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STATISTICAL ROOM  
JUL 1903

County

Borough



of Derby.

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ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

FOR THE

YEAR 1902,

BY

William J. Howarth, M.D., D.P.H., &c.,

MEDICAL OFFICER OF HEALTH, AND MEDICAL SUPERINTENDENT OF THE  
BOROUGH ISOLATION HOSPITAL.

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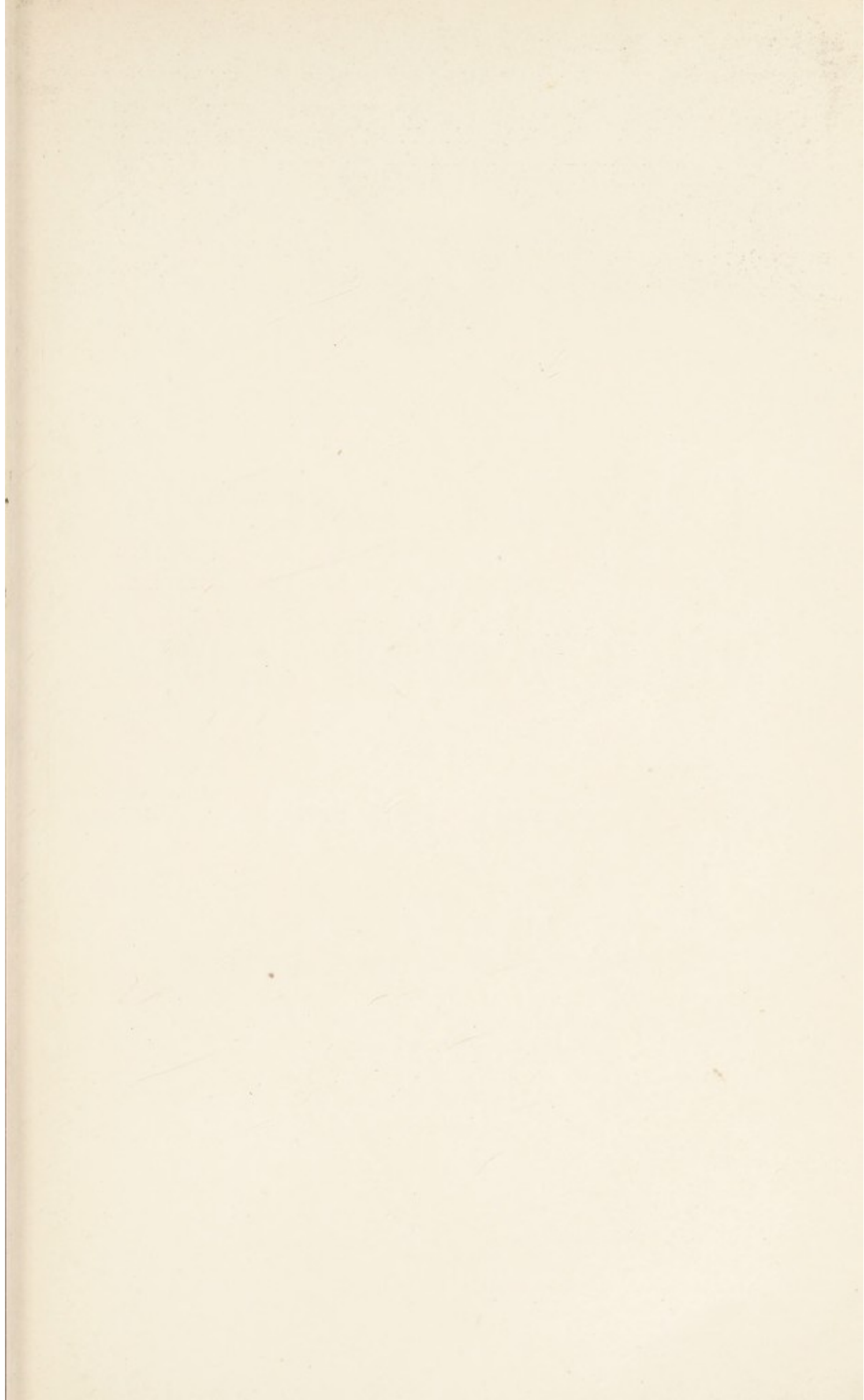
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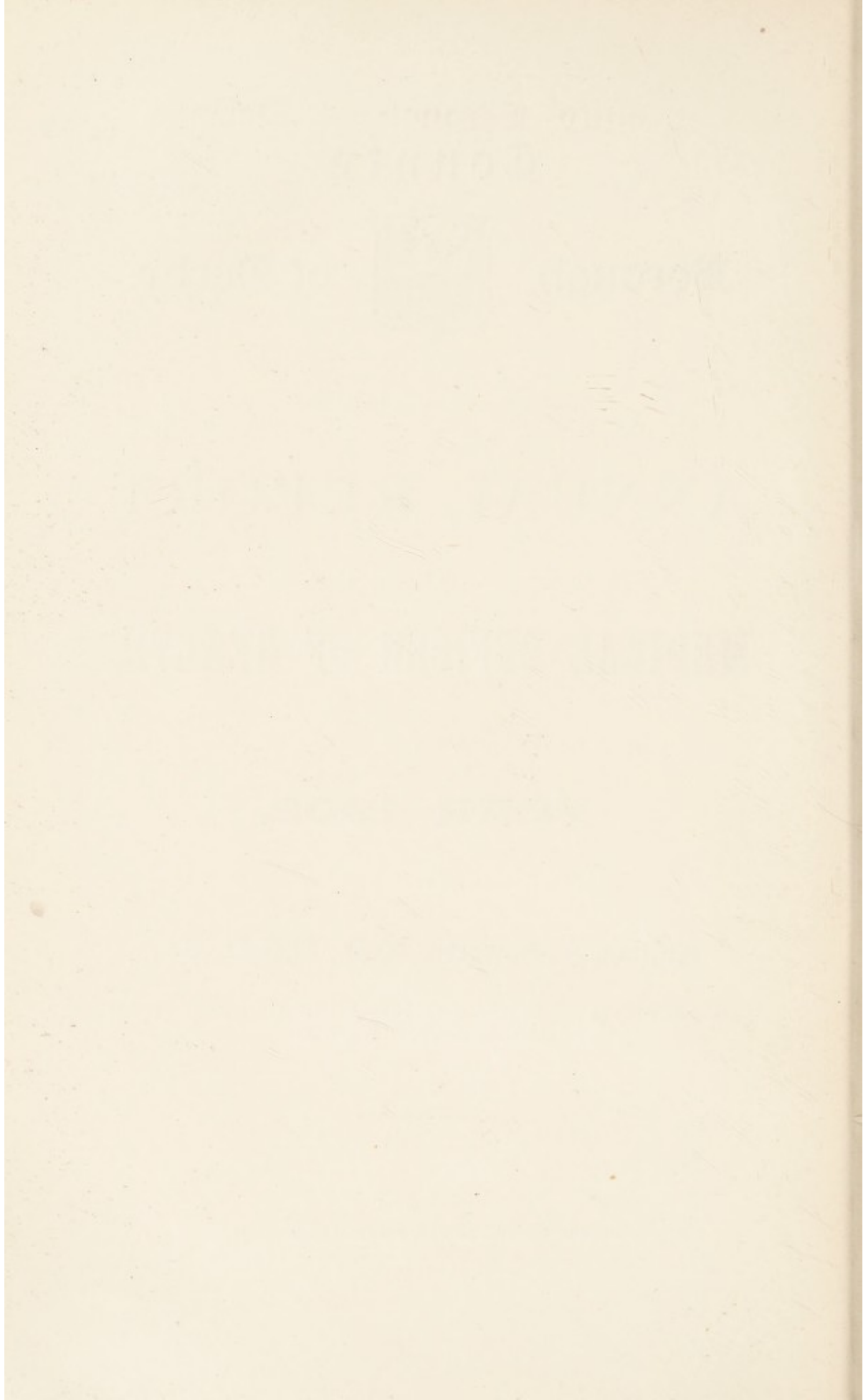
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# County Borough of Derby.

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MR. ALDERMAN HARRISON, J.P., CHAIRMAN.

|                      |                   |
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| " " EATON.           | " " LAURIE, M.D.  |
| " " GEORGE.          | " " NEWLAND.      |
| " " HASLAM.          | " " NEWBOLD.*     |
| " " HEXTALL.         | " " PEACH.        |

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### Hospital Visiting Committee.

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|------------------------|-----------------------------|
| MR. ALDERMAN HARRISON. | MR. COUNCILLOR LAURIE, M.D. |
| MR. COUNCILLOR BOAM.   | " " NEWLAND.                |
| " " EATON.             | " " PEACH.                  |
| " " INNES.             |                             |

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## SANITARY STAFF.

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### Chief Sanitary Inspector.

W. WILKINSON, Certif. Sany. Inst., R.P.C.

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### Assistant Sanitary Inspectors.

THOMAS TURNER. W. DOLMAN, Certif. Sany. Institute.  
FREDK. W. FORD.  
HARRY J. MORGAN, Certif. Sany. Institute.  
SAMUEL DAWSON, Certif. Sany. Institute.  
MISS McCLEVERTY, Certif. Sany. Institute.

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### Clerks.

HENRY E. DAYKIN. H. COPE.  
CECIL WHEEN. FRED MEAKIN.

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### Medical Officer of Health.

WILLIAM J. HOWARTH, M.D., D.P.H., &c.



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PUBLIC HEALTH DEPARTMENT,  
FORD STREET, DERBY,

June 1st, 1903.

TO THE

Chairman and Members of the Sanitary Committee.

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GENTLEMEN,

I beg to present herewith my Fifth Annual Report upon the Health and sanitary condition of the County Borough of Derby, being the statutory report of the Medical Officer of Health for the year 1902.

During the past twenty-five years the death-rate of the town has been progressively, if somewhat irregularly, improving, until it has reached the extremely low figure of fourteen per 1,000. For a community which is composed in the main of members of the working-class, such a mortality rate is highly satisfactory, even assuming that during the year, meteorological, and other conditions were such as favoured a low death-rate. The deaths from consumption continue to decline, and the infantile mortality has only once been lower during the period above referred to. In respect to the prevalence of zymotic diseases it is a pleasure to be able to record that scarlet fever, which during the previous four years has been unduly prevalent, has at last markedly declined, whilst considerable improvement is observed in the incidence of cases of enteric fever.

During the year, detailed information embodying the results of the census enumeration in 1901 was published, and perhaps the most striking feature is the decline in the number of persons living in an overcrowded condition. This fact is fully discussed in the report, and I am of opinion that this comparative infrequency of overcrowding, combined with the effective air-space required at the rear of new buildings, materially assist in maintaining the healthy character which the town has acquired. It is impossible to exaggerate the value of a low death-rate, particularly in a manufacturing town; with a lower death-rate there are fewer weeks of sickness, combined with greater working capacity, and a prolongation of the period of activity, all of which are considerations affecting the financial position of the workers.

I have to express my indebtedness to the Sanitary Committee for the patient consideration they have invariably given to the numerous subjects which have been brought before them for consideration, and to the whole of the Sanitary Staff for the energy and care displayed throughout the year in carrying out their various duties.

I am, Gentlemen,

Your obedient Servant,

WILLIAM J. HOWARTH,

MEDICAL OFFICER OF HEALTH.

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

Information derived from the Census returns 1901  
and Vital Statistics based thereon.

*Population :—*

The population enumerated in the County Borough was 105,912 as compared with 94,146 in 1891. This represents an increase equivalent to 12.5 per cent. The population in the area added to the Borough by the Act of 1901 was 8,936, making a total population for the extended Borough of 114,848. Of these persons 55,977 were males, and 58,871 females. The subjoined table gives the population of the Old Borough at varying groups of ages both of males and females.

TABLE I.—Ages of persons, Males and Females in the Borough  
of Derby 1901.

|              | Males. | Females. | Total. |             | Males. | Females. | Total.  |
|--------------|--------|----------|--------|-------------|--------|----------|---------|
| Under 1 year | 1,304  | 1,188    | 2,492  | 25—30       | 4,417  | 4,970    | 9,387   |
| 1—2          | 1,109  | 1,134    | 2,243  | 30—35       | 3,967  | 4,011    | 7,978   |
| 2—3          | 1,172  | 1,081    | 2,253  | 35—40       | 3,450  | 3,529    | 6,979   |
| 3—4          | 1,103  | 1,139    | 2,242  | 40—45       | 3,096  | 3,200    | 6,296   |
| 4—5          | 1,052  | 1,123    | 2,175  | 45—50       | 2,801  | 2,724    | 5,525   |
| Total under  |        |          |        | 50—55       | 2,205  | 2,234    | 4,439   |
| 5 years.     | 5,740  | 5,665    | 11,405 | 55—60       | 1,669  | 1,745    | 3,414   |
| 5—10         | 5,488  | 5,598    | 11,086 | 60—65       | 1,187  | 1,373    | 2,560   |
| 10—13        | 3,192  | 3,296    | 6,488  | 65—70       | 817    | 1,050    | 1,867   |
| 13—14        | 1,062  | 1,121    | 2,183  | 70—75       | 509    | 689      | 1,198   |
| 14—15        | 1,096  | 1,113    | 2,209  | 75—80       | 280    | 398      | 678     |
| 15—16        | 1,054  | 1,122    | 2,176  | 80—85       | 116    | 164      | 280     |
| 16—17        | 1,049  | 1,174    | 2,223  | 85—90       | 30     | 49       | 79      |
| 17—18        | 1,020  | 1,138    | 2,158  | 90—95       | 4      | 7        | 11      |
| 18—19        | 1,053  | 1,153    | 2,206  | 95—100      | 2      | 1        | 3       |
| 19—20        | 1,035  | 1,160    | 2,195  | 100 upwards | 0      | 0        | 0       |
| 20—21        | 989    | 1,251    | 2,240  | Total all   |        |          |         |
| 21—25        | 4,059  | 4,590    | 8,649  | Ages.       | 51,387 | 54,525   | 105,912 |

*Condition as to Marriage :—*

The marriage rates have been described by Dr. Farr as the barometer of national prosperity, and each year a reference is made

in this Annual Report to the marriage rate. These marriage statistics are of interest, not only from their relation to, and influence upon, the birth-rate and increase of population, but they help in the elucidation of many social problems.

The following table gives details respecting the number of unmarried, married and widowed persons at each age, and it will be observed that out of over 19,000 married males only 60 were below the age of 21 years.

TABLE II.—Condition as to Marriage and ages of persons, Males and Females, in the Borough of Derby in 1901.

| AGES.        | Number of Unmarried Persons. |          |        | Number of Married Persons. |          |        | Number of Widowed Persons. |          |        |
|--------------|------------------------------|----------|--------|----------------------------|----------|--------|----------------------------|----------|--------|
|              | Males.                       | Females. | Total. | Males.                     | Females. | Total. | Males.                     | Females. | Total. |
| All Ages.    | 30,082                       | 31,068   | 61,150 | 19,570                     | 19,843   | 39,413 | 1,735                      | 3,614    | 5,349  |
| Und. 15 yrs. | 16,578                       | 16,793   | 33,371 | ...                        | ...      | ..     | ...                        | ...      | ...    |
| 15—16        | 1,054                        | 1,122    | 2,176  | ...                        | ..       | ...    | ...                        | ...      | ...    |
| 16—17        | 1,049                        | 1,174    | 2,223  | ...                        | ...      | ...    | ...                        | ...      | ...    |
| 17—18        | 1,020                        | 1,136    | 2,156  | ...                        | 2        | 2      | ...                        | ...      | ...    |
| 18—19        | 1,050                        | 1,130    | 2,180  | 3                          | 23       | 26     | ...                        | ...      | ...    |
| 19—20        | 1,027                        | 1,093    | 2,120  | 8                          | 66       | 74     | ...                        | 1        | 1      |
| 20—21        | 940                          | 1,071    | 2,011  | 49                         | 180      | 229    | ...                        | ..       | ...    |
| 21—25        | 3,076                        | 3,012    | 6,088  | 982                        | 1,568    | 2,550  | 1                          | 10       | 11     |
| 25—35        | 2,607                        | 2,649    | 5,256  | 5,680                      | 6,224    | 11,904 | 97                         | 108      | 205    |
| 35—45        | 888                          | 902      | 1,790  | 5,483                      | 5,421    | 10,904 | 175                        | 406      | 581    |
| 45—55        | 460                          | 460      | 920    | 4,189                      | 3,793    | 7,982  | 357                        | 705      | 1,062  |
| 55—65        | 211                          | 310      | 521    | 2,199                      | 1,856    | 4,055  | 446                        | 952      | 1,398  |
| 65—75        | 101                          | 161      | 262    | 823                        | 621      | 1,444  | 402                        | 957      | 1,359  |
| 75—85        | 18                           | 46       | 64     | 148                        | 88       | 236    | 230                        | 428      | 658    |
| 85 & upwds.  | 3                            | 9        | 12     | 6                          | 1        | 7      | 27                         | 47       | 74     |

*Occupation of Males and Females :—*

The influence of occupation on mortality has frequently been referred to, and considerable stress has been laid on the tendency which certain occupations of women have, to cause an increased number of premature births, and an increased mortality during the early years of life. There were 43,262 females over the age of 10 years. Of these, 23,457 were married or widowed, and out of

this number, 2,157, which is equivalent to 9.2 per cent., were engaged in some occupation. This proportion will no doubt compare favourably with most towns. 19,805 females at similar ages were unmarried, and it is from the unmarried class that the majority of the occupied females is drawn, inasmuch as 11,117 unmarried females, that is to say, 56.1 per cent. were engaged in occupation. The following table gives the numbers both for males and females at different groups of ages.

TABLE III.—Number of occupied and unoccupied Males and Females aged 10 years and upwards in the Borough of Derby.

| AGES.          | Males.                  |                        | Females.                |                        |
|----------------|-------------------------|------------------------|-------------------------|------------------------|
|                | Retired and unoccupied. | Engaged in occupation. | Retired and unoccupied. | Engaged in occupation. |
| 10—15          | 4,169                   | 1,181                  | 4,618                   | 912                    |
| 15—25          | 406                     | 9,853                  | 4,095                   | 7,493                  |
| 25—45          | 225                     | 14,705                 | 12,351                  | 3,359                  |
| 45—65          | 419                     | 7,443                  | 6,780                   | 1,296                  |
| 65 and upwards | 743                     | 1,015                  | 2,144                   | 214                    |
| Total ...      | 5,962                   | 34,197                 | 29,988                  | 13,274                 |

*Country of Birth of Foreigners.—*

There were 120 foreigners living in Derby at the time the census was taken, viz, 75 males and 50 females, the nationalities of these were as under :—

| Natives of          | Males. |    | Females. |    |
|---------------------|--------|----|----------|----|
| Poland (Russia) ... | ...    | 11 | ...      | 7  |
| Germany ...         | ...    | 10 | ...      | 8  |
| Italy ...           | ...    | 10 | ...      | 2  |
| America ..          | ...    | 21 | ...      | 15 |
| France ...          | ...    | 5  | ...      | 6  |
| Switzerland...      | ...    | 2  | ...      | 4  |
| Other Countries ... | ...    | 16 | ...      | 8  |

*Chief occupations :—*

The following may be regarded as the principal occupations in which both men and women in the Borough are engaged :—

| MEN.  | WOMEN.   |
|---|--|
| 873 Commercial or business Clerks.  | 581 were engaged in Teaching.  |
| 4,052 engaged on Railways.  | 3,117 Domestic Servants.   |
| 1,254 worked as Coachmen, Carmen, Carriers, etc.                                    | 368 Charwomen.   |
| 650 Messengers, Porters and Watchmen.   | 342 Laundry and Washing Service.   |
| 1,745 Ironfounders.   | 529 Paper-making, Staining, Bookbinding, etc.                                      |
| 856 Blacksmiths and Strikers.   | 469 engaged in Cotton work.  |
| 1,943 Fitters, Turners and Erectors.  | 492 engaged in Hosiery Manufacture.  |
| 599 Boiler Makers.  | 443 engaged in Lace Manufacture.   |
| 3,763 engaged in the Building trade.  | 1,125 engaged in other Textile Manufactures.                                       |
| 1,314 engaged in building Cycles, Coaches and other vehicles.                       | 2,220 Tailoresses, Dressmakers, Milliners, Shirtmakers, etc.                       |
| 942 Wood, Furniture, Fittings, and Decorations.                                     | 833 engaged in the Dispensing of Food, Tobacco, Drink, and letting Lodging-houses. |
| 943 were engaged in Paper-making, Staining and Printing.                            |  |
| 1,211 Tailors, Milliners, Boot-makers, etc.   |  |
| 2,588 were engaged in Dispensing Food, Tobacco, Drink, and keeping Boarding Houses. |  |

*Tenements.*—

One of the most valuable Tables contained in the Census particulars is that which refers to the number and size of the various tenements in the Borough, and the number of persons occupying those of four rooms and under. It was considered by the Sanitary Committee that information of this nature respecting each of the 99 enumeration districts into which the Borough was divided for enumeration purposes, would aid in the differentiation of these different districts as regards their sanitary condition. Such information was obtained from the Census Department, and although it is hardly practicable in this report to give details with respect to all the 99 areas, I have included below the figures referring to each of the 16 wards into which the town is divided.

