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County Borough of Dalifay.



HEALTH DEPARTMENT.

Report

OF THE

MEDICAL OFFICER OF HEALTH,

Together with the Reports of the

SANITARY INSPECTOR

AND

THE BOROUGH ANALYST,

FOR

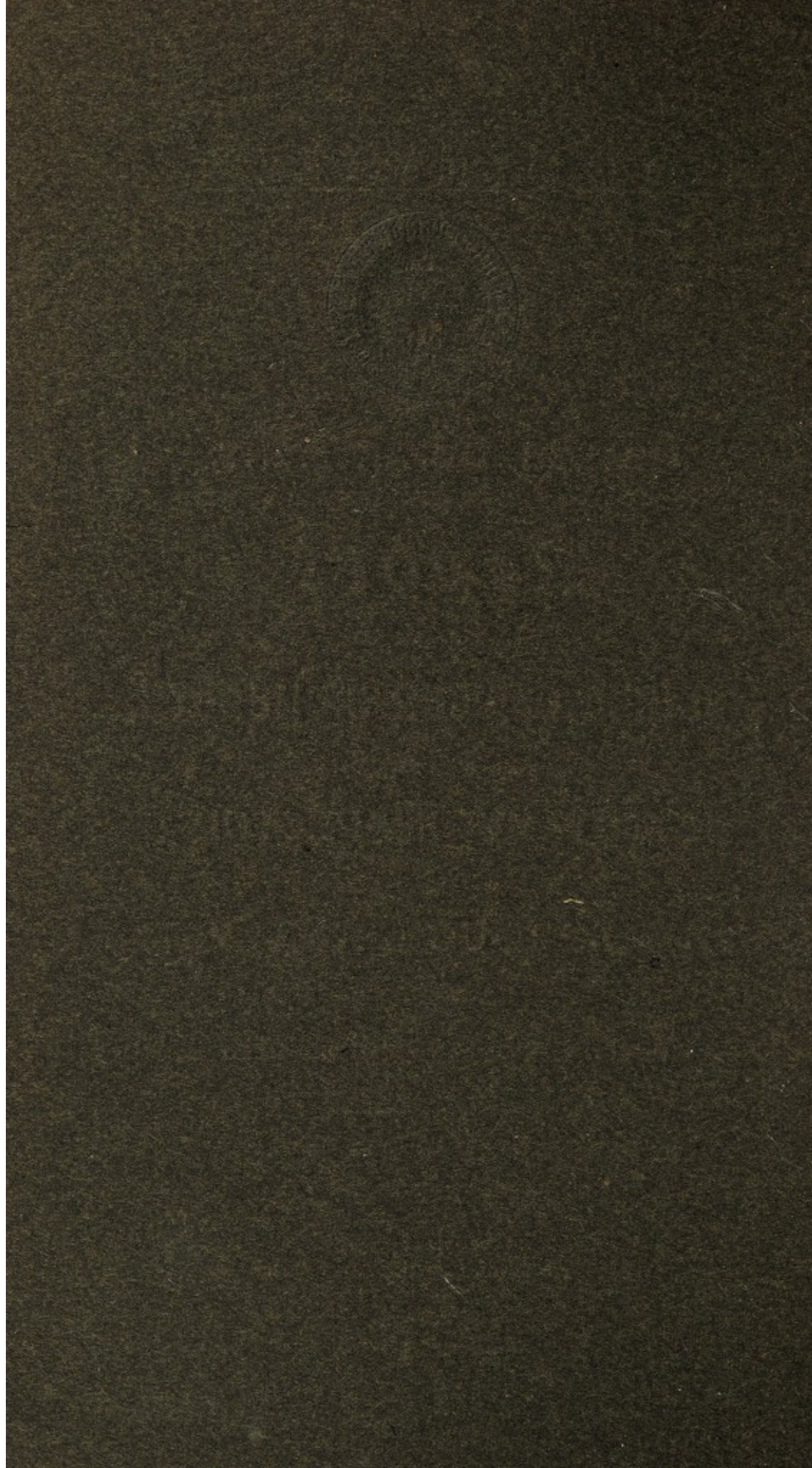
The Year ended December 31st, 1901.

Printed by order of the Health Committee.

Dalifay:

WHITLEY & BOOTH, PRINTERS, CROWN STREET.

1902.



County Borough of Halifax.



HEALTH DEPARTMENT.

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FOR

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1902.



Health Committee.

Mayor.

ALDERMAN W. BREAR.

ALDERMAN J. F. COE, J.P., *Chairman.*

COUNCILLOR T. S. DODD, *Vice-Chairman.*

| | |
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| Councillor A. BINNS, | " G. H. WADSWORTH, |
| " J. COLLINSON, | " H. CLAY, |
| " R. MAUDE, | " G. C. ALDERMAN, |
| " I. B. HAINSWORTH, | " J. BROTHERTON, |
| " J. NAYLOR, | " J. T. DALTON. |
| " J. MARSHALL, | |

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APPOINTED BY THE HEALTH COMMITTEE.

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| VICE-CHAIRMAN, | " J. COLLINSON, |
| COUNCILLOR J. NAYLOR, | " J. MARSHALL. |
| " G. H. WADSWORTH, | |

Goux Sub-Committee.

| | |
|------------------------------|-----------------------|
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| VICE-CHAIRMAN, | " G. H. WADSWORTH, |
| COUNCILLOR I. B. HAINSWORTH, | " H. CLAY. |
| " R. MAUDE, | |

Scavenging Sub-Committee.

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| ALDERMAN J. W. CROSSLAND, J.P., | " H. CLAY. |
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Nuisance Sub-Committee.

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| COUNCILLOR J. NAYLOR, | |

Horse and Corn Sub-Committee.

| | |
|----------------|--------------------|
| THE CHAIRMAN, | COUNCILLOR NAYLOR. |
| VICE-CHAIRMAN, | |



Staff of the Health Department.

Medical Officer of Health and Superintendent of the Borough
Fever Hospital.

JAS. T. NEECH, M.D., D.P.H., &c.

Public Analyst.

W. ACKROYD, F.I.C., F.C.S.

Chief Sanitary Inspector.

DAVID TRAVIS.

Meat Inspector.

J. K. CRAWSHAW.

Assistant Sanitary Inspectors.

JAMES ARCHBELL,

J. W. ASQUITH,

J. WOOD,

J. E. FIRTH.

Foreman Scavenger.

NATHAN GARSIDE.

Chief Clerk.

J. W. JACKSON.

Assistant Clerks.

CHARLES CARLTON.

ERNEST JUBB.

Matron of the Borough Hospital.

MISS ROBISON.

Disinfector.

T. W. BOOTH.

Laundry Engineer.

W. GUEST.

Porter.

H. VICKERMAN.

Gaux Department.

Manager of Yard.

RD. TRAVIS.

Gaux Inspectors.

J. HEATH.

S. MAUDSLEY.

Clerk.

HARRY ASKE.



County Borough of Halifax.

REPORT OF THE MEDICAL OFFICER OF HEALTH,

JAS. T. NEECH, M.D., D.P.H.

INTRODUCTION.

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

MR. CHAIRMAN AND GENTLEMEN,

I now have the honour of presenting you with the twenty-ninth Annual Report on the health and sanitary condition of the Borough, it being the Annual Report of the Medical Officer of Health for the year 1901.

There is very little in the following Report which requires special notice, or any further comment than will be found in the text thereof, but I desire to direct your attention to the fact that our corrected general death rate for the year under notice, is the lowest on record, and that our position among the 33 great towns has improved. For the previous year, in point of death-rate, we occupied the 19th place, while for this year, we are the 28th from the top.

With regard to our zymotic death-rate, in conjunction with Huddersfield, we occupy the lowest place among the great towns, and our infant mortality is below that of all those towns.

I referred in my last Annual Report to the necessity that existed for the provision of a suitable small-pox hospital. In view of the prevalence of small-pox in the Country, your Committee have considerably increased the temporary accommodation, which we possessed, consequently, I think we are at present placed in a fairly safe position should the disease make its appearance in the Borough.

As I stated last year, we are very much in need of a Destructor, to deal with the refuse which is at present being tipped, and I trust that your Committee will take the matter up without undue delay.

In conclusion, I desire to thank the Chief Sanitary Inspector, Mr. Travis, for his valuable assistance to me during the year, and to acknowledge the hearty co-operation of all the Assistant Sanitary Inspectors in carrying out the ever increasing volume of work in this Department. Mr. Jackson, Chief Clerk, has rendered me valuable help throughout the year, as well as Mr. Carlton, Assistant Clerk, the latter more especially in the preparation of this Report. To both of them I tender my thanks. I have also to thank the Committee for its continued and generous support.

I am, Gentlemen,
Your obedient Servant,

Jas. J. Keck M. D., D.P.H.

TOWN HALL,

MEDICAL OFFICER OF HEALTH.

HALIFAX,

JUNE, 1902.

STATISTICAL SUMMARY.

| | 1901. | 1900. |
|--|------------|------------|
| | ACRES. | ACRES. |
| Area of County Borough ... | 13,634 | 8725 |
| Rateable Value ... | £477,446 | £474,925 |
| Population, estimated to middle of 1901 ... | 105,120 | 101,187 |
| Population, 1901 Census ... | 104,936 | 89,832 |
| Persons per Acre ... | 7.7 | 11.5 |
| Average number of Persons per Inhabited House, 1901 Census ... | 4.2 | 4.6 |
| Average number of Persons per House, 1901 Census ... | 4.0 | ... |
| Birth Rate, 1901 ... | 22.3 | 22.8 |
| „ Average for previous 10 years ... | 23.7 | 24.2 |
| Death Rate, 1901 ... | 16.4 | 18.1 |
| „ „ Corrected... | 16.2 | 17.8 |
| „ Average for previous 10 years ... | 18.2 | 18.6 |
| Death Rate for seven principal Zymotic Diseases ... | 1.36 | 1.2 |
| Death Rate, the mean for previous 10 years of Zymotic Diseases ... | 1.3 | 1.4 |
| Death Rate of Infants under 1 year per 1000 Births ... | 128.8 | 135. |
| Illegitimate Births... | 101 | 75 |
| Average Age at Death, 1901—Males ... | 36.2 years | 38.3 years |
| Average Age at Death, 1901—Females ... | 40.1 years | 41.2 years |
| Latitude of Station—North... | 53° 43' | 53° 43' |
| Longitude of Station—West... | 1° 52' | 1° 52' |
| Height above Sea Level, feet | 625 | 625 |
| Total Rainfall, inches ... | 29.41 | 39.68 |

Analysis of the Vital Statistics of Thirty-three of the largest English Towns during the Year 1901.

| Towns. | Estimated Population Middle of 1901. | Births. | Deaths. | Annual Rate per 1000 Living. | | | Deaths from Principal Zymotic Diseases. | Small-Pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-Cough. | Fever. | Diarrhoeal Diseases. | Deaths of Children under 1 year of age to 1,000 Births. | Rate per cent of Unscrutinized Deaths. |
|---------------------|---|---------|---------|---------------------------------|---------|-----------------------------------|---|------------|----------|----------------|-------------|-----------------|--------|-------------------------|---|---|
| | | | | Births. | Deaths. | Principal Zymotic Diseases. | | | | | | | | | | |
| 33 Towns | 11,464,959 | 336,712 | 212,572 | 29.4 | 18.6 | 2.68 | 30,678 | 242 | 4,952 | 1,916 | 3,476 | 4,133 | 1,916 | 14,043 | 168 | 1.1 |
| 32 Provincial Towns | 6,989,976 | 205,434 | 132,648 | 29.8 | 19.2 | 2.97 | 20,475 | 13 | 2,994 | 1,332 | 2,132 | 2,524 | 1,368 | 10,122 | 180 | 1.6 |
| London | 4,544,983 | 131,278 | 79,924 | 29.0 | 17.6 | 2.25 | 10,203 | 229 | 1,958 | 584 | 1,344 | 1,609 | 548 | 3,931 | 149 | 0.3 |
| West Ham | 268,963 | 9,435 | 4,814 | 35.2 | 18.0 | 4.11 | 1,106 | 4 | 175 | 33 | 175 | 111 | 86 | 522 | 171 | 0.6 |
| Croydon | 134,697 | 3,548 | 1,728 | 26.4 | 12.9 | 1.52 | 203 | — | 21 | 1 | 22 | 25 | 11 | 123 | 141 | — |
| Brighton | 123,688 | 2,979 | 2,039 | 24.2 | 16.5 | 1.77 | 217 | — | 11 | 1 | 64 | 26 | 6 | 110 | 161 | 0.4 |
| Portsmouth | 189,114 | 5,267 | 3,367 | 27.9 | 17.9 | 2.90 | 548 | — | 14 | 15 | 72 | 23 | 42 | 312 | 163 | 1.0 |
| Plymouth | 108,117 | 2,889 | 1,929 | 26.8 | 17.9 | 1.53 | 164 | 1 | 10 | — | 12 | 34 | 19 | 88 | 149 | 0.4 |
| Bristol | 329,990 | 8,877 | 5,250 | 27.0 | 16.0 | 1.67 | 549 | — | 7 | 37 | 124 | 194 | 40 | 147 | 131 | 0.4 |
| Cardiff | 165,245 | 5,206 | 2,597 | 31.6 | 15.8 | 1.69 | 279 | 1 | 3 | 29 | 78 | 86 | 9 | 73 | 148 | 0.6 |
| Swansea | 94,646 | 2,838 | 1,760 | 30.1 | 18.6 | 1.88 | 177 | — | 6 | 9 | 18 | 85 | 17 | 42 | 174 | 1.6 |
| Wolverhampton | 94,490 | 2,990 | 1,592 | 31.7 | 16.9 | 2.37 | 222 | — | 44 | 10 | 12 | 30 | 17 | 109 | 163 | 0.6 |
| Birmingham | 523,391 | 16,735 | 10,709 | 32.1 | 20.5 | 3.15 | 1,643 | — | 306 | 156 | 84 | 219 | 113 | 765 | 187 | 2.2 |
| Norwich | 112,025 | 3,177 | 2,090 | 28.4 | 18.7 | 2.73 | 305 | — | 112 | 6 | 30 | 4 | 14 | 139 | 183 | 1.1 |
| Leicester | 212,537 | 6,155 | 3,366 | 29.0 | 15.9 | 2.58 | 547 | — | 18 | 6 | 154 | 71 | 19 | 279 | 175 | 1.8 |
| Nottingham | 240,431 | 6,812 | 4,442 | 28.4 | 18.5 | 2.85 | 683 | — | 98 | 11 | 29 | 101 | 83 | 361 | 193 | 0.7 |
| Derby | 106,121 | 2,939 | 1,697 | 27.8 | 15.2 | 1.80 | 191 | — | — | 17 | 20 | 29 | 22 | 103 | 154 | — |
| Birkenhead | 111,209 | 3,219 | 2,076 | 29.0 | 18.7 | 2.96 | 328 | — | 46 | 11 | 28 | 62 | 26 | 155 | 181 | 0.3 |
| Liverpool | 686,454 | 21,986 | 15,264 | 32.1 | 22.3 | 3.66 | 2,504 | 6 | 462 | 187 | 182 | 164 | 165 | 1,338 | 188 | 3.9 |
| Bolton | 168,785 | 4,627 | 3,070 | 27.5 | 18.2 | 3.03 | 510 | — | 110 | 50 | 27 | 48 | 38 | 237 | 172 | 0.5 |
| Manchester | 544,923 | 15,806 | 12,012 | 29.1 | 22.1 | 3.44 | 1,867 | — | 295 | 126 | 132 | 223 | 86 | 1,005 | 199 | 1.0 |
| Salford | 221,563 | 6,457 | 4,786 | 29.2 | 21.7 | 4.28 | 946 | — | 114 | 106 | 140 | 91 | 74 | 421 | 204 | 0.7 |
| Oldham | 137,413 | 3,374 | 2,692 | 24.6 | 19.6 | 2.33 | 319 | — | 73 | 41 | 13 | 30 | 9 | 153 | 173 | 0.1 |
| Burnley | 97,310 | 2,657 | 1,845 | 27.4 | 19.0 | 2.77 | 269 | — | 3 | 12 | 40 | 31 | 5 | 178 | 226 | 0.9 |
| Blackburn | 127,836 | 3,381 | 2,486 | 26.5 | 19.5 | 3.66 | 466 | — | 99 | 61 | 65 | 22 | 18 | 201 | 193 | 3.7 |
| Preston | 113,142 | 3,432 | 2,365 | 30.4 | 21.0 | 3.63 | 410 | — | 31 | 90 | 18 | 40 | 26 | 205 | 216 | 2.9 |
| Huddersfield | 95,638 | 2,175 | 1,581 | 22.7 | 16.7 | 1.38 | 131 | — | 15 | 6 | 6 | 2 | 17 | 85 | 132 | 1.2 |
| Halifax | 105,120 | 2,351 | 1,726 | 22.3 | 16.4 | 1.36 | 143 | — | 33 | 18 | 17 | 19 | 15 | 41 | 128 | 3.4 |
| Bradford | 280,163 | 6,464 | 4,696 | 23.1 | 16.8 | 1.85 | 518 | — | 16 | 37 | 33 | 126 | 58 | 248 | 168 | 0.6 |
| Leeds | 430,575 | 12,897 | 8,274 | 30.0 | 19.3 | 3.13 | 1,343 | — | 248 | 81 | 174 | 142 | 80 | 618 | 188 | 0.5 |
| Sheffield | 382,269 | 12,586 | 7,781 | 33.0 | 20.4 | 4.10 | 1,562 | — | 214 | 56 | 242 | 128 | 119 | 803 | 201 | 2.6 |
| Hull | 241,753 | 8,017 | 4,488 | 33.3 | 18.6 | 3.24 | 782 | — | 122 | 18 | 43 | 98 | 66 | 435 | 175 | 1.8 |
| Sunderland | 146,461 | 5,189 | 3,130 | 35.5 | 21.4 | 3.75 | 547 | — | 63 | 44 | 30 | 107 | 43 | 260 | 182 | 2.5 |
| Gateshead | 110,521 | 4,059 | 2,380 | 36.8 | 21.6 | 4.11 | 453 | — | 86 | 15 | 13 | 47 | 11 | 281 | 197 | 4.9 |
| Newcastle-on-Tyne | 215,972 | 6,908 | 4,714 | 32.1 | 21.9 | 2.50 | 539 | 1 | 71 | 43 | 34 | 107 | 16 | 267 | 178 | 1.3 |

Population and Area of the Borough.—The districts of Warley and Northowram which were added to the Borough during 1900, are, for the first time, included in the Annual Report for this year, and in consequence of the addition of the above districts the Borough is now divided into fifteen Wards, the area and population of which are set out in the following table.

| WARDS. | Population Estimated to Middle of 1901. | Acreage. | Persons per Acre. | No. of Houses Built during 1901. |
|-----------------|--|----------|-------------------------|---|
| Ovenden ... | 7045 | 531 | 13·2 | 37 |
| Akroydon ... | 6540 | 582 | 11·2 | 6 |
| North ... | 8165 | 168 | 48·6 | 25 |
| Central ... | 7833 | 82 | 95·5 | 1 |
| West ... | 9282 | 86 | 107·9 | 0 |
| South ... | 7600 | 296 | 25·6 | 4 |
| East ... | 7001 | 191 | 36·6 | 2 |
| Southowram .. | 7465 | 777 | 9·6 | 7 |
| Skircoat ... | 8850 | 513 | 17·2 | 66 |
| Copley ... | 2905 | 516 | 5·6 | 1 |
| Pellon .. | 9138 | 241 | 37·9 | 26 |
| Kingston ... | 10166 | 238 | 42·7 | 42 |
| Illingworth ... | 7035 | 4504 | 1·5 | 23 |
| Northowram ... | 3265 | 1555 | 2·0 | 0 |
| Warley ... | 2830 | 3354 | 0·8 | 0 |
| Totals ... | 105120 | 13634 | ... | 240 |
| Average ... | ... | ... | 7·7 | ... |

Since the issue of the last Annual Report, the Census has been taken, so that we now have more accurate figures upon which to base our statistical calculations. The figures given in the preliminary Census Report, do however not comprise all the necessary data, and those given, are liable to revision, but any alterations made, will not affect very much the totals in that Report, hence these totals may be considered as accurate.

The Borough having been considerably extended since the census of 1891, the total population of 1901 cannot be compared with that of 1891, but the following table will serve to compare the results of the two enumerations.

| WARDS. | Population in 1891. | Population in 1901. | Increase. | Decrease. |
|----------------------------------|---------------------------|---------------------------|-----------|-----------|
| Ovenden ... | 6489 | 7037 | 548 | ... |
| Akroydon ... | 7607 | 6537 | ... | 1070 |
| North ... | 5933 | 8152 | 2219 | ... |
| Central ... | 8712 | 7833 | ... | 879 |
| West } Pellon } | 16342 | { 9277 } { 9101 } | 2036 | ... |
| South } Kingston } | 14532 | { 7600 } { 10098 } | 3166 | ... |
| East ... | 8543 | 7001 | ... | 1542 |
| Southowram ... | 6334 | 7455 | 1121 | ... |
| Skircoat ... | 8369 | 8817 | 448 | ... |
| Illingworth ... | 6969 | 7030 | 61 | ... |
| Totals Original Borough | 89830 | 95938 | 9599 | 3491 |
| Copley ... | .. | 2907 | ... | ... |
| Warley ... | ... | 2829 | ... | ... |
| Northowram ... | ... | 3262 | ... | ... |
| Totals Extended Borough | ... | 104936 | 9599 | 3491 |
| Nett Increase Old Borough ... | ... | ... | 6108 | ... |

The over estimation in the population of the Borough was chiefly due to the decrease which had taken place in East, Central and Akroydon Wards. This decrease had not been accounted for, in fact the estimated population of these wards in the Annual Reports, showed an increase. The decrease in Akroydon Ward is accounted for by the fact that a portion of this Ward, in the re-arrangement of wards a few years ago was transferred to North Ward. The decrease in the Central

Ward arises from the fact that a few houses were demolished during the last decade, and also a good number of others have been converted into houses not in occupation. The decrease in the East Ward is considerable, and is due to the demolition of slum property, and of a number of houses which were pulled down on the site of the Market. There is less overcrowding now, than at the time of the last census, which also accounts to some extent for the decrease in the above wards, as there is little or no room in these wards, for the erection of new houses.

The preliminary report on the census of 1901, has shown that in a very large number of districts, the population for some years preceding 1901 had been considerably overestimated, and consequently the birth and death rates have been understated. The population of this Borough had however only been overestimated to the extent of about 2342, which will not materially alter our birth and death rates, and considering the extensions of the Borough during the past 10 years, the estimates have I think, been very near the mark. Now that we have the correct figures for 1901, we are enabled to revise the estimated population for the past 10 years, and the following table serves to compare the revised with the original estimates.

| Year. | Revised Estimate. | Original Estimate. |
|-------|-------------------|--------------------|
| 1891 | 83109 | 83109 |
| 1892 | 83882 | 84097 |
| 1893 | 91540 | 92000 |
| 1894 | 92104 | 92800 |
| 1895 | 92875 | 93813 |
| 1896 | 93581 | 94764 |
| 1897 | 94311 | 95747 |
| 1898 | 95037 | 96729 |
| 1899 | 95767 | 97721 |
| 1900 | 98910 | 101187 |
| 1901 | 105120 | 107462 |

The average number of persons per house has declined slightly during the past ten years, as the following table will show, which no doubt is accounted for by the diminution that has taken place during that time in overcrowding.

| | Inhabited Houses. | Population. | Number of Persons per Inhabited House. |
|------|-------------------|-------------|--|
| 1891 | 18467 | 82861 | 4.48 |
| 1901 | 24933 | 104936 | 4.2 |

Marriages.

There were 1110 marriages solemnised within the Borough during the year under notice, 22 less than the previous year, though the Borough has been extended. This gives a marriage rate of 10.5 per 1000. The marriage rates during the previous four years were 1897, 15.9; 1898, 10.4; 1899, 12.3; 1900, 11.2 respectively.

Births.

The total number of births registered within the Borough during the year ended December 31st, 1901, was 2351, of which 1187 were males and 1164 were females. This gives a birthrate of 22.4 per 1000, which is .5 below that of the previous year. The birthrate of England and Wales for the year 1901 was 28.5, or .4 below that of the previous year, and the lowest of any year on record. The cause of the fall of the birthrate of the Country has been attributed to the absence of so many soldiers in South Africa, but how far that has affected the Halifax birthrate, I am unable to say. The birthrate of the Borough has been steadily diminishing

since 1875, so has that of England and Wales, but while the Halifax birthrate 25 years ago was equal to the average of that of the country, it is now over 21% below it, consequently there must be other and more permanent causes operating in bringing down the birthrate of this Borough.

The following table shows the average birthrates per 1000 in quinquennial periods between the years 1875 and 1899 for Halifax, and compares it with that of England and Wales.

| Period. | England and Wales. | Halifax. | Difference. | |
|----------------------|--------------------|----------|-------------|-----|
| 1875-9 | 35·3 | 35·7 | + | 0·4 |
| 1880-4 | 33·8 | 30·7 | — | 3·1 |
| 1885-9 | 31·4 | 28·0 | — | 3·4 |
| 1890-5 | 30·7 | 25·4 | — | 5·3 |
| 1895-9 | 29·7 | 23·1 | — | 6·6 |
| Average for 25 years | 32·1 | 28·5 | — | 3·6 |

The mean birthrate of the 33 great towns for the year 1901 was 29·4, and Halifax had the lowest birthrate of these towns, that for Huddersfield which came next being 22·7 per 1000. The birthrates of the other Yorkshire great towns were Leeds, 30·0, Sheffield, 33·0, Bradford, 23·1, and Hull 33·3 per 1000 respectively. See table page 7. The following table gives the number of births, and the birthrates in each quarter of the year 1901.

TABLE SHOWING BIRTHS AND BIRTH-RATES IN EACH
QUARTER OF 1901.

| | Males. | | Females. | | Totals. | | Birthrate per 1000 living. | |
|-----------------|--------|-------|----------|-------|---------|-------|-------------------------------|-------|
| | 1901. | 1900. | 1901. | 1900. | 1901. | 1900. | 1901. | 1900. |
| 1st Quarter ... | 323 | 303 | 287 | 281 | 610 | 584 | 23·2 | 23·0 |
| 2nd „ ... | 285 | 261 | 315 | 262 | 600 | 523 | 22·8 | 20·6 |
| 3rd „ ... | 313 | 323 | 286 | 300 | 599 | 623 | 22·7 | 24·6 |
| 4th ... | 266 | 292 | 276 | 294 | 542 | 586 | 20·6 | 23·1 |
| Total ... | 1187 | 1179 | 1164 | 1137 | 2351 | 2316 | 22·3 | 22·8 |

I sent a circular note to the caretakers of all the cemeteries and burial grounds within the Borough, asking for information as to the number of still births that were interred during the year. One failed to reply altogether, two had not kept a record, which I was rather surprised to learn, but they gave me the numbers from memory.

As a result of these enquiries, I ascertained that there had been 108 still born children buried during the year.

Deaths.

During the year, 1726 deaths were registered within the Borough, of which 869 were males, and 857 were females. That number includes 38 deaths of persons belonging to other districts, which occurred within the institutions of the Borough, also there were 21 deaths outside the district, of persons belonging thereto, so that excluding the former, and including the latter, the cor-

rected number of deaths for the year was 1709. This gives a deathrate for the year of 16·2, which is 1·6 per 1000 below that of the previous year. The average deathrate of the 33 great towns for 1901 was 18·6 per 1000, and varied between 12·9 in Croydon, and 22·3 in Liverpool. Only five of the great towns have a recorded deathrate for 1901 below that of Halifax, viz.: Croydon, 12·8; Derby, 15·7; Cardiff, 15·7; Leicester, 15·8; and Bristol, 15·9. In 1900, fourteen of the great towns had a smaller recorded deathrate than Halifax.

The deathrate of England and Wales for 1901 was 16·9, and of the Yorkshire great towns as follows: Leeds, 19·2; Sheffield, 20·4; Bradford, 16·8; and Hull, 18·6 per 1000 respectively. The following table gives the average deathrates of the Borough in quinquennial periods during the past 25 years.

| Period. | Average Deathrate. |
|-----------|--------------------|
| 1877-80 | 23·5 |
| 1881-6 | 21·1 |
| 1887-90 | 21·2 |
| 1891-6 | 17·9 |
| 1897-1901 | 17·3 |

The above table shows that the average deathrate, taken in periods as above, has fallen 6·2 per 1000 during the past quarter of a century. This means a great saving in life as compared with 25 years ago, for example, had the deathrate for 1901 been equal to the average of the years 1877-80, there would have been 766 more deaths in the Borough last year alone than actually took place.

The following table gives the mortality for the year under notice according to wards, and serves to compare the deathrates of the various wards.

| WARDS. | Population. | Acreage. | Persons per Acre. | Total Deaths. | Death- rate per 1000. | Mortality per 1000 living. | | |
|--------------|-------------|----------|-------------------------|------------------|-----------------------------|----------------------------|-----------|---------------------------------------|
| | | | | | | Zy- motics. | Phthisis. | Other Respi- ratory Diseases |
| Ovenden ... | 7045 | 531 | 13.2 | 115 | 16.3 | 0.8 | 0.9 | 3.4 |
| Akroydon ... | 6540 | 582 | 11.2 | 104 | 15.9 | 1.5 | 1.0 | 2.7 |
| North ... | 8165 | 168 | 48.6 | 165 | 20.2 | 1.4 | 1.9 | 4.1 |
| Central ... | 7833 | 82 | 95.5 | 158 | 20.1 | 3.3 | 1.5 | 3.3 |
| West ... | 9282 | 86 | 107.9 | 144 | 15.5 | 1.1 | 1.1 | 2.8 |
| South ... | 7600 | 296 | 25.6 | 101 | 13.2 | 0.6 | 0.9 | 2.5 |
| East ... | 7001 | 191 | 36.6 | 167 | 23.8 | 1.7 | 2.9 | 4.9 |
| Southowram | 7465 | 777 | 9.6 | 134 | 17.9 | 2.1 | 1.7 | 3.0 |
| Skircoat ... | 8850 | 513 | 17.2 | 118 | 13.3 | 1.0 | 1.0 | 2.8 |
| Copley ... | 2905 | 516 | 5.6 | 32 | 11.0 | 0.6 | 1.7 | 3.0 |
| Pellon ... | 9138 | 241 | 37.9 | 139 | 15.2 | 1.5 | 1.2 | 2.5 |
| Kingston ... | 10166 | 238 | 42.7 | 119 | 11.7 | 0.7 | 0.9 | 2.3 |
| Illingworth | 7035 | 4504 | 1.5 | 109 | 15.4 | 0.7 | 0.8 | 3.1 |
| Northowram | 3265 | 1555 | 2.0 | 58 | 17.7 | 0.9 | 1.2 | 1.5 |
| Warley ... | 2830 | 3354 | .8 | 46 | 16.2 | 1.4 | 1.4 | 2.1 |
| Total ... | 105,120 | 13,634 | 7.7 | 1709 | 16.2 | 1.3 | 1.3 | 3.0 |

The next table shows the total number of deaths of each sex which occurred within the Borough (including institutions) during 1901, the total age lived, and average age at death at different age periods.

| MALES. | | | | FEMALES. | | | |
|-------------------|---------|-----------------|-----------------------|-------------------|---------|-----------------|-----------------------|
| | Deaths. | Total Years. | Aver- age Ages. | | Deaths. | Total Years. | Aver- age Ages. |
| 0-1 | 175 | 175 | ... | 0-1 | 128 | 128 | ... |
| 1-5 | 94 | 194 | 2.0 | 1-5 | 87 | 208 | 2.3 |
| 5-15 | 32 | 282 | 8.8 | 5-15 | 28 | 224 | 8.0 |
| 15-25 | 38 | 763 | 20.0 | 15-25 | 44 | 877 | 19.7 |
| 25-65 | 347 | 16957 | 48.8 | 25-65 | 314 | 14183 | 45.1 |
| 65 and upwards | 183 | 13153 | 71.8 | 65 and upwards | 256 | 18808 | 73.4 |
| Total... | 869 | 31524 | 36.2 | Total... | 857 | 34428 | 40.1 |

The following table shows the deaths from outside districts which occurred within institutions in the Borough, and the districts to which they belong.

| ROYAL HALIFAX INFIRMARY. | | | | | |
|--------------------------|-----|-----|-----|-----|----|
| Thurlston | ... | ... | ... | ... | 1 |
| Brighouse | ... | ... | ... | ... | 1 |
| Hebden Bridge | ... | ... | ... | ... | 2 |
| Greetland | ... | ... | ... | ... | 1 |
| Helsby, Cheshire | ... | ... | ... | ... | 1 |
| Elland ... | ... | ... | ... | ... | 3 |
| Queensbury | ... | ... | ... | ... | 2 |
| Stainland | ... | ... | ... | ... | 4 |
| Liverpool | ... | ... | ... | ... | 1 |
| Sowerby Bridge | ... | ... | ... | ... | 4 |
| Hipperholme | ... | ... | ... | ... | 2 |
| Todmorden | ... | ... | ... | ... | 4 |
| Mytholmroyd | ... | ... | ... | ... | 2 |
| Rastrick | ... | ... | ... | ... | 1 |
| POOR LAW HOSPITAL. | | | | | |
| South Shields | ... | ... | ... | ... | 1 |
| THE BARRACKS. | | | | | |
| Wilsden | ... | ... | ... | ... | 1 |
| WEST GROVE. | | | | | |
| Elland ... | ... | ... | ... | ... | 1 |
| Sowerby Bridge | ... | ... | ... | ... | 1 |
| Oxenhope | ... | ... | ... | ... | 1 |
| WARLEY JOINT HOSPITAL. | | | | | |
| Luddenden Foot | ... | ... | ... | ... | 1 |
| IN PRIVATE HOUSES. | | | | | |
| Bradford | ... | ... | ... | ... | 1 |
| Blackburn | ... | ... | ... | ... | 1 |
| Gainsborough | ... | ... | ... | ... | 1 |
| Total | ... | ... | ... | ... | 38 |

Zymotic Deathrate.

