

[Report 1903] / Medical Officer of Health, Leeds City.

Contributors

Leeds (England). City Council.

Publication/Creation

1903

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ANNUAL REPORT

(With SUPPLEMENT)

MADE TO THE

URBAN SANITARY AUTHORITY

OF THE

CITY OF LEEDS,

FOR THE YEAR

1903,

AND PARTLY FOR 1904,

BY

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TABLE A.—Part I.—Causes of death in registration sub-districts ; institutions as separate districts.

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- „ F.—Births, deaths in Leeds from all and certain groups of causes, sickness, and meteorological data for each week of fourth quarter, 1902, of each quarter of 1903, and of the first quarter of 1904.

The material asked for in the new Local Government tables will be found as follows :—

- I.—In table D, part 2.
- II.—In table A for current and previous years.
- III.—Age groups in new table, pp. 114-5 ; localities in table B.
- IV.—Ages in table 17, p. 113 (altered from old table 17 to include ages), including, however, all deaths in institutions ; localities in table C, where institution deaths allocated.

ANNUAL REPORT, 1903.

To the Chairman of the Sanitary Committee.

SIR,

In the report for the year 1902, the preliminary part of which was presented to you early last year, and the various sections of supplementary matter from time to time later, I had to report in regard to mortality a record year. I pointed out that, during the decade 1865-1874, the death-rate in Leeds had been 28·4; that during the decade 1875-1884 it had been 23·7; and that during the decade 1885-1894 it had been 21·1. During the following five years (1895-1899) it was 19·8, whilst during the three years 1900-1902 the rate was only 19·1. It was pointed out that the death-rate, for 1902, of 17·6 was the lowest of any year since 1865—that is of any year of which we have a record.

I have now to report that we have beaten this record death-rate of 17·6, and that the rate during the year 1903 was one of only 16·6, so that taking the four years from 1900 to 1903 inclusive the death-rate of the quadrennium was only 18·5, an improvement of 1·3 upon the low death-rate of the preceding five years. I propose in printing the report to present you with these figures in tabular form, repeating table 1a which appeared in the last annual report, and had been reprinted from that of 1894.

Mortality from certain groups of causes compared with that of some other years.—In examining the incidence of mortality it will be noticed that from “all causes” and at “all ages” our mortality last year was 1 per thousand below that of 1902, and 4·57 below that of the five years 1885-1889, which we have been wont to use for comparison purposes, in table 1, in all the annual reports I have presented to you (table 1, p. 5).

TABLE 1a.**Death rates in Leeds from 1864 to 1894.**

(From the Annual Report for 1894, figures unaltered.)

1865	...	...	31.0	1870	...	...	28.7
1866	...	...	32.5	1871	...	...	26.4
1867	...	...	26.2	1872	...	...	27.9
1868	...	...	28.3	1873	...	...	27.6
1869	...	...	26.6	1874	...	...	28.8
Quinquennium, 28.9.				Quinquennium, 27.9.			
Decade				...	28.4		
1875	...	...	26.5	1880	...	...	22.0
1876	...	...	25.1	1881	...	...	21.6
1877	...	...	23.0	1882	...	...	23.2
1878	...	...	24.7	1883	...	...	23.5
1879	...	...	23.5	1884	...	...	24.2
Quinquennium, 24.6.				Quinquennium, 22.9.			
Decade				...	23.7		
1885	...	...	19.9	1890	...	...	22.6
1886	...	...	21.9	1891	...	...	22.9
1887	...	...	21.1	1892	...	...	19.8
1888	...	...	20.6	1893	...	...	22.4
1889	...	...	22.1	1894	...	...	17.9
Quinquennium, 21.1.				Quinquennium, 21.1.			
Decade				...	21.1		

About half the improvement, in comparing our rate with that of the preceding year, was due to the lessened death-rate from lung diseases, the improvement being 0·04 from consumption, 0·47 from the bronchitis group, a slight increase of 0·03 from "other lung diseases," reducing the total improvement of 0·51 to one of 0·48, which, however, as just said, is nearly half. A quarter of the improvement was due to the diminution in deaths from the seven commoner zymotics.*

TABLE 1b.

YEARS.	LEEDS DEATH RATES, 1895-99, ESTIMATED ON POPULATIONS		
	Regarded as terms of a geometrical series whose ratio was obtained from the results of the censuses.		Found by the method of differences from the data of the censuses of 1881, 1891 and 1901.
	1881-1891.	1891-1901.	
1895	20·5	20·7	20·6
1896	18·8	18·9	18·9
1897	19·9	20·1	20·1
1898	19·2	19·5	19·4
1899	19·1	19·4	19·4
Lustrum ...	19·5	19·7	19·7

As compared with the earlier period, that is with the 1885-1889 quinquennium, of the total improvement of rather more than four and a half per thousand nearly a quarter (1·04) was due to a lessening of the deaths from the seven diseases just mentioned; nearly 10 per cent. (0·43) was due to the lessened death-rate from consumption—1·27 against 1·70; another fourth (1·17) was due to the lessening of the rate from bronchitis, pneumonia, and pleurisy, whilst a fraction (0·06)—about one and

* Exclusive of membranous croup, which however fell from 0·03 to 0·01.

a third per cent. of the total improvement—was due to the small group of “other lung diseases,” in which we figured less favourably last year than the year before.

Taking, therefore, the whole lung group together—the consumption group, the bronchitic group, and the small group which may for convenience be called the asthmatic group—the total improvement on the early quinquennium was one of 1·66, about half as much again as that of the zymotic group, and 36 per cent. of the total improvement from all causes.

It will be understood that these are exceedingly rough comparisons, and that they are resultants of grouping together causes of death which have much in common, but also which often differ largely in their origin.

Seven zymotics.—The diminution of deaths from the so called seven zymotics was exceedingly marked. In 1902 the rate from this cause was 2·00 per thousand—a rate which, though the lowest but one of any year since I began to report to you, I cannot but regard as rather an opprobrium to our sanitary administration. The year 1894 had a rate of 1·98, and held the record in regard to this group of any year on the health of which I have had to report to you. Our rate of 1·74 in 1903 was 0·26 below the comparatively low rate of last year, and 0·24 below that of the record year 1894.

On looking into the details of the several diseases it will be found that our death-rate from small-pox was five times as large as last year, and greater than any year since 1893, but it only amounted to five deaths in 100,000 of the population, an almost negligible quantity from a statistical point of view (see p. 33).

Measles caused only 28 deaths in every 100,000 of the population, against 43 in 1902. On only two occasions have I had a lower death-rate than this to record. In 1890 the rate was 27 per 100,000, in 1892 it was 20. This disease, as you are aware, is one which occurs in a succession of waves. The death-

TABLE 1.

Annual deaths per 1,000 of the estimated population.

	All causes.	Seven zymotics.†	Consumption.	Bronchitis, pneumonia, pleurisy.	Other lung diseases, without influenza.
Five years, 1885-89 ... (261 weeks)	21.16	2.78	1.70	3.93	0.27
*Five years, 1890-94 ... (261 weeks)	21.16	2.52	1.61	4.43	0.31
*Five years, 1895-99 ... (261 weeks)	19.77	2.74	1.47	3.54	0.22
*Year 1900 (52 weeks)	20.40	2.98	1.43	3.78	0.21
*Year 1901 (52 weeks)	19.30	3.14	1.41	3.18	0.14
*Year 1902 (53 weeks)	17.59	2.00	1.31	3.23	0.18
*Year 1903 (52 weeks)	16.59	1.74	1.27	2.76	0.21
1903 increase on 1902	...	...	...	...	0.03
„ decrease „ 1902	1.00	0.26	0.04	0.47	...
1903 increase on '85-9	...	...	...	...	...
„ decrease on '85-9	4.57	1.04	0.43	1.17	0.06

* Estimated of course upon the population calculated from the result of the recent census.

† Exclusive of membranous croup which the Registrar-General did not include in the seven zymotics until 1894.

rate for 1902 and 1903 together amounts only to 71 per 100,000, the same as for the single year 1891, less than for the single year 1893, less than for the single and especially healthy year 1894, and less than in any other two consecutive years throughout the period since 1890 (see p. 33 and table D 1).

Scarlet fever showed a slight increase, causing 25 deaths per 100,000 of the population, against 13 in 1902. This is the highest death-rate since 1898, when 29 deaths occurred. With the exception of 1890, when the deaths were 28 per 100,000, it is a higher rate than in any of the other years since the one last named. The two years 1902-3 together have a rate of 38 per 100,000, the same as for the two years 1891-2, but higher than for any two consecutive years till we come to 1896-7, when the combined rate was 41. The rate for 1897-8 was 52, for 1898-9 44, but the consecutive years following had lower rates—1899-1900 27, and 1900-1 31, 1901-2 33 per 100,000. The increase, however, is not in any way alarming (see p. 33).

Diphtheria, from which for statistical purposes I exclude membranous croup, which was not recorded as diphtheria until 1894, caused 14 deaths per 100,000 of the population, against 18 in 1902. This is a lower rate than any since 1897, when there were 13 deaths per 100,000 recorded from this disease. In 1895 and 1896 there were 10 deaths each, in 1893 and 1894 15 each per 100,000 of the population. In 1890, 1891, and 1892 the deaths were 7, 4, and 8 respectively per 100,000. Grouping the two years 1902-3 the diphtheria rate is 32 per 100,000, against 38, 55, 71, and 49 in single years 1901, 1900, 1899, 1898, as against 62 in the 1897-8 biennium, 23 in that of 1896-7, 20 in 1895-6, 25 in 1894-5, 30 in 1893-4, 23 in 1892-3, 12 in 1891-2, and 11 in 1890-1. As compared, therefore, with recent years the rates for the year and the biennium have been favourable in regard to this disease, but as compared with the earlier years of the period under review somewhat higher. This is doubtless in part accounted for by a tendency to alteration of name. For instance, in the four earlier years, 1890 to 1893, the deaths recorded from various forms of "croup" amounted to 48 per 100,000, an average of 12 per year. During the four latter years, 1900-3 inclusive, the deaths from all forms of croup were 21 to a 100,000, an average of five per annum, as against 12 in the earlier period, when the deaths from diphtheria had been

fewer. There is, however, no doubt that taking the two diseases together a wave of throat affections passed over the town between the years 1898-1901; fortunately the wave seems to be passing away (see table p. 33 and D. 1 in appendix).

Whooping cough caused 27 deaths per 100,000—practically the same as measles. In 1897 the rate was 24, in 1895 29. In no other year of the thirteen was it less than 33. Grouping the two years 1902-3, the combined rate is 73—higher than the rate of any single year, but below the rate of any two years except that of 1894-5, which was 63, and of 1897-8, which was the same, and of 1900-1, which was 72 per 100,000.

From fever our deaths were 13 per 100,000, the smallest number I have had to record. They were 18 last year, 1902; 17 in 1899 and in 1892, and 14, the lowest previously on record, in 1894. Again taking the two years 1902-3, with a total of 31 deaths in the biennium per 100,000 of the population, it will be found that that is a smaller number than in any two consecutive years since 1900. The years 1891-2 had a combined rate of 37 for the biennium; so had 1901-2, and 1899-1900; 1894-5 had a rate of 36, but no other two consecutive years taken together had anything so low.

From diarrhoea our rate was fractionally higher than in 1902, 62 deaths per 100,000 against 61. The only previous years anywhere near this were 1896, when the rate was 69, and 1894, when it was 45 per 100,000. The two years together, 1902-3, had thus a rate, 123, for the biennium, a rate exceeded by the single years 1893, 1895, 1897, 1898, and 1901. No two consecutive years had anything so low as 123. The lowest number for any two consecutive years, except these two last, was 1890-1, in which the rates were respectively 98 and 86, a total for the two years of 184 against 123. The two years 1891-2 had a rate of 196. No other two years together had less than 200.

Respiratory diseases.—It has been already mentioned that phthisis had a rate of 1·27. This is lower than the rate of any of the thirteen preceding years. Combined with 1902, the rate is 2·58 per 1,000 in the biennium. This is lower than the combined rate in any other two consecutive years.

Including deaths from influenza, the rate of respiratory diseases, other than consumption, was 3·09. This is also lower than in any one of the previous thirteen years. Combining the figures for the two years, 1902-3, the deaths per 1,000 are 6·61. In 1891, which was an influenza year, the deaths amounted to 6·11 in the single year. The two years 1890-91 together had a rate of 11·73. In no two consecutive years has the rate been so low as in the last two (table D 1).

HEALTH OF QUARTERS.

Last quarter of 1902.—In the fourth quarter of 1902 the birth-rate of Leeds was 28 per thousand, the death-rate 18·3. The corresponding rates for the same quarter in the 76 towns were 29 and 17·9; in the 33 towns 28·7 and 18·4. The 76 and the 33 towns are all English towns, the latter included in the former. Three of the nine largest towns in the United Kingdom, Edinburgh, Sheffield, and London, had lower death-rates than that of Leeds during this quarter, namely, in the same order, 17·3, 17·5, 17·7. The rate in Birmingham was 0·2 higher, whilst the four remaining towns had rates considerably above that of Leeds.

Though measles had been somewhat prevalent during most of the period, and diarrhoea had asserted itself in the earlier weeks, the death-rate was only 0·7 above the low average Leeds death-rate (17·6) for the year 1902.

First quarter, 1903.—In the first quarter of 1903 the mortality from measles decreased considerably, as did that from lung diseases, although the latter had not been high. The death-rate from all causes fell to 16·4. This was the lowest rate in

any of the nine largest towns of the Kingdom, the next higher being London, 17·3. The death-rate was 17·3 in the 76 large towns. Our birth-rate, 29·3, though higher than that of the preceding quarter, was 0·8 below that of those large towns which had a birth-rate of 30·1. The 33 large towns had a birth-rate of 29·8 and a death-rate of 17·8.

The barometrical pressure varied very slightly from that of the preceding quarter, although it was a little lower than for the year as a whole. The temperature was about a degree and a half lower. The humidity was also about two degrees and a quarter less. The average of the highest readings was just within a degree of that of the previous quarter, but the mean of the lowest reading was nearly three degrees less. The diathermancy of the atmosphere was therefore, as measured by the difference of daily range, two degrees greater, and the rainfall was about a fifth of an inch higher, a negligible quantity in a period of thirteen weeks. The atmospheric conditions of the quarter may be looked upon as a whole as having been very similar to those of the fourth quarter of 1902.

The number of cases admitted to our hospitals was nearly the same as in the preceding fourteen weeks, 490 against 501. Analyzing the admissions and notifications, however, it will be found that in the thirteen weeks of the first quarter of 1903, 135 cases of small-pox were reported, against 55 in the fourteen weeks of the preceding quarter. Of the 135 all but three were taken into hospital during the quarter. Two had died before it was possible to remove them to hospital, the third was admitted during the following quarter, under the circumstances mentioned on page 53 in my report for 1902. Seven deaths occurred from this disease during the quarter, equivalent to a mortality of 0·06, against 0·03 in the preceding quarter, during which there had been four deaths. The mortality, it will be noticed, however, was less in proportion to cases.

Of scarlet fever there were 630 cases reported or heard of, against 620 in the preceding quarter. The number sent to hospital were 248, against 287. In each of these quarters two nurses and two maids contracted the disease at the hospital. Their cases are not included. The deaths from this disease were 26, 13 in children under five, and 13 in persons above that age. They were equivalent to a mortality of 0·24 per thousand per annum at all ages, against 0·17 in the fourth quarter of 1902.

Diphtheria was reported, or heard of, in 220 cases. Forty of these were isolated in hospital. The cases heard of had been 229 in the preceding quarter, of which 48 were hospitalised. The mortality from this disease in the city was 29, 15 under and 14 over the age of five, and the death-rate at all ages 0·26. In the preceding quarter the rate had been 0·22. Membranous croup, which the Registrar General includes with diphtheria, was reported to us in three cases, none of which were removed to hospital. There were two deaths from this cause. There had been eight cases heard of in the previous quarter, and six deaths. The rates were equivalent in the two quarters to 0·02 and 0·05 respectively.

The cases of typhoid fever reported were 90, against 143 in the preceding quarter. Forty-four were sent to hospital, against 60. The mortality from this disease in the quarter, and it includes the whole mortality from continued fever, was 14, or at the rate of 0·13 per thousand. The mortality of the preceding quarter had been 29, or at the rate of 0·25. In both cases all the deaths of all the reported cases from continued fever were assigned to this cause.

Puerperal fever and erysipelas were reported in 8 and 114 cases respectively, against 8 and 95 in the preceding quarter. The deaths were 3 and 6, against 4 and 4. In addition to these there were 90 cases of other diseases, 11 of which were treated in hospital, against 82, of which 15 were hospitalised, in the preceding quarter. It should be noted, however, that in compar-

ing the first quarter of 1903 with the last quarter of 1902, we are comparing periods of 13 and 14 weeks. This does not in any case affect the death-rates given, as they are calculated in each case upon a solar year, but it affects the numbers in comparing the two periods.

Second quarter.—The second quarter of the year was a little warmer, and the air pressure a little greater. The dry bulb of the thermometer averaged more than 10 degrees higher than in the preceding quarter, and nearly 9 degrees higher than in the last quarter of 1902. The wet bulb was 7 degrees higher than in the first quarter of 1903, and rather over 5 degrees higher than in the concluding quarter of 1902. The moisture in the atmosphere was 12 per cent. of saturation less than in the preceding quarter, and $14\frac{1}{2}$ per cent. below that of the last fourteen weeks of 1902. The average of the highest readings of the thermometer was 11 and 10 degrees respectively above that of the preceding quarters, and of the lowest approximately 6 and 3 degrees. The diurnal range had also considerably increased, as is usual during the second quarter. It was 15.98° , against 10.48° and 8.48° in the two preceding quarters, an increase of $5\frac{1}{2}^{\circ}$ and $7\frac{1}{2}^{\circ}$ respectively, whilst the rainfall had diminished rather more than half-an-inch as compared with either quarter.

The births in Leeds in the quarter were 3,298, equivalent on the estimated population to a birth-rate of 29.8, the highest in any quarter during the year. The deaths at all ages were 1,684, and the death-rate 15.2, the lowest death-rate during any of the quarters of the healthiest year on our record.

Comparing ourselves with the nine large towns, we were beaten on this occasion by London, which had a death-rate of 14.7, or 0.5 below ours. The next lowest rate was that of Birmingham 16.4, 1.2 above ours. The 33 large towns had a birth-rate of 29.9 and a death-rate 15.6. The 76 towns, which include many much smaller boroughs, had rates of 30.2 and 15.3, both of them slightly higher than ourselves.

Small-pox was notified, or heard of, in 195 cases during the quarter. All but three were taken to hospital. One (6067:3) died the day before we heard of the illness, which was short. One (6084:1) was a convalescent previously unreported, isolated at the cottages. One only was treated at home (6149:8). Eleven deaths were certified from this disease, equivalent to a rate of 0·10 per thousand of the estimated population.

Measles caused 27 deaths, and a rate of 0·24 per thousand of the population—a somewhat low rate for the period of the year, the average for the same quarter of the five preceding years having been 0·49.

Scarlet fever was notified, or heard of, in 713 cases, of which 252 were sent to hospital. In addition there were three cases amongst the Manston Hall staff. The deaths in the city and hospital were 30, equivalent to a rate of 0·27.

Diphtheria was reported in 161 cases, and membranous croup in one. Twenty-six cases were isolated in hospital. There were 11 deaths from the two diseases, and a rate of 0·10.

Whooping cough was fatal in 25 cases, giving a rate of 0·23 per thousand. This also is not high for the season of the year. The average rate for the same quarter of the previous five years was 0·32.

Fever was heard of in 63 cases, all enteric—20 were sent into hospital. The deaths from this cause were 13, with a death-rate of 0·12. Diarrhoea was credited with 14 deaths, and a death-rate of 0·13 per thousand.

Puerperal fever and erysipelas were reported in 10 and 68 cases respectively. The deaths in each case were 5, and the death-rate 0·05. Bronchitis, pneumonia, and pleurisy were credited with 280 deaths, a rate of 2·53 per thousand of the population. On the whole the mild weather had been favourable to the health of the community.

Third quarter.—In the third quarter 104 cases of small-pox were heard of and removed to hospital. The deaths from this cause were 5, or at the rate of 0·05 per thousand per annum. Measles had a death-rate of 0·21. There were 610 cases of scarlet fever heard of—271 were taken to hospital. In addition to these there were two cases amongst the Manston Hall staff. The deaths from this disease were 29, or at the rate of 0·26.

One hundred and thirteen cases of diphtheria were heard of, and 24 sent into hospital. There were 11 deaths from this cause, a rate of 0·10. Whooping cough was credited with a rate of 0·29, a little higher than that of the previous quarter.

Enteric fever was reported or heard of in 93 cases, 34 of the patients were taken into hospital. There were 11 deaths in the quarter, or at the rate of 0·10 per thousand per annum. Puerperal fever and erysipelas were reported respectively in 5 and 82 cases. The deaths were two, both of the first-named, or at the rate of 0·02 per thousand per annum. The deaths from the bronchitis group fell to 159, or at the rate of 1·44 per thousand.

The diarrhoea rate in the third quarter was remarkably low. Our own record is of 196 deaths from this cause, or at a rate of 1·77 per thousand per annum. The rate in the large towns and country generally in this quarter was also low last year. In England and Wales the rate was 1·16, against 2·26 in the ten preceding years. In the 76 towns it was 1·78, and in our 33 old friends 1·85. In Leeds our rate of 1·8* (the same as that of the 76 towns) has to be compared with one of 3·8, or more than double in the previous ten years. Of the 33 towns with which a comparison of the ten years could be made, some had rates considerably lower than ours, and some higher. Halifax had a rate of 0·4, Huddersfield and Blackburn 0·5. Bristol, Oldham, and Croydon had rates of 0·6. The average for the ten preceding years had been in Halifax 1·1, in Huddersfield 1·7, in Blackburn

* Or 1·76 to two places as given in the Registrar General's Report, third quarter, 1903, table VI. The figures to one place are those used in his tables XI. and XII. in same report.

3·3, in Bristol 1·7, in Oldham 2·2, and in Croydon 2·3. Derby had a rate 0·9, against a decade rate of 2·5; Swansea of 1·0 against 1·3; Plymouth of 1·1 against 2·6; Cardiff and Brighton each of 1·2, against 2·4 and 2·7; Bradford of 1·3 against 2·8; Newcastle and Sunderland each of 1·4 against 2·4 and 4·1; London of 1·5, Portsmouth 1·6, against 2·5 and 4·0 respectively. Nottingham and Leicester had each rates of 1·7 against 3·9 and 4·8 in the decade. Eighteen of the 33 had thus rates lower than ours. Preston had the same rate as ours, 1·8*, but its decade rate had been 6·2. Amongst towns of the 33 with higher rates than our own were Wolverhampton, with a rate of 1·9 against 4·4 in the decade; Manchester 2·1 against 4·2; Gateshead 2·2 against 3·6; Norwich, Birmingham, and West Ham, each with a rate of 2·5 against 3·6, 4·0 and 4·1 respectively; Salford 2·6 against 4·9; Bolton and Liverpool each 2·8 against 4·2 and 4·6; Burnley 3·4 against 4·7; Birkenhead and Hull each with a rate of 4·2 against 3·0 and 5·3; while Sheffield had a rate of 4·3 against 5·0.

The mortality in the 76 towns was highest in the week ended August 29th, when it reached 2·8. It had, however, been 2·6 in the preceding, and remained at 2·5 in the two following weeks. Our own rate was highest a fortnight earlier, when it reached 4·0, having been 2·8 in the week ended August 8th, 4·0 in that ended the 15th, falling to 2·5 in the following week, and rising again in the last week of August to 3·4.

Sheffield had, like the 76 towns, its highest mortality, 9·2, in the week ended August 29th. Its rate, however, was 5·3 in the week ended August 8th, 7·1 and 8·2 in the two following weeks. From the rate of 9·2 it fell to 6·5 in the week ended September 5th, and to 5·6 and 5·3 in the two following weeks.

Hull had its highest rate the week after our maximum and the week before that of the large towns. Its rate, however, was 3·6 in the first week of August, 4·6 in the second, 9·2 in the third,

* The rate in Preston was 1·82, that in Nottingham 1·74, against ours of 1·76.

8.4 in the fourth and in the following week, that ended September 5th. In the weeks ended September 12th and 19th it was 4.2 and 6.1 respectively.

On the whole, however, we regard the death rate from diarrhoea as a low one for the autumn quarter, but so long as the rate can be got down in the same quarter to 0.4 in Halifax, 0.5 in Huddersfield, Blackburn, and Rochdale, and 0.6 in Oldham, all manufacturing towns, we can scarcely be satisfied with one of 1.8, even although that was not only the rate of Leeds, but the mean rate in the 76 large towns.

Though the air temperature was higher by nearly 6° than in the previous quarter, it was not high for a third quarter. The mean of the highest readings was 5° and of the lowest 6° above that of the preceding quarter, but the daily range was a degree less, being only 14.98 against 15.98. The rainfall was high, 7.86, nearly two inches above that of the previous quarter, whilst the humidity was $4\frac{3}{4}\%$ of saturation higher than in the second quarter.

