. | 1904.      |
|--------------------|-------|-------|-------|-------|-------|-------|-------|------------|
| Cases ...          | 115   | 49    | 62    | 44    | 40    | 40    | 40    | <b>52</b>  |
| Deaths ...         | 9     | 3     | 2     | 0     | 3     | 4     | 7     | <b>5</b>   |
| Fatality per cent. | 7     | 6     | 3     | 0     | 7·5   | 10    | 17    | <b>9·6</b> |

In 9 cases there was a history of injury. The parts affected were :—The face, 19 cases ; hand and arm, 4 cases ; foot and leg, 5 cases ; other parts, 3 cases.



**Puerperal Fever.**

|                    |     |     |     |     |     |    |
|--------------------|-----|-----|-----|-----|-----|----|
| Cases notified     | ... | ... | ... | ... | ... | 10 |
| Number of Deaths   | ..  | ... | ... | ... | ... | 5  |
| Fatality per cent. | ... | ... | ... | ... | ... | 50 |

Cases and Deaths in the previous years since 1897.

|                   |     |       |       |       |       |       |       |       |       |
|-------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Year              | ... | 1897. | 1898. | 1899. | 1900. | 1901. | 1902. | 1903. | 1904. |
| Cases             | ... | 7     | 4     | 10    | 7     | 1     | 4     | 6     | 1     |
| Deaths            | ... | 3     | 2     | 7     | 5     | 0     | 2     | 2     | 3     |
| Fatality percent. | 42  | 50    | 70    | 71    | 0     | 50    | 33    | ?     |       |

The cases notified show, as was anticipated, an increase, the result probably of the greater supervision now exercised over the practice of midwives. As those are cases which no medical man or midwife wishes to have in his or her practice, it not infrequently happens that such patients do not receive quite such careful attention as the serious nature of the disease necessitates, while at the same time there is always the risk to which other lying-in women may be exposed. It was for these reasons that the Health Committee decided that whenever the accommodation was available, cases of Puerperal Fever should be admitted to the Isolation Hospital. Three cases were admitted during the year, all of whom recovered.

**Phthisis and other forms of Tuberculosis.**

|                                       |     |     |     |
|---------------------------------------|-----|-----|-----|
| Number of deaths from Phthisis        | ... | ... | 24  |
| Mortality per 1,000 of the population | ... | ... | 0.5 |
| Number of Deaths from other forms of  |     |     |     |
| Tuberculosis                          | ... | ... | 44  |
| Mortality per 1,000 of the population | ... | ... | 0.9 |

Of the 24 deaths registered one is immediately struck with the fact that 19 were males and only 5 females. The figures are much too small to admit of any general conclusions being drawn, but in Manchester where a special enquiry has been prosecuted into the phthisis mortality for a number of years, much valuable information on this subject has been obtained. The results of these enquiries point to personal infection while at work as the



principal source of infection. This would account for the greater incidence of the disease among the male population, along with other known contributing factors of a character likely to depress vitality and affecting mostly men, such as exposure, intemperance, poverty, etc.

An examination of the registrar's returns for the last six years shews that there were seventeen houses in the town in which more than one death from tubercular disease had occurred.

The occurrence of secondary cases of tubercular disease in a house raises two questions :—Is it purely a case of personal infection, *i.e.*, direct transmission? or is the sanitary condition of the dwelling such that the bacillus finds outside the human body conditions which favour its existence and development?

In thirteen instances the second case was a relative, and in four the house was occupied by an entirely different family. That the majority of cases arise from close association with a person suffering from the disease is shewn by the Manchester enquiries, where, out of a total of 601 cases, it was shewn that 407 had acquired the disease in this way. The infection is conveyed chiefly by means of the sputum, and the habit of spitting is to be condemned for this reason if for no other.

A bacteriological examination of the spit was made in 36 cases and in 19 the tubercle bacillus was found. After every death from tubercular disease the health department offers to carry out disinfection of the premises, bedding and clothing, and in 17 instances this was done.

The number of deaths from Phthisis is 5 less than in the preceding year, while the deaths from the other forms of tubercular disease show a decrease of 1.

The number of deaths from Phthisis occurring in the Borough of Crewe during each year since 1874, is as follows :—

|                    |                    |                    |
|--------------------|--------------------|--------------------|
| 1874 ... 31 deaths | 1885 ... 33 deaths | 1896 ... 33 deaths |
| 1875 ... 30   ,,   | 1886 ... 34   ,,   | 1897 ... 29   ,,   |
| 1876 ... 17   ,,   | 1887 ... 39   ,,   | 1898 ... 24   ,,   |

|             |   |             |   |             |   |
|-------------|---|-------------|---|-------------|---|
| 1877 ... 19 | „ | 1888 ... 22 | „ | 1899 ... 29 | „ |
| *1878 ...   | „ | 1889 ... 38 | „ | 1900 ... 42 | „ |
| 1879 ... 28 | „ | 1890 ... 36 | „ | 1901 ... 38 | „ |
| *1880 ...   | „ | 1891 ... 23 | „ | 1902 ... 22 | „ |
| 1881 ... 26 | „ | 1892 ... 24 | „ | 1903 ... 36 | „ |
| 1882 ... 28 | „ | 1893 ... 31 | „ | 1904 ... 29 | „ |
| 1883 ... 45 | „ | 1894 ... 34 | „ |             |   |
| 1884 ... 25 | „ | 1895 ... 42 | „ |             |   |

1905 ... .. 24 deaths.

\* No Record.

The average annual number of deaths from Phthisis during 30 years since 1874—30.

Table shewing the number of deaths which have occurred from Tubercular Diseases other than Phthisis since 1893.

|  | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Tubercular Meningitis                                      | 7    | 9    | 6    | 4    | 7    | 13   | 6    | 9    | 23   | 7    | 10   | 12   | 12   |
| Tubercular Periton-<br>itis and Tabes<br>Mesenterica ... } | 25   | 18   | 19   | 7    | 14   | 23   | 15   | 12   | 18   | 13   | 18   | 20   | 16   |
| Other forms of Tuber-<br>culosis ...                       | ...  | 5    | 6    | 2    | 2    | 5    | 6    | 18   | 7    | 14   | 7    | 13   | 16   |
|  | 32   | 32   | 31   | 13   | 23   | 41   | 27   | 39   | 48   | 34   | 35   | 45   | 44   |

### Influenza.

|                                   |     |     |     |     |     |
|-----------------------------------|-----|-----|-----|-----|-----|
| Number of Deaths                  | ... | ... | ... | ... | 10  |
| Mortality per 1,000 of population | ... | ... | ... | ... | 0.2 |

The number of deaths registered from this cause was three more than in 1904.

TABLE 12.

**Vital Statistics of Crewe Borough.**

Shewing Birth-rates and Mortality-rates in several groups.

| Year.                             | Birth-rate. | Death-rate.<br>All causes. | Zymotic. | Respiratory. | Phthisis. | Diarrhoea. | Children<br>per cent. of<br>total deaths<br>under |        | Infants under<br>1 year per 1,000<br>births. |
|-----------------------------------|-------------|----------------------------|----------|--------------|-----------|------------|---|--------|--|
|                                   |             |                            |          |              |           |            | 1 yr.   | 5 yrs. |  |
| 1895 ...                          | 33·6        | 16·5                       | 2·6      | 3·2          | 1·1       | 1·3        | 32·5  | 47·3   | 166  |
| 1896 ...                          | 31·8        | 15·1                       | 2·0      | 4·1          | 0·8       | 0·5        | 29·2  | 45·0   | 138  |
| 1897 ...                          | 33·1        | 16·2                       | 2·8      | 3·7          | 0·7       | 1·5        | 30·3  | 45·7   | 146  |
| 1898 ...                          | 34·5        | 17·6                       | 2·6      | 3·0          | 0·6       | 1·2        | 33·1  | 47·4   | 169  |
| 1899 ...                          | 34·6        | 17·1                       | 2·3      | 2·8          | 0·7       | 0·9        | 33·2  | 45·7   | 165  |
| 1900 ...                          | 34·3        | 16·3                       | 1·8      | 2·3          | 1·0       | 0·8        | 28·9  | 38·9   | 138  |
| 1901 ...                          | 30·9        | 16·7                       | 2·5      | 3·0          | 0·8       | 1·4        | 33·5  | 44·9   | 181  |
| 1902 ...                          | 32·6        | 14·9                       | 2·0      | 2·7          | 0·5       | 0·6        | 28·7  | 41·2   | 131  |
| 1903 ...                          | 31·9        | 14·3                       | 1·6      | 2·5          | 0·7       | 0·2        | 32  | 43     | 145  |
| 1904 ...                          | 30·9        | 14·6                       | 1·6      | 2·9          | 0·6       | 0·7        | 33  | 47     | 160  |
| Average<br>for above<br>10 years. | 32·8        | 15·9                       | 2·1      | 3·0          | 0·7       | 0·9        | 31·4  | 44·6   | 153  |
| 1905 ...                          | 28·2        | 13·5                       | 1·67     | 2·3          | 0·5       | 0·34       | 27·5  | 42·1   | 131  |