The seven principal zymotic diseases caused 42 out of the 1709 deaths belonging to the Borough, which gives a zymotic deathrate of 1·3 per 1000. This is slightly above that of the previous year, when it was 1·2, but exactly equal to the average of the past ten years. The zymotic deathrates of the other Yorkshire great towns during the year under notice were Leeds 3·1, Sheffield 4·1, Bradford 1·8, Hull 3·2, and Huddersfield 1·3. Halifax therefore had the lowest zymotic deathrate of these great towns except Huddersfield with which it was equal. The following table gives the zymotic deathrates of England and Wales, and the great towns for 1901, with which that of Halifax very favorably compares.

| | DEATHRATES FROM | | | | | | | Zymotic Death-rate. |
|--|-----------------|-----------|----------------|--------------|----------------|--------|-----------|---------------------|
| | Small-Pox. | Meas-les. | Scarlet Fever. | Diph-theria. | Whooping Cough | Fever. | Diarrhœa. | |
| England and Wales .. | 0·01 | 0·27 | 0·13 | 0·27 | 0·30 | 0·16 | 0·91 | 2·05 |
| 33 Great Towns .. | 0·02 | 0·43 | 0·17 | 0·30 | 0·36 | 0·17 | 1·23 | 2·68 |
| 67 Other Large Towns | 0·00 | 0·25 | 0·14 | 0·28 | 0·30 | 0·18 | 1·09 | 2·24 |
| England and Wales, less the 100 Towns | 0·01 | 0·17 | 0·10 | 0·24 | 0·25 | 0·14 | 0·65 | 1·56 |
| Halifax | 0·00 | 0·31 | 0·17 | 0·16 | 0·18 | 0·14 | 0·39 | 1·35 |

Halifax not only has with Huddersfield again the lowest zymotic deathrate of the 33 great towns, but from the foregoing table it will be seen that our zymotic deathrate is very much below the average of the 67 other large towns, as well as the average for England and Wales, less the 100 towns. This I think is very satis-

factory. The following table shows the incidence of the deaths from the zymotic diseases with reference to the different wards of the Borough.

| Ward. | Measles. | Scarlet Fever. | Diph- theria. | Whooping Cough. | Enteric Fever. | Diarrhoea. | Zymotic Death- rates per 1000. |
|-----------------|----------|-------------------|------------------|--------------------|-------------------|------------|--|
| Ovenden ... | 3 | 2 | 1 | ... | ... | ... | ·8 |
| Akroydon ... | 4 | 1 | 2 | 2 | ... | 1 | 1·5 |
| North ... | 1 | ... | ... | 4 | 3 | 3 | 1·4 |
| Central ... | 11 | 2 | 3 | ... | 1 | 9 | 3·3 |
| West ... | 2 | 2 | 2 | 2 | 1 | 1 | 1·1 |
| South ... | 2 | 1 | 2 | ... | ... | ... | ·6 |
| East ... | 2 | ... | 2 | 2 | ... | 7 | 1·7 |
| Southowram ... | 2 | 4 | ... | 2 | 2 | 5 | 2·1 |
| Skircoat ... | 2 | ... | 1 | 1 | 1 | 5 | 1·0 |
| Copley ... | ... | ... | ... | ... | 1 | 1 | ·6 |
| Pellon ... | 2 | 2 | 1 | 4 | 1 | 5 | 1·5 |
| Kingston ... | 1 | 3 | 1 | 2 | 1 | 1 | ·7 |
| Illingworth ... | ... | 1 | 1 | .. | 1 | 1 | ·7 |
| Northowram ... | 1 | ... | ... | ... | ... | 2 | ·9 |
| Warley ... | ... | ... | 1 | ... | 3 | ... | 1·4 |
| Totals ... | 33 | 18 | 17 | 19 | 15 | 41 | ... |

The following table gives the average zymotic death-rates of the Borough in quinquennial periods during the past 25 years, and shows the fall in that deathrate.

| Period. | Deathrate. |
|-----------|------------|
| 1877-81 | 2·50 |
| 1882-6 | 1·55 |
| 1887-91 | 1·43 |
| 1892-6 | 1·33 |
| 1897-1901 | 1·40 |

The following table serves to compare the under-mentioned deathrates of the different wards for 1901.

| WARDS. | General Deathrate. | Zymotic Deathrate. | Respiratory Deathrate. | Phthisis Deathrate. |
|-----------------|-----------------------|-----------------------|---------------------------|------------------------|
| Ovenden ... | 16·0 | ·8 | 3·4 | ·9 |
| Akroydon ... | 15·7 | 1·5 | 2·7 | 1·0 |
| North ... | 20·2 | 1·4 | 4·1 | 1·9 |
| Central ... | 19·7 | 3·3 | 3·3 | 1·4 |
| West ... | 14·5 | 1·1 | 2·8 | 1·1 |
| South ... | 13·2 | ·6 | 2·5 | ·9 |
| East ... | 23·8 | 1·9 | 4·9 | 2·9 |
| Southowram ... | 18·6 | 2·1 | 3·0 | 1·7 |
| Skircoat ... | 13·3 | ·9 | 2·8 | 1·0 |
| Copley ... | 11·0 | ·6 | 3·0 | 1·7 |
| Pellon ... | 15·1 | 1·4 | 2·5 | 1·2 |
| Kingston ... | 11·6 | ·7 | 2·3 | ·8 |
| Illingworth ... | 15·4 | ·7 | 3·1 | ·8 |
| Northowram ... | 17·4 | 1·2 | 1·5 | 1·2 |
| Warley ... | 16·2 | 1·4 | 2·1 | 1·4 |
| Average .. | 16·2 | 1·3 | 2·9 | 1·3 |

Infantile Mortality.

During the year there died 303 infants under one year of age, 15 less in the extended Borough than during the previous year, before Warley and Northowram were added. This gives a mortality of 128 deaths to 1000 births registered. During the previous year the infant mortality was 135 to the 1000 births.

The following table gives the number of births and deaths in each ward, and the mortality per 1000 births.

| WARDS. | Number of Births. | Birth Rates. | Number of Deaths. | Mortality per 1000 Births. |
|-----------------|-------------------------|-----------------|-------------------------|-------------------------------------|
| Ovenden ... | 155 | 22·0 | 16 | 103·2 |
| Akroydon ... | 187 | 28·5 | 28 | 149·8 |
| North ... | 228 | 27·9 | 27 | 118·5 |
| Central .. | 171 | 21·8 | 34 | 198·8 |
| West ... | 173 | 18·6 | 16 | 92·4 |
| South ... | 139 | 18·2 | 11 | 79·1 |
| East ... | 106 | 15·1 | 21 | 198·1 |
| Southowram ... | 202 | 27·0 | 30 | 148·5 |
| Skircoat ... | 187 | 21·1 | 23 | 122·9 |
| Copley ... | 69 | 23·7 | 4 | 57·9 |
| Pellon ... | 217 | 23·7 | 26 | 119·8 |
| Kingston ... | 218 | 21·4 | 23 | 105·5 |
| Illingworth ... | 150 | 21·3 | 14 | 93·3 |
| Northowram ... | 78 | 23·8 | 9 | 115·3 |
| Warley ... | 60 | 21·2 | 5 | 83·3 |
| Workhouse ... | 11 | ... | 9 | ... |
| Infirmery ... | ... | ... | 7 | .. |
| Total ... | 2351 | 22·3 | 303 | 128·8 |

The next table shows the infantile mortality from the chief infantile diseases per 1000 births, and the

rate of those deaths per cent. of the total deaths at all ages.

| DISEASES. | Total Deaths. | | Rate per 1000 Births. | | Rate per cent. of total Deaths at all ages. | |
|--------------------------------|---------------|-------|-----------------------|-------|---|-------|
| | 1901. | 1900. | 1901. | 1900. | 1901. | 1900. |
| From all causes ... | 303 | 314 | 128.2 | 135.5 | 17.3 | 17.1 |
| Respiratory Diseases ... | 57 | 65 | 24.4 | 28.0 | 3.3 | 3.5 |
| Marasmus, Wasting Diseases ... | 40 | 30 | 17.1 | 12.9 | 2.3 | 1.6 |
| Premature Birth, Inanition ... | 47 | 51 | 20.1 | 22.0 | 2.7 | 2.7 |
| Diarrhœa ... | 25 | 8 | 10.7 | 3.4 | 1.5 | 0.4 |
| Whooping Cough ... | 8 | 2 | 3.4 | 0.8 | 0.4 | 0.1 |
| Convulsions ... | 40 | 53 | 17.1 | 22.4 | 2.3 | 2.8 |
| Scrofula, Tuberculosis ... | 2 | 1 | 0.8 | 0.4 | 0.1 | 0.05 |
| Dentition ... | 11 | 12 | 4.7 | 5.0 | 0.6 | 0.6 |

The infantile mortality of the Borough has been gradually diminishing during the past 25 years, and while during 1900 in conjunction with two other of the 33 great towns we had the lowest infantile mortality, for the year under notice our infantile mortality was lower than that of all those great towns. The infantile mortality during 1901 of the other Yorkshire great towns was:—Leeds 188, Sheffield 201, Bradford 168, Hull 175, and Huddersfield 132. The following table gives the average infantile mortality in quinquennial periods between the years 1875 and 1899 inclusive. It shows the fall in that mortality, and compares it with that of England and Wales.

| Period. | Halifax. | England and Wales. |
|---------|----------|--------------------|
| 1875-9 | 173 | 145 |
| 1880-4 | 161 | 141 |
| 1885-9 | 158 | 142 |
| 1890-4 | 163 | 148 |
| 1895-9 | 154 | 157 |
| 1901 | 128 | 151 |

In view of the low birthrate in the Borough, it is gratifying to note that while the infantile mortality of the Country generally, shows no signs of diminishing, that for Halifax has been gradually falling during the past 25 years.

The Notification of Infectious Diseases.

The Halifax Corporation Act of 1882 made the notification of certain infectious diseases compulsory within the Borough. Erysipelas was not one of the diseases required to be notified thereunder, but the powers under the above act were supplanted by the provisions of the Infectious Diseases (Notification) Act of 1899, under which it became necessary to notify that disease. During the year under notice a total of 883 cases were reported. This is a very large number, but is chiefly owing to the existence of an epidemic of scarlet fever which prevailed in the Borough more or less throughout the year. The following table shows the total number of cases of each disease notified during the year, and the distribution of these cases among

the various wards of the Borough, as well as public institutions.

| | Small-pox. | Cholera. | Typhus Fever. | Enteric Fever. | Scarlet Fever. | Continued Fever. | Puerperal Fever. | Relapsed Fever. | Diphtheria. | Erysipelas. | Total. | Rate per centage of Population. |
|-----------------|------------|----------|------------------|-------------------|-------------------|---------------------|---------------------|--------------------|-------------|-------------|--------|---------------------------------------|
| Ovenden ... | .. | ... | ... | 2 | 82 | ... | ... | ... | 5 | 1 | 90 | 1.27 |
| Akroydon ... | ... | ... | ... | 3 | 49 | ... | ... | ... | 6 | 1 | 59 | 0.90 |
| North ... | ... | ... | ... | 8 | 51 | .. | ... | ... | 3 | 4 | 66 | 0.80 |
| Central ... | ... | ... | ... | 11 | 32 | ... | ... | ... | 13 | 2 | 58 | 0.78 |
| West ... | .. | ... | ... | 9 | 31 | ... | ... | ... | 4 | 1 | 45 | 0.48 |
| South ... | ... | ... | ... | 2 | 35 | ... | ... | ... | 4 | ... | 41 | 0.53 |
| East ... | 1 | .. | .. | 4 | 25 | ... | ... | ... | 2 | ... | 32 | 0.45 |
| Southowram ... | ... | ... | .. | 5 | 39 | ... | ... | ... | ... | 1 | 45 | 0.60 |
| Skircoat ... | ... | ... | ... | 3 | 89 | ... | ... | ... | 7 | 1 | 100 | 1.12 |
| Pellon ... | ... | ... | ... | 4 | 44 | ... | ... | ... | 2 | ... | 50 | 0.54 |
| Kingston ... | ... | ... | ... | 4 | 118 | ... | ... | .. | 6 | .. | 128 | 1.25 |
| Illingworth ... | ... | .. | ... | 2 | 87 | ... | 1 | ... | 4 | 2 | 96 | 1.36 |
| Copley ... | ... | .. | ... | 1 | 33 | ... | ... | .. | ... | ... | 34 | 1.17 |
| Northowram ... | ... | ... | ... | 3 | 3 | ... | ... | ... | 1 | ... | 7 | 0.21 |
| Warley ... | 2 | ... | ... | 6 | 18 | ... | ... | .. | 4 | 2 | 32 | 1.13 |
| Total 1901 | 3 | ... | .. | 67 | 736 | ... | 1 | ... | 61 | 15 | 883 | 0.83 |

PUBLIC INSTITUTIONS.

| | | | | | | | | | | | |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Royal Infirmary | ... | ... | .. | 1 | 11 | ... | ... | ... | 2 | ... | ... |
| Workhouse | ... | ... | ... | 1 | ... | ... | .. | ... | ... | 1 | ... |
| Orphanage... | ... | ... | ... | ... | 8 | ... | ... | ... | ... | .. | ... |

Lists of the names and addresses of those notified were sent to the schools involved, and the public libraries.

The following table shows the number of cases notified in each month of 1901.

ZYMOTIC CASES REPORTED EACH MONTH
DURING 1901.

| | | | Small-pox. | Typhoid Fever. | Scarlet Fever. | Puerperal Fever. | Diphtheria. | Erysipelas. | Total. |
|--------------|-----|-----|------------|-------------------|-------------------|---------------------|-------------|-------------|--------|
| January ... | ... | ... | 1 | 6 | 35 | .. | 4 | 1 | 47 |
| February ... | ... | ... | ... | 4 | 37 | ... | 4 | 1 | 46 |
| March ... | ... | .. | ... | 5 | 48 | ... | 8 | ... | 61 |
| April ... | ... | ... | ... | .. | 48 | ... | ... | ... | 48 |
| May ... | ... | .. | ... | 9 | 36 | ... | 4 | 4 | 53 |
| June ... | ... | ... | ... | 2 | 49 | ... | 6 | .. | 57 |
| July ... | ... | ... | ... | 3 | 91 | .. | 10 | 3 | 107 |
| August ... | ... | ... | .. | 8 | 98 | ... | 8 | 1 | 115 |
| September | ... | .. | ... | 7 | 73 | 1 | 8 | ... | 89 |
| October ... | ... | ... | .. | 14 | 73 | ... | 3 | 4 | 94 |
| November... | ... | ... | 2 | 7 | 89 | .. | 2 | 1 | 101 |
| December ... | ... | ... | .. | 2 | 59 | .. | 4 | ... | 65 |
| | | | 3 | 67 | 736 | 1 | 61 | 15 | 883 |

The following table shows the number of the different diseases notified each year, since the Act came into operation, and the rate per cent. of the total yearly number reported.

| YEAR. | Small-pox. | Cholera. | Typhus Fever. | Enteric Fever. | Scarlet Fever. | Continued Fever. | Puerperal Fever. | Relapsed Fever. | Diphtheria. | Erysipelas. | Total. | Rate per centage of Population. |
|-------|------------|----------|------------------|-------------------|-------------------|---------------------|---------------------|--------------------|-------------|-------------|--------|---------------------------------------|
| 1883 | 2 | ... | 2 | 108 | 158 | 43 | 2 | 1 | 14 | ... | 330 | ·43 |
| 1884 | 1 | ... | 1 | 69 | 269 | 24 | 4 | 4 | 13 | ... | 385 | ·50 |
| 1885 | 7 | .. | 1 | 56 | 214 | 22 | 1 | ... | 25 | ... | 326 | ·42 |
| 1886 | 3 | 1 | ... | 57 | 124 | 7 | 5 | ... | 59 | ... | 256 | ·32 |
| 1887 | 1 | ... | 1 | 66 | 727 | 8 | 7 | ... | 26 | ... | 837 | 1·05 |
| 1888 | 1 | ... | 1 | 36 | 440 | 16 | 1 | ... | 29 | ... | 524 | ·65 |
| 1889 | 2 | ... | ... | 94 | 153 | 18 | 1 | 3 | 31 | ... | 302 | ·37 |
| 1890 | .. | .. | ... | 67 | 328 | 8 | 8 | 1 | 62 | ... | 476 | ·58 |
| 1891 | ... | 1 | ... | 99 | 429 | 14 | 5 | 2 | 23 | ... | 573 | ·68 |
| 1892 | 159 | .. | 1 | 56 | 256 | 9 | 4 | 2 | 71 | ... | 558 | ·66 |
| 1893 | 346 | 5 | ... | 69 | 150 | 5 | 6 | ... | 57 | .. | 638 | ·69 |
| 1894 | 16 | ... | ... | 52 | 114 | 3 | 6 | ... | 43 | ... | 234 | ·25 |
| 1895 | ... | .. | ... | 58 | 52 | 3 | 4 | ... | 29 | ... | 146 | ·15 |
| 1896 | ... | ... | ... | 105 | 44 | 2 | 4 | ... | 37 | ... | 192 | ·20 |
| 1897 | .. | ... | ... | 78 | 476 | 1 | 8 | ... | 67 | ... | 630 | ·66 |
| 1898 | ... | ... | ... | 79 | 626 | 1 | 9 | ... | 23 | ... | 738 | ·76 |
| 1899 | ... | ... | ... | 92 | 762 | 2 | 3 | .. | 58 | ... | 917 | ·93 |
| 1900 | 2 | ... | 5 | 79 | 330 | 1 | 4 | 3 | 41 | 1 | 466 | ·46 |
| 1901 | 3 | ... | ... | 67 | 736 | ... | 1 | ... | 61 | 15 | 883 | ·83 |

The Borough has been extended several times since 1883, hence the rate per cent. of population in the above table will better serve for comparison than the total number notified.

Causes of Death.

The causes of death within the Borough including those not belonging thereto during 1901, may be classified under the following eight headings, but for a more detailed list of these causes see table in Appendix at the end of this report.

- (1) Zymotic or Infectious diseases :—Scarlet Fever, 18, Measles 33, Diphtheria 17, Whooping Cough 19, Enteric Fever 15, Diarrhœa 41, Influenza 9, Puerperal Fever 2, Other septic diseases 7.
- (2) Constitutional diseases :—Rheumatism and Rheumatoid Arthritis 18, Malignant diseases (Cancer Sarcoma &c.) 94, Phthisis 145, Tabes Mesenterica 10, Tubercular Meningitis 40, Other tubercular diseases 23, Other constitutional diseases 21.
- (3) Dietetic diseases :—Alcoholism 1, Starvation 1.
- (4) Local diseases :—Nervous system 158, Circulatory System 183, Respiratory System 339, Digestive System 98, Urinary System 45, Reproductive System 6, Locomotive System 2.
- (5) Developmental diseases :—Premature Birth and Inanition 47, Congenital Malformation 10, Old Age 128.
- (6) Deaths from Accidents :—Fractures and Contusions 14, Burns and Scalds 3, Drowning 8, Suffocation 3, Other accidents 11.
- (7) Deaths from Suicide :—None.
- (8) Deaths from all other and ill-defined causes 87.

Small Pox.

During the year three cases of small-pox were reported in the Borough. The first one was notified on January 10th, and immediate steps were taken to remove the patient to the Small-pox Hospital, Belle Vue. That having been done, we obtained the names of all persons who had been in contact with the patient. These were revaccinated, and the other inmates of the house were also kept in quarantine for 14 days. The origin of the above case was soon traced to a girl who was suffering from the disease at Wyke Common within the area of the City of Bradford. The lodging houses were kept under observation, and the shops of the pawnbrokers were visited with the result that three parcels of clothing were found which had recently been pawned by the family living at Wyke Common. These were removed to the disinfecting apparatus, and disinfected therein, and the disease fortunately spread no further. The Borough remained free from the disease until November 25th, when two other cases were reported in the family of a soldier who had been on furlough, and visiting his friends in Wandsworth, London, in whose house the disease was present. These cases were removed to hospital, and the usual precautions taken. Having both been revaccinated, they turned out very mild cases. I had received information from London, that this family had been in contact with the disease, hence we were on the alert before the disease developed. Tramps often spread the disease, and we had during the year one or two narrow escapes from that source, as on one or two occasions an individual of that class developed the disease immediately after having passed through Halifax. Owing to the above, and the fact that the disease was present in London and other places, the department has ever been on the alert, and

your committee, and the inhabitants generally have every reason to congratulate themselves that we have so far steered clear of this dread disease.

Scarlet Fever.

This disease was present in the Borough throughout the year in epidemic form, never however was it spread over the whole town at one and the same time, but was chiefly confined to certain districts, at certain periods of the year. It spread however from district to district, and by the end of the year, the epidemic had visited all parts of the Borough except Northowram. In all 736 cases were reported, of which 18 died. This gives a deathrate of 0·17 per 1000, and a case mortality of 2·4 per cent. of the number notified. During the previous year the deathrate was 0·16, and the case mortality 5 per cent. The following instances which came under my notice during the year will indicate the manner in which the disease is spread. A boy was not well, and was kept from school, he had a rash, but no medical man was called in. He quickly got better as was thought, and was sent to school, but was soon after found to be desquamating, and over 20 cases were traced directly and indirectly to that boy. On investigating an outbreak in another part of the Borough, viz. Mixenden, I found a boy had been working in a factory there, among other children, while desquamating, and eight cases were traced directly and indirectly to that source at that time, and this really was the beginning of an epidemic in that district, which lasted for nearly six months. Another case was discovered where the child was peeling, the mother had noticed this, and yet she allowed it to play with others, and even took it for a ride in the tram car. Another

case was discovered accidentally, a boy who had been out playing with others for about a fortnight, whilst peeling. These are some of the instances which came to my knowledge during the past year. Is there any wonder under such circumstances that the disease spread, and became epidemic?

The following table gives the number of cases notified during each month.

| MONTH. | | January. | February. | March. | April. | May. | June. | July. | August. | September. | October. | November. | December. | Total. |
|----------------|-----|----------|-----------|--------|--------|------|-------|-------|---------|------------|----------|-----------|-----------|--------|
| Cases Notified | ... | 35 | 37 | 48 | 48 | 36 | 49 | 91 | 98 | 73 | 73 | 89 | 59 | 736 |

The disease having increased to a very great extent especially during the latter half of July, I wrote the following letter to the public press:—

Health Department,
Town Hall, Halifax.

SCARLET FEVER.

The above disease is very prevalent in certain parts of the Borough at the present time, and from inquiries and investigations I have made, I am led to believe that it is frequently spread through want of care on the part of parents. I desire therefore through the medium of your columns to direct attention to the great responsibility that rests upon every one in whose family Scarlet Fever happens unfortunately to break out, and in this respect a parents responsibility does not end with the members of his own family. It is true that it is incumbent upon him to take such steps as are calculated to arrest the

spread of the disease among the members of his own household as quickly as possible, but it is also true that he has no right to spread the infection to his neighbours house, more especially when that is done under conditions that are preventable.

We have come across several cases where children while peeling have been mixing with their fellows in the street, and even in the school and workshop, and in that way scattering abroad the germs of the disease. When this occurs, what wonder is there that the disease spreads. The Health Department under such circumstances, is powerless to prevent its progress. The great danger in scarlet fever, is not now so much its fatality, as the complications which arise in consequence thereof. Some of these are very serious, take for instance an injured heart, weakened kidney, and a deaf ear. Risks like these, together with the sufferings many of the little ones have to pass through, surely ought to be sufficient to impress even upon the more callous parents, a due sense of responsibility. Then again, the young children are more susceptible to the disease, and usually suffer more severely therefrom, older children not only are less susceptible, but every increasing year of age diminishes that susceptibility, consequently there is a double advantage in protecting the young from the disease. At a time like the present, when the disease is prevalent in our midst, every parent ought to send for medical advice where there is any vomiting, sore throat, rash, or the least suspicion of fever, and that advice should be sought early, because after a little delay in some very mild cases, it is practically impossible to say whether the case be one of Scarlet Fever or not, and hence it is liable to be overlooked until peeling takes place, when the damage

has been done, and the disease spread broadcast in the neighbourhood. In cases where parents do not seek medical advice, there is also a legal responsibility thrown upon them. Under the provisions of the Infectious Diseases (Notification) Act, every such parent who fails to report the existence of Scarlet Fever in his house, renders himself liable to a penalty of two pounds.

I am, Sir,

Yours very truly,

JAMES T. NEECH,

Medical Officer of Health.

The following handbill was also distributed throughout the Borough:—

SCARLET FEVER.

Scarlet Fever being very prevalent in certain parts of the Borough, and it having been shown that the disease has been spread to a very great extent through the want of care on the part of parents, the Health Committee of the Halifax Corporation desires to draw the attention of parents to this fact, and hereby make known to them their legal responsibility in relation thereto. The Infectious Diseases (Notification) Act makes it imperative upon parents to report every case of this disease to the Medical Officer of Health, and the failure to report such case renders them liable to a penalty of £2. The Public Health Act also renders any person who exposes a child suffering from the diseases in any street or public place, liable to a penalty not exceeding £5, and the Health Committee further desires

to make it known that they will prosecute any person who neglects to carry out or who breaks the law.

Scarlet Fever usually begins suddenly, with vomiting and sore throat, followed by a red rash, commencing on the chest, and after the rash disappears, the skin commences to peel off.

Very frequently the attack is of a very mild character, and hence thought to be trivial, but it is none the less infectious. It is usually these mild cases which are overlooked and spread the disease, consequently in every case, and especially at the present time, when the disease is so rife, medical advice should be sought at once. If the parents would only do this, they would be enabled to ascertain the nature of the disease, and thus assist the authority to stamp out the epidemic.

JAMES T. NEECH,

Medical Officer of Health.

Schools and Scarlet Fever.

There is no doubt that the elementary day schools assist in spreading this disease, for here children, often from widely separated parts of the Borough meet together, and remain in close contact for several hours each day.

The following table gives the incidence of Scarlet Fever on each elementary day school, in proportion to the average number on the register.

| SCHOOL. | Average No. of Children on Register | No. of Cases of Scarlet Fever. | No. of Cases per cent. of Children on the Register. |
|-----------------------|--|---|--|
| Voluntary. | | | |
| All Saints' ... | 194 | 5 | 2.5 |
| Christ Church... | 265 | 3 | 1.1 |
| Holy Trinity ... | 667 | 24 | 3.5 |
| Parish Church... | 491 | 5 | 1.0 |
| St. Augustine's ... | 686 | 11 | 1.6 |
| St. Joseph's ... | 616 | 1 | 0.1 |
| St. Marie's ... | 630 | 7 | 1.1 |
| Warley St. John's ... | 88 | 7 | 7.9 |
| Board. | | | |
| Akroyd Place ... | 1465 | 26 | 1.7 |
| Boothtown ... | 910 | 53 | 5.8 |
| Bradshaw ... | 241 | 2 | 0.8 |
| Caddy Field ... | 157 | 1 | 0.6 |
| Copley ... | 215 | 18 | 8.3 |
| Haugh Shaw ... | 899 | 40 | 4.4 |
| Higher Board ... | 653 | 3 | 0.4 |
| Lee Mount ... | 890 | 20 | 2.2 |
| Mixenden ... | 217 | 27 | 12.4 |
| Moorside ... | 616 | 19 | 3.0 |
| Northowram ... | 366 | 1 | 0.2 |
| Parkinson Lane ... | 1128 | 22 | 1.9 |
| Pellon Lane ... | 775 | 21 | 2.7 |
| Portland Road... | 732 | 13 | 4.2 |
| Queen's Road ... | 1238 | 21 | 1.6 |
| Siddal ... | 660 | 19 | 2.8 |
| Sunnyside ... | 376 | 1 | 0.2 |
| Wainstalls ... | 191 | 1 | 0.5 |
| Warley Road ... | 1060 | 74 | 6.9 |
| Warley Town ... | 190 | 1 | 0.5 |

In consequence of the spread of the disease during July and August, the following day schools were closed by order.

| NAME OF SCHOOL. | | | PERIOD CLOSED. |
|-----------------|--------------|-----|--------------------------------|
| Boothtown | Board School | ... | From Sept. 9th to Sept. 30th. |
| Portland Road | do. | ... | Do. do. |
| Sunnyside | do. | ... | Do. do. |
| Mixenden | do. | ... | From Sept. 16th to Sept. 30th. |
| Do. | do. | ... | From Nov. 14th to end of year. |

By arrangement, a deputation from the Health Committee met the Chairman, Vice-Chairman, Clerk, and Medical Officer of the School Board, and discussed the situation with regard to the epidemic of scarlet fever, and it was arranged: "That our Department should supply the Board with information of fresh cases that break out, so as to give them an idea where infection exists, and that they would intimate to us as promptly as possible, the occurrence of any suspicious cases. They also promised that they would impress upon all their officers and teachers, the necessity of great care on their part at a time like the present.

Fever.

There were 67 cases of typhoid fever reported during the year, which is less than the number notified during the previous year viz. 79, and also below the average for the previous 10 years, which was 76. The disease was present in the Borough throughout the year, except the month of April, and was most prevalent in the month of October, during which 14 cases were reported.