As compared with the figures for the third quarter of the preceding year the barometer (which was a little lower than in the second quarter of 1903) was 0.14 of an inch lower than in the third quarter of 1902. The average reading of the dry bulb was about half a degree higher than in 1902, 61.40, against 60.93. The wet bulb was about a degree and a quarter higher than in 1902, and the humidity was 71.47 against 67.69, an increase of $3\frac{3}{4}\%$ of saturation. The diathermancy was naturally somewhat less, but as measured by the range of the thermometer only about a fifth of a degree, whilst the rainfall, 7.86 against 6.17, was an inch and a half in excess.

These figures, however, in 1902 were of themselves rather unusual; the dry bulb temperature in the third quarter of preceding year 1901 was 66.0 instead of 61.4, the humidity 65.46 per cent. instead of 71.47, the mean of the highest reading

71.02° instead of 65.66°. The range of temperature, however, was not very different, 15.02° against 14.98°, but the rainfall in the thirteen weeks of 1901 was $3\frac{1}{4}$ against nearly 8 inches last year.

It is probable that the combination of these fortunate circumstances, along with the favourable temperature in the preceding quarter, accounted largely for the low-mortality from diarrhœa. The death-rate from all causes for the whole City was 15.7, and the birth-rate 29.6 for this quarter, against 15.1 and 29.9 in the 76 towns and 15.4 and 29.5 in the thirty-three. Our rate of infantile mortality calculated per thousand births was 177 in the third quarter, against 172 in the same quarter of the preceding year. Both, however, were very much below our average for the third quarter for the five years 1897-1901, which was 275.

Comparing our general mortality for this quarter with that of the nine largest towns we stood third on the list. London had a rate of 14.1, Edinburgh of 14.6; Leeds came next with 15.6 (these are the Registrar-General's figures); then Glasgow 16.2, Birmingham 16.4, Manchester 18.4, Dublin 18.9, Liverpool and Sheffield 19.7 and 20.9.

Fourth quarter.—In the fourth quarter our rate as compared with the nine largest towns of the Kingdom was less favourable. We stood fourth on this list. London had a rate of 16.6, Edinburgh of 16.7, Sheffield of 17.6, and Leeds of 19.0. Birmingham followed with 19.2, Manchester 19.6; then came Glasgow, Liverpool, and Dublin, 20.2, 21.2, and 23.3. The 76 towns had a death-rate of 17.3, considerably below that of Leeds (19.0), and a birth-rate of 28.6, against ours of 28.8. For the first three weeks of the quarter our mortality did not average 16; during the next four the average was just over 20, and during the last six it was 19.7. The death-rate in the 33 towns was 17.6, and their birth-rate 28.3.

Measles and whooping cough had again become prevalent, and though our mortality in the whole year was comparatively low from these diseases it could not be called so in the fourth quarter, measles having caused a rate of 0·45, whooping cough of 0·43. Diarrhœa also had been somewhat fatal, especially in October, causing a rate in the quarter of 0·41. As is generally the case when measles and whooping cough are prevalent the deaths from bronchitis, pneumonia, and pleurisy were somewhat in excess, causing a rate of 4·26, amounting, with other lung diseases not tuberculous and influenza, to a rate of 4·53 for the quarter, against 3·09 in the whole year. A good many of these lung deaths were probably due to one or other of the seven zymotics.

Small-pox was distinctly on the wane, the number of cases reported during the quarter having been only 6. All were treated in hospital. Scarlet fever was heard of in 497 cases, of which 257 were treated in hospital. The deaths from this disease were 24, and the death-rate 0·22—about half the mortality from measles. Diphtheria and membranous croup caused 12 deaths, or a rate of 0·11. Ten out of the 12 deaths were those of children under five. The cases reported were 94 and 2, of which 19 were treated in hospital.

The cases of continued fever heard of—all recorded as typhoid—were 112; 64 went to hospital. Twenty deaths were ascribed to this cause all in persons over five, giving a death-rate of 0·18. Puerperal fever and erysipelas were reported in 3 and 97 cases respectively. From the former disease there was no death, from the latter 2, or at the rate of 0·02 per thousand per annum. There were 57 other cases reported to us as infectious, of which 12 were treated in hospital. Six members of the Manston Hall staff contracted scarlet fever and were treated in hospital but their cases are not included in the figures already given.

The barometric pressure was again a tenth of an inch lower than in any previous quarter of 1903. The dry and wet bulb means were respectively nearly 16° and 13° lower than in the

third quarter. The humidity of the atmosphere, 89.53 per cent. of saturation, was $14\frac{1}{2}$ degrees in excess of that of the previous quarter. The mean highest and mean lowest readings were 17° and 12° below those of the third quarter. The daily range fell from 14.98° to 9.93° or 5° , whilst the rainfall was nearly an inch more than in the preceding thirteen weeks. The lowered temperature with a diminished diathermancy of the atmosphere due to the greater moisture, with the presence of measles* and whooping cough, was somewhat fatal to young life, and children under one died in a greater proportion in the fourth quarter than even in the third, which we usually look upon as specially trying at this age. The deaths were 190 to the 1,000 births, or even taking the average births of the five quarters instead, of 185 to the average births of the period against 163 in the five preceding years. Although our death-rate of 19.0 was the highest in any quarter of the year, it was a lower rate than the average of the three preceding entire years, which was 19.1—itsself the lowest for any three consecutive years previously on record.

COMPARISON WITH OTHER TOWNS.

Compared with the 76 large towns, which include many comparatively small places, our death-rate of 16.6 is a little higher than that of those towns which was 16.3. Our birth rate was also practically the same as that of the 76 towns, 29.4 against 29.7. The 33 large towns with which we were wont to compare ourselves had a death-rate of 16.6, to one decimal place exactly the same as our own, and a birth-rate of 29.4, also the same as ours. It is a little singular that the diarrhoea death-rate of these same 33 towns during the third quarter should have come out practically the same as ours for the same period. Carried to two places of decimals our rate was 1.77, that of the 33 towns 1.85.

* Measles, in my experience, in Huddersfield and Leeds, has usually been most fatal in anticyclonic periods. The rate from this disease for the quarter, 0.45, cannot, however, be looked upon as an excessive one, though measured by the low rate of 0.28 for the year 1903, it appears so. Frequently, as shown at pp. 4 and 5, and in Table D, part 1, measles is much more fatal. A rate of 0.45 for a year would not be excessive.

It is, however, more convenient to compare ourselves, as in previous years, with the nine largest towns in the United Kingdom. When we do so we find we come second in the list as regards healthiness. London, notwithstanding its slums, had a death-rate last year of only 15·7, then came Leeds with 16·6, and Edinburgh, a trifle higher, 16·8. Then Birmingham, 17·8, and Sheffield, 18·6. Glasgow and Manchester were respectively 19·2 and 19·7, Liverpool 20·5, and Dublin 22·9 (table 2, p. 21).

The returns for each quarter of the year will be found in table 2, where it will be noticed that in Leeds, during the first quarter, we had the lowest death-rate, 16·4. During the second quarter we had the lowest but one, 15·2, London having a rate of only 14·7. In the third quarter we stood third with a rate of 15·6, the rate in London and Edinburgh being 14·1 and 14·6 respectively. In the fourth quarter we did not come off so well, occupying the fourth place with a rate of 19·0, London having a rate of 16·6, Edinburgh of 16·7, and Sheffield of 17·7. On the whole thus we have reason to be satisfied with our position, even when compared with the largest towns in the kingdom.

It is convenient here, perhaps, to again refer, in connection with these nine towns, to the sanitary history of Leeds during the last 14 years. In the report for 1898, in addition to table 2, two other similar tables, 2a and 2b, were printed giving the death-rate for each of the nine towns in each case for four years. From these tables I compile the table labelled 2a. The first division in that table corresponds to the returns for the four years 1890-93, as given in the first and last columns of table 2a on page 20 of the 1898 report. I omit the details as to individual years, which will be found in the report cited. The result of averaging the four years 1890-93 was that Leeds came out fourth in the list of nine. It had held the fourth place in three out of the four years, though in the year 1892 it stood second to Edinburgh.

TABLE 2a.

Comparative mortality of nine largest towns in United Kingdom in three periods.

1890-1893. FOUR YEARS.		1894-1897. FOUR YEARS.		1898-1903. SIX YEARS.	
Edinburgh	20·2	London ...	18·6	London ...	18·1
London ...	20·9	Edinburgh	19·1	<i>Leeds</i> ...	18·6
Birmingham	21·3	<i>Leeds</i> ...	19·3	Edinburgh	18·8
<i>Leeds</i> ...	21·9	Sheffield ...	19·7	Birmingham	19·9
Sheffield ...	23·0	Birmingham	20·3	Sheffield ...	20·2
Glasgow ...	24·2	Glasgow ...	21·4	Glasgow ...	20·9
Dublin ...	26·1	Manchester	22·8	Manchester	22·1
Manchester	26·4	Liverpool ...	24·9	Liverpool ...	23·6
Liverpool ...	26·8	Dublin ...	26·6	Dublin ...	26·3

The middle part of the table deals in a similar manner with the four years 1894-97, and is compiled in the same way from table 2b in the 1898 report. It will be noticed that Leeds takes a step upwards and stands third in the list. It held the fourth place in 1894, it tied with Sheffield for the third place in 1895, it stood third in 1896, and second in 1897.

The third portion of the table, in order to make the period complete, deals with the six years 1898-1903. London stands first 18·1, Leeds second 18·6, Edinburgh third 18·8. In 1898 Leeds stood second, in 1899 it stood first, in 1900 third, in 1901 second, but with a considerable interval after London, which stood first. In 1902 it again stood second, following Sheffield and taking precedence of London. Last year it was again second, London again taking the leading place.

Of the provincial towns all except Leeds have during the 14 years increased their area by the annexation of neighbouring districts. Leeds has improved its comparative death-rate without having attached any suburbs. It will of course be understood

that these figures are compiled from the Registrar General's annual summaries, or for the year 1903 from his quarterly reports, the annual summary not having been completed on our going to press.

TABLE 2.

Shewing the death-rates in the nine largest towns of the United Kingdom for the 52 weeks, and each of the thirteen week periods of 1903.

		First quarter of 1903.	Second quarter of 1903.	Third quarter of 1903.	Fourth quarter of 1903.	52 Weeks.
London	-	17·3	14·7	14·1	16·6	15·7
Leeds	-	16·4	15·2	15·6	19·0	16·6
Edinburgh	-	18·2	17·9	14·6	16·7	16·8
Birmingham	-	19·1	16·4	16·4	19·2	17·8
Sheffield	-	17·5	18·4	20·9	17·6	18·6
Glasgow	-	21·3	19·0	16·2	20·2	19·2
Manchester	-	21·4	19·5	18·4	19·6	19·7
Liverpool	-	21·5	19·5	19·7	21·2	20·5
Dublin	-	26·6	22·7	18·9	23·3	22·9

The rates are calculated upon the populations estimated by the Registrar-General for England from the results of the recent census.

TABLE 3.

Births and deaths registered in the City of Leeds in the four periods of 13 weeks ended respectively April 4th, July 4th, and October 3rd, 1903, and January 2nd, 1904. Deaths in age groups.

1	2	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.						
		3	4	5	6	7	8	9
1903. Estimated population at these ages ...	Regis- tered Births.	At all Ages.	Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
		443,559	11,618	39,952	90,933	89,272	186,579	25,205
I. Quarter	3,241	1,816	425	206	84	76	541	484
II. Quarter	3,298	1,684	383	214	77	70	517	423
III. Quarter	3,276	1,736	581	196	82	78	417	382
IV. Quarter	3,181	2,098	603	328	78	71	544	474
52 weeks. . .	12,996	7,334	1,992	944	321	295	2,019	1,763

AGE MORTALITY.

In table 3 will be found recorded the number of births registered in each quarter of the year, and in the whole year, and the deaths at all ages and at certain groups of ages. In the same table will be found the estimated population at these several ages, while in table 4 the figures are given as rates per thousand upon these age populations. There are nine columns in table 3, and 11 columns in table 4. The reason, it will be remembered by those who have read my earlier reports, is that some years ago the age periods chosen by the Local Government Board were those given in table 3, but about eleven years ago they altered the two last columns from 25—60 and 60 upwards

to 25—65 and 65 upwards. Since 1893 the information as to these other age groups has been given either in the text (Report 1893) or in two extra columns in table 4 (1894 and since), but we have kept the older columns for the sake of comparison with previous years. One reason for wishing to do so was that we are thus able to compare the deaths of persons under one and over 60 for a very much longer period than they are dealt with in my annual reports (of which this is the fourteenth), as the Registrar General himself had for many years given the Leeds mortality in children under one and persons over 60 in his weekly returns and annual summaries.

Mortality of young children.—It will be noticed that while the mortality at all ages was highest in the last, and lowest in the second quarter, the same was true of the mortality under one calculated upon the estimated population. The disparity, however, between the rates of the third and fourth quarters, was not so great in the infantile as in the general death-rate. The population under one is subject to many fluctuations, a high death-rate for instance in the earlier part of the year limiting the number living at the middle. The population estimated as living at that age, and given in table 3 as 11,618, may therefore be very far from the actual number of those living. This is more especially the case as this figure of 11,618 is estimated from the number of infants found to be alive at that age at the date of the census in 1901. We have therefore, in table 5, to which reference will be presently made, calculated out the rates of mortality according to the births.

In children between one and five the disparity is not quite so great, as there is the equalising influence of the much larger number of survivals. We have estimated the population between these ages as 39,952 in the middle of the year. The third quarter—the diarrhoea quarter—had actually the lowest death-rate, and the mortality amongst young children between 1 and 5 years of age (197) was not very much greater in the third

quarter than the general mortality at all ages (1900) was in the fourth. In the fourth quarter, however, the mortality at this age rose to 33 per thousand. The average for the year of 23·7 per thousand compares not, however, very unfavourably with the average of the five years of which 1903 was the last. When the deaths at this age are calculated for these five years upon the census population the rate comes out at 29·9. This is perhaps a little higher than the actual rate, as the middle of the period was three months later than the date of the taking of the census.

Calculated in the same way, the 16,937 deaths of all children under the age of 5, which occurred in the five years ended January 2nd, 1904, were equivalent to a death-rate of 67·9 per thousand per annum, while the last of those five years, 1903, had a death-rate at this age group of nearly 11 per thousand less, namely, 57·1.

Mortality of adolescence.—The mortality, of course, drops when the age of 5 is past. During the next ten years of age, that is from 5 to 15, the death-rate averaged only 3·5 in Leeds last year, although the average was 4·2 in the five years of which the one we are considering was the last. The rate in those five years was nearly the same to one place of decimals, 4·2, during the next age period 15—25. The mortality amongst young persons during these ten years of life was, however, only 3·3 last year.

Mortality of middle life and old age.—From 25—60 our mortality was 10·9 during 1903, 11·6 during the five years, whilst in those over 60, the death-rate per 1,000 living for the year we are dealing with was 70·2, and during the five years 74·5. At this last age group the mortality varied a good deal in the several quarters, but singularly enough the third quarter had the lowest death-rate of any of the four.

Mortality under 1 year of age.—Something has been already said about the figures in table 5. This is a table which, with very

TABLE 4.

Birth and death rates in the City of Leeds in the four periods of 13 weeks ended respectively April 4th, July 4th, and October 3rd, 1903, and January 2nd, 1904. Death rates in age groups.

1	2	DEATHS PER ANNUM PER 1,000 LIVING.								
		3	4	5	6	7	8	9	10	11
1903.	Birth-rate.	At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.	25 to 65	Over 65
I. Quarter	29.3	16.4	147	20.7	3.7	3.4	11.6	77.1	13.4	103.0
II. Quarter	29.8	15.2	132	21.5	3.4	3.1	11.1	67.4	12.6	89.8
III. Quarter	29.6	15.7	201	19.7	3.6	3.5	9.0	60.8	10.3	82.2
IV. Quarter	28.8	19.0	208	33.0	3.4	3.2	11.7	75.5	13.6	97.7
52 weeks . .	29.4	16.6	172	23.7	3.5	3.3	10.9	70.2	12.5	93.2

slight alteration, has been furnished to the Sanitary Committee every year since 1890. In that year (table 7a) there were three lines of figures representing the mortality in children under 1. The first was the one corresponding, as in the present case, with column 4 in tables 3 and 4.* The population, however, from which the rates in the latter table for 1890 were calculated was estimated at the rate of increase of the whole population which had obtained between the census of 1871 and 1881, just as in the year 1902 the rates in the upper line of table 5 were calculated on the supposition that the population had increased at a rate of 1.56 per cent. per annum, which was the rate of

* Tables 6 and 7 in the report for 1890, 3 and 4 in those since.

TABLE 5.

Mortality in Children under one year of age, during the 52 weeks of 1903.

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	YEAR.
Calculated per 1,000 of the population under 1, estimated to the middle of 1903, on the supposition that the whole population of the city was that estimated by the Registrar General, and that the number of children under one bore the same proportion to the population as at the 1901 census ...	147	132	201	208	172
Deaths under 1 per 1,000 births registered in same period	131	116	177	190	153
Deaths per 1,000 registered births, the latter instead of those for the same quarterly period being the average of the same and four preceding quarters. The rate for the year is the mean of the four quarterly rates	129	116	177	185	152
Average rate by last method for five preceding years ...	149	146	248	163	176
Average rate by second method for years 1886-90 (from table 7a 1890 report)	158	147	223	171	175

increase of the whole population between 1891 and 1901. In table 4 and in table 5 for 1903, however, as the Registrar-General has given up calculating our population as formerly at geometrical progression, we have adopted his figures for the whole population of the City, and divided that population amongst the various age groups in the proportions which the figures for them bore to the whole population at the time of the census.

The second line in table 5* gives for each quarter the ratio of deaths registered under 1 to the births registered in the same period, and the rate for the whole year is the proportion between the deaths under 1 registered during the fifty-two weeks and the number of births registered during the same fifty-two weeks. The third line of figures, which differs, however, only very slightly from the one just mentioned, is one that appears first in the report for 1893. It occurred to us that the variation in the registration of births, where longer intervals frequently elapse between the event and the recording of it than is usual with a death, and also the circumstance that a large number of births might happen to be registered in any particular quarter introduced an element of uncertainty. The consideration of this induced us to average the births for five quarters instead of taking merely those for the period in which the death occurred. The births, therefore, on which the figures in the third line are calculated are the average of those for the same quarter and the four preceding quarters, while the fifth figure in the line, that for the year, is the average of the preceding four. The fourth line of the table gives the average rate calculated in this manner for the five years, 1898-1902.

It will be noticed that the rates for last year, compared with those for the five preceding years, were very much lower in the first, second, and third quarters, but were higher than those of the recent average in the fourth quarter. The net result, however, for the year was that the rate was only 152 against the average of 176. Comparing the figures in this

* Table 7a in the 1890 report.

Births and deaths registered in the City of Leeds in the periods of 52 or 53 weeks of the years 1889-1893, and rates on census populations.

1	2	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.						
		3	4	5	6	7	8	9
Population at these ages, census, 1891...	Registered Births.	At all Ages.	Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
...	...	367,505	10,436	35,556	81,919	75,584	144,125	19,885
1889	11,696	7,861	2,073	1,315	362	369	2,100	1,642
1890*	12,336	8,370	2,128	1,210	369	398	2,379	1,886
1891	12,538	8,429	2,216	1,391	369	392	2,235	1,826
1892	12,546	7,403	2,114	1,087	311	334	1,899	1,658
1893	12,348	8,512	2,542	1,483	340	411	2,049	1,687
Total 5 years (261 weeks)	61,464	40,575	11,073	6,486	1,751	1,904	10,662	8,699
Rate per 1,000 on population at census, 1891.	33'4	22'1	213	36'5	43	5'0	14'8	89'5

* 53 week year.

fourth line with those placed in the fifth (a new line this year, extracted from the report for 1890, and which shows the average calculated by the method adopted for the second line for the five years 1886-1890), it will be noticed that the five year period does not differ very greatly from the earlier five years. The first quarter was certainly lower, 149 against 158; the second quarter nearly the same, 146 against 147. The third quarter was 248 against 223, indicating that our third quarter death-rate, even including the comparatively good year 1902, is higher than during the same quarter of 1886-90, although had

we included last year, 1903, the recent rate would have been very much lower. The fourth quarter had a considerably lower rate than that of the five earlier years, 163 against 171, but the average of the whole period was practically the same, 176 against 175; here, again, it is worthy of remark that had we included the especially healthy year just finished, the recent result would have been more favourable.

COMPARISON OF YEARS 1899-1903 WITH 1889-1893.

It is always convenient to have definite figures on which to base one's calculations. The censuses of 1901 and 1891 afford such data. We have therefore compiled two tables dealing each with the five years of which the census year was the middle one. The births, the deaths at all ages and at the six groups of ages, are given in each table for each of these five years, and the birth-rate and the death-rate at all ages, and at each of the six groups for the quinquennium is calculated upon the population enumerated at the census. Theoretically this method is not quite correct, the death-rate in reality is over stated. The population during the whole period was a growing one. The census was in each case taken at the beginning of April. At the middle period of the quinquennium therefore—the beginning of July—the population was really in excess of that on which the rates have been calculated, and the rates are therefore too high. As we do not know, however, exactly the rate at which the changes of population at the different ages were taking place, it is convenient to accept for purposes of comparison the populations at the census enumeration. It is probable that in the case of the earlier period, 1889-1893, the rates given in italics in the bottom line of the table are in excess of the actual rates by about 0·43 per cent., and in the later table by 0·39 per cent.

Taking, however, for convenience, the figures at the census as approximately correct, it will be noticed that the birth-rate has been 3·3 per thousand less during the later than during the

Births and deaths registered in the City of Leeds in the periods of 52 or 53 weeks of the years 1899-1903, and rates on census populations.

1	2	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.						
		3	4	5	6	7	8	9
Census population at these ages, census, 1901.	Regis-tered Births.	At all Ages.	Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
...	...	428,968	11,236	38,638	87,942	86,335	180,441	24,376
1899	12,939	8,105	2,222	1,241	451	389	2,074	1,728
1900	13,091	8,619	2,397	1,349	380	407	2,157	1,929
1901	12,898	8,283	2,429	1,187	356	337	2,142	1,832
1902*	13,245	7,814	2,113	1,063	349	366	2,096	1,827
1903	12,996	7,334	1,992	944	321	295	2,019	1,763
Total 5 years (261 weeks)	65,169	40,155	11,153	5,784	1,857	1,794	10,488	9,079
Rate per 1,000 on population at census, 1901.	30·1	18·7	19·8	29·9	4·2	4·2	11·6	74·5

* 53 week year.

earlier period of five years, while the death-rate at all ages is 3·4 lower. It is a curious coincidence that these numbers should be so nearly the same, but it is a mere coincidence. The diminution in the birth-rate has not time in ten years to affect the balance of population to such an extent as to cause anything like the same amount of diminution in the death-rate, besides, as we shall presently see, it is not at early life only that an improvement has taken place. The birth-rate diminished 10 per cent. of what it had been in the earlier period, the death-rate 15 per cent.

Children under one.—Turning now to the deaths of children under one, it will be noticed that the rate of mortality calculated upon the census population was 198 per thousand in the later, against 213 in the earlier period—a difference of 15 per thousand, and an apparent fall in the rate of mortality of 7 per cent. For reasons already given it will be well not to attach too great importance to this diminution, for it will be seen at once on referring to the figures for the five years given in the later table that the diminution was almost entirely in the two later, and, as already said, healthier of the five years. Reasons have also been already given for regarding the enumerated population at the census with a certain amount of caution. When, however, we calculate the rate of mortality upon the number of children born, we find again in this way that there is also a marked improvement. The 61,464 births in the first period were to the 11,073 deaths of children under one as 1,000 is to 180; while in the second period, ten years later, the 65,169 births were to the 11,153 deaths as a 1,000 is to 171. In this case the fall in the rate of mortality is one of 5 per cent. instead of 7. Here, again, we have to take into account the diminished deaths in the two last of the five later years, but the risk of accident in enumerating the population is lessened, though of course, for reasons already given, it must be remembered that the real death-rate, if the figures of the census populations were actually correct, is more nearly represented by the figures in the table than by the calculation per thousand births.

Ages one to five.—As already said, there is less hesitation in accepting the census figures at this age. There is, however, still the possibility that the presence of epidemic disease such as measles and whooping cough three months before the census was taken, or the absence of such disease, might affect the enumeration considerably. In 1891 there were 35,556 children enumerated at this age. In 1901, 38,638—an apparent increase of juvenile population at this early period of 3,082. Calculated

upon these numbers, the death-rate in the earlier period had been 36.5, in the later 29.9. Again the two healthier years 1902-1903 played an important part in keeping down the rate. The diminution in the death-rate was one of 6.6 deaths per thousand living at this age, and the rate of improvement one of 18 per cent., as against 7 per cent. at the earlier age.

Five to fifteen.—In the 1889-1893 period the death-rate was 4.3, against 4.2 ten years later. When the rates are carried to three places of decimals the improvement is one of 52 deaths fewer in the million living, instead of 1 per thousand as it appears in the figures in the table. This is a lessening of mortality of a little over 1 per cent. instead of rather less than $2\frac{1}{2}$, as it appears from the figures in the table.

Fifteen to twenty-five.—From fifteen to twenty-five years of age the mortality in the later was 4.2, against 5.0 in the earlier period—an apparent difference of 8 deaths in 10,000. Again taking the figures to three places of decimals, the gain comes out as one of 882 persons per million, instead of 800 as when one decimal place is taken. The improvement is one of $17\frac{1}{2}$ per cent.