TABLE 13.—Shewing death-rate per 1,000 from different causes since 1895

| Cause of Death.  | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | Average for<br>10 years—<br>1895-1904. | 1905 |
|--|------|------|------|------|------|------|------|------|------|------|--|------|
| Cancer ... ..  | 0·57 | 0·58 | 0·38 | 0·53 | 0·61 | 0·45 | 0·75 | 0·80 | 0·52 | 0·52 | 0·57                                   | 0·60 |
| Diarrhoea ... ..   | 1·33 | 0·58 | 1·57 | 1·21 | 0·98 | 0·82 | 1·46 | 0·67 | 0·24 | 0·76 | 0·96                                   | 0·34 |
| Respiratory Diseases                                       | 3·26 | 4·16 | 3·73 | 3·01 | 2·86 | 2·39 | 3·04 | 2·79 | 2·50 | 2·95 | 3·06                                   | 2·3  |
| Measles ... ..   | 0·19 | 0·23 | 0·02 | 0·88 | 0·24 | 0·41 | 0·07 | 0·41 | 0·0  | 0·28 | 0·27                                   | 0·47 |
| Erysipelas ... ..  | 0·05 | 0·10 | 0·23 | 0·07 | 0·04 | ...  | 0·07 | 0·09 | 0·15 | 0·10 | 0·09                                   | 0·02 |
| Diphtheria ... ..  | 0·05 | 0·26 | 0·28 | 0·07 | 0·34 | 0·09 | 0·37 | 0·64 | 0·39 | 0·06 | 0·25                                   | 0·08 |
| Scarlet Fever...   | 0·59 | 0·47 | 0·17 | 0·07 | 0·02 | 0·19 | 0·14 | 0·06 | 0·19 | 0·23 | 0·21                                   | 0·08 |
| Typhoid Fever ...  | 0·16 | 0·23 | 0·10 | 0·17 | 0·09 | 0·24 | 0·07 | 0·04 | 0·08 | 0·02 | 0·12                                   | 0·08 |
| Whooping Cough ...   | 0·19 | 0·21 | 0·67 | 0·22 | 0·64 | 0·12 | 0·44 | 0·20 | 0·37 | 0·26 | 0·33                                   | 0·06 |
| Old Age ... ..   | 0·98 | 0·87 | 0·93 | 0·68 | 0·89 | 0·82 | 0·78 | 0·97 | 0·94 | 0·71 | 0·85                                   | 0·77 |
| Influenza ... ..   | 0·16 | 0·07 | 0·10 | 0·22 | 0·44 | 0·55 | 0·16 | 0·09 | 0·08 | 0·15 | 0·20                                   | 0·21 |
| Premature Birth ...  | 0·57 | 0·47 | 0·54 | 0·55 | 0·66 | 0·60 | 0·66 | 0·64 | 0·54 | 0·56 | 0·57                                   | 0·49 |
| Nervous Diseases ...                                       | 1·55 | 1·22 | 2·03 | 1·31 | 1·90 | 1·71 | 1·41 | 1·78 | 1·16 | 1·36 | 1·54                                   | 1·35 |
| Digestive Diseases ...                                     | 0·76 | 0·63 | 0·49 | 1·67 | 1·45 | 0·96 | 0·82 | 0·80 | 1·47 | 1·06 | 1·01                                   | 0·88 |
| Urinary Diseases ...                                       | 0·16 | 0·21 | 0·10 | 0·22 | 0·29 | 0·24 | 0·23 | 0·27 | 0·30 | 0·23 | 0·22                                   | 0·25 |
| Heart Diseases ...   | 1·11 | 1·38 | 1·78 | 1·38 | 1·08 | 1·49 | 1·29 | 1·08 | 1·27 | 1·08 | 1·29                                   | 1·28 |
| Phthisis ... ..  | 1·14 | 0·87 | 0·75 | 0·60 | 0·71 | 1·01 | 0·89 | 0·50 | 0·79 | 0·63 | 0·78                                   | 0·51 |
| Other Tubercular<br>Disease excluding<br>Tabes Mesenterica | 0·16 | 0·21 | 0·28 | 0·58 | 0·29 | 0·65 | 0·70 | 0·48 | 0·50 | 0·71 | 0·45                                   | 0·60 |
| Tabes Mesenterica ...                                      | 0·51 | 0·10 | 0·38 | 0·53 | 0·37 | 0·29 | 0·42 | 0·30 | 0·26 | 0·26 | 0·34                                   | 0·34 |
| Ill-defined ... ..   | 1·19 | 0·74 | 0·67 | 1·77 | 1·18 | 1·52 | 1·51 | 0·76 | 1·09 | 1·10 | 1·15                                   | 0·75 |
| Violence ... ..  | 0·13 | 0·47 | 0·33 | 0·78 | 0·42 | 0·72 | 0·44 | 0·48 | 0·39 | 0·43 | 0·45                                   | 0·25 |

TABLE 14.—Shewing gains and losses in the death-rate per 1,000 of the population in the year 1905, as compared with the average of the ten years, 1895-1904.

| GAINS.   |  |                   |                   |   |                                   |
|--|--|-------------------|-------------------|---|-----------------------------------|
| Name of Disease.   | Average Rate during ten years 1895-1904. | Rate during 1905. | Gains per 1,000.  | Probable number of lives saved during 1905. | Lives lost or gained during 1904. |
| Respiratory Diseases   | 3.06                                     | 2.31              | 0.75              | 36  | 7 gained                          |
| Diarrhoea ...  | 0.96                                     | 0.34              | 0.62              | 29  | 8 gained                          |
| Ill Defined ...  | 1.15                                     | 0.75              | 0.40              | 19  | 2 gained                          |
| Phthisis ...   | 0.78                                     | 0.51              | 0.27              | 13  | 9 gained                          |
| Nervous Diseases ...   | 1.54                                     | 1.35              | 0.19              | 9   | 9 gained                          |
| Violence ...   | 0.45                                     | 0.25              | 0.20              | 9   | 0.5 gained                        |
| Diphtheria ...   | 0.25                                     | 0.08              | 0.17              | 8   | 9 gained                          |
| Digestive Diseases ...   | 1.01                                     | 0.88              | 0.13              | 6   | 4 lost                            |
| Scarlet Fever ...  | 0.21                                     | 0.08              | 0.13              | 6   | 1 lost                            |
| Old Age ...  | 0.85                                     | 0.77              | 0.08              | 4   | 7 gained                          |
| Premature Birth ...  | 0.57                                     | 0.49              | 0.08              | 4   | 3 gained                          |
| Erysipelas ...   | 0.09                                     | 0.02              | 0.07              | 3   | 1 lost                            |
| Typhoid Fever ...  | 0.12                                     | 0.08              | 0.04              | 2   | 5 gained                          |
| Heart Diseases ...   | 1.29                                     | 1.28              | 0.01              | ...   | 9 gained                          |
| Tabes Mesenterica ...  | 0.34                                     | 0.34              | ...               | ...   | 5 gained                          |
| Gross Gains  | ...                                      | ...               | 3.14              | 148   | ...                               |
| LOSSES.  |  |                   |                   |   |                                   |
| Name of Disease.   | Average Rate during ten years 1895-1904. | Rate during 1905. | Losses per 1,000. | Probable number of lives lost during 1905.  | Lives lost or gained during 1904. |
| Whooping Cough ...   | 0.33                                     | 0.60              | 0.27              | 13  | 4 gained                          |
| Measles ...  | 0.27                                     | 0.47              | 0.20              | 9   | 2 lost                            |
| Tubercular Diseases (excluding Phthisis and Tabes Mesenterica) ... | 0.45                                     | 0.60              | 0.15              | 7   | 14 lost                           |
| Cancer ...   | 0.57                                     | 0.60              | 0.03              | 1   | 2 gained                          |
| Urinary Diseases ...   | 0.22                                     | 0.25              | 0.03              | 1   | 1 lost                            |
| Influenza ...  | 0.20                                     | 0.21              | 0.01              | ...   | 2 gained                          |
| Other Causes ...   | 1.19                                     | 1.24              | 0.05              | 2   | 7 gained                          |
| Gross Losses   | ...                                      | ...               | 0.74              | 33  | ...                               |

Nett gain 2.4 or 115 lives.

N.B.—The death of a person in a population of 46,578 corresponds to a rate of 0.021 per 1,000. Hence the saving or losing of a roll of 0.021 means the saving or losing of 1 human life.

similarly 0.107   "       "       "       5   "   lives.  
and 0.214       "       "       "       10   "   "



TABLE 15.—Shewing Birth and Death-rates in England and Wales, and certain other towns during 1905.

|                               | Population<br>estimated to<br>middle of<br>1905. | Birth-rate<br>per 1,000. | Death-rate<br>per 1,000. | Zymotic<br>Death-rate | Respiratory<br>Death-rate | Phthisis<br>Death-rate | Deaths from<br>other forms<br>of<br>Tuberculosis | Infant<br>Deaths per<br>1,000 births. |
|-------------------------------|--|--------------------------|--------------------------|-----------------------|---------------------------|------------------------|--|---------------------------------------|
| <b>England and<br/>Wales.</b> | 34,152,977                                       | 27·2                     | 15·2                     | 1·52                  | ...                       | ...                    | ...  | 128                                   |
| Aston Manor ...               | 81,320   | 26·1                     | 14·1                     | 2·2                   | ...                       | 1·1                    | ...  | 149                                   |
| Ashton-under-Lyne             | 44,880   | 26·3                     | 18·2                     | 1·8                   | 4·2                       | 1·3                    | 0·44   | 179                                   |
| Carlisle ...                  | 47,920   | 24·3                     | 16·3                     | 1·3                   | 2·7                       | 1·2                    | 0·6  | 139                                   |
| Eccles ...                    | 38,000   | 25·3                     | 13·4                     | 1·1                   | 2·5                       | 0·96                   | 0·5  | 111                                   |
| Keighley ...                  | 43,940   | 23·4                     | 14·5                     | 0·81                  | 2·69                      | 1·25                   | 0·61   | 132                                   |
| Lancaster ...                 | 44,570   | 23·02                    | 12·47                    | 1·48                  | 1·77                      | 1·03                   | 0·49   | 105                                   |
| Stafford ...                  | 22,813   | 26·84                    | 14·9                     | 1·59                  | 2·25                      | 1·17                   | 0·42   | 134                                   |
| Stoke-on-Trent ...            | 33,688   | 28·8                     | 14·8                     | 2·34                  | 2·64                      | 0·81                   | 0·41   | 155                                   |
| Wigan ...                     | 88,306   | 33·04                    | 18·07                    | 3·23                  | 3·78                      | 1·04                   | 0·41   | 163                                   |
| Wolverhampton ...             | 99,559   | 28·7                     | 14·8                     | 2·28                  | 2·60                      | 0·88                   | 0·43   | 136                                   |
| Southport ...                 | 51,107   | 18·02                    | 13·69                    | 0·43                  | 1·88                      | 1·17                   | 0·27   | 114                                   |
| Stalybridge ...               | 28,636   | 24·86                    | 17·0                     | 1·85                  | 3·87                      | 0·95                   | 0·3  | 177                                   |
| Burton-on-Trent ...           | 52,424   | 25·4                     | 12·5                     | 0·9                   | 1·5                       | 1·25                   | 0·17   | 87                                    |
| <b>CREWE</b> ...              | 46,578   | 28·2                     | 13·5                     | 1·67                  | 2·3                       | 0·5                    | 0·9  | 131                                   |



### Hospital Accommodation.

The accommodation provided for the isolation of infectious diseases (apart from Small-pox) consisted originally of two ward pavilions and an observation block, containing in all 28 beds. This has been in use since October 16th, 1897, and was erected at a cost of £9,500 (including the cost of the site). Owing to the rapid increase in the population, and the increasing number of patients treated, it was found necessary to enlarge the Hospital by the addition of a two-ward pavilion for diphtheria, together with extra housing accommodation for the nursing staff. The additions were commenced at the beginning of 1903, and were ready for occupation on the 30th March, 1904. The plans for the extension were prepared by George Bolshaw, Esq., of Southport, who was the architect for the original hospital, and the work was carried out by Messrs. Garner & Son, of Crewe. The total cost of the pavilion and addition to the house was £3,066.