TABLE IV.—Total Tenements, and Tenements of less than Five Rooms, distinguishing those Occupied by various numbers of persons in the Borough of Derby (as constituted before the extension) at the Census of 1891 and 1901, and also similar information respecting the various Wards of the enlarged Borough as ascertained at the Census of 1901.

| WARDS.  | Total Tenements or separate Occupiers. | No. of Rooms in each Tenement. | Number of Occupants in each Tenement. |     |     |     |     |     |     |     |     |     |     |            |
|---|--|--------------------------------|---------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|
|   |  |                                | 1.                                    | 2.  | 3.  | 4.  | 5.  | 6.  | 7.  | 8.  | 9.  | 10. | 11. | 12 & more. |
| <i>Derby Boro. Census 1901.</i><br>Total Tenements of 4 Rooms and under = 4259. | 23,230                                 | 1                              | 53                                    | 33  | 12  | 2   | 1   | 1   | ... | ... | ... | ... | ... | ...        |
|   |  | 2                              | 187                                   | 217 | 120 | 57  | 26  | 11  | 3   | 3   | ... | ... | ... | ...        |
|   |  | 3                              | 53                                    | 167 | 130 | 114 | 82  | 53  | 39  | 15  | 5   | 2   | ... | ...        |
|   |  | 4                              | 120                                   | 602 | 609 | 556 | 405 | 286 | 163 | 79  | 38  | 10  | 4   | 1          |
| <i>Derby Boro. Census 1891.</i><br>Total Tenements of 4 Rooms and under = 4882. | 19,371                                 | 1                              | 42                                    | 22  | 8   | 2   | 4   | ... | 1   | ... | 1   | ... | ... | ...        |
|   |  | 2                              | 159                                   | 246 | 151 | 90  | 51  | 24  | 8   | 1   | ... | ... | ... | ..         |
|   |  | 3                              | 48                                    | 188 | 150 | 135 | 93  | 60  | 58  | 30  | 10  | 8   | 2   | ...        |
|   |  | 4                              | 115                                   | 582 | 657 | 568 | 488 | 345 | 256 | 157 | 73  | 36  | 9   | 4          |

NOTE.—The Table is to be read as follows:—Of the 23,230 Tenements, 4,259 were Tenements of less than five rooms, and of these 102 were Tenements of one room, 624 of two rooms, etc.; and of the 102 Tenements of one room, 53 were occupied by one person each, 33 by two persons each, etc.

| WARDS.                                      | Total Tenements or separate Occupiers. | No. of Rooms in each Tenement. | Number of Occupants in each Tenement. |     |     |     |     |     |     |     |     |     |     |            |
|---|--|--------------------------------|---------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|
|   |  |                                | 1.                                    | 2.  | 3.  | 4.  | 5.  | 6.  | 7.  | 8.  | 9.  | 10. | 11. | 12 & more. |
| <i>Abbey Ward.</i>                          | 1,832                                  | 1                              | 1                                     | 1   | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...        |
| Total Tenements of 4 Rooms and under = 124. |  | 2                              | ...                                   | 2   | 1   | ... | ... | ... | ... | ... | ... | ... | ... | ...        |
|   |  | 3                              | ...                                   | ... | 1   | 1   | ... | 1   | ... | ... | ... | ... | ... | ...        |
|   |  | 4                              | 1                                     | 23  | 27  | 22  | 16  | 11  | 8   | 3   | 3   | 2   | ... | ...        |
| <i>Arboretum Ward.</i>                      | 1,979                                  | 1                              | 7                                     | 2   | 3   | ... | ... | 1   | ... | ... | ... | ... | ... |            |
| Total Tenements of 4 Rooms and under = 48.  |  | 2                              | 7                                     | 1   | 2   | ... | ... | ... | ... | ... | ... | ... | ... |            |
|   |  | 3                              | 1                                     | ... | ... | ... | 2   | ... | ... | ... | ... | ... | ... |            |
|   |  | 4                              | 2                                     | 5   | 9   | 4   | 1   | 1   | ... | ... | ... | ... | ... |            |
| <i>Babington Ward.</i>                      | 1,908                                  | 1                              | 3                                     | 2   | ... | ... | ... | ... | ... | ... | ... | ... | ... |            |
| Total Tenements of 4 Rooms and under = 254. |  | 2                              | 21                                    | 16  | 10  | 3   | 2   | ... | ... | ... | ... | ... | ... |            |
|   |  | 3                              | 3                                     | 3   | 8   | 10  | 3   | ... | 1   | ... | ... | ... | ... |            |
|   |  | 4                              | 6                                     | 44  | 43  | 33  | 15  | 20  | 6   | 2   | ... | ... | ... |            |
| <i>Becket Ward.</i>                         | 1,737                                  | 1                              | 2                                     | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |            |
| Total Tenements of 4 Rooms and under = 483. |  | 2                              | 38                                    | 44  | 21  | 7   | 4   | 2   | ... | 1   | ... | ... | ... |            |
|   |  | 3                              | 5                                     | 21  | 25  | 15  | 7   | 4   | 2   | 1   | ... | ... | ... |            |
|   |  | 4                              | 12                                    | 59  | 57  | 60  | 47  | 26  | 13  | 6   | 2   | 2   | ... |            |
| <i>Bridge Ward.</i>                         | 1,089                                  | 1                              | 4                                     | 2   | ... | ... | ... | ... | ... | ... | ... | ... | ... |            |
| Total Tenements of 4 Rooms and under = 257. |  | 2                              | 16                                    | 9   | 2   | 9   | 2   | 2   | ... | ... | ... | ... | ... |            |
|   |  | 3                              | 7                                     | 13  | 13  | 14  | 11  | 13  | 8   | 2   | ... | ... | ... |            |
|   |  | 4                              | 4                                     | 21  | 20  | 22  | 23  | 11  | 11  | 8   | 7   | 1   | 2   |            |
| <i>Castle Ward.</i>                         | 1,741                                  | 1                              | 5                                     | 3   | ... | ... | 1   | ... | ... | ... | ... | ... | ... |            |
| Total Tenements of 4 Rooms and under = 937. |  | 2                              | 23                                    | 50  | 27  | 13  | 5   | ... | ... | ... | ... | ... | ... |            |
|   |  | 3                              | 7                                     | 29  | 23  | 18  | 12  | 6   | 9   | 2   | 1   | 1   | ... |            |
|   |  | 4                              | 27                                    | 132 | 165 | 143 | 86  | 82  | 39  | 17  | 5   | 3   | 2   |            |

| WARDS.                                      | Total Tenements or separate Occupiers. | No. of Rooms in each Tenement. | Number of Occupants in each Tenement. |     |     |     |     |     |     |     |     |     |     |            |
|---|--|--------------------------------|---------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|
|   |  |                                | 1.                                    | 2.  | 3.  | 4.  | 5.  | 6.  | 7.  | 8.  | 9.  | 10. | 11. | 12 & more. |
| <i>Dale Ward.</i>                           | 1,025                                  | 1                              | 1                                     | ..  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...        |
| Total Tenements of 4 Rooms and under = 19.  |  | 2                              | 3                                     | 1   | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...        |
|   |  | 3                              |                                       | ... | ... | ... | 1   | ... | ... | ... | ... | ... | ... | ...        |
|   |  | 4                              | 1                                     | 3   | 2   | 5   | 1   | ..  | ... | ... | ... | ... | ... | ...        |
| <i>Derwent Ward.</i>                        | 1,038                                  | 1                              | 1                                     | ... | ... | ... | ... | ... | ..  | ... | ... | ... | ... | ...        |
| Total Tenements of 4 Rooms and under = 212. |  | 2                              | 2                                     | 3   | 3   | 1   | 1   | ... | 1   | ... | ... | ... | ... | ...        |
|   |  | 3                              | 2                                     | 3   | 2   | 1   | 3   | ... | 1   | ... | ... | ... | ... | ...        |
|   |  | 4                              | 12                                    | 44  | 34  | 34  | 24  | 18  | 11  | 7   | 4   | ... | ... | ...        |
| <i>Friargate Ward.</i>                      | 1,710                                  | 1                              | 3                                     | ... | ... | ... | ... | ... | ... | ... | ..  | ... | ... | ...        |
| Total Tenements of 4 Rooms and under = 142. |  | 2                              | 2                                     | 1   | 1   | 1   | ... | ... | ... | ... | ... | ... | ... | ...        |
|   |  | 3                              | 3                                     | 3   | 3   | ... | ... | 1   | ... | ... | ... | ... | ... | ...        |
|   |  | 4                              | 5                                     | 31  | 24  | 26  | 19  | 14  | 5   | ... | ... | ... | ... | ...        |
| <i>King's Mead Ward.</i>                    | 1,574                                  | 1                              | 12                                    | 21  | 9   | 2   | ... | ... | ... | ... | ... | ... | ... | ...        |
| Total Tenements of 4 Rooms and under = 792. |  | 2                              | 34                                    | 61  | 23  | 15  | 7   | 4   | 1   | 2   | ... | ... | ... | ...        |
|   |  | 3                              | 13                                    | 66  | 32  | 42  | 32  | 20  | 17  | 8   | 3   | 1   | ... | ...        |
|   |  | 4                              | 18                                    | 82  | 67  | 67  | 58  | 27  | 30  | 13  | 4   | 1   | ... | ...        |
| <i>Litchurch Ward.</i>                      | 1,951                                  | 1                              | 3                                     | ..  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...        |
| Total Tenements of 4 Rooms and under = 234. |  | 2                              | 13                                    | 3   | 3   | 1   | 1   | ... | ... | ... | ... | ... | ... | ...        |
|   |  | 3                              | ...                                   | 8   | 6   | 3   | 1   | 1   | ... | ... | ... | ... | ... | ...        |
|   |  | 4                              | 9                                     | 37  | 39  | 34  | 39  | 18  | 9   | 3   | 3   | ... | ... | ..         |
| <i>Markeaton Ward.</i>                      | 1,680                                  | 1                              | 10                                    | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...        |
| Total Tenements of 4 Rooms and under = 554. |  | 2                              | 20                                    | 16  | 21  | 4   | 4   | 2   | 1   | ... | ... | ... | ... | ..         |
|   |  | 3                              | 8                                     | 10  | 11  | 6   | 6   | 5   | ... | 1   | 1   | ... | ... | ...        |
|   |  | 4                              | 16                                    | 94  | 88  | 79  | 59  | 40  | 25  | 17  | 9   | 1   | ... | ...        |

| WARDS.                 | Total Tenements or separate Occupiers. | No. of Rooms in each Tenement. | Number of Occupants in each Tenement. |     |     |     |     |     |     |     |     |     |     |            |
|------------------------|--|--------------------------------|---------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|
|                        |  |                                | 1.                                    | 2.  | 3.  | 4.  | 5.  | 6.  | 7.  | 8.  | 9.  | 10. | 11. | 12 & more. |
| <i>Normanton Ward.</i> | 1,596                                  | 1                              | ...                                   | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...        |
|                        |  | 2                              | 4                                     | 7   | 2   | ... | ... | ... | ... | ... | ... | ... | ... | ...        |
|                        |  | 3                              | 2                                     | 8   | 1   | 2   | 2   | 2   | ... | ... | ... | ... | ... | ...        |
|                        |  | 4                              | 1                                     | 5   | 5   | 6   | 4   | 3   | 1   | ... | ... | ... | ... | ...        |
| <i>Osmaston Ward.</i>  | 1,187                                  | 1                              | ...                                   | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...        |
|                        |  | 2                              | 1                                     | 4   | 1   | ... | ... | ... | ... | ... | ... | ... | ... | ...        |
|                        |  | 3                              | ...                                   | ... | ... | 1   | 1   | ... | 1   | ... | ... | ... | ... | ...        |
|                        |  | 4                              | ...                                   | 2   | 3   | 2   | ... | 1   | 1   | ... | ... | ... | ... | ...        |
| <i>Pear Tree Ward.</i> | 1,385                                  | 1                              | ...                                   | 2   | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...        |
|                        |  | 2                              | ...                                   | 2   | 3   | 3   | ... | ... | ... | ... | ... | ... | ... | ...        |
|                        |  | 3                              | ...                                   | ... | ... | ... | 1   | ... | ... | 1   | ... | ... | ... | ...        |
|                        |  | 4                              | 2                                     | 5   | 6   | 10  | 6   | 7   | 4   | 2   | 1   | ... | ... | ...        |
| <i>Rowditch Ward.</i>  | 1,640                                  | 1                              | 1                                     | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...        |
|                        |  | 2                              | 5                                     | 5   | 2   | ... | ... | 1   | ... | ... | ... | ... | ... | ...        |
|                        |  | 3                              | 1                                     | 3   | 6   | 3   | 2   | 2   | 1   | ... | ... | ... | ... | ...        |
|                        |  | 4                              | 5                                     | 19  | 25  | 14  | 10  | 9   | 2   | 1   | ... | ... | ... | ...        |

The above figures are of an extremely satisfactory character, and it is distinctly encouraging to find that although the overcrowding which was discovered in the Borough at the census of 1891 was not considerable, it had still further decreased at the last census. If the definition of an overcrowded house be accepted as one in which the occupants number more than two per room, then in the intercensal period the number of overcrowded persons has decreased by over 50 per cent. In 1891 there were 2,533 persons living in this condition, which represented 2.7 per cent. of the inhabitants. At the census of 1901 there were only 1,252 persons, or 1.2 per cent. of the total inhabitants of the Borough. If individual wards are taken, it will be seen that in Dale, Friar Gate and Normanton Wards, there was not

a single instance of a tenement in which more than two persons per room were housed, and in no fewer than seven other wards is the proportion under one per cent. of the total inhabitants. The largest proportion of overcrowded persons is contained in King's Mead Ward, where over five per cent. are so housed, in Bridge and Castle Wards there were over three per cent., and in Markeaton Ward over two per cent. In addition to this comparative infrequency of overcrowding, it is important to note that 81.7 per cent. of the tenements in the Borough consist of places with five rooms or over, and in eight wards over 90 per cent. of the tenements have this amount of accommodation,—for a working class community this can only be regarded as satisfactory. The various details referred to above will perhaps be more easily appreciated by the brief tabulation as set out below.

TABLE V.

| WARD.  | Total number of Tenements. | Percentage of Tenements with less than five rooms. | Actual number of persons living more than two in a room. | Percentage of inhabitants living more than two in a room. |
|--|----------------------------|--|--|---|
| Borough Census, 1891                           | 19,371                     | 25   | 2,533  | 2.7   |
| Borough Census, 1901 (excluding extension) ... | 23,230                     | 18.3   | 1,252  | 1.2   |
| Abbey ...                                      | 1,832                      | 6.7  | 47   | 0.6   |
| Arboretum ...                                  | 1,979                      | 2.4  | 15   | 0.16  |
| Babington ...                                  | 1,908                      | 12.7   | 17   | 0.2   |
| Becket ...                                     | 1,737                      | 27.8   | 100  | 1.3   |
| Bridge ...                                     | 1,089                      | 23.6   | 189  | 3.6   |
| Castle ...                                     | 1,741                      | 53.8   | 237  | 3.0   |
| Dale ...                                       | 1,025                      | 2.0  | none   | nil   |
| Derwent ...                                    | 1,038                      | 20.4   | 55   | 1.1   |
| Friargate ...                                  | 1,710                      | 8.3  | none   | nil   |
| King's Mead                                    | 1,574                      | 50.2   | 383  | 5.3   |
| Litchurch ...                                  | 1,951                      | 12.0   | 32   | 0.36  |
| Markeaton ...                                  | 1,680                      | 33.0   | 147  | 2.0   |
| Normanton                                      | 1,596                      | 3.4  | none   | nil   |
| Osmaston ...                                   | 1,187                      | 1.5  | 7  | 0.13  |
| Pear Tree ...                                  | 1,385                      | 4.0  | 17   | 0.24  |
| Rowditch ...                                   | 1,640                      | 7.1  | 13   | 0.16  |

*Mortality in the Enumeration Districts.*—With the staff that is available for Sanitary purposes it is practically impossible to carry out a house to house inspection of the whole town, but it is only by such systematic enquiry that the existence of many objectionable conditions can be discovered. The alternative is to locate, if possible, the districts which are known to be insanitary, and devote special attention to them. These districts have been easily and distinctly mapped out, by combining the information contained in the tenement tables referred to above, with the mortality statistics which have been recorded in each of these districts for the three years, of which the Census year forms the central period. It will be observed from the tabulated list of death-rates in these enumeration districts that there are wide variations in the recorded mortality. In district No. 91, which includes the area bounded by Avondale Road, Renals Street, Salisbury Street and Normanton Road, the death-rate is as low as 7.8 per thousand, whilst in enumeration district No. 8, which includes the area bounded by Willow Row, Brook Street and Brook Walk, the death-rate is as high as 33 per thousand. Only one other district has a rate of over 30 per thousand, namely, No. 19, which is bounded by Goodwin Street, Chapel Street and King Street. Fourteen districts have rates of between 20 and 30 per thousand.

In enumeration district No. 8 there were 65 persons out of 658, or nearly 10 per cent. living more than two in a room. This district has only 1 tenement of one room, there are, however, 26 of two rooms in which 25 persons were living in an overcrowded condition, and 35 tenements of three rooms and 22 tenements of four rooms in which 22 and 18 persons were living in an overcrowded state. In district No. 19 which also has a death-rate of over 30 per 1,000, 10 per cent. of the inhabitants were likewise overcrowded, in this district there were enumerated 193 tenements, viz, 33 of one room, 25 of two rooms, 27 of three rooms and 58 of four rooms, and 32, 28 and 29 persons were overcrowded in the tenements of three rooms and under, and none in the four rooms.

Although it is not an invariable rule, in the majority of cases the higher death-rates are associated with those districts which have the greatest proportion of smaller sized tenements and the largest percentage of overcrowding.

A Map has been prepared to more readily facilitate the appreciation of these insanitary areas, and is submitted with this Report.





TABLE VI.—The principal boundaries and population of the various enumeration Districts in the Borough of Derby, together with the deaths registered during the 3 years 1900, 1 & 2, and the annual average death-rate for this period.

| Enumeration District. | PRINCIPAL BOUNDARIES.  | Enumerated Population Census 1901. | Deaths three years 1900-1-2. | Average Annual Death-rate per 1000. |
|-----------------------|--|------------------------------------|------------------------------|-------------------------------------|
| 1                     | Corn Market, St. Peter's St., Bloom St., Cockpit Hill, Morledge and Albert Street ... ..                               | 1076                               | 72                           | 22.4                                |
| 2                     | Eagle Street and Devonshire Street   | 789                                | 46                           | 19.5                                |
| 3                     | London Road, Castle Street, Rivett Street, and Siddals Road ...  | 897                                | 45                           | 16.7                                |
| 4                     | Sacheverel Street, Normanton Road, Charnwood Street and London Road ... ..   | 1071                               | 40                           | 12.5                                |
| 5                     | Charnwood Street, Normanton Rd., and Leonard Street ... ..   | 911                                | 38                           | 14.0                                |
| 6                     | St. Peter's Street, Green Lane, and Babington Lane ... ..  | 305                                | 13                           | 14.3                                |
| 7                     | Babington Lane, Sacheverel Street and Osmaston Road ...  | 904                                | 40                           | 14.8                                |
| 8                     | Willow Row, Brook Walk, and Brook Street ... ..  | 658                                | 65                           | 33.0                                |
| 9                     | Walker Lane, Jury Street, St. Mary's Gate and Iron Gate ...  | 770                                | 40                           | 17.4                                |
| 10                    | Iron Gate, Market Place, Tenant Street, Morledge and Full Street ... ..  | 597                                | 35                           | 19.6                                |
| 11                    | Walker Lane, Queen Street, and St. Michael's Lane ... ..   | 520                                | 36                           | 23.1                                |
| 12                    | Curzon Street, Friar Gate, Ford Street, and Stafford Street ...  | 986                                | 47                           | 15.9                                |
| 13                    | Uttoxeter New Road, Junction St., Parcel Terrace, Uttoxeter Old Road, and Great Northern Road ... ..                   | 1087                               | 59                           | 18.1                                |
| 14                    | Sadler Gate, Bold Lane, Cheapside, Wardwick, Victoria St., Green Lane, Macklin St., and Becket Street ... ..           | 1057                               | 73                           | 23.1                                |
| 15                    | Curzon Street, Uttoxeter New Road, Lower Boundary Rd., Drewry Lane, Monk Street, Macklin Street, and Becket Street ... | 1357                               | 60                           | 14.8                                |
| 16                    | King Street, Edward Street, River Street, Duke Street, and Sower Road ... ..   | 1238                               | 87                           | 23.5                                |

| Enumeration District. | PRINCIPAL BOUNDARIES.  | Enumerated Population Census 1901. | Deaths three years 1900-1-2. | Average Annual Death-rate per 1000. |
|-----------------------|--|------------------------------------|------------------------------|-------------------------------------|
| 17                    | Edward Street, Arthur Street, Kingston Street, and Duffield Road                           | 901                                | 42                           | 15.6                                |
| 18                    | Edward Street, River Street, Bath Street and Arthur Street ...                             | 1179                               | 35                           | 9.9                                 |
| 19                    | Goodwin Street, Chapel Street and King Street ... ..                                       | 806                                | 77                           | 31.9                                |
| 20                    | St. Helen's Street, King Street, Lodge Lane, Bridge Street and Brook Street ... ..         | 1170                               | 68                           | 19.4                                |
| 21                    | Duffield Road, Kedleston Street and Green Street ... ..                                    | 877                                | 57                           | 21.7                                |
| 22                    | Kedleston Road, Penny Long Lane and Duffield Road ... ..                                   | 908                                | 35                           | 12.9                                |
| 23                    | Borough's Walk, London Road, Traffic Street and Siddals Rd.                                | 964                                | 62                           | 21.5                                |
| 24                    | Liversage Place, Liversage Street and Siddals Road ... ..                                  | 1108                               | 74                           | 22.3                                |
| 25                    | Liversage Street, Siddals Road and Canal Street ... ..                                     | 1402                               | 80                           | 19.1                                |
| 26                    | Liversage Street, Park Street, Canal Street and Trinity Street ...                         | 1180                               | 70                           | 19.8                                |
| 27                    | London Road, Hill Street, Osmaston Road and the Infirmary ...                              | 790                                | 51                           | 21.6                                |
| 28                    | Osmaston Road, Litchurch Street and Canal Street ... ..                                    | 901                                | 54                           | 20.0                                |
| 29                    | London Road, Calvert Street, Railway Terrace and Wellington St.                            | 734                                | 31                           | 14.1                                |
| 30                    | London Road, Wellington Street, Park Street and Hulland Street                             | 990                                | 47                           | 15.9                                |
| 31                    | Regent Street, Osmaston Road, High Street and London Road ...                              | 1272                               | 53                           | 13.9                                |
| 32                    | High Street, Osmaston Rd., Bloomfield Street, Barrow Street, Clifton Street and London Rd. | 1086                               | 58                           | 17.9                                |
| 33                    | Barlow Street, Osmaston Road, Litchurch Lane and London Rd.                                | 1255                               | 44                           | 11.7                                |
| 34                    | Rose Hill Street, Whitaker Street, Corden Street, Pear Tree Rd., and Normanton Road ...    | 1154                               | 41                           | 12.2                                |
| 35                    | Vale Street, Madeley Street, Rose Hill Street, Fleet Street and Roe Street ... ..          | 1300                               | 60                           | 15.4                                |
| 36                    | Pear Tree Road, Richmond Road, Cambridge Street and Roe St.                                | 1376                               | 57                           | 13.9                                |
| 37                    | Richmond Road, Pear Tree Road, Dairy House Road and Cambridge Street ... ..                | 1225                               | 50                           | 13.7                                |

| Enumeration District. | PRINCIPAL BOUNDARIES.  | Enumerated Population Census 1901. | Deaths three-years 1900-1-2. | Average Annual Death-rate per 1000. |
|-----------------------|--|------------------------------------|------------------------------|-------------------------------------|
| 38                    | Holcombe Street, Olivier Street, Shaftesbury Crescent and Harrington Street .. ...   | 1739                               | 63                           | 12.1                                |
| 39                    | Pear Tree Street, Harrington Street and Princes Street ... ..                        | 1279                               | 45                           | 11.8                                |
| 40                    | Woods Lane, Monk Street and Abbey Street ... ..                                      | 1198                               | 68                           | 19.0                                |
| 41                    | Boyer Street, Warner Street and Abbey Street ... ..                                  | 1358                               | 56                           | 13.8                                |
| 42                    | Abbey Street, Wilson Street, Gerard Street and Burton Road ...                       | 1440                               | 61                           | 14.2                                |
| 43                    | Wilson Street, Green Lane, Macklin Street and Abbey Street ...                       | 1025                               | 55                           | 17.9                                |
| 44                    | Wilson Street, Green Lane, Haarlem Street and Waterloo Street ...                    | 1207                               | 69                           | 19.1                                |
| 45                    | Gerard Street, Burton Road and Rosengrave Street ... ..                              | 809                                | 42                           | 17.4                                |
| 46                    | Burton Road, Swinburne Street Mill Hill Lane and Normanton Rd.                       | 573                                | 36                           | 21.0                                |
| 47                    | St. Thomas' Road, Princes Street and Rutland Street ... ..                           | 1160                               | 44                           | 12.7                                |
| 48                    | Leonard Street, Morleston Street, Twyford Street and Normanton Road ... ..           | 1166                               | 57                           | 16.3                                |
| 49                    | Normanton Road, Rose Hill Street and Harriett Street ... ..                          | 1136                               | 50                           | 14.7                                |
| 50                    | Arboretum Street, Osmaston Road and Grange Street ... ..                             | 1240                               | 45                           | 12.1                                |
| 51                    | Grange Street, Malcolm Street, Alexandra St., and Osmaston Rd.                       | 1259                               | 33                           | 8.8                                 |
| 52                    | Shaftesbury Street, Shaftesbury Crescent and Black Lane... ..                        | 1424                               | 49                           | 11.5                                |
| 53                    | Malcolm Street, Molineux Street and Leacroft Road ... ..                             | 1009                               | 36                           | 11.9                                |
| 54                    | Fleet Street, Cambridge Street, Sale Street and Rose Hill Street ...                 | 813                                | 36                           | 14.8                                |
| 55                    | Drewry Lane, Monk Street, Werburgh Street and Bakewell St.                           | 1264                               | 51                           | 13.5                                |
| 56                    | Bakewell Street, Parliament Street, Peet Street and Drewry Lane                      | 1153                               | 44                           | 12.8                                |
| 57                    | Drewry Lane, Upper Boundary Rd., Parliament Street and Peet St.                      | 1224                               | 67                           | 18.3                                |
| 58                    | Parliament Street, Werburgh Street, Woods Lane, Stockbrook St. and Amy Street ... .. | 1187                               | 60                           | 16.9                                |
| 59                    | Stockbrook Street, Woods Lane and St. Luke's Street ... ..                           | 1349                               | 60                           | 14.9                                |