Twenty-five to sixty.—The most important age group of the six is that of the twenty-five to sixty period, the period of vigorous life, a period of course most valuable to the community. The mortality at this age has dropped from 14.8 to 11.6 per thousand—an increased survival of 32 persons at this age in every ten thousand living—a gain of more than 21 per cent., or in other words a diminution in the death-rate by more than a fifth.

Over sixty.—The gain over sixty was one of 15 fewer deaths per thousand of the population, and is equivalent to one of just under 17 per cent.

General results.—Calculated, therefore, on the figures given in the tables, but carrying the rates where those are small to further places of decimals, the proportionate improvement has

In the 52 weeks ended 2nd January, 1904, the following births and deaths were registered, and cases of infectious diseases reported.

Population estimated by the Registrar General after Census...	443,559
Acreage	21,572
Births registered ... 12,996	Birth-rate per thousand 29·4
Average birth-rate, ten years, 1893-1902 † ...	31·3
Deaths (all ages) ... 7,334	Death-rate per thousand 16·6
(R.G. 7325).*	
Average death-rate, ten years, 1893-1902* ‡ ...	19·6
Deaths (under 1 year) ... 1,992	Ratio to 1,000 births 153

	Total deaths.	Death rate per thousand.		Cases notified. 1903.
		1903.	1893-1902.	
			†	
1. Smallpox	23	0·05	0·01	439
2. Measles	123	0·28	0·53	65
3. Scarlatina	109	0·25	0·16	2,465
4. { Diphtheria	61	0·14	0·29	588
{ Memb. croup	4	0·01	0·11† {	6
{ Other croups	11	0·02		4
5. Whooping cough ...	119	0·27	0·39	...
6. { Typhus	...	...	...	...
{ Typhoid	58	0·13	0·21	358
{ Ctd. fever	...	...	...	...
Puer. sept.	10	0·02	0·04	26
Erysipelas	13	0·03	0·04	361
7. Diarrhoea	275	0·62	1·13	...
Cholera (English) ...	1	0·00	0·00	...
Phthisis	562	1·27	1·46	586§
Other tuberculous diseases	334	0·76	0·77	...
Seven commoner zymotics } (including mem. croup) }	772	1·75	2·77†	...
Bronchitis }	1,221	2·76	3·51	...
Pneumonia }				
Pleurisy }				
Other lung diseases } (without influenza) }	95	0·21	0·23	...
Malignant growths ...	406	0·92	0·75	...
Violence and accident ...	281	0·64	0·63	...

* The R.G. excludes deaths of non-municipal paupers. The rate is calculated on the larger number.

† Membranous croup was not separated from "croup not spasmodic" till 1895. The mortality for 1895-1902 was 0·05; for 1903, 0·05. The annual rate from diphtheria for ten years, and memb. croup for eight years, was therefore 0·35, and the seven diseases 2·77 instead of 2·71, when memb. croup is excluded.

‡ The average of the published returns were birth-rate 31·2, death-rate 19·5. The higher figures obtained from calculating the births and deaths on the arithmetical mean of populations for 1897 and 1898, obtained by method of interpolation explained in report for 1901, have been printed above. The death-rates for special groups are the uncorrected means of the published returns.

been smallest at the age period five to fifteen, where it was only 1·2 per cent. The rate, however, was the lowest of any of the age periods chosen, and a very difficult one to improve greatly upon. The improvement was a little higher in children under one, reaching 6·7 per cent., calculated upon the census figures. The next improvement in order was in those over sixty, where, calculated to three places of decimals, it was one of 16·8 per cent. After that came the period of adolescence—fifteen to twenty-five—with an improvement of 17·5 per cent. After this, but close to it, was that of children just out of arms—one to five years old—where the improvement in the death-rate was one of 17·9 per cent., whilst the greatest improvement of all—one of 21·4 per cent.—was found to be at the most active and, from an economical point of view, most valuable life period, twenty-five to sixty.

The following are the improvements per cent. in order of age groups :—

<i>All ages ... from 22·1 to 18·7, a diminution of 15·2 per cent.</i>					
Under one	...	212·6	198·4,	"	6·7
One to five	...	36·5	29·9,	"	17·9
Five to fifteen	..	4·3	4·2,	"	1·2
Fifteen to twenty-five	}	5·0	4·2,	"	17·5
Twenty-five to sixty	}	14·8	11·6,	"	21·4
Sixty upwards.	..	89·5	74·5,	"	16·8

It will thus be seen that, with an average improvement of 15·2 per cent. on the earlier death-rate in the ten years, the amount of that improvement had varied from 1·2 to 21·4 per cent. at different age groups, and the greatest improvement was in the important period of life from twenty-five to sixty.

In other words, if the population in the present year, 1904, be correctly estimated by the Registrar General at 450,142, the difference in the mortality on this population calculated on the

earlier mortality, prevailing in the five years 1889-1893, from that in the later five years 1899-1903, would mean a saving to the community in one year of 1,500 lives amongst persons at all ages, and in the single period of robust life, from twenty-five to sixty, the improvement of 21·4 per cent. in the same way would mean upon the population of 189,348 in 1904 a saving of the lives of 600 people between these ages.

The subject of incidence of special diseases, the mortality in districts and the details of departmental work will be submitted to you in supplementary fasciculi.

J. SPOTTISWOODE CAMERON.

February 11th, 1904.

PART II.—SPECIAL DISEASES.

TUBERCULOSIS.

TABLE 6.

Mortality from tuberculosis, 1903.

1903.	Tuberculosis, general and undefined.	Phthisis.	Hydro- cephalus.	Tuberculous meningitis.	Tuberculous peritonitis.	Tabes mesenterica.	Scrofula.	TOTAL.
I. Quarter	32	146	1	25	11	13	1	229
II. do. ...	14	135	3	38	10	12	—	212
III. do. ...	30	129	2	18	10	24	—	213
IV. do. ...	24	152	2	25	6	33	—	242
Year (52 weeks)...	100	562	8	106	37	82	1	896
Annual death- rate, 52 weeks of 1903 ...	0·23	1·27	0·02	0·24	0·08	0·19	0·00	2·03

Table 6 is the usual one containing the deaths from the several groups of this disease during the 52 weeks, and the annual rates from each group calculated on the population used by the Registrar General.

TABLE 6 a.

Shewing deaths from each of certain groups of tuberculous diseases in the 52 or 53 week periods of the years 1890-1903, and the populations of those years estimated from the changing ratios of the 1881-91, and 1891-1901 intercensal periods.

YEAR.	Population by interpolation.	General or undefined.	Phthisis.	Hydrocephalus.	Tuberculous meningitis.	Tuberculous peritonitis.	Tuberculous mesenterica.	Scrofula.	TOTAL.
1890*	363,018	92	612	20	92	14	92	6	928
1891	369,034	84	657	18	72	25	102	9	967
1892	375,081	84	530	14	65	14	93	9	809
1893	381,157	99	648	17	67	32	86	12	961
1894	387,259	79	576	9	72	18	61	13	828
1895	393,387	114	611	16	77	15	90	2	925
1896*	399,535	66	613	15	74	22	73	10	873
1897	405,716	102	589	14	91	36	99	2	933
1898	411,895	96	576	17	73	26	98	3	889
1899	418,101	86	596	9	102	33	80	1	907
1900	424,322	101	605	12	94	48	87	1	948
1901	430,555	107	605	7	75	46	136	...	976
1902*	436,800	109	584	4	100	36	80	3	916
1903	443,052	100	562	8	106	37	82	1	896

* 1890, 1896, and 1902 were 53 week years, the others 52.

Table 6a gives the totals for the similar groups since 1890, and table 6b the rates per thousand of the population estimated by the interpolation method up to 1903. the populations on which these rates have been calculated having been given in table 6a. It will be noticed that the rate in 1903 from tuberculosis is lower than in any year given in the table, and that this is also true of the important group of phthisis.

TABLE 6 b.

Shewing deaths from different forms of tuberculosis since 1890 per 1,000 of the population, estimated at the varying ratios prevailing during 1881-91, and 1891-1901 intercensal periods.

YEAR.	General or undefined.	Phthisis.	Hydrocephalus.	Tuberculous meningitis.	Tuberculous peritonitis.	Tabes mesenterica.	Scrofula.	TOTAL.
1890*	'25	1'66	'05	'25	'04	'25	'02	2'52
1891	'23	1'79	'05	'20	'07	'28	'02	2'63
1892	'22	1'42	'04	'17	'04	'25	'02	2'16
1893	'26	1'71	'04	'18	'08	'23	'03	2'53
1894	'20	1'49	'02	'19	'05	'16	'03	2'15
1895	'29	1'56	'04	'20	'04	'23	'01	2'36
1891 } 1895 }	'24	1'59	'04	'19	'05	'23	'02	2'37
1896*	'16	1'51	'04	'18	'05	'18	'02	2'15
1897	'25	1'46	'03	'23	'09	'24	'00	2'31
1898	'23	1'40	'04	'18	'06	'24	'01	2'17
1899	'21	1'43	'02	'24	'08	'19	'00	2'18
1900	'24	1'43	'03	'22	'11	'21	'00	2'24
1896 } 1900 }	'22	1'45	'03	'21	'08	'21	'01	2'21
1891 } 1900 }	'23	1'52	'04	'20	'07	'22	'02	2'29
1901	'25	1'41	'02	'17	11	'32	...	2'27
1902*	'25	1'31	'01	'23	'08	'18	'01	2'06
1903	'23	1'27	'02	'24	'08	'19	'00	2'03

* 1890, 1896 and 1902 were 53 week years, the others 52. The death rates in each case are calculated on a year containing 52'17747 weeks. The rates for 1903 are calculated on a population of 443,052 in this table, but in the report generally on one of 443,559. The results to two decimals are the same.

TABLE 6 c.

Table showing deaths from phthisis at all and at certain ages, and death rates at all ages in the intercepts of the wards and townships of Leeds in the year 1903.

				AGE.			TOTAL.	Deaths per 1,000.
				-25.	25-50.	50+.		
HOLBECK ...	Holbeck ...	...	...	11	18	10	39	1'36
	West Hunslet ...	...	...	3	2	1	6	0'17
HUNSLET ...	West Hunslet ...	...	...	5	10	2	17	0'64
	East Hunslet ...	...	...	8	14	2	24	0'69
	South ...	...	...	4	1	...	5	0'51
SOUTH-EAST LEEDS	South ...	}	3'26 {	...	6	4	10	2'08
	Central ...			...	5	5	10	7'61
	East ...			11	36	13	60	2'68
OSMONDTHORPE	East ...	}	1'46 {	...	...	...	...	...
CHAPELTOWN... (part of)	North-east ...			3	9	3	15	1'51
	North { Chap.-All. Pottern'tn }	}	0'75 {	2	...	...	2	0'42
				...	12	4	16	0'84
NORTH LEEDS	North ...	...	...	10	16	8	34	1'83
	North-east ...	...	...	5	23	19	47	2'08
	Central ...	}	1'60 {	6	21	4	31	0'83
	Central in West ...			...	...	...	...	...
WORTLEY ...	New Wortley ...	...	...	5	14	...	19	1'02
	{ Armley ...	}	1'06 {	9	17	4	30	1'04
	{ Wortley ...			2	8	...	10	1'12
	Farnley ...			...	1	1	2	0'45
BRAMLEY ...	Bramley ...	...	...	9	9	3	21	0'12
KIRKSTALL ...	Kirkstall ...	}	0'85 {	...	4	1	5	0'12
	Burley ...			6	12	5	23	0'87
	Headingley ...			1	6	2	9	0'70
CHAPELTOWN... (part of)	Headingley ...	}	0'98 {	...	...	...	...	...
	North-west ...			...	...	...	...	...
	Brunswick ...			1	2	1	4	1'45
WEST ...	Brunswick ...	...	...	6	13	5	24	1'19
	North-west ...	...	...	6	15	6	27	0'83
	Mill Hill ...	...	...	3	9	1	13	1'73
	West ...	...	...	9	26	15	50	2'11
CITY ...	...	...	...	125	309	119	553	1'25
	Outsiders ...	...	...	1	5	3	9	0'02

The populations of some of these intercepts are a little uncertain.

PHTHISIS (Revised).

Registration districts.	Ward intercepts.	1890-94.		1895-99.		Increase or diminution of death-rate per cent.
		Deaths.	Death-rate per 1,000 per annum.	Deaths.	Death-rate per 1,000 per annum.	
EASTERN DIVISION.						
HOLBECK ...	Holbeck ...	156	1'41	180	1'41	+ 1
	West Hunslet ...	20	1'17	15	0'85	- 28
HUNSLET ...	West Hunslet ...	142	1'34	133	1'12	- 17
	East Hunslet ...	147	1'11	181	1'20	+ 8
	South ...	66	1'21	65	1'24	+ 3
SOUTH-EAST LEEDS	South ...	77	2'30	64	2'72	+ 19
	Central ...	14		31		
	East ...	264	2'06	271	2'00	- 3
OSMONDTHORPE	East ...	2	'58	2	0'64	+ 11
CHAPELTOWN ... (part of)	North-east ...	...		6		
	North { Chapel-Allerton ...	23	1'27	13	0'60	- 53
		{ Potternewton ...	40	0'98	65	1'02
NORTH LEEDS	North ...	159	1'97	122	1'46	- 26
	North-east ...	296	2'48	278	2'38	- 4
	Central ...	237	2'29	222	2'24	- 2
	Central in West ...	3		5		
WESTERN DIVISION.						
WORTLEY ...	New Wortley ...	146	1'51	123	1'29	- 15
	{ Armley (1'68—1'20)...	169	1'55	147	1'09	- 30
	{ Wortley (1'20—0'77)...	46		32		
	Bramley (Farnley) ...	15	0'82	23	1'13	+ 39
BRAMLEY ..	Bramley ...	100	1'31	112	1'35	+ 3
KIRKSTALL ...	Kirkstall (1'08—1'01)...	20	1'10	20	1'02	7
	Burley (1'13—1'23)...	97		133		
	Headingley (1'04—'65)...	56		39		
CHAPELTOWN ... part of)	Headingley (Meanwood)...	8	0'81	8	0'74	- 8
	North-west ...	...		...		
	Brunswick ...	4		5		
WEST LEEDS ...	Brunswick ...	174	1'67	160	1'55	- 7
	North-west ...	187	1'29	216	1'39	+ 8
	Mill Hill ...	79	1'75	57	1'38	- 21
	West ...	231	1'87	211	1'73	- 7

PHTHISIS.

Table 6c is similar to the tables given since 1900 and deals with the deaths under 25, from 25 to 50, and over 50 from phthisis in each intercept of wards and townships for the year 1903. The rates given in the last column are dependent, of course, upon the populations of these intercepts, which, two years after the census, are beginning to become a little uncertain.

I do not propose to go into the subject of phthisis so fully as last year, but as 1904 will complete another quinquennial period I shall probably have something to say upon the subject in my next annual report. The revised table of phthisis deaths in intercepts in the two five-year periods, 1890-94 and 1895-99, is, however, repeated for reference.

LUNG DISEASES.

We give also a table in which the deaths from the various groups of lung diseases, including phthisis, are arranged under the same age groups as in table 6c. It has been already pointed out that the phthisis death rate has been exceedingly low, lower than even the specially low rate of the preceding year, 1902. On comparing the deaths for that year and 1903 it will be seen that, notwithstanding the increase of population, the actual number of deaths from phthisis was lower at the ages under 25, though it was a little higher amongst persons from 25 to 50, and in those over the last named age. From bronchitis the deaths were fewer at each of the groups, and from broncho-pneumonia at the first two. From pneumonia and pleuro-pneumonia the deaths were 145, against 143 amongst those under twenty-five, 70 against 93 from twenty-five to fifty, and 78 against 104 over fifty. Pleurisy and other lung diseases grouped together were 33 against 35 at the earlier, 16 against 24 at the middle, and 63 against 43 at the later period. The totals for the whole group (including phthisis but not influenza) were lower at each age period than in 1902.

Deaths from lung diseases, grouped according to nature of disease, and under age groups used for phthisis in certain tables.

1903.	-25.	25-50.	50 +	TOTALS.
Phthisis	124	317	121	562
Bronchitis	251	57	334	642
Broncho-pneumonia	243	2	24	269
Pneumonia and pleuro-pneumonia ..	145	70	78	293
Pleurisy	4	4	9	17
Other lung diseases	29	12	54	95
Totals	796	462	620	1,878

The table just given takes no separate account of the deaths of children under five, which will be found however in table C. From that table it will be noticed that from phthisis the deaths were 16 under, and 546 over the age of five. Taking the ten years ended with 1903, the average annual deaths from phthisis were 17·2 under, and 574·5 over the age of five. From bronchitis the deaths under five were 242, over five 400, against 327·1 and 464·5 in the ten years. From broncho-pneumonia the deaths under five were 235, and those above that age 34, against 218·3 and 44·6. From pneumonia and pleuro-pneumonia there were 104 fatal cases under five. 189 above that age, against 107·2 and 225·5. Pleurisy, which hardly deserves a separate line, was responsible for 3 deaths under, and 14 above the age of five, against 1 and 17·7 in the ten years. Other lung diseases (exclusive of influenza, but inclusive of laryngitis) caused 23 deaths under, and 72 over the age of five, against 29 and 59·4.

SEVEN COMMON ZYMOTIC DISEASES.

SMALL-POX.

Previous years.—It will be remembered that, during the year 1901, five cases of small-pox were reported in Leeds; two in the first, two in the second, and one in the third quarter of the year. During 1902, 61 cases were reported; four in the first, two in the second, and 55 in the fourth quarter. During the third quarter Leeds was apparently free from this disease. A pretty full account of the earlier cases, especially in connection with the influence of the tramp portion of the community, will be found in the report for that year, and the table of detailed cases was brought in the report for 1902 up to the end of the first quarter of 1903, the year we are now reporting upon.

In that table every case that came to our knowledge during 1902, and during the first quarter of 1903, was entered with the age, sex, conditions as to primary vaccination, and information as to any subsequent vaccination, separately before and after contact. A note was made in the first column showing which cases had proved fatal up to date of printing, while in the last column of the table information as to possible and probable sources of infection was given. This table has been kept in type, and is repeated along with new information of the same kind continued up to the end of the second quarter of 1904.

The table thus extended deals, therefore, with all cases reported during a period of two years and a half. In the part of the table dealing with cases in December, 1902, the age of patient 5899:0 should be 39, not 40 as given in the table as printed in the 1902 report. This correction has been made in the reprint. The age is correctly given in the other table on pp. 78-79 of the 1902 report. A few other alterations, chiefly verbal, have also been made in reprinting.

Prevalence 1902-3.—The 55 cases in the fourth quarter of 1902 increased to 135 in the first quarter of 1903, to 194 in the second quarter, fell to 104 in the third, and then dropped to 6 in the fourth quarter.

As this portion of the report is being delayed in publication in order, if possible, to deal with the whole outbreak, it may be added that during the first quarter of 1904 the number of cases heard of was 6, and during the second quarter 22 were reported. It will be understood that "cases reported" or "cases heard of" does not include doubtful cases sent to us by the courtesy of the medical attendant for our opinion, nor even cases certified as small-pox where the case when carefully watched was clearly not one of that disease. On the other hand it does include any second cases which occurred in quarantine, though these were not certified under the Act.

Vaccination.—Dealing first with the cases heard of in 1903, of which there were altogether 439, 359 occurred amongst vaccinated and 76 amongst unvaccinated persons. Two persons, one æt. 70 vaccinated unsuccessfully in childhood, and one æt. 46 never vaccinated at all, had suffered from small-pox at the respective ages of 40 and 3 years. In the remaining 2 there was no information forthcoming. Of the latter, one was a man (Z.6019:9) who died of malignant small-pox. He had been seen at a lodging-house by Dr. Porter, and was isolated there on suspicion. There was next day a dark petechial rash on the body, legs, and arms. He got suddenly worse, had continued hæmorrhage, and died without any papular eruption. Another was a woman (Z.6052:3), who also died of malignant small-pox, and whose case was not reported at all. Her death was returned by the Coroner as due to meningitis. A personal visit to the house, inspection of the body, and information received from the relatives, however, had convinced me that the case was one of small-pox, and this opinion was confirmed by the occurrence of

two other cases, one that of the man (Z. 6069:9) who came in to measure the body for a coffin, the other that of a woman (Z. 6071:0) who had been with her during her illness. This case is interesting as showing that a case of small-pox may be infective, even when fatal before the appearance of the characteristic papular eruption. The other case (Z. 6019:9) already mentioned is also one in which there is strong reason to think that infection was communicated to another man (Z. 6038:2) although the characteristic eruption had not appeared. There was, however, in this case another possible source of infection (Z. 6021:5).

Below will be found a table as to vaccination during the two years and a half, 1902-3-4, arranged according to the same age groups as are given in the table of infectious diseases notified on pp. 78-79 for 1902, and pp. 114-115 for 1903.

It will be noticed that during 1902 there was not a single vaccinated patient under the age of five, and only one under the age of ten. In 1903, though 13 cases occurred under the age of five, not one of them was in a child successfully vaccinated, and of the 16 cases that occurred between the ages of five and ten, in only two had the child been vaccinated.

Age distribution.—In 1902 no case, and of course no death, occurred under the age of five. Amongst the 13 cases in this age group in 1903 (2 under one year, 2 between one and two, 2 between two and three, 2 between three and four, and 5 between four and five years) there were three deaths, one in an infant under one year of age, one in a child between one and two, and the third in a girl between three and four. None of the three had been successfully vaccinated. In fact none of the 13 cases occurred in children at this age group who had been successfully vaccinated. The case mortality amongst children under five, year by year, was as follows :—Under one year, 50 per cent. ; under two years, 50 per cent. ; two to three, nil ; three to four, 50 per cent. ; four to five, nil : total mortality, under five, all amongst unvaccinated children, 23 per cent. (23·07).

Age distribution.

Between the ages of five and fifteen there were 6 cases in 1902 and 37 in 1903. They were distributed as follows:—17 between five and ten, and 26 between ten and fifteen. Of the former (5—10) three were amongst vaccinated and 14 amongst unvaccinated; of the latter (10—15), 16 were amongst vaccinated, 10 amongst unvaccinated children. There was no death amongst the patients at either of these ages.

At the age group fifteen to twenty-five, there were altogether 99 cases—44 between fifteen and twenty, and 55 between twenty and twenty-five. At the former age 39 were vaccinated persons and 5 not; at the latter age the numbers were 47 and 8. Altogether in the whole group the cases amongst the vaccinated were 86, amongst the unvaccinated 13. The deaths were 6, all in persons over 20, 3 amongst the vaccinated and 3 amongst the unvaccinated, the case mortality being $3\frac{1}{2}$ per cent. amongst the vaccinated, 23 per cent. amongst the unvaccinated group. Of the 99 cases, 15 occurred in 1902, 84 in 1903. The six fatal cases occurred, 2 in those heard of in 1902, and 4 amongst those of the following year.

It is at the ages above twenty-five that the cases become more numerous, and mortality greater. From twenty-five to sixty-five there were altogether 339 cases. Of these 284 had been vaccinated in infancy, 3 had been vaccinated more recently, and 13 were said to have been re-vaccinated, although, except in 3 cases, there was no evidence to show that such re-vaccination had been successful. One woman never vaccinated had small-pox when aged 3, and again when 46. Amongst those vaccinated only in infancy, of whom there were 284, 11 deaths occurred, or just under 4 per cent. (3·87). Amongst those vaccinated later, or re-vaccinated, of whom there were 16, one death occurred, or rather more than 6 per cent. (6·25). This single case, however, was that of a man of 50 (Z. 5868:3), who was said to have two marks of primary vaccination, three-fifths of a square inch in area, and to have been vaccinated at the age of 47. The man

is returned as an alcoholic. He died three days after admission of delirium tremens. At this age group (25—65) there were altogether 36 patients who had never been successfully vaccinated. Amongst these 36 there were 7 deaths, or nearly $19\frac{1}{2}$ per cent. (19.44). Of the 339 cases 38 occurred in 1902, 301 in 1903. The fatal cases were, 4 in 1902, and 17 in 1903.

Above 65 there were altogether 6 cases, none of them fatal, and all of them had been either vaccinated, re-vaccinated, or had had small-pox. The patient whose illness was modified by a previous attack had never been successfully vaccinated, and took small-pox at the age of 40, and again at 70. The six cases occurred, 2 in 1902, and 4 in 1903.

Addendum.—In 1904 28 cases were heard of up to the end of the second quarter. Of these 22 had been vaccinated in infancy. Six had not been vaccinated successfully, though the attempt is said to have been made in two cases. Up to the time of writing this addendum, no death had occurred in any of these 28 cases, and all but two have been discharged well.

The 28 cases, all of which are included in table 8a, occurred in persons at the following age groups:—Under 1, 0; between 1 and 5 years, 1 (unvaccinated); between 5 and 15, 1 (not successfully vaccinated); between 15 and 25, 9 (of whom 2 were unvaccinated); between 25 and 65, 16 (1 not vaccinated); above 65 years, 1 (not vaccinated successfully). No case occurred in a successfully vaccinated person under the age of 15 years.