The Small-pox Hospital is situated upon the corporation farm on the north side of Pym's Lane, off Minshull New Road. As it originally existed, excluding the part occupied by the caretaker and his family, there were two bedrooms available for patients, with suitable accommodation for a nurse. During 1903 further accommodation was provided by fitting up a small galvanised iron pavilion alongside the farm house. The Hospital has been unoccupied during the year, but has been kept ready for any emergency.

**Staff.**—The full staff consists of the Matron, 8 nurses (2 charge, 4 assistant, and 2 probationer nurses), and 6 maids (cook, housemaid, scullery maid, 2 ward maids and laundry maid). There is a non-resident ambulance attendant, who also acts as disinfecter for the Health Department, and a gardener. Occasional extra assistance has to be obtained in the laundry and grounds.

The actual number of cases admitted is considerably less than in 1904, but owing to the greater variety of diseases treated, the amount of work done has not been so very greatly lessened.

The following statement shews the number of cases dealt with during 1905 :—

|  | Scarlet<br>Fever. | Diphtheria<br>and<br>Membr. Croup | Typhoid<br>Fever. | Puerperal<br>Fever. | Whooping<br>Cough. |
|--|-------------------|-----------------------------------|-------------------|---------------------|--------------------|
| Remaining in Hospital at end<br>of 1904 ... .. | 28                | —                                 | —                 | —                   | —                  |
| * Admitted during 1905 ...                     | 120               | 27                                | 9                 | 3                   | 1                  |
| Total ...                                      | 148               | 27                                | 9                 | 3                   | 1                  |
| Discharged cured during 1905                   | 136               | 25                                | 4                 | 2                   | 1                  |
| Died during 1905 ... ..                        | 4                 | 2                                 | 5                 | —                   | —                  |
| Remaining in Hospital at end<br>of 1905 ... .. | 8                 | —                                 | —                 | 1                   | —                  |

\* In addition, 2 cases of Scarlet Fever and 1 of Enteric Fever were admitted from outside districts, and one suspected case of Enteric Fever was admitted for observation.

In addition to the disinfection of bedding and clothing taken from infected houses or from the Hospital Wards, it will be seen (page 28) that a considerable amount of work has been done for the Cottage Hospital in disinfecting bedding which has become infected with septic discharges.

The following shews the annual number of patients admitted to the Hospital since its opening, and the percentage of cases of Scarlet Fever removed to Hospital :—

|                         | Total Number of<br>Cases admitted. | Percentage of Scarlet<br>Fever cases removed. |
|-------------------------|------------------------------------|---|
| 1897 (from October) ... | 26                                 | —   |
| 1898 ... ..             | 68                                 | 64%   |
| 1899 ... ..             | 73                                 | 76%   |
| 1900 ... ..             | 158                                | 65%   |
| 1901 ... ..             | 129                                | 69%   |
| 1902 ... ..             | 102                                | 74·5%   |
| 1903 ... ..             | 169                                | 76%   |
| 1904 ... ..             | 298                                | 81%   |
| 1905 ... ..             | 160                                | 81%   |



For the following statement of expenditure for the year ending 31st December, 1905, I am indebted to the kindness of the Borough Accountant.

**Expenditure for Year ending  
31st December, 1905.**

|   | £   | s. | d. | £   | s. | d. |
|---|-----|----|----|-----|----|----|
| Salaries of Matron, Nurses, etc. ... ..     |     |    |    | 353 | 5  | 4  |
| Porters' Wages (proportion) ... ..          |     |    |    | 47  | 5  | 4  |
| Nurses' Uniform ... ..                      |     |    |    | 16  | 0  | 2  |
| Maintenance of Patients and Staff :—        |     |    |    |     |    |    |
| Groceries ... ..                            | 190 | 11 | 9  |     |    |    |
| Butchers' Meat ... ..                       | 133 | 13 | 0  |     |    |    |
| Fish, Ice, etc. ... ..                      | 26  | 1  | 6  |     |    |    |
| Vegetables ... ..                           | 17  | 9  | 3  |     |    |    |
| Milk ... ..                                 | 84  | 18 | 9  |     |    |    |
| Bread ... ..                                | 36  | 4  | 11 |     |    |    |
|   |     |    |    | 488 | 19 | 2  |
| Druggists' Sundries ... ..                  |     |    |    | 38  | 19 | 7  |
| Drapery, Crockery, Hardware, Cleaning       |     |    |    |     |    |    |
| Materials, etc. ... ..                      |     |    |    | 73  | 8  | 1  |
| Repairs to Vans, Laundry Fittings, etc.     |     |    |    | 38  | 9  | 6  |
| Maintenance of Buildings ... ..             |     |    |    | 36  | 16 | 7  |
| Gas ... ..                                  |     |    |    | 14  | 14 | 6  |
| Electricity ... ..                          |     |    |    | 61  | 3  | 5  |
| Water ... ..                                |     |    |    | 19  | 15 | 6  |
| Rates and Taxes ... ..                      |     |    |    | 24  | 13 | 2  |
| Insurance ... ..                            |     |    |    | 7   | 9  | 3  |
| Telephone Charges ... ..                    |     |    |    | 7   | 17 | 8  |
| Fuel ... ..                                 |     |    |    | 137 | 2  | 10 |
| Cultivation of Grounds ... ..               |     |    |    | 81  | 14 | 5  |
| Horse Hire for Ambulance, etc. ... ..       |     |    |    | 80  | 0  | 0  |
| Rent of Small-Pox Hospital ... ..           |     |    |    | 20  | 0  | 0  |
| Interest on cost of Electric Main ... ..    |     |    |    | 13  | 11 | 9  |
| Macadam for Walks ... ..                    |     |    |    | 18  | 4  | 2  |
| Printing, Stationery, Advertising, etc. ... |     |    |    | 6   | 0  | 1  |



|                  |        |    |   |
|------------------|--------|----|---|
| Postages ... ..  | 0      | 15 | 9 |
| Furniture ... .. | 12     | 1  | 0 |
| Sundries ... ..  | 13     | 13 | 0 |
|                  | <hr/>  |    |   |
|                  | £1,612 | 0  | 3 |
|                  | <hr/>  |    |   |

### Income

|  | £     | s. | d. | £    | s. | d. |
|--|-------|----|----|------|----|----|
| Maintenance of Patients ... ..   | 154   | 7  | 0  |      |    |    |
| Removal of Patients ... ..   | 2     | 5  | 0  |      |    |    |
| Rent of Land ... ..  | 1     | 10 | 0  |      |    |    |
|  | <hr/> |    |    | 158  | 2  | 0  |
| From Cheshire County Council (under<br>Isolation Hospitals Act) ... .. |       |    |    | 263  | 19 | 9  |
|  | <hr/> |    |    | £422 | 1  | 9  |
|  | <hr/> |    |    |      |    |    |

Table 16.—Shewing the number, average residence, and cost of treatment of patients, from 1898.

| YEAR. | PATIENTS.         |                             |                                  | Total<br>expenditure. | Average<br>cost per<br>patient. | Daily cost<br>per head<br>for<br>provisions. | Provisions. |
|-------|-------------------|-----------------------------|----------------------------------|-----------------------|---------------------------------|--|-------------|
|       | Total<br>treated. | Average<br>daily<br>number. | Average<br>residence<br>in days. |                       |                                 |  |             |
|       |                   |                             |                                  | £ s. d.               | £ s. d.                         | s. d.  | £ s. d.     |
| 1898  | 68                | 9.1                         | 48.0                             | 1,020 2 0             | 15 0 0                          | 2 4  | 378 19 6    |
| 1899  | 73                | 9.6                         | 48.0                             | 1,083 7 1             | 14 16 9                         | 1 11½  | 347 4 9     |
| 1900  | 158               | 20.3                        | 47.0                             | 1,161 11 8            | 7 7 0                           | 1 1½   | 417 19 0    |
| 1901  | 129               | 17.0                        | 48.0                             | 1,367 0 10            | 10 12 0                         | 1 5½   | 452 18 0    |
| 1902  | 102               | 11.7                        | 42.0                             | 1,173 5 9             | 11 10 0                         | 1 5½   | 314 10 7    |
| 1903  | 169               | 22.4                        | 48.5                             | 1,404 6 7             | 8 6 2                           | 0 11½  | 398 19 7    |
| 1904  | 298               | 34.2                        | 42.0                             | 1,642 14 3            | 5 10 3                          | 0 10¾  | 561 2 4     |
| 1905  | 160               | 16.7                        | 38.5                             | 1,592 0 3             | 9 19 0                          | 1 7¼   | 488 19 2    |

N.B.—The above calculations of cost do not include repayment of principal, nor payment of interest on capital. The rent of the Smallpox Hospital is also deducted.

### The average length of stay in Hospital.

|  |            |
|--|------------|
| Scarlet Fever Patients, excluding cases which died ...                   | 44.9 days. |
| Scarlet Fever Patients, including cases which died ...                   | 43.5 "     |
| Diphtheria and Membranous Croup Patients, excluding cases which died ... | 24.7 "     |
| Diphtheria and Membranous Croup Patients, including cases which died ... | 22.9 "     |
| Enteric Fever Patients, excluding cases which died ...                   | 34.0 "     |
| Enteric Fever Patients, including cases which died ...                   | 18.2 "     |
| Puerperal Fever Patients ...   | 23.6 "     |

### Schools and Infectious Diseases.

The School record has, on the whole, been a very satisfactory one. The outbreak of measles (reported in 1904) continued well into the year, and necessitated certain closures. From that time, however, until the close of the year, there has been a remarkable freedom from infectious sickness of every kind, and the school attendances have, as a result, reached a high percentage of the number on the register.