| Enumeration District. | PRINCIPAL BOUNDARIES.  | Enumerated Population Census 1901. | Deaths three years 1900-1-2. | Average Annual Death-rate per 1000. |
|-----------------------|--|------------------------------------|------------------------------|-------------------------------------|
| 60                    | Sherwood Street, Dean Street and Harrison Street ... ..  | 1367                               | 60                           | 14.7                                |
| 61                    | Dean Street and Stockbrook Street  | 1138                               | 60                           | 17.6                                |
| 62                    | Crosby Street, Amy Street and Westbury Street ... ..   | 1099                               | 65                           | 19.8                                |
| 63                    | Uttoxeter New Rd., Lower Boundary Road, Upper Boundary Road and Lonsdale Place ... ..            | 1063                               | 49                           | 15.4                                |
| 64                    | Uttoxeter New Road, Thornhill Rd., Uttoxeter Old Road and Junction Street ... ..                 | 616                                | 16                           | 8.7                                 |
| 65                    | Uttoxeter Old Road, Slack Lane, Campion St., Stepping Lane and Fowler Street ... ..              | 1290                               | 54                           | 14.0                                |
| 66                    | Ashbourne Road, Shaw St., Mark-eaton Street and Brick Street                                     | 780                                | 31                           | 13.3                                |
| 67                    | Uttoxeter Old Road, Friar Gate, Larges Street, Ponsonby Terrace and Granville Street ... ..      | 924                                | 42                           | 15.2                                |
| 68                    | Friar Gate, Mill Street, Agard St. and Searl Street ... ..                                       | 700                                | 50                           | 23.9                                |
| 69                    | Nuns Street, Green Street, Bridge Street and Brook Walk ... ..                                   | 1382                               | 97                           | 23.4                                |
| 70                    | Howe Street, Stables Street and Campion Street ... ..  | 1095                               | 22                           | 6.7                                 |
| 71                    | Slack Lane, Howe Street, Stanley Street and Arnold Street ... ..                                 | 1078                               | 29                           | 9.0                                 |
| 72                    | Slack Lane, Cobden Street, Radbourne Street and Heyworth Street ... ..                           | 1207                               | 42                           | 11.6                                |
| 73                    | Handford Street, Peel Street, and Wind Mill Hill Lane ... ..                                     | 1017                               | 52                           | 17.1                                |
| 74                    | Ashbourne Rd., Shaw St., Chandos Pole Street and Little Noel St.                                 | 1215                               | 57                           | 15.7                                |
| 75                    | Cross Street, Peel Street, Richardson Street and Manchester Street                               | 917                                | 37                           | 13.5                                |
| 76                    | Kedleston Street, Kedleston Road, Whitecross St., and Parker St.                                 | 878                                | 46                           | 17.5                                |
| 77                    | Whitecross Street, Kedleston Road, Leyland Street and Walter St.                                 | 992                                | 42                           | 14.2                                |
| 78                    | Redshaw Street, Watson Street and Cowley Street... ..  | 751                                | 28                           | 12.5                                |
| 79                    | Whitecross Street, Watson Street, Little Watson Street, Gisborne Street and Parker Street ... .. | 1132                               | 69                           | 20.4                                |
| 80                    | William Street, Brook Street, Leaper Street and Mundy Street ... ..                              | 1400                               | 104                          | 24.8                                |

| Enumeration District. | PRINCIPAL BOUNDARIES.   | Enumerated Population Census 1901. | Deaths three years 1900-1-2. | Average Annual Death-rate per 1000. |
|-----------------------|---|------------------------------------|------------------------------|-------------------------------------|
| 81                    | Derwent Street, Nottingham Road, and Meadow Road ... ..   | 795                                | 41                           | 17.2                                |
| 82                    | Derwent Street, Nottingham Road, Clinton Street, Walpole Street, Fox St., and St. Mary's Bridge | 1352                               | 60                           | 14.8                                |
| 83                    | Mansfield Road, City Road and St. Paul's Road ... ..  | 757                                | 40                           | 17.7                                |
| 84                    | St. Paul's Road, Mansfield Road, Old Chester Rd. and City Rd.                                   | 1105                               | 31                           | 9.4                                 |
| 85                    | Mansfield Road, Alfreton Road, New Chester Street, Roman Road, Drage Street and Cæsar Street    | 910                                | 36                           | 13.2                                |
| 86                    | Church Street, St. James' Road, Charlotte Street, Hastings St., and Dover Street ... ..         | 1150                               | 63                           | 18.3                                |
| 87                    | St. James' Road, Upper Dale Road, Crewe Street, and Pear Tree Road .. ... ..                    | 838                                | 30                           | 12.0                                |
| 88                    | Crewe Street, Middleton Street, St. Thomas' Road and Pear Tree Road ... ..                      | 886                                | 24                           | 9.1                                 |
| 89                    | Upper Dale Road, Walbrook Road, St. Giles' Road and Violet St.                                  | 1178                               | 37                           | 10.5                                |
| 90                    | Swinburne Street, Burton Rd., Stone Hill Road, St. Chad's Road and Mill Hill Lane ... ..        | 950                                | 25                           | 8.8                                 |
| 91                    | Avondale Road, Renals Street, Salisbury Street, Dashwood Street, and Normanton Road ... ..      | 948                                | 22                           | 7.8                                 |
| 92                    | St. Chad's Road, Mill Hill Lane, Mill Hill Road, Moore Street, Temple St., and Gordon Rd.       | 1132                               | 37                           | 10.9                                |
| 93                    | Moore St., Bainbrigge St., Cummings Street and Normanton Road                                   | 1135                               | 32                           | 9.4                                 |
| 94                    | Howard St., Darby St., Northumberland St., and Norman St. ...                                   | 1387                               | 64                           | 15.4                                |
| 95                    | Provident Street, Industrial Street, Silver Hill Road and Co-operative Street ... ..            | 903                                | 36                           | 13.3                                |
| 96                    | Byron Street, Dale Road, Church Street and Lower Dale Road                                      | 1280                               | 68                           | 17.8                                |
| 97                    | Whitaker Road, Vicarage Avenue, Woolrych Street, Upper Dale Rd. and Upper Crewe St., &c.        | 1098                               | 40                           | 12.2                                |
| 99                    | Cotton Lane, Russell Street, Graham Street and London Road ...                                  | 1325                               | 89                           | 22.4                                |

## STATISTICAL SUMMARY, 1902.

|  |   |                    |   |                   |       |
|--|---|--------------------|---|-------------------|-------|
| Population estimated to<br>the middle of 1902              | { | Males ... 56,962   | } | Total ... 116,869 |       |
|  |   | Females ... 59,907 |   |                   |       |
| Marriages...   |   |                    |   |                   | 948   |
| Annual rate of Persons Married per 1,000 of the population |   |                    |   |                   | 16.3  |
| Births ...   | { | Males ... 1,723    | } | Total ... 3,326   |       |
|  |   | Females ... 1,603  |   |                   |       |
| Annual rate of Births per 1,000 of the population ...      |   |                    |   |                   | 28.5  |
| Deaths...  | { | Males ... 828      | } | Total ... 1,639   |       |
|  |   | Females ... 811    |   |                   |       |
| Annual rate of Mortality per 1,000...                      | { | Males ... 14.6     | } | Total ... 14.1    |       |
|  |   | Females ... 13.6   |   |                   |       |
| Excess of Registered Births over Deaths ...                |   |                    |   |                   | 1,687 |

*Area.*—The area of the old Borough is 3,445 acres. The acreage of the portion of Normanton, Osmaston, and Alvaston and Boulton, added to the Borough, Nov., 1901, is 1,815 acres.

*Elevation.*—The inhabitants of Derby reside at a mean elevation of 182 feet above sea level, the highest point being at the Borough Boundary in Burton Road, 325 ft., and the lowest at "The Siddals," 142 ft. The elevation at the Market Place is 157 ft.

*Houses.*—At the Census of 1901 there were 26,625 houses, of these, 24,851 were inhabited, and of the remaining 1,774, there were, on Census night, 995 "in occupation," that is, utilised for business or other purposes, but without occupants, whilst 779 were not "in occupation." 228 houses were in course of erection.

*Density.*—The mean density of the Borough is equal to 22 persons per acre. The density of the various Wards is as follows:—Abbey 31, Arboretum 74, Babington 64, Becket 72, Bridge 22, Castle 70, Dale 18, Derwent 5, Friar Gate 49, Kingsmead 79, Litchurch 18, Markeaton 48, Normanton 69, Osmaston 4, Peartree 18, and Rowditch 23 persons per acre.

*Annual Rateable Value.*—The rateable value of the Borough for 1902 was £475,425 1s. 3d. for District Rate purposes, and £502,794 5s. for Poor Rate purposes.

TABLE VII.--Population, Number of Births, Total Deaths, and Deaths from certain causes, with the rates per 1,000 of the Population in the Borough of Derby for the past twenty-five years.

| YEAR. | Population. | Corrected Number of Deaths. | Death-rate per 1,000 living. | Births. | Birth-rate per 1,000 living. | Deaths from seven principal Zymotic Diseases. | Zymotic rate per 1,000 living at all ages. | Deaths from Phthisis. | Phthisis Death-rate. | Infantile Mortality per 1,000 Births. | Deaths from Respiratory Diseases exclusive of Phthisis. | Respiratory Death-rate. |
|-------|-------------|-----------------------------|------------------------------|---------|------------------------------|---|--|-----------------------|----------------------|---------------------------------------|---|-------------------------|
| 1878  | 80,385      | 1,613                       | 20.1                         | 3,092   | 38.4                         | 257   | 3.1  | 162                   | 2.0                  | 148                                   | 296   | 3.6                     |
| 1879  | 80,385      | 1,970                       | 24.5                         | 3,139   | 39.4                         | 380   | 4.7  | 147                   | 1.8                  | 132                                   | 407   | 5.0                     |
| 1880  | 80,385      | 1,614                       | 20.1                         | 3,050   | 37.9                         | 233   | 2.8  | 140                   | 1.7                  | 145                                   | 224   | 2.7                     |
| 1881  | 81,470      | 1,529                       | 18.9                         | 3,156   | 38.8                         | 166   | 2.03                                       | 131                   | 1.6                  | 129                                   | 287   | 3.5                     |
| 1882  | 82,687      | 1,533                       | 18.5                         | 2,959   | 35.7                         | 187   | 2.2  | 140                   | 1.6                  | 139                                   | 259   | 3.1                     |
| 1883  | 83,922      | 1,549                       | 18.6                         | 3,074   | 36.6                         | 144   | 1.7  | 146                   | 1.7                  | 146                                   | 263   | 3.1                     |
| 1884  | 85,176      | 1,569                       | 18.4                         | 3,013   | 35.3                         | 181   | 2.1  | 131                   | 1.5                  | 143                                   | 259   | 3.0                     |
| 1885  | 86,449      | 1,591                       | 18.4                         | 3,055   | 35.3                         | 132   | 1.5  | 128                   | 1.3                  | 138                                   | 310   | 3.5                     |
| 1886  | 87,741      | 1,651                       | 18.8                         | 3,069   | 35.9                         | 166   | 1.8  | 154                   | 1.7                  | 148                                   | 272   | 3.1                     |
| 1887  | 89,052      | 1,683                       | 18.9                         | 2,858   | 32.9                         | 223   | 2.5  | 146                   | 1.6                  | 138                                   | 247   | 2.7                     |
| 1888  | 90,383      | 1,550                       | 17.1                         | 2,824   | 31.2                         | 163   | 1.8  | 116                   | 1.2                  | 145                                   | 271   | 2.9                     |
| 1889  | 91,733      | 1,582                       | 17.2                         | 2,906   | 31.6                         | 133   | 1.4  | 99                    | 1.7                  | 147                                   | 281   | 3.0                     |
| 1890  | 93,105      | 1,843                       | 19.8                         | 2,699   | 28.9                         | 260   | 2.7  | 143                   | 1.5                  | 160                                   | 326   | 3.5                     |
| 1891  | 94,422      | 1,765                       | 18.7                         | 2,885   | 30.6                         | 126   | 1.4  | 139                   | 1.5                  | 139                                   | 158   | 1.7                     |
| 1892  | 95,528      | 1,734                       | 18.2                         | 3,038   | 31.8                         | 174   | 1.9  | 140                   | 1.5                  | 171                                   | 295   | 3.1                     |
| 1893  | 96,648      | 1,740                       | 18.1                         | 3,123   | 32.4                         | 190   | 2.0  | 132                   | 1.4                  | 155                                   | 281   | 2.9                     |
| 1894  | 97,781      | 1,468                       | 15.1                         | 2,890   | 29.6                         | 151   | 1.6  | 103                   | 1.1                  | 121                                   | 249   | 2.6                     |
| 1895  | 98,927      | 1,669                       | 16.9                         | 2,909   | 29.4                         | 178   | 1.8  | 105                   | 1.1                  | 158                                   | 254   | 2.6                     |
| 1896  | 100,087     | 1,577                       | 15.8                         | 2,834   | 28.4                         | 182   | 1.9  | 137                   | 1.4                  | 150                                   | 240   | 2.4                     |
| 1897  | 101,262     | 1,656                       | 16.4                         | 2,803   | 27.7                         | 173   | 1.8  | 99                    | .98                  | 168                                   | 249   | 2.5                     |
| 1898  | 102,448     | 1,756                       | 17.2                         | 2,860   | 28.0                         | 235   | 2.3  | 133                   | 1.3                  | 169                                   | 257   | 2.6                     |
| 1899  | 103,649     | 1,775                       | 17.2                         | 2,984   | 28.8                         | 173   | 1.7  | 116                   | 1.2                  | 163                                   | 244   | 2.4                     |
| 1900  | 104,684     | 1,854                       | 17.7                         | 2,900   | 27.7                         | 247   | 2.4  | 113                   | 1.1                  | 173                                   | 271   | 2.6                     |
| 1901  | 106,076     | 1,598                       | 15.1                         | 2,939   | 27.8                         | 189   | 1.8  | 99                    | .94                  | 155                                   | 220   | 2.8                     |
| 1902  | 116,869     | 1,639                       | 14.1                         | 3,326   | 28.5                         | 162   | 1.4  | 102                   | .87                  | 126                                   | 264   | 2.3                     |

### Vital Statistics for the Year 1902.

*Estimated Population.*—The estimated population of the Borough at the middle of 1902 was 116,869.

*Marriages.*—The number of marriages solemnized during 1902, was 948, which represents a rate of persons married equal to 16.3 per 1,000 of the population. This is a lower rate than any recorded during recent years, as will be seen from the following table which gives information of the marriage rate for the past ten years:—

| Year.                | 1893. | 1894. | 1895. | 1896. | 1897. | 1898. | 1899. | 1900. | 1901. | 1902. |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Number of Marriages. | 806   | 876   | 849   | 908   | 953   | 961   | 961   | 1025  | 943   | 948   |
| Rate.                | 16.7  | 18.0  | 17.2  | 18.2  | 18.9  | 18.8  | 18.6  | 19.6  | 17.8  | 16.3  |

*Birth-Rate.*—The births registered during the year numbered 3,326, of which there were:—

|                  | Males. | Females. | Total. |
|------------------|--------|----------|--------|
| Legitimate ...   | 1,671  | 1,550    | 3,221  |
| Illegitimate ... | 52     | 53       | 105    |
|                  |        |          | 3,326. |

The illegitimate births were thus 3.2 per cent. of the total births, and in the following table I have given particulars for each ward with respect to total births, legitimate and illegitimate. It will be observed that there is a marked difference between the highest and lowest birth-rates; in Babington and Bridge Wards birth-rates of between 18 and 19 per 1,000 were recorded, as compared with 36, 35 and 34 in Normanton, Abbey and Dale Wards respectively.

TABLE VIII.

| Ward.          | Births.     |               |        | Birth-rate<br>per 1,000 | Illegitimate<br>Births per<br>1,000 Births. |
|----------------|-------------|---------------|--------|-------------------------|---|
|                | Legitimate. | Illegitimate. | Total. |                         |   |
| Abbey ...      | 302         | 10            | 312    | 35.1                    | 32  |
| Arboretum ...  | 225         | 5             | 230    | 20.6                    | 21  |
| Babington ...  | 156         | 4             | 160    | 18.7                    | 25  |
| Becket ...     | 159         | 6             | 165    | 22.3                    | 36  |
| Bridge ...     | 92          | 5             | 97     | 18.8                    | 51  |
| Castle ...     | 250         | 7             | 257    | 32.5                    | 27  |
| Dale ...       | 167         | 3             | 170    | 35.0                    | 18  |
| Derwent ...    | 164         | 1             | 165    | 32.9                    | 6   |
| Friar Gate ... | 251         | 4             | 255    | 29.5                    | 15  |
| King's Mead    | 200         | 18            | 218    | 30.5                    | 82  |
| Litchurch ...  | 179         | 4             | 183    | 21.3                    | 21  |
| Markeaton ...  | 229         | 10            | 239    | 32.7                    | 41  |
| Normanton ...  | 263         | 3             | 266    | 36.2                    | 11  |
| Osmaston ...   | 183         | 5             | 188    | 34.1                    | 26  |
| Pear Tree ...  | 219         | 3             | 222    | 31.5                    | 13  |
| Rowditch ...   | 182         | 17            | 199    | 24.4                    | 85  |
| Totals ...     | 3,221       | 105           | 3,326  | 28.5                    | 31  |

The birth-rate for the whole town for the year 1902 was at the rate of 28.5 per 1,000 of the population, and the registered births exceeded the deaths by 1687. Although, as would be expected, the number of births each year exceeds the deaths, this excess of registered births over deaths is the highest for which I have any record.

Particulars for previous years are subjoined:—

| Year.                            | 1894. | 1895. | 1896. | 1897. | 1898. | 1899. | 1900 | 1901. | 1902. |
|----------------------------------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| Births.                          | 2890  | 2909  | 2834  | 2803  | 2860  | 2984  | 2900 | 2939  | 3326  |
| Deaths.                          | 1468  | 1669  | 1577  | 1656  | 1756  | 1775  | 1854 | 1598  | 1639  |
| Excess of Births<br>over Deaths. | 1422  | 1240  | 1257  | 1147  | 1104  | 1209  | 1046 | 1341  | 1687  |

*Annual Rate of Mortality.*—The total number of deaths registered within the Borough for the year 1902 was 1,698, as against 1,673 in 1901, and 1,932 in 1900; of these deaths 59 were of strangers, leaving a net total of 1,639 deaths occurring among persons usually resident in the Borough, but making no allowance for Derby residents who may have died outside the town. The net death-rate from all causes was therefore 14.1 per 1,000, as compared with 15.1 last year, and 17.1 in 1900.

This is the lowest death-rate yet recorded in the Borough. The average death-rate for the past 10 years has been 16.8 per 1,000.

*Mortality in Age Groups.*—From the age of 65 upwards there were 384 deaths. To this total, cancer, bronchitis, and diseases of the heart and circulatory system contributed by far the greatest number of deaths. Between the ages of 25 and 65 there were 530 deaths, and it is at this age period that diseases of the heart cause the greatest fatality, 107 deaths being attributed to this cause. Phthisis is likewise a most important factor in swelling the total of deaths at this time of life; cancer and bronchitis also caused a large number of deaths, whilst, as would be expected, 20 out of the 21 deaths from alcoholism are recorded in this age period. Between the ages of 15 to 25 there were 62 deaths, and between 5 and 15 there were 58 deaths, phthisis being the chief cause of death at the former ages, and heart diseases in the latter. Between the ages of 1 and 5 there were 188 deaths, to which measles, whooping cough, tubercular diseases other than phthisis, bronchitis and pneumonia were the principal contributing diseases. Under 1 year of age there were 417 deaths. There were also registered during the year 3,326 births, so that the Infantile Mortality was at the rate of 126 per 1,000. This, compared with previous years, must be regarded as satisfactory, seeing that only once during the last 25 years has the rate been lower, viz., in 1894, when the Infantile Mortality was at the rate of 121 per 1,000 births. To a large extent the absence of epidemic diarrhoea during the summer months is mainly responsible for this low death-rate. The Infantile Mortality is liable to wider fluctuations than the general mortality, these fluctuations being chiefly dependent upon the epidemic prevalence, or otherwise, of such zymotic diseases as measles, whooping cough and diarrhoea, which at times are markedly epidemic amongst the younger population. I have previously called attention to the mortality recorded amongst hand-fed children and,

as pointed out last year, the enquiry which has been made into almost every birth and every death has resulted in the accumulation of a certain amount of information which, to some extent, helps to elucidate the proportionate risk which obtains from various methods of feeding infants. Miss McCleverty has continued the systematic visitation of infants which was commenced by her predecessor, and the following is a statistical summary of the information thus obtained. Out of 3,304 children which have been visited it was found that 56 died very shortly after birth, the death being attributed either to Prematurity, or to what is registered as "Debility at Birth," and in consequence they took no nourishment, or only a very small amount. Four children died in respect to which no record has been made of the kind of food taken, leaving 3,244 children available for examination. Out of this total 1762, or 54.3 per cent., were fed on natural food by the mother; 677, or 21 per cent., were partly fed by the mother and partly by hand, whilst 805 children, or 24.5 per cent., were fed by hand. In examining the deaths of these children it is observed that in addition to the 56 already referred to as having died without nourishment, there were 37 children who died amongst the hand-fed class, but who were under a fortnight old; the cause of death being attributed, as in the earlier cases, to "Prematurity" and "Debility from Birth"; there were also 30 deaths amongst the natural fed children, and 7 amongst the mixed fed children attributed to the same causes. If these cases are excluded from the total, the death-rate amongst each class is as follows:—

| Method of Feeding. | Total so reared. | Deaths.   | Deaths per 1,000. |
|--------------------|------------------|-----------|-------------------|
| Natural ...        | 1,732<br>30      | 128<br>30 | 74                |
| Mixed ...          | 670<br>7         | 63<br>7   | 95                |
| Hand ...           | 768<br>37        | 164<br>37 | 214               |
| Average ...        | 3,170<br>74      | 355<br>74 | 112               |

In the above table the average infantile mortality is shown as 112, but as the death-rate under this heading is invariably higher than this, it is necessary to point out that the death-rate among the whole of the children who were visited was 148 per 1,000, the difference between 112 and 148 being due to the fact that in the latter figure the 56 children who died from debility before taking any food, the 4 in respect to which there is no information available, and the 74 shown above are included in the calculation. It may reasonably be assumed then, that 74 per 1,000 births (or perhaps a slightly higher figure should be taken which would allow for any error caused by the deaths which may have occurred among those children who have been removed from the district during the first year of life not being included in the above total) represents the mortality amongst children who are brought up on natural food, under average conditions, and given an average healthy state at birth, and the difference between this rate and the rate amongst hand-fed children, viz., 214 per 1,000, indicates in a great measure the increased risks that children brought up by hand incur. It does not necessarily follow that all these additional deaths would be due to digestive disorders—almost every class of ailment would contribute toward it—for if infants are fed on food unsuited for the purpose, then the constitution becomes lowered and resistance is thereby lessened to all attacks of illness to which children are liable, and attacks of bronchitis, pneumonia and the zymotics will necessarily be more fatal among these delicate children than among those with stronger constitutions. The totals of these deaths so far obtained are not sufficiently numerous to be worth careful classification, but they will be referred to in future reports, when the increased numbers will make them reasonably reliable for deductive purposes.

Whilst visiting these children, careful note in the case of hand-fed children is made of the kind of food used, and the following summary is interesting.

In 372 instances the children were reared exclusively on milk, with certain added proportion of water, barley water or lime water, and amongst these children there were 76 deaths which represents a percentage of 20.5. There were 55 children reared on condensed milk, with a total of 20 deaths or 36.4 per cent., whilst 277 were fed on prepared foods of various kinds, in many instances only one

kind was used, whilst in others the food was changed at intervals, and among the children so fed there were 59 deaths, or 21.3 per cent.

These figures bear out what has frequently been stated, that condensed milk is unsuited for the rearing of infants, and that during the early months of life milk, collected with every regard to cleanliness, and kept under proper conditions in the house, and finally prepared and diluted with due regard to the age of the infant is the best substitute for the natural food of infants.