Re-vaccination.—Of the 528 cases in tables 8 and 8a, 413 had been once successfully vaccinated in infancy; amongst these 14 died (3.4 per cent.). Three were said to have been vaccinated later in life—one at age 30 (Z. 5990:4), whose attack occurred when *æt.* 64 (one vaccination mark, area $\frac{1}{16}$ square inch), and who recovered; another vaccinated at age 35 (Z. 5868:7), attack at age 52 (3 marks $\frac{1}{3}$ square inch), also recovered; the third said to have been vaccinated at age 47

(Z. 5868:3), attack at 50, fatal from alcoholism (2 marks $\frac{3}{8}$ square inch). Twelve cases occurred in persons vaccinated in infancy and again later, but who showed no evidence of re-vaccination; all recovered. Four re-vaccinated, with marks of the same; all recovered. Two patients not vaccinated successfully in infancy (Z. 6276:4 and Z. 6282:0), and already referred to, had small-pox at the ages of 40 and 3 respectively, and again when 70 and 46. Both recovered. Thus of those vaccinated later in life, re-vaccinated or who had previously had small-pox, there were 21 cases, with one death. The high mortality in this group (4·8 per cent.) is due to the death of the drunkard already spoken of. Alcohol has no protective influence either against attack or death from small-pox.

Sources of Infection.—In the report for 1902 an attempt was made in table 8 to account for each case and in the majority of cases we were successful. Out of 528 cases in the extended table we were able to account with something like certainty for 272 cases. In 72 others from the date of invasion, it was evident that the infection had been received outside Leeds, but the town where the patient had been exposed to infection has usually been entered with a query as the movements of the wandering class are not always very easy to verify. All these cases, however, we feel quite confident were infected outside the town.

In a considerable number of cases, amounting in all to about 39, the history of infection was not perfectly clear at the time that the cases occurred, but from enquiries made since, we are now strongly of opinion that we have been able to identify the infecting case. The circumstances attending the infection are detailed in notes to these cases. We can thus, with something like probability, from the infection of previously known cases within the city, account for 311 cases; from infection outside the city for 72 cases, that is, adding these two together, we are pretty certain of the source in 73 per cent. of the whole cases reported or heard of.

TABLE 8 a.

Showing cases of Small-pox and deaths amongst vaccinated and unvaccinated persons† during the 131 weeks ended 1 p.m. July 2nd, 1904.

	All Ages.	0-1	1-2	2-3	3-4	4-5	1-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	100-105	65+	
Total. Cases	528	2	2	2	2	6	12	18	26	44	46	62	108	65	87	56	44	48	23	16	16	355	3	3	1	...	...	7
* Deaths	30	1	1	...	1	...	2	...	...	...	6	6	...	...	5	3	3	4	4	2	21	...	...	...	...	...	...	
Vaccinated. Cases	436	...	...	...	...	...	...	3	16	19	40	53	93	61	76	47	41	46	20	12	13	316	3	2	1	...	...	6
Deaths	15	...	...	...	...	...	...	...	...	...	3	3	...	...	2	2	3	2	2	1	12	...	...	...	...	...	...	
Unvaccinated. Cases	90	2	2	2	2	6	12	15	10	25	6	9	15	4	11	9	2	2	2	4	3	37	...	1	...	...	...	1
Deaths	13	1	1	...	1	...	2	...	...	...	3	3	...	...	3	3	...	1	2	1	7	...	...	...	...	...	...	
Unknown Cases or Doubtful.	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	
Deaths	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	

* Including death Z. 6032:3 certified as Meningitis (v. pp. 44 and 68).

† To save a line in the table two cases are included amongst the vaccinated who had previously had small-pox, but neither of whom had been successfully vaccinated. These cases were 6276:4, æt. 70, and Z. 6282:0, æt. 46. Both are mentioned in the text and in table 8.

Table 8.—Vaccination and Infectivity.

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area, sq. ins.	Date.			
1902. Mar. 10-11	1902. Mar. 12	5513:9	C.	32	m.	...	...	never	...	...	On tramp, Ashton-under-Lyne, from 5513:0, v. p. 37
? Feb. 19	12	5513:0	C.	36	m.	1	$\frac{1}{8}$	infancy	1899, not succ.	...	On tramp, probably Lancashire or Staffordshire, v. p. 37
Mar. (f.) 26-27	27	5526:9	C.	20	m.	...	...	never	...	...	v. p. 38
(f.) 26	27	5526:0	W.	23	m.	1?	$\frac{1}{16}$	infancy	...	...	v. p. 38
Apr. 23	Apr. 25	5550:0	A. & W.	23	m.	5†	$\frac{1}{2}$	infancy	† ? 1 revac.	...	From brother, who had been at Bootle, v. p. 39
21	28	5561:4	A. & W.	17	m.	3	1	infancy	...	April 26, succ.	Do. do. v. p. 39
Oct. 7	Oct. 11	5812:9	C.	21	m.	2 faint	$\frac{1}{16}$	infancy	1902, Army, no sign	...	Chatham, v. p. 40
17-19	22	5827:0	C.	32	m.	2	$\frac{1}{4}$	infancy	1893, Army, no sign	...	On tramp, perhaps at Halifax, v. p. 41
Nov. (f.) 6	Nov. 6	5848:2	C.	61	m.	2 faint	$\frac{1}{2}$	infancy	1871, no sign	...	On tramp, perhaps at Halifax or Huddersfield, v. p. 42
5		5849:7	C.	49	m.	2 f.d.	$\frac{1}{2}$	infancy	...	...	In various lodging-houses in Leeds, v. p. 43 and 61, ? from 5827:0
9	11	5853:5	C.	45	m.	2	$\frac{3}{8}$	infancy	...	...	Navy at Addingham, v. p. 44
11	12	5855:3	E.H.	26	m.	1	$\frac{1}{4}$	infancy	...	...	Tramp, from Lancashire, v. p. 44
9	15	5858:4	Bnk.	19	m.	2 f.d.	1	infancy	...	...	Leeds, unknown
15	15	5858:5	N.E.	49	f.	3	1	infancy	...	...	Leeds, unknown
14	16	5859:1	Hdy.	48	m.	1 very ft.	$\frac{1}{8}$	infancy	...	...	? from tramp who slept in cabin, v. p. 44
15-17	17	5860:6	N.	40	m.	2	$\frac{1}{2}$	infancy	...	...	? Keighley or Otley, v. p. 44
21	21	5867:7	C.	62	m.	1	$\frac{1}{2}$	infancy at 47 yrs.†	...	...	From 5849:7 in Leeds
(f.) 21	22	5868:3	C.	50	m.	2	$\frac{3}{8}$	infancy	...	...	From 5849:7 in Leeds
22	22	5868:5	Bnk.	11	f.	not succ.	...	infancy	...	Nov. 16, succ. (E. 22nd)	From brother, 5858:4*
22	23	5868:6	Bnk.	13	m.	3	$\frac{3}{8}$	infancy	...	Nov. 16, succ. (E. 22nd)	From brother, 5858:4*
23	23	5868:7	C.	52	m.	3	$\frac{1}{2}$	infancy at 35 yrs.‡	...	...	From 5849:7 in Leeds
23	24	5868:8	S.	61	m.	4	$\frac{1}{2}$	infancy	...	...	From 5849:7 in Leeds
21	24	5868:9	C.	37	m.	...	...	never	...	...	From 5849:7 in Leeds
24	24	5870:8	C.	37	m.	not succ.	...	infancy	...	...	Various lodging-houses in Leeds
24	24	5870:9	N.E.	58	m.	4	$\frac{1}{2}$	infancy	...	...	Various lodging-houses in Leeds
24	24	5870:0	Bnk.	17	f.	3	$\frac{1}{2}$	infancy	...	Nov. 16, succ. (E. 24th)	From brother, 5858:4*
25	25	5873:4	Bnk.	39	f.	3	$\frac{1}{2}$	infancy	...	Nov. 16, succ. (E. 25th)	From brother, 5858:4*
24	26	5873:9	C.	62	m.	2 faint	$\frac{1}{2}$	infancy	...	...	From 5849:7 in Leeds
25	26	5874:3	C.	25	m.	3	$\frac{1}{2}$	infancy	...	...	From 5849:7 in Leeds
25	27	5876:1	C.	45	m.	3	$\frac{1}{2}$	infancy	...	...	From 5849:7 in Leeds
24	27	5878:8	W.	36	f.	...	...	never	...	...	Suspect received tramps
(f.) 27	29	5881:8	W.	36	f.	1 f.d.	$\frac{1}{2}$	infancy	...	...	Suspect received tramps
30	Dec. 1	5881:8	W.	36	f.	1 f.d.	$\frac{1}{2}$	infancy	...	...	

(f.) in first column means that case proved fatal.

* Developed symptoms when in quarantine.

† One of five marks possibly from revaccination. Patient's statement vague.

vaccination and infectivity.—Continued

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area, sq. ins.	Date.			
1902. Dec. 3-8	1902. Dec. 5-8	5885:6	S.	28	m.	1	1	infancy	...	...	Frequenter of various inns
		5887:7	E.	25	m.	4	1	infancy	...	...	Unknown, revac. day of eruption
		5888:3	W.	51	m.	3 faint	1	infancy	...	...	v. p. 44
		5889:9	Hdy.	35	m.	2 nf.	1	infancy	...	...	From 5868:9, who slept at his house two nights†
	8	5889:0	E.H.	33	m.	3	1	infancy	...	...	Worked outside town
		5896:7	E.	34	m.	1	1	infancy	...	...	Hawker, disease from brother, who had developed it in Wakefield, v. p. 44
		5897:1	W.	22	f.	...	...	never	...	...	Probably from 5878:8 or 5881:8
		5897:2	W.	40	m.	5 nf. nd.	...	infancy	...	...	? Wakefield, v. p. 44
	13-16	5898:9	N.	28	m.	4 faint	1	infancy	...	...	Bradford
		5899:0	N.E.	39	m.	3 nf.	1	infancy	...	...	...
		5901:6	C.	68	m.	2	1	infancy	...	...	Tramp, probably from Bradford lodging-house, v. p. 45
	15-16	5902:0	E.	48	f.	3	1	infancy	...	...	Charwoman at infirmary
		5903:9	C.	10	f.	...	...	never	...	...	Shooting gallery; infection in Leeds
		5903:0	C.	23	f.	...	...	never	...	...	Shooting gallery; infection in Leeds
		5905:4	N.E.	27	m.	1	1	infancy	...	...	Unreported; moved about while ill
(f.)	16-19	5905:5	N.E.	17	f.	4 f.d.	1	infancy	...	...	From 5905:4, brother
		5905:6	N.E.	14	f.	3 nf.	1	infancy	...	...	From 5905:4, brother
		5905:7	N.E.	16	m.	4 nf.d.	1	infancy	...	...	From 5905:4, brother
		5906:5	N.E.	9	m.	3	1	infancy	...	...	From 5914:9, a "ne'er-do-weel," v. p. 45
	20-23	5910:4	A. & W.	51	m.	not succ.	...	infancy	...	...	Probably from 5901:6
		5910:0	W.H.	29	m.	3 f.d.	...	infancy	...	...	? Mexboro', v. p. 45
		5912:9	W.	22	m.	4	1	infancy	...	...	On the loose
		5914:9	A. & W.	45	m.	2 faint	1	infancy	...	...	From 5899:0, father*
	27-30	5914:0	N.E.	12	f.	4 f.d.	1	infancy	...	...	From 5898:9*
		5915:2	N.	30	m.	4	1	infancy	...	...	Refused revac.; from 5898:9, son*
		5918:8	N.	75	m.	1 f.d.	1	infancy	...	...	From 5898:9, son*
		5920:3	N.	62	f.	3	1	infancy	...	...	From 5898:9, fellow-lodger*
	31-30	5920:4	N	22	f.	2	1	infancy	...	...	From 5898:9, sweetheart*
		5921:9	N.	24	f.	3	1	infancy	...	...	From 5898:9, sweetheart*
		5921:9	N.	24	f.	3	1	infancy	...	...	From 5898:9, sweetheart*
		5921:9	N.	24	f.	3	1	infancy	...	...	From 5898:9, sweetheart*
1903. Jan. 3-4	5	5926:4	C.	43	m.	2 f.d.	1	infancy	...	...	Probably at eating-house, v. p. 45, fellow-lodger with 5931:2
		5931:1	A. & W.	17	m.	3	1	infancy	...	...	From 5910:4, father*

(f.) in first column means that case proved fatal.

This patient had contracted the disease at a lodging-house; was two nights at this man's house. Rest of family escaped. The man's deafness probably accounts for the mistake entered in the hospital book. He was revaccinated the day his own eruption developed, but unsuccessfully.

† This man was the only one of his family who refused revaccination by public vaccinator the day that No. 5868:9 was sent to hospital. The man's deafness probably accounts for the mistake entered in the hospital book. He was revaccinated the day his own eruption developed, but unsuccessfully.

Vaccination and Infectivity.—Continued.

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION ETC.
						No. of marks.	Area, sq. ins.	Date.			
1903.	5-6	1903.	Jan. 7	46	m.	2	$\frac{1}{2}$	infancy	...	...	Probably at eating-house, v. p. 46 fellow-lodger with 5926:4 Out of work
9	14	5939:6	C.	26	m.	4	$\frac{3}{4}$	infancy	...	...	? from 5926:4, v. p. 46
15	16	5941:3	E.	26	m.	5	$\frac{3}{4}$	infancy	...	...	? from 5926:4, v. p. 46
15	16	5941:4	C.	27	m.	3	$\frac{3}{4}$	infancy	...	...	Bradford lodging-house, v. p. 46
15-16	17	5942:1	E.H.	35	m.	...	...	never	...	...	Ironmoulder, not traced
16	17	5942:5	Hdy.	29	m.	4	$\frac{1}{2}$	infancy	...	...	Builders' labourer; probably from work-mates
16	17	5942:6	A. & W.	28	m.	3	$\frac{3}{4}$	infancy	...	...	From 5926:4, room-mate
18	18	5942:8	C.	52	m.	1	$\frac{3}{4}$	infancy	...	...	From 5926:4, room-mate
18	18	5942:9	C.	49	m.	2	$\frac{1}{2}$	infancy	...	...	Tramp; probably from Durham, v. p. 46
14	19	5944:4	W.	30	m.	...	...	never	...	...	From 5926:4, fellow-lodger
(f.) 18	19	5944:5	C.	58	m.	not succ.	...	infancy	...	...	Possibly from 5926:4, coal-heaver
17	19	5944:6	New W.	30	m.	...	...	never	...	...	From 5931:2, errand goer
18	19	5947:4	C.	31	m.	2 f.d.	$\frac{3}{4}$	infancy	...	...	At Derby, where he had been putting up some machinery, v. p. 46
20	21	5948:6	Hol.	34	m.	2	$\frac{1}{2}$	infancy	...	...	From 5931:2, room-mate
22	22	5949:3	C.	42	m.	2	$\frac{3}{4}$	infancy	...	...	From 5931:2, lodger
22	23	5950:2	C.	63	m.	2 (3?)	$\frac{3}{4}$	infancy	At 41 yrs., 1 doubtful cic. $\frac{3}{4}$	...	
22	23	5950:3	C.	22	m.	3	$\frac{3}{4}$	infancy	...	Jan. 21, succ.	From 5931:2, errand goer
22	23	5950:5	C.	46	m.	3 v. pr.	$\frac{1}{2}$	infancy	...	...	Probably from 5931:2, comrade, v. p. 46
22	24	5951:6	C.	35	m.	2	$\frac{1}{2}$	infancy	...	Jan. 19, no result	From 5931:2, comrade
22	24	5951:7	E.	32	m.	4	$\frac{3}{4}$	infancy	...	...	Tramp, contracted in Leeds, possibly from 5931:2
26	26	5954:2	C.	34	m.	2	$\frac{3}{4}$	infancy	...	...	Probably, <i>per fomites</i> , from 5926:4, or 31:2; helper to man 5941:4
24	26	5954:4	A. & W.	31	m.	3	$\frac{1}{2}$	infancy	...	...	Carter
26	27	5956:3	C.	49	m.	1	$\frac{1}{2}$	infancy	...	...	? Chesterfield or Sutton-in-Ashfield, v. p. 47
28	29	5959:3	N.E.	44	m.	1	$\frac{1}{2}$	infancy	...	...	Collier
30	Feb. 1	5962:5	N.	37	m.	2 faint	$\frac{1}{2}$	infancy	...	...	Probably Pontefract, v. p. 47
31	2	5964:6	N.E.	48	m.	1	$\frac{1}{2}$	infancy	...	...	Navy at Ryhill, railway work going on there, v. p. 48
31	2	5964:7	A. & W.	60	m.	2	$\frac{3}{4}$	infancy	...	...	Loco. driver, Crewe, v. p. 48
Feb. (f.) 1	3	5966:6	N.E.	20	m.	2†	$\frac{1}{2}$	infancy	...	...	Hawker
1	5	5969:2	E.	39	f.	4	$\frac{1}{2}$	infancy	...	...	Charwoman

(f.) in first column means that case proved fatal.

In col. 7, f. = foveated, d. = depressed

† ? Obscured by rash.

Vaccination and Infectivity.—Continued.

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area, sq. ins.	Date.			
1903. Feb.	2	1903. Feb. 5	E.	40	m.	2 nf.	1	infancy	1885, Sheffield, no sign 1888, Canada, no sign 1889, W. Indies, no sign 1892, Pietermaritzburg, no sign	...	Fettler
4	5	5970:4	N.E.	28	m.	4	1 1/2	infancy	...	...	From 5951:7, room-mate
5	6	5971:0	C.	38	m.	2 f.d.	1 1/2	infancy	1895, Army, no sign	...	From 5950:5, room-mate, v. p. 64
5	6	5972:2	New W.	28	m.	3	1 1/2	infancy	...	...	Carter, out of work, moving furniture
6	6	5972:3	E.	27	m.	4	1 1/2	infancy	...	...	At theatre, Jan. 24
5	7	5973:8	N.E.	28	m.	3	1 1/2	infancy	...	...	Carter
7	6	5974:1	C.	63	m.	2 f.d.	1 1/2	infancy	...	...	From 5950:5, room-mate, v. p. 64
5	7	5974:7	A. & W.	4	m.	...	...	never	...	...	Class-mate of 5977:7
7	8	5974:8	S.	28	m.	4	1	infancy	1899, Army, no sign.	...	From 5950:5, v. p. 62
8	9	5977:6	Bnk.	36	m.	3 poor	1 1/2	infancy	...	...	Attended football match, January 24th
6	9	5977:7	A. & W.	5	m.	not succ.	...	infancy	...	...	Class-mate of 5974:7.
7	10	5979:9	E.	19	m.	1	1 1/2	infancy	...	...	Frequents lodging-houses
8	10	5979:0	C.	35	m.	1 nf. nd.	1 1/2	infancy	...	...	Waiter, out of work
9	10	5980:9	N.E.	17	f.	4	1 1/2	infancy	...	...	Tramp, Reiford or Workshop, v. p. 48
9-10	11	5982:1	E.H.	45	m.	1	1 1/2	infancy	...	...	Took lodgers
8	11	5982:2	N.	52	f.	2	1 1/2	infancy	...	...	From 5974:8, <i>per fomites</i> , v. p. 63
9	11	5974:0	Hol.	19	m.	4	1	infancy	...	...	Lodging-house
6	11	5982:5	Bnk.	39	m.	2	1 1/2	infancy	...	...	From 5974:8, <i>per fomites</i> , v. p. 63
11	11	5982:9	S.	46	m.	2	1 1/2	infancy	...	...	Probably at Barnsley workhouse, v. p. 49
11	12	5983:2	N.E.	51	m.	1	1 1/2	infancy	...	...	Travels a good deal
11	13	5985:2	S.	43	m.	2	1 1/2	infancy	...	...	Bradford workhouse, v. p. 49
11	14	5985:9	S.	29	f.	not succ.	...	infancy	...	...	Morley man, came here ill.
13	14	5986:7	Bmy.	31	m.	2	1 1/2	infancy	...	...	Bradford, v. p. 49
11	14	5986:9	M.H.	19	m.	3	1 1/2	infancy	...	...	Navy on tramp, v. p. 49
13	14	5986:0	N.	24	m.	2	1 1/2	infancy	...	...	? Manchester, v. p. 49
14	16	5990:3	N.E.	21	m.	3 poor	1 1/2	infancy	...	...	From 5969:2*
16	16	5990:4	E.	64	m.	1	1 1/2	at 30 yrs.	Feb. 5, succ. (E. 14th)	Feb. 6, succ. (E. 15th)	From 5970:4*
14	16	5990:5	N.E.	14	m.	4	1	infancy	...	...	? from 5974:8, <i>per fomites</i>
15	16	5990:6	N.E.	22	f.	...	...	never	...	...	Attended same school as 5977:7
13	17	5991:0	Bnk.	46	m.	2†	...	infancy	...	...	Boot rivetter, working out of Leeds
16	18	5996:1	S.	58	m.	1 poor	1	infancy	...	...	From 5982:5, workmate
17	19	5997:6	Bmy.	11	f.	not succ.	...	infancy	...	...	? Liverpool, v. p. 50 and 51
17	21	5999:0	Bmy.	34	m.	1	1 1/2	infancy	...	...	Took lodger
19	21	6000:3	A. & W.	46	f.	not succ.	...	infancy	...	...	
23	23	6002:7	E.	22	m.	3 good	1 1/2	infancy	...	...	
20	23	6002:8	C.	29	m.	2	1 1/2	infancy	...	...	
22	24	6003:7	New W.	40	m.	not succ.	...	infancy	...	...	
23	24	6005:2	N.	37	m.	2 fair	1 1/2	infancy	...	...	

(C) in first column means that case proved fatal.

* Developed symptoms when in quarantine.

† ?? Obscured by eruption.

Vaccination and Infectivity.—Continued.

Date of eruption	Date heard of.	Zym. book No.	Ward.	Age	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area, sq. ins.	Date.			
1903. Feb.	24	6006:8	N.E.	37	m.	2	1	infancy	...	...	From 5982:5, work-mate
	23	6008:9	N.W.	15	m.	3	4	infancy	...	...	From 5982:5, work-mate
	25	6008:0	E.H.	21	m.	3	4	infancy	...	...	Labourer at Steel works
	25	6009:5	Hol.	27	m.	2 good	1	infancy	...	...	Carter, frequenter of inns.
	28	6010:0	N.	28	m.	1	1	infancy	...	...	Penistone, v. p. 50
	28	6012:1	Hol.	45	m.	1	1	infancy	...	...	? Indirectly 5974:8
Mar. (f.)	1	6012:2	N.E.	24	m.	...	...	never	...	...	Grave-digger, near S.P. hospital
	26	6012:3	N.	45	m.	1	1	infancy	...	...	Plumber at hospital
Feb.	3	6013:0	E.H.	48	f.	2	1	infancy	...	...	Workhouse casual ward, v. p. 50
Mar.	3	6015:4	S.	60	m.	2	2	infancy	...	...	? Indirectly, 5974:8
	4	6015:5	S.	40	m.	2	2	infancy	...	...	? Indirectly, 5974:8
	4	6015:6	E.	23	m.	2	2	infancy	...	...	Carter to S.P. hospital
	4	6015:9	N.E.	29	f.	3 poor	1	infancy	...	...	? Hemsworth, v. p. 50
	4	6018:3	S.	44	m.	2 poor	1	infancy	...	...	? Indirectly, 5974:8
	7	6018:4	C.	65	m.	1	1	infancy	...	...	From 6002:8, fellow-lodger†
	6	6018:7	S.	56	m.	1 poor	1	infancy	...	...	? Indirectly, 5974:8
	6	6019:8	S.	44	m.	1	1	infancy	...	...	? Indirectly, 5974:8
(f.)	8†	6019:9	C.	44	m.	...	...	...	...	...	From 6002:8, fellow-lodger, malignant smallpox, not hospitalised
	7	6021:4	S.	53	m.	2	2	infancy	...	...	? Indirectly, 5974:8
	8	6021:5	E.	52	f.	2	2	infancy	...	...	Bedmaker at lodging house of 6002:8
(f.)	6	6021:9	E.	56	m.	...	...	never	...	...	Carter
	10	6023:1	N.	36	f.	1 poor	1	infancy	...	...	From 6012:3, husband
	10	6024:1	C.	70	m.	1 poor	1	infancy	...	...	From 6002:8, fellow lodger
	9	6024:7	E.H.	33	m.	3	3	infancy	...	...	Collier
	10	6024:8	N.E.	36	f.	2	2	infancy	...	...	Wife of hair dresser
	9	6024:9	Bmy.	14	f.	4	1	infancy	...	...	Possibly <i>per fomites</i> from 5997:6
	9	6024:0	Bmy.	37	f.	2	2	infancy	...	...	Possibly <i>per fomites</i> from 5997:6
	11	6027:1	N.	25	m.	3	3	infancy	...	...	Postman, visits stations
	13	6028:4	E.H.	48	m.	2	2	infancy	...	...	1895. Army, 3 successive occasions, not succ.
	16	6031:3	S.	37	m.	2	2	infancy	...	...	Stoker, Manchester, v. p. 50
	18	6032:9	S.	53	m.	3	3	infancy	...	...	? Indirectly, 5974:8
	16	6032:0	N.E.	2	f.	...	...	never	...	...	? Indirectly, 5974:8
	16	6034:5	C.	26	m.	1	1	infancy	...	...	Niece of 6027:1
18-19	20	6035:6	E.H.	53	m.	3 poor	1	infancy	...	...	Bradford, Feb. 25th to Mar. 2nd; Gaol, Mar. 2nd to 14th.
18-19	20	6035:7	S.	47	m.	4	1	infancy	...	...	Assisted in casual ward of Ht. workhouse
									...	...	Navvy on railway widening in Leeds.