A small localised epidemic of typhoid fever broke out in Warley Ward during the month of June, when four cases were reported within a week. I visited the district, and found they were all in a block of houses more or less connected. The drainage though not good, did not seem sufficient to account for the outbreak, and they all appeared to be due to a common cause. The infected houses got their water from a local supply, a sample of which was taken, and reported to be dangerously contaminated. This water was traced from its source to the houses, and I found that it was conveyed

in a stone walled drain, having open joints, and that this drain in its course passed very near by, if not actually beneath a privy midden, from which the water undoubtedly became contaminated, I cautioned the residents about using the water, and if compelled to do so, to boil it first. Towns water has since been laid on to all these houses. As a result of these precautions, no more cases occurred, but unfortunately, two of the four notified ended fatally.

The following table gives the sanitary conditions, and probable causes of the notified cases of typhoid.

| Disease. | Number of Cases notified. | Drainage. | | Ventilation | | Privy Middens. | Goux Closets. | Water Closets. | Probable or assigned cause. | | | | | | | |
|---------------|---------------------------|-----------|------|-------------|------|----------------|---------------|----------------|-----------------------------|-------------------------------------|------------------------|---|------------------------|------------------------------------|-----------------|-----------|
| | | Good | Bad. | Good | Bad. | | | | From a Cold. | From a previous case in same house. | From Defective Drains. | Contracted from house or workshop visiting. | Infected water supply. | Other cases in same neighbourhood. | Away from home. | No trace. |
| Typhoid Fever | 67 | 56 | 11 | 67 | ... | 7 | 57 | 3 | 10 | 14 | 6 | 2 | 4 | 1 | 4 | 26 |

The following table shows the percentage of those notified, in relation to the three forms of closets.

| Closets. | | Number in the Borough. | Number Notified. | Percentage. |
|---------------|-----|------------------------|------------------|-------------|
| Water Closets | ... | 4600 | 7 | '06 |
| Goux | ... | 16500 | 57 | '4 |
| Privy Middens | ... | 1050 | 3 | '66 |

When a case is notified, and not removed to Hospital, where a privy midden exists, a special pail, containing strong disinfectants is left, and renewed daily, the contents being destroyed. When a case occurs in connection with a goux closet, special precautions are taken in cleansing and disinfecting the goux tubs, until the case recovers, or is removed to Hospital. Of the 67 cases notified, 15 ended fatally, which gives a deathrate of 0·14 per 1000, and a case mortality of 22 per cent. of those who suffered from the disease. During the previous year 1900, the deathrate was 0·2, and the case mortality 26 per cent., and during 1899 the deathrate was 0·22, and the case mortality 24 per cent. respectively.

Diphtheria.

During the year 61 cases of this disease were reported, or 20 more than were notified during the previous year. This is the largest number of cases that have occurred in one year, since 1897, and is 17 above the average of the past 10 years.

The following table gives the sanitary conditions and probable causes of the notified cases of diphtheria.

| Disease. | No. of Cases Notified. | Drainage. | | Ventilation | | Privy Middens. | Goux Closets. | Water Closets. | Probable or assigned cause. | | | | | | |
|------------|------------------------|-----------|------|-------------|------|----------------|---------------|----------------|-----------------------------|-------------------------------------|------------------------|---|------------------------------------|-----------------|-----------|
| | | Good | Bad. | Good | Bad. | | | | From a Cold. | From a previous case in same house. | From Defective Drains. | Contracted from house or workshop visiting. | Other cases in same neighbourhood. | Away from home. | No trace. |
| Diphtheria | 61 | 56 | 5 | 61 | ... | 3 | 58 | ... | 2 | 11 | 5 | 1 | 3 | 2 | 37 |

This was formerly a disease of the rural districts, but during recent years, has become much more prevalent in large towns, and congested centres of population. Of the above 61 cases, 17 have died, which gives a deathrate of 0·16 per 1000, and a case mortality of 28 per cent. of those attacked with the disease. During the previous year the deathrate was 0·11 per 1000, and the case mortality 29 per cent.

Measles.

During the first seven months of the year, the town was practically free from this disease, but in the month of August, cases cropped up in the Pellon district. The disease began to spread, and during November and December assumed a somewhat extended epidemic form.

The schools were a means of spreading the infection, and the infant departments were those which were chiefly affected. In consequence of this epidemic, the following schools were closed.

| SCHOOLS. | | | Date of Closure. |
|---------------------------|-----------------------|-----|------------------|
| Siddal | (Infants' Department) | ... | November 12th. |
| Lee Mount | do. | ... | November 28th. |
| Holy Trinity | do. | ... | November 28th. |
| St. Maries (whole school) | ... | ... | December 12th. |

Measles caused 33 deaths, all of which occurred during the last four months of the year. This gives a deathrate of 0·31 per 1000, against a deathrate of 0·4 during 1900, and 0·14 during 1899.

Whooping Cough.

Cases of this disease were present in the Borough during the first half of the year, but it did not assume an epidemic form, and throughout the latter half of the year, the district was practically free therefrom. This disease caused 19 deaths during the year, which gives a deathrate of 0·18 per 1000, against a deathrate of 0·079 during the previous year.

Diarrhœa.

There were 41 deaths registered during the year from those causes which are now classified under diarrhœa. This is a much larger number than occurred during the previous year, but below that for the year 1899, and gives a deathrate of 0·39 per 1000. Considering that last summer was excessively hot, and that the ground temperature rose early, and remained for a long time at or above 56°, there were conditions present most favorable to the development of this disease. That being so, our deathrate last year was remarkably low. The following table serves to compare the diarrhœa deathrate of Halifax, with the average of other towns, and with England and Wales.

| | Deathrate per 1000. |
|--|------------------------|
| England and Wales | 0·91 |
| 33 Great Towns | 1·23 |
| 67 other large towns | 1·09 |
| England and Wales less the 100 towns ... | 0·65 |
| Halifax ?... .. | 0·39 |

It will thus be seen that our diarrhoea deathrate was not only below the average of the 100 towns, but also considerably below that of the country generally.

Influenza.

This disease it appears has been an annual visitant to the Borough during the past 10 years, and the year under notice was not altogether free therefrom, though it was much less prevalent. It was present in the town chiefly during the early months of the year, and during the year 9 deaths resulted therefrom, while during the previous year 56 deaths were registered from this cause. During the five years previous to 1900, the number of deaths from this cause was 22, 37, 13, 13, and 28 respectively.

Respiratory Diseases.

Under this heading are included Pneumonia, Bronchitis, and Pleurisy, and during the year 320 deaths were registered as having resulted from these diseases, viz :—Pneumonia 133, Bronchitis 184, and Pleurisy 3. There were 48 deaths less than during the previous year from these causes, and the number is below the average of the previous five years. The respiratory deathrate for the year was 3·0, against 3·7 during the previous year, and 3·6 during 1899.

Phthisis.

During the year, phthisis pulmonalis caused 145 deaths within the Borough, which is seven less than the number recorded during the previous year, but with the exception of that year, it is the highest number registered during a year since 1896. This gives a deathrate

of 1.38 per 1000. During the previous year, the deathrate was 1.5 per 1000. There were also 73 deaths from other tubercular diseases, which with the 145 due to phthisis, make 218 deaths in all, due to tubercular affections, and this gives a deathrate for the year of 2.07 per 1000 population, of persons suffering from the various forms of tubercular disease.

It has now come to be generally recognised, that the sputum of patients suffering from consumption is the chief means of spreading the disease from man to man. This fact was strongly brought out at the International Congress on Tuberculosis held in London from July 22nd to July 27th, 1901. Your Committee appointed Mr. Alderman Coe, J.P., and myself, as delegates to attend this Congress, and the following is our report upon the proceedings thereof, which was presented to your Committee on September 4th, 1901.

COUNTY BOROUGH OF HALIFAX.

Report on the proceedings of the International Congress on Tuberculosis, held in London, from July 22nd to July 27th, 1901 :—

To the Members of the Health Committee.

Gentlemen,

We attended the above Congress as Delegates from the Corporation, in accordance with your instructions, and now beg to present you with the following Report.

The above Congress was undoubtedly the most important that has ever been held upon this subject, as it was attended by some of the most eminent men from

all parts of the world, who were able to speak with authority on the questions under consideration. The Congress was opened on Monday, July 22nd, at 3 o'clock, by His Royal Highness the Duke of Cambridge, but the real and sectional work did not begin till the morning of July 23rd. Taking the various papers read in the different sections, many of which were of a high order, and the discussions which followed, the subject was dealt with from every standpoint, and in a most comprehensive and exhaustive manner. In this Report, however, we can only attempt to refer to some of the more important points dealt with, direct your attention to a few of the more valuable conclusions that were arrived at, and practical facts that were emphasised. The most remarkable feature about the Congress was the announcement which Professor Koch (the discoverer of the cause of consumption) made to the world. He stated with a firmness and an assurance indicative of the strength of his own conviction in the truth of what he was saying, that human and bovine tuberculosis were not identical, and that the bovine could not be transferred to the human subject and *vice-versa*. This statement was so antagonistic, so diametrically opposed to the present day teaching of the scientific world, that it produced a most remarkable effect upon the audience, the like of which we have never before witnessed among a gathering of such eminent men, an effect at first so intense and profound that it amounted almost to consternation. The Professor described a number of experiments that he had carried out, which undoubtedly proved the great difficulty or impossibility experienced in transferring human tuberculosis to cattle, but he could not show with the same authority that the reverse was true, and, as was afterwards pointed out by Lord Lister, the fact that human tubercle cannot be

transferred to cattle does not prove the contrary to be true, and his Lordship aptly illustrated his argument with the result of the experiments of Dr. Copeman with reference to the transference of human small-pox to cattle.

This statement of Koch was naturally the chief topic of discussion among the Delegates for some time afterwards, and as soon as they had had time to give it a little consideration we endeavoured to ascertain the views of some of the authorities in reference thereto. On enquiry, the general opinion seemed to be that while the danger of transferring bovine tuberculosis to man may have been somewhat exaggerated the statement of Koch could not be accepted as an established fact without a further searching investigation and definite proof, and that it would be dangerous to accept it under existing circumstances. Professor Koch also in his most able address, among many other important things, urged that tuberculosis was chiefly spread by means of the sputa from consumptive patients, but, he added, that a person suffering from consumption of the lungs, provided that he took adequate care in collecting and effectually destroying his sputa, was not a great danger to the public health.

Dr. Tatham read a paper, in which he gave some very interesting figures, illustrating the decline of the deathrate from consumption since the year 1851. During the years 1851-60, the average annual deathrate from consumption was 2·6, and during the five years, 1896-9, the average deathrate was 1·3 per 1000, thus showing that during the past fifty years the deathrate from phthisis has been reduced by one-half, or 50 per cent.

Mr. Alderman McDougall, of Manchester, read an important paper on the working of the voluntary notification of phthisis in that city, in which he stated that out of 731 cases of phthisis in which the source of infection had been carefully investigated and probably determined, 405 occurred in patients who lived with a consumptive person, and 124, though not living in the same house, had been intimately associated with a consumptive, showing that the large majority of the cases investigated received infection from a previous sufferer, and which in the above series amounted to 72 per cent.

Dr. Coats, of Manchester, in a paper, gave the result of a number of experiments he had made with regard to the presence of tubercle bacilli in the dust of houses, by which he showed that the bacilli were present in those houses where consumptives lived, but were not to be found in those where the consumptive patient was absent.

A very important paper by Dr. Hermon Biggs, of New York, was read, in which he stated that phthisis was made voluntarily notifiable in that city as far back as 1893, and that in 1897 notification was made compulsory. Several cities in the United States, he said, now require compulsory notification of phthisis. The four and-a-half years working of compulsory notification of phthisis in New York has led to important results, among which it has shown that the disease occurs in infected areas and especially in tenemented houses, also, and most important of all, during the above period of four and-a-half years the deathrate from the disease has fallen 30 per cent.

Very interesting and important discussions took place in the Veterinary Section and in that of Pathology and Bacteriology, but to deal with even the most valuable of them is beyond the scope of this Report.

A very extensive and complete Museum was arranged, containing exhibits fully illustrating the bacteriology as well as the pathology of tubercular affections in all their forms, also maps, diagrams, charts, and photographs in great number, showing the statistics of tubercular disease, its geographical distribution in various countries, and the method of conducting the open-air treatment of the disease. Apparatus were also exhibited for sterilising milk and rendering it innocuous as far as spreading the disease is concerned.

But the most interesting exhibits were some of those of Professor Koch. He showed five culture tubes of the tubercle bacilli, which were inoculated last June from a culture which was originally obtained on the 15th of August, 1881, from a case of miliary tuberculosis in a man. Since that date it has undergone 433 sub-cultures without again being passed through the body of an animal. He also showed preparations demonstrating the results of inoculating cattle with bacilli of bovine and human tuberculosis, being the experiments referred to in his remarkable address.

This great and important Congress, which we hope and believe will have exerted an extensive and far reaching power for good, and will have kindled such an enthusiasm and give such an impetus to the efforts that are being put forth to stamp out this fearful disease, that we consider the practical attainment of that most desirable object is within the bounds of possibility.

The Congress was brought to a close by the adoption of the following Resolutions :—

(1) That tuberculous sputum is the main agent for the conveyance of the virus of tuberculosis from man to man, and that indiscriminate spitting should therefore be suppressed.

(2) That it is the opinion of this Congress that all Public Hospitals and Dispensaries should present every patient suffering from phthisis with a leaflet containing instructions with regard to the prevention of consumption, and should supply and insist on the proper use of a pocket spittoon.

(3) That the voluntary notification of cases of phthisis attended with tuberculous expectoration, and the increased preventative action which it has rendered practicable, has been attended by a promising measure of success, and that the extension of notification should be encouraged in all districts in which efficient sanitary administration renders it possible to adopt the consequential measures.

(4) That the provision of Sanatoria is an indispensable part of the measures necessary for the diminution of tuberculosis.

(5) That in the opinion of this Congress and in the light of the work that has been presented at its sittings, Medical Officers of Health should continue to use all the powers at their disposal, and relax no effort to prevent the spread of tuberculosis by milk and meat.

(6) That in view of the doubts thrown on the identity of human and bovine tuberculosis, it is expedient

that the Government be approached and requested to institute an immediate enquiry into this question, which is of vital importance to the public health and of great consequence to the agricultural industry.

(7) That the educational work of the great National Societies for the prevention of tuberculosis is deserving of every encouragement and support. It is through their agency that a rational public opinion may be formed, the duties of Public Health Officers made easier of performance, and such local and state legislation as may be requisite called into existence.

(8) That this Congress is of opinion that a permanent International Committee should be appointed :—
 (a) to collect evidence and report on the measures that have been adopted for the prevention of tuberculosis in different countries ; (b) to publish a popular statement of these measures ; (c) to keep and publish periodically a record of scientific research in relation to tuberculosis ; (d) to consider and recommend measures of prevention. This Congress is further of opinion that all International and great National Societies whose object is the prevention of tuberculosis should be invited to co-operate.

(9) That in the opinion of this Congress overcrowding, defective ventilation, damp and general insanitary conditions in the houses of the working classes diminish the chance of curing consumption and aid in predisposing to and spreading the disease.

(10) That the following question be submitted for the consideration of the next Congress on Tuberculosis :—
 The constitutional conditions of the individual which predispose to tuberculosis, and the means by which they may be modified.

(11) That while recognising the great importance of Sanatoria, in combating tuberculosis in all countries, the attention of the Government should be directed to informing charitable and philanthropic individuals and societies of the necessity for anti-tubercular dispensaries as the best means of checking tubercular disease among the industrial and indigent classes.

JNO. F. COE,
Chairman of the Health Committee.

Aug. 28th, 1901. JAMES T. NEECH,
Medical Officer of Health.

Voluntary notification of cases of this disease attended with expectoration, has been in operation for a few years in several large towns in this Country, and the increased preventative action which it has rendered possible, has been followed by a promising measure of success, but in my opinion, notification to be of far reaching value and a universal success, must be compulsory. With a view of securing compulsory notification, I made the following report to your Committee on September 18th, 1901.

COUNTY BOROUGH OF HALIFAX.

Report on the advisability of including Phthisis
Pulmonalis among the list of diseases,
which require to be notified.

Gentlemen,

It has been proved beyond any doubt, that the main source of danger, and the chief means of spreading the disease known as phthisis pulmonalis, or consumption, is by the sputum of patients suffering from the disease. In

order to prevent its spread, it is necessary that steps should be taken by the Sanitary Authority to as far as possible destroy the sputum and its contained germs, and thus obviate the spread of infection. The Health Department is however unable to do anything in this direction, unless the residence of patients suffering from the disease is known. This can only be secured by including phthisis with expectoration among the list of notifiable diseases.

In many of the cities of the United States, notification is now compulsory, and in New York, during the past four and-a-half years, the result thereof has been to point out the infected areas, and reduce the deathrate from the disease by 30 per cent.

In my opinion, could we secure compulsory notification the fact of the inspectors visiting infected houses from time to time, would impress upon the inmates, the importance of the disease, and tend to make them more careful in collecting and destroying the sputum.

The necessity of the step will I think appeal to your Committee forcibly, when I remind you that during the past 21 years, more people have died in Halifax from consumption alone, than from all the seven principal zymotic diseases put together, as the following table will show.

| | | Average Phthisis Deathrate per 1000. | Average Zymotic Deathrate per 1000. |
|-----------------------|-----|---|--|
| 10 Years—1881 to 1890 | ... | 2·0 | 1·4 |
| Do. 1891 to 1900 | ... | 1·5 | 1·4 |
| Average for 21 years | ... | 1·8 | 1·7 |

Under section 24 of the Halifax Corporation Act, 1882, power is given to the Corporation on the report of the Medical Officer of Health, and subject to the approval of the Local Government Board, by resolution, to order that any other infectious disease, other than those specified in the Act, shall be deemed to be an infectious disease within the provisions of the Act.

In virtue of the above power, I hereby make this report, and recommend the Corporation to order that phthisis with expectoration be included among the list of diseases which the Act requires to be notified.

I am, Gentlemen,

Your obedient servant,

JAMES T. NEECH,

Sept. 18th, 1901.

Medical Officer of Health.

Acting on the above report, your Committee passed the following resolution :—

“That it be, and it is hereby ordered, that phthisis with expectoration shall be deemed to be an infectious disease within, and subject to the provisions as to infectious diseases of the Halifax Corporation Act, 1882, and that the Town Clerk be instructed to apply to the Local Government Board for their approval of the said Order.”

This resolution was ratified by the Council, and in due course application was made to the Local Government Board to confirm the order. The Local Government Board however refused to do this, and the matter fell through. As a Bill was at the time being prepared, which the Corporation intended to promote in Parliament, a clause was inserted therein, with a view of making the notification of this disease compulsory. When that Bill however subsequently came up before

a select committee of the House of Commons, this clause was struck out.

A good deal of energy has been expended, and good work done in providing Sanatoria for the treatment and cure of phthisis in various parts of the Country, with most beneficial results, and I for one will not detract one iota from the priceless value of these institutions, and the work they are carrying out, but while such is the case, I think we ought to read, mark, learn, and inwardly digest that old adage "Prevention is better than cure," remembering that this is an infectious disease which can be more effectually controlled than any of the zymotic diseases. That being the case, and if the Country be not yet prepared for compulsory notification, is it not incumbent upon sanitarians, and all interested in this subject, to educate the people, and prepare the way for compulsory notification, because that is the first, and only possible step towards the universal application of preventative action, which alone can bring about any marked, and rapid diminution in the incidence of this disease?

Deaths from Violence.

During the year 45 deaths were certified by the Coroner after inquests, which is equal to 2·6 per cent. of the total deaths registered. There occurred also 59 deaths which were neither certified by a registered medical practitioner, nor the Coroner, though they appear to have all been referred to the latter, which is equal to 3·4 per cent. of the total deaths. This is a high percentage, and is the highest of all the 33 Great Towns except Gateshead with a percentage of 4·9, Liverpool 3·9, and Blackburn 3·7 respectively.

INQUESTS IN THE BOROUGH DURING THE YEAR 1901.

| VERDICTS. | Jan. | | Feb. | | Mar. | | April. | | May. | | June. | | July. | | Aug. | | Sept. | | Oct. | | Nov. | | Dec. | | Total. | |
|--------------------------|------|-----|------|-----|------|-----|--------|-----|------|-----|-------|-----|-------|-----|------|-----|-------|-----|------|-----|------|-----|------|-----|--------|-----|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. |
| Accidental Deaths | 4 | ... | 6 | ... | 1 | ... | 4 | ... | ... | ... | 2 | ... | 5 | ... | ... | ... | ... | ... | 3 | 1 | 4 | 1 | 3 | 1 | 32 | 3 |
| Natural Causes | 1 | 1 | 2 | ... | 5 | 1 | 2 | 1 | 4 | 1 | 4 | ... | 1 | ... | 4 | 1 | 3 | 3 | 2 | 2 | ... | 3 | 3 | 1 | 31 | 14 |
| Suicide by various means | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | 1 | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | 3 |
| Other Verdicts | ... | ... | ... | ... | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | 3 | 1 | 2 | ... | ... | ... | 7 | 2 |
| Murder | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Total 1901 | 5 | 1 | 8 | ... | 7 | 2 | 6 | 1 | 4 | 2 | 6 | 1 | 6 | ... | 5 | 1 | 3 | 4 | 8 | 4 | 6 | 4 | 6 | 2 | 70 | 22 |
| Year 1900 | 8 | 2 | 3 | 3 | 4 | 3 | 4 | ... | 4 | 2 | 5 | ... | 2 | 3 | 6 | 3 | 6 | 1 | 4 | 3 | 5 | 2 | 5 | 3 | 56 | 24 |
| " 1899 | 4 | 3 | 1 | 3 | 3 | 5 | 2 | 7 | 7 | 1 | 4 | 2 | 11 | 2 | 4 | ... | 3 | ... | 4 | 2 | 1 | ... | 4 | 1 | 53 | 21 |
| " 1898 | 5 | 6 | 5 | 2 | 4 | 1 | 6 | 3 | 5 | 5 | 10 | ... | 5 | 1 | 7 | 2 | 2 | 1 | 1 | 2 | 7 | 2 | 7 | 1 | 64 | 26 |
| " 1897 | 5 | 3 | 7 | 1 | 5 | 2 | 3 | 3 | 5 | 3 | 4 | 1 | 3 | 4 | 3 | ... | 1 | 3 | 7 | 3 | 4 | 2 | 8 | 8 | 55 | 34 |
| " 1896 | 4 | 2 | 3 | 4 | 7 | 5 | 3 | 1 | 3 | 3 | 7 | 1 | 4 | 1 | 6 | 3 | 4 | 1 | 3 | 3 | 5 | ... | 11 | 4 | 60 | 28 |
| " 1895 | 7 | 5 | 8 | 1 | 5 | 1 | 5 | 3 | 5 | 4 | 6 | 1 | 5 | 4 | 5 | 1 | 4 | 2 | 4 | 4 | 2 | 7 | 6 | 1 | 62 | 34 |
| " 1894 | 11 | 2 | 5 | 2 | 7 | 7 | ... | 2 | 1 | 1 | 5 | 1 | 8 | 1 | 2 | 2 | 1 | 1 | 3 | 3 | 3 | ... | 7 | 4 | 59 | 19 |
| " 1893 | 5 | 2 | 2 | ... | 4 | 4 | 1 | 4 | 3 | 3 | 5 | 1 | 2 | ... | 2 | 1 | 2 | 1 | 2 | 1 | 5 | 5 | 3 | 3 | 39 | 17 |
| " 1892 | 2 | 1 | 1 | ... | 7 | 4 | 7 | 3 | 3 | 1 | 6 | 1 | ... | 2 | 4 | 2 | 5 | 1 | 3 | ... | 5 | 1 | 4 | 2 | 47 | 18 |

Ptomaine Poisoning.

Several cases of ptomaine poisoning were reported on July 11th, in the Pellon district. I instructed the Meat Inspector to make enquiries, and he found each patient had been partaking of a particular tin of meat. He got a list of those who had purchased this particular meat, and visited the houses. I also paid a visit to each house, and made enquiries, which corroborated the report, and found that 17 persons had partaken of this meat, out of which 15 showed symptoms of poisoning. Some of the cases were of rather severe type, but all fortunately recovered. The remainder of the meat was taken from the shop by the Inspector, and it was fortunate that the thing was discovered so early, or many more might have been poisoned.

Sewerage and Drainage.

The sewers and drains throughout the main portion of the Borough are in a good and satisfactory condition, and are frequently flushed. There are however still a number of untrapped gullies in certain parts, and many of them are near doors, and windows of houses. A good many complaints were received during the year, regarding the nuisance arising from these, and some have been changed. In my opinion, trapped gullies should be substituted for these, at any rate, in every case where they exist near houses.

In some of the outlying parts of the Borough, there is no proper system of sewers, and drains. Warley which was added to the Borough during the year under notice, is in the area of the Luddendenfoot Joint Sewage Board, and is at present being sewered and drained, and

when the Joint Board's work is completed, the sewage will be treated by the Joint Board at their outfall works at High Royd. It is expected that the works will be completed, and ready for opening sometime during the current year. I understand the sewage at these works is to be treated by precipitation, and land filtration.

There were several complaints made during the year with regard to the condition of the drainage of Mount Tabor; Illingworth also has no proper system of sewers; nor has Northowram which was recently added to the Borough. I believe however the drainage of these districts is under the consideration of the Highways Committee. The sewage outfall works are situated at Salterhebble, and the treatment of the sewage is to be upon biological principles. So far, a detritus tank, and 12 open septic tanks have been constructed, which are sufficient I understand to deal with the whole sewage of the Borough. The bacteria beds have not yet been made, but they will be proceeded with in due course.

Disposal of Nightsoil and House Refuse.

The nightsoil in the Borough is dealt with under what is known as the Goux System. The closets are constructed with moveable tubs. These tubs when full, are conveyed to the Goux Dépôt, and replaced by others. At the Dépôt, the tubs are here thoroughly cleansed, and lined with shoddy, and are then ready to be taken out and again replace full ones. The shoddy acts as an absorbent, and as the tubs are thoroughly cleansed each time, there is no need to see that the same tub is always supplied to a particular house. The tubs that are, or have been used where typhoid fever happens to break out, are marked, and are more carefully cleansed, and

specially disinfected. There are some 16,500 of this class of closet within the Borough, and the closet tubs are emptied on an average, once in nine days. The chief objection to this system, is the cost. The work of this department was carried out by contract until March, 1899, when it was taken over by the Health Committee. The contents of the tubs are sold by contract at 2/7 per ton, which however returns only about one-twelfth of the cost of working expenses. The balance has to be paid out of the rates. Engaged in carrying out the above work, there are 26 specially constructed vans, 26 horses, and 39 men.

There are still some 1,050 privy middens in the Borough. They are however being gradually done away with. A large proportion of the above are in the newly added areas Warley and Northowram. These middens are emptied quarterly by our own men, and the contents are taken by farmers. With regard to the removal of house refuse, in every case except those houses with privy middens attached, there are tubs for the reception of house refuse. The contents of these tubs are emptied into carts, and conveyed to tips by our men, and each tub is emptied on an average of once in 10 days. A destructor is much needed for dealing with this refuse.

Water Supply.

The water supply to the Borough is by gravitation, and at present from six storage, and six service reservoirs, the total capacity of which is 1,345,957,000 gallons. The collecting ground or drainage area of the storage reservoirs is chiefly moorland, or high mountain pasture, and of the millstonegrit formation. There were several farms within the drainage area, but they have

been purchased by the Corporation, and ceased to be occupied, consequently there is now no danger of sewage pollution. The water, a great deal of it coming as it does from high moorland, is very soft, some of it contains at times an excessive amount of peaty acids, and untreated, will act upon lead. This refers chiefly to the water of Ogden Reservoir. During the end of 1900, and the early part of 1901, the year under review, there were a great many cases of lead poisoning in Northowram and Southowram. These districts receive their water supply direct from Ogden. The water was being treated with chalk at the time, but the filter through which it passed soon after the chalk was added, removed it therefrom, and before the acidity could be neutralised, consequently upon my recommendation, the Waterworks Committee, and Mr. Paskin the Engineer, arranged that lime in definite quantities, be added with the chalk, which as lime water, would pass through the filter. This method of treatment has been carried on ever since, and samples of this water, as supplied to the houses, are regularly taken for analysis, when the quantity of lime is either continued, diminished, or increased, according to the acidity or otherwise of the water. We endeavour to maintain the water neutral, or only slightly acid. As a result of this method of treating the Ogden water, lead poisoning has completely disappeared from the above districts.

In every other respect, the water is pure and wholesome, and free from pollution, and under the above treatment, the risk of lead poisoning if not completely abolished, is reduced to a minimum.

The summer of the year under notice was remarkable for the long period of drought, which continued into the

autumn, and the supply of water in the Halifax reservoirs like that of other large towns, became very seriously reduced in quantity. In consequence, the supply to the town had to be curtailed.

Precautions were issued as early as July 24th, and on September 20th, notices were given to discontinue the swilling of windows, yards, carriages, and gardens, the supply to lakes and fountains in the parks, and drinking fountains, to public urinals except for 10 minutes once per day, and the public swimming baths were closed. Further restrictions were issued as follows:—

| | | | | | |
|---|-------|------------------------|---|---|-------|
| Sept. 22nd.—Water turned off from 7 p.m. to 5 am. | | | | | |
| „ | 27th. | „ | „ | 6 | „ 6 „ |
| Nov. | 2nd. | „ | „ | 6 | „ 8 „ |
| „ | 11th. | „ | „ | 5 | „ 9 „ |
| „ | 14th. | „ | „ | 6 | „ 6 „ |
| „ | 26th. | —Restrictions removed. | | | |

Common Lodging Houses.

There are 17 Common Lodging Houses within the Borough, which are registered to accommodate a total of 821 lodgers. The registration of Common Lodging Houses, now required to be renewed in May every year under the provisions of the Halifax Corporation Act, 1900. These houses are under the supervision of the Police, as far as overcrowding, limewashing, and cleanliness generally are concerned, and Inspector Osborne has charge of them, but they are under the supervision of the Health Department with regard to sanitary arrangements. The Chief Constable informs me, that there was no cause for complaint, no overcrowding, and no need for any prosecutions of any kind during the year.

I accompanied the Watch Committee on their annual tour of inspection of these lodging houses, and each lodging house was visited by me during the year.

On April 29th, 1901, the following report was made by me, to the Watch Committee.

To the Chairman and Members of the
Watch Committee.

Gentlemen,

I have visited the Common Lodging Houses situated within the Borough. Part of them were inspected by me in company with the Committee at their annual inspection, and the remainder were visited on the afternoon of Monday, April 22nd.

Speaking generally, I consider them to be in a good condition, and fairly well kept. There is no necessity for me to report upon the condition of each one seriatim, but there are certain sanitary defects in a few, and I will simply refer to each one of these separately.

LODGING HOUSE, COPLEY STREET.

The ventilation in the upper room is defective, and the window does not appear to open, also the beds were dirty. I would recommend that the window be made to open.

LODGING HOUSE, 19, WINDING ROAD.

This house accommodates 72 lodgers, there is only one W.C. for their use, and the soil pipe is not properly ventilated. This is insufficient, and I would recommend that another be put in, and properly ventilated. I have caused a notice to be served, directing the owner to do this.

LODGING HOUSE, 34, WINDING ROAD.

There are three W.C.'s in this house, and one on the uppermost storey is not ventilated, the soil pipes are not properly ventilated, and the rain water pipe is connected to the water closet drain. I have caused a notice to be served upon the owner to remedy these defects.