*District Mortality Rates.*—In Table IX. are set out the various mortality rates which have been recorded in the different Wards into which the town is divided; the deaths in public institutions having been relegated to the Wards to which the various persons belonged before they were removed.

Judged by the general death-rate, the healthiest Wards were Friar Gate and Osmaston, in each of which the low death-rate of 10.9 per 1,000 was recorded; Normanton, with a rate of 11 per 1,000, and Babington, Arboretum, Rowditch and Litchurch with rates of between 12 and 13 per 1,000 must also be regarded as showing satisfactory returns. The unhealthiest Ward was distinctly King's Mead, and it was the only Ward with a death-rate of over 20 per 1,000. The lowest Zymotic rate was recorded in Litchurch Ward; the lowest Phthisis rate in Normanton Ward, and the most satisfactory Infantile mortality was observed in Normanton and Friar Gate Wards, where the deaths of infants under 1, per 1,000 births, was 87. The death-rates from Respiratory diseases, Phthisis and Infantile mortality were highest in King's Mead Ward.

TABLE IX.—Population, Density, Deaths, and certain Death Rates in the various Wards of the Borough of Derby for the Year 1902.

| WARDS.          | Population in 1901. | Estimated population in middle of 1902. | Acreeage | Density in persons per acre. | Total Deaths. | Death rate per 1,000 living. | Deaths from seven principal Zymotic Diseases | Zymotic death rate. | Deaths from Respiratory Diseases exclusive of Phthisis. | Respiratory death rate. | Deaths from Phthisis. | Phthisis death rate. | Number of deaths of infants under 1 year. | Deaths of infants under 1 year of age per 1,000 births. |
|-----------------|---------------------|---|----------|------------------------------|---------------|------------------------------|--|---------------------|---|-------------------------|-----------------------|----------------------|---|---|
| Abbey ...       | 8,747               | 8,901                                   | 285      | 31                           | 142           | 16.0                         | 26   | 2.9                 | 26  | 2.9                     | 6                     | 0.7                  | 50  | 160   |
| Arboretum ...   | 8,889               | 9,045                                   | 122      | 74                           | 110           | 12.2                         | 5  | 0.6                 | 14  | 1.6                     | 5                     | 0.6                  | 25  | 109   |
| Babington ...   | 8,447               | 8,596                                   | 134      | 64                           | 103           | 12.0                         | 6  | 0.7                 | 13  | 1.6                     | 7                     | 0.9                  | 20  | 125   |
| Becket ...      | 7,297               | 7,425                                   | 102      | 72                           | 110           | 14.9                         | 4  | 0.6                 | 13  | 1.8                     | 11                    | 1.5                  | 17  | 104   |
| Bridge ...      | 5,081               | 5,170                                   | 229      | 22                           | 70            | 13.6                         | 7  | 1.4                 | 11  | 2.2                     | 2                     | 0.4                  | 16  | 165   |
| Castle ...      | 7,786               | 7,924                                   | 112      | 70                           | 149           | 18.8                         | 15   | 1.9                 | 23  | 2.9                     | 8                     | 1.1                  | 39  | 152   |
| Dale ...        | 4,785               | 4,868                                   | 269      | 18                           | 67            | 13.8                         | 5  | 1.1                 | 8   | 1.7                     | 5                     | 1.1                  | 19  | 112   |
| Derwent ...     | 4,933               | 5,020                                   | 907      | 5                            | 66            | 13.2                         | 8  | 1.6                 | 13  | 2.6                     | 6                     | 1.2                  | 22  | 134   |
| Friargate ...   | 8,516               | 8,667                                   | 176      | 49                           | 94            | 10.9                         | 10   | 1.2                 | 11  | 1.3                     | 8                     | 1.0                  | 22  | 87  |
| King's Mead ... | 7,064               | 7,188                                   | 90       | 79                           | 177           | 24.7                         | 18   | 2.6                 | 38  | 5.3                     | 14                    | 2.0                  | 46  | 211   |
| Litchurch ...   | 8,474               | 8,623                                   | 462      | 18                           | 109           | 12.7                         | 3  | 0.4                 | 23  | 2.7                     | 10                    | 1.2                  | 20  | 110   |
| Markeaton ...   | 7,200               | 7,327                                   | 151      | 48                           | 104           | 14.2                         | 11   | 1.5                 | 17  | 2.4                     | 4                     | 0.6                  | 27  | 113   |
| Normanton ...   | 7,225               | 7,351                                   | 106      | 69                           | 83            | 11.3                         | 8  | 1.1                 | 14  | 1.9                     | 1                     | 0.2                  | 23  | 87  |
| Osmaston ...    | 5,429               | 5,525                                   | 1,381    | 4                            | 60            | 10.9                         | 8  | 1.5                 | 15  | 2.8                     | 4                     | 0.8                  | 23  | 123   |
| Pear Tree ...   | 6,930               | 7,053                                   | 392      | 18                           | 93            | 13.2                         | 13   | 1.9                 | 16  | 2.3                     | 6                     | 0.9                  | 26  | 118   |
| Rowditch ...    | 8,045               | 8,186                                   | 354      | 23                           | 102           | 12.5                         | 14   | 1.7                 | 23  | 2.9                     | 5                     | 0.7                  | 22  | 111   |
| *Institutions   | ...                 | ...                                     | ...      | ...                          | 290           | ...                          | 23   | ...                 | 45  | ...                     | 18                    | ...                  | ...                                       | ...   |
| Non-Residents   | ...                 | ...                                     | ...      | ...                          | 59            | ...                          | 1  | ...                 | 14  | ...                     | 1                     | ...                  | ...                                       | ...   |
| Totals ...      | 114,848             | 116,869                                 | 5,272    | 22                           | 1,639         | 14.1                         | 162  | 1.4                 | 264   | 2.3                     | 102                   | 0.87                 | 417                                       | 126   |

\*The deaths in Institutions have been relegated to the various Wards.

TABLE X.—DEATHS REGISTERED IN THE COUNTY BOROUGH OF DERBY FROM ALL CAUSES AT VARIOUS AGE PERIODS DURING THE YEAR 1902.

| DISEASES.                | AGES IN YEARS. |     |        |     |        |     |        |     |        |     |         |     |          |     |          |     |          |     |          | Total. | 1 to 5 | 5 to 15 | 15 to 25 | 25 to 65 | 65 and upwards. |          |     |          |              |          |     |          |     |          |     |          |     |          |     |          |     |          |     |          |     |          |     |                 |     |     |     |     |     |     |     |
|--------------------------|----------------|-----|--------|-----|--------|-----|--------|-----|--------|-----|---------|-----|----------|-----|----------|-----|----------|-----|----------|--------|--------|---------|----------|----------|-----------------|----------|-----|----------|--------------|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|-----------------|-----|-----|-----|-----|-----|-----|-----|
|                          | 0 to 1         |     | 1 to 2 |     | 2 to 3 |     | 3 to 4 |     | 4 to 5 |     | 5 to 10 |     | 10 to 15 |     | 15 to 20 |     | 20 to 25 |     | 25 to 30 |        |        |         |          |          |                 | 30 to 35 |     | 35 to 40 |              | 40 to 45 |     | 45 to 50 |     | 50 to 55 |     | 55 to 60 |     | 60 to 65 |     | 65 to 70 |     | 70 to 75 |     | 75 to 80 |     | 80 to 85 |     | 85 and upwards. |     |     |     |     |     |     |     |
|                          | 0              | 1   | 2      | 3   | 4      | 5   | 10     | 15  | 20     | 25  | 30      | 35  | 40       | 45  | 50       | 55  | 60       | 65  | 70       |        |        |         |          |          |                 | 75       | 80  | 85       | and upwards. |          |     |          |     |          |     |          |     |          |     |          |     |          |     |          |     |          |     |                 |     |     |     |     |     |     |     |
| I. ZYMOTIC DISEASES      | 72             | 31  | 14     | 14  | 7      | 11  | 3      | 1   | 6      | 4   | 6       | 1   | 3        | 3   | 2        | 1   | ...      | 8   | 1        | ...    | 1      | ...     | 190      | 66       | 14              | 7        | 21  | 10       | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... |          |     |          |     |                 |     |     |     |     |     |     |     |
| II. PARASITIC DISEASES   | ...            | ... | ...    | ... | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | ...      | ...      | ...             | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             |     |     |     |     |     |     |     |
| III. DIETETIC DISEASES   | 18             | 10  | 5      | 3   | 2      | 4   | 4      | 13  | 7      | 15  | 23      | 22  | 20       | 28  | 17       | 24  | 15       | 10  | 10       | 2      | ...    | ...     | 3        | ...      | ...             | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             |     |     |     |     |     |     |     |
| IV. CONSTITUTIONAL DIS.  | 72             | ... | 1      | 1   | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 267      | 20       | 8               | 20       | 164 | 37       | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... |     |     |     |     |     |     |
| V. DEVELOPMENTAL DIS.    | 159            | 52  | 17     | 10  | 13     | 19  | 14     | 18  | 16     | 25  | 24      | 27  | 28       | 50  | 63       | 53  | 70       | 83  | 57       | 52     | 15     | 10      | 191      | 2        | ...             | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... |     |     |     |     |     |     |
| VI. LOCAL DISEASES       | 11             | 1   | 5      | 1   | 3      | 6   | 2      | 8   | 2      | 4   | 2       | 3   | 3        | 4   | 2        | 3   | 5        | ... | ...      | ...    | ...    | ...     | 876      | 92       | 33              | 34       | 340 | 217      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... |     |     |     |     |     |
| VII. VIOLENCE            | 85             | 4   | 1      | ... | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 73       | 10       | 8               | 10       | 24  | 10       | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... |     |     |     |     |     |
| VIII. ILL-DEFINED CAUSES | ...            | ... | ...    | ... | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 98       | 5        | ...             | 1        | 5   | 3        | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... |     |     |     |     |     |
| ALL CAUSES               | 417            | 98  | 43     | 29  | 25     | 40  | 23     | 40  | 32     | 48  | 48      | 55  | 55       | 77  | 99       | 75  | 103      | 109 | 104      | 96     | 53     | 29      | 1698     | 195      | 63              | 72       | 560 | 391      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... |     |     |     |     |
| I. Zymotic Diseases.     | ...            | ... | ...    | ... | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | ...      | ...      | ...             | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... |     |     |     |     |
| I. MIASMATIC DISEASES.   | ...            | ... | ...    | ... | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | ...      | ...      | ...             | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... |     |     |     |
| Small Pox                | 1              | ... | ...    | ... | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 1        | ...      | ...             | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... |     |     |     |
| Chicken Pox              | 6              | 17  | 3      | 8   | 3      | 1   | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 38       | 31       | 1               | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... | ... |     |     |
| Measles                  | 1              | ... | ...    | ... | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 8        | 5        | 3               | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... | ... |     |     |
| Epidemic Rose Rash       | ...            | ... | ...    | ... | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 25       | 2        | 1               | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... | ... |     |     |
| Scarlet Fever            | 8              | 1   | 3      | 1   | 1      | 2   | 1      | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 29       | 14       | 5               | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... | ... |     |     |
| Influenza                | 15             | 7   | 4      | 2   | 1      | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 13       | 7        | 5               | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... | ... |     |     |
| Whooping Cough           | 1              | 2   | 2      | 2   | 1      | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 2        | ...      | ...             | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... |     |     |     |
| Diphtheria               | ...            | ... | ...    | ... | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 13       | 7        | 5               | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... | ... | ... | ... |
| Membranous Croup         | ...            | ... | ...    | ... | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 2        | ...      | ...             | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... | ... | ... |     |
| Erietic Fever            | ...            | ... | ...    | ... | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 13       | ...      | ...             | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... | ... | ... |     |
| Other Miasmatic Diseases | ...            | ... | ...    | ... | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 1        | ...      | ...             | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... | ... |     |     |
| 2. DIARRHOEAL DISEASES:  | ...            | ... | ...    | ... | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 45       | 7        | ...             | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... | ... |     |     |
| Diarrhoea, Dysentery     | 33             | 3   | 2      | 1   | 1      | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | ...      | ...      | ...             | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... |     |     |     |
| 3. VENEREAL DISEASES:—   | ...            | ... | ...    | ... | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | 5        | ...      | ...             | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... | ... |     |     |
| Syphilis                 | 5              | ... | ...    | ... | ...    | ... | ...    | ... | ...    | ... | ...     | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ...    | ...    | ...     | ...      | ...      | ...             | ...      | ... | ...      | ...          | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...      | ... | ...             | ... | ... | ... | ... | ... |     |     |









*The Notification of Infectious Diseases.*—The total number of infectious diseases notified under the Infectious Diseases (Notification) Act, 1890, was 589, as compared with 867 in 1901, and 854 in 1900.

The highest and lowest weekly incidences were as follows:—

| Week ending.       | 1902.          | Cases notified. |
|--------------------|----------------|-----------------|
| 27th September ... | highest number | .. 22           |
| 15th November ...  | lowest number  | .. 3            |

There was a decrease of 278 notifications last year as compared with the previous year. This decrease was most marked in the case of Scarlet Fever, and less so in respect to Diphtheria and Enteric Fever. Small Pox, Puerperal Fever and Erysipelas showed an increase. Each of these infectious diseases will receive further and separate consideration. As is usually the case, the bulk of notifications were cases of Scarlet Fever. The following table shows that the largest number of cases was notified in the first quarter, and, although among the remaining three quarters there are fewest cases in the second quarter, the totals for each period closely approximated one another. Scarlet Fever was chiefly prevalent during the first quarter, and showed a declining tendency throughout the year. Diphtheria was most prevalent in the third quarter; Enteric Fever and Erysipelas in the fourth quarter; whilst during the last quarter of the year an outbreak of Small Pox was reported. The rate per 1,000 of notified cases was 5.1, as compared with 8.18 last year, and 8.13 the previous year. The average weekly number of notifications was 11.3.

#### Cases of Infectious Disease notified during 1902.

| Quarters.  | Totals. | Small Pox. | Scarlet Fever. | Diphtheria | Continued Fever. | Enteric Fever. | Erysipelas | Puerperal Fever. |
|------------|---------|------------|----------------|------------|------------------|----------------|------------|------------------|
| First ...  | 161     | 1          | 95             | 15         | ...              | 22             | 25         | 3                |
| Second...  | 136     | 1          | 85             | 9          | 1                | 21             | 15         | 4                |
| Third ...  | 148     | 1          | 85             | 23         | ...              | 15             | 22         | 2                |
| Fourth ... | 144     | 5          | 67             | 16         | ...              | 26             | 26         | 4                |
| Year...    | 589     | 8          | 332            | 63         | 1                | 84             | 88         | 13               |

TABLE XI.—Number of cases of Infectious Disease notified in the Borough of Derby for 1902, and for each year since 1881.

| DISEASES.              | 1881 | 1882 | 1883 | 1884 | 1885 | 1886 | 1887 | 1888 | 1889 | 1890 | 1891 | 1892 | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Small Pox ...          | 46   | 15   | 2    | 7    | ...  | ...  | ...  | 20   | ...  | 5    | ...  | 11   | 52   | 3    | 94   | 1    | 1    | ...  | ...  | 1    | 1    | 8    |
| Scarlet Fever ...      | 423  | 770  | 506  | 389  | 232  | 167  | 64   | 756  | 775  | 346  | 318  | 470  | 501  | 513  | 364  | 427  | 432  | 481  | 885  | 602  | 616  | 332  |
| Diphtheria ...         | 6    | 10   | 8    | ...  | 1    | 6    | 27   | 23   | 46   | 81   | 66   | 67   | 50   | 46   | 43   | 45   | 57   | 74   | 60   | 52   | 74   | 63   |
| Enteric & Contd. Fever | 95   | 113  | 51   | 344  | 57   | 162  | 105  | 163  | 99   | 64   | 66   | 55   | 111  | 104  | 99   | 104  | 125  | 159  | 141  | 125  | 114  | 85   |
| Typhus Fever ...       | 1    | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  |
| Cholera ...            | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | 2    | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  |
| Puerperal Fever ...    | 6    | 6    | 7    | 11   | 2    | 1    | 1    | 3    | 5    | 1    | 8    | 9    | 11   | 7    | 10   | 3    | 3    | 6    | 8    | 7    | 10   | 13   |
| Erysipelas ...         | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  | 67   | 52   | 88   |
| Totals ...             | 577  | 914  | 574  | 751  | 292  | 336  | 197  | 965  | 925  | 497  | 458  | 612  | 727  | 673  | 610  | 580  | 618  | 720  | 1094 | 854  | 867  | 589  |

In addition to the above, the following cases of measles were also notified during short periods of voluntary notification:—1884, 513 cases; 1887, 874 cases; 1888, 33 cases; also 34 cases of Scarlet Fever, and 3 cases of Enteric Fever from the annexed areas during 1901.

*Preventive measures adopted against the spread of Infectious Diseases.*—The following is a summary of the work done in this direction.

|                                     | QUARTERS. |         |        |         |         |
|-------------------------------------|-----------|---------|--------|---------|---------|
|                                     | First.    | Second. | Third. | Fourth. | Totals. |
| Cases isolated :—                   |           |         |        |         |         |
| Small Pox in the Borough Sanatorium | 1         | 1       | 1      | 5       | 8       |
| Scarlet Fever „ „ „                 | 74        | 47      | 61     | 36      | 218     |
| Enteric Fever „ Royal Infirmary ... | 11        | 17      | 9      | 17      | 54      |
| Diphtheria „ „ „                    | 6         | 3       | 7      | 8       | 24      |
| Puerperal Fever „ „ „               | 1         | ...     | ..     | 1       | 2       |
| Totals ... ..                       | 93        | 68      | 78     | 67      | 306     |

Cases desiring removal, but for whom no accommodation could be found :—

|                      |     |    |     |     |    |
|----------------------|-----|----|-----|-----|----|
| Scarlet Fever ... .. | 6   | 17 | 11  | 14  | 48 |
| Diphtheria ... ..    | ... | 1  | 1   | 2   | 4  |
| Enteric Fever ... .. | 1   | 2  | ... | ... | 3  |
| Totals ... ..        | 7   | 20 | 12  | 16  | 55 |

Cases whose removal was delayed owing to want of accommodation :—

|                      |     |     |     |     |     |
|----------------------|-----|-----|-----|-----|-----|
| Scarlet Fever ... .. | 3   | 11  | 12  | 5   | 31  |
| Diphtheria ... ..    | ... | ... | ... | ... | ... |
| Enteric Fever ... .. | 1   | ... | 1   | 2   | 4   |
| Totals ... ..        | 4   | 11  | 13  | 7   | 35  |

Inspectors' visits to Infectious cases numbered ... ..

|     |     |     |     |      |
|-----|-----|-----|-----|------|
| 336 | 446 | 488 | 459 | 1729 |
|-----|-----|-----|-----|------|

*The Borough Isolation Hospital.*—During the year, 225 patients were treated at the Borough Hospital. 217 of these were cases of Scarlet Fever, and 8 were cases of Small Pox. There were 332 cases of Scarlet Fever notified, so that 65 per cent. of all known cases were isolated. The aggregate number of cases treated at the Hospital is less than in any year since 1895. I have each year drawn attention to the chief administrative difficulties which exist

at the Hospital, viz., the difficulty of accommodating a sufficiently large staff for nursing purposes during times of stress—owing to Scarlet Fever not having been so prevalent this difficulty was not so pronounced as it has been in other years—and the interference with the utility of the Hospital for fever nursing when a case of Small Pox is admitted for treatment. On four different occasions during the year one or more cases of Small Pox were under treatment at the same time as Scarlet Fever. When such cases are removed to the Hospital it is the practice to refrain from admitting further Scarlet Fever patients for at least 14 days, until it is seen whether Small Pox is likely to spread or not; if further cases of this latter disease are reported during the fortnight, such Scarlet Fever patients as can be accommodated at home, and are in a fit state for removal, are sent home, and if the notification of further cases of Small Pox justifies the idea that the disease may possibly become epidemic, the Hospital is entirely emptied of all Scarlet Fever patients. Such action as this is highly undesirable, but as there are administrative difficulties which render the treatment of the two diseases on the same site a matter of difficulty, and not altogether devoid of some danger, the practice will have to be continued until a separate Small Pox Hospital is provided for the use of the Borough. I have also in the past referred to the inadequacy of the wooden block for the treatment of acute cases of Scarlet Fever; this objection has not been prominent during the past year as it has not been found necessary to use this building. I have again to express my indebtedness to Sister Mould and the whole of the resident staff for their assistance and co-operation, which have materially helped in promoting the efficiency of the Hospital.

The following table shows the number of cases of Scarlet Fever and Small-Pox isolated in the Borough Hospital since it was opened in 1890.

| Year.          | 1890 | 1891 | 1892 | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Scarlet Fever. | 80   | 111  | 168  | 58   | 200  | 167  | 306  | 338  | 324  | 497  | 446  | 438  | 217  |
| Small-Pox.     | 5    | ...  | 10   | 52   | 3    | 94   | 2    | 1    | ...  | ...  | 1    | 1    | 8    |
| Total.         | 85   | 111  | 178  | 110  | 203  | 261  | 308  | 339  | 324  | 497  | 447  | 439  | 225  |



The average length of stay in Hospital was 46.2 days for Scarlet Fever patients as compared with 47, 48.7 and 52.6 days in the three previous years. The longest time any patient remained under treatment was 128 days. The average duration of treatment of Small-Pox patients was 49.7 days. The deaths numbered 9, eight of which were from Scarlet Fever, which gives a case mortality of 3.7 per cent. from that disease.

The cost of provisioning the Hospital during the year, and other details in respect to this, are contained in the subjoined table.

#### Hospital Provisioning 1902.

| 1902.       | Days of treatment. | Average Patients per day. | Cost of Provisioning. | Average cost per Patient per day.* |
|-------------|--------------------|---------------------------|-----------------------|------------------------------------|
| 1st Quarter | 3,956              | 43.95                     | £ s. d.<br>146 17 1   | d.<br>8.90                         |
| 2nd „       | 2,400              | 26.37                     | 130 8 4½              | 13.04                              |
| 3rd „       | 2,337              | 25.40                     | 109 10 4              | 11.24                              |
| 4th „       | 2,226              | 24.19                     | 115 19 5              | 12.50                              |
|             | 10,919             | 29.91                     | 502 15 2½             | 11.05                              |

\* This includes cost of provisioning staff, but does not include working days of staff, if the working days of the staff are included the cost works out at 6.97d. per head per day, as compared with 6.3d. last year.

#### Mortality from Zymotic Diseases.—

Zymotic Mortality during the past five years.

| Years.        | Ten Years' Average | 1898 | 1899 | 1900 | 1901 | 1902.  |                    |                 |
|---------------|--------------------|------|------|------|------|--------|--------------------|-----------------|
|               |                    |      |      |      |      | Derby. | England and Wales. | 76 Great Towns. |
| Rate per 1000 | 1.9                | 2.3  | 1.7  | 2.4  | 1.8  | 1.3    | 1.64               | 2.12            |

The total deaths from the seven principal Zymotic diseases numbered 148, in which are included the deaths of three strangers who were brought into the town for treatment. Deducting these latter, the Zymotic mortality was at the rate of 1.3 per 1,000, which compares favourably with previous years, as shown in the above table. The

number of deaths in 1901 was 193, and in 1900 251. The Zymotic mortality rate is also well below the average of the past 10 years.