The following schools were closed owing to the spread of infectious diseases among the scholars—

| School.                       | Closed.       | Re-opened.                      | Disease.       |
|-------------------------------|---------------|---------------------------------|----------------|
| Pedley Street Infants' ...    | February 1st  | February 20th                   | Measles        |
| " " " ...                     | February 20th | February 27th                   | "              |
| " " " ...                     | March 1st     | March 13th                      | "              |
| " " Boys' & Girls'            | February 13th | February 27th                   | "              |
| Bedford Street Infants' ...   | February 22nd | March 27th                      | "              |
| " " Boys' & Girls'            | March 13th    | March 27th                      | "              |
| Mill Street Wes. Infants' ... | January 26th  | February 27th                   | "              |
| " " " Mixed ...               | February 13th | February 27th                   | "              |
| Edleston Road Infants' ...    | February 27th | March 27th                      | "              |
| Wistaston Road... ..          | April 3rd     | April 19th<br>(Easter Holidays) | "              |
| New Street Infants' ...       | June 20th     | June 31st<br>(Summer Holidays)  | Whooping Cough |

TABLE 17.—The following table shews the number of children excluded from school on account of infectious disease, and whose absence was notified to the Health Department by the Head Teachers and School Attendance Officers.

|                       | TOTALS.<br>1904. | TOTALS.<br>1905. |
|-----------------------|------------------|------------------|
| Measles ... ..        | 1,549            | 588              |
| Whooping Cough ... .. | 189              | 170              |
| Chicken-pox ... ..    | 86               | 146              |
| Ringworm ... ..       | 30               | 9                |
| Mumps ... ..          | 87               | 3                |
| Skin Disease ... ..   | 36               | 18               |
| Miscellaneous ... ..  | 17               | 22               |
| <b>TOTAL ... ..</b>   | <b>1,994</b>     | <b>956</b>       |

The following certificates have also been issued in respect of *notified* disease :—

|  |       |
|--|-------|
| Preliminary certificates ... ..                      | 157   |
| Final Certificates ... ..                            | 37    |
|  | <hr/> |
|  | 194   |
| Add on certificates for diseases not notified ... .. | 956   |
|  | <hr/> |
| Total number of certificates issued by M.O.H. ...    | 1,150 |
|  | <hr/> |

### Playgrounds and Open Spaces.

These owned by the Corporation are :—

The Queen's Park.—Area a little over 35 acres, situate in the South Ward at the extreme South West boundary of the town.



South Ward playground, area 11,501 square yards. West Ward playground, area 8,356 square yards. North Ward playground, area 16,429 square yards.

### Inspections and General Work.

The premises which have been kept under regular supervision include 15 private slaughterhouses, 47 cowsheds, 129 dairies and milkshops, 7 common lodging houses, 5 houses let in lodgings, 274 factories and workshops, and also premises which are specially liable to create nuisances, *viz.*, pig-styes, stables, marine stores, fried fish shops, &c.

### Reconstruction of Privies, etc.

The following figures give the approximate numbers of the different forms of closets, etc., existing in the town at the end of 1905.

|                         |     |     |     |     |     |      |
|-------------------------|-----|-----|-----|-----|-----|------|
| Baths                   | ... | ... | ... | ... | ... | 1712 |
| Water Closets           | ... | ... | ... | ... | ... | 5738 |
| Waste Water Closets     | ... | ... | ... | ... | ... | 1018 |
| Pail Closets            | ... | ... | ... | ... | ... | 3163 |
| Cesspool Privies        | ... | ... | ... | ... | ... | 23   |
| Fixed Receptacles...    | ... | ... | ... | ... | ... | 23   |
| Uncovered Privy Middens | ... | ... | ... | ... | ... | 11   |
| Covered Privy Middens   | ... | ... | ... | ... | ... | 1201 |
| Uncovered Ashpits       | ... | ... | ... | ... | ... | 75   |
| Covered Ashpits         | ... | ... | ... | ... | ... | 2353 |
| Dustbins                | ... | ... | ... | ... | ... | 6556 |

The work of reconstruction has been pushed forward steadily for a number of years, with the result that the old insanitary conveniences, such as cesspools and mixens, are gradually disappearing and their places taken either by water closets or by pails and ashbins. This work is of the utmost importance, and the fact that steady headway is being made without, so far, the necessity for taking legal proceedings, is a testimonial of a very high character to the perseverance and tact of your Sanitary Inspector, Mr. Urquhart. It is not always easy to submit an absolute proof

of the improvement effected in the sanitary surroundings of a dwelling by the substitution of water closets for privy middens or cesspools. A glance at the table on page 35 will, however, serve to indicate in some measure that here, at any rate there is evidence to shew how closely associated this work is with the health of the community. The following shews the number and nature of the reconstructions effected during the year:—

|  | Dust-<br>bins. | Covered<br>Ashpits. | Privy<br>Pails. | Water<br>Closets. | Waste<br>Water<br>Closets. |
|--|----------------|---------------------|-----------------|-------------------|----------------------------|
| 85 Mixens were converted into                  | 43             | 42                  | 27              | 58                | ...                        |
| 37 Cesspools „ „ „                             | 34             | 2                   | 3               | 27                | 7                          |
| 2 Fixed Receptacles were converted into ... .. | ...            | ...                 | 2               | ...               | ...                        |
| 20 Privy Pails were converted into ... ..      | ...            | ...                 | ...             | 20                | ...                        |
| 4 Open Ashpits were converted into ... ..      | 4              | ...                 | ...             | ...               | ...                        |

The total number of reconstructions was therefore 148, these being converted into 105 clean water closets, 7 waste water closets, and 32 privy pails, with 81 dustbins and 44 covered ashpits.

### Offensive Trades.

There are now two gut-scraping businesses carried on in the Borough. One of these was established during the year in Richmond Road, and the premises are of modern construction. Both businesses from a sanitary point of view are well regulated and have been conducted so as to be free from nuisance.

The marine store yards off Earle Street and in Edleston Road have been frequently visited during the year; at neither was there anything to complain of.

### Cowsheds.

There are 47 cowsheds in the Borough. These have all been frequently inspected during the year and in several some slight



improvements effected. Their structure, however, leaves much to be desired, and it is hoped that the attention which is given to them will impress upon their occupiers the necessity for greater cleanliness. A special report upon the milk supply was presented to the Health Committee in May, and a number of recommendations made. A Sub-Committee has been formed to consider these.

### **Dairies and Milkshops.**

There are 129 premises on the register where a retail trade in milk is carried on. Here also, as with the cowsheds, the need for greater cleanliness is very apparent. What is required is more frequent scrubbing of floors, counters and shelves, the prohibition of the sale in the same shop of such articles as strong smelling vegetables like onions, pickles, paraffin oil, etc., and the provision of a suitable cover for the milk vessels.

### **Common Lodging Houses.**

There are 7 houses in the Borough now registered as common lodging houses. Every effort is made to see to these being kept in a sanitary condition, and the houses are fairly well conducted. Their defective structural character makes it difficult for the keepers to maintain them in a thoroughly satisfactory state.

Two applications for registration were refused by the Health Committee, the houses being altogether unsuited for the purpose.

### **Houses Let in Lodgings.**

There are 5 houses on the register, which have been kept in a satisfactory condition.

### **Slaughter Houses and Meat Inspection.**

The number of slaughterhouses is fifteen. These are all kept in a fairly satisfactory condition. Application for a licence for premises in Wesley Street was renewed and again refused by the Council. Efficient meat inspection is an impossibility, practically the only control exercised over the quality of the meat sold in the Borough being exercised by the butchers themselves acting through their Vigilance Association. There is no doubt of the good effect which this has upon the trade and the quality of the meat exposed for sale.



Nine carcasses were examined upon request from the owners. Two of these were totally condemned and voluntarily surrendered. The others were passed subject to the destruction of the affected portion. The disease in every case was tuberculosis.

Several carcasses of animals which had died from Anthrax were also examined along with the Veterinary Surgeon. These were all cremated.

### **Ice Cream Premises.**

A constant supervision has been maintained over the premises where ice cream is made and sold. The premises were at all times found in a cleanly condition, and at the largest very considerable alterations and improvements in the sanitary condition of the premises were made.

### **Factories and Workshops.**

There are 68 factories and 207 workshops in the Borough. The latter include a great many places such as dressmakers' establishments where the business is a small one, and is carried on in a room of the dwelling-house set apart for the purpose. It sometimes happens that in such small workshops the business is carried on somewhat intermittently, and changes of address are frequent. This makes it difficult to keep an absolutely correct register, but so far as possible all such changes have been followed up.

Table 18.—The following table of workshops shews the number in each Ward, and the nature of the trades carried on.

| Trade.                             | Central. | West. | North. | South. | Borough. |
|------------------------------------|----------|-------|--------|--------|----------|
| Bakers and Confectioners ... ..    | 11       | 6     | 9      | 11     | 37       |
| Dressmakers and Milliners ... ..   | 23       | 5     | 3      | 16     | 47       |
| Tailors ... ..                     | 8        | 3     | 1      | 2      | 14       |
| Watchmakers and Jewellers ..       | 5        | 1     | ...    | 1      | 7        |
| Tinsmiths ... ..                   | 5        | ...   | ...    | 1      | 6        |
| Cabinet Makers and Joiners ...     | 8        | 1     | 2      | 4      | 15       |
| Bootmakers ... ..                  | 9        | 8     | 7      | 11     | 35       |
| Herb Beer Manufacturers & Bottlers | 2        | ...   | ...    | ...    | 2        |
| Saddlers ... ..                    | 1        | 1     | ...    | 2      | 4        |
| Cycle Repairers ... ..             | 2        | ...   | ...    | 3      | 5        |
| Ice Cream Manufacturers ... ..     | 2        | 3     | ...    | 4      | 9        |
| Wheelwrights ... ..                | ...      | ...   | ...    | 1      | 1        |
| Shirtmakers ... ..                 | 1        | ...   | ...    | ...    | 1        |
| Hosiers ... ..                     | 1        | ...   | 1      | ...    | 2        |
| Stonemasons ... ..                 | ...      | ...   | 1      | 1      | 2        |
| Picture Framers ... ..             | 1        | ...   | ...    | 1      | 2        |
| Rag Stores ... ..                  | 1        | ...   | 1      | ...    | 2        |
| Blacksmiths ... ..                 | 4        | 1     | 3      | 1      | 9        |
| Laundry ... ..                     | ...      | ...   | ...    | 1      | 1        |
| Artificial Teeth Manufacturers ... | 1        | ...   | ...    | 2      | 3        |
| Scales Manufacturer ... ..         | 1        | ...   | ...    | ...    | 1        |
| Gut Scraper ... ..                 | ...      | 1     | 1      | ...    | 2        |
| Totals ... ..                      | 86       | 30    | 29     | 62     | 207      |

GENERAL SANITATION.—The condition of the workshops generally has been very satisfactory, although there were a few exceptions with regard to cleanliness. Twenty notices relating to limewashing were sent out and complied with. There were two instances of over-crowding. These matters were immediately remedied on the issue of a preliminary notice.

BAKEHOUSES.—There is only one underground bakehouse in use. The only part of the business carried on underground is the mixing and the kneading of the dough.