(f.) in first column means that case proved fatal.

In col. 7, f. = foveated, d. = depressed.

† Isolated 6th, eruption 7th, hospital 7th, revaccinated there 9th. † Petechial.

Vaccination and Infectivity.—Continued.

Date of eruption.	Date heard of.	Zym. book No.	Ward	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area, sq. ins.	Date.			
1903.	Mar. 20	1903.	Bnk.	27	m.	3	1 1/2	infancy	...	...	Carter from market
20	20	6035:8	C.	34	m.	2	1 1/2	infancy	...	...	Fruit hawker, lived at lodging house
18	20	6035:9	C.	37	m.	2	1 1/2	infancy	...	...	Chesterfield, v. p. 51
17	21	6036:9	S.	20	m.	3	1 1/2	infancy	...	...	Lived at an eating house. Other lodgers
(f.) 22	22	6038:2	C.	58	m.	3	1 1/2	infancy	...	...	At lodging house with 6002:8, 6019:9, 6021:5
21	23	6038:9	S.	24	m.	1	1 1/2	infancy	...	...	? Indirectly, 5974:8
23	23	6039:1	E.	51	m.	3	1 1/2	infancy	...	...	? Bradford, v. p. 51
23	23	6039:2	C.	57	m.	1	1 1/2	infancy	...	...	Stonemason, lived at same lodging house as 6038:2
20	23	6039:3	Bny.	38	m.	2??†	1 1/2	infancy	...	...	Hebden Bridge Waterworks, v. p. 52
(f.) 20	23	6039:4	New W.	43	m.	2	1 1/2	infancy	...	...	Labourer at ironworks; takes lodgers
20	23	6039:5	New W.	46	f.	2	1 1/2	infancy	...	...	Wife of 6039:4
21	24	6041:1	N.E.	19	m.	...	...	never	...	...	Hawker in ironware, ? Barnsley, v. p. 52
23	24	6041:9	E.	40	f.	...	...	never	...	...	Neighbour of 6021:9
24	24	6042:4	N.	51	m.	2	1 1/2	infancy	...	...	Tramp, ? Newcastle, v. p. 52
1	25	6043:6	N.E.	60	m.	3	1 1/2	infancy	...	...	Hosp. Apr. 6, v. p. 53, rag sorter, lived in furnished rooms
Mar. 22	25	6044:1	N.	45	m.	2 poor	1 1/2	infancy	...	...	Fish hawker, out of work, lodger
22	26	6044:9	W.	48	m.	2 poor	1 1/2	infancy	...	...	Out of work, frequents public houses off West Street
26	26	6044:0	New W.	26	m.	...	...	never	...	...	Son of 6039:5
26	26	6045:8	E.	30	m.	1	1 1/2	infancy	...	...	? Bradford, v. p. 51
23	27	6046:4	A. & W.	30	f.	2	1 1/2	infancy	...	...	Worked with family of 5997:6
28	28	6048:3	E.	58	m.	...	...	never	...	...	Stated to have had Smallpox 55 and 20 years ago, scars on face, ? Bradford, v. p. 51
25-27	29	6050:1	E.	40	m.	2	1 1/2	infancy	...	...	Tramp, Sheffield, v. p. 52
29	30	6052:1	Bnk.	32	m.	...	...	never	...	...	Assistant—Drug Stores, visits other towns occasionally
(f.) 29†	30	6052:3	N.E.	50	f.	?	...	...	...	...	Died before notified. Death certified "meningitis" by Coroner.
31	Apr. 2	6055:0	C.	45	m.	2	1 1/2	infancy	...	...	From 6035:0, v. p. 51, fellowlodger
1	3	6056:1	E.H.	24	f.	4	1 1/2	infancy	...	...	? Collingham
31	3	6056:7	Hdy.	48	m.	2	1 1/2	infancy	...	...	publican
2	3	6056:9	E.	44	m.	2	1 1/2	infancy	...	...	Labourer, no work, frequents lodging-houses
(f.) 4	4	6056:0	S.	52	m.	1†	1 1/2	infancy	...	...	From 6044:1, father*
3	3	6057:7	N.	23	m.	4	1	infancy	...	Mar. 26, succ.	
3	4	6058:1	Bnk.	21	m.	2	1 1/2	infancy	...	...	

(f.) in first column means that case proved fatal.

* Developed symptoms when in quarantine.

† ?? Eruption masks.

‡ Prodromal scarlatina form.

Vaccination and Infectivity.—Continued.

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area, sq. ins.	Date.			
1903. Apr.	7	1903. Apr. 10	Hdy.	46	m.	1	$\frac{1}{16}$	infancy	...	...	Common infection with 6067:4, <i>q.v.</i> Daughter of 6044:1 Father of 6058:1; probably <i>per fomites</i> from another case. See note to 6123:5) Father and daughter. Common infection, source unknown Unvaccinated child of 6056:1, <i>q.v.</i> Same house as 6055:0. ? <i>fomites</i> . Note Same house as 6055:0 Unvaccinated, malignant Keeps P.H. Note Vaccination unsuccessful when child. From 6076:0. See note Vaccination unsuccessful when child (3 times) Measured 6052:3 for coffin. See note Visited same P.H. as 6055:0, v. 6114:8 Attended 6052:3. See note to 6069:9 From 6074:1. See note Source unknown: cause of illness of 6073:4, 6077:1. See note to 6073:4 Possibly from 6084:1, fellow-worker Same P.H. as 6055:0 and 6070:3 5982:5 visited house after discharge Coal miner, Belle Isle (outside) Wife of 6068:9, <i>q.v.</i> Daughter of 6073:4, <i>q.v.</i> From 6074:1 See note Daughter of 6084:1 Wife of 6084:1 Brother of 6084:1 Sister of 6076:5, common infection Son of 6065:1 Tramp from Wakefield and Rydall Bridge) Man and wife Probably from 6080:2
	7	10	C.	40	f.	2	$\frac{1}{16}$	infancy	...	April 5, succ. (E. 9th)	
	9	10	Bnk.*	49	m.	2	$\frac{1}{16}$	infancy	...	...	
	9	11	N.E.	43	m.	3	$\frac{1}{16}$	infancy	...	...	
	8	11	N.E.	17	f.	2	$\frac{1}{16}$	infancy	...	...	
	10	11	E.H.*	2	m.	...	...	never	...	...	
	11	11	E.	47	m.	3	$\frac{1}{16}$	infancy	...	April 4, succ. (E. 10th)	
	10-12	12	C.	47	m.	2	$\frac{1}{16}$	infancy	...	...	
	(f.) none	13	N.E.	3	f.	...	...	never	...	...	
	11	13	Hdy.	40	f.	2	$\frac{1}{16}$	infancy	...	...	
Mar.	10	14	New W.	33	m.	not succ.	...	infancy	...	...	
	12-13	14	C.	14	m.	not succ.	...	infancy	...	...	
	12	15	C.	48	m.	3 times	...	infancy	...	...	
	15	16	E.	32	m.	2	$\frac{1}{16}$	infancy	...	...	
	13	16	N.E.	32	f.	2	$\frac{1}{16}$	infancy	...	...	
	7-8	17	S.	43	f.	1	$\frac{1}{16}$	infancy	...	...	
	11-12	18	W.H.	17	m.	2	$\frac{1}{16}$	infancy	...	...	
	14	18	N.W.	30	m.	2	$\frac{1}{16}$	infancy	...	...	
	17	19	E.	36	m.	3	$\frac{1}{16}$	infancy	...	...	
	18	20	N.E.	13	f.	1	$\frac{1}{16}$	infancy	...	...	
Apr.	15	20	E.H.	33	m.	2	$\frac{1}{16}$	infancy	...	...	
	13	20	New W.	33	f.	See note to 6068:9	...	...	...	...	
	2	20	Hol.	24	f.	3	$\frac{1}{16}$	infancy	...	...	
	20	21	Hol.	40	m.	1	$\frac{1}{16}$	infancy	...	...	
	18	21	N.W.	4	f.	...	...	never	...	...	
	19	21	N.W.	36	f.	...	...	never	...	...	
	20	21	Bnk.	41	m.	2	$\frac{1}{16}$	infancy	...	...	
	20	21	N.E.*	10	f.	1	$\frac{1}{16}$	infancy	...	...	
	21	21	N.E.*	9	m.	not succ.	...	infancy	...	...	
	20-22	22	N.	26	m.	3	$\frac{1}{16}$	infancy	...	...	
Mar.	18-19	22	E.	32	m.	4	$\frac{1}{16}$	infancy	...	...	
	4-6	22	E.	33	f.	1	$\frac{1}{16}$	infancy	...	...	
	20	23	E.	33	f.	1	$\frac{1}{16}$	infancy	...	...	
	14	18	N.W.	30	m.	2	$\frac{1}{16}$	infancy	...	...	
	17	19	E.	36	m.	3	$\frac{1}{16}$	infancy	...	...	
	18	20	N.E.	13	f.	1	$\frac{1}{16}$	infancy	...	...	
	15	20	E.H.	33	m.	2	$\frac{1}{16}$	infancy	...	...	
	13	20	New W.	33	f.	See note to 6068:9	...	...	...	...	
	2	20	Hol.	24	f.	3	$\frac{1}{16}$	infancy	...	...	
	20	21	Hol.	40	m.	1	$\frac{1}{16}$	infancy	...	...	

(f.) in first column means that case proved fatal.

* Developed symptoms when in quarantine.

Vaccination and Infectivity.—Continued.

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area, sq. ins.	Date.			
1903.	1903.										
Apr. 22	Apr. 23	6080:0	Bnk.	34	m.	2	1	infancy	...	...	With 6074:2: Possibly from 6082:2
23	23	6081:2	S.*	18	m.	2	3	infancy	...	...	Son of 6073:4, q.v.
17	23	6082:2	Bnk.	18	f.	...	...	never	...	...	Servant at inn; possibly from 6084:1
25	25	6083:8	N.W.	19	f.	...	...	never	...	April 17, succ. (E. 25th)	Worked with 6073:4. See note to 6073:4
4	21	6084:1	N.W.	38	m.	3	1	infancy	...	April 22, slight reaction	Infected 6077:7, 8, and 9, and perhaps 6082:2. (Not hospitalised)
24	27	6085:0	E.	16	f.	1	1	infancy	...	...	Worked with 6073:4, q.v.
26	27	6086:5	C.	5	f.	...	...	never	...	April 14, succ. (E. 26th)	From 6068:0 (brother)
26-28	28	6088:7	W.	33	m.	3	1 1/2	infancy	...	...	"Corner taps." See note
27	28	6088:8	Hdy.	58	m.	3	mask- ed in prev. re- vac	infancy	...	April 15, succ. (E. 27th)	Husband of 6067:4, q.v.
26	28	6088:9	W.	47	m.	2	1	infancy	...	...	"Corner taps," v. 6088:7
27	30	6091:3	W.	30	m.	4	1 1/2	infancy	...	...	"Corner taps"
27	30	6091:4	W.	36	m.	3	1	infancy	...	...	"Corner taps"
28	30	6091:5	Hol.	34	m.	3	1 1/2	infancy	...	...	"Corner taps"
30	30	6092:7	E.	34	m.	3	1 1/2	infancy	...	April 19, succ.	From 6074:4, fellow-lodger
30	May 1	6092:9	Bnk.	38	m.	1	1	infancy	...	...	Been in company of 6074:2, 6077:9, and 6082:2
(f.) 29	1	6092:0	E.	55	f.	2 poor	1	infancy	...	...	Untraced
May (f.) 1	1	6095:1	W.	38	m.	...	...	never	...	...	"Corner taps," v. 6088:7, &c.
2	2	6095:2	N.	30	m.	3	1	infancy	...	...	Frequents lodging houses
30	3	6097:6	N.	44	m.	2	1 1/2	infancy	...	...	Navy, Salford
May 4	4	6097:8	N.E.	32	m.	2	1 1/2	infancy	...	...	From 6076:6.
2	4	6097:9	E.H.	10	f.	...	...	never	...	...	Market man
2-4	4	6098:6	C.	17	m.	3	1 1/2	infancy	...	...	See note
3	4	6098:9	N.	31	m.	3	1 1/2	infancy	...	...	Daughter of 6080:0
4	4	6098:0	Bnk.*	11	f.	3	1 1/2	infancy	...	...	? From 6074:4. Annual 1902, p. 51
4	4	6099:1	E.	48	m.	2	1 1/2	infancy	...	...	Errand boy; from 6101:6. Note
1	4	6099:2	M.H.	13	m.	2	1 1/2	infancy	...	...	Frequents lodging houses
2	5	6101:2	N.	28	m.	4	1 1/2	infancy	...	...	See note to 6099:2
April 17-18	5	6101:6	Hol.	9	m.	3 times not succ.	...	infancy	...	...	
28	5	6101:7	N.W.	19	m.	2	1	infancy	...	April 30, not succ.	Been in company of 6088:7 (common infection). Note to 6088:7
May (f.) 2	4	6101:8	M.H.	23	m.	3	1 1/2	infancy	...	...	From nephew, 6101:6. See 6099:2
2	6	6103:8	New W.	48	f.	2	1 1/2	infancy	...	...	"Corner Taps," v. s.
4-5	7	6104:6	Hol.	40	f.	3	1	infancy	...	...	From 6101:6, who lived next door

(f.) in first column means that case proved fatal.

* Developed symptoms when in quarantine.

Vaccination and Infectivity.—Continued.

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area, sq. ins.	Date.			
1903. May 4-6	1903. May 7	6104:7	E.	36	m.	3	$\frac{1}{16}$	infancy	...	...	6080:1 and 2 live near Labourer, Manchester
4	7	6105:4	N.	31	m.	3	$\frac{1}{16}$	infancy	...	...	Loco. fireman M.R.
7	8	6106:3	Hol.	36	m.	2	$\frac{1}{16}$	infancy	...	...	Fried fish shop
10	11	6110:1	Hdy.	21	f.	3	$\frac{1}{16}$	infancy	...	...	Bridge builder, Brotherton
12	12	6112:1	Bmy.	30	m.	3	1	infancy	...	...	Unvaccinated child, companion of daughter of patient 6088:9
9	12	6112:3	W.	13	f.	...	...	never	...	...	Travelling with shows. Note
9	12	6112:8	E.	42	m.	2	$\frac{1}{16}$	infancy	...	...	Cartman, lodging-house deputy. ? <i>per fomites</i> from 6070:3. Note
13	13	6114:8	E.	30	m.	3	$\frac{1}{16}$	infancy	...	...	Probably 6085:0 in back street
9	13	6114:9	E.	21	f.	3	$\frac{1}{16}$	infancy	...	...	Bricklayer, no work, lived in Manchester two months previous to May 5th
10	13	6114:0	C.	34	m.	1	$\frac{1}{16}$	infancy	...	...	Probably Knaresborough
13	14	6116:2	A. & W.	67	m.	1	$\frac{1}{16}$	infancy	20 years ago, not succ.	...	Worked with 6097:6
13	14	6116:3	N.W.	46	m.	1	$\frac{1}{16}$	infancy	8 years ago, not succ.	...	Lodged with 6114:8, ? <i>per fomites</i> from 6070:3. See note to 6114:8
13	15	6116:4	E.	35	m.	4	$\frac{1}{16}$	infancy	...	...	Worked in market. Note
13	15	6117:1	N.E.	31	m.	2	$\frac{1}{16}$	infancy	...	...	From brother 6101:7. Note to 6088:7
15	15	6117:3	N.W.*	21	m.	1	$\frac{1}{16}$	infancy	...	May 8, succ. (E. 15th)	Lodged with 6114:8, ? <i>per fomites</i> from 6070:3. See note to 6114:8
15	15	6117:4	N.W.*	20	m.	not succ.	...	infancy	...	May 8, succ. (E. 15th)	See note
15	15	6117:5	E.*	30	m.	2	$\frac{1}{16}$	infancy	...	...	From housekeeper 6103:8, v. 6088:7
15	15	6117:6	E.H.	43	f.	1	$\frac{1}{16}$	infancy	...	...	From 6103:8 (neighbour). Note to 6088:7
15	16	6119:6	New W.	48	m.	not succ.	...	infancy	...	...	See note to 6169:3
16	16	6119:7	New W.	28	f.	3	$\frac{1}{16}$	infancy	...	...	Lodged with 6114:8, q.v.; ? <i>per fomites</i> from 6070:3
15	18	6120:8	N.W.	16	m.	1	$\frac{1}{16}$	infancy	...	...	Railway porter. See note
17	18	6120:9	E.	44	m.	1	$\frac{1}{16}$	infancy	...	...	? from 6097:8, fellow lodger
(f.) 15	18	6120:0	Hol.	48	m.	1	$\frac{1}{16}$	infancy	...	...	From sister, 6123:5, q.v.
(f.) 19	18	6121:1	N.E.	41	m.	2	$\frac{1}{16}$	infancy	...	...	Unvaccinated child
14	18	6121:2	N.E.	18	f.	1	$\frac{1}{16}$	infancy	...	...	Companion of 6123:4. See note to 6123:5
15	18	6121:4	N.E.	28	m.	4	$\frac{1}{16}$	infancy	...	...	See note
(f.) 13	18	6121:6	Hdy.	$\frac{3}{8}$	m.	...	...	never	...	...	Labourer, hospital extension.
14	19	6123:1	N.	36	m.	2	$\frac{1}{16}$	infancy	...	...	? from sister 6123:5, q.v.
18	19	6123:2	W.	31	f.	...	...	never	...	...	
16	19	6123:3	E.	34	m.	1	$\frac{1}{16}$	infancy	...	...	
8	19	6123:4	N.E.	34	m.	4	$\frac{1}{16}$	infancy	...	...	

(f.) in first column means that case proved fatal.

* Developed symptoms when in quarantine.

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area. sq. ins.	Date.			
1903. April 26	1903. May 19	6123:5	N.E.	32	f.	1	$\frac{1}{8}$ mask- ed by erup- tion	infancy	...	...	See note
May (f.) 17	19	6123:7	E.	38	m.	? 3		infancy	...	...	? <i>per fomites</i> from 6070:3, frequents lodging-houses. See note to 6114:8
18	20	6124:7	E.H.	40	f.	1	$\frac{3}{8}$	infancy	...	...	From husband, 6125:1
3	20	6125:1	E.H.	42	m.	3	$\frac{3}{8}$	infancy	...	...	
19	21	6126:2	N.W.	19	m.	3	$\frac{1}{8}$	infancy	...	...	
18	21	6126:3	N.W.	26	f.	3	$\frac{1}{8}$	infancy	...	...	
19	21	6126:4	S.	13	f.	1	$\frac{1}{8}$	infancy	...	...	
21	21	6126:7	New W.	38	m.	...	...	never	...	...	See note
22	22	6127:9	E.H.	18	m.	not succ.	...	infancy	May 13, succ. (E. 21st)	...	See notes to 6088:7 and 6119:7
22	22	6128:5	N.E.	59	m.	1	$\frac{1}{8}$	infancy	...	...	Note
21	22	6128:6	N.E.	34	m.	3	$\frac{1}{8}$	infancy	...	...	Lodged 29, Duke St., c. 6097:8 and 6121:1
23	23	6130:7	N.W.	32	m.	3	$\frac{1}{8}$	infancy	...	...	
18	18	6131:1	Hdy.	27	f.	3	$\frac{1}{8}$	infancy	...	...	
23	25	6131:2	N.E.	33	m.	2	$\frac{1}{8}$	infancy	...	...	
21	25	6133:2	E.	27	f.	3	$\frac{1}{8}$	infancy	...	...	? Common infection with 6121:6
23	25	6133:3	A. & W.	28	m.	3	$\frac{1}{8}$	infancy	...	...	Shop keeper near F.H.
23	26	6134:9	New W.	42	m.	2	$\frac{1}{8}$	infancy	...	...	From work-mate. See note to 6099:2
24	26	6134:0	W.H.	57	m.	2	$\frac{1}{8}$	infancy	...	...	From brother, 6123:4.
23	26	6135:1	N.	19	m.	2	$\frac{1}{8}$	infancy	...	...	
24	26	6135:2	W.	30	m.	1	$\frac{1}{8}$	infancy	...	...	
23	26	6135:3	W.	24	m.	3	$\frac{1}{8}$	infancy	...	...	
24	26	6135:4	E.	24	f.	1	$\frac{1}{8}$	infancy	...	...	
23	26	6135:5	E.	25	m.	...	...	never	...	...	
27	27	6137:4	F.H.*	12	f.	1	$\frac{1}{8}$	infancy	...	...	? from neighbour, 6114:9
27	27	6137:5	Hdy.*	4	m.	...	...	never	...	...	Common infection with 6127:9.
26	27	6137:6	E.H.	49	m.	1	$\frac{1}{8}$	infancy	May 19, succ. (E. 27th)	...	From brother, 6121:6
28	28	6138:3	E.	12	f.	...	...	never	...	...	Frequents public houses. Note to 6127:9
25	29	6139:1	S.	46	m.	1	$\frac{1}{8}$	infancy	...	...	Unvaccinated child. Note
30	30	6140:0	E.	33	f.	2	$\frac{1}{8}$	infancy	...	...	Frequents lodging houses. Note
30	30	6141:1	S.*	32	f.	3	$\frac{1}{8}$	infancy	...	...	Servant in lodging house. Note to 6114:8
28	30	6141:2	N.	28	f.	3	$\frac{1}{8}$	infancy	May 21, succ. (E. 29th)	...	? From daughter, v. 6126:4 and 6149:9
25	30	6141:3	N.E.	15	f.	not succ.	...	infancy	...	...	
29	30	6141:4	N.E.	54	f.	1	$\frac{1}{8}$	infancy	...	...	? Castleford
30	30	6141:5	E.	22	m.	3	$\frac{1}{8}$	infancy	...	...	Probably from 6121:4. Note to 6147:8
28	31	6141:8	N.E.	25	f.	2	$\frac{1}{8}$	infancy	...	...	? From 6120:9 or 6123:7. Note to 6114:8
31	31	6141:9	N.W.*	41	f.	2	$\frac{1}{8}$	infancy	...	...	Frequents lodging houses
											From son, 6120:8

(f.) in first column means that case proved fatal.

* Developed symptoms when in quarantine.

Vaccination and Infectivity.—Continued.

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area, sq. ins.	Date.			
1903. May	30	1903. June	E.H.	14	f.	...	...	never	...	...	} From 6082:2. See note. ? fellow-lodgers, 6128:5 and 6
29	31	1	E.H.	11	m.	...	...	never	...	...	
31	2	2	Hol.	18	f.	4	1	infancy	...	...	
2	4	4	N.	34	m.	4	1	infancy	...	...	
3	3	3	Hol.	19	m.	2	1	infancy	...	...	Unvaccinated child. See note to 6157:5 Charwoman; from 6157:5, <i>q.v.</i> ? Indirectly through 6121:4. Note
31	2	3	Hol.	10	m.	...	...	never	...	...	
2	3	3	Hol.	42	f.	1	...	infancy	...	...	
3	3	4	N.E.	63	f.	...	...	never	...	...	
2	2	5	N.	25	m.	4	...	infancy	...	...	Beethouse keeper. Note to 6149:9 ? From 6121:6. Note Not hospitalised. Note Note From fellow-lodger, 6128:5 or 6
4	4	5	S.	30	m.	not succ.	...	infancy	...	...	
29	27	5	Bmy.	25	f.	1	...	infancy	...	...	
27	2	6	N.W.	51	m.	none	...	...	...	...	
6	6	6	S.	14	m.	1	...	infancy	...	...	7, East St. See note to 6114:8; refused re-vaccination ? From fellow-lodger, 6139:1, <i>q.v.</i> } See note to 6149:9 From husband, 6135:3 From father, 6135:3 From work-mate, 6135:1 Lodger; from 6156:2, <i>q.v.</i> See note From mother, 6156:2, <i>q.v.</i> From brother, 6157:5, <i>q.v.</i> See 6157:5 From brother-in-law, 6134:0 From brother, 6134:0 See note From son, 6156:4, or 6157:5, <i>q.v.</i> ? From brother, 6145:8 v. 6157:5 Frequent same P.H. as 6135:3
7	7	8	N.E.	38	m.	4	1	infancy	...	...	
8	8	8	Hol.	32	m.	4	...	infancy	...	...	
8	8	8	E.	36	m.	3	...	infancy	...	...	
8	8	8	S.	60	m.	1	...	infancy	...	...	May 26, succ. (E. 7th) May 26, succ. (E. 7th) Lodger; from 6156:2, <i>q.v.</i> See note From mother, 6156:2, <i>q.v.</i> From brother, 6157:5, <i>q.v.</i> See 6157:5 From brother-in-law, 6134:0 From brother, 6134:0 See note From son, 6156:4, or 6157:5, <i>q.v.</i> ? From brother, 6145:8 v. 6157:5 Frequent same P.H. as 6135:3
30	6	8	S.	22	m.	2	...	infancy	...	...	
6	7	9	S.	18	m.	2	...	infancy	...	...	
7	8	9	W.	28	f.	3	...	infancy	...	...	
8	8	9	W.	3	f.	...	...	never	...	...	June 3, succ. (E. 11th) June 3, succ. (E. 12th) From son, 6145:8 v. 6157:5 From mother, 6149:5, <i>q.v.</i>
10	10	10	Bnk.	21	m.	4	...	infancy	...	...	
8	8	10	Bnk.	54	m.	3	...	infancy	...	...	
18	1	10	Bnk.	46	f.	3	...	infancy	...	...	
May	30	10	Bnk.	21	f.	1	...	infancy	...	...	June 3, succ. (E. 11th) June 3, succ. (E. 12th) From son, 6145:8 v. 6157:5 From mother, 6149:5, <i>q.v.</i>
June	1	10	Bnk.	21	f.	1	...	infancy	...	...	
May	30	10	Hol.	23	m.	3	...	infancy	...	...	
June	2	11	Hol.	9	m.	not succ.	...	infancy	...	...	
10	10	11	Hol.	25	f.	3	...	infancy	...	...	June 3, succ. (E. 11th) June 3, succ. (E. 12th) From son, 6145:8 v. 6157:5 From mother, 6149:5, <i>q.v.</i>
10	9	11	Hol.	25	f.	3	...	infancy	...	...	
16	11	11	Hol.	31	m.	1	...	infancy	...	...	
11	11	11	Hol.	25	m.	2	...	infancy	...	...	
11	11	11	Hol.*	50	f.	2	...	infancy	...	...	June 3, succ. (E. 11th) June 3, succ. (E. 12th) From son, 6145:8 v. 6157:5 From mother, 6149:5, <i>q.v.</i>
10	10	12	W.	8	m.	...	...	never	...	...	
10	10	12	Hdy.	50	m.	2	...	infancy	...	...	
10	10	12	Hol.*	19	m.	3	...	infancy	...	...	
12	12	12	Hol.*	37	f.	2	...	infancy	...	...	June 3, succ. (E. 11th) June 3, succ. (E. 12th) From son, 6145:8 v. 6157:5 From mother, 6149:5, <i>q.v.</i>
12	12	12	Bmy.*	5	f.	not succ.	...	infancy	...	...	