NEW MODEL LODGING HOUSE, SMITHY STREET.

In this lodging house there are 4 W.C.'s, all without flushing arrangements. A closet in this condition is a nuisance, and I have caused a notice to be served upon the owner to remedy these defects. One of the W.C.'s, is situated in a passage leading from one part of the house to the other, and is quite open and exposed. This should be partitioned off, and ventilated.

The remaining houses were found in a fairly good condition, except that perhaps at 8, Smithy Street, which is an old building, and rather out of repair. There is also no properly constructed urinal here, and a corner of the yard is used for that purpose.

Under section 153 of the Halifax Corporation Act, 1900, application for the renewal of the registration of all Common Lodging Houses must be made on or before May 15th, in every year, and the Corporation may refuse to register any house they do not consider suitable for the purpose. Now the notices I have caused to be served are simply preliminary ones, but they were sent to point out to the owners, what was necessary to be done in each case, and I recommend the Committee not to register the said houses, unless the desired alterations are carried out.

I am, Gentlemen,

Your obedient servant,

JAS. T. NEECH,
Medical Officer of Health.

The defects referred to in the above report, were remedied in due course, and the licenses of the houses renewed.

Dairies, Cowsheds, and Milkshops.

The dairies, and cowsheds, during the year were visited, and inspected. A good number were also visited by myself, and while there are a number of cowsheds fairly well constructed, and managed, also a good number which are capable of being so altered as to make them passable, there are a large number which are badly constructed, ill lighted and ventilated, with floors defective, so as to render it impossible for them to be kept clean, even if the farmers were so disposed, which I am sorry to say is far from always being the case. There is I am afraid a good deal of tuberculosis among cows in this district, and this is not to be wondered at, seeing the condition in which the sheds are, in which many of them are housed. A badly lighted and ventilated cowshed is just the thing to propagate the disease, and this is greatly assisted by the want of cleanliness and disinfection on the part of farmers. If a cow dies, a farmer might possibly limewash the walls of the stall in which the cow stood, but he would never think of thoroughly cleaning out and disinfecting the manger and the stand generally, hence another and perhaps healthy cow is put into its place, and sooner or later becomes infected with the disease.

A case happened during the year, in which some cows were transferred from an old, and condemned cowshed, into a newly built one, with the result that each cow gave one pint of milk per day more than when in the old shed. If farmers and cowkeepers would only pay greater attention to the proper lighting, cleanliness, and

ventilation of their cowsheds, and less to that "bogey" of theirs, viz., "keeping the cows warm," they would procure more milk, it would be more wholesome as a food, and they would have a much less number of cows suffering from tuberculosis. In fact they would be gainers all round.

On the seventh of August, of the year under review, the Corporation made regulations under the dairies, cowsheds, and milkshops Order of 1885, with respect to dairies, cowsheds, and milkshops in the Borough. These regulations require among other things 800 cubic feet of air space per cow, and by more generally and more strictly enforcing the Order, and the regulations thereunder, a great improvement in the cowsheds of the Borough will be brought about in due course.

The inspection of Cowsheds is under the supervision of the Meat Inspector (J. K. Crawshaw) and District Inspector (J. Wood) who between them paid 701 visits to these cowsheds during the year, as well as 80 visits to the various milkshops in the Borough.

The following table gives the number and nature of the defects found :—

| Nature of Defects. | | | | Number of Defects. |
|---|-----|-----|-----|--------------------------|
| Badly Ventilated Cowsheds | .. | ... | ... | 35 |
| Cowsheds requiring Limewashing | ... | ... | ... | 49 |
| Dirty Floors | ... | ... | ... | 8 |
| Defective Drainage | ... | ... | ... | 56 |
| Want of Light | ... | ... | ... | 24 |
| Insufficient Air space | ... | ... | ... | 40 |
| Want of Middensteads | ... | ... | ... | 2 |
| Offensive Middensteads and Defective Drainage | .. | ... | ... | 7 |
| Drains to Disconnect | ... | .. | ... | 1 |
| Cesspools | ... | ... | ... | 6 |
| Defective Floors | ... | ... | .. | 2 |
| Accumulations | ... | .. | ... | 3 |
| Dirty Milk Vessels | ... | ... | ... | 3 |
| Total | . | ... | ... | 236 |

Of the above 236 defects reported, 166 were remedied, and 70 remained unabated at the end of the year. Before passing from this subject, I should like to draw attention to the fact that there is a large quantity of milk of rather poor quality sold in the Borough, especially during certain seasons of the year. This milk possibly just reaches the standard, but nevertheless it cannot be said to be of good quality, and the condition of this milk must arise from one of two causes, either it is adulterated to bring it down to the standard, or the cows are fed in such a way as to produce such milk, because the milk from a dairy of cows properly fed, would never reach the low standards which are found on analysing many of the milks in this Borough.

Slaughterhouses.

We have a public slaughterhouse which was in existence when the Borough was incorporated in the year 1848. There are also 10 private slaughterhouses in the Borough, to which 302 visits were paid during the year. I have also visited several of them. On the whole, their sanitary condition is fairly good, and they appear to be well kept. A new set of byelaws are required for the regulation of slaughterhouses: I am considering this question and in due course I shall lay before your Committee draft byelaws for that purpose for your consideration and adoption.

The public slaughterhouse is badly arranged, and out of repair. A cold stores is also much needed, and seeing it was a slaughterhouse before the incorporation of the Borough took place, I think the time has now come, when the Markets Committee should take into consideration the question of rebuilding and re-arranging the whole structure.

Factories and Workshops.

A large number of the Factories were visited from time to time during the year, with the object of inspecting the sanitary conveniences connected therewith. Several of these factories were inspected as a result of a notice from H.M. Inspector of Factories (Mr. Garvie). The workshops were also kept under regular supervision.

The following table shows the number of visits that were made, to factories and workshops, and to shops under the Shop Hours Act by the District Sanitary Inspectors.

| District. | Number of Visits made to Factories. | Number of Visits made to Workshops. | Number of Visits under the Shop Hours Act. |
|-----------|---|---|--|
| A | 52 | 648 | 333 |
| B | 69 | 360 | 126 |
| C | 24 | 393 | 356 |
| D | 21 | 90 | ... |
| Total ... | 166 | 1491 | 815 |

As a result of the above visits, a large number of sanitary defects were discovered, the nature of which are set out in the following tables. Each table represents a district, over which a Sanitary Inspector has supervision.

District A

INSPECTOR JAMES ARCHBELL.

| Nature of Nuisance. | | | | Number Registered. |
|----------------------------------|-----|-----|-----|--------------------|
| IN FACTORIES. | | | | |
| Insufficient privy accommodation | ... | ... | ... | 34 |
| Defective water closets | ... | ... | ... | 11 |
| Defective drains | ... | ... | ... | 13 |
| IN WORKSHOPS. | | | | |
| Insufficient privy accommodation | ... | ... | ... | 29 |
| Defective water closets | ... | ... | ... | 11 |
| Defective drains | ... | ... | ... | 9 |
| Want of ventilation | ... | ... | ... | 7 |
| Workrooms overcrowded | ... | ... | ... | 4 |
| Workrooms requiring linewashing | ... | ... | ... | 68 |
| Total | ... | ... | ... | 186 |

District B.

INSPECTOR JOSEPH W. ASQUITH.

| Nature of Nuisances. | | | | Number Registered. |
|-----------------------------------|-----|-----|-----|--------------------|
| IN FACTORIES. | | | | |
| Defective urinals ... | ... | ... | ... | 1 |
| Defective W.C. drains ... | ... | ... | ... | 6 |
| Insufficient privy accommodation | ... | ... | ... | 4 |
| Defective roof ... | ... | ... | ... | 5 |
| Rooms to limewash ... | ... | ... | ... | 2 |
| Dirty closets ... | ... | ... | ... | 21 |
| IN WORKSHOPS. | | | | |
| Rooms requiring limewashing | ... | ... | ... | 14 |
| Insufficient privy accommodation | ... | ... | ... | 22 |
| Defective W.C's ... | ... | ... | ... | 6 |
| Defective sink pipes | ... | ... | ... | 6 |
| Dirty closets ... | ... | ... | ... | 7 |
| Defective roof and fall pipes ... | ... | ... | ... | 6 |
| Insufficient ventilation | ... | ... | ... | 2 |
| Overcrowded workroom | .. | .. | ... | 1 |
| Accumulation of rubbish | ... | .. | ... | 1 |
| Total | ... | ... | . | 104 |

District C.

INSPECTOR JAMES EDWARD FIRTH.

| Nature of Nuisances. | | | | Number Registered. |
|--------------------------------------|-----|-----|-----|--------------------|
| IN FACTORIES. | | | | |
| Made up lavatories | ... | ... | ... | 1 |
| Insufficient closet accommodation | ... | ... | ... | 1 |
| Flooded cellars, defective drains | ... | ... | ... | 4 |
| Insufficient ventilation | ... | ... | ... | 1 |
| Closets requiring limewashing | ... | ... | ... | 5 |
| Defective Water Closets | ... | ... | ... | 2 |
| IN WORKSHOPS. | | | | |
| Defective, broken and made up W.C's. | ... | ... | ... | 6 |
| Insufficient privy accommodation | ... | ... | ... | 12 |
| Insufficient ventilation | ... | ... | ... | 2 |
| Dry rot in floors | ... | ... | ... | 2 |
| Workrooms requiring limewashing | ... | ... | ... | 23 |
| Dirty closets | ... | ... | ... | 4 |
| Leaky soil pipe | ... | ... | ... | 1 |
| Accumulation of rubbish | ... | ... | ... | 1 |
| Total | ... | ... | ... | 65 |

District D.

INSPECTOR JOHN WOOD.

| Nature of Nuisance. | | | | Number Registered. |
|-------------------------------|-----|-----|-----|--------------------|
| IN FACTORIES. | | | | |
| Untrapped Drains | ... | ... | ... | 5 |
| Defective Walled Drains | ... | ... | ... | 4 |
| Offensive Sewage ... | ... | ... | ... | 1 |
| Offensive Smoke ... | ... | ... | ... | 2 |
| Privies requiring Limewashing | | ... | ... | 3 |
| Defective Soil pipes | ... | ... | ... | 2 |
| IN WORKSHOPS. | | | | |
| Rooms requiring Limewashing | | ... | ... | 3 |
| Total | ... | ... | ... | 20 |

The total number of nuisances and sanitary defects registered, as shewn above was 375, of which 370 were remedied or abated, and five remained unabated at the end of the year. Of the above 370 nuisances that were remedied, five connected with Factories, and seven with Workshops were abated as the result of notices received from the Factory Inspector, and a formal notice of abatement was sent by me to the Inspector in each case, after completion of the work, in accordance with the provisions of the Factory and Workshops Act.

Bakehouses.

The Bakehouses were regularly and systematically visited, and inspected during the year. Several were visited by myself, and while there are some both as far as construction and the manner in which they are kept are concerned, are very satisfactory, there are others in only a fair condition. There are some which will require considerable alterations to make them satisfactory, and possibly a few which it will be necessary to close altogether in the near future. Two were discontinued during the year, and two were removed from underground, to the ground floor.

The following table shows the number of bakehouses on the register, and the number of visits paid to them during the year.

| Description of Premises. | Number on Register. | Number of visits made. |
|--|---------------------|------------------------|
| Wheat bread and muffin bakers, including confectioners | 99) | 455 |
| Oat bread and muffin bakers .. | 17) | |

As a result of the above visits, some 81 defects were discovered, which are set out in the following table.

| Nature of Defects. | Number of Defects. |
|---|--------------------|
| Defective drains, and sink drains to disconnect ... | 32 |
| Bakehouses requiring limewashing | 22 |
| Cellar bakehouses closed | 9 |
| Dirty floors | 6 |
| Closets in bakehouses removed | 2 |
| Bad ventilation | 7 |
| Defective floor | 1 |
| Total | 81 |

Out of the above 81 defects, 80 were remedied, and only one remained unabated at the end of the year. The number remedied, includes 22 defects of which notice was received from the Factory Inspector, and to whom formal notice was sent on completion of the necessary work, in compliance with the provisions of the Factory and Workshops Acts.

Ice Cream Makers and Vendors.

Under the Halifax Corporation Act, 1900, we have certain powers for regulating the manufacture and sale of ice cream. The rooms in which this article is made and stored, have been regularly visited by the Inspectors, and as a result of this systematic inspection, ice cream is now manufactured under more cleanly conditions than heretofore. There is however, still considerable room for further improvement in this direction.

In May it was reported to me that the workpeople employed in the manufacture of ice cream in Chapel Fold, and Woolshops, were suffering from an infectious skin disease, which on investigation, I found to be true. I wrote to the proprietors of these two establishments, giving them notice that all persons so suffering must cease forthwith to work, either in connection with the manufacture or sale of ice cream. This notice had the desired effect.

Congress of the Royal Institute of Public Health.

The above Congress was held at Eastbourne from July 25th to August 1st, the Chairman Mr. Alderman Coe, J.P. and myself, having been appointed by your Committee, attended that Congress, and the following report on its proceedings was presented to your Committee on September 11th, 1901.

Report on the proceedings of the Congress of the Royal Institute of Public Health, held at Eastbourne, from July 25th to August 1st, 1901 :--

To the Members of the Health Committee.

Gentlemen,

We attended the above Congress as Delegates from the Corporation, in accordance with your instructions. Several important subjects came up for discussion in the various Sections, and perhaps the one that was of the greatest interest to your Committee was that on Sewer Ventilation. This discussion was opened by Mr. Mawbey, of Leicester, who was followed by Mr. Shone. The latter described a mechanical system of his own for ventilating sewers, which was to be carried out by fans, worked with an electric or other small motor. This system seemed to us to be very complicated, one that might readily get out of order, and one that would be applicable only to new sewers, laid specially for the purpose. Moreover, it would be a costly method to maintain.

A great many gentlemen joined in the discussion, and a great difference of opinion was expressed upon the use of disconnecting traps; some held that house drains ought to be disconnected from the sewer, while others gave it as their opinion that to hold up the amount of sewage in such traps as would be necessary to disconnect every house from the sewer would be liable to be a nuisance, and the decomposition taking place in such traps would foul the sewers and thereby render sewer ventilation more necessary and more difficult to deal with. It was agreed, however, that such a trap was necessary and essential where a drain passed into or beneath a house.

Coming more directly to the question of Sewer Ventilation itself, there seemed to be a strong concensus of opinion among those present that sewers ought to be ventilated to some extent, but not to the extent that was advocated some years ago. But there was also an unanimous opinion that they should not be ventilated at the street level by open manholes and gulleys. The idea of ventilation which found most favour was by long hollow posts, more or less ornamental, or long shafts carried up above the houses. Such shafts, however, must be placed in suitable situations that they may co-operate with the forces operating within the sewer, if they are to be of the maximum utility.

A most interesting discussion was also initiated by a paper from Dr. Millard, on the value of Isolation Hospitals, as at present conducted. He quoted a large number of statistics with a view of throwing doubt upon their value, and moved a resolution asking for an investigation into the question. He got very little support from subsequent speakers in the views he set forth, but a good number supported the resolution, because they thought it could do no harm, and might lead to the acquisition of a considerable amount of useful knowledge in dealing with epidemics of scarlet fever. The motion, however, was lost.

A paper on Elementary Education in connection with Public Health, was read by Miss C. Barker, in which she advocated the teaching of Hygiene in Elementary Schools, and pointed out that though it is in the Code, very few children are taught the subject. She also touched upon the present standard of cleanliness in Elementary Schools, and stated that the washing of the floors of schools and the desks, in different districts,

varies between once in three weeks and once in three or four months. In some places the babies' room is done weekly. The directions given for the washing of the windows varies between once inside monthly and as often as necessary. The period elapsing between the cleansing of the walls, which are swept or washed, varies between three months and one year. Where the walls are lime-washed, the period between each limewashing varies between two and four years.

Dr. Collins followed with a paper in which he urged the need for attending to the eyesight and health of the children, and a discussion followed in which many of the speakers bore out the statements of Miss Barker with reference to the cleansing of schools.

A very interesting paper was read on the plague in Glasgow, by a Dr. Buchanan, of that city, which was illustrated by lantern slides, showing the bacteria of the disease and the lesions they produce in the body. He gave a short history of the late epidemic in Glasgow, but stated that the origin of the disease in that city is still a mystery.

Papers and discussions took place on Destructors, Inspection of Dairy Herds, Registration of Sanitary Engineers, Construction of Infectious Hospitals and many other subjects too numerous to mention in a Report of this character, and what we consider to have been both an interesting and instructive Congress was brought to a close, as far as Sectional work was concerned, about noon of July 31st.

JNO. F. COE,
Chairman of the Health Committee.

JAMES T. NEECH,
Medical Officer of Health.

Aug. 29th, 1901.

Borough Fever Hospital.

Besides the ordinary Fever Hospital at Stoney Royd, we have a Small Pox Hospital built of corrugated iron, at Belle Vue, and in consequence of the pressure upon our space at Stoney Royd, last summer, owing to the epidemic of Scarlet Fever, a large dwelling house called Birks Hall, belonging to your Committee, and situated in the Wheatley Valley, was opened for convalescent scarlet fever patients on September 2nd last.

In consequence of the presence of small-pox in the Country, and the very limited accommodation we had available, should it break out in the Borough, I recommended an extension of the present corrugated iron building, by the erection of another ward block at Belle Vue. This has been done, and we now have a total accommodation for patients in the Borough Hospitals, as follows :—

| | | | |
|------------------------------|-----|-----|---------|
| Stoney Royd Fever Hospital | ... | .. | 95 Beds |
| Birks Hall Convalescent Home | ... | ... | 25 Beds |
| Belle Vue Small-pox Hospital | ... | .. | 36 Beds |
| Total Beds | | | 156 |

The Hospital staff at present consists of the following :—

| | |
|-------------------------|------------------------------|
| Matron | One Dining Hall Maid |
| Two Charge Nurses | One General Servant |
| Nine Probationer Nurses | One Kitchen Maid |
| Cook | One Laundry Engineer |
| Head Laundress | One Porter |
| Under Laundress | Caretaker Birks Hall |
| Three Ward Maids | Caretaker Small Pox Hospital |
| Three House Maids | |

On January 1st, 1901, there remained in the Hospital 40 patients, there were admitted during the year a total of 633 cases, and there were 115 patients remaining in the Institutions on December 31st last.

The following table shows the numbers admitted for each infectious disease during the year,

| | Small-pox. | Typhoid. | Scarlatina. | Others. | Total. |
|---|------------|----------|-------------|---------|--------|
| Cases remaining in Hospital January 1st, 1901 | | 11 | 29 | | 40 |
| Cases admitted during the year | 3 | 18 | 597 | 15 | 633 |
| Total | 3 | 29 | 626 | 15 | 673 |
| Recoveries | 1 | 19 | 504 | 11 | 535 |
| Deaths | | 4 | 15 | 4 | 23 |
| Cases remaining in Hospital December 31st, 1901 ... | 2 | 6 | 107 | | 115 |

The following table shows the number of cases admitted since the Hospital was opened, the total deaths, and the mortality per cent. of those admitted.

| | Small-Pox. | Typhus. | Typhoid. | Fever. | Scarlatina. | Cholera. | Total. |
|--|------------|---------|----------|--------|-------------|----------|--------|
| Number of cases admitted since the opening. | 688 | 34 | 743 | 62 | 2478 | 153 | 4163 |
| Number of deaths since the opening. | 71 | 16 | 155 | 8 | 97 | 19 | 366 |
| Percentage of deaths from all causes, to whole number of cases admitted since the opening 8.79. | | | | | | | |

Scarlet Fever.—There were 597 cases of this disease admitted during the year, four of which were from outside districts, so that 593 cases out of 736 notified in the Borough were removed to Hospital, or 80 per cent. of the total number reported. During the previous year 75 per cent. were removed to Hospital.

Of the 597 cases, 15 died, which gives a mortality of 2·7 per cent., against 3·2 per cent. during the previous year. There were 504 patients discharged during the year, and the average period during which they remained in Hospital was 56 days.

Return Cases.—When a case of Scarlet Fever is discharged from Hospital, returns home, and within about 14 days from that date another child contracts the disease, this latter is called a return case. These cases are always a source of trouble and anxiety, and will happen, however careful one is in discharging patients. Reckoning all cases which have occurred within 16 days of discharge from Hospital, we had during the year 22 return cases, which is equal to 4·1 per cent. of those discharged. I believe however that return cases will sometimes occur three weeks, and even a month after the discharge of the patient from Hospital, even if that patient has been kept isolated therein, two months in uncomplicated cases, and up to three months where complications arise. During four months of the year, the Convalescent Home, Birks Hall was open, and 237 children were discharged therefrom, after remaining therein 14 days. I always took care that only uncomplicated cases were sent down there, or only those in which the complications had disappeared. Notwithstanding the care taken in this direction, eleven return cases resulted from the patients discharged therefrom,

which works out at 4·6 per cent. There were 267 patients discharged from Stoney Royd, and eleven return cases also resulted from them, which is equal to 4·1 per cent.

The following table shows the number of cases of Scarlet Fever that were admitted into the Hospital from 1881 to 1901, and gives the mortality per cent.

| YEAR. | Number Admitted. | Number of Deaths. | Percentage of Deaths of Cases Admitted. |
|----------------|------------------|-------------------|---|
| 1881 | 34 | 2 | 5·8 |
| 1882 | 15 | 1 | 6·6 |
| 1883 | 8 | ... | ... |
| 1884 | 13 | 1 | 7·6 |
| 1885 | 23 | 3 | 13·0 |
| 1886 | 24 | ... | ... |
| 1887 | 54 | ... | ... |
| 1888 | 28 | ... | ... |
| 1889 | 33 | ... | ... |
| 1890 | 39 | 5 | 12·8 |
| 1891 | 47 | 5 | 10·6 |
| 1892 | 15 | 1 | 6·6 |
| *1893 | 1 | ... | ... |
| 1894 | 39 | 3 | 7·6 |
| 1895 | 25 | 3 | 12·0 |
| 1896 | 30 | ... | ... |
| 1897 | 237 | 12 | 5·0 |
| 1898 | 341 | 10 | 2·9 |
| 1899 | 515 | 12 | 2·3 |
| 1900 | 250 | 8 | 3·2 |
| 1901 | 598 | 13 | 2·1 |
| Total 21 years | 2369 | 79 | 3·3 average |

* Epidemic of small-pox, only one case of scarlet fever admitted.

Typhoid Fever.—There were 18 cases of this disease admitted during the year, of which two belonged to outside districts, so that 16 out of 67 cases notified, were removed to the Hospital for isolation or 24 per cent. of the total number reported. During the previous

year, 52 per cent. of the cases were removed, and the decrease in the percentage isolated, is due to the fact that no cases of typhoid were received into the wards for 17 weeks. On account of the pressure of the scarlet fever epidemic, the typhoid wards were used for cases of scarlet fever during that period. Of the 18 cases admitted, 4 died, which gives a mortality of 22·2 per cent. There were 19 discharged, and the average period during which they remained in Hospital, was 37 days.

The following table shows the number of cases of fever (typhoid, typhus &c.), which were admitted into the Hospital between 1881 and 1901, and gives the mortality per cent. thereof.

| YEAR. | Number Admitted. | Number of Deaths. | Percentage of Deaths of Cases Admitted. |
|-----------------|---------------------|-------------------|---|
| 1881 | 17 | 2 | 11·7 |
| 1882 | 24 | 2 | 8·3 |
| 1883 | 26 | 9 | 34·0 |
| 1884 | 29 | 10 | 34·4 |
| 1885 | 16 | 1 | 6·2 |
| 1886 | 18 | 4 | 22·2 |
| 1887 | 18 | ... | ... |
| 1888 | 25 | 5 | 20·0 |
| 1889 | 54 | 13 | 24·0 |
| 1890 | 35 | 8 | 22·8 |
| 1891 | 47 | 7 | 14·8 |
| 1892 | 17 | 2 | 11·7 |
| 1893 | 4 | 1 | 25·0 |
| 1894 | 15 | 2 | 13·3 |
| 1895 | 39 | 7 | 17·9 |
| 1896 | 56 | 8 | 14·2 |
| 1897 | 32 | 4 | 12·5 |
| 1898 | 28 | 6 | 21·4 |
| 1899 | 38 | 6 | 15·7 |
| 1900 | 44 | 10 | 22·7 |
| 1901 | 17 | 2 | 11·7 |
| Total 21 years. | 599 | 109 | 18·1 average. |

Diphtheria.—Twelve cases of this disease were admitted during the year, of which four died. The average stay in Hospital was 20 days.

Small-Pox.—Three cases of this disease were admitted to the Small-Pox Hospital, Belle Vue, during the year. They were all of a modified and very mild form, and were discharged after a stay in hospital of 42 days. Three cases of chicken-pox were also isolated for 14 days each at Belle Vue, because they were somewhat suspicious cases of small-pox.

The following table shows the number of cases that have been admitted to the Borough Fever Hospital since the year 1881 :—

| YEAR. | Small Pox. | Cholera. | Typhus Fever. | Typhoid Fever. | Scarlet Fever. | Diphtheria. | Others. | Total. |
|-------|------------|----------|------------------|-------------------|-------------------|-------------|---------|--------|
| 1881 | 16 | ... | ... | 17 | 34 | ... | 2 | 69 |
| 1882 | 13 | ... | 3 | 24 | 15 | ... | 5 | 60 |
| 1883 | 2 | ... | 2 | 26 | 8 | ... | 5 | 43 |
| 1884 | 1 | ... | ... | 29 | 23 | ... | 2 | 45 |
| 1885 | 15 | ... | 1 | 16 | 23 | ... | 4 | 59 |
| 1886 | 3 | ... | ... | 18 | 24 | ... | 3 | 48 |
| 1887 | 3 | ... | ... | 18 | 54 | ... | 1 | 76 |
| 1888 | 5 | ... | 1 | 25 | 28 | ... | 7 | 66 |
| 1889 | 4 | ... | ... | 54 | 33 | ... | ... | 91 |
| 1890 | ... | ... | ... | 35 | 39 | ... | 7 | 81 |
| 1891 | ... | 1 | ... | 47 | 47 | ... | 6 | 101 |
| 1892 | 188 | ... | 1 | 17 | 15 | ... | 1 | 222 |
| 1893 | 340 | ... | ... | 4 | 1 | ... | ... | 345 |
| 1894 | 15 | ... | ... | 15 | 39 | ... | 1 | 70 |
| 1895 | ... | ... | ... | 39 | 25 | ... | 7 | 71 |
| 1896 | ... | ... | ... | 56 | 30 | ... | 20 | 106 |
| 1897 | ... | ... | ... | 32 | 237 | ... | 3 | 272 |
| 1898 | ... | ... | ... | 28 | 341 | ... | ... | 369 |
| 1899 | ... | ... | ... | 38 | 515 | ... | ... | 553 |
| 1900 | 3 | ... | ... | 44 | 250 | ... | 9 | 306 |
| 1901 | 3 | ... | ... | 18 | 597 | 12 | 43 | 633 |

The administration of the Hospital continues to be satisfactory. The Matron (Miss Robison) devotes great care and attention to its management, and the careful and kindly manner in which the nurses have performed their work, has served to maintain the popularity of the Institution.

Disinfection.

The disinfecting chamber is situated at Stoney Royd, and was constructed by Goddard, Massey and Warner, in the year 1892. During the year under review, there were 17,612 different articles disinfected therein, which consisted of beds, mattresses, bed clothing, carpets, and various articles of dress. There were 1,914 rooms fumigated, and disinfected, also 19 elementary day schools. The latter are shown in the following table :—

| DATE. | Name of School. | Number of Rooms Fumigated. |
|--|----------------------------|----------------------------|
| January 2nd | Copley | 8 |
| do. | Dudwell | 8 |
| January 4th | Haugh Shaw | 20 |
| do. | Lee Mount | 35 |
| January 5th | Moorside | 24 |
| do. | Pellon Church | 9 |
| January 11th | Mixenden | 14 |
| January 12th | Bradshaw | 18 |
| February 2nd | Warley Road | 40 |
| April 6th | do. | 40 |
| July 10th | Parkinson Lane | 30 |
| July 31st | Portland Road | 20 |
| August 1st | St. Thomas | 4 |
| August 2nd | Boothtown | 20 |
| August 6th | Moorside | 24 |
| August 7th | Akroyd Place | 36 |
| August 8th | do. | 21 |
| August 13th | Lee Mount | 35 |
| December 3rd | Mixenden | 14 |
| December 7th | Lee Mount (Infants) | 10 |
| December 2nd | Lee Mount | 25 |
| Total number of rooms disinfected | | 458 |

Disinfectant fluid is given free on application at the Health Office, to those in whose family fever happens to occur, and disinfecting powder is supplied free to all, on application at the Scavenging Dépôt, Lister Lane, between the hours of 10 and 12 a.m. and 2 and 4 p.m. Saturdays 10 and 12 a.m. only.

Meteorological Observations.

Meteorological observations are taken in the grounds of the Public Library, Belle Vue, by Mr. J. Whiteley, the Librarian, to whom I am indebted for the general summary given in the table on the next page.

Besides the above, the rainfall is estimated at 10 other stations distributed over the area of the Halifax Corporation Waterworks, and the following table gives the stations, the height above sea level of each, in feet, and the rainfall for the year under review.

| Height above Sea Level | 1380 | 1350 | 1325 | 1375 | 1050 | 1060 | 990 | 815 | 795 | 568 |
|---------------------------|-----------------------|-----------------------|----------------------|-----------------------|---------|----------------------|--------|------------------|---------|---------|
| 1901. | Walshaw Dean. * | Midgley Moor. * | Warley Moor. * | Ovenden Moor. * | Widdop. | Castle Car Lodge. | Ogden. | Ramsden Wood. | Albert. | Gibbet. |
| | ins. | ins. | ins. | ins. | ins. | ins. | ins. | ins. | ins. | ins. |
| January ... | 2.90 | 3.69 | 3.31 | 3.48 | 2.91 | 3.19 | 3.16 | 2.31 | 2.19 | 2.32 |
| February ... | 1.57 | 2.11 | 1.94 | 2.00 | 2.34 | 2.19 | 2.09 | 1.70 | 1.44 | 1.55 |
| March ... | 2.70 | 3.73 | 3.20 | 3.24 | 4.01 | 3.56 | 3.44 | 2.70 | 2.87 | 2.96 |
| April ... | 3.08 | 3.45 | 3.15 | 3.27 | 3.18 | 3.14 | 3.02 | 2.20 | 2.05 | 2.04 |
| May ... | 1.74 | 1.47 | 1.47 | 1.47 | 1.69 | 1.64 | 1.46 | 1.38 | 1.20 | 1.15 |
| June ... | 1.60 | 1.72 | 1.46 | 1.40 | 1.91 | 1.37 | 1.40 | 1.26 | 1.06 | 1.02 |
| July ... | 2.50 | 2.02 | 2.40 | 2.37 | 2.01 | 2.29 | 1.90 | 2.01 | 1.70 | 2.28 |
| August ... | 3.37 | 2.84 | 2.88 | 2.94 | 2.63 | 2.79 | 2.46 | 2.38 | 2.11 | 2.22 |
| September... | 1.56 | 1.60 | 1.52 | 1.54 | 1.45 | 1.71 | 1.74 | 1.37 | 0.98 | 0.97 |
| October ... | 3.47 | 3.86 | 3.72 | 2.99 | 4.21 | 3.34 | 2.44 | 2.73 | 2.30 | 2.26 |
| November... | 7.44 | 6.51 | 6.76 | 7.58 | 8.08 | 5.96 | 5.68 | 4.90 | 5.76 | 5.76 |
| December ... | 3.96 | 6.24 | 5.13 | 9.18 | 6.98 | 5.71 | 8.67 | 5.10 | 5.28 | 6.87 |
| Totals ... | 35.88 | 39.24 | 36.94 | 41.46 | 41.41 | 36.89 | 37.46 | 30.04 | 28.94 | 31.34 |

Average Rainfall over all the Gauges, 35.96.