HOMEWORK.—Lists of homeworkers have been received from the following :—

|                                  |     |    |            |
|----------------------------------|-----|----|------------|
| Compton & Sons' Clothing Factory | ... | 34 | outworkers |
| Marmion Clothing Factory         | ... | 2  | "          |
| C. Taylor, Shirtmaker            | ... | 4  | "          |
| Co-operative Society, Bootmakers | ... | 1  | "          |
| " " Tailors                      | ... | 1  | "          |

The annual statistical return to the Secretary of State, which follows, gives a summary of the work done during the year.

## FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES AND HOMEWORK.

### 1.—INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF NUISANCES.

| Premises.                      | Number of    |                  |               |
|--------------------------------|--------------|------------------|---------------|
|                                | Inspections. | Written Notices. | Prosecutions. |
| Factories ... ..               | 65           | ...              | ...           |
| (Including Factory Laundries)  |              |                  |               |
| Workshops ... ..               | 264          | 25               | ...           |
| (Including Workshop Laundries) |              |                  |               |
| Workplaces ... ..              | 10           | ...              | ...           |
| Homeworker's Premises ... ..   | 5            | ...              | ...           |
| Total ... ..                   | 344          | 25               | ...           |



## 2.—DEFECTS FOUND.

| Particulars.  | Number of Defects. |           |                             | Number of Prosecutions. |
|---|--------------------|-----------|-----------------------------|-------------------------|
|   | Found.             | Remedied. | Referred to H.M. Inspector. |                         |
| <i>Nuisances under the Public Health Acts:—*</i>  |                    |           |                             |                         |
| Want of cleanliness ... ..  | 20                 | 20        | ...                         | ...                     |
| Want of ventilation ... ..  | 1                  | 1         | ...                         | ...                     |
| Overcrowding ... ..   | 2                  | 2         | ...                         | ...                     |
| Want of drainage of floors ... ..   | ...                | ...       | ...                         | ...                     |
| Other nuisances ... ..  | 1                  | 1         | ...                         | ...                     |
| Sanitary accommodations { insufficient ... ..   | 1                  | ...       | ...                         | ...                     |
| { unsuitable or defective ... ..  | ...                | ...       | ...                         | ...                     |
| { not separate for sexes ... ..   | ...                | ...       | ...                         | ...                     |
| <i>Offences under the Factory and Workshop Act:—</i>  |                    |           |                             |                         |
| Illegal occupation of underground bakehouse (S. 101) ... ..   | ...                | ...       | ...                         | ...                     |
| Breach of special sanitary requirements for bake-houses (SS. 97 to 100). ... ..                       | ...                | ...       | ...                         | ...                     |
| Failure as regards lists of outworkers (S. 107) ... ..  | ...                | ...       | ...                         | ...                     |
| Giving out work to be done { unwholesome (S. 108) ... ..  | ...                | ...       | ...                         | ...                     |
| in premises which are { infected (S. 110) ... ..  | ...                | ...       | ...                         | ...                     |
| Allowing wearing apparel to be made in premises infected by scarlet fever or smallpox (S. 109) ... .. | ...                | ...       | ...                         | ...                     |
| Other offences ... ..   | ...                | ...       | ...                         | ...                     |
| Total ... ..  | 25                 | 24        | ...                         | ...                     |

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

## 3.—OTHER MATTERS.

| Class.  |   | Number.                 |
|---|---|-------------------------|
| Matters notified to H.M. Inspectors of Factories :—   |   |                         |
| Failure to affix Abstract of the Factory and Workshop Act (S. 133) ...  |   | 1                       |
| Action taken in matters referred by<br>H.M. Inspectors as remediable<br>under the Public Health Acts, but<br>not under the Factory Act (S. 5) | Notified by H.M. Inspector ...                        | 3                       |
|   | Reports (of action taken) sent<br>to H.M. Inspectors. | 3                       |
| Other ... ..  |   | ...                     |
| Underground Bakehouses (S. 101) :—  |   |                         |
| Certificates granted during the year ... ..   |   | ...                     |
| In use at the end of 1905 ... ..  |   | 1                       |
| Homework :—   |   | Number of               |
|   |   | Lists. Out-<br>workers. |
| <i>List of Outworkers</i> * (S. 107) :—   |   |                         |
| Lists received ... ..   |   | 7 75                    |
| Addresses of outworkers ...   | forwarded to other Authorities ...                    | 4 8                     |
|   | received from other Authorities ...                   | 2 2                     |
| Workshops on the Register (S. 131) at the end of 1905 :—  |   |                         |
| Important classes of work-<br>shops, such as workshop<br>bakehouses, may be enu-<br>merated here.   | Bakers and Confectioners ... ..                       | 37                      |
|   | Dressmakers ... ..                                    | 47                      |
|   | Tailors ... ..  | 14                      |
|   | Cabinet Makers and Joiners ... ..                     | 15                      |
|   | Boot Repairers ... ..                                 | 35                      |
|   | Watchmaker's and Jewellers ... ..                     | 14                      |
|   | Others ... ..   | 45                      |
| Total number of workshops on Register ... ..  |   | 207                     |

TABLE 19.—The following table shews the number of Factories in the Borough.

| Industry.                        |     |     | Central. | West. | North. | South. | Borough. |
|----------------------------------|-----|-----|----------|-------|--------|--------|----------|
| Loco. Engine Works               | ... | ... | ...      | 1     | ...    | *      | 1        |
| Electric Lighting                | ... | ... | 2        | ...   | ...    | 1      | 3        |
| Clothing Factories               | ... | ... | 1        | 1     | 4      | 2      | 8        |
| Cabinet Maker and Joiner         | ... | ... | 3        | ...   | 1      | ...    | 4        |
| Cycle Works                      | ... | ... | 1        | ...   | ...    | ...    | 1        |
| Bottling & Herb Beer Manufactory | ... | ... | 2        | ...   | ...    | 2      | 4        |
| Brewery                          | ... | ... | 1        | ...   | ...    | ...    | 1        |
| Aerated Water Manufactory        | ... | ... | 2        | ...   | 1      | ...    | 3        |
| Letterpress Printing             | ... | ... | 3        | 2     | 1      | 1      | 7        |
| Laundry                          | ... | ... | ...      | ...   | 1      | ...    | 1        |
| Sausage Maker                    | ... | ... | 2        | 1     | ...    | 2      | 5        |
| Machine Smith                    | ... | ... | 1        | ...   | ...    | ...    | 1        |
| Wheelwright, Woodturner          | ... | ... | 2        | ...   | 1      | ...    | 3        |
| Builder                          | ... | ... | 2        | 1     | 2      | 2      | 7        |
| Iron Founder                     | ... | ... | 1        | ...   | ...    | ...    | 1        |
| Baker                            | ... | ... | 2        | ...   | 1      | ...    | 3        |
| Brick Works                      | ... | ... | ...      | 2     | 4      | ...    | 6        |
| Fustian Cutting                  | ... | ... | 1        | 2     | ...    | ...    | 3        |
| Cattle Medicine                  | ... | ... | ...      | ...   | ...    | 1      | 1        |
| Firewood                         | ... | ... | ...      | 1     | ...    | 1      | 2        |
| Saw Mill                         | ... | ... | ...      | 1     | ...    | ...    | 1        |
| Chaff Cutting                    | ... | ... | 1        | 1     | ...    | ...    | 2        |
| Total                            | ... | ... | 27       | 13    | 16     | 12     | 68       |

\* These works are also partly in the South Ward.



### Sale of Food and Drugs Acts.

These Acts are administered by the County Council, to whose Chief Inspector, Mr. Laird, I am indebted for the following particulars of samples purchased in the Borough of Crewe, under the Sale of Food and Drugs Acts, during the year ending December 31st, 1905.

| Name of Sample.      | No. of Samples. | No. of Samples.<br>certified as<br>Adulterated. |
|----------------------|-----------------|---|
| Brandy ... ..        | 2               | —   |
| Butter ... ..        | 19              | 3   |
| Coffee ... ..        | 4               | —   |
| Ginger—Ground ... .. | 2               | —   |
| Milk ... ..          | 52              | 5   |
| Pepper ... ..        | 8               | —   |
| Vinegar ... ..       | 1               | —   |
| Whiskey ... ..       | 5               | —   |
| Totals ... ..        | 93              | 8   |

Particulars of prosecutions under the Sale of Food and Drugs Acts in the Borough of Crewe for the year ending 31st December, 1905.

| No. | Nature of Offence  | Result of Prosecution.              |
|-----|--|-------------------------------------|
| 1   | Selling Milk adulterated with<br>5 per cent of Water ...                   | Ordered to pay 10/6 costs.          |
| 2   | Do. do. do. ...  | Case dismissed.                     |
| 3   | Selling Margarine as butter ...  | Fined 1/- together with 19/6 costs. |
| 4   | Selling Margarine as butter ...  | Fined 1/- together with 19/6 costs. |
| 5   | Offering for Sale a package of<br>Margarine not properly<br>branded ... .. | Fined £5 together with 27/- costs.  |

### Work done by Sanitary Inspector's Department.

The Sanitary Inspector reports that the following matters have received his attention during the year:—

|   | 1904. | 1905. |
|---|-------|-------|
| Defective house drainage ... ..                       | 165   | 158   |
| „ Manure receptacles ... ..                           | 7     | 5     |
| „ Ashpits ... ..                                      | 51    | 34    |
| „ Privy middens ... ..                                | 62    | 177   |
| „ Fixed receptacles ... ..                            | 11    | 14    |
| „ Cesspool privies ... ..                             | 32    | 37    |
| „ Water closets ... ..                                | 100   | 81    |
| „ Paving of yards and passages* ... ..                | 55    | 63    |
| „ Urinals ... ..                                      | 3     | 5     |
| „ Eaves and rain-water spouting ... ..                | 40    | 35    |
| „ Ventilating shafts (drains) ... ..                  | 6     | 14    |
| „ Channel shoots ... ..                               | 54    | 10    |
| „ Sink pipes ... ..                                   | 23    | 11    |
| Nuisances from offensive accumulations ... ..         | 10    | 15    |
| „ „ keeping of animals ... ..                         | 8     | 20    |
| „ „ stagnant water in cellars ... ..                  | 9     | 4     |
| „ „ offensive pools, ditches, etc. ... ..             | 15    | 2     |
| „ „ smoke ... ..                                      | 3     | 5     |
| House drains tested ... ..                            | 49    | 117   |
| Visits to cowsheds ... ..                             | 70    | 80    |
| „ Common lodging houses ... ..                        | 143   | 84    |
| Night Visits to ditto ... ..                          | 8     | 10    |
| Visits to slaughter-houses ... ..                     | 180   | 180   |
| „ Infectious disease cases ... ..                     | 459   | 245   |
| Notices for renewal of defective privies and ashpails | 462   | 435   |
| Licences issued in respect of removal of Swine—       |       |       |
| Borough ... ..  | 1206  | 895   |
| Licences issued in respect of removal of Swine—       |       |       |
| County ... ..   | 2312  | 2338  |
| Statutory notices served ... ..                       | 113   | 137   |
| Persons supplied with disinfectants on application    |       |       |
| to office ... ..                                      | 742   | 814   |

|                           |     |     |     |     |     |     |
|---------------------------|-----|-----|-----|-----|-----|-----|
| Dogs brought into home    | ... | ... | ... | ... | 209 | 157 |
| „ destroyed               | ... | ... | ... | ... | 182 | 129 |
| „ claimed ...             | ... | ... | ... | ... | 27  | 28  |
| Visits to Ice cream shops | ... | ... | ... | ... | 10  | 10  |
| „ „ Schools               | ... | ... | ... | ... | 85  | 75  |
| „ „ Bakehouses            | ... | ... | ... | ... | 79  | 96  |
| „ „ Fried fish shops      | ... | ... | ... | ... | 22  | 68  |
| „ „ Pigstyes              | ... | ... | ... | ... | 24  | 50  |
| „ „ Offensive trades      | ... | ... | ... | ... | —   | 12  |