*Small Pox:—*

Mortality from Small Pox during the past five years.

| Years.        | Ten Years' Average | 1898 | 1899 | 1900 | 1901 | 1902.  |                    |                 |
|---------------|--------------------|------|------|------|------|--------|--------------------|-----------------|
|               |                    |      |      |      |      | Derby. | England and Wales. | 76 Great Towns. |
| Rate per 1000 | 0.02               | ...  | ...  | ...  | ...  | ...    | 0.08               | 0.12            |

No deaths from Small Pox were registered during the year, although eight cases were notified. These eight cases were the result of four separate importations. In the first three instances the disease was limited to the individual sufferer, whilst in the fourth case other members of the same household were attacked by the disease, and it is also probable that another case which was reported during the early part of 1903 received infection from this same case. The cases are tabulated below.

| Pro-<br>gressive<br>Number | Sex. | Age. | Condition as to<br>Vaccination.              | Source of Infection.   | Remarks.  |
|----------------------------|------|------|--|--|---|
| 145                        | M.   | 48   | Vaccinated in Infancy.                       | Infected by relative in London.  | No other cases followed this outbreak.  |
| 242                        | M.   | 36   | Revaccinated 10 years ago.                   | Casual. Had passed through several infected towns.                             | Disease aborted in the vesicular stage.   |
| 370                        | F.   | 5    | Unvaccinated.                                | From probable contact whilst on a visit to London.                             | No other cases followed this outbreak.  |
| 531                        | M.   | 61   | Vaccinated in Infancy.                       | Slept in Common Lodging Houses and in Casual Wards on way down from the North. | The next four cases are from same house from which this patient was removed.                        |
| 545                        | M.   | 3    | Only vaccinated after exposure to infection. | From case 531.   | } One other case was reported in January of 1903, which was probably associated with this outbreak. |
| 548                        | M.   | 10   | Ditto.                                       | Ditto.   |   |
| 549                        | F.   | 9    | Ditto.                                       | Ditto.   |   |
| 550                        | F.   | 8    | Ditto.                                       | Ditto.   |   |

*Vaccination.*—As might be expected, the prevalence of Small Pox in London, combined with the occurrence of these few cases in Derby, resulted in a considerable increase in the number of vaccinations, and it will be seen from the particulars submitted below that the percentage of vaccinations is higher than it has been for the past 10 years.

I am indebted to Mr. Payne, Vaccination Officer, for the information from which the following table has been prepared:—

TABLE XIII.—*Showing the percentage of successful Vaccinations in the Borough of Derby for the 11 years 1873-83, and for each year from 1884-1902.*

| YEAR            | Births. | Died unvaccinated. | Insusceptible and postponed | Total available Children. | Successfully Vaccinated. | Percentage of Children Vaccinated. |
|-----------------|---------|--------------------|-----------------------------|---------------------------|--------------------------|------------------------------------|
| <b>11 Years</b> |         |                    |                             |                           |                          |                                    |
| 1873-83         | 31,011  | 3,767              | 180                         | 27,244                    | 24,723                   | 90.7                               |
| 1884            | 2,882   | 356                | 7                           | 2,526                     | 1,673                    | 66.                                |
| 1885            | 2,904   | 337                | 44                          | 2,567                     | 2,151                    | 83.                                |
| 1886            | 2,896   | 328                | 39                          | 2,568                     | 2,363                    | 92.                                |
| 1887            | 2,673   | 281                | 30                          | 2,392                     | 2,209                    | 92.                                |
| 1888            | 2,720   | 306                | 47                          | 2,414                     | 2,186                    | 90.                                |
| 1889            | 2,707   | 314                | 12                          | 2,393                     | 2,032                    | 84.                                |
| 1890            | 2,597   | 289                | 4                           | 2,308                     | 1,893                    | 82.                                |
| 1891            | 2,914   | 368                | 5                           | 2,546                     | 1,681                    | 66.                                |
| 1892            | 3,015   | 428                | 5                           | 2,587                     | 1,134                    | 43.                                |
| 1893            | 3,142   | 420                | 4                           | 2,722                     | 737                      | 27.                                |
| 1894            | 2,934   | 345                | 2                           | 2,589                     | 453                      | 17.                                |
| 1895            | 2,941   | 454                | 4                           | 2,487                     | 283                      | 11.                                |
| 1896            | 2,876   | 406                | 3                           | 2,470                     | 210                      | 8.                                 |
| 1897            | 2,826   | 430                | 1                           | 2,396                     | 145                      | 6.                                 |
| 1898            | 2,869   | 389                | 0                           | 2,480                     | 330                      | 13.                                |
| 1899            | 3,000   | 475                | 292                         | 2,525                     | 784                      | 31.                                |
| 1900            | 2,935   | 488                | 78                          | 2,447                     | 432                      | 18.                                |
| *1901           | 3,046   | 449                | 158                         | 2,597                     | 796                      | 31.                                |
| *1902           | 3,277   | 388                | 15                          | 2,874                     | 1,137                    | 40.                                |

\*Added area included.

Mr. W. H. Whiston informs me that the number of exemption certificates granted under the Vaccination Act during the year 1902 to persons resident within the Borough was 258, as compared with 235 in 1901.

#### *Scarlet Fever.*—

Mortality from Scarlet Fever during the past five years.

| Year.          | Ten Years' Average. | 1898 | 1899 | 1900 | 1901 | 1902.  |                    |                 |
|----------------|---------------------|------|------|------|------|--------|--------------------|-----------------|
|                |                     |      |      |      |      | Derby. | England and Wales. | 76 Great Towns. |
| Rate per 1,000 | 0.15                | 0.20 | 0.25 | 0.22 | 0.17 | 0.07   | 0.15               | 0.19            |

The number of Scarlet Fever cases notified last year was 332, and is the lowest number reported for a very considerable number of years. The disease has existed in epidemic form since the end of 1898. The deaths from this disease numbered 8, which represents a rate of 0.07 per 1,000, this is about half the ten years average, and compares favourably with the two preceding years, when there were 17 and 20 deaths respectively from this disease.

The age incidence of persons attacked, and of the fatal cases resulting therefrom was as under.

| Ages.    | Under 1 | 1 | 2  | 3  | 4  | 5   | 6   | 7  | 8   | 9   | 10 | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  | 20—30 | 30 upwds | Total. |
|----------|---------|---|----|----|----|-----|-----|----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|----------|--------|
| Attacked | 2       | 9 | 26 | 29 | 39 | 39  | 41  | 24 | 15  | 16  | 16 | 15  | 7   | 5   | 6   | 7   | 1   | 3   | 2   | 3   | 22    | 5        | 332    |
| Died     | ...     | 1 | 3  | .. | 1  | ... | ... | 2  | ... | ... | 1  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...   | ...      | 8      |

### *Diphtheria.*—

Mortality from Diphtheria during the past five years.

| Years.         | Ten Years' Average | 1898 | 1899 | 1900 | 1901 | 1902   |                    |                 |
|----------------|--------------------|------|------|------|------|--------|--------------------|-----------------|
|                |                    |      |      |      |      | Derby. | England and Wales. | 76 Great Towns. |
| Rate per 1,000 | 0.09               | 0.09 | 0.08 | 0.09 | 0.19 | 0.10   | 0.23               | 0.26            |

There were 63 cases of this disease notified during the year with 12 deaths. Two of the notifications were of strangers brought into the town for treatment, one of which cases terminated fatally. It is a source of satisfaction to observe that the number of cases of this serious disease reported in the town still continues small. Occasionally small localised outbreaks were observed which were immediately followed up, and any serious extension was thus averted. One in particular occurred in the early part of the year in the Chester Green district. Although the number of cases was comparatively insignificant, I noticed that at one time the notifications were considerably in excess of the average for this part of the town. At the same time I received from the Headmaster of St. Paul's schools intimation that a large number of children were suffering from sore throats and were being kept away from school for two or three days on that account. I visited the school and examined a large number of children who had been away ill, and also visited other children who were reported as being absent owing to sore throats. Although the clinical symptoms which were presented by these patients were not those of typical diphtheria, I thought that many of them might be of that character, having in mind the fact that more cases of the disease than usual had recently been notified. I took swabs from the throats of some of the patients who presented the most severe symptoms and sent them for bacteriological examination. In several instances a positive result was obtained. I decided that it would be better under the circumstances that all children should be excused attendance at school who were suffering

from sore throat, and requested the headmaster to notify me of all cases coming to his knowledge. The houses in which all these patients lived were visited and treated as though an infectious disease existed there. A few more cases of diphtheria were subsequently reported, but in two or three weeks' time I was able, once more, to declare the district free, and it has remained practically so since. The measures which are adopted to prevent the spread of this disease are isolation, in hospital if possible, but if the patients are treated at home, children from the infected houses are prohibited from attending school until the termination of the case, when disinfection of the house with sulphurous acid gas takes place.

The age incidence of persons attacked, and the number of deaths resulting from the attacks is shown below.

| Ages ...      | Under 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15—20 | 20—25 | 25 upwds | Total. |
|---------------|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|-------|-------|----------|--------|
| Notifications | 1       | 4 | 4 | 4 | 4 | 3 | 7 | 3 | 1 | 2 | 3  | 1  | 1  | 0  | 1  | 6     | 7     | 11       | 63     |
| Deaths ...    | 1       | 2 | 2 | 2 | 1 | 3 | 2 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0     | 0     | 0        | 13     |

### Measles.—

Mortality from Measles during the past five years.

| Years.         | Ten Years Average. | 1898 | 1899 | 1900 | 1901 | 1902.  |                    |                 |
|----------------|--------------------|------|------|------|------|--------|--------------------|-----------------|
|                |                    |      |      |      |      | Derby. | England and Wales. | 76 Great Towns. |
| Rate per 1,000 | 0.33               | 0.52 | 0.24 | 0.93 | 0.00 | 0.33   | 0.38               | 0.49            |

As there were no deaths from measles reported during the year 1901, I anticipated that during last year this disease would be prevalent in a more or less epidemic form. It certainly was epidemic, but not to the same extent as has been noted in previous years, particularly 1898 and 1900. Nevertheless there were 38 deaths recorded from this disease, of which 6 were under the age of one year, and 31 between the ages of one and five. If people could only be brought to regard measles in the same light as they do scarlet fever and diphtheria, the death-roll would be considerably lessened. The idea, which I am afraid is somewhat general, that children *must* suffer from this infectious ailment whilst they are young is altogether unfounded. Care should be exercised to prevent children taking this or any other infectious ailment for as long a period as possible, for after the age of two or three years not only is the liability to attack lessened, but the chances of recovery in the case of an attack are multiplied enormously.

I must express my indebtedness to the majority of schoolmasters and mistresses in the town for the notifications which they have forwarded in respect to this disease. These school notifications enable the Sanitary Department to realise that measles is present in the town at a very much earlier period than can be ascertained from the weekly mortality returns, and thus allow of early action being taken to check the spread of the disease. When the numbers are not large, all cases so reported are visited, but when it is impossible to make this personal visitation, a printed circular of precautions which should be adopted in infected households is sent by post to every house in which a case is known to exist.

### *Whooping Cough.*—

Mortality from Whooping Cough during the past five years.

| Years.        | Ten years' average. | 1898 | 1899 | 1900 | 1901 | 1902   |                    |                 |
|---------------|---------------------|------|------|------|------|--------|--------------------|-----------------|
|               |                     |      |      |      |      | Derby. | England and Wales. | 76 Great Towns. |
| Rate per 1000 | 0.33                | 0.28 | 0.87 | 0.50 | 0.28 | 0.25   | 0.29               | 0.37            |

There were 29 deaths attributable to Whooping Cough, of which 15 were amongst children under one year of age. The death-rate from the disease is somewhat below the ten years' average. The remarks which have been made in respect to measles apply equally to this disease, and the fatality from it would be reduced most materially if the chest complications, which are of such serious import were reduced, as they could be, if greater care were taken to avoid unnecessary exposure of the patient until the characteristic whoop had disappeared. This is not a notifiable disease, and as with measles, the chief information of its presence is derived from the school returns, and similar action is taken as in the case of measles.

### *Diarrhœa.*—

Mortality from Diarrhœa during the past five years.

| Years.        | Ten Years' Average | 1898 | 1899 | 1900 | 1901 | 1902.  |                    |                 |
|---------------|--------------------|------|------|------|------|--------|--------------------|-----------------|
|               |                    |      |      |      |      | Derby. | England and Wales. | 76 Great Towns. |
| Rate per 1000 | 0.78               | 0.95 | 0.92 | 0.48 | 0.99 | 0.39   | 0.38               | 0.54            |

The deaths from diarrhœa numbered 45. Children under 1 year of age contributed 33 out of that number to the total. This disease only caused a mortality equal to one half the average of the last 10 years. The diminished prevalence cannot be attributed in

more than a small part, if at all, to improved sanitary conditions. These deaths from diarrhoea in children are nearly all the result of what is termed Epidemic Diarrhoea, this, as I have before pointed out, being probably an acute specific disease, in respect to which meteorological conditions play an important part in creating conditions which are favourable to its undue prevalence or otherwise. In addition to these 45 deaths account ought to be taken of 16 deaths from enteritis, nine of which were in children under one year of age. Probably a large number of these were fatal cases of Epidemic Diarrhoea. The preventive measures which are adopted are the visitation of all houses, as soon as practicable, after a birth has been registered, by Miss McCleverty, who, when necessary, gives instructions in the proper way of preparation of food, and who likewise repeats the visits if the circumstances seem to warrant it. Courts are flushed regularly during the summer months, and the removal of the privy pails and ashpits, together with the paving of back yards, has been pushed with as much energy as possible, for there can be little doubt that these objectionable conditions operate most disastrously on the health of young children. Other details in respect to diarrhoea are referred to under Infantile Mortality.

#### *Enteric Fever. —*

Mortality from "Fever" during the past five years.

| Years.        | Ten years' average. | 1898 | 1899 | 1900 | 1901 | 1902.  |                    |                 |
|---------------|---------------------|------|------|------|------|--------|--------------------|-----------------|
|               |                     |      |      |      |      | Derby. | England and Wales. | 76 Great Towns. |
| Rate per 1000 | 0.21                | 0.28 | 0.15 | 0.21 | 0.20 | 0.12   | 0.13               | 0.15            |

During the year 84 cases of Enteric Fever were notified, of which two were of strangers brought from outside the Borough to the Royal Infirmary for treatment, leaving 82 cases as occurring within the Borough. Compared with previous years this number is extremely favourable being the lowest for the past 10 years. There were 13 deaths amongst these cases which represents a mortality of 0.12 per 1,000; this is little more than half of the previous ten years' average.

The age incidence of persons attacked and the fatal cases resulting therefrom is shown in the following classification;—

|          | Years of Age. |                        |                         |                          |                          |                          |                          |                          |                          |                          |                          |                      | Total. |
|----------|---------------|------------------------|-------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|----------------------|--------|
|          | under<br>1    | 1<br>and<br>under<br>5 | 5<br>and<br>under<br>10 | 10<br>and<br>under<br>15 | 15<br>and<br>under<br>20 | 20<br>and<br>under<br>25 | 25<br>and<br>under<br>30 | 30<br>and<br>under<br>35 | 35<br>and<br>under<br>40 | 40<br>and<br>under<br>45 | 45<br>and<br>under<br>50 | 50<br>and<br>upwards |        |
| Attacked | 0             | 6                      | 19                      | 12                       | 12                       | 10                       | 9                        | 6                        | 3                        | 2                        | 4                        | 1                    | 84     |
| Died     | 0             | 0                      | 2                       | 1                        | 1                        | 3                        | 1                        | 3                        | 0                        | 1                        | 1                        | 0                    | 13     |

It will be seen that the greatest number of attacks was at the age period of 5 and 10, and the greatest fatality between the ages of 30 and 35. Sanitary defects were in many instances prominent on the premises in which the disease occurred. In no instance was the disease attributed to the ingestion of shell-fish. On the other hand the cases this year show a greater tendency towards direct infection than has previously been observed.

The great infectiousness of Typhoid Fever under certain circumstances has been previously referred to in these reports, and the following outline illustrates the danger to which members of a family are exposed, unless efficient isolation and disinfection are carried out in the case of this disease.

On the 14th March I was notified of a case of Typhoid Fever in a house in Pear Tree Ward, in which house there were subsequently 5 other cases. At the end of February this family consisted of father and mother and seven children. A baby, aged 14 months, died early in March, the death being certified as due to Convulsions and Influenza. One of the sons, aged five, had been ill about the commencement of the year with abdominal symptoms and headache; this boy might have had an attack of Enteric Fever. The six children slept in two beds. The illness in the case of the first person notified commenced on the 8th of March, and between that date and the 31st March all the children, except the one referred to above as having been ill earlier in the year, had been notified as suffering from Enteric Fever. The first case had been nursed by the mother nine days before the patient was removed to Hospital, and she finally sickened with the disease, leaving the father and the boy, aged 5, the only members of the family who escaped attack.

The following cases occurred in a family of six persons—father, mother, and four children. A child, 16 months old, had been

under medical attendance for some time and was finally reported as suffering from Enteric Fever, and on April 4th was removed to the Infirmary for treatment. The house was a dirty one and of the back-to-back class. There were several insanitary conditions on the premises, viz., an offensive pail closet, the drains were choked, and the inlet to the same was untrapped and was situated close to the water tap. On May 1st I was asked by the Inspector to see two other cases in this house; these were undoubtedly suffering from Typhoid Fever and were removed to the Hospital. On May 15th I saw the fourth child who was likewise suffering, and had him removed.

The danger of surface well-water with respect to this disease is exemplified by a series of cases which were reported in the added area of Alvaston. I was asked to see three cases of illness in one house, and one of similar illness at the adjoining house. After examination of the patients I agreed in the diagnosis of Typhoid Fever. Subsequently another case in the first mentioned house was reported. These two houses obtained their drinking water from a well which was sunk at the rear of the premises. The pump was within three yards of the ashpit. The drainage passed from the house to a ditch at the bottom of the yard, and before arriving at this spot passed very near to the well. These drains were defective, as was likewise an offensive privy and ash-pit on the premises. There was a history of one of the persons living in these houses having suffered from some indefinite illness some weeks previously. There can be no doubt that all these patients were infected by the drinking water which would be very easily contaminated from the gross insanitary defects which were found to exist. I drew the attention of the Sanitary Committee to the number of instances in which the drainage of houses on the east side of London Road discharged into water-courses at the rear of the premises, and in consequence it was decided to recommend the Highways Committee to extend the sewer in London Road as far as the Canal Bridge, and this work was shortly afterwards carried out.

Details are given in the following classification with respect to all cases of Enteric Fever which have been notified. The preventive measures which have been adopted in the past have been continued without any change. Isolation of patients is strongly advocated, but when nursed at home particular emphasis is laid upon the fact that

the person nursing the patient should under no circumstances leave the sick room after having touched the patient or the bed-clothes without first washing the hands. The discharges are placed in disinfectant which is contained in a metal bucket provided with a lid. This receptacle is removed to the destructor and a clean one left twice a week. When the patient is convalescent the house is disinfected.

TABLE XIII.—An analysis of the cases of Enteric Fever notified during the year 1902.

A.—Cases in which sanitary defects were prominent.

| Pro-<br>gressive<br>No. | Age.            | Sex. | Sanitary Conveniences. |       |       |                         | Nuisances.  | Remarks.   |
|-------------------------|-----------------|------|------------------------|-------|-------|-------------------------|---|--|
|                         |                 |      | W.C.                   | Pail. | Privy | Privy<br>Cess-<br>pool. |   |  |
| 83                      | 20              | M    | ...                    | ...   | I     | ...                     | Privy and ash-pit.  |  |
| 89                      | 14              | F    | ...                    | ...   | I     | ...                     | Privy and ash-pit.  | In added area. One case two years ago, and two cases three years ago in this yard. |
| 117                     | 3               | M    | I                      | ...   | ...   | ...                     | W.C. drain choked, and flush pipe broken,—consequent leakage. | Mother and another child recently ill, latter possibly from mild Typhoid.          |
| 129                     | 12              | F    | I                      | ...   | ...   | ...                     | Drains blocked up.  | A brother had previously suffered from a suspicious illness.                       |
| 146                     | 30              | M    | ...                    | ...   | I     | ...                     | Drains from stable connected with house drains and choked up. | Patient travels about the country.   |
| 162                     | 1 $\frac{1}{4}$ | F    | ...                    | I     | ...   | ...                     | Offensive pail closet and defective drains.                   |  |
| 182                     | 30              | M    | ...                    | I     | ...   | ...                     | Drainage of roadway bad. Property about to be demolished.     | Several other cases in vicinity.   |
| 191                     | 15              | F    | ...                    | ...   | I     | ...                     | Note privy and ash-pit.                                       |  |
| 211                     | 32              | M    | ...                    | ...   | I     | ...                     | Privy and ash-pit. Defective iron bell traps to yard drains.  |  |
| 243                     | 34              | M    | ...                    | I     | ...   | ...                     | Old house. Iron drain inlet.                                  | Next to case 211. Case next door four years ago.                                   |
| 253                     | 45              | M    | ...                    | ...   | ...   | I                       | Complained of smells from street manhole. Note privy vault.   |  |
| 306                     | 5               | F    | ...                    | ...   | I     | ...                     | Very old house. Lip traps.                                    |  |
| 323                     | 2               | M    | I                      | ...   | ...   | ...                     | Drainage most defective.                                      |  |
| 326                     | 16              | F    | ...                    | I     | ...   | ...                     | Extremely objectionable conditions of sanitary conveniences.  |  |
| 406                     | 16              | M    | I                      | ...   | ...   | ...                     | .. .. .   | Had been engaged repairing some old privies.                                       |
| 447                     | 14              | F    | ...                    | ...   | I     | ...                     | Complained of street gully.                                   |  |
| 454                     | 8               | M    | ...                    | I     | ...   | ...                     | Old house. Iron traps.  |  |
| 481                     | 7               | M    | ...                    | ...   | ...   | I                       | Offensive and dilapidated cesspit                             |  |
| 484                     | 18              | F    | ...                    | I     | ...   | ...                     | Defective pail closet and drain inlets.                       |  |
| 494                     | 6               | M    | ...                    | ...   | I     | ...                     | House drains and conveniences defective.                      |  |
| 501                     | 23              | M    | ...                    | ...   | I     | ...                     | Complained of smells from street gully.                       |  |
| 508                     | 20              | F    | ...                    | I     | ...   | ...                     | Pail closet near house.                                       | House damp and dirty.  |

| Pro-<br>gressive<br>No. | Age. | Sex. | Sanitary Conveniences. |       |       |                         | Nuisances.  | Remarks.   |
|-------------------------|------|------|------------------------|-------|-------|-------------------------|---|--|
|                         |      |      | W.C.                   | Pail. | Privy | Privy<br>Cess-<br>pool. |   |  |
| 528                     | 8    | M    | ...                    | I     | ...   | ...                     | Drains and closet defective.  | Enteric in this house 7 years ago.               |
| 532                     | 46   | M    | I                      | ...   | ...   | ...                     | Drains recently choked.   |  |
| 570                     | 26   | M    | ...                    | ...   | I     | ...                     | Defective Privy.  | Water supply from common well at rear of houses. |
| 574                     | 12   | F    | ...                    | ...   | I     | ...                     | Offensive and defective privy,<br>Drains defective, probably<br>fouling water supply. |  |
| 575                     | 21   | F    | ...                    | ...   | I     | ...                     |   |  |
| 576                     | 45   | M    | ...                    | ...   | I     | ...                     |   |  |
| 582                     | 25   | M    | ...                    | ...   | I     | ...                     |   |  |

**B.**—Cases in which visits to other towns was made prior to onset.

|     |    |   |     |     |     |     |    |    |    |  |
|-----|----|---|-----|-----|-----|-----|----|----|----|--|
| 196 | 20 | M | I   | ... | ... | ... | .. | .. | .. | Soldier on leave, only been in town one week.                |
| 240 | 10 | M | ... | ... | ... | ... | .. | .. | .. | } Strangers brought to Derby.<br>Infirmary for treatment.    |
| 241 | 8  | F | ... | ... | ... | ... | .. | .. | .. |  |
| 332 | 35 | M | I   | ... | ... | ... | .. | .. | .. | Probably infected whilst on a visit to neighbouring village. |
| 442 | 17 | F | I   | ... | ... | ... | .. | .. | .. | Developed Enteric after return from holidays.                |
| 466 | 16 | M | I   | ... | ... | ... | .. | .. | .. | Occupation takes him about the country.                      |
| 586 | 28 | M | I   | ... | ... | ... | .. | .. | .. | Occupation takes him about the country.                      |