Average Rainfall over the Gathering Grounds (marked *), 38.38.

GENERAL SUMMARY OF METEOROLOGICAL OBSERVATIONS TAKEN AT THE PUBLIC LIBRARY, BELLE VUE, FROM JANUARY 1st, 1901, TO DECEMBER 31st, 1901,

BY J. WHITELEY, LIBRARIAN.

LATITUDE OF STATION = 53° 43' N. LONGITUDE = 1° 52' W. HEIGHT ABOVE SEA LEVEL = 625 FEET.

| 1901. | Pressure of Atmosphere in Month. | | Temperature of Air in Month. | | | | | | | | Mean Temperature. | | Vapour. | | | | Mean Reading of Thermometer. | | Wind. | | | | Rain. | | REMARKS. | |
|---|----------------------------------|--------|------------------------------|---------|-----------------|----------------|--------------|-------------------------|------|-------------|-------------------|-------------------------|---------|--------------------------|-------------------------------------|----------------------|------------------------------|---------------------|------------------------|----|----|------|-----------------------|----------------------|----------|--|
| Month. | Mean. | Range. | Highest. | Lowest. | Mean. | | | | Air. | Dew Points. | Elastic Force. | In a cubic foot of Air. | | Mean degree of Humidity. | Mean Weight of a cubic foot of Air. | Maximum Rays of Sun. | Minimum on Grass. | Estimated Strength. | Relative proportion of | | | | Mean amount of Cloud. | No. of days it fell. | | Amount Collected. |
| | | | | | Of the Highest. | Of the Lowest. | Daily Range. | In a cubic foot of Air. | | | | Short of Saturation. | N. | | | | | | E. | S. | W. | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | Ins. | | | | |
| January | 29.349 | 1.504 | 49.2 | 23.9 | 25.3 | 39.4 | 33.1 | 6.3 | 36.0 | 34.0 | 1.96 | 2.3 | 0.2 | 93 | 549 | 48.1 | 29.7 | 0.6 | 5 | 8 | 8 | 10 | 8.8 | 22 | 2.28 | The observations have been reduced to mean values by Glaisher's Barometrical & Diurnal Range Tables, and the Hygrometrical results have been deduced from the seventh edition of Hygrometrical Tables, after corrections for Index errors of the Instruments employed. |
| February | 29.365 | 1.321 | 45.8 | 21.6 | 24.2 | 39.6 | 31.1 | 8.3 | 35.1 | 32.8 | 1.87 | 2.2 | 0.1 | 91 | 550 | 54.7 | 27.5 | 0.5 | 12 | 3 | 2 | 11 | 7.4 | 12 | 1.37 | |
| March | 29.066 | 1.672 | 53.5 | 21.5 | 32.0 | 43.4 | 33.1 | 10.3 | 37.1 | 34.6 | 2.00 | 2.3 | 0.3 | 91 | 544 | 67.2 | 30.2 | 0.8 | 9 | 8 | 4 | 10 | 7.1 | 17 | 3.00 | |
| April | 29.134 | 0.920 | 71.6 | 31.4 | 40.2 | 53.5 | 38.5 | 15.0 | 44.8 | 35.8 | 2.14 | 2.4 | 0.9 | 71 | 534 | 88.3 | 34.5 | 0.7 | 7 | 8 | 5 | 10 | 5.6 | 14 | 1.84 | |
| May | 29.447 | 1.258 | 68.7 | 36.6 | 32.1 | 59.3 | 42.8 | 16.5 | 50.1 | 40.7 | 2.54 | 2.9 | 1.2 | 70 | 534 | 95.0 | ... | 0.7 | 6 | 14 | 6 | 5 | 4.9 | 8 | 1.09 | |
| June | 29.383 | 1.026 | 72.8 | 39.8 | 33.0 | 62.8 | 47.1 | 15.7 | 52.5 | 43.8 | 2.90 | 3.3 | 1.1 | 78 | 531 | 102.4 | 42.1 | 0.7 | 8 | 6 | 6 | 10 | 6.8 | 12 | 1.01 | |
| July | 29.350 | 0.684 | 85.0 | 47.0 | 37.9 | 71.3 | 55.4 | 15.9 | 62.2 | 51.2 | 3.76 | 4.2 | 2.3 | 69 | 520 | 107.0 | 50.6 | 0.7 | 9 | 10 | 3 | 9 | 5.6 | 10 | 2.16 | |
| August | 29.360 | 1.172 | 79.1 | 44.6 | 34.5 | 66.5 | 52.5 | 14.0 | 58.1 | 48.6 | 3.43 | 3.8 | 1.6 | 71 | 525 | 101.9 | 47.6 | 0.9 | 6 | 5 | 6 | 14 | 6.2 | 14 | 2.10 | |
| September | 29.180 | 0.896 | 67.2 | 27.8 | 39.4 | 61.8 | 48.5 | 13.3 | 54.6 | 46.6 | 3.17 | 3.6 | 1.2 | 74 | 525 | 88.1 | 44.6 | 0.7 | 6 | 7 | 12 | 5 | 7.3 | 13 | 0.94 | |
| October | 29.239 | 1.326 | 63.0 | 31.9 | 31.1 | 55.2 | 43.8 | 11.4 | 47.8 | 43.6 | 2.85 | 3.2 | 0.6 | 87 | 534 | 70.8 | ... | 0.6 | 5 | 8 | 9 | 9 | 6.9 | 17 | 2.16 | |
| November | 29.455 | 1.662 | 51.0 | 22.1 | 28.9 | 45.1 | 36.2 | 8.9 | 40.2 | 37.8 | 2.27 | 2.6 | 0.3 | 92 | 546 | 52.8 | ... | 0.7 | 7 | 5 | 4 | 14 | 7.4 | 17 | 5.36 | |
| December | 28.907 | 1.680 | 50.8 | 19.4 | 31.4 | 40.1 | 33.8 | 6.3 | 37.0 | 33.2 | 1.89 | 2.2 | 0.4 | 86 | 539 | 45.9 | ... | 0.6 | 8 | 3 | 6 | 14 | 7.3 | 23 | 6.10 | |
| Annual Means | 29.270 | 1.260 | 63.1 | 30.6 | 32.5 | 53.2 | 41.3 | 11.9 | 46.3 | 40.2 | 2.57 | 2.9 | 0.9 | 81 | 544 | 76.9 | ... | 0.7 | 7 | 7 | 6 | 10 | 6.8 | ... | ... | 29.41 inches of rain fell in 179 days at Belle Vue. |
| Annual Means between Latitudes 53° and 54° N. | 29.657 | ... | 70.6 | 29.6 | 41.0 | 54.8 | 42.6 | 12.2 | 48.1 | 41.5 | 2.70 | 3.1 | 0.9 | 76 | 541 | 84.2 | 38.5 | 1.0 | 7 | 7 | 6 | 11 | 5.8 | .. | ... | Between latitudes 53° and 54°, 28.64 inches fell in 186 days. |

NOTE.—The Annual Means give the Averages for the Twelve Months. The next lower line of numbers give similar Averages for Stations between the 53rd and 54th Parallels of Latitude, between which Halifax lies; these numbers have been adapted from those given by Mr. Glaisher, in his Meteorological Report, published in the Registrar General's Quarterly Returns.

County Borough of Halifax.

THE

Sanitary Inspector's Report

FOR THE

Year ended 31st December, 1901.

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

GENTLEMEN,

I have the pleasure to submit for your consideration my Twenty-seventh Annual Report on the operations of the Health Department for the year ended December 31st, 1901.

TOWN HALL, HALIFAX,

June, 1902.

HEALTH DEPARTMENT.

Summary of Work done.

| | |
|---|-------|
| Total number of Visits made by the District Inspectors ... | 25617 |
| Total number of Visits to Houses | 8794 |
| Number of Visits to Houses with reference to Defective Drainage | 3244 |
| Number of Visits to Houses with reference to Cleauliness, Overcrowding, &c. | 847 |
| Number of Visits to Houses with reference to Infectious Diseases | 3532 |
| Rooms Disinfected | 1914 |
| Cases removed to the Hospital | 632 |
| Infectious Diseases reported | 883 |
| Nuisances reported | 2320 |
| Nuisances abated | 2385 |
| Notices served | 1209 |
| Letters served (referring to Nuisances, &c.)... | 270 |
| Summonses taken out | 11 |
| Smoke Observations taken | 679 |
| Old Ashpits abolished | 19 |
| Old Ashpits altered to Goux System | 152 |
| Goux Closets registered | 461 |

It must be remembered that many nuisances are frequently included under one notice, and therefore the number of nuisances represent considerably more than the number of notices.

Removal of Nuisances.

At the commencement of the year 299 complaints remained on the books and in course of removal, since then 2320 have been registered and 2385 removed, leaving at the close of the year 234 to be dealt with. The following Table shows the nature of nuisances registered.

| Nature of Nuisances. | | | | Number Registered. |
|---------------------------|-----|-----|-----|--------------------|
| Defective Sink Drains | ... | ... | ... | 100 |
| „ „ Pipes | ... | ... | ... | 53 |
| „ „ Syphon Traps | ... | ... | ... | 94 |
| „ Basement Drains | ... | ... | ... | 42 |
| „ Yard Drains | ... | ... | ... | 58 |
| „ Urinal Drains | ... | ... | ... | 5 |
| „ W.C. Drains | ... | ... | ... | 34 |
| „ Area Drains | ... | .. | ... | 9 |
| „ Private Street Drains | ... | ... | ... | 3 |
| Made-up Sink Pipes | ... | ... | .. | 37 |
| „ Bath Pipes | ... | ... | ... | 2 |
| „ Lavatory Pipes | ... | ... | ... | 4 |
| „ Basement Drains | ... | ... | ... | 37 |
| „ Water Closets | ... | .. | ... | 40 |
| „ Yard Drains | ... | ... | .. | 32 |
| „ Urinal Drains | .. | ... | ... | 12 |
| „ Gullies | ... | ... | ... | 33 |
| „ Private Street Drains | ... | ... | ... | 2 |
| Untrapped Basement Drains | ... | .. | .. | 16 |
| „ Sink Drains | ... | ... | ... | 38 |

NUISANCES—*Continued.*

| Nature of Nuisances. | | | | Number Registered. |
|---|-----|-----|-----|--------------------|
| Untrapped Area Drains | ... | ... | ... | 19 |
| „ Yard Drains | ... | ... | ... | 46 |
| „ Urinal Drains | ... | ... | ... | 1 |
| „ Bath Pipes | ... | ... | ... | 9 |
| „ Lavatory Pipes | ... | ... | ... | 23 |
| Drains not efficiently Trapped:--- | | | | |
| Sink Drains | ... | ... | ... | 5 |
| Cellar Drains | ... | ... | ... | 7 |
| Yard Drains | ... | ... | ... | 2 |
| Urinal Drains | ... | ... | ... | 2 |
| Sink Drains requiring Disconnecting | ... | .. | ... | 109 |
| Defective Fall-pipe Drains | ... | ... | ... | 22 |
| „ Fall-pipes | ... | ... | ... | 61 |
| „ Spouting | ... | ... | ... | 62 |
| „ Roofing | ... | ... | ... | 28 |
| Broken Pot and Iron Traps | .. | ... | ... | 2 |
| Insufficient Supply of Water to Closets | ... | ... | ... | 4 |
| Nuisances from Water in Cellar | ... | ... | ... | 16 |
| „ Want of Drains | ... | ... | ... | 10 |
| „ Smoke | ... | ... | ... | 17 |
| „ Poultry | .. | ... | ... | 1 |
| „ Pigeons | ... | ... | ... | 4 |

NUISANCES—*Continued.*

| * Nature of Nuisances. | | | | Number Registered. |
|---|-----|-----|-----|-----------------------|
| Nuisances from Rabbits | ... | ... | ... | 2 |
| „ Swine | ... | ... | ... | 1 |
| Houses Overcrowded | .. | ... | ... | 35 |
| „ unfit for Habitation | ... | ... | ... | 1 |
| „ requiring Limewashing | .. | ... | ... | 86 |
| Accumulations of Offensive Matter | ... | ... | ... | 69 |
| Privies requiring Limewashing | ... | ... | ... | 128 |
| Insufficient Privy Accommodation | .. | ... | ... | 81 |
| Offensive Ashpits and Privies | ... | ... | ... | 69 |
| „ Goux Closets | .. | ... | ... | 138 |
| „ Ash Tubs.. | ... | ... | ... | 11 |
| Doors off Closets | ... | ... | ... | 77 |
| „ Ashes Tub Places | ... | ... | ... | 36 |
| Dilapidated Closets | .. | ... | ... | 54 |
| Ashpits requiring Re-construction | ... | ... | ... | 67 |
| COWSHEDS. | | | | |
| Defective Drains | ... | .. | ... | 16 |
| Want of Light, Room, Air Space, and Ventilation | ... | ... | ... | 20 |
| Dilapidated Cowsheds and Floors | ... | ... | ... | 2 |
| Cesspools requiring Emptying and Defective | ... | ... | ... | 16 |
| Offensive Middensteads | ... | ... | ... | 5 |
| Cowsheds requiring Limewashing | ... | ... | ... | 24 |

NUISANCES—*Continued.*

| Nature of Nuisances. | Number Registered. |
|---|--------------------|
| FACTORIES AND WORKSHOPS. | |
| Rooms requiring Limewashing | 21 |
| Rooms Overcrowded | 3 |
| Insufficient Privy Accommodation | 9 |
| BAKEHOUSES. | |
| Open Drains in Bakehouses | 8 |
| Defective Drains | 21 |
| Want of Ventilation | 2 |
| Miscellaneous | 208 |
| Dirty Passages | 9 |
| TOTAL | 2320 |

The above list does not include work carried out after mere verbal notice.

Night Scavenging.

The following Table shows the number of Ashpits cleansed during the year, and the number of loads of manure and rubbish collected.

| Month. | | Number of Ashpits Emptied. | Loads of Soil. | Loads of Rubbish. | Total Number of Loads. |
|-----------|-----|----------------------------------|----------------------|-------------------------|------------------------------|
| January | ... | 607 | 225 | 233 | 458 |
| February | ... | 390 | 144 | 158 | 302 |
| March | ... | 416 | 294 | 84 | 378 |
| April | ... | 474 | 140 | 217 | 357 |
| May | .. | 538 | 191 | 218 | 409 |
| June | ... | 512 | 230 | 115 | 345 |
| July | .. | 713 | 187 | 194 | 381 |
| August | ... | 486 | 239 | 66 | 305 |
| September | ... | 506 | 112 | 97 | 209 |
| October | ... | 684 | 146 | 131 | 277 |
| November | .. | 344 | 216 | 92 | 308 |
| December | ... | 348 | 152 | 115 | 267 |
| TOTAL | ... | 6018 | 2276 | 1720 | 3996 |

The total number of Ashpits cleansed during the year is 6018, as against 4210 in the previous year. 152 Ashpits with Privies have been altered to the Goux System, 19 abolished, and Ashes Tubs supplied in the place of 14 Dry Ashpits. The above includes Ovenden, Illingworth, Copley, Warley and Northowram Wards.

TABLE SHOWING THE NUMBER OF ASHPITS WITHIN
THE BOROUGH, DECEMBER 31st, 1901.

| District. | Wards. | Ashpits with Privies. | Dry Ashpits. | Total. |
|-----------|-----------------------------|-----------------------------|-----------------|--------|
| 1 | Akroydon and North ... | 50 | 57 | 107 |
| 2 | Ovenden and Illingworth ... | 356 | 30 | 386 |
| 3 | Central and East .. | 37 | 93 | 130 |
| 4 | West and South ... | 19 | 202 | 221 |
| 5 | Skircoat and Southowram ... | 43 | 39 | 82 |
| 6 | Pellon and Kingston ... | 8 | 36 | 44 |
| 7 | Copley .. | 105 | 36 | 141 |
| 8 | Warley ... | 273 | 26 | 299 |
| 9 | Northowram ... | 186 | ... | 186 |
| | TOTAL ... | 1077 | 519 | 1596 |

Goux Scavenging.

The following Table shows the number of Closet Tubs and Loads of Ashes collected during the year.

| Month. | | | | Number of Closet Tubs Collected. | Loads of Ashes Collected. |
|-----------|-----|-----|-----|--|---------------------------------|
| January | ... | ... | ... | 54044 | 1818 |
| February | ... | ... | ... | 46585 | 1568 |
| March | ... | ... | ... | 50414 | 1725 |
| April | ... | .. | ... | 50132 | 1722 |
| May | ... | ... | ... | 51808 | 1726 |
| June | ... | ... | ... | 49170 | 1423 |
| July | ... | ... | ... | 54402 | 1403 |
| August | ... | ... | ... | 53904 | 1477 |
| September | ... | ... | ... | 50084 | 1373 |
| October | ... | ... | ... | 54423 | 1662 |
| November | ... | ... | ... | 50834 | 1706 |
| December | ... | ... | ... | 50428 | 1813 |
| TOTAL | | | | 616228 | 19416 |

The above represents 29344 loads of Night Soil (each load containing 21 Closet Tubs), as against 28067 and 19162 loads of Ashes respectively for the preceding year.

The number of additional Closets registered is 461, being a decrease of 226 on the number registered during the year 1900.

Goux Scavenging.

The following Table shows the number of Goux Closet Tubs registered since the commencement of the Goux System.

| Year. | | | Number of Closet Tubs. | Number Registered during each year. |
|-------|--|-----|------------------------------|---|
| 1871 | ... | ... | 1102 | 1109 in 15 months |
| 1872 | ... | ... | 1895 | 786 |
| 1873 | ... | ... | 2440 | 545 |
| 1874 | ... | ... | 2820 | 380 |
| 1875 | .. | ... | 3088 | 268 |
| 1876 | ... | .. | 3316 | 228 |
| 1877 | ... | ... | 3769 | 453 |
| 1878 | ... | ... | 4277 | 508 |
| 1879 | ... | ... | 4858 | 576 |
| 1880 | ... | ... | 5071 | 218 |
| 1881 | ... | ... | 5552 | 481 |
| 1882 | ... | ... | 6057 | 505 |
| 1883 | ... | ... | 6506 | 449 |
| 1884 | ... | ... | 7405 | 899 |
| 1885 | ... | ... | 8049 | 644 |
| 1886 | ... | ... | 8727 | 678 |
| 1887 | ... | ... | 9327 | 600 |
| 1888 | ... | ... | 9831 | 504 |
| 1889 | ... | ... | 10446 | 615 |
| 1890 | ... | ... | 11098 | 652 |
| 1891 | ... | ... | 11644 | 546 |
| 1892 | ... | ... | 12068 | 419 |
| 1893 | ... | ... | 13047 | 984 |
| 1894 | ... | ... | 13450 | 403 |
| 1895 | ... | ... | 13797 | 347 |
| 1896 | ... | ... | 14145 | 348 |
| 1897 | ... | ... | 14444 | 299 |
| 1898 | } 145 Tubs returned in connection with Property pulled down. | ... | 14881 | 437 |
| 1899 | | ... | 15287 | 551 |
| 1900 | | ... | 15974 | 687 |
| 1901 | 38 Tubs returned | ... | 16397 | 461 |

During the year 316 Closets have been erected in connection with new property, and 134 have been altered from the old system, 2 substituted for Water Closets, and 9 added where the accommodation was previously insufficient.

Birks Hall Tips.

Table showing the number of loads of Ashes and Rubbish tipped during the year.

| Names. | | | | Number of Loads. |
|-----------------|-----|-----|-----|------------------------|
| Goux Department | ... | ... | ... | 16645 |
| Private Firms | ... | ... | .. | 880 |
| TOTAL | .. | ... | .. | 17525 |

Mozley Tip.

Table showing the number of loads of Rubbish tipped during the year.

| Name. | | | | Number of Loads. |
|-----------------|-----|-----|-----|------------------------|
| Goux Department | ... | ... | ... | 1343 |

Streets Scavenging.

Table showing number of Streets and Miles requiring Sweeping in each Ward.

| Wards. | | | | Number of Streets. | Number of Lineal Miles of Setting. | |
|-------------------------|-----|-----|-----|--------------------------|---------------------------------------|--------|
| | | | | | Miles. | Yards. |
| East | ... | ... | ... | 89 | 7 | 114 |
| Central | ... | ... | .. | 41 | 4 | 522 |
| South | ... | ... | ... | 51 | 6 | 1015 |
| West | ... | ... | .. | 39 | 5 | 848 |
| North | ... | ... | ... | 33 | 4 | 1109 |
| Northowram | ... | ... | ... | 24 | 3 | 1468 |
| Southowram | ... | ... | ... | 37 | 6 | 1406 |
| Skircoat | ... | ... | ... | 25 | 3 | 452 |
| Kingston | ... | ... | ... | 14 | 2 | 1600 |
| Pellon | ... | ... | ... | 18 | 3 | 601 |
| Ovenden and Illingworth | ... | ... | ... | 29 | 10 | 265 |
| TOTAL | | | | 400 | 58 | ... |

Streets Scavenging.

Table showing number of Lineal Yards and Miles Swept during the year in each Ward.

| Wards. | | | Number of Lineal Yards Swept. | Miles. | Yards. |
|---|-----|-----|-------------------------------------|--------|--------|
| East | ... | ... | 2,673,713 | 1519 | 273 |
| Central | ... | ... | 984,692 | 559 | 852 |
| South | ... | ... | 1,139,430 | 647 | 710 |
| West | ... | ... | 770,065 | 437 | 945 |
| North | ... | ... | 587,179 | 333 | 1099 |
| Akroydon | ... | ... | 322,446 | 183 | 366 |
| Southowram | ... | ... | 606,811 | 344 | 1371 |
| Skircoat | ... | ... | 208,931 | 118 | 1251 |
| Kingston | ... | ... | 118,696 | 67 | 776 |
| Pellon | ... | ... | 277,330 | 157 | 1010 |
| Ovenden and Illingworth Part Swept by Halifax Gang | | } | 862,780 | 490 | 380 |
| TOTAL | ... | ... | 8,552,073 | 4859 | 233 |

Streets Scavenging.

The subjoined Table gives at a glance the work done in this Department.

| | 1901. |
|---|-----------|
| Number of Streets swept | 33,395 |
| Lineal Yards Swept | 8,552,073 |
| Number of Streets Watered | 15,699 |
| Loads of Water used for that purpose | 21,877 |
| Loads of Sweepings gathered | 7,343 |
| Loads of Snow removed from the Streets | 1,793 |
| Number of Gullies emptied | 209,356 |
| Number of Street Drains flushed | 534 |

During the year 315 loads of garbage have been removed from fishmongers, fried fish shops, and green-grocers.

THE FOLLOWING TABLE SHOWS THE AMOUNT OF WORK DONE IN THIS DEPARTMENT FROM
1887 TO 1901.

| | 1887 | 1888 | 1889 | 1890 | 1891 | 1892 | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 |
|--|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Number of Streets Swept ... | 24234 | 25901 | 27149 | 28244 | 28869 | 27019 | 30700 | 29800 | 26921 | 32204 | 30569 | 31960 | 30997 | 31402 | 33395 |
| Number of Streets Watered ... | 3858 | 4157 | 8620 | 5337 | 5404 | 8016 | 7822 | 5382 | 10055 | 9762 | 10045 | 10637 | 13036 | 11519 | 15699 |
| Loads of Water used ... | 5430 | 6255 | 12442 | 6877 | 6598 | 8057 | 8648 | 5969 | 10965 | 11850 | 11824 | 12435 | 15002 | 14831 | 21877 |
| Loads of Sweepings gathered ... | 4855 | 4609 | 4574 | 6882 | 5102 | 4833 | 6571 | 5184 | 4926 | 5364 | 6522 | 6979 | 6153 | 6119 | 7343 |
| Number of Gullies emptied ... | 74512 | 76661 | 89852 | 100103 | 122611 | 120004 | 144019 | 153411 | 133784 | 175903 | 176664 | 196044 | 195316 | 181384 | 209356 |
| Loads of Snow removed from the Streets ... | 2843 | 8031 | 972 | 884 | 291 | 14564 | 8844 | 1215 | 14331 | 41 | 9081 | 806 | 3417 | 12679 | 1793 |
| Drains flushed ... | 943 | 789 | 306 | 523 | 1278 | 1822 | 2211 | 1006 | 709 | 592 | 684 | 1177 | 810 | 98 | 534 |

ANALYSIS OF REFUSE COLLECTED IN THE BOROUGH
OF HALIFAX DURING THE YEAR 1901.

| | | | Number of Loads. |
|---|-----|-----|---------------------|
| From Wet and Dry Ashpits | ... | ... | 3,996 |
| From Ashes Tubs | ... | ... | 19,416 |
| From Goux Closet Tubs | ... | ... | 29,344 |
| Sweepings gathered from the Streets, and Refuse from Gullies | ... | ... | 7,343 |
| Garbage removed from Market Hall | ... | ... | 1,234 |
| Horse Droppings from Streets | ... | ... | 264 |
| Garbage from Fried Fish Shops | ... | ... | 315 |
| Total Number of Loads | ... | ... | 61,912 |

Smoke Observations.

The following Table shows the number of Smoke Observations taken during the year, and the average number of minutes of dense smoke emitted.

| | Number of Observations taken. | Average Number of minutes of Dense Smoke emitted. |
|---|--|--|
| Number of Observations taken ... | 679 | |
| Number showing moderate Smoke or <i>nil</i> | } 225 | |
| Number of Observations taken for a period of 60 minutes, each show- ing Dense Smoke . . . | } 454 | |
| Average number of minutes of Dense Smoke emitted from Chimneys ... | } ... | 3.20 |

Smoke Observations.

The following Table shows the number of observations taken, names of firms, and number of boilers working.

| Name of Firm. | Address. | Number of Boilers working. | Number of Observations taken. | Average number of Minutes of Dense Smoke emitted. |
|----------------------------------|--------------------------------|----------------------------|-------------------------------|---|
| Akroyd & Ambler ... | New Brunswick Street | 1 | 3 | 2.0 |
| Akroyd J. & Sons, Ltd. | Bowling Dyke ... | 3 | 7 | 1.2 |
| Akroyd W. .. | Lucy Street ... | 1 | 2 | nil |
| Akroyd J. & Son ... | Haley Hill ... | 1 | 3 | 1.0 |
| „ Ltd. ... | Copley Mills ... | 1 | 4 | nil |
| Baldwin J. & J. ... | Clark Bridge Mills ... | 5 | 10 | 3.7 |
| Barraclough J. & Sons | Boy's Mill, brick chimney | 2 | 5 | 4.8 |
| „ | Boy's Mill, stone chimney | 1 | 4 | nil |
| Balme & Pritchard ... | Lister Lane, stone chimney | 2 | 2 | 2.5 |
| Baldwin & Walker ... | West Croft Mill | 2 | 3 | 1.3 |
| Bentley C. W. ... | Equa Beer Brewery, Pellon Lane | 1 | 2 | nil |
| Bowman Bros. ... | Pellon Lane ... | 6 | 1 | 11.0 |
| Butler James ... | Adelaide Street ... | 1 | 2 | 4.0 |
| Berry John ... | New Bank ... | 1 | 3 | nil |
| Booth J. & Son ... | Lee Bridge ... | 6 | 4 | 0.2 |
| Bowman J. M. ... | Lee Bank ... | 2 | 5 | nil |
| Bradford and District Dyeing Co. | 1, Lee Bank .. | 4 | 5 | 0.2 |
| „ | 2, Lee Bank ... | 6 | 4 | nil |
| „ | 1, Old Lane ... | 4 | 5 | 2.0 |

SMOKE OBSERVATIONS—*Continued.*

| Name of Firm. | Address. | Number of Boilers working. | Number of Observations taken. | Average number of Minutes of Dense Smoke emitted. |
|---------------------------------|----------------------------------|----------------------------|-------------------------------|---|
| Bancroft Alfred ... | Lister Street ... | 1 | 2 | nil |
| Bancroft W. ... | Fenton Estate ... | 2 | 1 | 1·0 |
| Binns E. & Son .. | West Parade ... | 2 | 5 | 1·8 |
| Booth & Co. ... | Arundel Street .. | 1 | 5 | 0·8 |
| Butler J. & Co. ... | Adelaide Street, new chimney ... | 1 | 2 | 2·0 |
| Bennett Bros. ... | Aked's Road ... | 1 | 4 | 1·7 |
| Calder & Hebble Co.... | Engine House Lane ... | 1 | 4 | 2·5 |
| Clayton & Murgatroyd | Lower Wade Street ... | 4 | 12 | 3·1 |
| Crabtree Exors. ... | Well Lane ... | 2 | 1 | nil |
| Crossley & Porter Orphanage ... | Skircoat Moor ... | 1 | 4 | nil |
| Calvert R. ... | Green Mount Iron Works | 1 | 1 | nil |
| Carter J. & Co. ... | Parkinson Lane ... | 1 | 1 | 1·0 |
| Charnock J. & Sons ... | Pellon Lane ... | 1 | 1 | nil |
| Crossland J. & Sons ... | North Bedford Street | 1 | 1 | 2·0 |
| Crossley J. & Sons, Ld. | Dean Clough ... | 4 | 4 | 2·7 |
| „ | Office Chimney ... | 8 | 7 | 4·2 |
| „ | Lee Bridge, stone chimney ... | 6 | 6 | 9·3 |
| „ | Lee Bridge, brick chimney ... | 6 | 4 | 6·2 |
| Calvert W. & Sons ... | Illingworth Mills ... | 2 | 1 | 1·0 |
| Crossley J. & Son ... | Dyehouse Chimney ... | ... | 1 | nil |
| Crabtree F. ... | Cotton Mill, Salter-hebble | 3 | 7 | 4·4 |
| Crown Hardware Co.... | Corporation Street ... | 1 | 5 | 0·6 |

SMOKE OBSERVATIONS—*Continued.*

| Name of Firm. | Address. | Number of Boilers working. | Number of Observations taken. | Average number of Minutes of Dense Smoke emitted. |
|-----------------------------|----------------------------------|----------------------------|-------------------------------|---|
| Carter & Wright ... | South Darley Street .. | 1 | 3 | 0·3 |
| Drake J. & Co. ... | Foundry Street ... | 1 | 2 | 1·0 |
| Dyson J. & Sons ... | Haugh Shaw ... | 1 | 4 | 1·2 |
| Earnshaw A. ... | Grantham Road ... | 1 | 4 | 1·0 |
| Eastwood A. ... | Craven Edge Mill ... | 1 | 5 | 2·6 |
| Edwards & Sutcliffe ... | Canal Mills, Copley ... | 1 | 5 | nil |
| Farrar J. B. ... | Lower Wade Street ... | 2 | 3 | 2·0 |
| „ | Well Lane ... | 1 | 4 | 1·7 |
| Foster E. & Sons ... | Woolshops ... | 1 | 3 | 1·0 |
| Farnell E. & Son ... | Gibbet Street ... | 1 | 3 | 1·0 |
| Fletcher Bros. ... | Raglan Street, stone chimney ... | 4 | 4 | 2·7 |
| „ | Raglan Street, brick chimney ... | 1 | 1 | 3·0 |
| „ | Raglan Street, new chimney ... | 1 | 2 | 5·0 |
| Fletcher Harold ... | Bowling Dyke ... | 2 | 6 | 2·1 |
| Farrar H. & Son ... | Upper Clay Pits ... | 1 | 2 | 2·5 |
| Foster Adam ... | Builder, Arundel Street | 1 | 2 | 0·5 |
| Forest Mill Co. ... | Ovenden ... | 1 | 5 | 4·4 |
| Fleming, Birkby and Goodall | Hopwood Lane ... | 1 | 4 | 1·2 |
| Fleming A. ... | Premier Works, Grantham Road | 1 | 4 | 0·5 |
| Green J. ... | Corporation Street ... | 1 | 4 | nil |
| Greenwood J. ... | Cross Hills ... | 1 | 3 | 7·0 |
| Hanson W. .. | Range Royd Mill ... | 3 | 4 | nil |