* Developed symptoms when in quarantine.

VACCINATION AND INFECTION: SUMMARY.

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area sq. ins.	Date.			
1903. June	10 16 17 17	1903. June 12 16 17 18	N. Hol.* Hol.* Hol.	37 18 50 31	m. m. m. f.	2 2 2 1	1 1 1 1 1	infancy infancy infancy infancy	...	...	Commercial traveller From brother, 6157:2, v. 6157:5 From son, 6156:4, v. 6157:5 Charwoman; from 6156:4 or others in house, v. 6157:5
	16 18 17 16 16 19 9	18 18 18 18 18 19 20	N. Hol.* Hol.* N.W. N.W. Hol. A. & W.	30 45 19 20 33 24 22	m. m. m. m. f. f. f.	...	...	never infancy infancy infancy infancy infancy infancy	...	June 12, succ. (E. 18th)	From son, 6157:2, v. 6157:5 From brother, 6156:4, v. 6157:5 From 6120:8. Note Probably from 6156:4. Note to 6157:5 From sister-in-law, 6172:6 ? See note to 6169:3 and 4
May June	24 20	20 21	N.W.* A. & W. N.W.*	36 33 1 1/2	m. f. m.	3 3 ...	1 1 1	infancy infancy never	...	June 21, succ. (E. 20th), vacc. in hospital.	? See note to 6169:3 and 4 From fellow-lodger, 6152:8. See note to 6139:1 ? 6172:6 ? Common infection. Note ? Common infection. Note From mother, 6172:6 Maltster's man. Note. ? From visitors. Note. From neighbour, 6157:2. See 6157:5 See note
20-22	20-22	22	S.	28	m.	4	1 1 1 1 1	infancy	...	...	From fellow-lodger. See note to 6139:1
	20 21 20 20 23 24 24 24 26 26 (f.) 26 30	22 22 23 23 23 24 24 26 28 28 29 30	Bmy. E.H. N. Bnk. N. A. & W. E. W. W. Hol. E.	25 53 57 22 22 6 38 15 38 28 35	m. m. m. m. f. f. m. m. m. f. f.	2 1 1 2 4 ...	1 1 1 1 1 1 1 1 1 1 1	infancy infancy infancy infancy infancy never infancy infancy infancy infancy infancy	...	...	From fellow-lodger. See note to 6139:1 See note ? From brother. See note to 6182:6 From neighbour, 6182:6, q. 7.
July	2 3 30 8 4 7 11	July 6 6 6 6 8 9 9 13	S. E. E. E. W.* N. N. W.	34 21 30 32 14 36 27 18	m. f. f. m. m. m. f. m.	3 2 not succ. 3 ...	1 1 1 1 1 1 1	infancy infancy infancy infancy never infancy infancy infancy	...	...	

(f.) in first column means that case proved fatal.

* Developed symptoms when in quarantine.

Vaccination and Infectivity.—Continued.

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area sq. ins.	Date.			
1903.											
July	14	6210:7	N.	55	m.	...	...	never	Had s.p. 1862, no scar	...	Cartman; frequents lodging houses
	16	6211:3	Bnk.	40	f.	2	1	infancy		...	Note
(f.)	13	6212:0	W.H.	60	f.	not succ.	...	infancy		...	Travelling showman; probably Halifax
(f.)	16	6213:7	Hol.	32	m.	2	1	infancy		...	? Tadcaster
	18	6213:8	Hol.	35	m.	...	1	never		...	Frequents lodging houses. Note
	15	6214:8	M.H.	33	m.	3	1	infancy		...	Note
	17	6215:1	W.	22	m.	1	1	infancy		...	Probably from 6182:6 group, q.v.
(f.)	20	6215:6	Hol.	23	f.	...	1	never		...	From son, 6206:0, v. 6182:6
	21	6218:9	S.	44	m.	1	1	infancy		July 14, succ. (E. 24th)	From brother, 6206:0, v. 6182:6
	24	6221:4	W.*	39	f.	2	1	infancy		July 14, succ. (E. 23rd)	From son, 6206:0, v. 6182:6
	23	6221:5	W.*	4	f.	...	...	never	...	July 14, succ. (E. 24th)	From son, 6206:0, v. 6182:6
	24	6222:3	W.*	38	m.	2	1	infancy	...	July 14, succ. (E. 25th)	From brother, 6206:0, v. 6182:6
	25	6222:4	W.*	10	f.	1	1	infancy	...	July 25, succ. (E. 25th)	Note
	25	6222:5	W.	39	m.	...	...	never	...	July 22, succ. (E. 30th)	From father, 6214:8
	30	6228:3	M.H.*	9	f.	2	1	infancy	...	July 22, succ. (E. 30th)	From uncle, 6214:8
	30	6228:4	M.H.*	20	f.	3	1	infancy	...	...	Note
	30	6230:4	S.	24	f.	3	1	infancy	...	...	From mother, 6212:0
Aug.	2	6231:9	W.H.	29	m.	3	1	infancy	...	...	? From 6218:9. Note
	1	6232:8	S.	32	m.	3	1	infancy	...	...	From fellow-lodger, 6218:9. Note
	3	6232:9	N.	38	m.	2	1	infancy	...	...	From fellow-lodger, 6215:1, q.v.
	5	6233:9	W.	40	m.	1	1	infancy	...	...	Unvaccinated child; from 6218:9, q.v.
	2	6233:0	E.	17	m.	1	1	infancy	...	...	See note
	3	6235:2	W.	1	f.	...	...	never	...	...	From companion, 6215:1
2-4	7	6235:0	W.	28	f.	2	1	infancy	...	...	? From work-mate, 6218:9. See note
	5	6236:2	S.	34	m.	1	1	infancy	...	...	From sister, 6235:2
5-7	9	6238:3	New W.	22	m.	3	1	infancy	...	...	In Bradford daily
19	19	6250:5	W.*	4	m.	...	...	never	...	Aug. 7, succ. (E. 19th)	From wife, 6253:9
19	21	6252:5	Bnk.	54	m.	1	1	infancy	...	...	From mother, 6253:9
20	23	6253:7	E.	29	m.	2	1	infancy	...	...	Note
21	23	6253:8	E.	8	f.	3 times not succ.	...	infancy	...	...	Railway out-porter; from 6236:2
	7	6253:9	E.	27	f.	3	1	infancy	...	...	From unrecognised case at Blackpool
22	23	6253:0	N.	27	m.	...	...	...	...	...	From 6261:5. See note
21	24	6254:1	C.	27	m.	4 poor	...	infancy	...	...	Cart driver; frequents lodging houses
21	24	6254:9	W.H.	22	f.	3	1	infancy	...	...	From neighbour, 6253:9, q.v.
21	24	6254:0	S.	26	m.	3	1	infancy	Sep., 1897, Oct., 1902, no sign	...	
24-25	25	6256:7	E.	46	f.	3	1	infancy	...	...	

Vaccination and Infectivity.—Continued.

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.		RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area, sq. ins.			
1903. Sept. 16	1903. Sept. 17	6281:5	E.	35	m.	2	$\frac{1}{2}$	infancy	...	From work-mates. See note to 6266:2
16	17	6282:4	E.H.	46	m.	2	$\frac{1}{2}$	infancy	...	Perhaps <i>per fomites</i> from 6259:2 or 3
13	17	6282:0	W.H.	46	f.	...	...	Had small-pox 43 years ago, 2 scars on face	...	? <i>per fomites</i> from 6276:8, v. 6266:2
18	18	6283:6	N.	44	m.	2	$\frac{1}{2}$	infancy	...	From brother, 6272:6, v. 6266:2
19	19	6284:6	W.H.	40	m.	1	$\frac{1}{2}$	infancy	...	From son, 6272:6. See note to 6266:2
20	20	6284:9	M.H.*	64	f.	...	...	never	Sept. 10, succ. (E. 20th)	From sister, 6274:2. See note to 6266:2
18	20	6284:0	N.*	20	m.	2	$\frac{1}{2}$	infancy	Sept. 10, succ. (E. 18th)	From brother, 6271:9. See note to 6254:9
20	21	6286:7	Hol.	25	m.	3	1	infancy	...	From brother, 6272:6, with whom he lodged. See note to 6266:2
20	21	6286:8	C.	25	m.	1	1	infancy	...	Wife of relieving officer. Note to 6270:4
21	22	6287:8	A. & W.	30	f.	2	$\frac{1}{2}$	infancy	...	Probably <i>per fomites</i> from 6270:4, q. v.
21-22	22	6287:9	A. & W.	7	m.	not succ.	...	infancy	...	See note to 6270:4
21-22	23	6289:8	A. & W.	55	m.	1	$\frac{1}{2}$	infancy	...	From 6272:6. See note
21	24	6290:9	A. & W.	34	m.	2	$\frac{1}{2}$	infancy	Sept. 21, succ. (E. 21st)	Note to 6270:4
19	24	6290:0	A. & W.	19	m.	3	$\frac{1}{2}$	infancy	...	Note to 6270:4
20	24	6291:1	A. & W.	27	m.	3	$\frac{1}{2}$	infancy	...	Note to 6270:4
22	25	6291:7	N.E.	10	f.	2	$\frac{1}{2}$	infancy	...	Note to 6270:4
23-24	25	6291:9	A. & W.	30	f.	1	$\frac{1}{2}$	infancy	...	From daughter, 6280:0, v. 6254:9
25	25	6291:0	Hol.*	33	f.	3	$\frac{1}{2}$	infancy	Sept. 17, succ. (E. 25th)	From sister 6274:2. See note to 6266:2
22	26	6292:4	N.	27	f.	2	$\frac{1}{2}$	infancy	Sept. 20, succ. (E. 26th)	From uncle, 6272:6, v. 6266:2
26	26	6292:6	W.H.*	17	m.	4	$\frac{1}{2}$	infancy	...	See note
1-2	29	6295:7	E.H.	32	f.	2	$\frac{1}{2}$	infancy	...	From sister, 6295:7, q. v.
23-24	29	6295:8	E.H.	25	f.	2	$\frac{1}{2}$	infancy	...	Indirectly from 6295:7, q. v.
Oct. 1-2	Oct. 2	6300:6	N.W.	42	f.	1	$\frac{1}{2}$	infancy	Oct. 2, succ. (E. Sep. 26)	From 6295:7 (work-mate), q. v.
26	2	6300:7	E.	30	m.	3	$\frac{1}{2}$	infancy	...	Common infection with 6300:6, q. v.
28	3	6401:2	E.	30	m.	1	$\frac{1}{2}$	infancy	...	From sweetheart, 6291:1, q. v.
Oct. 5	Oct. 5	6404:3	N.W.*	41	m.	2	$\frac{1}{2}$	infancy	...	From sister, 6291:7
6	7	6406:2	Bmy.	24	f.	2	$\frac{1}{2}$	infancy	...	York
8	9	6408:9	N.E.*	8	f.	4	$\frac{1}{2}$	infancy	...	Note
8	9	6408:0	N.E.*	6	m.	1	$\frac{1}{2}$	infancy	...	
21	22	6421:0	C.	30	m.	4	$\frac{1}{2}$	infancy	...	
26	Dec. 29	6487:8	Bnk.	22	f.	3	$\frac{1}{2}$	infancy	...	

* Developed symptoms when in quarantine.

VACCINATION AND INFECTION.—Continued.

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area, sq. ins.	Date.			
1904.											
Jan. 23	1904. Jan. 26	6520:0	E.H.	23	m.	4 f.	3	infancy	...	...	Note Stalybridge From work-mate (unrecognised case in house of 6562:0). Note Pianist at public house, v. Note to 6559:5 From 6562:0 in same house, v. 6559:5 See note to 6559:5
Feb. 24	Feb. 25	6539:9	N.	33	m.	...	...	never	...	...	
March 21	Mar. 24	6559:5	E.H.	23	m.	2	3	infancy	...	...	
23	25	6559:8	N.E.	20	m.	...	...	never	...	...	
4	28	6562:5	E.H.	4	m.	...	...	never	...	...	
10	29	6562:0	E.H.	36	m.	2	1	infancy	...	...	
April 3	April 4	6567:8	E.	32	m.	3	1	infancy	...	...	From wife (unrecognised case). Note
1	5	6566:7	W.H.	9	m.	3 times not succ.	...	infancy	...	...	
9	9	6570:9	N.	19	f.	2	1	infancy	...	...	
9	11	6571:6	N.	22	f.	2	1	infancy	...	...	
8	12	6571:9	E.H.	49	f.	1	1	infancy	...	...	
10	12	6572:7	W.	28	f.	4	1	infancy	...	...	From wife of 6567:8, q.v. From wife of 6567:8, q.v. Wife of a carter From wife of 6567:8, q.v. From wife of 6567:8, q.v. From sweetheart's brother, 6566:7, q.v.
14	14	6574:7	N.	26	f.	1	1	infancy	...	...	
19	19	6577:4	E.H.	21	m.	2	1	infancy	...	...	
22	22	6579:3	N.	30	f.	2	1	infancy	...	...	
24	24	6580:4	N.	49	f.	2	1	infancy	...	...	
24	24	6580:5	N.	24	f.	2	1	infancy	...	...	From 6571:6 and 6574:7. See note to 6567:8
25	25	6581:4	N.	74	f.	4	1	infancy	...	...	
28	28	6583:7	N.	62	f.	1	...	infancy	...	...	
25-26	28	6583:8	W.H.	23	m.	4	...	infancy	...	...	
9-10	May 11	6592:4	W.H.	37	f.	2	...	infancy	...	...	
April 23	12	6593:2	W.H.	30	f.	2	...	infancy	...	...	From work-mate, 6593:2 From sweetheart, 6593:2 Fried fish shop Batley or Dewsbury From Bradford case, who lodged in same house <i>en route</i> from York From sister, 6612:0 From unrecognised case at Dewsbury
May 13	13	6594:1	Hol.	43	m.	3	...	infancy	...	...	
12	16	6595:7	W.H.	44	m.	1	...	infancy	...	...	
12	16	6595:8	C.	28	m.	1	...	infancy	...	...	
June 12	June 12	6611:6	W.	18	m.	...	...	never	...	June 3, succ. (E. 12th)	
12-13	14	6612:2	W.H.	30	m.	1	...	infancy	...	...	From unrecognised case at Dewsbury
May 23	14	6612:0	W.H.	35	f.	2	...	infancy	...	...	

SMALL-POX—(Continued).

NOTES TO TABLE 8.

This table has been partly reprinted from the report for 1902. A few corrections were made in the part previously printed and then the table, as far as the cases heard of on or before April 4th, 1903, was stereotyped. Even in the stereotyped portion probably a few corrections are still necessary.* For instance, patient 6039:5 was the wife of 6039:4 not of 6039:5. The references in the first six pages of table 8 are to pages in the 1902 report.

Patient 6056:1, aged 24, heard of on April 3rd, is entered as having developed the eruption on April 1st. The date was from the report of the divisional inspector of the district in which the case was reported. I find, however, from a concurrent report of the inspector of the division in which the patient lived at the commencement of her illness that he was informed that she had been taken ill on the 25th of March, and that a rash appeared on both arms on March 29th. On the last named day (Sunday) she was sent to her mother's in East Hunslet because she was ill. Her child, aged 2, unvaccinated (6065:3) developed the papular eruption of small-pox in quarantine on the 10th of April, having probably received the infection from his mother not later than the 27th or 28th of March. The probability is therefore, unless the disease were communicated during the pre-eruptive stage, which is unlikely, that the child received the infection from the mother on the 28th. Her own eruption was probably out on that date, or the day before, the latter date (March 27th) being two days after the commencement of the initial symptoms. There is, of course, the possibility that the mother may, having received her infection on or about the 14th of March, have carried the poison in her clothes for a fortnight, infecting the child at the end of this period, but this is unlikely.

New part of table.—Patient 6065:4. This man, aged 47, was removed from the same lodging house as 6055:0, referred to on page 51 of the annual report for 1902. The latter had contracted the disease from a fellow-lodger (6035:0) who came from Derbyshire during his period of incubation. The infection was probably communicated from 6035:0 to 6055:0 on March 18th. The former patient was removed to hospital and the clothes of latter disinfected on the 20th. The latter (6055:0) was lost sight of on March 27th, and turned up at another lodging house on the 29th. From this other lodging house at which no recent case had been reported, patient 6065:4 was removed on April 11th. His eruption dates from the same day (April 11th), though he had been ill from the 7th. His infection from 6055:0 is not very clear. The illness of the latter began on March 29th, though the eruption was not noticed till April 2nd. Perhaps some of his clothes had escaped disinfection.

* * *

Patient 6067:4 was the wife of an inn-keeper. Patient 6064:1 was in the habit of going there at dinner-time from Kirkstall Forge, where he was a labourer. The probability is that some other habitue of this inn suffered from an unrecognised attack of small-pox, and infected both these patients. We were not, however, able to trace him. This patient's husband (6088:8) afterwards contracted the disease, but evidently from his wife. She had been ill from April 8th to 13th before we heard of the case. Her eruption is supposed to have come out on the 11th, possibly earlier. She was removed to the hospital on the 13th, and her husband was re-vaccinated two days later. He seems to have contracted the infection on or about the day she was removed, the inference being that if her case had been reported and she had been removed on the day of the appearance of the eruption, he might have escaped altogether. There is, of course, the possibility that his vaccination, which

was successful, delayed the development of the disease, which he may have already contracted four or five days before he was revaccinated. The man had refused to be re-vaccinated on the 13th when his wife was removed. (See also notes to 6088:7, etc.).

* * *

Patient 6068:9 was the first case reported in his house, but it turned out that his wife (6076:0) had previously had an illness with an eruption which had come out about the 13th of March, a month before we heard of her husband's case. She had probably never been successfully vaccinated, but she had some 18 marks upon the neck which she ascribed to vaccination. She had no mark of vaccination on either arm, although she stated that that was where she had been vaccinated.*

* * *

Patient 6069:9 was the joiner who measured the corpse of a woman (6052:3) whose death was certified by the coroner as from "meningitis," while 6071:0 was the woman who attended her in her illness, and laid her out. Fortunately we were on the look out for these cases, and, so far as we know, they did not lead to others. The case of patient 6052:3 was unnotified. She was an ailing woman, but she was taken violently ill on Saturday, March 28th, and died on Sunday morning. The history of the attack, and of a prodromal rash, led me to regard her case as one of malignant small-pox, and I communicated my suspicions to the Coroner, who in consequence fortunately refrained from viewing the body. The illness of the woman who laid her out on March 29th, began

* The exact copy of entry in small-pox register is as follows :—

A. Presenting a vaccination cicatrix or cicatrices.

Their number.	Their approximate area. Square inches.	Age at vaccination.
Some 18 on neck. Said to be vaccination. None on arm where vaccinated.	3 ins.	Inf.

on April 11th, eruption dated 14th (probably really 13th). The joiner's illness began on April 10th. His eruption is dated 12th. It would seem from this and other cases that infection is possible from malignant cases even where the papular eruption has not appeared.

* * *

The cases 6073:4, 6074:1, 6077:1 and 6081:2 were mixed up together in a rather curious way. There had been a wedding in the family, and the bridegroom's brother (6074:1) is said to have had a slight illness. He had assisted his brother in taking furniture from the mother-in-law's house. He was present at the wedding, and it was not until the bride's mother (6073:4) herself took ill, that our attention was called to the circumstances. Fortunately, the disease did not spread very far. The mother's case was very slight, and she had returned to work before we knew of her illness. Our suspicions were, however, aroused by information communicated to the inspector when visiting a case of diphtheria in the yard where she lived. We kept the whole of her workmates under observation for 17 days, and disinfected every article that she was known to have been in contact with at home and at work. The young couple spent their honeymoon in quarantine. The sequence of events in this family was therefore as follows:—bridegroom's brother (6074:1), Northcote Street, eruption March 11th or 12th; bride herself (6077:1), Runswick Place, eruption April 2nd, illness not discovered until after her marriage (11 days later, when she was in quarantine on account of the other cases); bride's mother (6073:4), Cooper's Court, eruption April 7th; bride's brother (6081:2), Cooper's Court, eruption April 23rd. The wedding took place on April 13th (Easter Monday), and there were present at the ceremony or in the house (Cooper's Court), 14 people, all of whom were kept under observation until 17 days afterwards. Considering the large number of marriages that took place on Easter Monday, the wonder is that there should not have been a considerable out-

break. This was the last marriage taken in the Hunslet St. Peter's Church that day, and the cushions, hassocks, etc., were disinfected by steam, but this, of course, was not until after we heard of the cases a week later. At this wedding there were, therefore, no fewer than three persons who had recently suffered from small-pox; the illness of 6081:2 was probably contracted before the wedding day. None of the remaining ten developed the disease. Two other patients, 6083:8 and 6085:0, were infected by 6073:4, but not at the wedding.

* * *

Patient 6077:6. We cannot assign any known cause to this case. The man worked for a firm of shuttlemakers in Holbeck, the same firm for whom patient 6018:7 also worked. The firm employ a good many men who sleep at various lodging houses and the probability is that this patient contracted the disease indirectly in this way.

* * *

Patients 6088:7 and 9; 6091:3, 4, and 5; 6095:1, 6101:7, and 6103:8; were all in the habit of frequenting a certain public house in the West Street area. The time at which most of their illnesses occurred would very well correspond with an infection at the inn in Kirkstall to which the three cases 6064:1, 6067:4, and 6088:8 are referred. There is a considerable distance between the "Corner Taps" and this inn, but many of these people were in the habit of taking a walk on the Sunday and calling at this public-house and it is possible that some one member of the party may have carried the infection to the others. Information of this sort, however, is very difficult to get hold of, especially some time after the event. There is, however, very little doubt that these patients suffered from a common infection.

Patient 6101:7 worked in Wellington Street at the same place as patient 6088:7, who was in company at the "Corner Taps" with 6088:9. When the common work was reported

the inspector visited the house on the afternoon of April 30th, found that the man had been re-vaccinated on the same day, ascertained that he had had backache and headache the previous Sunday (26th) but worked on Monday (27th) in the morning. On the 28th (Tuesday) spots appeared on the face. A message was left with the relatives to let the doctor know that he had been in company with small-pox patients, and the following day (May 1st) we telephoned to the doctor and were told that the patient was suffering from influenza, that the spots were acne and not the least like small-pox. On the 5th of May the doctor called and stated that the vaccination had not taken. Dr. Porter visited the patient and diagnosed small-pox. The eight days' delay is greatly to be regretted.

On the 15th of May, ten days after the removal of this patient, the small-pox eruption appeared in two of his brothers, aged 21 and 20 respectively (Nos. 6117:3 and 4). They had been re-vaccinated successfully on May 8th. Had they been re-vaccinated successfully on April 30th at the time their brother (6101:7) was re-vaccinated, they would probably not have contracted the disease at all. They would probably also have escaped if their brother's disease had been promptly diagnosed and he had been sent into hospital the day that our inspector called.

Possibly, indirectly also, the man 6119:6 contracted the disease from his housekeeper (6103:8) who had been with him at the "Corner Taps" on April 18th. Her eruption appeared on May 2nd. We did not hear of her illness until the 6th and he was not re-vaccinated until the 8th, that is, six days after contact with patient in eruptive stage of the disease.