### Scavenging.

During the year the scavenging department was re-organised and the work re-arranged. Up to the present year both the day and night work were under the superintendence of a single foreman, who had, in addition, some other minor duties placed upon him. In May an additional foreman was appointed, and the work is now directed by day and night foremen who devote their whole time to this work. The results have been of the most satisfactory character. The foremen have been able to so organise the work that since the summer it has been carried on with one gang less both on day and night work. In the accompanying table the work done during the year and the cost of both team and manual labour is given in detail, and for comparison the work for each year since 1897 is also shewn. The loads have been slightly increased in size, the result being that the total number of loads for the year is 914 less than the preceding year. The cost per load also shews a slight increase, but as a result of the increased size and diminished number the total cost has been reduced by £145 7s. 1d.





TABLE shewing number of privies and dustbins emptied and cost per load etc.

|                              | 1897      | 1898      | 1899      | 1900      | 1901       | 1902      | 1903      | 1904       | 1905      |
|------------------------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|------------|-----------|
| Privies & Ashpits emptied... | 25,383    | 32,051    | 31,962    | 33,455    | 25,171     | 20,617    | 25,485    | 28,371     | 29,381    |
| Privy pails emptied          | 114,368   | 135,468   | 128,086   | 129,086   | 129,656    | 132,432   | 145,038   | 154,570    | 156,003   |
| Dustbins                     | 67,700    | 78,048    | 79,920    | 93,180    | 104,260    | 112,510   | 138,585   | 176,956    | 183,414   |
| Paper bags                   | ...       | ...       | ...       | ...       | ...        | ...       | 11,160    | 11,388     | 13,405    |
| Number of Loads removed :—   |           |           |           |           |            |           |           |            |           |
| Day work                     | 7,558     | 8,313     | 8,525     | 9,000     | 8,803      | 9,851     | 10,225    | 10,328     | 9,825     |
| Night work                   | 4,851     | 4,978     | 4,967     | 4,958     | 4,940      | 4,880     | 5,130     | 5,290      | 4,879     |
|                              | 12,409    | 13,29     | 13,4 2    | 14,057    | 13,743     | 14,731    | 15,355    | 15,618     | 14,704    |
| Cost of removal :—           | £ s. d.   | £ s. d.   | £ s. d.   | £ s. d.   | £ s. d.    | £ s. d.   | £ s. d.   | £ s. d.    | £ s. d.   |
| Total cost                   | 227 7 6 8 | 248 6 7 7 | 264 9 8 5 | 281 2 1 2 | 282 7 8 11 | 298 4 9 3 | 300 7 9 9 | 306 8 16 7 | 292 3 9 6 |
| Cost per Load                | 0 3 8     | 0 3 8½    | 0 3 11    | 0 4 0     | 0 4 1½     | 0 4 0½    | 0 3 11    | 0 3 11     | 0 3 11½   |
| Cost of Day Work per load    | 0 2 7½    | 0 2 7¼    | 0 2 11½   | 0 3 1½    | 0 3 2½     | 0 3 0½    | 0 3 3¼    | 0 3 3      | 0 3 3¼    |
| Cost of Night Work per load  | 0 5 2½    | 0 5 7½    | 0 5 6½    | 0 5 6¼    | 0 5 8¾     | 0 6 1¼    | 0 5 1     | 0 5 3      | 0 5 4½    |

### Water Supply.

The Water Supply is owned by the London and North Western Railway Company and is obtained from artesian wells at Whitmore, Staffordshire.

The figures given in the following table are taken from the Monthly Reports to the Water Committee. They are the result of readings from the meters on the water mains, and include the amount supplied directly by the Railway Company to their own property. This is estimated at, approximately, 20½ million gallons. From the accompanying table it will be seen that there has been a very considerable reduction in the amount of water used, with a diminution of the consumption per head to the extremely low figure of 11·8 gallons per day.



TABLE 20.

| Year. | Quantity consumed during the year in gallons. | No. of Inhabited Houses. | Population estimated to middle of year. | Consumption per house per annum in gallons | Consumption per head of Population per day in gallons. |
|-------|---|--------------------------|---|--|--|
| 1893  | 116,348,000                                   | 7,125                    | 34,866                                  | 16,329                                     | 9.14   |
| 1894  | 134,269,300                                   | 7,190                    | 35,796                                  | 18,674                                     | 9.47   |
| 1895  | 139,736,000                                   | 7,404                    | 36,726                                  | 18,873                                     | 10.42  |
| 1896  | 148,833,000                                   | 7,638                    | 37,656                                  | 19,485                                     | 10.79  |
| 1897  | 149,088,000                                   | 7,945                    | 38,586                                  | 18,765                                     | 10.58  |
| 1898  | 160,555,000                                   | 8,182                    | 39,516                                  | 19,622                                     | 11.13  |
| 1899  | 175,551,000                                   | 8,582                    | 40,446                                  | 20,455                                     | 11.88  |
| 1900  | 185,026,000                                   | 8,808                    | 41,376                                  | 21,006                                     | 12.24  |
| 1901  | 220,604,500                                   | 8,771                    | 42,307                                  | 25,151                                     | 14.28  |
| 1902  | 228,111,000                                   | 9,208                    | 43,237                                  | 24,773                                     | 14.45  |
| 1903  | 243,332,390                                   | 9,500                    | 45,505                                  | 25,613                                     | 14.6   |
| 1904  | 233,434,413                                   | 9,617                    | 46,065                                  | 24,273                                     | 13.8   |
| 1905  | 201,038,120                                   | 9,724                    | 46,578                                  | 20,674                                     | 11.8   |

### Sewage Disposal.

There has been no change in the method of sewage disposal, the bulk of the sewage being still treated on the Corporation Farm by broad irrigation, while about one fifth is treated by the double contact bacterial method.

Forty-eight samples of sewage effluents from the bacteria beds have been submitted by the Borough Surveyor for analysis. On the whole the effluents have proved to be very satisfactory.

### Back Passages.

The condition of a number of back passages was reported during the year and the attention of the Works Committee directed



to them. In many streets such passages form the means of access to houses most commonly used, and in addition there is often a considerable amount of heavy traffic by coal carts, etc.

The following is a list of the streets in which passages were reported to be in an unsatisfactory condition:—Ruskin Road, Walthall Street, Brooklyn Street, Hammond Street, Lord Street, Westminster Street, Derrington Avenue, Sheppard Street, Henry Street, West Street (west end), Ford Lane, Derby Street.

### **Unhealthy Dwellings.**

Notices were issued for the cleansing and limewashing of 94 houses. In several instances a second notice had to be issued before the work was carried out. Several houses were found in an extremely damp condition, the floor timbers affected with dry rot and water to a depth of several inches under the parlour floor. Steps were at once taken by the owners to have this remedied on their attention being directed to the state of their property.

### **Sewer Ventilation.**

Complaints are being constantly received of the escape of sewer gas from street manholes and gullies. Permission has been obtained from a number of owners of property to have ventilating shafts erected as close to the offensive manholes as possible. In connection with this matter it will be interesting to the committee if I record a decision of some importance to Local Authorities which was given by Justice Bigham in the King's Bench Division of the High Court in the case of *Broome-v-The Bromley Rural District Council* in November. It was alleged that a sewer ventilating shaft erected by the Council and which was at a distance of 19 yards from the bedroom windows of plaintiff's house was the cause of several members of his family contracting sore throats. The offer of the defendants to seal up the ventilator was objected to on the grounds, (1) that the sealing might become destroyed and the nuisance recur, and (2) that the ventilator was so

unsightly as to depreciate the value of the property. Justice Bigham in summing up pointed out that the defendants were under a statutory duty to provide sewers and to ventilate them in a proper manner, and the fact of their erecting the shaft where it was and ventilating the sewer as they did, did not throw any obligation upon them or any responsibility as to damages, and for the plaintiff to succeed it must be shewn that the defendants had acted negligently. If defendants acted in a reasonable way and although what they did was injurious to health, then there would be no liability upon them. The jury found a verdict for the defendant District Council and judgment was given accordingly.

### **Contagious Diseases of Animals**

The Sanitary Inspector acts also as Inspector under the Contagious Diseases (Animals), Act and the Swine Fever Order. Every Monday he is in attendance at the Cattle Market to receive declarations regarding swine brought for sale and to give orders for removal of swine from the market.

The number of licences issued by him for the removal of swine was 3,233, as against 3,518 for 1904.

Along with the Veterinary Surgeon, the Inspector has been called to examine the carcasses of six swine (one of which proved to have died from Swine Fever), two horses suspected to have died from Anthrax, and one calf which died from Anthrax.

Several blood specimens from animals which had died suddenly were examined by the Medical Officer for the Veterinary Surgeon.

Proceedings were taken by the Inspector in one case in which a sheep suffering from scab was brought into the market and exposed for sale. The owner was fined £1 with costs.



### Poor Law Relief Statistics

I am indebted to Mr. C. E. Speakman, Clerk to the Poor Law Guardians, for the following information:—

I. Number of in-door poor relieved during half year ended Michaelmas, 1905:—

|                 |     |     |     |       |
|-----------------|-----|-----|-----|-------|
| Able-bodied     | ... | ... | ... | 176   |
| Not able-bodied | ... | ... | ... | 169   |
| Insane          | ... | ... | ... | 15    |
| Children        | ... | ... | ... | 119   |
|                 |     |     |     | <hr/> |
| TOTAL           |     |     |     | 479   |
|                 |     |     |     | <hr/> |

Vagrants relieved in Workhouse during same period...2862

II. Number of out-door poor relieved in the Borough of Crewe during half year ended Michaelmas, 1905 ... 994

Vagrants relieved during same period. ... 7

III. Cost of out-door relief in Borough of Crewe during half year ended Michaelmas ... 1905 ... £2260 0 0



TABLE 21.