SMOKE OBSERVATIONS—*Continued.*

| Name of Firm. | Address. | Number of Bottlers working. | Number of Observations taken. | Average number of Minutes of Dense Smoke emitted. |
|--|----------------------------|-----------------------------|-------------------------------|---|
| Halifax Corporation Baths | Woodside, Haley Hill | 1 | 4 | 1·0 |
| Halifax Flour Society | Bailey Hall ... | 2 | 10 | 3·0 |
| Halifax Workhouse ... | Gibbet Street .. | 2 | 3 | 2·3 |
| Halifax Industrial Society | Northgate ... | 1 | 3 | 0·6 |
| Halifax Corporation ... | Albert Road ... | 1 | 3 | 1·3 |
| „ „ | Electric Light Works | 3 | 16 | 5·5 |
| „ Infirmary ... | Free School Lane ... | 1 | 8 | nil |
| Halifax and District Mineral Water Co. | Hall Street ... | 1 | 3 | 8·6 |
| Haigh Allan & Co. ... | Winding Road ... | 1 | 4 | 2·2 |
| Harrison & Singleton | Horton Street ... | 1 | 6 | 1·3 |
| Holdsworth J. & Co. ... | Shaw Lodge Mills ... | 10 | 7 | 1·8 |
| Hoyle E. & Son, Ltd. | Waterside, 1 chimney | 2 | 3 | 1·3 |
| „ „ | „ 2 chimney | 2 | 3 | 1·0 |
| Highfield Leyland | Croft Mill, Gaol Lane | 3 | 3 | 2·0 |
| Halliday G. & W. ... | Holmfield Brickworks | ... | 10 | nil |
| „ „ | The Howcans Brickworks | ... | 2 | nil |
| „ „ No. 1 | „ | ... | 2 | nil |
| „ „ No. 2 | „ | .. | 2 | nil |
| Hartley & Sugden ... | Gibbet Street ... | 1 | 4 | 2·2 |
| Hitchen J. ... | Iron Works, Hall Street | 1 | 1 | nil |
| Hoyle Richard ... | Queen's Road Mill ... | 2 | 2 | 1·0 |
| Howarth G. ... | Cabinet Works, Pellon Lane | 1 | 2 | 2·0 |

SMOKE OBSERVATIONS—*Continued.*

| Name of Firm. | Address. | Number of Boilers working. | Number of Observations taken. | Average number of Minutes of Dense Smoke emitted. |
|------------------------|------------------------|----------------------------|-------------------------------|---|
| Howson J. M. & Co... | Albert Street . | 2 | 4 | 4.0 |
| Hebden H. C. ... | Winding Road .. | 1 | 3 | nil |
| Hanson & Keighley ... | Adelaide Mills .. | 1 | 3 | 1.3 |
| Hollinrake & Clegg ... | Miall Street, | 5 | 3 | 3.0 |
| | old chimney | | | |
| " " | " new " | 5 | 3 | 3.6 |
| Hirst & Sons ... | Weymouth Street ... | 1 | 3 | nil |
| Horsfall Eli ... | Commercial Road ... | 1 | 3 | nil |
| Hoyle J. T. ... | Range Bank ... | 4 | 4 | 0.7 |
| Hanson W. .. | Jumples Mill, | 2 | 1 | 5.0 |
| | Mixenden | | | |
| Horsfall & Co. ... | Peilon Lane ... | 1 | 3 | 4.3 |
| Howarth Greenwood... | West End Cabinet Works | 1 | 1 | 3.0 |
| Inman Brothers .. | Union Street South ... | 1 | 1 | nil |
| Inman C. W. and S. K. | Ærated Water Works, | 1 | 3 | 0.6 |
| | Hanson Lane | | | |
| Knight J. ... | Pellon Lane ... | 1 | 1 | 1.0 |
| Law S. & Sons ... | Square Road .. | 1 | 2 | nil |
| Lee & Sons ... | Timber Street .. | 1 | 3 | nil |
| Lee Bros. ... | King Cross ... | 1 | 1 | nil |
| Lumby, Son & Wood.. | New Bond Street ... | 1 | 1 | 1.0 |
| Morton J. ... | Siddal ... | 1 | 5 | 2.0 |
| " | Siddal Lane .. | 1 | 4 | 0.7 |
| Martin ... | Falcon Laundry, | 1 | 6 | 0.1 |
| | Salterhebble | | | |
| Maude & Turner ... | Gibbet Street ... | 1 | 2 | 1.0 |

SMOKE OBSERVATIONS—*Continued.*

| Name of Firm. | Address. | Number of Boilers working. | Number of Observations taken. | Average number of Minutes of Dense Smoke emitted. |
|--------------------------|----------------------------|----------------------------|-------------------------------|---|
| McNaught Thos. ... | Hare Street ... | 1 | 5 | 3·0 |
| Milner & Co. ... | Raglan Street ... | 1 | 4 | 0·2 |
| Martin & Sons ... | Pellon Lane .. | 3 | 5 | 1·4 |
| McCrea H. C. & Co. ... | Horley Green Road ... | 1 | 2 | nil |
| Moore Z. ... | Shaw Mill, Mixenden... | 1 | 3 | 6·6 |
| Mitchell Bros. ... | Pellon Lane ... | 2 | 5 | 1·4 |
| Mackintosh & Co. ... | Queen's Road ... | 1 | 7 | 1·5 |
| Mackerill S. . | Engineers, Hall Street | 1 | 1 | nil |
| Northern Engineering Co. | Parkinson Lane ... | 1 | 1 | 2·0 |
| North A. ... | Old Lane ... | 1 | 4 | 0·2 |
| Ordish J. ... | Waterside ... | 1 | 1 | nil |
| Oates J. E. ... | Hanson Lane, stone chimney | 1 | 8 | 3·5 |
| " | Hanson Lane, brick chimney | 1 | 9 | 5·4 |
| Oates & Green, Ltd. ... | Horley Green Road ... | 1 | 2 | 1·0 |
| " | Beacon Road ... | 1 | 2 | 4·0 |
| " | Ellen Royd .. | 1 | 4 | 1·0 |
| Parker Thos. & Co. ... | Pellon Lane ... | 1 | 2 | 1·0 |
| Pohlmann & Sons ... | Hall Street ... | 1 | 2 | 1·0 |
| Parker & Co. ... | Horley Green Road ... | 1 | 2 | nil |
| Ovenden Worsted Co. | Holmfield ... | ... | 7 | 0·7 |
| Pickles W. ... | Steam Laundry ... | 1 | 3 | 2·0 |
| Pickles Messrs. & Sons | Victoria Mills ... | 2 | 2 | nil |

SMOKE OBSERVATIONS—*Continued.*

| Name of Firm. | Address. | Number of Boilers working. | Number of Observations taken. | Average number of Minutes of Dense Smoke emitted. |
|------------------------------|--------------------------|----------------------------|-------------------------------|---|
| Ramsden Thos. & Son | Trinity Road ... | 1 | 10 | 1·9 |
| Robinson E. ... | Battinson Road ... | 3 | 3 | 1·6 |
| Robinson Jesse ... | New Bond Street .. | 2 | 2 | 2·0 |
| Robinson John .. | Prospect Mill, Ovenden | 1 | 5 | 1·0 |
| Redman C. ... | Top of Parkinson Lane | 1 | 5 | 1·6 |
| Rushworth W. ... | Hayes Mill, Mixenden ... | ... | 3 | 3·0 |
| Sagar J. & Co. .. | Water Lane ... | 1 | 7 | 2·8 |
| Smeeton J. ... | Stoney Royd ... | 3 | 6 | 1·0 |
| Smith Thos. ... | Cinderhills ... | 1 | 3 | nil |
| Smith D. & Co., Ltd. ... | Siddal ... | 1 | 4 | 2·7 |
| Smith F. G. ... | South Parade ... | 1 | 3 | 2·3 |
| Standard Screw Co. ... | Dispensary Walk ... | 1 | 7 | 1·4 |
| Swan Bank Brick and Tile Co. | Swan Bank .. | 1 | 7 | 1·2 |
| Scott Brothers ... | Johnson Street ... | 1 | 3 | 1·0 |
| Smith & Wiltshaw ... | Parkinson Lane Top ... | 1 | 3 | 1·3 |
| Smithson J. ... | Lister Lane ... | 2 | 3 | 4·6 |
| Stott Brothers ... | Mount Street ... | 1 | 1 | nil |
| Soothill B. .. | North Castle Street .. | 1 | 2 | nil |
| Standeven & Earnshaw | Ladyship ... | 3 | 5 | 1·6 |
| Speak Paul ... | Mixenden ... | 1 | 3 | 0·3 |
| Smith B. G. ... | Stannary Street ... | 1 | 2 | 2·0 |
| Smithson J. .. | Horton Street ... | 1 | 1 | nil |

SMOKE OBSERVATIONS—*Continued.*

| Name of Firm. | Address. | Number of Boilers working. | Number of Observations taken. | Average number of Minutes of Dense Smoke emitted. |
|------------------------------|-----------------------------------|----------------------------|-------------------------------|---|
| Simpson & Son, Ltd. ... | Heath Road ... | 2 | 3 | nil |
| Stead Bros. .. | Hare Street ... | 1 | 5 | 0·4 |
| Stott & Ingham ... | Battinson Road Mill.. | 1 | 4 | 2·5 |
| Tillotson Bros. .. | Sedburgh Road ... | 2 | 6 | 2·1 |
| Taylor J. ... | Archer Street ... | 1 | 4 | 1·0 |
| Taylor & Hanson ... | North Bridge ... | 2 | 1 | nil |
| Todd J. & Sons ... | Shay Lane, Ovenden... | 1 | 5 | 1·4 |
| Turner Edwin ... | Dapper Mill, Wheatley | 3 | 1 | 6·0 |
| Union Hospital ... | Salterhebble .. | 1 | 5 | 1·6 |
| Willey, Pearson & Co. | Haugh Shaw Road ... | 6 | 10 | 8·0 |
| Ward J. W. and Son... | Walnut Street ... | 5 | 4 | 0·7 |
| Wade Josiah ... | Hopwood Lane ... | 1 | 2 | 1·0 |
| Whitley S. & Co. ... | Hanson Lane ... | 5 | 7 | 3·4 |
| Whiteley J. & Sons ... | West Parade ... | 2 | 5 | nil |
| Walsh, Brierley and Eastburn | Pellon Lane .. | 1 | 4 | 1·0 |
| Whitaker R. & Sons ... | Corporation Street ... | 2 | 4 | nil |
| Wood George ... | Pellon Lane .. | 1 | 1 | 5·0 |
| Webster S. .. | Ovenden Wood ... | 1 | 1 | 1·0 |
| Wilson Taylor .. | Hope Leather Factory, Pellon Lane | 1 | 3 | 2·6 |
| Whitaker J. & Co. ... | Bakers, Back Lord Street | 1 | 1 | 1·0 |
| Whiteley James .. | Jubilee Works, Ovenden | 1 | 1 | nil |
| Wainwright E. M. ... | Winding Road ... | 2 | 13 | 5·4 |

SMOKE OBSERVATIONS—*Continued.*

| Name of Firm. | Address. | | Number of Boilers working. | Number of Observa- tions taken. | Average number of Minutes of Dense Smoke emitted. |
|------------------------|---------------|-----|-------------------------------------|---|---|
| Ward R. D. & Sons .. | Washer Lane | ... | 2 | 4 | 4.2 |
| Woodcock & Co. ... | Copley | ... | 1 | 4 | 4.2 |
| West Riding Ice Co.... | Thomas Street | ... | 1 | 6 | 2.3 |
| Wadsworth & Son ... | " | ... | 1 | 6 | 0.3 |

TABLE SHOWING NUMBER OF PREMISES REQUIRING
INSPECTION BY THE MEAT INSPECTOR,
J. K. CRAWSHAW.

| Description of Premises. | | | | Number |
|--------------------------------------|-----|-----|-----|--------|
| Public Slaughterhouses | ... | ... | ... | 1 |
| Private Slaughterhouses | ... | ... | ... | 9 |
| Borough Market | ... | ... | ... | 1 |
| Wholesale Market | ... | .. | ... | 1 |
| Cattle Lairs | ... | ... | ... | 2 |
| Potted Meat and Tripe Boiling Houses | | | ... | 50 |
| Fried Fish Shops | ... | ... | ... | 104 |
| Fat and Bone Boilers | ... | ... | ... | 2 |
| Cowsheds | ... | ... | ... | 88 |
| Milkshops | ... | ... | ... | 58 |
| Wheat Bread and Confectioners | | ... | .. | 99 |
| Oat Bread and Muffin Bakers | | ... | ... | 9 |
| TOTAL | | | | 424 |

TABLE SHOWING NUMBER OF VISITS MADE BY THE
MEAT INSPECTOR.

| Description of Premises. | | | | Number of Visits. |
|--------------------------|-----|-----|-----|-------------------------|
| Public Slaughterhouses | ... | ... | ... | 874 |
| Private Slaughterhouses | ... | ... | ... | 302 |
| Borough Market | ... | ... | ... | 621 |
| Wholesale Market | .. | ... | ... | 315 |
| Fasting Sheds | ... | ... | ... | 299 |
| Cattle Lairs | ... | ... | ... | 95 |
| Potted Meat Houses | ... | ... | ... | 382 |
| Tripe Boiling Houses | ... | ... | ... | 137 |
| Butchers Shops | ... | ... | ... | 1564 |
| Fried Fish Shops | ... | .. | ... | 214 |
| Cowsheds | ... | ... | .. | 172 |
| Dairies and Milkshops | ... | ... | ... | 80 |
| Bakehouses | ... | ... | ... | 421 |
| Other Visits | ... | ... | ... | 908 |
| TOTAL | | | | 6384 |

TABLE SHOWING MEAT, FISH, FRUIT, ETC., DESTROYED
AS UNFIT FOR HUMAN FOOD.

| Kinds of Food Destroyed. | | | | | Quantity in lbs. |
|--------------------------|------------------|-----|-----|-----|---------------------|
| 14 | Carcases of Beef | ... | ... | ... | 6969 |
| 65 | „ Pigs | ... | ... | ... | 8273 |
| 9 | „ Mutton | ... | .. | ... | 580 |
| 9 | „ Veal | ... | ... | ... | 694 |
| 7 | Rabbits | ... | ... | ... | 12 |
| 11 | Ducks | ... | ... | ... | 17 |
| Fish | ... | ... | ... | ... | 8057 |
| Fruit | ... | ... | ... | ... | 8324 |
| Offals | ... | ... | ... | ... | 3357 |
| Other Foods | ... | ... | ... | ... | 2795 |
| TOTAL | | | | | 39078 |

TABLE SHOWING NUMBER OF SEIZURES DURING THE
YEAR BY MAGISTRATES' ORDER AND WITH
CONSENT OF OWNERS.

| Months. | | | Destroyed by Magistrates' Order. | Destroyed by consent of Owners. | Total. |
|-----------|-----|-----|--|---------------------------------------|--------|
| January | ... | ... | 1 | 16 | 17 |
| February | ... | ... | 1 | 16 | 17 |
| March | .. | ... | 3 | 14 | 17 |
| April | ... | ... | ... | 18 | 18 |
| May | ... | ... | ... | 12 | 12 |
| June | ... | ... | 3 | 23 | 26 |
| July | ... | ... | 3 | 63 | 66 |
| August | ... | ... | ... | 13 | 13 |
| September | ... | .. | 1 | 16 | 17 |
| October | .. | ... | 1 | 22 | 23 |
| November | ... | ... | ... | 14 | 14 |
| December | ... | ... | 3 | 14 | 17 |
| TOTAL | ... | ... | 16 | 241 | 257 |

TABLE SHOWING MEAT, FISH, FRUIT, ETC., DESTROYED
AS UNFIT FOR HUMAN FOOD,
FROM 1886 TO 1901.

| Year. | Meat. | Fish. | Fruit. | Other Articles of Food. | Total. |
|-------|-------|-------|--------|-------------------------------|--------|
| | lbs. | lbs. | lbs. | lbs. | lbs. |
| 1886 | 4527 | 769 | 196 | 180 | 5672 |
| 1887 | 2110 | 17 | ... | ... | 2127 |
| 1888 | 6955 | 3672 | 30 | 80 | 10737 |
| 1889 | 3651 | 1646 | 70 | ... | 5367 |
| 1890 | 15494 | 3062 | 230 | 2250 | 21036 |
| 1891 | 4182 | 6240 | 40 | 230 | 10692 |
| 1892 | 6724 | 5697 | 910 | 63 | 13394 |
| 1893 | 6028 | 3512 | 1064 | 989 | 11593 |
| 1894 | 6112 | 29156 | 177 | 406 | 35851 |
| 1895 | 8466 | 18661 | 180 | 458 | 27765 |
| 1896 | 14420 | 9615 | 1083 | 847 | 25965 |
| 1897 | 11030 | 3840 | 100 | 382 | 15352 |
| 1898 | 9435 | 8760 | 90 | 564 | 18849 |
| 1899 | 8670 | 85 | ... | 7605 | 16360 |
| 1900 | 16586 | 2432 | 3072 | 1592 | 23682 |
| 1901 | 19873 | 8057 | 8324 | 2824 | 39078 |

THE FOLLOWING TABLE SHOWS THE POPULATION AND
ACREAGE FOR EACH DISTRICT, WITH NAMES
AND ADDRESSES OF INSPECTORS.

| District. | Population. | Area in Acres. | Names and Addresses of Inspectors. |
|-----------|-------------|----------------|------------------------------------|
| A | 26227 | 1997 | J. Archbell, 1, Moorlands Place. |
| B | 34965 | 1211 | J. W. Asquith, 10, Baker Street. |
| C | 25834 | 2387 | J. E. Firth, 7, Randolph Street. |
| D | 18094 | 8039 | J. Wood, 27, Shay Lane, Ovenden. |
| | 105120 | 13634 | |

District A.

INSPECTOR JAMES ARCHBELL.

| Nature of Defects. | | | | Number of Defects. |
|---|-----|-----|-----|--------------------|
| Defective Sink Drains | ... | ... | ... | 114 |
| „ Sink Pipes | ... | ... | ... | 17 |
| Made-up Cellar and Walled Drains | ... | ... | ... | 54 |
| Defective Yard and Private Street Drains... | ... | ... | ... | 32 |
| „ Area Drains | ... | ... | ... | 12 |
| Untrapped Sink Drains | ... | ... | ... | 13 |
| Drains to Disconnect | ... | ... | ... | 59 |
| Defective Water Closet Soil Pipes | ... | ... | ... | 37 |
| Made-up Water Closets | ... | ... | ... | 23 |
| Defective Water Closets | .. | ... | .. | 12 |
| Untrapped Bath and Lavatory Waste Pipes | .. | ... | .. | 13 |
| Bath and Lavatory Waste Pipes connected to Soil Pipes | | | | 8 |
| Defective Roofing | ... | ... | ... | 22 |
| „ Fall Pipes | ... | ... | .. | 17 |
| „ Troughing | .. | ... | .. | 28 |
| „ Urinals | ... | ... | .. | 23 |
| Water in Cellars ... | ... | ... | ... | 40 |
| Offensive Poultry ... | ... | ... | ... | 2 |
| „ Pigeons ... | ... | ... | .. | 11 |
| „ Swill Tubs | ... | ... | ... | 3 |
| Houses Overcrowded | ... | ... | ... | 32 |

DISTRICT A—*Continued.*

| Nature of Defects. | Number of Defects. |
|---|--------------------|
| Offensive Accumulations | 170 |
| Ashpits requiring Re-construction | 56 |
| Notices served | 108 |
| Disused Closets | 16 |
| Closet and Ash Tub Places requiring Doors ... | 36 |
| Insufficient Privy Accommodation | 38 |
| Bad Smells | 45 |
| Nuisances from Workshop Chimneys .. | 18 |
| Drains Tested | 63 |
| Smoke Observations taken | 318 |
| Houses requiring Limewashing | 164 |
| Furnished Rooms requiring Limewashing... | 44 |
| Closets requiring Limewashing | 194 |
| Visits to Lodging Houses | 285 |
| „ Houses where Fever Cases existed ... | 459 |
| „ Workshops | 648 |
| „ Factories | 52 |
| „ Furnished Rooms | 540 |
| Visits under the Shop Hours' Act | 333 |
| Houses Inspected | 1654 |
| Rooms Disinfected | 557 |
| Fever Cases removed to the Borough Fever Hospital ... | 141 |
| Seats for Shop Assistants' Act, 1899 | 111 |

District B.

INSPECTOR JOSEPH W. ASQUITH.

| Nature of Defects. | | | | Number of Defects. |
|---|-----|-----|-----|--------------------|
| Defective Sink Drains | ... | .. | ... | 42 |
| Insufficient Flush to W.C. | ... | ... | .. | 10 |
| Defective Syphon Traps | ... | ... | ... | 68 |
| Sink Pipes to Disconnect | ... | ... | ... | 59 |
| Untrapped Sink and Lavatory Waste Pipes | | | ... | 4 |
| Broken Pot and Iron Traps | ... | ... | ... | 4 |
| Made-up Disconnecting Traps | | ... | .. | 8 |
| Disconnecting Traps without Grates | | ... | ... | 3 |
| Untrapped Cellar Drains | ... | ... | ... | 9 |
| Bell Traps in Cellars | ... | ... | ... | 4 |
| Made-up and Defective Cellar Drains | ... | | ... | 39 |
| „ Area and Wash Kitchen Drains... | | | ... | 4 |
| Water in Cellar from Defective and Sub-Soil Drainage | | | | 19 |
| Made-up Yard and Private Street Drains | | | ... | 15 |
| Defective Stone Wall Drains | ... | ... | ... | 7 |
| „ Pan Closets | ... | ... | ... | 20 |
| Made-up W.C's. and Defective W.C. Drains | | | ... | 47 |
| Defective W.C. Cisterns or Insufficient Flush to W.C. | | | | 5 |
| „ and Made-up Troughing and Fall Pipes | | | ... | 38 |
| „ „ Fall Pipes and Drains | | | ... | 46 |
| Drains disconnected | ... | ... | ... | 28 |
| Defective Roofing... | ... | ... | ... | 7 |

DISTRICT B—*Continued.*

| Nature of Defects. | Number of Defects. |
|---|--------------------|
| Offensive Accumulations | 16 |
| ,, Swine and Poultry | 8 |
| Dilapidated Closets and Ash Tub places | 14 |
| Doors off ,, ,, ,, | 25 |
| Defective Urinals | 7 |
| Insufficient Ash Tub Accomodation | 7 |
| Ashpits to convert | 12 |
| Dirty Closets | 49 |
| ,, Houses | 41 |
| Defective Flagging and Paving in Yards | 14 |
| ,, Cellar and Bedroom Floors | 4 |
| Notices served | 42 |
| Nuisances from Smoke | 12 |
| Dirty Courts and Passages | 13 |
| Nuisances from Leaky Cistern Overflows | 7 |
| Made-up Street Gullies | 24 |
| Drains Tested | 66 |
| Smoke Observations | 215 |
| Houses Overcrowded | 7 |
| Visits to Workshops | 360 |
| ,, Factories | 69 |
| ,, Under Shop Hours | 126 |
| ,, Fever Cases | 798 |

DISTRICT B—*Continued.*

| Nature of Defects. | Number of Defects. |
|--|--------------------|
| Visits to Furnished Rooms | 168 |
| ,, Vans used as Dwellings | 52 |
| Cases removed to the Borough Hospital .. | 189 |
| Rooms Disinfected | 487 |
| No Abstract hung in Shops .. | 26 |
| Houses Inspected | 1003 |

District C.

INSPECTOR JAMES EDWARD FIRTH.

| Nature of Defects. | | | | Number of Defects. |
|---|-----|-----|-----|--------------------|
| Made-up and Leaky Sink Pipes | ... | ... | ... | 68 |
| Defective Syphon Traps | ... | ... | ... | 49 |
| „ Cellar Drains | ... | ... | ... | 23 |
| Broken Soil Pipes | ... | ... | ... | 9 |
| Made-up Cellar Drains | ... | ... | ... | 12 |
| Defective and Made-up Water Closets | ... | ... | ... | 45 |
| Old Pan Closets | ... | ... | ... | 1 |
| Untrapped Bath and Lavatory Waste Pipes | ... | ... | ... | 9 |
| „ Sink Drains | ... | ... | ... | 30 |
| „ and Stone Walled Cellar Drains | ... | ... | ... | 33 |
| „ Drains in Wash Kitchens | ... | ... | ... | 6 |
| Defective Connections to Drain Pipes | ... | ... | ... | 8 |
| Broken Fall Pipes | ... | ... | ... | 11 |
| Made-up Fall Pipe Drains | ... | ... | ... | 25 |
| „ Troughing | ... | ... | ... | 24 |
| Defective Bell Traps in Cellars | ... | ... | ... | 6 |
| „ Flagging in Cellars | ... | ... | ... | 20 |
| Made-up Yard and Area Drains | ... | ... | ... | 23 |
| Broken Pot and Iron Traps | ... | ... | ... | 8 |
| Disconnecting Traps without Grates | ... | ... | ... | 3 |
| Offensive and made-up Urinals | ... | ... | ... | 11 |
| Insufficient Privy Accommodation | ... | ... | ... | 12 |

DISTRICT C—*Continued.*

| Nature of Defects. | Number of Defects. |
|--|--------------------|
| Bad Smells | 48 |
| Damp Walls from Defective Roofs and Sub-Soil Drainage | 26 |
| Defective Cisterns to Water Closets | 7 |
| Want of Urine Guides to Closet Seats | 13 |
| Drains Disconnected | 57 |
| Offensive Swine | 3 |
| ,, Poultry, &c. | 4 |
| Water in Cellars from Defective Drainage and Burst Water Pipes | 37 |
| Houses Insufficiently Drained... .. | 3 |
| ,, Overcrowded | 17 |
| Dirty Houses | 30 |
| ,, Closets | 73 |
| Doors off Closets and Ash Tub Places | 36 |
| Dilapidated ,, ,, | 86 |
| Offensive Accumulations and Middensteads | 16 |
| Nuisances from Smoke | 4 |
| Defective and Made-up Street Gullies | 7 |
| Rooms Disinfected | 450 |
| Drains Tested | 45 |
| Visits to Workshops | 393 |
| ,, Factories | 24 |
| ,, Shops under the Shop Hours Act | 356 |

DISTRICT C—*Continued.*

| Nature of Defects. | Number of Defects. |
|--|--------------------|
| No Abstracts hung in Shops | 12 |
| Visits to Vans used as Dwellings | 28 |
| ,, Furnished Rooms | 86 |
| ,, Houses of Infectious Diseases | 623 |
| Houses Inspected | 1061 |
| Fever Cases removed to the Borough Hospital | 153 |
| Smoke Observations taken | 181 |
| Wash Kitchens to Linewash | 3 |
| Offensive Gas Engines | 4 |

OVENDEN AND ILLINGWORTH.

District D.

INSPECTOR J. WOOD.

| Nature of Defects. | Number of Defects. |
|--|--------------------|
| Defective and Drawn-out Syphons | 5 |
| Untrapped, Leaking and Made-up Sink Pipes ... | 45 |
| Sink Pipes and House Drainage to Disconnect ... | 30 |
| Want of Sink Pipes and New Sinks | 5 |
| Water in Cellars from Leaking Drains, etc. ... | 14 |
| Made-up and Defective House Drains | 44 |
| Untrapped Cellar Drains | 8 |
| Made-up Disconnecting Chambers | 8 |
| ,, Water Closets | 5 |
| Old Pan Closet | 2 |
| Insufficient Flushing Cisterns... .. | 2 |
| ,, Ventilation to Soil Pipes and Drains ... | 2 |
| Waste Pipes connected to Soil Pipes | 2 |
| Defective Connections and Made-up Soil Pipes ... | 2 |
| Want of proper Drainage | 11 |
| Old Wall Drains, and Defective Drains Connections ... | 32 |
| Untrapped Yard Drains | 46 |
| Made-up Yard and Street Gullies and Drains ... | 26 |
| Defective Gully Traps, Broken Grates, and Old Bell Traps | 10 |

DISTRICT D—*Continued.*

| Nature of Defects. | Number of Defects. |
|--|--------------------|
| Drains requiring Disconnecting from Sewer ... | 12 |
| Offensive Cesspools and Gullies require Cleansing .. | 5 |
| Want of Cesspools | 1 |
| Want of Paving to Yards and around Gullies ... | 2 |
| Offensive Urinals, Defective Floors, Walls, and want of Ventilation to same | 2 |
| Untrapped Street Drains | 13 |
| Polluted Water in Domestic Wells | 4 |
| Nuisance from keeping Swine, Poultry, Dogs and Rabbits | 2 |
| Bad Smells in Houses | 36 |
| Damp Walls, Defective Roofs and Floors of Houses ... | 3 |
| Dirty Houses and Overcrowded | 11 |
| Offensive and Dirty Areas | 3 |
| Closets requiring Limewashing | 19 |
| Defective Troughing, Leaking and Broken Fall Pipes ... | 12 |
| Want of Troughing to Houses | 2 |
| Insufficient Closet Accommodation | 13 |
| Dilapidated Privies, etc. | 20 |
| Privies and Ashpits to Convert | 15 |
| Broken Doors and Seats of Closets and Ash Tub Places | 11 |
| Want of Ash Tub Places | 22 |
| Offensive Privies, Middens, Sewage and Filth Accumulation | 22 |
| Defective and Dangerous condition of Footpath ... | 4 |

DISTRICT D—*Continued.*

| Nature of Defects. | | | | | Number of Defects. |
|------------------------------------|-----|-----|-----|-----|--------------------|
| Drains tested | ... | .. | ... | ... | 20 |
| Visits to Houses | ... | ... | ... | ... | 523 |
| „ Fever Cases | ... | ... | ... | ... | 552 |
| „ Cowsheds | ... | ... | ... | ... | 529 |
| „ Factories | ... | ... | ... | ... | 21 |
| „ Workshops | ... | ... | ... | ... | 90 |
| „ Bakehouses | ... | ... | ... | ... | 34 |
| Rooms Disinfected | ... | ... | ... | ... | 420 |
| Fever Patients removed to Hospital | ... | ... | ... | ... | 143 |
| Samples obtained for Analysis | .. | ... | ... | ... | 26 |

Streets Scavenging.

The following Table shows the work done in this Department :—

OVENDEN AND ILLINGWORTH DISTRICTS.