Patient 6119:7 probably also received infection from her neighbour, 6103:8. She was re-vaccinated successfully on May 13th and developed the eruption on the 16th, pointing

to contact with the infected person also about the 2nd of May. When the illness of patient 6103:8 was reported to us on the 6th of May, this woman (6119:7) was questioned as to contact with her neighbour and denied having been in the house at all. Re-vaccination was consequently not pressed at the time nor were her clothes disinfected. On further enquiry from her neighbours it was ascertained that on the 2nd of May she was actually in the house, helping to nurse patient 6103:8. On the 13th of May she was persuaded to be re-vaccinated. This, of course, was too late to prevent the disease. Her eruption, as already said, appeared on the 16th, on which date she was removed to hospital. Her husband (6126:7) who had also been vaccinated successfully on the 13th of May, developed the eruption of small-pox on the 21st, having possibly contracted the disease from his wife's undisinfected clothing about the 7th of May. As, however, he had actually been in his neighbour's house on the 5th and 6th of May, before she was removed, his case may possibly be one of prolonged incubation owing to vaccination on the 13th.

* * *

Patient 6098:9 was the chairman of a trade society, and probably came in contact with a good many "out-of-works."

* * *

Patient 6099:2 is one of a group. Our attention was directed to the group first by Dr. Porter's meeting in the street an errand boy employed by a parcels delivery company, and noticing that he had small-pox. Further examination confirmed the diagnosis. The boy was sent to hospital, the lower office disinfected, and the parcels, which the boy had been actually delivering, followed to their destination in various parts of England and Wales, and the wrappers destroyed. It turned out that the boy had been away from work for several days. On visiting his home (he lived with his grandmother) another patient (6101:8), an uncle, was found

to be ill. His case proved fatal. Although the boy lived with his grandmother in Neville Street, his parents lived in Holbeck, and he took his meals with them. It was later ascertained that one of this boy's brothers (6101:6) had suffered from an illness resembling small-pox, the eruption appearing, it is said, on April 18th, though from the history of the initial attack, it might probably have been seen a day earlier if it had been looked for. The errand boy began to be ill on April 29th. His eruption appeared on May 1st, thirteen days after his brother's rash. This brother (6101:6), a boy of 9, had been at home from April 9th to May 4th. April 10th was Good Friday, so that the illness developed after the Easter holidays, but before he went back to school. The errand boy (6099:2) seems to have carried the infection to his uncle at the grandmother's. The uncle developed the eruption on May 4th. Another case (6134:9) was attributable to this errand boy. The patient was one of the senior clerks in the office, who had refused to be re-vaccinated or have his clothes disinfected, on the ground that he worked upstairs and the boy downstairs, and that the boy never went into his room. With the exception of a neighbour (6104:6) we have no proof that any further case occurred from this outbreak. The group, therefore, so far as we know, consisted of five cases, which, re-arranged in order of attack, are as follows:—

- 6101:6 E. 17th April or 18th, probably the former.
 6099:2 E. 1st May, probably infected directly from his brother on Friday, 17th April.
 6101:8 E. 4th May, probably infected on Monday, 20th April, possibly indirectly from the working clothes of his nephew.
 6104:6 E. 4th May, next door neighbour to 6101:6; probably infected on Monday, 20th April, by direct contact.
 6134:9 E. 23rd May, probably infected Saturday, 9th May, at office.

The long period before attack in the last case is a little difficult to account for. The lower office was disinfected on the 4th of May (Monday), but patient 6134:9 refused to allow his books and papers upstairs to be interfered with, and

his own clothes were not disinfected. He seemed to labour under the impression that a boy whose business was downstairs could not possibly get upstairs. This delusion is perhaps due to the fact that he had no boys of his own.

* * *

The patient 6112:8 was a carter, out of work at the time of his illness. His eruption was dated May 9th, and it was ascertained that from the 16th to the 30th of April he was travelling about the neighbouring villages and towns with swing boats, and attending fairs. His exact whereabouts on the 25th April, the probable date of infection, we were not able to ascertain. He was not in Leeds on that date.

* * *

The case 6114:8 is another instance of the importance of disinfecting clothing at a lodging house. Patient 6070:3 was taken ill on the 13th of April; the eruption is said to have appeared on the 15th. Soon after midnight on the 15th we heard of his case and disinfected the clothes of all the lodgers (22) in the house, as well as the bedding of those in the same room (6). It turned out, however, afterwards, that the man (6114:8) had deliberately kept out of the way of our inspector. He was acting as deputy; his name was consequently not on the roll of lodgers and the probability is that he kept the poison in his own clothes, possibly bringing some infected articles out about a fortnight after the scare. Of course it is also possible that some other passing lodger may have infected him, but in the light of the cases mentioned in my last report (Annual 1902, pp. 62, 63, and 64), I attach some importance to the theory of fomites. After the removal of patient 6070:3 on the 16th of April, and the disinfection by steam, as already said, of the clothing of all the lodgers and of the six beds in the same room where he slept, the house was visited until May 2nd, the registers examined and every lodger seen daily. During this period of special inspection nine fresh inmates

came into the house, one from a street on the Bank, one from a lodging house in Hunslet Lane, another from a private house in York Street, two from a "Model" lodging house in Halifax, two from a canal boat, one from a van in Bramley, and another from a lodging house in Marsh Lane. Of these all, except the last two, had left before the 2nd of May. After that date, though the house was visited daily, the register was not so frequently examined, but by reference since it has been ascertained that, between the 2nd of May and the 13th, only three fresh lodgers were admitted—two from the lodging house in Marsh Lane and one of the two boatmen, who had been in the meantime to Bradford. The man from Hunslet Lane lodging-house was in this East Street lodging house on the nights of the 20th and 21st, leaving on the morning of the 22nd, for his old quarters in Hunslet Lane. He had been in the Hunslet Lane house on April 4th, when the patient 6056:0 was removed. His clothes had been disinfected on that occasion, along with those of the other inmates, and the house had been specially visited for seventeen days after that disinfection and daily afterwards. No other case occurred in that house until May 29th (see note to 6139:1).

Special enquiry was made as to all the new lodgers who came into the East Street house during these 17 days of special importance, and in no case was there reason to suppose that any of them had been in contact with small-pox. We are therefore thrown back upon the supposition that it was the undisinfected clothes or possessions of the deputy (6114:8) himself that were the cause of his own attack and the subsequent ones.

Cases 6116:4, 6117:5, 6120:9, 6123:7, probably were all infected from the undisinfected property of 6114:8. Cases 6140:0 and 6141:5 are also referable to this common lodging house, and probably received infection from 6123:7. This man had

returned to the lodging house ill on the 16th. On the 17th and 18th he was refused a bed, though allowed to hang about the place. We had something to say to the keeper about this matter. A further case from this lodging house was removed on June 8th. This patient (6152:7) probably contracted the disease about the 25th of May. On May 30th, when two cases (6140:0 and 6141:5) were reported and removed from the lodging house in which he was staying, he was the only one of the 19 inmates who refused re-vaccination, and the only one of the 19 who developed the disease, the others having been kept under observation until June 26th. It may be a coincidence that the next patient in table 8 (6152:8) developed his eruption the same day. It is, of course, possible that 6152:7 may have come in contact on the 25th of May at some other lodging house with the person who gave the infection to 6152:8. The infecting person in the latter case we suspect to have been patient 6139:1.

These cases are placed in order below:—

6070:3.	E.	April 15th-16th.	Hosp. April 16th.	Clothes of all inmates but 6114:8 disinfected, and bedding in same room.
6114:8.	E.	May 12th-13th.	Hosp. May 13th.	Clothes of all inmates disinfected, also bedding in same room.
6116:4.	E.	May 13th.	Hosp. May 14th.	Isolated 13th in house, his bedding only disinfected.
6117:5.	E.	May 15th.	Hosp. May 15th.	Isolated Somerset Street, 14th, his bedding only disinfected.
6120:9.	E.	May 17th.	Hosp. May 18th.	Isolated 17th in house, his bedding only disinfected.
6123:7.	E.	May 17th.	Hosp. May 19th.	Clothes of all inmates and his bedding disinfected.
6140:0.	E.	May 30th.	Hosp. May 30th.	Bedding of patients disinfected. Dr. Hopkins re-vaccinated 18 inmates, 30th.
6141:5.	E.	May 30th.	Hosp. May 30th.	
6152:7.	E.	June 8th.	Hosp. June 8th.	Isolated in house, 7th (not re-vaccinated on 30th), only his bedding disinfected. Possibly infected elsewhere, v. 6139:1.

* * *

Patient 6117:1 delivered potatoes for firms in the market to various parts of the town. Amongst other places, he was in the habit of taking potatoes to the fried fish shop at which

patient 6110:1 worked. The interval is too short for him to have received infection from the girl after she took ill, but it is not impossible that one of them may have carried the infection *per fomites* to the other.

* * *

Patient 6117:6. The source of infection here is rather difficult to trace. The house was visited on the 23rd of April and enquiry made on account of two cases of smallpox (6080:1 and 2) having occurred in a house at which this woman had been visiting. This visiting, on account of contact, was continued up to May 9th. On that date she had sore throat and hoarseness but was not sufficiently ill to send for a medical man until the 13th. The eruption came out on the 15th and the case went through the ordinary course of smallpox. On the 30th of April a child, who had been isolated from the 22nd to the 30th at our temporary shelter in Camp Road, went to stay at this house. The child's parents (6080:1 and 2) were in hospital for small-pox. Her own clothes were disinfected before she was sent to Camp Road, but not again on her going, eight days later, to stay with this friend. There was, however, no suspicion at the time that any person at Camp Road was actually suffering from smallpox, the practice being only to take cases there during the first week after contact and let them return home, or, if the infection had been prolonged, send them to the Manston isolation cottages at the end of that period. The Camp Road house was a temporary shelter during disinfection of the dwelling, not a quarantine station. Certainly one case, that of the bride (6077:1) mentioned on p. 69, went to Camp Road and was afterwards found, on examination, to have suffered from a slight attack of smallpox. She was in the shelter from April 18th to April 20th, was removed the same day, and the clothes of all the persons in the house and all the bedding were disinfected. This was before the arrival of the child at the shelter, and the probability is that the visit of this child had

nothing to do with the illness, but the circumstances are worth putting upon the notes. It is also upon our notes that this woman (6117:6) had refused re-vaccination on the 23rd, the day after her friends (6080:1 and 2) were removed to hospital. One of the children of these people had visited the house (of 6117:6) on April 21st and 22nd. Clothing to the extent of 38 articles was removed from this house and disinfected by steam on April 23rd. On April 30th the three children (of 6080:1 and 2) were brought from Camp Road, and one of them as already stated, stayed with patient 6117:6 until May 12th. It was found, afterwards, that this woman (6117:6) had taken some clothing to wash from the infected house (of 6080:1 and 2) after the house had been disinfected. This clothing, which had been removed to the disinfecting station and returned after steaming, was obtained by her on May 1st. The key of the house (of 6080:1 and 2) was left at this woman's house when the disinfection and cleansing had been completed. The probability is that she contracted the disease about the 1st of May, that is, the date on which the disinfected clothes were taken by her to wash. It is not a pleasant thought that these clothes may have been imperfectly disinfected at our station.

* * *

Patient 6120:0, a railway porter, told us that about a fortnight before his attack he was stopped on the road home by two tramps, from whom he bought some boot laces. He was not working at the same station as 6106:3.

* * *

Patient 6123:2. As to this woman the statements given us were conflicting. The illness occurred at a Leeds hotel, and we were told that the patient had stayed at Ingester Buildings, Golden Square, and at Wharton Street, London, from May 2nd to 11th, going backwards and forwards from one to the other. Enquiries in London did not support the statement, and a further statement was made at the hospital that the patient was in Leeds from the 3rd to the 7th of

May. It is, of course, quite possible that in some of the many railway journeys, made along with her husband, who is a traveller, she may have come in contact with some convalescent or unrecognised case of small-pox. We were unable to trace a connection with any known case in Leeds.

* * *

Patient 6123:5. This case probably gave rise to two others. On the 18th of May, a girl of 18 (6121:2) was reported to us as suffering from small-pox in a house of three bedrooms, in the North-East Ward. She was removed to hospital the same day. On the following day it was found that her brother (6123:4) was also suffering from small-pox, and that his eruption had appeared about the 8th of May, and that another sister (6123:5) also showed signs of having had an attack, her eruption dating back to about the 26th of April. From the 26th of April to the 18th of May (22 days) this house, therefore, was a source of infection. Both of the earlier cases had been treated from the commencement by a herbalist, who assured the patients that they were not suffering from small-pox. It was exceedingly difficult, of course, at such a remote period to trace the origin of the first of these cases. The second and third we have no difficulty about. The exact origin of the earlier case (6123:5) was not ascertained at the time, but it is a singular coincidence that two other cases (6065:1 and 2) should have occurred about a fortnight before her illness in a neighbouring street. As the first person attacked (6123:1) in the first mentioned group was the mother of the family, it is possible that she may have been at the same shop as the wife and mother of the two patients (6065:1 and 2), who were not removed until the 11th of April. The incubation from April 11th to April 26th is a day longer than the usual period, but if the infection were, as we suppose, by fomites the contact might have been even earlier than the 11th, and the infection harboured in garments.

* * *

Patients 6126:4 and 6141:1. If the dates of eruption (May 30th) in the woman's case (6141:1) and 19th in that of her daughter (6126:4), are correct, the one case was probably not due to the other, but as the girl began to be ill on the 15th it is possible that her eruption might have been seen on the 17th if anyone had cared to look for it. Even then the period is a little short. The 30th is the date given us from the hospital as that of the eruption in the mother, and the 29th is that given in the vaccination book. If the latter be correct the incubation period is even shorter if the woman really got the infection from her daughter. There is, of course, the possibility that the eruption on the 29th was a prodromal rash. The influence of vaccination must also be kept in mind. It is possible that this sometimes retards, sometimes accelerates the initial symptoms according to the phase.

* * *

Patient 6127:9. Here the infection is not easy to trace. The patient's father, however, frequented the "Crooked Billet" public-house, and another patient (6137:6) living near, frequented the same house, and his illness commenced about two days later, pointing to the possibility of a common infection in the tap room. The patient himself (6127:9), a lad of 18, and his father, lived in Red Lion Yard. His nearest house of call is the "Red Lion." The charwoman at the "Red Lion" is the wife of the patient already mentioned (6137:6). This is a second fact consistent with the hypothesis of a common infection.

* * *

Patient 6138:3. The house in which this patient took ill is in East Street. The family themselves took in lodgers and the house next door is the one from which 6114:8, 6116:4, 6117:5, 6120:9, and 6123:7 were removed.* The eruptions in these cases were noticed—two on the 13th, one on the 15th, and two on the 17th of May respectively. It is probable that the inmates of the two houses mingled frequently.

* See note to 6114:8.

* * *

Patient 6139:1 lived for about three months in a lodging house in Hunslet Lane. We had heard of no case at that lodging house for some time, but the patient was known to frequent the "Wellington Inn" and "Old George Inn," Meadow Lane, to which lodgers resorted from other lodging houses in which cases had occurred recently. His eruption was stated to have been first seen on the 28th of May. It is probable however, as he seems to have suffered from shivering on the 23rd, followed by headache, that the eruption might have been seen on the 25th if looked for, and it has been so entered in the table.

This man's case possibly led to that of 6152:7, already mentioned in notes to 6114:8, and probably to that of 6152:8 whose shivering took place on the 6th of June, the fifteenth day from the shivering in 6139:1. This man (6152:8) was isolated as far as possible on the premises on the afternoon of the 7th, and his eruption seen in papular stage by Dr. Porter on the forenoon of the 8th.

It is probable that patient 6174:4 contracted the disease from this last mentioned patient (6152:8). The two men were in the same lodging house and, as just said, contact theoretically ceased on the 7th of June. Patient 6174:4 had his shivering on the 18th, and headache on the 21st, but the eruption was not seen until the 22nd. From the 8th of June to the 22nd is, of course, the legitimate 14 days interval. On the other hand as the eruption generally appears on the third day of the illness, which would in this case be the 20th, and as the last contact, so far as is known, with the previous patient (6152:8) was the 7th that would leave only 13 days interval which, though shorter than usual, is still within the limits of variation. As, however, the bed and room in which patient 6152:8 slept on the 6th was not disinfected till the 8th they may have conveyed the infection to 6174:4 on that date, but in that case their infectivity must have been acquired during the initial stage of the second patient's illness, which again is unlikely.

On the 6th of July, another patient (6196:1), who had been in this same lodging house from the 18th to the 27th of June, including, therefore, the period (18th to 22nd), when patient 6174:4 was ill, was reported from another lodging house in the same district. He had headache, backache, shivering, pains in the limbs, and sickness on the 30th of June. The rash was seen on the 3rd of July, possibly it should have been seen on the 2nd. These dates would correspond to infection on the 18th or 19th of June, and the incubation period here also seems to have been shorter than 14 days. From the 20th, when the eruption of the last named case (6174:4) probably should have appeared, to the 2nd of July is only twelve days, and to the 3rd, thirteen days.

The facts are put in tabular form below:—

6139:1.	E.	May 25th-28th.	Hosp. May 29th.	Clothes of all lodgers and 7 beds in same room disinfected.
6152:8.	E.	June 8th.	Hosp. June 8th.	Isolated in house, 7th, bedding only disinfected.
6174:4.	E.	June 20th-22nd.	Hosp. June 22nd.	Six beds and all other lodgers' clothes disinfected.
6196:1.	E.	July 2nd-3rd.	Hosp. July 6th.	Attacked 5 days after leaving Hunslet Lane.

* * *

Patients 6142:1 and 2. The father of these patients is the brother of the girl (6082:2) at the "New Inn," Meanwood Road. There had been a great deal of going backwards and forwards between the house of these patients and the girl's home in Hunslet, and it is possible that furniture and clothing at these two houses had become infected, as the aunt, the "New Inn" girl, had been some eight days ill before her case was heard of. Indirect infection of this sort is often delayed.

* * *

Patient 6147:8. This woman is known to have been at the house of patient 6141:4 on the 14th day before her own eruption broke out. The latter patient probably received the

infection from her husband who worked at the same place at patient 6121:4. The two women apparently contracted the disease within a few days of one another, probably both from indirect infection through the clothes of the husband of 6141:4.

* * *

Patient 6149:5 visited the house (in the Headingley Ward), where 6121:6 was ill, on the 18th of May, the day that we first heard of and removed that case; the eruption being at that time at least five days old. Patient seems to have communicated the disease to her daughter (6159:8). The incubation in the mother's case is short if the date of her visit (18th) to the child (6121:6) be correct, but it is not improbable that she was also there earlier, and the child's eruption we know was out on the 13th. It is probable that the mother's eruption is correctly dated (the 29th), as her daughter (6159:8), a child not successfully vaccinated, developed her eruption on the 12th of June, exactly 14 days later, the ordinary incubation period.

* * *

Patient 6149:8 was an insurance agent. His was the only case notified during life not sent to hospital.* The patient himself was said not to have been vaccinated. His wife, his two children and his servant had been previously vaccinated, and were re-vaccinated on the 2nd of June. His two younger children, aged 16 and 14 respectively, were vaccinated for the first time on the same day. It is probably due to the prompt and successful vaccination and re-vaccination of the other members of the family, as well as to the careful and early isolation, that the disease did not spread. The patient is supposed to have contracted his illness when away from home at a neighbouring seaport, amongst foreigners.

* One other case heard of during life (6084:1) was convalescent when discovered. He went to the cottages on account of his daughter's illness (6077:7), and was detained there until free from infectivity.

* * *

Patients 6149:9, 6152:9, and 6154:5 were all brothers, living in the same house in Cancel Street. The first reported, aged 14, is said to have been ill from the 28th of May, and though we have dated his eruption the 2nd of June it was probably earlier. When his two brothers, aged 22 and 18 respectively, were taken to the cottages on June 6th, they were both found to be suffering from small-pox. The eruption in the case 6152:9 is put down as the 30th of May, but, as he confessedly had malaise on the 26th, it was probably earlier. In case 6154:5 the illness is said to have commenced on June 4th, and the eruption to have come out on the 6th, the day he was taken to the cottages. The boy who was first reported was a screw maker at Hudswell, Clarke & Co.'s, the middle case was that of a man out of work, the boy of 18 was a striker at Fowler's, the father who did not appear to have been ill, was a puddler at Taylor's, and the younger boy, aged 16, was a striker at Kitson's. There is a convenient public house close to their home, at the corner of Grape Street and Jack Lane, much frequented by mechanics. The occupier of this beerhouse was the patient 6148:0, whose eruption appeared on June 4th. This family of mechanics was a somewhat large one. In addition to those already mentioned and the mother, there were three younger children, all attending the Hunslet Lane Board School, one in the Infants' Department, the other two in Standard I. and Standard III. of the Mixed School. At the same school and at the same time, four other children were attending from a house in Hall's Court. A girl, aged 13 (6126:4) was in the Third Standard in the Mixed School. She suffered from headache about the 15th of May, and the eruption of small-pox is dated the 19th, but she was not removed to hospital until the 21st. She was herself last at school on the afternoon of Friday, May 15th. Her two sisters in the Second and Fourth Standards of the same school, and her two brothers respectively in the First and in the Infants' Department, continued to attend until

noon on the 18th. If the real date of the eruption was the 17th—the third day of the girl's illness—it is quite possible that the other children may have communicated the infection through their clothes to the children at Cancel Street, but this means a very indirect infection, viz:—from the person of the girl to the clothes of her brothers and sisters, from the clothes of the brothers and sisters to the clothes of the Cancel Street children, and from their clothes to the persons of their three brothers. The period of time fits in, but this may, of course, be simply a coincidence. We have not, however, put this down in the table as the ascertained, or even the probable, cause of the infection. Authenticated cases have really occurred in which well-vaccinated persons, themselves immune to small-pox, have carried the disease to third parties, but this case would be still more remote. We are not aware if the children from Hall's Court visited their schoolmates in Cancel Street.

* * *

Patient 6156:2 was heard of in the following way. A lodger (6156:1) took ill on the 6th of June and developed the eruption on the 8th. On the 10th he was seen at the Infirmary and afterwards by Dr. Porter, when it was discovered that two other cases existed in the house where he lodged, one of them, the housewife 6156:2, having had the eruption from about the 18th of May, and the other, her daughter (6156:3), on the 1st of June. Both the lodger and young woman had thus apparently contracted the disease from the first of the two unrecognised cases, the girl's mother 6156:2. We were never able to trace the origin of her case. One of the two subsequent cases (6156:3) worked in a factory. We had a good deal of trouble in collecting articles of clothing that had been sent out and getting them disinfected. This, there is reason to think, we did effectively. We disinfected, altogether, in connection with this case two skips and two hampers, containing nearly 1,000 suits, and about 600 other articles, chiefly clothing.

* * *

Patient 6157:5 seems to have been the first case in the house. His illness was first heard of on the 11th of June, but his eruption probably appeared on the 16th of May. Quite a cluster of cases seem to owe their origin to this patient. He was a man of 25, employed at a boot factory at Stoney Rock and living in a house in Holbeck to which a shop was attached. There were six rooms in the house, including the shop, and a family of five. Everyone of them took the disease. Fortunately all recovered. The charwoman (6145:0) who worked for them and lived in a neighbouring street also took ill, and the charwoman who supplied her place (6168:8) also contracted the disease. The case was an example of the mischief that a single unnotified case may do. There were thus six cases in which the infection was unmistakably due to this young man's unreported case. His eruption, as already said, appeared on the 16th or 18th of May, and it was not until the 11th of June when his mother developed the disease that we heard anything about his illness. How it was contracted we do not know. In addition to the six, who clearly received their infection directly from 6157:5,—namely: 6145:0 (E., June 2nd), the usual charwoman; 6156:4, his brother (E., May 30th); 6157:6, his mother (E., June 11th); 6167:3, another brother (E., June 17th); 6168:8, a temporary charwoman (E., June 17th), and 6169:2, another brother (E., June 17th), who developed the disease in quarantine,—there was another and neighbouring family, consisting of three, who all developed the disease, and we think, probably, contracted it from the first named family. The first of the second family who developed it was Randall, a boy of 10 (6145:8), who had never been vaccinated. His eruption appeared on the 31st of May. His brother, Albert (6157:7), had an eruption on the 11th of June, and his mother, Annie, (6159:7) on the 12th. It is probable that this family were customers at the shop kept by the first family.

The same source of infection, and in the same manner, probably accounts for the two cases in another house in the

same street as the shop. George, aged 31 (6157:4), and Margaret, aged 25 (6157:3), husband and wife, developed the eruption on the 9th and 10th of June, respectively. They were heard of and removed on the 11th, the same day as the mother at the shop. There was a little boy aged 4, who had been vaccinated and escaped.

There was also a fourth family, consisting of five members of whom three developed the disease, who may have been infected indirectly from these shop-keepers. They lived in a court off Moore Street, some third of a mile from the shop, and it is probable that the first patient attacked, a boy of nine (6157:2), who was a playmate of the boy Randall (6145:8), may have been with him to the shop and retained the infection in his clothes. Randall's eruption appeared on the 31st of May, his playmate's on June 2nd, the same day on which the charwoman's eruption appeared. The shop lay not exactly between the caravan where Randall lived, and the yard in Moore Street where his playmate lived, but not much out of the way. These boys, who were about the same age, attended the same school, and neither of them had ever been successfully vaccinated. Randall had never been vaccinated at all, his playmate had been vaccinated in infancy, but unsuccessfully. This boy (6157:2), was taken ill on the 2nd of June, and moved to hospital on the 11th. His brother, Charles (6165:3), developed the eruption on the 16th in quarantine, and his father, Albert (6169:1), aged 45, two days later, also in quarantine.