METEOROLOGY.—Mr. Geo. Latimer, the Curator of the Queen's Park, has kindly furnished the figures for the following table.

| 1905.         | Total Rainfall<br>in inches. | No. of Rainy<br>Days. | PREVAILING WIND IN DAYS. |    |     |    |      |      |      |      | MEAN TEMPERATURE..    |                       |                      |                       |
|---------------|------------------------------|-----------------------|--------------------------|----|-----|----|------|------|------|------|-----------------------|-----------------------|----------------------|-----------------------|
|               |                              |                       | N.                       | S. | E.  | W. | N.W. | N.E. | S.W. | S.E. | Max'm<br>in<br>Shade. | Min'm<br>in<br>Shade. | One<br>foot<br>deep. | Four<br>feet<br>deep. |
| January ...   | 1.36                         | 5                     | ...                      | 4  | 1   | 12 | 3    | ...  | 3    | 8    | 39                    | 31                    | 39                   | 43                    |
| February ...  | 4.43                         | 11                    | 1                        | 5  | ... | 11 | 6    | 2    | 3    | ...  | 42                    | 33                    | 40                   | 42                    |
| March ...     | 6.71                         | 17                    | 1                        | 8  | 2   | 6  | 4    | ...  | 7    | 3    | 48                    | 33                    | 41                   | 43                    |
| April ...     | 4.48                         | 14                    | 2                        | 4  | 2   | 6  | 6    | 3    | 2    | 5    | 50                    | 35                    | 45                   | 44                    |
| May ...       | 2.51                         | 6                     | 1                        | 5  | 2   | 4  | 11   | 5    | 3    | ...  | 61                    | 43                    | 50                   | 48                    |
| June ...      | 2.42                         | 8                     | 4                        | 5  | 5   | 2  | 1    | 6    | 5    | 2    | 71                    | 46                    | 57                   | 52                    |
| July ...      | 4.87                         | 11                    | 1                        | 1  | ... | 16 | 3    | 2    | 6    | 2    | 73                    | 50                    | 62                   | 57                    |
| August ...    | 6.08                         | 16                    | 1                        | 8  | 3   | 7  | 3    | ...  | 5    | 4    | 67                    | 46                    | 59                   | 58                    |
| September ... | 2.57                         | 9                     | 1                        | 6  | 2   | 7  | 6    | 5    | 3    | ...  | 62                    | 44                    | 56                   | 57                    |
| October ...   | 5.36                         | 14                    | 2                        | 3  | ... | 9  | 16   | 1    | ...  | ...  | 49                    | 32                    | 48                   | 53                    |
| November ...  | 5.11                         | 18                    | 1                        | 4  | 4   | 4  | 3    | 6    | 1    | 7    | 44                    | 30                    | 43                   | 48                    |
| December ...  | 1.8                          | 23                    | ...                      | 6  | ... | 2  | 2    | 1    | 8    | 12   | 43                    | 31                    | 41                   | 45                    |
| Total ...     | 47.7                         | 152                   | 15                       | 59 | 21  | 86 | 64   | 31   | 46   | 43   | ...                   | ...                   | ...                  | ...                   |

As compared with 1904, the rainfall was greater by four inches, and there were 30 more rainy days in the year. These occurred during the last quarter of the year, when the number of wet days in each month was nearly three times greater than in 1904.

## LOCAL GOVERNMENT BOARD RETURN.

TABLE 1.—For whole District.

| YEAR.                         | Population estimated to Middle of each Year. | BIRTHS. |        | TOTAL DEATHS REGISTERED IN THE DISTRICT. |                                   |              |        | Total Deaths in Public Institutions in the District. | Deaths of Non-Residents registered in Public Institutions in the District. | Deaths of Residents registered in Public Institutions beyond the District. | Nett Deaths at all Ages belonging to the District. |        |
|-------------------------------|--|---------|--------|--|-----------------------------------|--------------|--------|--|--|--|--|--------|
|                               |  | Number. | Rate.* | Under one Year of Age.                   |                                   | At all Ages. |        |  |  |  | Number.  | Rate.* |
|                               |  |         |        | Number.                                  | Rate per 1,000 Births registered. | Number.      | Rate.* |  |  |  |  |        |
| 1                             | 2  | 3       | 4      | 5  | 6                                 | 7            | 8      | 9  | 10   | 11   | 12   | 13     |
| 1895 ...                      | 36,726                                       | 1,237   | 33·6   | 198                                      | 166                               | 608          | 16·5   | 4  | ...  | ...  | 4608   | 16·5   |
| 1896 ...                      | 37,656                                       | 1,200   | 31·8   | 166                                      | 138                               | 568          | 15·0   | 9  | 8  | 11   | 571  | 15·1   |
| 1897 ...                      | 38,586                                       | 1,278   | 33·1   | 186                                      | 146                               | 617          | 15·9   | 19   | 6  | 16   | 627  | 16·2   |
| 1898 ...                      | 39,516                                       | 1,365   | 34·5   | 232                                      | 169                               | 683          | 17·2   | 20   | 9  | 25   | 699  | 17·6   |
| 1899 ...                      | 40,446                                       | 1,400   | 34·6   | 231                                      | 165                               | 667          | 16·4   | 16   | 4  | 32   | 695  | 17·1   |
| 1900 ...                      | 41,376                                       | 1 420   | 34·3   | 196                                      | 138                               | 653          | 15·7   | 19   | 7  | 31   | 677  | 16·3   |
| 1901 ...                      | 42,307                                       | 1,311   | 30·9   | 234                                      | 178                               | 685          | 16·1   | 26   | 2  | 27   | 710  | 16·7   |
| 1902 ...                      | 43,237                                       | 1,412   | 32·6   | 186                                      | 131                               | 613          | 14·1   | 24   | 2  | 37   | 648  | 14·9   |
| 1903 ...                      | 45,505                                       | 1,454   | 31·9   | 210                                      | 145                               | 636          | 14·3   | 36   | 6  | 21   | 651  | 14·3   |
| 1904 ...                      | 46,065                                       | 1,425   | 30·9   | 226                                      | 159                               | 659          | 14·3   | 20   | 5  | 19   | 673  | 14·6   |
| Averages for years 1895-1904. | 41,142                                       | 1,350   | 32·8   | 206                                      | 153                               | 638          | 15·5   | ...  | ...  | ...  | 655  | 15·9   |
| 1905 ...                      | 46,578                                       | 1,318   | 28·2   | 171                                      | 129                               | 602          | 12·9   | 36   | 78   | 34   | 629  | 13·5   |

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

Area of District in acres  
(exclusive of area  
covered by water). } 2185

Total population at all ages, 42,074  
Number of inhabited houses, 8,771  
Average number of persons per house, 4·79

At Census  
of 1901.

‡ This year was not adjusted for deaths of Non-Residents, and Residents dying outside the Borough.



## LOCAL GOVERNMENT BOARD RETURN.

TABLE 2.

| NAMES OF LOCALITIES.                  | 1. BOROUGH.  |                    |                        |                         | 2. CENTRAL WARD.                                     |                        |                         | 3. WEST WARD.  |                        |                         | 4. NORTH WARD.                                       |                        |                         | 5. SOUTH WARD.                                       |                        |                         |
|---------------------------------------|--|--------------------|------------------------|-------------------------|--|------------------------|-------------------------|--|------------------------|-------------------------|--|------------------------|-------------------------|--|------------------------|-------------------------|
|                                       | Population esti-<br>mated to middle<br>of each Year. | Births registered. | Deaths at all<br>ages. | Deaths under<br>1 year. | Population esti-<br>mated to middle<br>of each year. | Deaths at all<br>ages. | Deaths under<br>1 year. | Population esti-<br>mated to middle<br>of each year. | Deaths at all<br>ages. | Deaths under<br>1 year. | Population esti-<br>mated to middle<br>of each year. | Deaths at all<br>ages. | Deaths under<br>1 year. | Population esti-<br>mated to middle<br>of each year. | Deaths at all<br>ages. | Deaths under<br>1 year. |
| 1895 .....                            | 36,726   | 1,237              | 608                    | 198                     | 8,158  | 174                    | 47                      | 8,276  | 158                    | 54                      | 8,873  | 132                    | 53                      | 11,419   | 144                    | 44                      |
| 1896 .....                            | 37,656   | 1,200              | 571                    | 166                     | 8,365  | 158                    | 41                      | 8,483  | 137                    | 41                      | 9,097  | 154                    | 48                      | 11,711   | 119                    | 36                      |
| 1897† .....                           | 38,586   | 1,278              | 627                    | 189                     | 8,572  | 151                    | 41                      | 8,690  | 167                    | 55                      | 9,321  | 159                    | 56                      | 12,003   | 134                    | 57                      |
| 1898† .....                           | 39,516   | 1,365              | 699                    | 232                     | 8,779  | 185                    | 54                      | 8,897  | 155                    | 49                      | 9,545  | 163                    | 61                      | 12,295   | 171                    | 68                      |
| 1899† .....                           | 40,446   | 1,400              | 695                    | 231                     | 8,986  | 193                    | 60                      | 9,104  | 164                    | 57                      | 9,767  | 155                    | 54                      | 12,587   | 162                    | 60                      |
| 1900† .....                           | 41,376   | 1,420              | 677                    | 196                     | 9,183  | 174                    | 50                      | 9,311  | 162                    | 52                      | 9,993  | 152                    | 44                      | 12,879   | 167                    | 50                      |
| 1901† .....                           | 42,307   | 1,311              | 710                    | 238                     | 9,400  | 165                    | 43                      | 9,518  | 171                    | 65                      | 10,217   | 168                    | 64                      | 13,172   | 188                    | 62                      |
| 1902† .....                           | 43,237   | 1,412              | 648                    | 186                     | 9,607  | 138                    | 30                      | 9,725  | 166                    | 48                      | 10,441   | 157                    | 62                      | 13,464   | 158                    | 44                      |
| 1903† .....                           | 45,505   | 1,454              | 651                    | 211                     | 10,111   | 160                    | 50                      | 10,237   | 148                    | 52                      | 10,989   | 128                    | 46                      | 14,168   | 194                    | 62                      |
| 1904† .....                           | 46,065   | 1,425              | 673                    | 228                     | 10,235   | 120                    | 37                      | 10,363   | 157                    | 57                      | 11,123   | 168                    | 61                      | 14,344   | 209                    | 73                      |
| Averages of<br>Years 1895<br>to 1904. | 41,142   | 1,350              | 655                    | 207                     | 9,139  | 161                    | 45                      | 9,260  | 158                    | 53                      | 9,936  | 153                    | 54                      | 12,804   | 164                    | 55                      |
| 1905 .....                            | 46,578   | 1,318              | 629                    | 173                     | 10,350   | 126                    | 23                      | 10,478   | 134                    | 41                      | 11,246   | 146                    | 55                      | 14,504   | 189                    | 52                      |

† There were 16 deaths in 1897 ; 25 in 1898 ; 21 in 1899 ; 22 in 1900 ; 13 in 1901 ; 29 in 1902 ; 21 in 1903 ; 19 in 1904 and 34 in 1905 of persons temporarily resident outside the Borough whose former addresses could not be ascertained. These therefore are not relegated to the wards.