**C.**—Cases in which direct Infection was apparently the cause.

|       |     |   |     |     |     |     |                   |   |   |
|-------|-----|---|-----|-----|-----|-----|-------------------|---|---|
| 90    | 6   | F | ... | ... | I   | ... | Privy and Ashpit. | } Sisters to case 89, who had been ill some time before being notified. |   |
| 98    | 2   | F | ..  | ... | I   | ... | ..                |   |   |
| 133   | 9   | M | I   | ... | ... | ... | ..                | ..  | } Brother and sisters of case 129.        |
| 143   | 3   | F | I   | ... | ... | ... | ..                | ..  |   |
| 148   | 15  | F | I   | ... | ... | ... | ..                | ..  |   |
| 149   | 7   | F | I   | ... | ... | ... | ..                | ..  |   |
| 158   | 39  | F | I   | ... | ... | ... | ..                | ..  | Mother of 4 cases above and case 129.     |
| 140   | 6   | F | I   | ... | ... | ... | ..                | ..  | Sister of case 114.                       |
| 163   | 4   | F | ... | ... | I   | ... | ..                | ..  | Daughter of case 146.                     |
| 209   | 8   | M | ... | I   | ... | ... | ..                | ..  | } Brothers—probably infected by case 162. |
| 210   | 18  | M | ... | I   | ... | ... | ..                | ..  |   |
| 232a. | 16  | M | ... | I   | ... | ... | ..                | ..  |   |
| 219   | ... | F | I   | ... | ... | ... | ..                | ..  | Nurse engaged on Typhoid nursing.         |
| 254   | 38  | F | I   | ... | ... | ... | ..                | ..  | Mother of cases 114 and 140.              |
| 506   | 10  | F | ... | ... | I   | ... | ..                | ..  | Case 481 is brother of this patient.      |
| 527   | 8   | F | ... | ... | I   | ... | ..                | ..  | From case 494.                            |
| 562   | 46  | F | ... | ... | ... | ... | ..                | ..  | From nursing case 536.                    |

**D.—Cases in which direct infection was possible.**

| Pro-<br>gressive<br>No. | Age. | Sex. | Sanitary Conveniences. |       |       |                         | Nuisances. | Remarks.   |
|-------------------------|------|------|------------------------|-------|-------|-------------------------|------------|--|
|                         |      |      | W.C.                   | Pail. | Privy | Privy<br>Cess-<br>pool. |            |  |
| 36                      | 22   | F    | I                      | ...   | ...   | ...                     | .. .. .    | Engaged nursing cases of Enteric Fever.  |
| 54                      | 25   | F    | I                      | ...   | ...   | ...                     | .. .. .    | Nursed same case as No. 36.  |
| 74                      | 8    | F    | I                      | ...   | ...   | ...                     | .. .. .    | Disease possibly contracted from the case, causing illness in above two instances. |
| 398                     | 10½  | F    | ...                    | ...   | I     | ...                     | .. .. .    | Near relative of case 398.   |

**E.—Other Cases.**

|     |    |   |     |     |     |     |                             |   |
|-----|----|---|-----|-----|-----|-----|-----------------------------|---|
| 21  | 20 | M | ... | I   | ... | ... | .. .. .                     | Could not trace any infection.                    |
| 76  | 32 | F | I   | ... | ... | ... | .. .. .                     | Could not trace any infection.                    |
| 106 | 31 | F | I   | ... | ... | ... | .. .. .                     | Could not trace any infection.                    |
| 114 | 10 | M | I   | ... | ... | ... | .. .. .                     | Several cases reported later from this District.  |
| 130 | 29 | F | I   | ... | ... | ... | None.                       | Case 129 in vicinity.                             |
| 155 | 21 | M | I   | ... | ... | ... | None.                       | Could not trace infection.                        |
| 224 | 18 | M | ... | I   | ... | ... | None except pail closet.    |   |
| 227 | 15 | M | ... | 2   | ... | ... | None except pail closet.    | Delicate health.                                  |
| 230 | 55 | M | ... | ... | I   | ... | .. .. .                     | Cases No. 89, 90 and 98 in vicinity.              |
| 261 | 19 | M | I   | ... | ... | ... | No nuisances.               | Could not trace infection.                        |
| 264 | 27 | M | I   | ... | ... | ... | No nuisances.               | Could not trace infection.                        |
| 340 | 14 | M | ... | I   | ... | ... | None except pail closet     |   |
| 344 | 17 | F | ... | I   | ... | ... | None except pail closet.    | Case 253 in vicinity.                             |
| 388 | 42 | M | I   | ... | ... | ... | No nuisances found.         |   |
| 396 | 9  | F | ... | ... | I   | ... | .. .. .                     | Father said to be suffering from Influenza.       |
| 392 | 8  | F | I   | ... | ... | ... | .. .. .                     | Child been ill on and off for months.             |
| 398 | 8  | M | ... | ... | I   | ... | .. .. .                     | Playmate of case 392. Been bathing in foul brook. |
| 410 | 14 | M | ... | ... | I   | ..  | .. .. .                     | Could not trace infection.                        |
| 445 | 5  | F | I   | ... | ... | ... | .. .. .                     | Could not trace infection.                        |
| 480 | 14 | F | ... | I   | ... | ... | .. .. .                     | Could not trace infection.                        |
| 501 | 16 | F | ... | I   | ... | ... | .. .. .                     | Could not trace infection.                        |
| 521 | 11 | M | ... | I   | ... | ..  | .. .. .                     | Could not trace infection.                        |
| 536 | 24 | M | I   | ... | ... | ... | No nuisances observed.      | Number of cases in vicinity.                      |
| 540 | 9  | M | I   | ... | ... | ... | Complains of canal at rear. |   |
| 585 | 8  | M | I   | ... | ... | ... | No nuisances.               | Case of Enteric in this house two years ago.      |

*Phthisis*.—The deaths from this disease during the year numbered 102, which included that of one stranger, and is equal to rate of .88 per 1,000, the lowest death-rate so far recorded. Last year there were 99 deaths, and in the previous year 113. The question of the voluntary notification of Phthisis came under the consideration of the Sanitary Committee during the year, and it was decided that an attempt should be made to obtain information with respect to the prevalence of this disease, other than that which was obtained in the death returns. With this object, the following letter was forwarded to the medical men in the town.

BOROUGH OF DERBY.

PUBLIC HEALTH DEPARTMENT,  
FORD STREET,  
July 1st, 1902.

THE NOTIFICATION OF PHTHISIS.

DEAR SIR,

On the recommendation of the Sanitary Committee, the Corporation has decided to adopt a scheme for the voluntary notification of Phthisis. The success of the experiment will depend to a great extent upon the co-operation of the medical men practising in this town, and I beg to submit to you an outline of the scheme as I propose to work it. Any criticisms or suggestions which you would care to make would receive my careful consideration, and be much appreciated.

(1.) It is desirable that *all* cases should be notified. Special notification forms will be provided similar to those in use at the present time.

(2.) All cases will be visited, either by the Sanitary Inspector or the Lady Health Visitor, *except those in respect to which a request is made on the notification form that they shall not be visited*. In many cases, no doubt, the visit of the Sanitary Inspector might be objected to, but if, on notification, an intimation is forwarded that no objection would be made to my personally making the following enquiries, I would willingly do so, rather than no visit should be made.

(3.) The objects of the visits of the Inspector will be to obtain information on the following points, the value of an accumulation of these details being evident :—

- (a) Physique of the patient,
- (b) Former residences.
- (c) Occupation.
- (d) Personal habits.
- (e) Previous disabling conditions.
- (f) Date of commencement of illness.

- (g) Possibility of infection, with date and place.
- (h) Facts in respects to family history.
- (i) Sanitary conditions under which patient lives.
- (j) Precautions which are being adopted, and improvements necessary.

(4.) Suggestions, if necessary, will be made in respect to cleanliness and avoidance of dust accumulations, a list of desirable personal and general precautions which should be adopted will be left at the house, and if the patient is following his or her occupation, Dettweiler's spitting cups will be loaned to them.

(5.) The visits will be repeated at monthly intervals for the purpose of seeing that the precautions are being maintained, particularly with respect to scrupulous cleanliness.

(6.) At the termination of a case, or at any time during the progress of the disease when it is considered necessary, disinfection will be offered, and if accepted, carried out free of charge.

(7.) As it is important that early diagnosis should be made, arrangements have been made for the free bacteriological examination of sputum, on the understanding that any specimen submitted for examination giving a positive result shall be regarded as a notification. Necessary outfits may be obtained at the Sanitary Office, Ford Street, *and only those supplied should be used.* These examinations will be carried out by Professor Delépine, of the Owens College, Manchester.

(8.) The Sanitary Committee is prepared to pay a fee of 2/6 for each notification, and a fee of 1/- for a re-notification by another medical man.

In the event of a case being notified with a request that the case shall not be visited either by myself or any member of the Sanitary Staff, it is hoped that the medical man in charge of the case will fill in the office form of particulars, and give instructions and supervise the subsequent disinfection.

I forward herewith a book of notification forms, and venture to request your co-operation in the scheme.

The scheme has met with a fair amount of success and from July 1st to December 31st, 57 cases of consumption of the lungs were notified. Amongst these cases there were 24 deaths. All patients have been visited in accordance with the terms contained in the above circular letter and a copy of the following circular left at each house.

#### PRECAUTIONS AGAINST CONSUMPTION.

Consumptive persons should remember that they are not suffering from an absolutely incurable disease, and also that they possess to a great extent the power of preventing other persons taking the disease. Attention to the following details will materially assist in attaining both ends.

1.—Sunlight and fresh air are the greatest enemies to the infection and are also of the greatest assistance in promoting a cure. Consumptives should sleep alone, with the bedroom windows open top and bottom, and during the day time, keep out of doors as much as possible, and whilst indoors occupy well ventilated rooms.

*It is chiefly by means of the expectoration (spit) that the infection is spread, and the following rules should be strictly observed.*

2.—Indoors—the expectoration should be received into small paper bags and at once burnt; at night, spitting cups containing a little disinfectant should be used. These should be washed out with boiling water daily.

3.—Out of doors—spitting in streets, tramcars, or any public places, should be carefully avoided, a suitable vessel should be carried about into which the expectoration may be received, and which afterwards may be washed out with boiling water.

4.—If handkerchiefs are used they should never be allowed to become dry but should be soaked in boiling water whilst the expectoration is still moist. *It is in the dry condition that the expectoration becomes dangerous.*

5.—Dry cleansing of the rooms occupied by a consumptive should be dispensed with as much as possible; wet cleansing should be substituted, and all refuse from the room should be at once burnt.

Suitable receptacles for the reception of expectoration may be obtained on loan at the Sanitary Office, Ford Street, as well as a supply of disinfectants. Disinfection of the house will be undertaken free of charge on receipt of an expressed desire to that effect.

86 rooms, occupied by phthisical patients were disinfected during the year. In addition, the loan of Dettweiler's flasks and bedside spitting cups has been continued.

*Puerperal Fever.*—Six deaths were attributed to this disease among 13 notifications received. The usual precautionary methods which include the disinfection of the clothing of the midwife in attendance, and occasionally the disinfection of the house have been continued.

Under this heading, I may refer to the Midwives Act of 1902, by which the local supervision of midwives is entrusted to the Council of every County or County Borough throughout the country. It has for its object, the better training and supervision of midwives by the establishment of a system of certification and enrolment of women who are properly qualified to act in this capacity. The duties under this Act have been delegated by the Council to the

Sanitary Committee. The Act imposes upon each Local Authority various specified duties in respect to midwives which are briefly as follows :—

1.—To give due notice of the effect of the Act, so far as practicable, to persons at present using the title of midwife. The Council is recommended by the recently issued memorandum of the Local Government Board to forthwith ascertain the names and addresses of all women in the district who are accustomed to hold themselves out as midwives.

2.—To exercise general supervision over all midwives practising within the area of this supervision.

3.—To investigate charges of malpractice, negligence, or misconduct, on the part of any practising midwife and if a *prima facie* case be established, to report the same to the Central Midwives Board.

4.—If suspension appears necessary in order to prevent the spread of infection, to order such suspension.

5.—To report to the Central Midwives Board the name of any midwife practising in their area convicted of an offence.

6.—To supply the Central Midwives Board with the names and addresses of all midwives who, during the preceding year, have notified their intention to practice within their area of supervision and to keep a current copy of the roll of midwives, accessible for inspection.

7.—To report to the Central Midwives Board the death of any midwife or change in the name or address.

*Influenza.*—Influenza was registered as the cause of 25 deaths, which is considerably below the last ten years' average, viz., 33.3. The largest number of deaths at any age period is recorded under the age of one year, eight deaths being registered from this disease at that early period of life.

*School Notifications.*—During the year, 603 forms were received from the various schools within the Borough, on which were notified the following number of cases :—

|                       |       |                      |              |
|-----------------------|-------|----------------------|--------------|
| Measles ... ..        | 2,887 | Diphtheria ... ..    | 10           |
| Whooping Cough ... .. | 265   | Enteric Fever ... .. | 5            |
| Mumps... ..           | 250   |                      |              |
| Chicken Pox ... ..    | 191   | Total ... ..         | <u>3,734</u> |
| Scarlet Fever ... ..  | 126   |                      |              |

The action taken on the receipt of these notifications has previously been referred to.

*Factory and Workshop Inspection.*—The Factory and Workshop Act, 1901, came into operation on the 1st January, 1902. Several alterations were made in the existing law relating to workshops, which have been referred to a previous report. The Act requires the Medical Officer of Health to report specifically in his Annual Report on the action taken in his District with respect to workshops, and to forward a copy of this report to the Secretary of State. The total number of workshops, excluding bakehouses, which have been entered on the register is 263, and the number of visits made to these places during the year was 464. The following tabulation shows the different trades with the number of visits which have been made to each class of trade.

TABLE XIV.  
Workshop Inspections, 1902.

| No. Inspected. | Description.               | Visits. |
|----------------|----------------------------|---------|
| 1              | Artificial Limb Making ... | 1       |
| 2              | Basket Making ... ..       | 2       |
| 2              | Beer Bottling... ..        | 15      |
| 5              | Blacksmiths ... ..         | 7       |
| 1              | Book-binding ... ..        | 1       |
| 9              | Boot-Making ... ..         | 13      |
| 5              | Boot-repairing... ..       | 7       |
| 1              | Brush-making ... ..        | 1       |
| 12             | Cabinet Making ... ..      | 20      |
| 3              | Carriage Building ... ..   | 11      |
| 1              | Chemist Manufacturing ...  | 4       |
| 3              | Confectionery ... ..       | 7       |
| 1              | Cork Cutting ... ..        | 1       |
| 5              | Cycle Making and Repairing | 8       |

| No. Inspected. | Description.                 | Visits. |
|----------------|------------------------------|---------|
| 74             | Dress Making ... ..          | 120     |
| 1              | French Polishing ... ..      | 1       |
| 1              | Gut Scraping ... ..          | 1       |
| 2              | Hide and Skin Preparing ...  | 2       |
| 6              | Jewellers ... ..             | 9       |
| 8              | Joiners ... ..               | 18      |
| 8              | Laundry ... ..               | 12      |
| 1              | Leather Currier ... ..       | 1       |
| 1              | Locksmith ... ..             | 1       |
| 23             | Millinery ... ..             | 42      |
| 5              | Paper Bag Making ... ..      | 8       |
| 1              | Perambulator Making ... ..   | 4       |
| 1              | Photographer ... ..          | 2       |
| 3              | Pinafore ... ..              | 8       |
| 3              | Plumbers ... ..              | 3       |
| 1              | Rope Making... ..            | 1       |
| 2              | Saddlers ... ..              | 3       |
| 1              | Skin Curing ... ..           | 1       |
| 1              | Soap Boiling ... ..          | 1       |
| 1              | Spar Turning ... ..          | 1       |
| 45             | Tailors... ..                | 85      |
| 7              | Tinsmiths ... ..             | 19      |
| 4              | Tripe Dressing ... ..        | 4       |
| 1              | Umbrella Making ... ..       | 1       |
| 2              | Upholsterers ... ..          | 5       |
| 2              | Varnish Making ... ..        | 2       |
| 1              | Venetian Blind Making ... .. | 2       |
| 6              | Wheelwrights                 | 9       |
| 263            |                              | 464     |

In the course of inspections, the following defects have been noticed and remedied :—

|                              |                           |   |
|------------------------------|---------------------------|---|
| <i>Drains or Soil Pipes:</i> | Cleanse and repair ... .. | 4 |
| ”                            | ” Provide new ... ..      | 5 |
| ”                            | ” Relay defective ... ..  | 5 |

|                       |     |                                |     |     |     |
|-----------------------|-----|--------------------------------|-----|-----|-----|
| "                     | "   | Remove from workshop           | ..  | ..  | 5   |
| "                     | "   | Trap ... ..                    | ... | ... | 10  |
| <i>Privies :</i>      | ... | Convert to W.C.'s              | ... | ... | 3   |
| <i>Trade Refuse :</i> | ... | Remove                         | ... | ... | 2   |
| <i>Urinals :</i>      | ... | Cleanse and repair             | ... | ... | 1   |
| "                     | ... | Provide                        | ... | ... | 2   |
| <i>Waste Pipes :</i>  | ... | Connected with drains          | ... | ... | 3   |
| <i>W.C.'s :</i>       | ... | Cleanse and Repair             | ... | ... | 11  |
| "                     | ... | Lay on water flush             | ... | ... | 2   |
| "                     | ... | Partition from workroom        | ... | ... | 2   |
| "                     | ... | Partition off for sexes        | ... | ... | 1   |
| "                     | ... | Provide additional             | ... | ... | 15  |
| "                     | ... | Repair fittings                | ... | ... | 6   |
| "                     | ... | Ventilate or light             | ... | ... | 3   |
| <i>Workrooms :</i>    | ... | Cleanse and limewash           | ... | ... | 48  |
| "                     | ... | Disconnect or provide spouting | ... | ... | 7   |
| "                     | ... | Prevent overcrowding           | ... | ... | 1   |
| "                     | ... | Provide dustbins               | ... | ... | 4   |
| "                     | ... | Repair roofs, floors, &c.      | ... | ... | 15  |
| "                     | ... | Ventilate                      | ... | ... | 3   |
| <i>Yards :</i>        | ... | Cleanse or pave                | ... | ... | 4   |
|                       |     |                                |     |     | 162 |

With the exception of a few cases in hand, the above were promptly remedied.

During the year, 7 notices have been received from H. M. Inspector of Factories, calling attention to the following defects:—

|   |     |   |
|---|-----|---|
| Defective and insufficient closet accommodation | ... | 4 |
| Dirty workshops—limewashing needed              | ... | 2 |
| Defective ventilation                           | ... | 2 |
| Depositing putrescent material near messroom    | ... | 1 |

These complaints have all been remedied except in one instance which is still under consideration.

*Outworkers.*—The following advertisement was forwarded to the local papers and was inserted in the issues of January 18th, 1902, and subsequent dates.

## BOROUGH OF DERBY.

## FACTORY AND WORKSHOP ACT, 1901.

## Home Work.

NOTICE IS HEREBY GIVEN that under Section 107 of the above-named Act the occupier of every Factory and Workshop in which the undermentioned classes of work are carried out, and every contractor employed by any such occupier, must keep lists in prescribed form and manner, showing the names and addresses of all persons directly employed by them either as workmen or as contractors outside such Factory or Workshop, and the places where they are employed. A copy of this list must be forwarded twice in each year to the Corporation, addressed to the Medical Officer of Health, Ford Street, Derby, viz., on or before the 1st day of February, and the 1st of August. The penalty for a contravention of this Section is an amount not exceeding 40s. for the first offence, and £5 for a second or subsequent offence.

The classes of work specified by special order of the Secretary of State, and referred to above are:—

The making, cleaning, washing, altering, ornamenting, finishing, and repairing of wearing apparel, and any work incidental thereto; the making, ornamenting, mending, and finishing of lace, and of lace curtains and nets; Cabinet and furniture making, and upholstery work; the making of electro plate; the making of files, and fur-pulling.

Dated this 16th day of January, 1902.

H. F. GADSBY,  
TOWN CLERK.

Town Clerk's Office,  
15, Tenant Street, Derby.

As a result of this advertisement, the number of outworkers reported to the Derby Sanitary Authority was 733; they are classified as follows:—

|  |     |     |     |
|--|-----|-----|-----|
| Persons engaged in the tailoring trade | ... | ... | 192 |
| Lacemending                            | ... | ... | 498 |
| Chevening                              | ... | ... | 22  |
| Hosiery                                | ... | ... | 12  |
| Dressmaking and Millinery              | ... | ... | 9   |

There were 26 outworkers reported engaged in lacemending who lived out of the town. The Authorities of the places in which they resided were notified. It has not been found possible with the staff available for inspectorial work to visit all the homes of these

outworkers, but 248 visits were made, viz., 125 to tailors, 75 to lace-menders, 7 to hosiery workers, 13 to the homes of milliners, and 28 to houses where the occupants were engaged in chevening. As a result of these visits, notices were served in two instances to limewash the rooms in which the work was carried out, in two instances for general cleansing of the house, and in one case a notice was served to cleanse the water closet.

The following communications have been forwarded to H. M. Inspector of Factories during the year 1902.

|  |        |    |
|--|--------|----|
| No abstract affixed and protected hands employed | ...    | 21 |
| Unregistered workshops                           | ... .. | 7  |
| Domestic workshops                               | ... .. | 2  |
| Miscellaneous communications                     | ... .. | 4  |

It will be observed from the above tabulation that the work which has been done in respect to these places has been both varied and considerable in amount, and although the district Inspectors have been able to devote a considerable amount of time during the year to this work, it will not regularly happen that so much time can be spared. The fact that epidemic diseases have been considerably less numerous than in the past, has enabled special work to be done. The work under the Factory and Workshop Acts is of a character calculated to distinctly benefit the working classes, and no break should be permitted in respect to it, and I strongly advocate the appointment of an additional Inspector who could devote the whole of his time to this special branch.

*Bakehouses.*—There are certain provisions of the Factory and Workshop Act which applies specially to bakehouses, viz., that no bakehouse must communicate directly with any closet or drain; every bakehouse must be limewashed once every six months or painted once in seven years, and scrubbed twice a year, and no bakehouse must have a sleeping place connected with it unless the latter is completely partitioned off, and has an external window measuring nine square feet which is made to open. 439 visits have been made to bakehouses to see that these conditions were observed.

Details in respect to action taken are particularised in Mr. Wilkinson's summary. It is satisfactory to report that, with one exception, there are no underground bakehouses in the Borough of Derby.

*Food Preparation.*—During the year 1902, a most serious outbreak, of poisoning by food was investigated, and a special report on the subject was presented. Having in view the cause of the outbreak, and the fact that the sale of prepared foods is distinctly on the increase, I considered it desirable to investigate the conditions under which the flesh of animals is generally prepared in this town.

Seeing that the flesh of the pig is most commonly used for this purpose the finished articles being sold as sausages, polonies, brawn, pies, chitterlings, etc., it follows that food preparation is chiefly confined to the pork butchers, although in a few instances, ordinary butchers supplement their trade by this work, whilst confectioners and eating-houses also prepare and sell various similar articles. The amount of trade varies considerably between the wholesale trader with continuous occupation for several men on premises specially erected for the purpose, and the individual who has a small shop in one of the side streets who probably "cooks" once or twice a week in a small back kitchen.

At the present time we have no information of the number or situation of these premises, inasmuch as they are subject to no sort of registration, and unless the work has been associated with some other trade or occupation which has necessitated the observance of statutory requirements and the regular visitation of an inspector to see that the same are carried out, such as the existence of a slaughter-house on the premises, or the fact that the work is conducted in or on the same premises as a bake-house, they have only been subjected to a casual supervision; some, in fact, never having been visited at all. Many of the larger places, in consequence of the introduction of power, either steam or electrical, to drive the chopping machines used for mincing foods, are factories, and as such come under the observation of the Factory Inspector as well as the officials of the Sanitary Authority with respect to certain sanitary requirements, viz., cleanliness, lighting and ventilation.

Some 30 places have been visited, but it is very probable that more exist, and the list will be added to as fresh instances come within the knowledge of the inspectors. In many places, more or less serious defects and insanitary conditions were observed which may be classified as follows:—

1.—The slaughtering of animals is, in some places, carried on

within the curtilage of the premises whereon food is prepared, and occasionally a considerable amount of food preparation is carried on *within* the slaughter-house, which objectionable condition is aggravated in three instances by the fasting pens being placed in a corner of the slaughter-house or only separated from it by a wooden partition which does not reach to the roof, and in one instance, although the pen is not within the four walls of the slaughter-house, there is direct communication between the two places. On all these premises above referred to, either pigs only are slaughtered or they constitute by far the larger proportion of animals which are slaughtered.