W. GLEDHILL, FOREMAN.

| | | | |
|---|-----|-----|-------|
| Number of Miles of Setting | ... | ... | 10 |
| „ Streets Swept... | ... | ... | 1439 |
| „ Loads of Sweepings | ... | ... | 844 |
| „ Gullies Emptied | .. | ... | 10483 |
| „ Roads Watered | ... | ... | 650 |
| Loads of Water used for that purpose... | ... | ... | 1915 |

TABLE SHOWING NUMBER OF ROADS AND STREETS
SWEPT AND AREA IN YARDS BY THE
OVENDEN AND ILLINGWORTH GANG.

| Number of Roads and Streets Swept. | Number of times each Road and Street Swept. | Lineal Yards. | Square Yards. |
|--|---|---------------|---------------|
| 2 | 94 | 172020 | 1376160 |
| 1 | 93 | 9765 | 109740 |
| 3 | 91 | 184275 | 1223222 |
| 2 | 89 | 47793 | 522592 |
| 1 | 87 | 52635 | 24360 |
| 1 | 75 | 84000 | 406500 |
| 1 | 74 | 9842 | 78736 |
| 1 | 58 | 11600 | 81200 |
| 3 | 46 | 98270 | 346840 |
| 1 | 45 | 12960 | 77760 |
| 1 | 39 | 7800 | 39000 |
| 1 | 36 | 5760 | 34560 |
| 1 | 26 | 8320 | 49920 |
| 1 | 17 | 13022 | 91154 |
| 1 | 15 | 4500 | 31500 |
| 4 | 14 | 57302 | 619400 |
| 1 | 13 | 3900 | 19500 |
| 1 | 12 | 4560 | 52560 |
| 1 | 10 | 5000 | 30000 |
| 1 | 6 | 2400 | 14400 |
| 29 | 940 | 795724 | 5229104 |

Total Number of Miles Swept ... 452

TABLE SHOWING NUMBER OF INFECTED HOUSES
VISITED BY THE DISTRICT INSPECTORS.

| Wards. | Small-Pox. | Typhoid Fever. | Scarlet Fever. | Puerperal Fever. | Diphtheria. | Erysipelas. | Total. |
|-----------------|------------|-------------------|-------------------|---------------------|-------------|-------------|--------|
| Ovenden ... | ... | 2 | 82 | ... | 5 | 1 | 90 |
| Northowram ... | .. | 3 | 3 | .. | 1 | ... | 7 |
| Akroydon ... | ... | 3 | 49 | ... | 6 | 1 | 59 |
| North ... | ... | 8 | 51 | ... | 3 | 4 | 66 |
| Central ... | ... | 11 | 32 | . | 13 | 2 | 58 |
| West ... | ... | 9 | 31 | .. | 4 | 1 | 45 |
| South ... | ... | 2 | 35 | ... | 4 | ... | 41 |
| East ... | 1 | 4 | 25 | ... | 2 | ... | 32 |
| Southowram ... | .. | 5 | 39 | ... | ... | 1 | 45 |
| Skircoat ... | ... | 3 | 89 | ... | 7 | 1 | 100 |
| Pellon ... | ... | 4 | 44 | ... | 2 | ... | 50 |
| Kingston ... | ... | 4 | 118 | ... | 6 | .. | 128 |
| Illingworth ... | ... | 2 | 87 | 1 | 4 | 2 | 96 |
| Copley ... | ... | 1 | 33 | ... | ... | ... | 34 |
| Warley ... | 2 | 6 | 18 | ... | 4 | 2 | 32 |
| TOTAL ... | 3 | 67 | 736 | 1 | 61 | 15 | 883 |

TABLE SHOWING THE NUMBER OF INFECTIOUS
DISEASES REMOVED TO THE BOROUGH FEVER
HOSPITAL BY THE DISTRICT INSPECTORS
FOR THE YEAR 1901.

| Wards. | Small-pox. | Typhoid Fever. | Scarlet Fever. | Diphtheria. | Chicken-pox. | Total. | |
|----------------|------------|-------------------|-------------------|-------------|--------------|--------|-----|
| Ovenden | ... | ... | 67 | ... | ... | 67 | |
| Akroydon | ... | .. | 53 | 1 | ... | 54 | |
| North | ... | 1 | 39 | 1 | ... | 41 | |
| Central | ... | 4 | 27 | 3 | ... | 34 | |
| West | .. | ... | 28 | 2 | ... | 30 | |
| South | .. | ... | 26 | ... | ... | 26 | |
| East | ... | 1 | 21 | ... | ... | 23 | |
| Southowram | ... | 2 | 28 | ... | 3 | 33 | |
| Skircoat | ... | ... | 63 | 1 | .. | 64 | |
| Pellon | ... | 2 | 39 | 1 | ... | 42 | |
| Kingston | ... | ... | 85 | 1 | .. | 86 | |
| Illingworth | ... | 1 | 70 | 1 | ... | 72 | |
| Copley! | ... | 1 | 25 | ... | . | 26 | |
| Warley | ... | 2 | 20 | 1 | ... | 23 | |
| Northowram | ... | 4 | 2 | ... | ... | 6 | |
| Out of Borough | ... | 2 | 4 | .. | ... | 6 | |
| TOTAL | ... | 3 | 18 | 597 | 12 | 3 | 633 |

ROOMS DISINFECTED.

THE FOLLOWING TABLE SHOWS THE NUMBER OF
ROOMS DISINFECTED BY THE DISTRICT
INSPECTORS DURING THE YEAR.

| Wards. | | | | | Number of Rooms Fumigated. |
|-------------|-----|-----|-----|-----|----------------------------------|
| Illingworth | ... | ... | ... | ... | 198 |
| Ovenden | ... | ... | ... | ... | 180 |
| Northowram | ... | ... | ... | ... | 14 |
| Akroydon | ... | ... | ... | ... | 118 |
| North | ... | ... | ... | ... | 132 |
| Central | ... | ... | .. | ... | 116 |
| West ... | ... | ... | ... | ... | 110 |
| South | ... | ... | ... | ... | 104 |
| Kingston | ... | ... | ... | ... | 256 |
| Pellon | ... | ... | ... | ... | 100 |
| East . . | ... | ... | ... | ... | 64 |
| Southowram | ... | ... | ... | ... | 90 |
| Skircoat | ... | ... | ... | ... | 300 |
| Warley | ... | ... | ... | ... | 64 |
| Copley | ... | ... | ... | ... | 68 |
| TOTAL | | | | | 1914 |

Disinfection.

THE FOLLOWING TABLE SHOWS THE NUMBER AND
DESCRIPTION OF THE ARTICLES DISINFECTED
AT THE DISINFECTING HOUSE, STONEY
ROYD, DURING THE YEAR.

| Description of Articles. | | | | | | Number of Articles. |
|---------------------------------------|-----|-----|-----|-----|-----|------------------------|
| Beds | ... | ... | ... | ... | ... | 915 |
| Mattresses | ... | ... | .. | ... | ... | 1172 |
| Pillows | ... | ... | ... | ... | ... | 1356 |
| Sheets | ... | ... | ... | ... | ... | 1194 |
| Bolsters... | ... | ... | ... | ... | ... | 855 |
| Blankets | ... | ... | ... | ... | ... | 1390 |
| Counterpanes | ... | ... | ... | ... | ... | 770 |
| Carpets and Rugs | ... | ... | ... | ... | ... | 200 |
| Bed Furniture | ... | ... | ... | ... | ... | 6 |
| Flannel Vests, Dresses and Petticoats | | | ... | ... | ... | 1696 |
| Mats and Sundries | ... | ... | ... | ... | ... | 4770 |
| Dressing Gowns and Shawls | ... | ... | ... | ... | ... | 740 |
| Coats | .. | ... | ... | ... | ... | 616 |
| Cushions | ... | ... | ... | ... | ... | 4 |
| Trousers | ... | ... | ... | ... | ... | 420 |
| Waistcoats | ... | ... | ... | ... | ... | 353 |
| Hose | ... | ... | ... | ... | ... | 645 |
| Curtains | .. | ... | ... | ... | ... | 10 |
| Drawers... | ... | ... | ... | ... | ... | 500 |
| TOTAL | ... | ... | ... | ... | ... | 17612 |

CANAL BOATS.

The Inspections are made periodically by the Chief Sanitary Inspector amongst his other duties.

During the year 51 Inspections have been made, and the Boats generally were clean and in good condition.

There has not been a single case of sickness or overcrowding on board.

In all cases where females and children were on board proper provision was made for the separation of the sexes. Of the 51 Boats inspected there were 7 with women and children on board, and 7 with women only. The children in 2 cases having been brought for the single journey only.

All Boats were free from bilge water, ventilation was fairly good, and good provision was made for the storage of water for domestic purposes.

All Boats plying in this district are registered either at Goole, Mirfield or Leeds, consequently no arrangements have been made for registration.

CANAL BOATS, 1901.

| Number of Boats Inspected. | Number Registered to Carry. | Number of Males on Board. | Number of Females on Board. | Total. |
|----------------------------|-----------------------------|---------------------------|-----------------------------|--------|
| 51 | 354 | 101 | 14 | 115 |

AGES OF CHILDREN FOUND ON CANAL BOATS.

| | YEARS. | | | | | | | | | | | Total. |
|------------|---------------|---|---|---|---|---|---|---|---|----|----|--------|
| | Under 1 Year. | 1 | 2 | 3 | 4 | 6 | 7 | 8 | 9 | 10 | 11 | |
| Number ... | 3 | 2 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 16 |

TABLE SHOWING PROSECUTIONS UNDER THE PUBLIC HEALTH ACT AND FOOD AND DRUGS ACT.

| Date. | Defendant's Name. | Nature of Offence. | Decision of Court. | | | | | | Remarks. | | | |
|------------------------|---|---|--------------------|----|----|--------|----|----|----------|--------|----|---|
| | | | Penalties. | | | Costs. | | | | Total. | | |
| | | | £ | s. | d. | £ | s. | d. | £ | s. | d. | |
| 1901. March 5th ... | Thomas Priestley ... | Slaughtering upon Unlicensed Premises at Saddle Hall Farm, Bradshaw | 5 | 0 | 0 | 1 | 6 | 0 | 6 | 6 | 0 | |
| June 7th ... | Halifax Corporation Electricity Works | Causing a Nuisance by emitting Dense Smoke from the Chimney of their works | 5 | 0 | 0 | 0 | 6 | 0 | 5 | 6 | 0 | |
| June 11th ... | Clayton Murgatroyd and Co., Ltd. | Nuisance caused by Dense Smoke emitted from the Chimney of their works in Lower Wade Street | 2 | 0 | 0 | 0 | 6 | 0 | 2 | 6 | 0 | Order to Abate. |
| June 25th ... | Messrs. Willey and Pearson, Trafalgar Works, Haugh Shaw Road | Nuisance caused by emitting Dense Smoke from the Chimney of their works | 2 | 0 | 0 | 0 | 6 | 0 | 2 | 6 | 0 | |
| Oct. 22nd .. | Wm. Lee Oldfield ... | Want of Closet Accommodation at Webster & Wade's, Aked's Road; Messrs. Bennetts, Yard, Aked's Road; The Patent Water-proof Paper Syndicate, King Cross Street | ... | | | ... | | | ... | | | The Case was Adjourned to the 19th of November. |

TABLE SHOWING PROSECUTIONS UNDER THE PUBLIC HEALTH ACT AND FOOD AND DRUGS ACT.

| Date. | Defendant's Name. | Nature of Offence. | Decision of Court. | | | | | | Remarks. | | |
|------------------------|----------------------------|--|--------------------|----|----|--------|----|--------|----------|----|----|
| | | | Penalties. | | | Costs. | | Total. | | | |
| | | | £ | s. | d. | £ | s. | d. | £ | s. | d. |
| 1901. Nov. 12th ... | Halifax Industrial Society | Exposing for Sale diseased Meat, on their premises in North Parade | 5 | 0 | 0 | 0 | 10 | 6 | 5 | 10 | 6 |
| Nov. 12th ... | Halifax Industrial Society | Depositing for preparation for Sale a quantity of Meat which was diseased and unfit for food | 5 | 0 | 0 | 0 | 10 | 6 | 5 | 10 | 6 |
| Nov. 19th ... | William Lee Oldfield | Want of Closet Accommodation at Messrs. Webster and Wade, Aked's Road | 2 | 0 | 0 | 0 | 8 | 6 | 2 | 8 | 6 |
| Nov. 19th ... | William Lee Oldfield | Want of Closet Accommodation at the Patent Water-proof Paper Syndicate, King Cross Street | 2 | 0 | 0 | 0 | 8 | 6 | 2 | 8 | 6 |
| Nov. 19th ... | William Lee Oldfield | Want of Closet Accommodation at Messrs. Bennett's Laundry, in Yard adjoining Aked's Road | 2 | 0 | 0 | 0 | 8 | 6 | 2 | 8 | 6 |
| Nov. 26th ... | George Wilson | Having sold Milk with 30% of added Water | 5 | 0 | 0 | 0 | 16 | 6 | 5 | 16 | 6 |

The foregoing Table shows 10 Prosecutions as against 6 in the previous year. The total Fines, including Costs, amount to £40 7s. 0d. as against £37 2s. 0d. for the previous year.

CONCLUDING REMARKS.—I would like to say a word about the Night Scavenging of our Borough, that is, with reference to the use made of the Barrels provided for domestic refuse: good scavenging is an important factor in the health of a Town, and a great responsibility rests with the authorities, but there is an individual responsibility as well, which is often overlooked. The barrels are there for domestic refuse certainly, but what a vast amount of domestic refuse could be disposed of in the kitchen fire, such as paper, fish and vegetable refuse: the two latter, if allowed to remain for a few days, especially during hot weather, begin to decompose, causing a nuisance, which could be obviated, if the householder would adopt the plan of burning as suggested; and, what is also of importance to the ratepayer, the great reduction in the cost of collection, which would amount to hundreds of pounds a year. I have no hesitation in saying that nearly one-half of the rubbish put in ashes barrels ought not to be there, and instead of taking 17 Horses and Carts to collect it during the winter months, 10 or 11 would do the work. Therefore, if the ratepayers are anxious to keep down the rates and the expenses of the Health Department, they can help considerably by burning all paper possible and all fish and vegetable matter. It would also be much more pleasant for the men who have this work to do, if the persons who are in the habit of making the ashes barrels into swill tubs would desist from so doing, as it was never intended to use them for that purpose.

Personally I have to thank Mr. J. W. Jackson (Chief Clerk) and my Inspectors for carrying out the work of this department, which is increasing yearly.

I am, Gentlemen,

Your obedient servant,

DAVID TRAVIS, A.S.I.,

Chief Sanitary Inspector.

County Borough of Halifax.

Report of the Borough Analyst

FOR THE

Year ended 31st December, 1901.

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

GENTLEMEN,

I beg to lay before you the following summarised account of work done in this Department for your Committee during the past year.

There have been 183 samples of foods and drugs and 42 samples of water submitted for analysis. The number of samples of foods and drugs is rather below that of former years as will be seen in the following comparison :—

| Year. | Number of Samples Analysed. | Estimated Population of the County Borough. | Number of Samples Analysed per 1000 of the Population. |
|-------|--------------------------------------|--|---|
| 1897 | 201 | 95747 | 2·09 |
| 1898 | 211 | 96729 | 2·18 |
| 1899 | 205 | 100471 | 2·04 |
| 1900 | 210 | 101187 | 2·07 |
| 1901 | 183 | 105120 | 1·74 |

To keep pace with the gradually increasing population, more samples ought to be taken every year. Our position in this respect is seen on reference to the last Annual Report of the Local Government Board (1900-1901) where it is stated that, in London, one sample was analysed for every 312 persons, and in the provinces one for every 502 ; in Halifax, the number analysed works out to one for every 574 persons. The increase in the number of water samples has been owing to a special investigation, which is referred to at the close.

The kind and number of samples examined were as follows :—

| FOODS. | | | | |
|----------------------|-----|-----|-----|-------|
| Milk | ... | ... | ... | 88 |
| Condensed Milk | .. | ... | ... | 11 |
| Cream | ... | ... | ... | 3 |
| Butter | ... | ... | ... | 18 |
| Margarine... | ... | ... | ... | 1 |
| Cheese | .. | ... | ... | 7 |
| Coffee | ... | ... | ... | 5 |
| Tea | ... | ... | ... | 3 |
| Mustard | ... | ... | ... | 5 |
| Pepper | ... | ... | ... | 5 |
| Ground Gingers | ... | ... | ... | 4 |
| Rice | ... | ... | ... | 3 |
| Cranberries | ... | ... | ... | 1 |
| Vinegars | ... | ... | ... | 4 |
| Beer | ... | ... | ... | 1 |
| Preserved Peas | ... | ... | ... | 7 |
| | | | | — 166 |
| DRUGS. | | | | |
| Sweet Nitre | ... | ... | ... | 5 |
| Camphorated Oil | ... | ... | ... | 4 |
| Paregoric | ... | ... | ... | 6 |
| Precipitated Sulphur | ... | ... | ... | 2 |
| | | | | — 17 |
| | | | | 183 |

Eleven of these or 6 per cent. were found to be adulterated ; about $5\frac{1}{2}$ per cent. were of doubtful genuineness, while the remainder or $88\frac{1}{2}$ per cent. were genuine. Their distribution is shown in this table :—

| Quarter Ending. | Genuine. | Doubtful. | Adulterated. | Total. |
|-----------------|----------|-----------|--------------|--------|
| Mar. 31 | 26 | 2 | 0 | 28 |
| June 30 | 39 | 1 | 2 | 42 |
| Sept. 30 | 44 | 4 | 1 | 49 |
| Dec. 31 | 53 | 3 | 8 | 64 |
| | 162 | 10 | 11 | 183 |

The adulteration figure, 6 per cent. is slightly higher than the average for the preceding decade :—

| | 1891 | 1892 | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 | Average |
|-----------------------------------|------|------|------|------|------|------|------|------|------|------|---------|
| Percentage of Adulterated Samples | 6 | 3 | 5.4 | 6.7 | 1.5 | 3.2 | 5 | 3.3 | 6.3 | 4.76 | 5.59 |

The adulterated samples consisted of two milks, two butters, and seven preserved peas. The milks contained 6 per cent. and 30 per cent. respectively of added water, or were deficient to this extent of amounts of those constituents which are now definitely fixed by the Sale of Milk Regulations, 1901, issued by the Board of Agriculture. All milk-sellers ought now to know that if these amounts are not present they are liable to be prosecuted for supplying the public with an article which is presumed to be adulterated "until the contrary is proved." In the lesser case the vendor appeared

before your Committee and was cautioned, the proceedings being entered in the Minutes of the Council for October; in the worse case the purveyor was fined £5 and costs. Before proceedings could be taken in the two butter cases the shop was closed and the tenants gone. The prosecutions for adulterated peas were more of the nature of test cases, closely following as they were the Report of the Local Government Board's Departmental Committee on the Use of Preservatives and Colouring Matters in Foods. Only nominal fines, 5/- in each case, were imposed.

Of the 42 samples of water examined, 6 were full sanitary analyses; 2 of the waters were condemned and 4 passed. The remaining 36 examinations were check analyses on the experiments conducted at Ogden and reported on more fully at the time by the Medical Officer of Health, Dr. Neech. The methods of analysis and the limiting standard of acidity adopted were those worked out and published in my research papers entitled "Researches on Moorland Waters, Part I." Journal of the Chemical Society, London, 1899, vol. 75, pp. 196-199; and "On a Limiting Standard of Acidity for Moorland Waters" Report of the British Association for the Advancement of Science, 1900, pp. 695 and 696.

I have the honour to be, Gentlemen,

Your obedient Servant,

WILLIAM ACKROYD,

PUBLIC ANALYST.



APPENDIX.

VITAL STATISTICS OF THE BOROUGH OF HALIFAX DURING 1901 AND PREVIOUS YEARS.

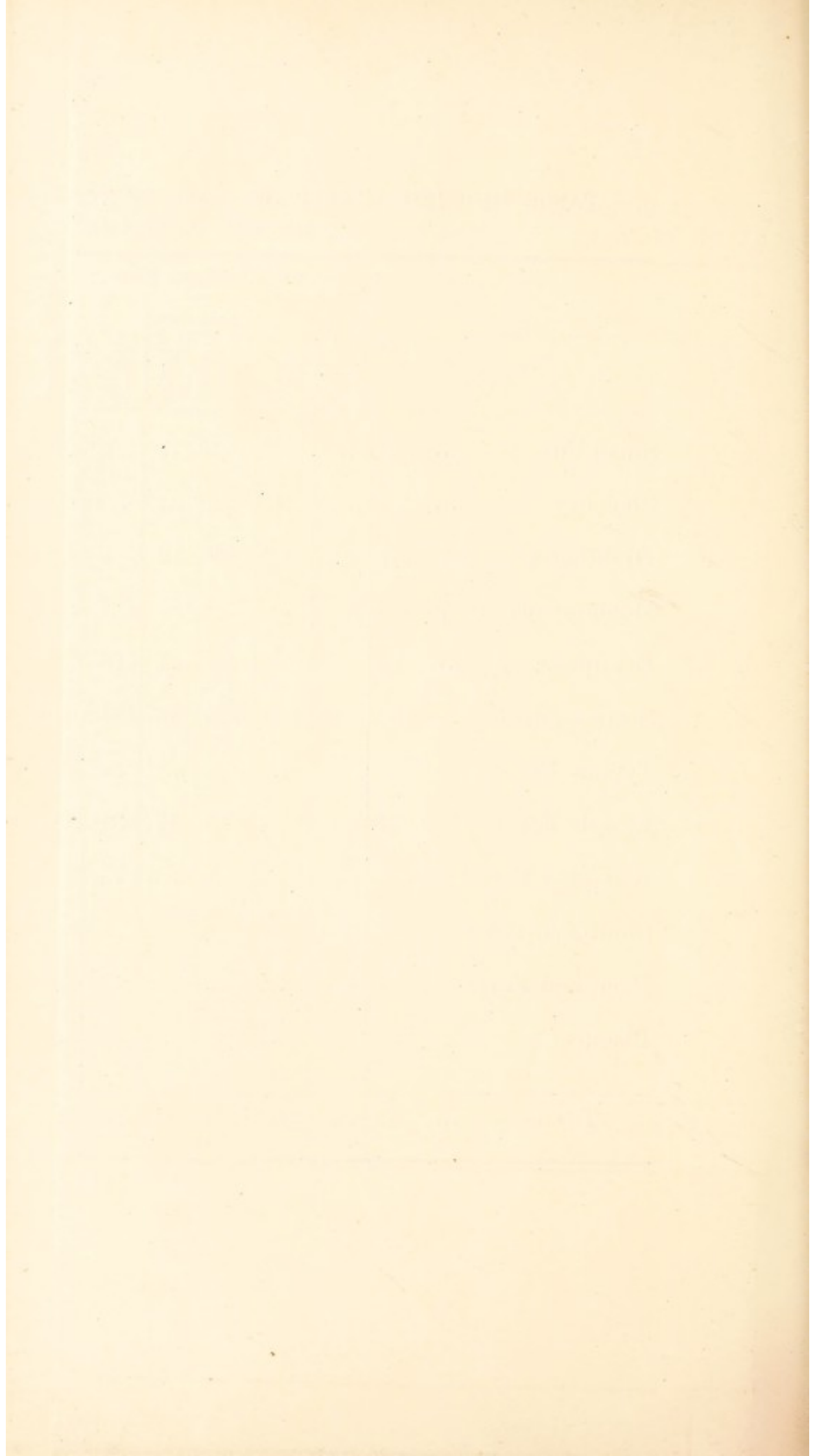
| YEAR. | (Revised) Population estimated to Middle of each Year. | BIRTHS. | | TOTAL DEATHS REGISTERED IN THE DISTRICT. | | | | Total Deaths in Public Institutions in the District. | Deaths of Non- residents in Public Institutions in the District. | Deaths of Residents registered in Public Institutions beyond the District. | NETT DEATHS AT ALL AGES BELONGING TO THIS DISTRICT. | |
|------------------------------------|--|---------|--------|---|--|--------------|--------|--|--|---|--|--------|
| | | Number. | Rate.* | Under 1 year of Age. | | At all ages. | | | | | Number. | Rate.* |
| | | | | Number. | Rate per 1,000 Births registered. | Number. | Rate.* | | | | | |
| | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 1891 | 83,109 | 2160 | 25.9 | 372 | 172.2 | 1895 | 22.8 | 218 | 18 | 4 | 1881 | 22.6 |
| 1892 | 83,882 | 2169 | 25.8 | 354 | 163.2 | 1663 | 19.8 | 218 | 21 | 3 | 1645 | 19.6 |
| 1893 | 91,540 | 2254 | 24.6 | 394 | 174.8 | 1614 | 17.6 | 187 | 23 | ... | 1591 | 17.3 |
| 1894 | 92,104 | 2128 | 23.1 | 292 | 137.2 | 1548 | 16.8 | 168 | 26 | 20 | 1542 | 16.7 |
| 1895 | 92,875 | 2186 | 23.5 | 354 | 161.4 | 1826 | 19.6 | 195 | 23 | ... | 1803 | 19.4 |
| 1896 | 93,581 | 2329 | 24.8 | 351 | 150.7 | 1694 | 18.1 | 197 | 27 | 21 | 1688 | 18.0 |
| 1897 | 94,311 | 2147 | 22.7 | 301 | 140.2 | 1603 | 16.9 | 220 | 33 | 28 | 1598 | 16.9 |
| 1898 | 95,037 | 2205 | 23.2 | 369 | 167.3 | 1751 | 18.4 | 235 | 28 | 28 | 1751 | 18.4 |
| 1899 | 95,767 | 2239 | 23.3 | 363 | 162.1 | 1806 | 18.8 | 258 | 34 | 30 | 1802 | 18.8 |
| 1900 | 98,910 | 2316 | 23.4 | 314 | 135.5 | 1874 | 18.9 | 277 | 42 | 19 | 1851 | 18.7 |
| Averages for years 1891-1900 | 92,111 | 2213 | 24.0 | 346 | 156.4 | 1727 | 18.7 | 217 | 27 | 15 | 1715 | 18.6 |
| 1901 | 105,120 | 2331 | 22.1 | 299 | 128.2 | 1726 | 16.4 | 294 | 38 | 21 | 1709 | 16.2 |

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



TABLE SHOWING NUMBER OF CASES OF ZYMOTIC DISEASE IN EACH LOCALITY OF THE BOROUGH, NOTIFIED DURING THE YEAR, AND CLASSIFIED ACCORDING TO AGE; ALSO THE NUMBER OF CASES REMOVED FROM EACH LOCALITY TO THE BOROUGH FEVER HOSPITAL.

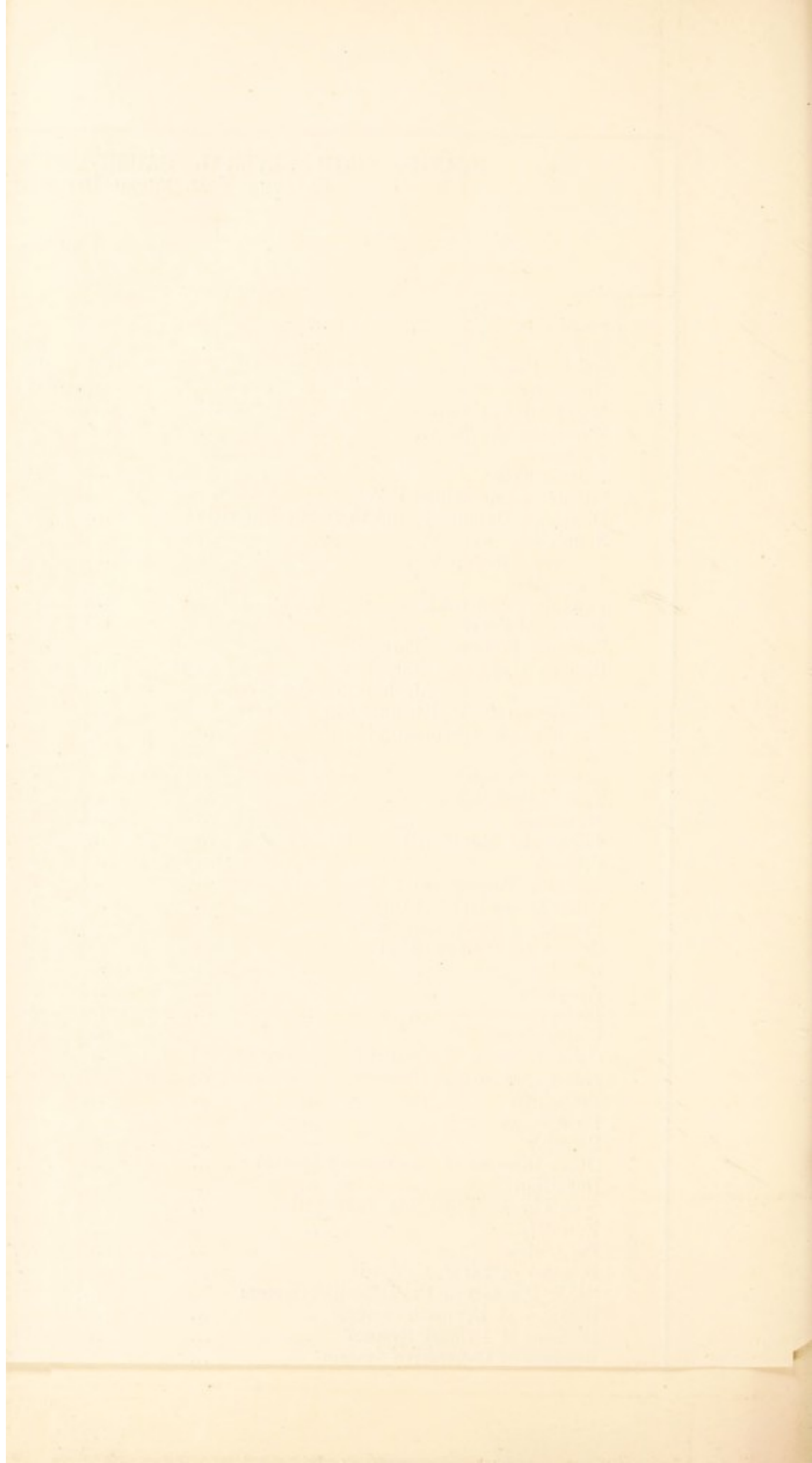
| NOTIFIABLE DISEASE. | CASES NOTIFIED IN WHOLE DISTRICT. | | | | | | | TOTAL CASES NOTIFIED IN EACH LOCALITY. | | | | | | | | | | | | | | | | NUMBER OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY. | | | | | | | | | | | | | | | |
|---------------------|-----------------------------------|----------------|---------|----------|-----------|-----------|-----------------|--|----------------|-------------|---------------|------------|-------------|--------|-----------------------|----------------|--------------|----------------|-------------------|--------------|-------------------|--------------|----------------|---|-------------|---------------|------------|-------------|------------|-----------------------|----------------|--------------|----------------|-------------------|--------------|-------------------|--------------|-----------------|---|
| | At all Ages. | At Ages—Years. | | | | | | Oversden Ward. | Akroydon Ward. | North Ward. | Central Ward. | West Ward. | South Ward. | Apsal. | Southoveram Ward (H). | Skircoot Ward. | Pellon Ward. | Kings-on Ward. | Ilingsworth Ward. | Copley Ward. | Northoveram Ward. | Worley Ward. | Oversden Ward. | Akroydon Ward. | North Ward. | Central Ward. | West Ward. | South Ward. | Page Ward. | Southoveram Ward (H). | Skircoot Ward. | Pellon Ward. | Kings-on Ward. | Ilingsworth Ward. | Copley Ward. | Northoveram Ward. | Worley Ward. | Out of Borough. | |
| | | Under 1. | 1 to 5. | 5 to 15. | 15 to 25. | 25 to 65. | 65 and upwards. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Small Pox | ... | 3 | ... | ... | 1 | 1 | 1 | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | 2 | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | 2 | ... | | | |
| Cholera | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | | |
| Diphtheria | ... | 61 | 2 | 19 | 29 | 6 | 5 | ... | 5 | 6 | 3 | 13 | 4 | 4 | 2 | ... | 7 | 2 | 6 | 4 | ... | 1 | 4 | ... | 1 | 1 | 3 | 2 | ... | ... | 1 | 1 | 1 | ... | ... | 1 | ... | | |
| Membranous Croup | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | | |
| Erysipelas | ... | 15 | ... | ... | ... | 1 | 13 | 1 | 1 | 1 | 4 | 2 | 1 | ... | ... | 1 | 1 | ... | ... | 2 | ... | ... | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | | |
| Scarlet Fever | ... | 736 | 3 | 145 | 503 | 58 | 27 | ... | 82 | 49 | 51 | 32 | 31 | 35 | 25 | 39 | 89 | 44 | 118 | 87 | 33 | 3 | 18 | 67 | 53 | 39 | 27 | 28 | 26 | 21 | 28 | 63 | 39 | 85 | 71 | 25 | 2 | 20 | 4 |
| Typhus Fever | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| Enteric Fever | ... | 67 | ... | 3 | 15 | 17 | 31 | 1 | 2 | 3 | 8 | 11 | 9 | 2 | 4 | 5 | 3 | 4 | 4 | 2 | 1 | 3 | 6 | ... | ... | 1 | 4 | ... | ... | 1 | 2 | ... | 2 | ... | ... | 1 | 4 | ... | 2 |
| Relapsing Fever | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| Continued Fever | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| Puerperal Fever | ... | 1 | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| Plague | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| TOTALS | ... | 883 | 5 | 167 | 548 | 83 | 78 | 2 | 90 | 59 | 66 | 58 | 45 | 41 | 32 | 45 | 100 | 50 | 128 | 96 | 34 | 7 | 32 | 67 | 54 | 41 | 34 | 30 | 26 | 23 | 30 | 64 | 42 | 86 | 71 | 26 | 6 | 23 | 6 |