## LOCAL GOVERNMENT BOARD RETURN.

TABLE 3.—Cases of Infectious Disease notified during the year 1905.

| NOTIFIABLE DISEASE.  | CASES NOTIFIED IN WHOLE DISTRICT. |                |         |          |           |           | TOTAL CASES NOTIFIED IN EACH LOCALITY. |     |     |     | NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY |            |                  |     |     |
|----------------------|-----------------------------------|----------------|---------|----------|-----------|-----------|--|-----|-----|-----|---|------------|------------------|-----|-----|
|                      | At all Ages.                      | At Ages—Years. |         |          |           |           | 1                                      | 2   | 3   | 4   | 1   | West Ward. | North Ward. (H). | 3   | 4   |
|                      |                                   | Under 1.       | 1 to 5. | 5 to 15. | 15 to 25. | 25 to 65. |  |     |     |     |   |            |                  |     |     |
| Small-pox ...        | ...                               | ...            | ...     | ...      | ...       | ...       | ...                                    | ... | ... | ... | ...   | ...        | ...              | ... | ... |
| Cholera ...          | ...                               | ...            | ...     | ...      | ...       | ...       | ...                                    | ... | ... | ... | ...   | ...        | ...              | ... | ... |
| Diphtheria ...       | 42                                | ...            | 15      | 21       | 5         | 1         | 7                                      | 9   | 7   | 19  | 6   | 8          | 5                | 8   | 8   |
| Membranous Croup ... | 5                                 | ...            | 4       | 1        | ...       | ...       | ...                                    | 3   | ... | 2   | ...   | ...        | ...              | ... | ... |
| Erysipelas ...       | 31                                | 2              | 1       | 1        | 1         | 25        | 6                                      | 9   | 5   | 11  | ...   | ...        | ...              | ... | ... |
| Scarlet Fever ...    | 147                               | 2              | 54      | 87       | 3         | 1         | 11                                     | 29  | 52  | 55  | 6   | 26         | 41               | 47  | 47  |
| Typhus Fever ...     | ...                               | ...            | ...     | ...      | ...       | ...       | ...                                    | ... | ... | ... | ...   | ...        | ...              | ... | ... |
| Enteric Fever ...    | 10                                | ...            | ...     | ...      | 5         | 5         | 1                                      | 2   | ... | 7   | 1   | 1          | ...              | 7   | 7   |
| Relapsing Fever ...  | ...                               | ...            | ...     | ...      | ...       | ...       | ...                                    | ... | ... | ... | ...   | ...        | ...              | ... | ... |
| Continued Fever ...  | ...                               | ...            | ...     | ...      | ...       | ...       | ...                                    | ... | ... | ... | ...   | ...        | ...              | ... | ... |
| Puerperal Fever ...  | 10                                | ...            | ...     | ...      | 6         | 4         | 3                                      | 5   | ... | 2   | 1   | 2          | ...              | ... | ... |
| Plague ...           | ...                               | ...            | ...     | ...      | ...       | ...       | ...                                    | ... | ... | ... | ...   | ...        | ...              | ... | ... |
| Totals ...           | 245                               | 4              | 74      | 110      | 20        | 36        | 28                                     | 57  | 64  | 96  | 14  | 37         | 46               | 62  | 62  |

Crewe Isolation Hospital is situate in the North Ward marked (H)

## LOCAL GOVERNMENT BOARD RETURN.

TABLE 4.—Causes of, and Ages at, Death during year 1905.

| CAUSES OF DEATH.                      | DEATHS IN OR BELONGING TO WHOLE DISTRICT AT SUBJOINED AGES. |               |                |                 |                  |                  |                 | DEATHS IN OR BELONGING TO LOCALITIES AT ALL AGES. |            |             |             |                                | Total Deaths in Public Institutions in the District |
|---------------------------------------|---|---------------|----------------|-----------------|------------------|------------------|-----------------|---|------------|-------------|-------------|--------------------------------|---|
|                                       | All Ages.   | Under 1 year. | 1 and under 5. | 5 and under 15. | 15 and under 25. | 25 and under 65. | 65 and upwards. | Central Ward.                                     | West Ward. | North Ward. | South Ward. | Address could not be obtained. |   |
| Measles                               | 22  | 7             | 15             | ...             | ...              | ...              | ...             | 1   | 4          | 2           | 15          | ...                            | ...   |
| Scarlet Fever                         | 4   | ...           | 4              | ...             | ...              | ...              | ...             | ...   | ...        | 3           | 1           | ...                            | 4   |
| Whooping Cough                        | 28  | 14            | 13             | 1               | ...              | ...              | ...             | 6   | 5          | 12          | 5           | ...                            | ...   |
| Diphtheria and Membranous Croup       | 4   | ...           | 4              | ...             | ...              | ...              | ...             | ...   | 2          | 1           | 1           | ...                            | 2   |
| Enteric Fever                         | 4   | ...           | ...            | ...             | 1                | 3                | ...             | 1   | ...        | ...         | 3           | ...                            | 4   |
| Epidemic Influenza                    | 10  | ...           | 2              | ...             | 1                | 3                | 4               | 5   | 1          | 3           | 1           | ...                            | ...   |
| Diarrhoea                             | 16  | 12            | 4              | ...             | ...              | ...              | ...             | 3   | 3          | 3           | 7           | ...                            | ...   |
| Enteritis                             | 11  | 8             | 2              | ...             | ...              | 1                | ...             | ...   | 4          | 3           | 4           | ...                            | ...   |
| Puerperal Fever                       | 5   | ...           | ...            | ...             | 3                | 2                | ...             | 1   | 2          | ...         | 2           | ...                            | ...   |
| Erysipelas                            | 1   | ...           | ...            | ...             | ...              | ...              | 1               | ...   | ...        | ...         | ...         | 1                              | ...   |
| Other Septic Diseases                 | 2   | ...           | ...            | ...             | ...              | ...              | 1               | 1   | ...        | ...         | 1           | ...                            | 1   |
| Phthisis (Pulmonary Tuberculosis)     | 24  | ...           | ...            | ...             | 6                | 18               | ...             | 4   | 4          | 4           | 10          | 2                              | 1   |
| Other Tubercular Diseases             | 44  | 19            | 10             | 4               | 4                | 7                | ...             | 4   | 9          | 8           | 20          | 3                              | 1   |
| Cancer, Malignant Disease             | 28  | ...           | ...            | ...             | ...              | 23               | 5               | 7   | 5          | 5           | 9           | 2                              | 1   |
| Bronchitis                            | 38  | 9             | 6              | ...             | ...              | 8                | 15              | 8   | 9          | 8           | 9           | 4                              | ...   |
| Pneumonia                             | 25  | 5             | 4              | 1               | 1                | 10               | 4               | 6   | 6          | 7           | 5           | 1                              | 2   |
| Pleurisy                              | 4   | ...           | 1              | ...             | 1                | 1                | 1               | ...   | 1          | 2           | 1           | ...                            | ...   |
| Other Diseases of Respiratory Organs  | 41  | 16            | 12             | 1               | 1                | 5                | 6               | 4   | 15         | 12          | 9           | 1                              | 1   |
| Alcoholism (Cirrhosis of Liver)       | 5   | ...           | ...            | ...             | ...              | 4                | 1               | 2   | 2          | 1           | ...         | ...                            | 1   |
| Veneral Diseases                      | 4   | 3             | 1              | ...             | ...              | ...              | ...             | 1   | 2          | 1           | ...         | ...                            | ...   |
| Premature Birth                       | 23  | 23            | ...            | ...             | ...              | ...              | ...             | 2   | 5          | 10          | 6           | ...                            | ...   |
| Diseases and Accidents of Parturition | 6   | ...           | ...            | ...             | 2                | 4                | ...             | ...   | 4          | ...         | 2           | ...                            | ...   |
| Heart Diseases                        | 60  | ...           | ...            | ...             | ...              | 32               | 26              | 16  | 8          | 15          | 17          | 4                              | ...   |
| Accidents                             | 9   | 3             | 1              | 1               | ...              | 1                | 3               | 2   | 2          | 4           | 1           | ...                            | 4   |
| Suicides                              | 3   | ...           | ...            | ...             | ...              | 3                | ...             | 1   | 1          | ...         | ...         | 1                              | 1   |
| All other Causes                      | 208   | 54            | 13             | 12              | 7                | 52               | 70              | 51  | 40         | 42          | 60          | 15                             | 13  |
| All Causes                            | 629   | 173           | 92             | 22              | 28               | 177              | 137             | 126   | 134        | 146         | 189         | 34                             | 36  |







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TABLE II. Contribution of Deaths in the Borough of Croydon during 1956.

| TABLE 2B - Classification of Deaths due to the Burgeoning of Crime during 1968 |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|
| Year   | 0.1 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 | 6.0 | 7.0 | 8.0 | 9.0 | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 | 16.0 | 17.0 | 18.0 | 19.0 | 20.0 | 21.0 | 22.0 | 23.0 | 24.0 | 25.0 | 26.0 | 27.0 | Total<br>1968 |
| I. SUICIDE, CRIME OR UNKNOWN   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| 1. Suicidal Deaths   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide by Fire  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide by Poison  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide by Hanging   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide by Shooting  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide by Other Means   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide by Unknown Means   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| 2. Crime Deaths  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Murder   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Rape   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Sexual Assault   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Kidnapping   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Hostage Taking   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Robbery  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Burglary   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Auto Theft   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Larceny  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Vandalism  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Arson  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Drugs  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Alcohol  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Gambling   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Prostitution   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Vagrancy   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Other  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Homicide   |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
| Suicide  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |
|  |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |               |