It has, I consider, been satisfactorily established that under certain conditions food contaminated by animal excreta can give rise to serious, and at times, fatal illness; that being so the position of the slaughter-house in relation to the mixing and chopping-house becomes of considerable importance. The main objections to these buildings being within the same curtilage are (*a*) the slaughter-house is usually placed at the farther end of the yard from the street and pigs have usually to be driven over this yard past the door of the mixing-house. This passage frequently becomes soiled with excrement, which, on drying, exposes the prepared food to the risk of faecal contamination by particles conveyed by the wind. (*b*.) The men engaged in the business have commonly to participate in all the work conducted on the premises, and after slaughtering, say, during the morning, they are next engaged in the mixing-house. I have seen men so engaged wearing the leather leggings and thick soled boots which they had used for slaughtering, the result being that the floor of the mixing-house was considerably polluted with objectionable material from the slaughter-house, and as the floor, in some places, is perhaps as frequently used as a table on which to place ladles and vessels containing the various mixtures, the risk of contamination from this source is obviously a real one. (*c*.) The portions of the intestines of pigs which are used for food are partly prepared in the slaughter-house and finished in the mixing-room, and even if the greatest care be taken, I am sure this proceeding is not without some risk. In addition, slaughtering results in an accumulation of offensive materials which, notwithstanding its frequent removal, should not be allowed to be even temporarily stored on premises where food undergoes preparation if it can possibly be avoided.

When work incidental to food preparation is carried on within

the slaughter-house proper, it ordinarily consists of cutting up fat for preparing lard, boiling the various constituents which are necessary to make jelly, the preparation of brawn, and such like processes; the greater part of these mixtures constitute suitable media for the growth of objectionable organisms on which account it is evident that fasting pens should not be permitted inside a slaughter-house and the bye-laws, if possible, should be so amended as to render such association an illegal act.

2.—The processes known as chopping, mixing, and filling are, in some instances, carried out in the cellar under the shop; a copper placed in some other part of the premises, being used for boiling purposes, in one case it is done in a cellar kitchen. By Sec. 101 of the Factory and Workshop Act, 1901, new cellar bake-houses are prohibited and existing ones after 1904 may not be used, unless certified by the district council as suitable for that purpose. I am of opinion that a similar restriction should extend to places where food is prepared for sale. The lighting of cellars is generally defective. Insufficient lighting frequently results in want of cleanliness, and in places where material is introduced which is liable to become putrescent it is most essential that all corners of the room, the various parts of the machinery used, walls, surfaces, etc., should be kept scrupulously clean. Ventilation is likewise deficient in such places; in one or two instances a most unpleasant odour was noticed which was attributed to the brine tubs. It is also necessary to use large quantities of water for cleansing purposes and to admit of its removal, either a drain opening or a "catchpit" must be provided. Drain openings in cellars are, in almost all cases, objectionable, and it is the practice in this Borough to suggest their removal, even in the cellars of dwelling-houses, unless some special reason exists why they should be retained. The traps which I found provided were in most cases iron lip-traps and were almost all defective; in one instance I found the trap was removed when the floor was washed and thus free communication with the sewer resulted. Catchpits are not satisfactory and are liable to be neglected, which results in a small cesspit containing highly putrescent materials being created. One catchpit I found had been made by taking up a few bricks from the floor of the cellar and a quantity of earth excavated; there was no impervious lining and fluid could percolate through the soil. Cellars are frequently used for curing bacon, pickling various articles, and for storing such

articles as jelly and brawn. Of course for such purposes there can be no objection to ordinary cellars being used, provided they are satisfactorily built, but in these cases the ventilation is not always satisfactory and many of them have been found to have defective traps.

3.—In smaller places it occasionally happens that the family washing is done in the mixing and boiling room, and then the same copper is used for some of the purposes incidental to the preparation of food. In one instance I found a pail containing soiled linen in contact with a number of clean bowls. The danger of possible contamination from specific organisms in the event of any member of the family being affected by disease is obvious.

4.—In two instances water closets opened directly into mixing and chopping-houses; in one of these there was evidence of negligence on the part of one or other of the employees, the closet was in proper working order and the necessary flushing had been neglected. Such neglect as this should be made punishable without having to give notice to remedy it, or rather such a state of affairs should be rendered impossible as no opening of a W.C. into a mixing-house should be permitted.

5.—In three instances tripe boiling was found to be taking place. Two of these were on a very small scale, and had only recently been commenced, the offenders were ignorant of the necessity to apply for permission to commence such a trade and have since ceased the work, the third one was on a large scale and had been engaged in the trade for a considerable number of years; the boiling and mixing-house is an excellent building, and now that certain alterations have been effected it has enabled the two trades to be conducted with much less risk of contamination of the prepared foods.

6.—In two instances the situation of the mixing-house was objectionable in respect to its relation in one instance with a manure heap and in the other with an ashpit.

7.—In almost all cases there was insufficient shelving accommodation. The floor was found to be used far too frequently for ladles or clean empty bowls, and sometimes those containing chopped meats were placed on the floor until it was convenient to deal with them.

8.—Sufficient and suitable provision for refuse of various descriptions was not always found, and very rarely was adequate provision made for personal ablution.

It will be seen from the above, that the condition of affairs admits of considerable room for reform in many instances, and although, to some extent, this can be, and *has been*, effected by moral suasion or the exercise of existing powers, there is need of additional restrictions in respect to the trade in prepared foods, and I suggest the following requirements as being highly desirable.

(*a.*)—The prohibition of slaughtering within the same curtilage as premises on which food is prepared. Such a restriction would, in several instances, require the provision of slaughter-houses in lieu of the prohibited places, and if adopted, the requirement would probably necessitate the erection of Municipal abattoirs.

(*b.*)—Persons engaged in slaughtering should be required to change the boots and clothing in which they carry on the slaughtering before engaging further in the work of preparing food.

(*c.*)—A proper supply of water and other conveniences should be available for personal ablution.

(*d.*)—Regulations (*a.*) to prevent the spread of infection by prohibiting the use of any place where food is prepared, for such purpose as that of washing linen, etc. (*b.*) Against the introduction of faecal matter into the place, as by partially cleansed intestines. (*c.*) The requirement of suitable shelving for holding all bowls, pails, and other utensils used in the trade, and (*d.*) requiring all surfaces of benches, walls, apparatus and utensils to be kept in a cleanly state, and to be constructed of materials which may be easily and thoroughly cleansed.

(*e.*)—The prohibition of the use of cellars for any process except for such as the curing of bacon, pickling sides, and similar work.

(*f.*)—No drain opening should be permitted in mixing or chopping-houses, all washings should be directed to an outside gully.

(*g.*)—No W.C. should have an opening into a preparation place.

(*h.*)—The provision of suitable receptacles for refuse and frequent removal should be made compulsory.

*Dairies, Cowsheds and Milkshops.*—There were on the register at the end of the year 338 purveyors of milk who resided and retailed milk within the Borough, and also 117 persons who sold milk in the Borough but who resided outside the boundaries. There were also 29 cow-keepers.

The importance of milk as an article of diet, particularly among children, justifies the amount of supervision to which the places in which it is sold are subjected. 1,186 visits were made for this purpose during the year, and great care is taken that all premises registered for the sale of milk are suited for the purpose, and in addition, attention is particularly directed to the adoption of means for preventing dust contamination, and for securing the cleanliness of the utensils.

With only 29 cow-keepers it is obvious that a very small proportion of the milk consumed is obtained within the Borough, and we are thus dependent to a considerable extent upon outside supervision for ordinary precautions being adopted in respect to cleanliness at the time of collection. That this is a matter of considerable importance is strongly emphasized by the recently published researches of Professor Delépine,\* whose conclusions and suggestions I append, and although there is very little doubt that contamination of milk takes place with most harmful results in the houses of the poor which frequently are not provided with conveniences for proper storage, the danger from careless collection and delivery is considerable. The conclusions are as follows:—

1.—*Epidemic diarrhœa of the common type occurring in this country* is apparently in the great majority of instances the result of infection of food by bacilli, belonging to the colon group of bacilli, which are present at times in fæcal matter.

2.—It appears that this infection of food does not generally lead to serious consequences, unless the infection is massive from the first, or the food is kept for a sufficient length of time, and under conditions of temperature favouring the multiplication of these bacilli.

3.—Milk, which is the most common cause of epidemic diarrhœa in infants, is frequently infected at the farm or (through vessels) in transit.

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\* The Journal of Hygiene, Vol. III., No. 1., pp. 90 and 91.

4.—Other foods than milk are also liable to infection before they reach the consumer.

As a result of these observations the following preventive measures which are particularly directed against epidemic diarrhoea are suggested :—

1.—Measures securing *cleanness* of cows, dairy-hands, cowsheds, milk vessels, etc. Similar measures are also needed with regard to persons or things coming in contact with any other article of food, manufactured or not.

This, I think, is generally admitted to be a most important element of good sanitation, but absolute cleanness is most difficult to obtain, if not practically impossible. Infection must therefore occur now and again.

2.—To guard against the worst effects of accidental fæcal infection the food should be *consumed fresh*, when possible.

3.—When the food cannot be consumed fresh, it should be *refrigerated*, *i.e.*, kept at a temperature below 4° C.

4.—Where the food cannot be eaten fresh or refrigerated whilst it is kept, it should be thoroughly *sterilised* by heat (*i.e.*, by thorough cooking).

**Water Supply.**—During the year the water supply to the Borough has been frequently submitted to analysis, and on no occasion has it been necessary to make complaint.

With reference to the added area of Alvaston—which district I reported last year as chiefly supplied from shallow wells—a main conveying corporation water was proceeded with during the year, and was ready for house connections at the beginning of October. From that time until the end of the year samples were taken from 49 wells, supplying 135 houses and, in consequence, numerous verbal notices were given to put on the town supply, and in 21 cases written notices to the same effect were forwarded. Fifty-five existing houses were supplied during the above period from the corporation main and, in addition, all new houses.

**Offensive Trades.**—The following are the principal offensive trades within the Borough :—

|                         |                             |
|-------------------------|-----------------------------|
| Bone Boiling... .. 1    | Soap Boiling ... .. 1       |
| Fellmongers ... .. 2    | Tallow Melting ... .. 2     |
| Gut Scraping... .. 1    | Tripe Boiling ... .. 5      |
| Leather Tanner ... .. 1 | Varnish Manufacture ... 1   |
| Skin Splitting ... .. 1 | White Leather Manufacture 1 |

These places have been regularly inspected, and only in one or two minor instances, such as for the purpose of limewashing, have notices been served.

*General Inspectorial Work.*—This work has been thoroughly and effectively carried out by the district and special inspectors, and a glance at the tables compiled by the Chief Inspector will show the amount and variety of work which has received attention during the year. I am of opinion that the particulars obtained and classified by Mr. Wilkinson, which have reference to the collection of trade refuse, deserve more than passing attention.

The number of common lodging houses now on the register is 15, and they are, on the whole, well kept. I must here take this opportunity of expressing my appreciation of the alertness of the keepers of these houses in respect to the importation of infectious diseases, particularly small-pox. In more than one instance they have directed my attention to persons suffering from this disease in the earliest stages, and this action has contributed in no small measure to the favourable results which have followed subsequent preventive measures. I understand that in the near future the two houses owned by the Corporation in Bold Lane will be demolished, and this, combined with the fact that two houses were included in the demolition in Walker Lane, will necessitate the Sanitary Committee reconsidering the question of the provision of a municipal house, unless the model house proposed to be built by a private individual is proceeded with.

The 35 houses which are registered as houses let in lodgings have received 1,355 visits. Unfortunately these houses are not all that could be desired; some are small places of four rooms, and are situated in somewhat congested surroundings. When two or more different families occupy a house of this size, although it may strictly conform to the requirements of the bye-laws, it is obvious that the conditions will hardly be such as tend to a healthy existence. I submitted a series of suggestive plans for double tenement houses with

the idea that if they were erected they could be regarded as the standard necessary for such habitations, but after consideration it was not considered desirable or convenient to proceed with the erection of such buildings.

The 78 slaughter-houses have received 6,160 visits, but even with this amount of supervision only a proportion of the carcasses which are slaughtered come directly under the Inspector's notice, and this inspection of meat is of even greater importance than simply seeing that no offensive accumulations or nuisances exist. The large amount of meat, fish, fruit, etc., which is examined by request is, in itself, evidence that at any rate the larger proportion of tradesmen engaged in this trade are desirous of acting fairly and squarely. The details in respect to the various articles of food given up voluntarily for destruction or condemned are set out on page 82.

Two years ago it was decided to try the experiment of the appointment of a woman Inspector, and I beg to state that the action has been fully justified, so much so, that I have no hesitation in recommending an extension of this work. In respect to the visitation of infants, inspection of workrooms where women are exclusively employed, and the visits which are made to houses where phthisical patients are being nursed, there is quite sufficient work to occupy the whole time of another woman Inspector.

The following is an outline of the work which has engaged Miss McCleverty's attention during the last 9 months of 1902, and of her predecessor during the first three months :—

“In accordance with your request I now make the following report of the visits made by me as Woman Sanitary Inspector in Derby, from March 19th, 1902, to December 31st, 1902, inclusive. The number of visits paid by my predecessor, Miss Smith, from January 1st, 1902, to March 7th, 1902, inclusive, was 980.

The following is a summary of the visits paid by me :—

| Months.     | Births. | Deaths. | School Notns. | Special. | Work-shops. | Out-workers. | Domestic workshops. | Total. |
|-------------|---------|---------|---------------|----------|-------------|--------------|---------------------|--------|
| March ...   | 99      | ...     | 36            | 1        | ...         | ...          | ...                 | 136    |
| April ...   | 399     | 45      | 64            | 10       | ...         | ...          | ...                 | 518    |
| May ...     | 372     | 23      | 38            | 3        | 58          | ...          | ...                 | 494    |
| June ...    | 272     | 16      | 74            | 15       | 66          | 23           | ...                 | 466    |
| July ...    | 236     | 13      | 59            | 9        | 3           | 15           | 1                   | 336    |
| August ...  | 421     | 25      | ...           | 15       | 7           | 64           | 5                   | 537    |
| September   | 308     | 39      | 31            | 28       | 21          | 78           | 12                  | 517    |
| October ... | 303     | 41      | 4             | 29       | 44          | 37           | 5                   | 463    |
| November    | 278     | 43      | 3             | 10       | 39          | 31           | ...                 | 404    |
| December    | 329     | 28      | 4             | 16       | 14          | ...          | 3                   | 394    |
| Totals ...  | 3017    | 273     | 313           | 136      | 252         | 248          | 26                  | 4,265  |

Of these 4,265 visits,

287 were 2nd visits necessitated on account of non-admittance the 1st journey.

48 were 3rd visits necessitated on account of non-admittance the 2nd journey.

12 were 4th visits necessitated on account of non-admittance the 3rd journey.

4 were 5th visits necessitated on account of non-admittance the 4th journey.

*Special Cases* include phthisis cases, visits on account of the delicate condition of children, and also in respect to any complaints received."

*Meteorological Records.*—I have to thank Mr. W. G. Carnt, Secretary-Superintendent of the Derbyshire Royal Infirmary, for the information from which the subjoined table has been compiled. The highest mean shade temperatures were recorded during the month of July. The greatest variation between the maximum and minimum temperatures was observed during the months of June and July. February was the coldest month, and most rain fell in August, though the greatest number of rainy days (26) were recorded in October. The heaviest rainfall in the twenty-four hours was .98 inch, on the 15th April. Almost the same amount fell on the 7th August.

TABLE XV.—Shewing the Means of the Meteorological Observations taken at the Derbyshire Royal Infirmary for the 12 months ended 31st December, 1902.

| 1902.       | THERMOMETERS. |           |                    |          | Rainfall in inches.     |       | Greatest fall in 24 hours. |                          | No. of Rainy days 1902. |
|-------------|---------------|-----------|--------------------|----------|-------------------------|-------|----------------------------|--------------------------|-------------------------|
|             | Dry Bulb.     | Wet Bulb. | Shade Temperature. |          | Infirmary Grounds 1902. | 1901. | Amount in inches.          | Date.                    |                         |
|             |               |           | Maximum.           | Minimum. |                         |       |                            |                          |                         |
| January ... | 39.9          | 39.0      | 45.8               | 36.1     | 1.04                    | 1.69  | .19                        | 1st                      | 12                      |
| February    | 33.7          | 33.1      | 39.4               | 29.8     | 1.66                    | 1.37  | .45                        | 24th                     | 15                      |
| March ...   | 43.8          | 42.4      | 51.1               | 37.9     | 1.61                    | 2.25  | .64                        | 14th                     | 15                      |
| April ...   | 47.2          | 44.7      | 53.6               | 37.9     | 2.36                    | 1.80  | .98                        | 15th                     | 12                      |
| May ...     | 50.4          | 47.8      | 55.9               | 41.6     | 2.86                    | 1.03  | .51                        | 22nd                     | 22                      |
| June ...    | 58.1          | 55.8      | 65.1               | 49.4     | 2.64                    | 1.97  | .65                        | 29th                     | 18                      |
| July ...    | 61.3          | 58.2      | 67.4               | 51.1     | 1.54                    | 3.49  | .36                        | 25th                     | 15                      |
| August ...  | 58.1          | 55.4      | 64.4               | 50.1     | 3.19                    | 2.00  | .90                        | 7th                      | 18                      |
| September   | 55.3          | 52.2      | 62.9               | 48.0     | 1.70                    | .98   | .58                        | 10th                     | 15                      |
| October ... | 49.2          | 47.4      | 54.4               | 44.4     | 2.75                    | 1.81  | .47                        | 13th                     | 26                      |
| November    | 43.5          | 41.7      | 48.9               | 39.6     | 1.79                    | 1.95  | .21                        | 6th, 24th,<br>28th, 29th | 15                      |
| December    | 40.6          | 39.0      | 44.8               | 36.7     | 1.73                    | 5.89  | .68                        | 1st                      | 15                      |

## SANITARY INSPECTOR'S REPORT, 1902.

## Ford Street Stables.

|   |       |
|---|-------|
| Number of Horses at last Report,                            | 87    |
| Bought during the year ... ..                               | 13    |
|   | — 100 |
| Disposed of ... ..  | 7     |
| Surveyor's Horses sent to Nottingham<br>Road Stables ... .. | 20    |
|   | — 27  |
| Horses remaining at Ford Street ...                         | 73    |
| Inspector's Department ... ..                               | 42    |
| Surveyor's „ ... ..   | 26    |
| Police and Fire ... ..                                      | 5     |

## Privy and Ash-Pit Cleansing.

|  |               |
|--|---------------|
| Night-work.—Privies cleansed ... ..    | 8,078         |
| „ Ash-pits cleansed ... ..             | 4,671         |
| „ Privy Cesspools cleansed ... ..      | 993           |
| Day-work.—Dry Ash-pits cleansed ... .. | 666           |
| Total ... ..                           | <u>14,408</u> |

## Refuse Collected.

|   |               |
|---|---------------|
| Night-work.—Loads (Excreta only) ... .. | 6,555         |
| „ „ Ashes and Excreta ... ..            | 4,363         |
| „ „ Ashes only ... ..                   | 3,803         |
| Day-work. „ Ashes ... ..                | 22,607        |
| Total ... ..                            | <u>37,328</u> |

## Refuse Disposal.

Dealt with as Night Soil Manure:—

From Ash-pits direct to Farmers, 2,970 cart loads.

From Chester Depôt, 412 boat loads, and by customers own carts 467 tons 8 cwts., 2 qrs.

Extracted from Refuse and sold, 20 tons of Scrap Iron.

A portion of the fine ash from day refuse has been screened and

incorporated with excreta as manure, and the remaining unusable material, amounting to 25,073 tons, 15 cwts, burned in the Destructor.

For some time it has been found more economical to screen the refuse in the open yard, than to use the fixed screen and elevator, consequently no use has been made of the steam engine, boiler, or the energy which is available from the destruction of so large a quantity of material.

It is to be regretted that no means have hitherto been adopted to utilize this heat, which is now wasted, seeing that the daily production of power is a necessity, and is being paid for, by other departments.

### House or Trade Refuse.

This question has been under consideration, as will be seen from the following Circular, but no decision arrived at. The matter is becoming acute, as trade refuse, removed at the cost of the rates, has been gradually on the increase for some years, and when once the line is relaxed in favour of Tradesmen, or any particular trade, it is beyond the power of man to draw any other line that can be considered equitable under the existing law. The large mill owner or foundry master is equally entitled to have all his trade refuse removed free, if this be granted to the small blacksmith, shopkeeper, or baker, and it is to be hoped that a clear and definite stand will shortly be made, and only the legal duty recognised.

(CIRCULAR.)

## Replies from 38 Towns of over 70,000 Population.

| Do you collect Refuse from the following as coming within the definition of House or Trade Refuse? | Collected free as House Refuse. | Collected as Trade Refuse and charged for. | Regarded as Trade Refuse not collected nor tip found. | No Reply. |
|--|---------------------------------|--|---|-----------|
|  | Towns.                          | Towns.                                     | Towns.  | Towns.    |
| Offices ... ..   | 34                              | 4  | ...   | ...       |
| Churches, Chapels, Schools, or Meeting Houses ... ..   | 33                              | 5  | ...   | ...       |
| Hotels or Boarding Houses ... ..   | 33                              | 5  | ...   | ...       |
| Restaurants or Eating Houses ... ..  | 31                              | 7  | ...   | ...       |
| Homes or Institutions supported by Charity   | 35                              | 1  | 1   | 1         |
| Workhouses ... ..  | 22                              | 2  | 14  | ...       |
| Asylums ... ..   | 17                              | 2  | 8   | 11        |
| Hospitals (private) ... ..   | 28                              | 3  | 3   | 4         |
| Infirmaries ... ..   | 33                              | 1  | 4   | ...       |
| Theatres ... ..  | 26                              | 12   | ...   | ...       |
| Music Halls ... ..   | 26                              | 11   | ...   | 1         |
| Public Halls (let for hire) ... ..   | 24                              | 11   | 2   | 1         |
| Slaughterhouses ... ..   | 6                               | 13   | 19  | ...       |
| Fish or Game Dealers (Including Fried Fish)  | 11                              | 15   | 12  | ...       |
| Greengrocers (wholesale or retail) ... ..  | 11                              | 17   | 10  | ...       |
| Tripedressing or other offensive trades ... ..   | 4                               | 16   | 18  | ...       |
| Grocers (wholesale or retail) ... ..   | 18                              | 14   | 6   | ...       |
| Bakehouses or Ovens... ..  | 14                              | 12   | 12  | ...       |
| Blacksmiths or Wheelwrights ... ..   | 3                               | 15   | 20  | ...       |
| Woodsawing, Turning, or Moulding... ..   | 2                               | 14   | 21  | 1         |
| Drapers, Dressmakers, Milliners ... ..   | 20                              | 13   | 4   | 1         |
| Tailors... ..  | 20                              | 12   | 5   | 1         |
| Warehousemen ... ..  | 14                              | 15   | 8   | 1         |
| Repairing or Cleaning Property ... ..  | 2                               | 16   | 19  | 1         |
| Gardens ... ..   | 5                               | 15   | 17  | 1         |
| Keeping of Animals ... ..  | 4                               | 15   | 19  | ...       |
| Printers, Stationers, Bookbinders ... ..   | 13                              | 18   | 6   | 1         |
| Bootmakers ... ..  | 12                              | 16   | 8   | 2         |

## Charges made for Trade Refuse.

Charge for Collection includes Disposal.

Charge for Destruction or Tip when carted by Producer.

ASTON MANOR. 1/6 per load, destruction 1/- per load or 1d. per cwt.