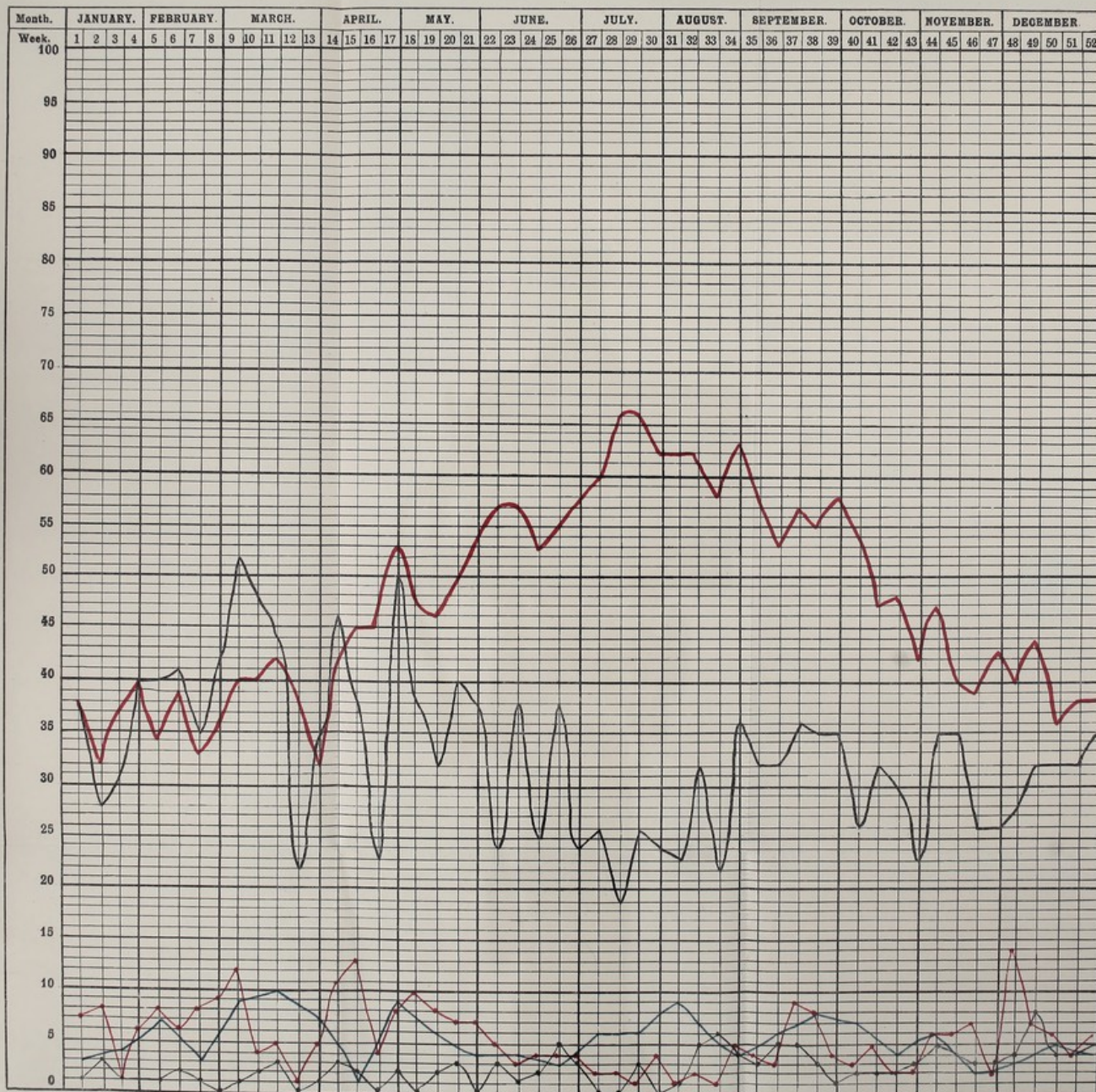


DEATHS FROM SEVERAL CAUSES AT SIX GROUPS OF AGES,
FOR THE YEAR ENDED DECEMBER 31ST, 1901.

| | All Ages. | Under 5 years. | | 5-15. | 15-25. | 25-65. | 65 and upwards. |
|--|-----------|----------------|------|-------|--------|--------|-----------------|
| | | 0-1. | 1-5. | | | | |
| Small Pox | ... | ... | ... | ... | ... | ... | ... |
| Measles | 33 | 7 | 26 | ... | ... | ... | ... |
| Scarlet Fever | 18 | ... | 10 | 6 | 1 | 1 | ... |
| Diphtheria | 17 | 2 | 7 | 7 | 1 | ... | ... |
| Membranous Croup | ... | ... | ... | ... | ... | ... | ... |
| Whooping Cough | 19 | 8 | 11 | ... | ... | ... | ... |
| Typhus | ... | ... | ... | ... | ... | ... | ... |
| Enteric Fever | 15 | ... | 2 | 1 | 3 | 9 | ... |
| Simple and undefined Fever | 2 | ... | ... | 1 | ... | 1 | ... |
| Diarrhoea, Dysentery, and Epidemic Enteritis | 41 | 25 | 8 | 4 | ... | 3 | 1 |
| Simple Cholera | ... | ... | ... | ... | ... | ... | ... |
| Veneral Affections | 4 | 1 | 2 | ... | ... | 1 | ... |
| Erysipelas | 3 | 1 | ... | ... | ... | 1 | 1 |
| Pyæmia, Septicæmia | 4 | ... | ... | ... | ... | 3 | 1 |
| Puerperal Fever | 2 | ... | ... | ... | ... | 2 | ... |
| Parasitic Diseases—Thrush | 1 | 1 | ... | ... | ... | ... | ... |
| Dietetic Diseases—Starvation | 1 | 1 | ... | ... | ... | ... | ... |
| Alcoholism—Del. Trem. | 1 | ... | ... | ... | ... | 1 | ... |
| Rheumatic Fever, Rheumatism of Heart | 9 | ... | ... | 3 | 2 | 4 | ... |
| Rheumatism, Rheumatoid Arthritis | 9 | ... | ... | ... | ... | 7 | 2 |
| Rickets | 3 | 1 | 2 | ... | ... | ... | ... |
| Cancer, Sarcoma | 94 | ... | ... | ... | 2 | 55 | 37 |
| Tabes Mesenterica | 10 | 7 | 3 | ... | ... | ... | ... |
| Marasmus | 42 | 32 | 6 | ... | ... | ... | 4 |
| Tubercular Meningitis | 40 | 6 | 21 | 9 | 2 | 2 | ... |
| Phthisis | 145 | 1 | ... | 3 | 31 | 107 | 3 |
| Scrofula, Tuberculosis | 23 | 2 | 5 | 4 | 3 | 7 | 2 |
| Other Constitutional Diseases | 18 | 5 | ... | ... | ... | 10 | 3 |
| Premature Birth, Inanition | 47 | 47 | ... | ... | ... | ... | ... |
| Congenital Malformation | 10 | 10 | ... | ... | ... | ... | ... |
| Old Age | 128 | ... | ... | ... | ... | 1 | 127 |
| Apoplexy | 75 | ... | ... | ... | 1 | 42 | 32 |
| Epilepsy | 11 | ... | ... | 1 | 2 | 6 | 2 |
| Convulsions | 57 | 40 | 16 | ... | 1 | ... | ... |
| Other Diseases of Brain and Nervous System | 72 | 1 | 2 | 2 | 3 | 33 | 31 |
| Heart Disease and Diseases of Circulatory System | 183 | 1 | 2 | 6 | 7 | 108 | 59 |
| Bronchitis | 184 | 30 | 10 | ... | 1 | 67 | 76 |
| Pneumonia | 133 | 25 | 26 | 4 | 8 | 55 | 15 |
| Pleurisy | 3 | ... | ... | ... | ... | 2 | 1 |
| Other Diseases of Respiratory System | 13 | 6 | ... | ... | ... | 5 | 2 |
| Dentition | 21 | 11 | 10 | ... | ... | ... | ... |
| Sore Throat, Tonsillitis, Laryngitis | 6 | 1 | 3 | ... | ... | 2 | ... |
| Enteritis | 2 | 1 | ... | ... | 1 | ... | ... |
| Peritonitis | 10 | 1 | 1 | 1 | 1 | 5 | 1 |
| Diseases of Liver, Cirrhosis | 22 | 1 | 1 | ... | ... | 18 | 2 |
| Other Diseases of the Digestive System | 64 | 18 | 2 | ... | 3 | 31 | 10 |
| Diseases of Lymphatics, &c. | ... | ... | ... | ... | ... | ... | ... |
| Diseases of Urinary System | 45 | 1 | 1 | 3 | 1 | 24 | 15 |
| Diseases of Generative System | 6 | ... | ... | ... | ... | 5 | 1 |
| Accidents of Childbirth | 9 | 2 | ... | ... | ... | 7 | ... |
| Diseases of Locomotive System | 2 | ... | ... | ... | ... | ... | 2 |
| Diseases of Integumentary System | ... | ... | ... | ... | ... | ... | ... |
| Fractures and Contusions | 14 | ... | ... | ... | 4 | 9 | 1 |
| Burns and Scalds | 3 | ... | 1 | ... | 1 | 1 | ... |
| Drowning | 8 | ... | 2 | 3 | 1 | 2 | ... |
| Suffocation | 3 | 2 | 1 | ... | ... | ... | ... |
| Accident otherwise, or not described | 11 | ... | ... | 2 | 2 | 6 | 1 |
| Poison | ... | ... | ... | ... | ... | ... | ... |
| Drowning | ... | ... | ... | ... | ... | ... | ... |
| Otherwise, or not described | ... | ... | ... | ... | ... | ... | ... |
| Influenza | 9 | ... | ... | ... | 2 | 3 | 4 |
| All other causes | 21 | 5 | ... | 1 | 1 | 12 | 2 |
| All causes | 1726 | 303 | 181 | 61 | 85 | 658 | 438 |

Suicide Accident.





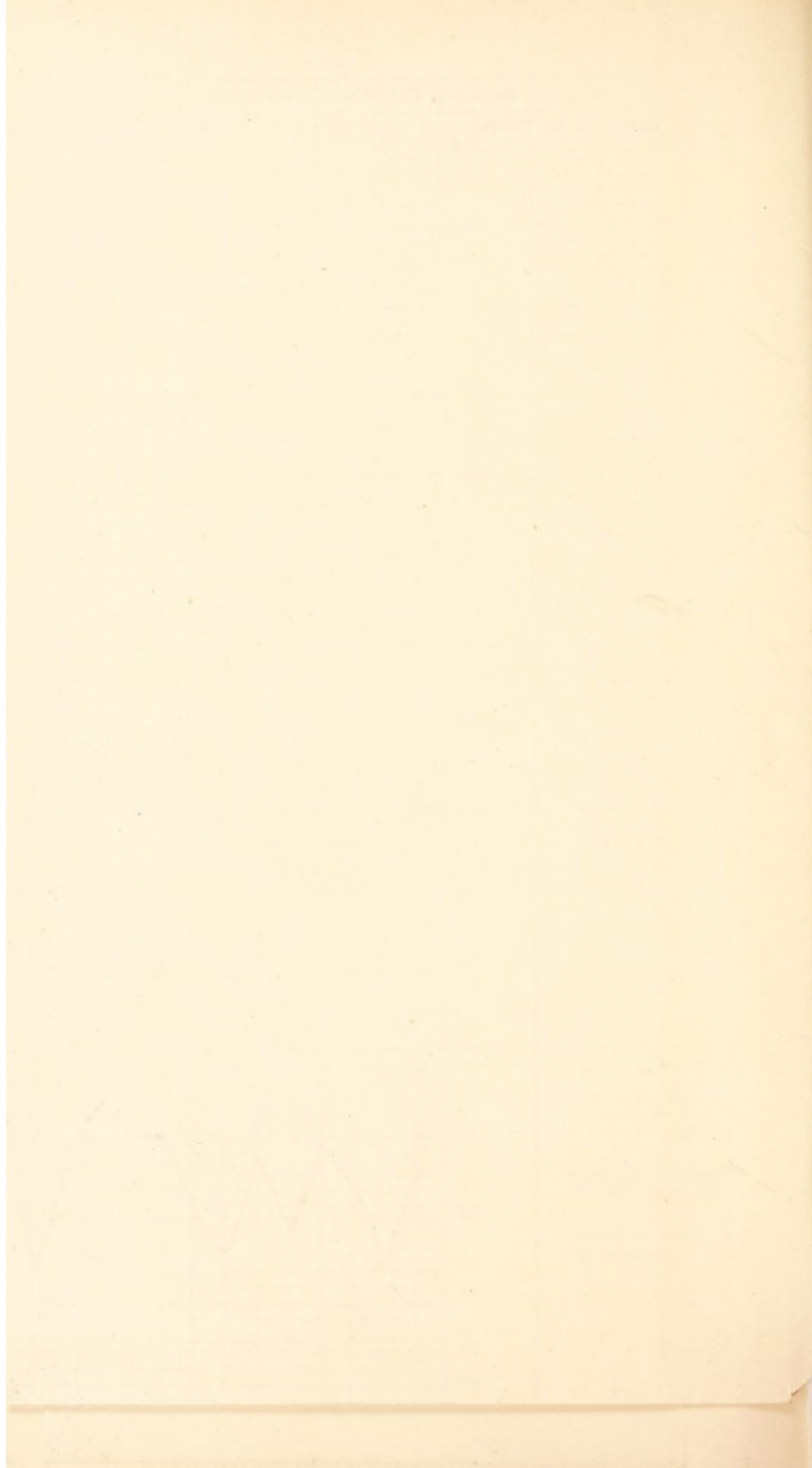
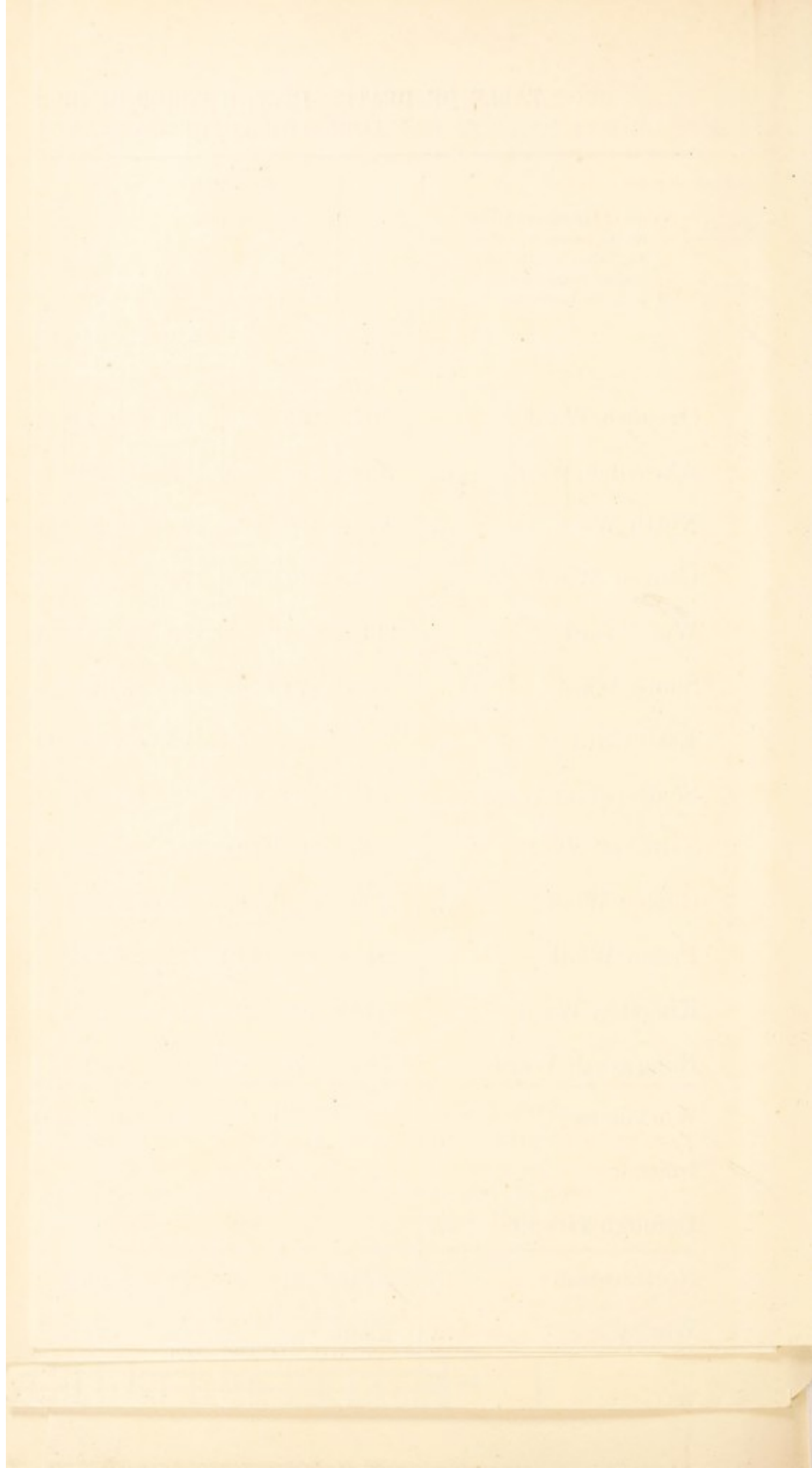


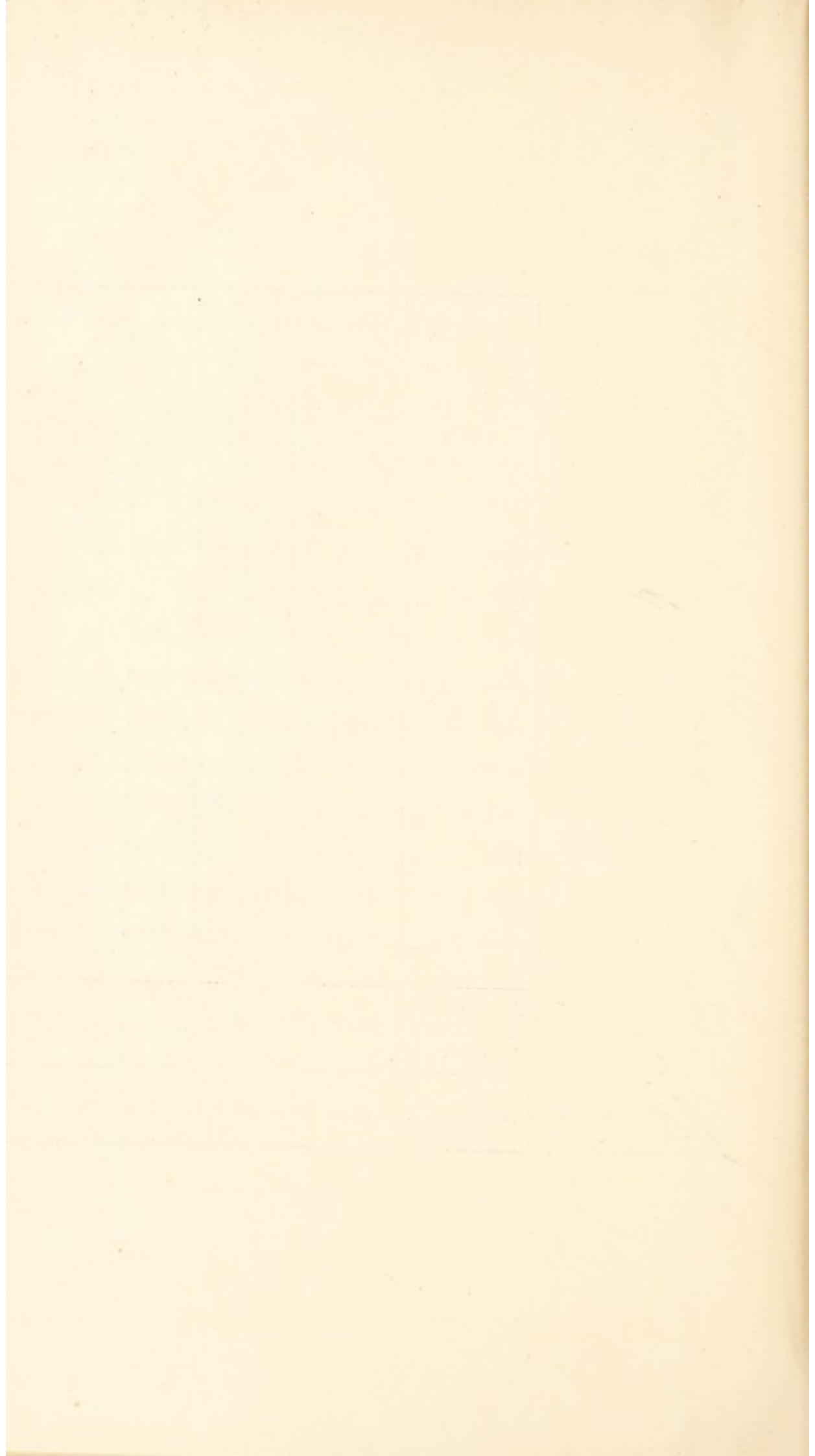
TABLE OF DEATHS IN THE BOROUGH OF HALIFAX SANITARY DISTRICT CLASSIFIED ACCORDING TO DISEASES, AGES, AND LOCALITIES, AND SHOWING ALSO THE POPULATION OF SUCH LOCALITIES, AND THE BIRTHS THEREIN DURING THE YEAR ENDED DECEMBER 31st, 1901.

| Names of Localities adopted for the purposes of these Statistics: Public Institutions being shown as separate Localities. | Population at all ages. | BIRTHS—J. | | | | MORTALITY FROM ALL CAUSES AT SUBJOINED AGES. | | | | | | | MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------------|-----------|----------|--------|---------------|--|--------------|---------------|----------------|-----------------|------------------|------------------|--|----------------------|----------|-------------|-------------|-----------------|-------------------|----------------|----------------------|----------------------------|----------|----------------|---------|-------------|-----------|----------------------------|----------------|------------|------------|-----------------|--------|--------------------------------|-----|-----|----|----|-----|---|
| | | Sex. | | Total. | Illegitimate. | Birth Rate per 1000 per annum. | At all ages. | Under 1 year. | 1 and under 5. | 5 and under 15. | 15 and under 25. | 25 and under 65. | 65 and upwards. | Small Pox. | Measles. | Scarlatina. | Diphtheria. | Whooping Cough. | Continued Fevers. | | | Diphtheria and Erysipelas. | Cholera. | Typhoid Fever. | Typhus. | Erysipelas. | Phthisis. | Consumption, and Pterygia. | Heart Disease. | Influenza. | Dysentery. | Other Diseases. | Total. | Death Rate per 1000 per annum. | | | | | | |
| | | Males. | Females. | | | | | | | | | | | | | | | | Typhoid. | Other of kind. | Purpura. | | | | | | | | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | | | | | | | | |
| Ovenden Ward | 7045 | 86 | 69 | 155 | 122 | 0 | 94 | 16 | 10 | ... | 6 | 30 | 32 | Under 5 5 upwards | ... | 3 | ... | 1 | ... | ... | ... | ... | 1 | ... | 5 | 7 | 10 | 1 | 1 | 33 | 68 | 13 | 3 | | | | | | | |
| Akroydon Ward | 6540 | 98 | 89 | 187 | 128 | 5 | 89 | 28 | 9 | 2 | 3 | 32 | 15 | Under 5 5 upwards | ... | 4 | ... | 1 | 2 | ... | ... | ... | 1 | ... | 1 | 6 | 8 | 4 | ... | 22 | 37 | 13 | 6 | | | | | | | |
| North Ward | 8165 | 105 | 123 | 228 | 132 | 7 | 125 | 27 | 17 | 8 | 6 | 47 | 20 | Under 5 5 upwards | ... | 1 | ... | 4 | ... | 1 | ... | 3 | ... | 1 | 10 | ... | ... | ... | 1 | 23 | 44 | 15 | 3 | | | | | | | |
| Central Ward | 7833 | 97 | 74 | 171 | 52 | 18 | 134 | 34 | 25 | 4 | 2 | 48 | 21 | Under 5 5 upwards | ... | 11 | ... | 2 | ... | ... | 6 | ... | 3 | ... | 1 | 10 | 15 | 12 | 1 | 2 | 31 | 75 | 17 | 1 | | | | | | |
| West Ward | 5282 | 84 | 89 | 173 | 71 | 18 | 108 | 16 | 10 | 6 | 2 | 47 | 27 | Under 5 5 upwards | ... | 2 | ... | 1 | ... | 1 | ... | ... | 1 | ... | 9 | 19 | 12 | 1 | ... | 38 | 82 | 11 | 6 | | | | | | | |
| South Ward | 7600 | 71 | 68 | 139 | 51 | 18 | 93 | 11 | 6 | 4 | 3 | 33 | 36 | Under 5 5 upwards | ... | 2 | ... | ... | ... | ... | ... | ... | ... | ... | 2 | ... | ... | ... | 13 | 17 | 12 | 2 | | | | | | | | |
| East Ward | 7001 | 56 | 50 | 106 | 101 | 15 | 101 | 21 | 11 | 3 | 5 | 36 | 25 | Under 5 5 upwards | ... | 2 | ... | 2 | ... | ... | 5 | ... | ... | ... | 7 | 17 | 6 | ... | 2 | 42 | 76 | 14 | 4 | | | | | | | |
| Southowram Ward | 7465 | 95 | 107 | 202 | 62 | 27 | 113 | 30 | 15 | 3 | 7 | 39 | 19 | Under 5 5 upwards | ... | 2 | 1 | 2 | ... | ... | 4 | ... | ... | ... | 8 | 13 | 10 | 1 | 4 | 29 | 68 | 15 | 1 | | | | | | | |
| Skirecoat Ward | 8850 | 86 | 101 | 187 | 62 | 21 | 109 | 23 | 10 | 3 | 3 | 38 | 32 | Under 5 5 upwards | ... | 2 | ... | 1 | ... | ... | 5 | ... | 1 | ... | 9 | 16 | 12 | ... | 1 | 37 | 76 | 12 | 3 | | | | | | | |
| Copley Ward | 2905 | 32 | 37 | 69 | 22 | 23 | 31 | 4 | 2 | 2 | 4 | 12 | 7 | Under 5 5 upwards | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | 5 | 7 | 1 | ... | 1 | ... | 4 | 6 | 10 | 6 | | | | | | |
| Pellon Ward | 9138 | 105 | 112 | 217 | 92 | 23 | 128 | 26 | 14 | 3 | 5 | 55 | 25 | Under 5 5 upwards | ... | 2 | ... | 4 | ... | ... | 4 | ... | ... | ... | 10 | 15 | 18 | 1 | 1 | 40 | 88 | 14 | 0 | | | | | | | |
| Kingston Ward | 10166 | 120 | 98 | 218 | 52 | 21 | 106 | 23 | 11 | 1 | 4 | 31 | 36 | Under 5 5 upwards | ... | 1 | 1 | 1 | ... | 1 | ... | ... | 1 | ... | 10 | 12 | 11 | 1 | ... | 37 | 72 | 10 | 4 | | | | | | | |
| Illingworth Ward | 7035 | 70 | 80 | 150 | 52 | 21 | 104 | 14 | 9 | 5 | 3 | 38 | 35 | Under 5 5 upwards | ... | ... | 1 | 1 | ... | ... | 1 | ... | ... | 2 | ... | 6 | 16 | 16 | 2 | 1 | 37 | 81 | 14 | 7 | | | | | | |
| Workhouse | ... | 3 | 8 | 11 | 10 | ... | 158 | 9 | 5 | 2 | 5 | 68 | 69 | Under 5 5 upwards | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | 23 | 14 | 16 | 1 | 1 | 88 | 144 | ... | ... | | | | | | | |
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| Borough Hospital | ... | ... | ... | ... | ... | ... | 19 | ... | 9 | 5 | 3 | 2 | ... | Under 5 5 upwards | ... | ... | 7 | 2 | ... | ... | ... | ... | 1 | ... | 11 | 9 | 8 | ... | 14 | 55 | 99 | ... | ... | | | | | | | |
| Northowram | 3265 | 41 | 37 | 78 | 52 | 23 | 53 | 9 | 7 | 3 | 1 | 15 | 18 | Under 5 5 upwards | ... | 1 | ... | ... | ... | ... | 2 | ... | ... | ... | ... | ... | ... | ... | 13 | 16 | 16 | 2 | | | | | | | | |
| Warley | 2830 | 38 | 22 | 60 | ... | 21 | 44 | 5 | ... | 1 | 4 | 20 | 14 | Under 5 5 upwards | ... | ... | ... | 1 | ... | 3 | ... | ... | ... | ... | 4 | 6 | 6 | ... | 1 | 18 | 39 | 15 | 5 | | | | | | | |
| TOTALS | 105120 | 1187 | 1164 | 2351 | 101 | 22 | 1726 | 303 | 181 | 60 | 82 | 661 | 439 | Under 5 5 upwards | ... | 33 | 10 | 9 | 19 | ... | 2 | ... | 33 | ... | 1 | 1 | 90 | 1 | ... | 6279 | 484 | 16 | 4 | | | | | | | |
| Deaths occurring outside the Division or District among persons belonging thereto | | | | | | | | | | | | | | 21 | ... | ... | ... | 2 | 13 | 6 | Under 5 5 upwards | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | 5 | 4 | 4 | ... | ... | 7 | 21 | ... | |
| Deaths occurring within the Division or District among persons not belonging thereto | | | | | | | | | | | | | | 38 | 2 | 2 | 2 | 6 | 22 | 4 | Under 5 5 upwards | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | 4 | 2 | 3 | ... | 6 | 18 | 34 | 16 | 2 |



VITAL STATISTICS OF THE BOROUGH OF HALIFAX DURING 1901 AND PREVIOUS YEARS

[illegible]



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