BIRKENHEAD. 2/6 per ton.

|                |   |
|----------------|---|
| BIRMINGHAM     | 4/6 per load, and from 10/- to £10 per annum, tip 2/- per load.                               |
| BRADFORD       | 2/6 per cart load and upwards, destruction about 6d. per load.                                |
| BRIGHTON       | 6/- per ton, and 4½d. per bag for paper refuse.   |
| BRISTOL        | 2/6 per load, destruction 1/- per cwt., or 3/- to 5/- per ton.                                |
| BURNLEY        | 6d. per tub or 1/6 per cart load.   |
| CROYDON        | 2/6 per load.   |
| GATESHEAD      | 6d per load for destruction.  |
| HALIFAX        | 3/- per load and 30/- to £5 per annum.  |
| LEEDS          | 2/6 and 5/- per load, destruction 2d. per cwt.  |
| LEICESTER      | 2/6 per load, 1/3 per half load, destruction 2/- per ton.                                     |
| LIVERPOOL      | Destruction 6d. per 7 cwt.  |
| MANCHESTER     | 6/6 per load, 3d. per box, destruction 2d. per cwt., tip 4d. per load.                        |
| NEWCASTLE      | 30/- to 50/- per annum, destruction 1/- per cart, 2/- per wagon.                              |
| OLDHAM         | 3/- per load, 3d. to 1/- per week, destruction 1/8 per ton.                                   |
| PORTSMOUTH     | 2/6 per load for packing material.  |
| READING        | £5 per annum from slaughter houses and fish dealers.  |
| ROCHDALE       | 2¼d. per 10 gallons from Offensive trades, 2/- to 2/6 per load from printers and bookbinders. |
| SHEFFIELD      | 4/- per cart, 6/- per wagon, destruction 1d. and 2d. per cwt., tip 8d. per load.              |
| NORTHAMPTON    | 1/6 per load, 2/- to 3/- per month from fish dealers.   |
| WALSALL        | 4/- per load.   |
| WOLVERHAMPTON. | 1/6 per load.   |
| YORK.          | 1/- per load.   |

### Special Remarks.

- Aston Manor.* "As a rule we charge for any refuse which is collected that is the result of trading."
- Bradford.* "We only collect ordinary house refuse and refuse from charitable institutions free of charge." Markets Committee pay lump sum for destruction of market refuse. A legal stamped agreement is signed by producers of trade refuse that they will pay before the Corporation remove it.
- Brighton.* "Owing to the increasing bulk of refuse collected, it was felt that a distinction should be made between ordinary house refuse and trade refuse, with the idea that by charging for the latter its quantity would diminish. It has been found in practice that such a conclusion was right."
- Croydon.* "Previous to 1897 we collected everything free, but the garden and trade refuse interfered too much with the regular work." All garden, builder's, and trade refuse charged for if collected. A circular is issued.
- Gateshead.* "You have as much right to remove factory ashes as trade refuse."
- Leicester.* Supply ashpit gangs with printed order books for producers of trade refuse to sign before their refuse will be removed. All trade refuse charged for.
- Liverpool.* Combustible trade refuse received at destructors and charged for.
- Newcastle.* "If we removed all we are asked and without pay we would need to keep a larger staff of men and horses."
- Preston.* Defines "trade refuse" to be from places where there is no living on the premises.
- Rochdale.* Markets Committee pays Health Department to remove and dispose of market refuse.
- St. Helen's.* Retail shop refuse put in street each morning before Eight o'clock and collected free.
- Sheffield.* "Refuse created by a trade or business should be considered as belonging to the business and paid for accordingly."
- Stockport.* Issues a circular refusing to collect all trade refuse,

- Sunderland.* Removes light trade refuse in sacks, but the tradesmen have to find their own sacks.
- Walsall.* Issues special notice. If trade refuse mixed with house refuse all charged for, and none removed until order signed for removal and payment.
- Wolverhampton.* Collects no trade refuse of any kind, but receives it for destruction free, and accurately states the whole matter thus :—"The removal of trade refuse is undoubtedly part of the working expenses of any trade or business, therefore Corporations have no right whatever to remove such without receiving payment for the work done.
- York.* Requires an order to be signed, agreeing to pay, before they undertake removal of trade or garden refuse.

### Observations.

*Section 42. Public Health Act, 1875, enacts :—*

"Every local authority may, and when required by Order of the Local Government Board shall, themselves undertake or Contract for—The removal of **house refuse** from premises: The cleansing of earthclosets, privies, ashpits, and cesspools."

I presume it is under this Section that Sanitary Authorities remove Trade refuse, but it is quite clear, however, that the Section gives no such power, and that every load of Trade or business refuse so removed at the cost of the rates, means helping tradesmen to carry on their business at the expense of the general inhabitants of the district.

Under these circumstances it becomes equally clear, that if for any reason the Sanitary Authority does remove Trade refuse, then the full actual cost of collection and disposal should be paid to the Authority by the producers.

(Signed) W. WILKINSON,

DERBY, 15th October, 1902.

*Chief Sanitary Inspector.*

### Workshop Inspections, 1902.

Quite a number of workshops have been inspected, and full particulars of 263 entered upon the Register, and defects remedied, as per particulars supplied to the Medical Officer of Health.

Work under the Factory and Workshop Acts is dealt with by the District Inspectors as part of their ordinary duty.

### Bakehouses.

|   |     |     |
|---|-----|-----|
| Places in use at commencement of year ... | ... | 105 |
| Old houses re-opened ...                  | ... | 4   |
| New houses opened ...                     | ... | 3   |
|   |     | 112 |
| Houses demolished ...                     | 2   | } 9 |
| Houses closed ...                         | 7   |     |
|   |     | 9   |
| Bakehouses in use at 31st Dec., 1902 ...  | ... | 103 |
| Bakehouses not in use ...                 | ... | 42  |
|   |     | 145 |
| Total ...                                 | ... | 145 |

During the year one owner has put in new patent ovens.

The Sanitary condition of the houses has been improved by the usual cleansing, repairing, and renewing ceilings, and providing for storage of coal and other things outside the places. 42 notices having been served, of which 41 have received attention, particulars being included in general table of nuisances abated.

Visits of inspection 439.

### Canal Boats.

Annual Report for the year 1902, in accordance with Section 3, Canal Boats Act, 1884.

1. Inspector and salary, Chief Inspector and Assistant. No salary allocated.

Address: Sanitary Inspector's Office, Ford Street, Derby.

2. Boats Inspected, 68. Visits to Canal, 112.

3. Infringements of Acts and Regulations, 6.

|                                    |   |                                       |   |
|------------------------------------|---|---------------------------------------|---|
| <i>a.</i> —Registration ...        | 0 | <i>i.</i> —Painting ...               | 0 |
| <i>b.</i> —Change of Master ...    | 0 | <i>j.</i> —Insufficiency of Water     |   |
| <i>c.</i> —Certificates ...        | 1 | Vessel ...                            | 1 |
| <i>d.</i> —Absence of marking ...  | 0 | <i>k.</i> —Removal of Bilge Water     | 0 |
| <i>e.</i> —Overcrowding ...        | 2 | <i>l.</i> —Notification of Infectious |   |
| <i>f.</i> —Separation of Sexes ... | 1 | Disease ...                           | 0 |
| <i>g.</i> —Cleanliness ...         | 0 | <i>m.</i> —Admittance of Inspector    | 0 |
| <i>h.</i> —Ventilation ...         | 0 | <i>n.</i> —Boats found in bad repair  | 1 |

4. Legal proceedings taken and penalties, 2 (Overcrowding, 5/- and costs. Non-separation of Sexes, 5/- and costs).
5. Other steps taken. 5 caution forms and numerous letters sent to owners of boats, and verbal cautions to masters.
6. Cases of infectious disease dealt with, none.
7. Detention of boats for cleansing and disinfection, none.
8. Number of boats on register, 47.
9. Number registered 1902, none.

### **Common Lodging Houses.**

The year was commenced with 15 houses on the Register.

One house has been demolished which provided for 18 persons, and another closed which had provision for 10, the keeper of the latter securing the Registration of a fresh house with room for 11 adults, thus making a net reduction of accommodation for 17 persons.

The system of annual re-registration is now in full work, and enables your Officers to keep a better grip and supervision over both houses and keepers.

Visits of inspection for the year, 1,355.

The usual crop of complaints as to rooms unswept, windows not opened, dirty floors, filth not removed, etc., have been dealt with, and summarised in the general table.

### **Contagious Diseases Animals Acts.**

For the first time in my experience as your Officer under these Acts, there is no case of disease to report within the Borough for the past year.

Several orders of the Board of Agriculture relating to Swine were applied to the town and Markets, which entailed much attention and close supervision, but a vigorous execution of these ended in their withdrawal when their purpose had been accomplished.

One order still remains in force, requiring the periodical cleansing and disinfection of Pig Dealers' premises, carts and appliances, and constant inspection is needed to see that the requisite attention is given to these requirements.

## Registered Slaughter Houses.

|   |           |
|---|-----------|
| Licenses granted for new premises—private ... ..        | 1         |
| "          "          "          corporation ... ..     | 1         |
| "          re-issued          "          private ... .. | 1         |
| At the end of the year:—                                |           |
| In the hands of private holders ... ..                  | 53        |
| Corporation Houses let to private tenants ... ..        | 18        |
| "          "          used as public ... ..             | 3         |
| Standing empty—private ... ..                           | 2         |
| "          "          corporation ... ..                | 2         |
|   | <u>78</u> |

Visits of inspection for the year, 6,160.

## Dairies, Cowsheds, and Milkshops.

Dairymen or Purveyors resident within the Borough:—

|                               |            |
|-------------------------------|------------|
| At 31st December, 1901 ... .. | 341        |
| Registered, 1902 ... ..       | 57         |
|                               | <u>398</u> |
| Cancelled ... ..              | 60         |
|                               | <u>338</u> |
| On Register ... ..            | <u>338</u> |

Purveyors resident outside the Borough:—

|                               |            |
|-------------------------------|------------|
| At 31st December, 1901 ... .. | 116        |
| Registered, 1902 ... ..       | 2          |
|                               | <u>118</u> |
| Cancelled ... ..              | 1          |
|                               | <u>117</u> |
| On Register ... ..            | <u>117</u> |

Cowkeepers:—

|                               |           |
|-------------------------------|-----------|
| At 31st December, 1901 ... .. | 33        |
| Registered, 1902 ... ..       | 3         |
|                               | <u>36</u> |
| Cancelled ... ..              | 7         |
|                               | <u>29</u> |
| On Register ... ..            | <u>29</u> |

For notices given and requirements complied with see summary in general table, "Nuisances dealt with."

Visits of inspection, 1,186.

## Houses Let in Lodgings.

|  |           |
|--|-----------|
| On the Register at 31st December, 1901 | 35        |
| New registrations effected ... ..      | 5         |
|  | <hr/>     |
|  | 40        |
| Cancellations ... ..                   | 5         |
|  | <hr/>     |
| Number on Register at 31st Dec., 1902  | <u>35</u> |

Visits of Inspection, 1,355.

For notices served to secure compliance with the regulations see summary in table of "Nuisances dealt with."

## Unsound Food.

## CONDEMNED AND DESTROYED,

|                              |                             |
|------------------------------|-----------------------------|
| 224 lbs. Bananas.            | 957 lbs. Liver, Lungs, etc. |
| 742 lbs. Beef.               | 360 lbs. Mackerel.          |
| 3 Calves, weighing together  | 1,428 lbs. Mussels.         |
| 135 lbs.                     | 34½ lbs. Mutton.            |
| 800 lbs. Cat Fish.           | 290 lbs. Plaice.            |
| 124 Cauliflowers.            | 140 lbs. Pears.             |
| 2,254 lbs. Cod Fish.         | 403 lbs. Plums.             |
| 64 lbs. Cole Fish.           | 84 lbs. Pork.               |
| 1 Carcase of a Cow, 560 lbs. | 40 lbs. Pork Pie.           |
| 1,290 lbs. Cucumbers.        | 39 Rabbits.                 |
| 144 lbs. Grapes.             | 757 lbs. Tomatoes.          |
| 112 lbs. Haddocks.           | 85 lbs. Tripe.              |
| 63 lbs. Halibut.             | 13 Turkeys.                 |
| 6 Hares.                     | 184 lbs. Watercress.        |
| 448 lbs. Herrings.           | 294 lbs. Whiting.           |
| 238 lbs. Hogs' Kidneys       | 112 lbs. Yeast.             |
| (foreign).                   |                             |

## Police Court Proceedings.

| No.<br>of<br>Cases | Offence.  | Results.                                 | Total Costs. |    |    |
|--------------------|---|--|--------------|----|----|
|                    |   |  | £            | s. | d. |
| 1                  | Selling Margarine as Butter   | Fined £5 and Costs,<br>or 1 month ...    | 6            | 7  | 6  |
| 1                  | Selling Margarine from un-<br>marked package, and<br>delivering in unmarked<br>paper ... .. | Fined £5 and Costs<br>or 1 month ...     | 5            | 17 | 0  |
| 1                  | Selling Adulterated Rum ...   | Fined 5/- and Costs...                   | 1            | 3  | 0  |
| 1                  | " " "   | Fined 5/- and Costs...                   | 1            | 3  | 0  |
| 1                  | Blowing Veal ... ..   | Dismissed ... ..                         |              |    |    |
| 2                  | Overcrowding Canal Boat   | Fined 5/- and Costs<br>each ... ..       | 1            | 7  | 0  |
| 1                  | Non-separation of Sexes in<br>Canal Boat Cabin ...  | Fined 5/- and Costs...                   | 0            | 13 | 6  |
| 1                  | Not cleaning floor in house<br>let in lodgings ... ..                                       | Fined 5/- and Costs...                   | 0            | 13 | 6  |
| 1                  | Exposing 114 unsound fish<br>for sale ... ..  | Fined 2/- per Fish and<br>Costs ... ..   | 11           | 16 | 6  |
| 1                  | Selling Adulterated Butter  | Fined 20/- and Costs                     | 1            | 18 | 0  |
| 1                  | Selling Adulterated Brandy  | Fined 5/- and Costs...                   | 1            | 3  | 0  |
| 1                  | " " "   | Fined 10/- and Costs                     | 1            | 8  | 0  |
| 1                  | " " Gin   | Fined 5/- and Costs...                   | 1            | 3  | 0  |
| 1                  | In possession of unsound<br>meat ... ..   | Fined 20/- per piece<br>and costs ... .. | 8            | 9  | 6  |
| 1                  | Dirty Slaughter-house ...   | Fined 10/- and Costs                     | 0            | 17 | 6  |
| 1                  | Not providing Offal recep-<br>tacles ... ..   | Fined 20/- and Costs                     | 1            | 7  | 6  |



## DEALT WITH.

## RESULTS OF NOTICES.

|   |     |     |     |     |             |
|---|-----|-----|-----|-----|-------------|
| Foul Privies Cleansed and Repaired                          | ... | ... | ... | ... | 139         |
| „ Drains  | „   | „   | „   | ... | 794         |
| „ Soft Water Cisterns Cleansed and Pumps Repaired           | ... | ... | ... | ... | 74          |
| Dirty Houses  | „   | ... | ... | ... | 54          |
| „ Bakehouses  | „   | ... | ... | ... | 34          |
| „ Slaughter Houses  | „   | ... | ... | ... | 3           |
| „ Cellars   | „   | ... | ... | ... | 27          |
| Sink Drains Disconnected                                    | ... | ... | ... | ... | 4           |
| New Drains laid in and Brick Drains replaced                | ... | ... | ... | ... | 506         |
| Drain inlets trapped  | ... | ... | ... | ... | 1215        |
| Town Water laid on  | ... | ... | ... | ... | 20          |
| Town Water laid on to W.C.'s                                | ... | ... | ... | ... | 6           |
| Offal Boiling Discontinued                                  | ... | ... | ... | ... | 1           |
| Extra W.C. accommodation provided                           | ... | ... | ... | ... | 5           |
| Privies converted to W.C.'s                                 | ... | ... | ... | ... | 353         |
| Accumulations of Manure, etc., removed                      | ... | ... | ... | ... | 51          |
| Animals, Fowls, etc.  | „   | ... | ... | ... | 16          |
| Ash-pits Removed  | ... | ... | ... | ... | 36          |
| Manure Pits and Cesspools removed and abolished             | ... | ... | ... | ... | 22          |
| Stale Swill removed   | ... | ... | ... | ... | 1           |
| Drains removed  | ... | ... | ... | ... | 37          |
| Urinals removed   | ... | ... | ... | ... | 1           |
| W.C.'s, Soil Pipes, and Drains ventilated                   | ... | ... | ... | ... | 196         |
| Rooms of Houses ventilated                                  | ... | ... | ... | ... | 9           |
| Urinals Erected   | ... | ... | ... | ... | 1           |
| Damp Houses repaired and Damp Courses laid in               | ... | ... | ... | ... | 41          |
| Defective Spouting repaired                                 | ... | ... | ... | ... | 301         |
| „ Roofs   | „   | ... | ... | ... | 136         |
| „ House Floors, &c. repaired                                | ... | ... | ... | ... | 94          |
| „ Paving of Yards and Passages repaired                     | ... | ... | ... | ... | 353         |
| „ W.C.'s and Urinal Fittings repaired                       | ... | ... | ... | ... | 210         |
| „ Ashes and Manure Pits repaired                            | ... | ... | ... | ... | 3           |
| Dangerous Walls and Buildings                               | „   | ..  | ... | ... | 28          |
| „ Cellar Coverings  | „   | ... | ... | ... | 1           |
| Disused Wells Filled in                                     | ... | ... | ... | ... | 20          |
| Smoke Nuisances abated                                      | ... | ... | ... | ... | 16          |
| Defective Drains relaid                                     | ... | ... | ... | ... | 684         |
| Overcrowding prevented                                      | ... | ... | ... | ... | 6           |
| Ash-boxes provided  | ... | ... | ... | ... | 237         |
| Water Supplies increased                                    | ... | ... | ... | ... | 16          |
| Lodging House Bye Laws complied with                        | ... | ... | ... | ... | 187         |
| Dairies, Cowsheds, and Milk Shops Regulations complied with | ... | ... | ... | ... | 130         |
| Total   | ... | ... | ... | ... | <u>6068</u> |

### Food and Drugs Acts.

Samples submitted to the Borough Analyst.

| Samples. | Article.       | Genuine. | Adulterated. |
|----------|----------------|----------|--------------|
| 12       | Brandy ... ..  | 9        | 3            |
| 29       | Butter ... ..  | 28       | 1            |
| 12       | Gin ... ..     | 9        | 3            |
| 30       | Milk ... ..    | 30       | ...          |
| 13       | Rum ... ..     | 11       | 2            |
| 14       | Whiskey ... .. | 12       | 2            |
| 110      |                | 99       | 11           |

Thus 10 % of the samples were found to be adulterated, and 90.9 % of the adulteration was found in spirits, which represent less than half of the number analyzed.

W. WILKINSON,  
CHIEF INSPECTOR.



Constructed under Mr. Mansergh's Scheme.

|                        |     |                   |     |           |
|------------------------|-----|-------------------|-----|-----------|
| Bracken's Lane to Nor- |     | Elvaston Lane     | ... | 18"       |
| manton                 | ... | Stenson Lane      | ... | 12" & 15" |
| Cow Close Estate       | ... | St. Thomas's Road | ... | 12"       |
| Derby Lane             | ... | Village Street    | ... | 12"       |

MANHOLES AND SEWERS CLEANED OUT  
DURING 1902.

|                           | Loads. |                   | Loads. |
|---------------------------|--------|-------------------|--------|
| Abbey Street              | ...    | Normanton Road    | ...    |
| Alvaston District         | ...    | Nottingham Road   | ...    |
| Barlow Street             | ...    | Normanton Road    | ...    |
| Brook Street              | ...    | Nottingham Road   | ...    |
| Brook Street & Willow Row | 3      | Nuns Street       | ...    |
| Burton Road               | ...    | Old Normanton     | ...    |
| Drewry Lane               | ...    | Over Boro'.       | ...    |
| Forester Street           | ...    | Pear Tree Road    | ...    |
| John Street               | ...    | River Street      | ...    |
| London Road               | ...    | St. Thomas's Road | ...    |
| Liversage Street          | ...    | Uttoxeter Road    | ...    |
| London Road               | ...    |                   |        |
| Markeaton Street          | ...    | Total             | ...    |
|                           |        |                   | 154    |

WATER USED DURING 1902.

|                                       | Gallons.   |
|---------------------------------------|------------|
| Sewer Flushing                        | 6,249,950  |
| Court Flushing                        | 540,000    |
| Steam Rollers                         | 1,365,410  |
| Street Watering                       | 8,646,800  |
| Cab Stands, Bridges, Wood-paving, &c. | 235,970    |
| Total                                 | 17,038,130 |

Disinfectant Powder used during 1902 ... 2 Tons.  
Disinfectant Fluid used during 1902 ... 720 Gallons.

JOHN WARD,

BOROUGH SURVEYOR.

TABLE I.

COUNTY BOROUGH OF DERBY.

Vital Statistics for Whole District during 1902 and previous years.

| YEAR.                         | Population estimated to Middle of each Year. | Births. |        | TOTAL DEATHS REGISTERED IN THE DISTRICT. |                                   |              |        | Total Deaths in Public Institutions. | Deaths of Non-residents registered in Public Institutions in District. | Deaths of Residents registered in Public Institutions beyond Dist. | Nett Deaths at all ages belonging to the Dist. |        |
|-------------------------------|--|---------|--------|--|-----------------------------------|--------------|--------|--------------------------------------|--|--|--|--------|
|                               |  | 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     |
| 1892.                         | 95,528                                       | 3,038   | 31.8   | 521                                      | 171                               | 1,765        | 18.5   | 216                                  | 31   | ...  | 1,734  | 18.2   |
| 1893.                         | 96,048                                       | 3,123   | 32.4   | 485                                      | 155                               | 1,772        | 18.4   | 237                                  | 32   | ...  | 1,740  | 18.1   |
| 1894.                         | 97,781                                       | 2,890   | 29.6   | 351                                      | 121                               | 1,490        | 15.3   | 189                                  | 22   | ...  | 1,468  | 15.1   |
| 1895.                         | 98,927                                       | 2,900   | 29.4   | 459                                      | 158                               | 1,698        | 17.2   | 216                                  | 29   | ..   | 1,669  | 16.9   |
| 1896.                         | 100,087                                      | 2,834   | 28.4   | 426                                      | 150                               | 1,620        | 16.2   | 234                                  | 43   | ...  | 1,577  | 15.8   |
| 1897.                         | 101,262                                      | 2,803   | 27.7   | 470                                      | 168                               | 1,720        | 17.0   | 286                                  | 64   | ...  | 1,656  | 16.4   |
| 1898.                         | 102,448                                      | 2,860   | 28.0   | 484                                      | 169                               | 1,830        | 17.9   | 197                                  | 74   | ...  | 1,756  | 17.2   |
| 1899.                         | 103,649                                      | 2,984   | 28.8   | 488                                      | 163                               | 1,856        | 18.0   | 310                                  | 81   | ...  | 1,775  | 17.2   |
| 1900.                         | 104,684                                      | 2,900   | 27.7   | 504                                      | 173                               | 1,932        | 18.5   | 342                                  | 78   | ..   | 1,854  | 17.7   |
| 1901.                         | 106,076                                      | 2,939   | 27.8   | 455                                      | 155                               | 1,673        | 15.8   | 304                                  | 75   | ...  | 1,598  | 15.1   |
| Averages for years 1892-1901. | 100,709                                      | 2,927   | 29.1   | 464                                      | 159                               | 1,735        | 17.2   | 253                                  | 52   | ...  | 1,682  | 16.8   |
| †1902.                        | 116,869                                      | 3,326   | 28.5   | 417                                      | 126                               | 1,698        | 14.6   | 290                                  | 59   | ...  | 1,639  | 14.1   |

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

† No allowance has been made in these calculations for a 53 weeks' year.

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

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

Area of District in acres (exclusive of area covered by water) 5,272 acres.

|                                     |     |     |     |     |     |         |                      |
|-------------------------------------|-----|-----|-----|-----|-----|---------|----------------------|
| Total Population at all Ages        | ... | ... | ... | ... | ... | 114,848 | } At Census of 1901. |
| Number of inhabited houses          | ... | ... | ... | ... | ... | 24,851  |                      |
| Average number of persons per house | ... | ... | ... | ... | ... | 4.7     |                      |