The remaining, and if we are right in our suppositions, the fifteenth, case which was probably due to this concealed or at least unrecognised case, was that of a woman (6170:7) living in Chandos Street, who went to the shop and is known to have been there on June 9th, and is said by her husband to have been there frequently. There were only three members in this family, the woman herself, the patient, æt. 24, her husband, æt. 23, and a boy of four. Both the latter had been

vaccinated and did not contract the disease. Fortunately this patient had been removed the very day of her eruption.

A sixteenth case was referable to infection from the boy (6157:2). Patient 6185:3 had the boy (6157:2) in her house and put some ointment on his spotted face on the 10th of June. On the 26th she had her own eruption.

* * *

Patients 6169:3 and 4. These two cases were brother and sister of patient 6120:8, hospitalled on the 18th of May. They both visited Killingbeck hospital on June 2nd. Although the information given to the Medical Superintendent was that they did not come within 650 feet of the hospital—the distance of the porter's cabin and the wall bounding the north side of Tadcaster Road—there is always the possibility where temporary buildings exist, that some of the patients may have come somewhat nearer to the boundary, or that the visitors themselves may even, unknown to the authorities, have wandered further into the grounds.* One of the dates of visit, given to the inspector in the first instance by the husband of the young woman (6169:4) would exactly correspond with the incubation period of their attack. Patient 6172:5 was the husband of patient 6169:4. That his illness should have commenced four days after hers, suggests conveyance of the infection *per fomites*. Patient 6172:8 was the son of patients 6169:4 and 6172:5. His eruption also appeared on June 20th.

* * *

Patients 6174:8 and 6175:0, although living in different wards, were in business in Dyer Street, next door to one another, nearly opposite the large lodging house. Though we knew of no case in that lodging house at the time there were cases in

*The statement made by the man 6172:5 to the inspector was that he and his wife went to see his wife's brother on Whit-Sunday (May 31st), that they went up to Foundry Lane and through the field as far as the fence, and that the patient (6120:8) met them there, and that, accompanied by another brother afterwards a patient (6169:3), they again went on the Tuesday, June 2nd, and again got into the grounds and saw the patient at the railings. This statement was made to Inspector Carter by the man when he was in quarantine at Somerset Street, after his wife and brother-in-law had been removed to the hospital.

lodging houses in Duke Street (6150:6), East Street (6152:7), and Hunslet Lane (6152:8), and there was a good deal of community of interest and a certain amount of intercourse between some of these people and those in the larger lodging house in Dyer Street. Though we cannot say exactly whence the infection came, the disease seems to have been incurred in both cases about the same date and about the time the cases mentioned were capable of conveying the infection.

* * *

Patients 6176:0 and 6178:7 were respectively the son and the servant of the caretaker at one of our shelters. Neither of them had been re-vaccinated. They were not supposed to be exposed to infection, but as people were occasionally brought there and had to undress for their clothes to be disinfected there was, of course, a possibility of this.

* * *

Patient 6180:7 delivered malt at various public-houses, amongst others at one in East Street, probably frequented by people from the lodging house mentioned under 6114:8.

* * *

Patients 6182:6 and 7, and 6200:9. The first and second of these cases occurred at a house in the West ward. The patients were not brothers, and other men are said to have frequently visited the house. With this class of people it is almost impossible to find out who had been there. The third patient was the child of the woman with whom the second patient was living. He had never been vaccinated and apparently contracted the disease from 6182:6. Possibly the infection may have reached the house from other visitors. There was frequent communication with that in which 6206:0 lived, which bore a similar bad character. The child's case was one of semi-confluent small-pox. He had, however, sustained a burn in the temporary shelter to which he was taken. This, however, was not entered in the death return as any part of the cause of death.

In addition to the cases already mentioned, it is probable that some other cases were directly infected from this house

or the neighbouring one. The cases are as follows:—6222:5 probably indirectly (see note to case); 6218:9 probably from intercourse with the people in the house; and from the latter 6232:8 (see note) and 6232:9 (see note) probably directly. Patient 6235:0 also probably derived her infection from the same group through 6218:9 (see note) as did also patient 6238:3 (see note).

Patient 6206:0. This case is referred to that of his companion (6182:6), and was the cause of at least four other cases in his own house, 6221:4 and 5, 6222:3 and 4. The group to which he belonged is probably also responsible for the infection of 6218:9 referred to in notes to 6232:8 and 9, later on. It is also probable that patient 6222:5 received his infection indirectly from this group. The suggestive circumstances are given in note to his case. There is also strong reason to believe that patient 6235:0 contracted the disease from the man 6218:9, one of this group. Circumstances detailed in note to her case. Case 6238:3 (see note) is also referable through 6218:9 to this group. It is perhaps as well to tabulate these possibly connected cases.

6182:6	E.	June 26th	Hosp. June 28th)	? From visitors.
6182:7	E.	June 27th	Hosp. June 28th)	
6200:9*	E.	July 8th	Hosp. July 8th	? From brother 6182:6.
6206:0	E.	July 11th	Hosp. July 13th	From companion 6182:6.
6218:9	E.	July 21st	Hosp. July 22nd	<i>Per fomites</i> from 6182:6 or 7.
6221:4*	E.	July 24th	Hosp. July 24th)	{ From son 6206:0. { From brother 6206:0. { From son 6206:0. { From brother 6206:0.
6221:5*	E.	July 23rd	Hosp. July 24th)	
6222:3*	E.	July 24th	Hosp. July 25th)	
6222:4*	E.	July 25th	Hosp. July 25th)	
6222:5†	E.	July 25th	Hosp. July 25th	? From 6206:0 or other of group.
6232:8	E.	Aug. 1st	Hosp. Aug. 4th	? From 6218:9.
6232:9	E.	Aug. 3rd	Hosp. Aug. 4th	From 6218:9 (fellow-lodger).
6235:2	E.	Aug. 3rd	Hosp. Aug. 6th	From 6218:9.
6235:0	E.	Aug. 2-4th	Hosp. Aug. 7th	? From 6218:9.
6238:3	E.	Aug. 5-7th	Hosp. Aug. 9th	? From 6218:9 <i>per fomites</i> .
6250:5*	E.	Aug. 19th	Hosp. Aug. 19th	From sister 6235:2.
6258:1	E.	Aug. 22-25th	Hosp. Aug. 26th	? From 6235:2.

* Symptoms developed in quarantine. Did not give rise to any others.

† To 6222:5 are possibly attributable the group of twelve mentioned in the note to 6254:9 below.

* * *

Patient 6186:4. The case of this woman was reported in the ordinary way through the medical attendant. She had headache on the 27th, backache on the 28th, and the eruption is said to have appeared on the 30th, the day of report and removal. She was seen by the medical superintendent before admission. On enquiry it was found that she had, at various times during the preceding 14 days, visited a house where several cases of chicken-pox were said to exist. This house was visited by Dr. Porter and myself but we were not of opinion that any of the cases were cases of small-pox.

* * *

Patients 6196:9 and 0 were a married couple. The wife was confined on June 27th. She had four other children, aged 2, 4, 7 and 9, all previously vaccinated. Her husband was a miner at Waterloo Main. His eruption is dated the 30th of June. He had shivering, headache, and backache on the 28th. The wife's eruption is said to have come out on the 2nd of July. This would suggest a possible difference of two days in the dates of infection. The probability is that the man came in contact outside the house with the small-pox poison, and that his wife contracted the disease *per fomites*. The pit at which he worked, though inside the city, draws a good many miners from outside.

* * *

Patient 6211:3 was at a lovefeast at Stanley on the 2nd of July, the probable date of infection.

* * *

Patient 6215:1 was a shoeblack living in a lodging house in Lisbon Street, and working near the Kirkgate Market. He stayed at the Lisbon Street lodging house on 1st, 2nd, 3rd, 6th and 7th of July, and from the 10th to the 20th, the date he was taken to the hospital. His illness is said to have commenced on the 15th of July with shivering and backache, and on the 17th he had an eruption. If these dates be correct he was probably in Leeds on the 3rd, which would be the

natural date of infection, but on the 4th and 5th he was away from his lodging house. We know that he was at Pontefract races on the 8th and 9th, and also that there was a race meeting at Manchester on the 4th which he may possibly have attended. The clothes of 50 lodgers in the house from which this man was taken were removed for disinfection, and 24 of the 50 consented to be re-vaccinated. Eleven were not to be got hold of in any way and did not return to the lodging house. On the 4th of August, one of the men (6233:9) not re-vaccinated, who had remained in the house and whose clothes had been disinfected, had headache, backache, and vomiting, and the next day an eruption. As the first case was removed on the 20th, the interval, 16 days, is rather long. On the second occasion the clothes of 45 lodgers were disinfected, the rooms and bedding, as on former occasions, stoved, and four other men re-vaccinated. We had no further case in this lodging house.

* * *

Patient 6215:6. This girl had sickness, headache, and backache on the 18th of July, shivering on the 19th, and woke on the morning of the 20th with eruption on her face. The girl, along with a friend had visited the Bank portion of the East ward on July 5th, and with the same friend had the day before visited the Leeds fair.

* * *

Patient 6222:5. The origin of this patient's illness is not quite clear. The man was a cloth finisher in Wellington Street, lived off Kirkstall Road, admits having frequented the Albion Inn, where possibly he may have met some of the members of the 6182:6 group, perhaps 6206:0 (E. July 11th, hosp. 13th), the date of whose infectivity would correspond.

* * *

Patient 6230:4. This case is also one difficult to trace. The woman is said to have had shivering, headache, backache, and pain in the limbs on the 26th vomiting on the 28th, and

eruption on the 29th of July. The initial symptoms would point to the 28th as the probable date of the eruption, and the 14th as the probable date of infection. The husband was a hammer driver at a forge at which the husband of case 6212:0 also worked. That woman's illness commenced on the 11th of July, the eruption came out on the 13th, but she was not heard of until the 17th. There was ample time, therefore, for the conveyance of infection *per fomites*. The earlier of the two cases it will be remembered was a severe and fatal one. That the dates to some extent correspond is shown by the fact that the very next case on the list (6231:9) was the son of the patient 6212:0.

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The infection in patient 6232:8 is interesting. He lived at a public house in the South Ward, kept by his mother-in-law. His breakfast was brought by the patient 6218:9, living in a neighbouring lodging-house. The exact date of eruption in the latter patient (6218:9) is not known. It is given as the 21st of July. He presented himself at the surgery of a practitioner on the morning of the 22nd, and was at once sent into hospital. It is probable, therefore, that the eruption was a few days old. In any case this man was probably infective, whether from his own person or from his clothes, at least as early as the 20th, for at another place that he visited, an unvaccinated child (6235:2), was taken ill on the 1st of August, and the eruption was noticed on the 3rd.

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The next case (6232:9) was an inmate of the same lodging house as 6218:9 during the critical days, 18th, 19th, 20th, and 21st of July, and then left for Dewsbury, returning to another part of Leeds under a different name, on July 31st. He developed the disease on the following day, having shivering; had headache and backache on the 2nd, and eruption on the 3rd of August.

* * *

Patient 6235:0. The origin of this case is somewhat doubtful. Patient lived in a street near to the unvaccinated

child (6235:2). The patient 6218:9 was working at the re-paving of the street where this child lived, left his tools in the mother's house, and it is thought possible that patient 6235:0 may also have been in contact with him.

* * *

Patient 6238:3 (E. Aug. 7th) is another case pretty clearly due to patient 6218:9 (E. July 21st, hosp. 22nd). He was working with him at the paving work already mentioned at the time he had been removed. The cause is entered with a query, but there does not seem to be very much doubt as to the origin. The earlier case was not hospitalled till July 22nd. The infection of 6238:3 must have been communicated through his own clothes, accounting for apparently prolonged incubation.

* * *

Patient 6253:9 is one whose case is difficult to trace. If the dates given us are right she must have received the infection about the 24th of July, although we heard nothing about her illness until the 23rd of August. Curiously enough, with the single exception of the case 6222:5, all the cases known to have been in an infectious condition about the 24th of July were in quarantine. The last patients taken from home were on the 20th and 22nd of July, and with the exception just mentioned no other case was removed from home until the 1st of August. The six other cases that occurred were isolated at the cottages at Manston (Seacroft). Patient 6253:9 lived in the East ward.

The case excepted (6222:5) was that of a man living in the West ward. He worked as a cloth finisher in Wellington Street, and he was reported and removed the day of his eruption. The husband of 6253:9 was a presser in a clothing factory, and his wife (6253:9) held a similar position in another. No case is known to have occurred in either of these factories, and unless the husband was, unknown to us, a pal of patient 6222:5, we are quite at a loss to account for the wife's illness. (See note to 6222:5 above).

* * *

Patient 6254:9. This was the first case heard of, of a group of twelve. Seventeen days before the date that this case was reported, a member (6261:5), of a party of nine, who had gone a week before (the Friday preceding Bank Holiday) from Leeds to Ireland to a wedding, developed the eruption of small-pox there. She was apparently incubating the disease at the time she left Leeds and we have not been able absolutely to account for her own illness. Although the actual cause of the first case (6261:5) was not discovered with anything like certainty at the time, it is probably more than a coincidence that this woman and her husband worked at Park Mills, Wellington Street, the former as a burler, the latter as a finisher for Wilson's. In the same mills are a firm of dyers and finishers and for them worked as a cloth-finisher the man 6222:5, whose eruption appeared on July the 25th (see note to 6253:9). Had the burler come in contact with the finisher at Threapleton's on the day of his eruption the whole mystery of the wedding guests would be solved. Of the nine Leeds people who went to the wedding five others (with patient 6261:5—six) developed small-pox, the five all after returning to Leeds. The eruptions in the five cases are said to have appeared, two on the 21st, one on the 24th, one on the 25th, and one on the 26th of August, and the cases were heard of at various dates between the 24th and 30th.

Before they were heard of, three other cases, 6271:9, 6275:9, and 6275:0, had contracted the disease in different houses, and before their cases were reported, the eleventh case of the group (6286:7) who, though usually living in the same house as 6259:2 and 3, had returned to Leeds during their absence in hospital, and stayed with his brother (6271:9) and received the infection from him. The brother (6271:9) had an eruption on the 7th, and the eleventh case (6286:7) on the 20th. Patient 6275:0 probably got the infection from her son, the husband of the woman whose case first started the

chain. The tenth case in order of time was that of the child 6280:0 who contracted the disease, as we believe, indirectly through her schoolfellows and classmates, the children in the same house as patients 6259:2 and 3. The twelfth case was that of the mother of this child. Her incubation period, if infected from the girl, was short, 10 days, but again she may have received the infection from the child's clothes. These cases also seem worthy of a table to themselves.

6261:5	E.	Aug. 7th	Hosp. Aug. 30th	? From 6222:5.
6254:9	E.	Aug. 21st	Hosp. Aug. 24th	From fellow-guest 6261:5.
6259:2	E.	Aug. 21st	Hosp. Aug. 27th	From fellow-guest 6261:5.
6261:4	E.	Aug. 24th	Hosp. Aug. 30th	From wife 6261:5.
6259:1	E.	Aug. 25th	Hosp. Aug. 27th	From fellow-guest 6261:5.
6259:3	E.	Aug. 26th	Hosp. Aug. 27th	From fellow-guest 6261:5.
6271:9	E.	Sep. 7th	Hosp. Sep. 8th	From lodger 6259:2.
6275:9	E.	Sep. 10-11th	Hosp. Sep. 11th	Visited 6259:1 Aug. 27th.
6275:0	E.	Sep. 10th	Hosp. Sep. 11th	From son or daughter-in-law 6261:4 or 5.
6280:0	F.	Sep. 13-14th	Hosp. Sep. 16th	? <i>Per fomites</i> from 6259:2 or 3.
6286:7	E.	Sep. 20th	Hosp. Sep. 21st	From brother 6271:9.
6291:0*	E.	Sep. 25th	Hosp. Sep. 25th	From 6280:0.

* Symptoms developed in quarantine.

* * *

Patient 6265:0. The only clue that we have to the infection in this case was the circumstance that the woman was at the market on August 18th, the day when she probably contracted the disease. We had exceedingly few cases in Leeds about that time. There was a child of four in the West Ward (6250:5), whose eruption appeared when at our isolation cottages on the 19th, and a man of 54 (6252:5) in the Brunswick Ward, whose eruption appeared on the same day. There was also in the West Hunslet Ward an undiscovered case (6258:4), where the man was ill from August 4 to 26th. The houses, however, were not near. It is, of course, possible that the infection may have been received at the market from some person out of town. There were cases in some of the neighbouring towns and villages about that time, but not very many.

* * *

Patient 6266:2. This was the first recognised of three cases, two men and a woman, who were all engaged at the same factory. This man's eruption appeared on the 1st of September, the eruption of the woman (6274:2) on the 4th, and the other man's (6272:6) on the 6th. The same 18th of August mentioned in the last note was probably the critical day in the first of these cases, but careful enquiry at the work-place did not lead to the discovery of any previous case among the employees. Every facility was afforded us for the disinfection of the articles which had been handled by the patients. Patient 6266:2 was not at the factory after the 29th of August, probably at least a couple of days before his case became infectious. Patient 6272:6 was last at work on September 5th (E. dated 6th), and the woman 6274:2 remained away from work after September 2nd, and it was her absence from work that led to our visiting the house and finding that she was suffering from small-pox. She also was probably not personally infective during the time that she was at work.

To infection from the second patient (6272:6) several other cases are assigned as follows:—Patient 6284:6, his brother, whose eruption appeared on September 19th in a house in Beeston Hill. He had not been removed to quarantine as he was not living in the same house. He probably received the infection from his brother whom he had visited on the 5th and 6th of September, staying with him in the latter case the greater part of the day. From the 6th to the 19th is rather a short incubation period but, as the first patient (6272:6) had been ill from the 3rd of September, the eruption was probably out on the 5th when his brother first visited him. When the brother's case occurred the rest of his family were removed to the cottages and there on the 26th a young man of 17 (6292:6) the son of patient 6284:6, developed the eruption. As he was at our cottages, he was, of course, removed to hospital the same day. In this case, of course, the lad could not have received the infection from his father personally. It was

probably conveyed to him in the clothes of the latter from his uncle, who had been hospitalised on the 9th. Unfortunately the circumstances in regard to this family were not communicated to us or we should have disinfected their clothes. This would not have prevented patient 6284:6 from taking the disease, which he got from his brother, but it is exceedingly probable that we should have prevented patient 6292:6 from contracting his illness.

From patient 6272:6 his mother (6284:9) contracted the disease, and developed the eruption of small-pox during isolation at Seacroft. She had not, therefore, any opportunity of conveying the disease to anyone in the town. From the same patient (6272:6) a third and a direct case of infection occurred in a lodger (6286:8). The patient was a police constable, and as he had been vaccinated in childhood and re-vaccinated in 1899 and 1900, in both cases, as alleged, successfully, it was not thought necessary to keep him in quarantine, and after his clothes were disinfected he was allowed to return to his work. It is rather difficult to understand how, if he was successfully re-vaccinated in 1899, the second re-vaccination in 1900 could also have been successful. The only explanation that I can offer is that hinted at in my report for 1902, that some of the records of vaccination which took place during the Boer war are not trustworthy, and probably either the vaccination in 1899 was not successful, or that in 1900 was not successful. Such a thing as two successful vaccinations in successive years is almost unheard of.

From the woman's case (6274:2) another occurred, that of her brother (6284:0), living in the same house. He had been moved to the cottages, and, therefore, had no opportunity of communicating the disease to anyone else. Patient 6274:2 also seems to have caused the disease in her sister (6292:4). The former was moved on the 10th of September,

her eruption having been out since the 4th. The latter probably contracted the disease about the 8th or 9th.

In addition to the cases just mentioned another patient (6283:6) was possibly infected indirectly by poison carried by his son in his clothes. The son was being visited as a contact when his father's case occurred. There was possibly, however, another source of infection, and further particulars will be found in the note to patient 6276:4.

A further case 6281:5 occurred at this factory. The man worked in the same room as 6266:2. He is known to have been in conversation with 6266:2 the last day that the latter was at the factory. There is a little doubt about when the eruption appeared in the present case. He seems to have been ill from the 10th and the eruption is said to have appeared on the 16th, which is an unusually long initial stage, but the succession of the symptoms rather points to the correctness of the date. If that be so he must have got the infection about the 2nd of September, on which date the woman (6274:2) was still at work though her eruption is supposed to have appeared two days later (September 4th).

* * *

Patient 6270:4. If the date given to us of this man's eruption be correct he must have received the infection about the 21st of August. He was in Armley Gaol from about the 1st to the 22nd. The other two cases, 6280:8 and 6280:9, wife and daughter of patient 6270:4, developed their eruptions on the 16th, so that it is possible that his own eruption may have been out as early as the 2nd, that is to say, that his infection had been contracted about the 19th of August. In either case, of course, it must have been contracted in the gaol. This man, as already said, was discharged on the 22nd of August. He saw the relieving officer on August 28th and was put on for test work on the 31st of August. He worked

also on the 3rd and 4th of September and called again at the relieving officer's on the 7th, the day he was removed to hospital.

One of his mates at this test work was 6281:1, who developed the eruption of small-pox on the 14th. From the eruption on the 2nd to eruption on the 14th is rather a short incubation period; from the 31st of August to the 14th of September was, however, the ordinary period. It is possible, however, that the first man's eruption was even earlier than the 2nd, perhaps as early as the 31st.

As already said, on the 7th of September he called again at the relieving officer's and on the 21st the wife of the latter (6287:8) developed the eruption of small-pox. This man seems to have been of a roving disposition. On the 5th of September he visited the house from which, on the 22nd, a boy of seven (6287:9) was taken to the hospital in small-pox. Here again the incubation period is a little long and it may be necessary to suppose the infection to have been conveyed *per fomites*, that is to say, the child got the infection in his clothes and took the infection from them two days later. There is, however, another possibility. The boy (6287:9), after the manner of boys, visited Armley Feast on the 5th, 7th, and 8th, and the man is also known to have been at the feast prior to his removal.

Patient 6289:8. There is some doubt about the origin of this patient's case. The strong probability is that he got the disease from our wandering friend, 6270:4. There seemed a possibility however that the infection might have been conveyed to him from a neighbouring town. Two visitors from that town stayed with him on the 6th of Sept. His own eruption was about three days old when it was seen by Dr. Porter on the 23rd. As the medical man notifying had seen him on the 20th it is probable that the eruption had appeared on the 20th

or 21st. From the 6th to the 20th is the regular incubation period. In this neighbouring town there were no cases reported in the weeks ended the 5th and 12th of September, but in the weeks ended the 19th and 26th there was one each, pointing to the probability of unrecognised cases in the weeks ended the 5th and 12th. I communicated with the Medical Officer of this town who could not ascertain that the people who had visited Leeds had been exposed to infection in any way in their own town. Of course there was the railway journey.

Patient 6290:0. This man was an engine cleaner on the railway at Ardsley, at which place it is said that there were cases of small-pox. It is possible, however, that he may have received infection at Armley feast, which lasted from the 5th to the 9th of September, and where our wandering friend (6270:4) attended. This lad was said to have been successfully re-vaccinated in 1897.

The next case (6291:1) was also an Armley case. His eruption appeared on the 20th of September, and Armley feast lasted, as already said, from the 5th to the 9th. He was walking out with his sweetheart on the 6th of September (Armley Feast Sunday) and also on the 22nd and 23rd. His own eruption appeared on the 20th of September and the girl (6406:2) developed hers on the 6th of October. The probability is that her papular eruption commenced on the 5th. When seen by Dr. Porter on the 7th it had already reached the early vesicular stage. The 6th, however, was the date given us and is entered in the table.

Patient 6291:9. The probabilities of infection in this case point also to Armley Feast, the date being probably one of the later days of the fair, September 9th or 10th. The patient (6270:4) that we know was suffering from small-pox and attended the feast, was removed on the 7th of September.

From the 7th to the 23rd is a long fortnight. The chances are, however, that he did not carry away to the hospital all the infective material about him as he had been already at least three days, more probably, as already pointed out, a full week, suffering from small-pox before he was isolated.

* * *

Patient 6276:4. This case and the four which follow were in one house and members of the same family. It is difficult clearly to assign the cause of this outbreak. If the information given us be correct, that the earliest of the five cases, a boy of 13 (6276:8) developed the eruption on the 1st of September, it again points to some unknown infection in Leeds on the 18th of August, the third case of unknown infection referable to this particular date. The boy worked at a perambulator maker's in Hope Street and lived in Newtown. The other two cases (6265:0 and 6266:2) lived respectively in Burlington Road in the West Hunslet ward and Dargai Street in the North-West ward. The latter worked at the factory mentioned under the head of patient 6266:2 (p. 97). None of the family of the new group of cases worked at this factory nor, so far as we have been able to ascertain, was there any community of interest between the members of the three families supposed to be infected on the 18th of August. If the date given us for the eruption in the first case of the group of five be correct (Sep. 1st) and the dates of the eruption in the other four cases, two on the 9th and two on the 10th, there must have been some previous infecting case unrecognised as the incubation periods of eight and nine days respectively is too short.

There was a possibility of infection in the case of two of the later patients, from a foundry at which patient 6254:1 worked. This man contracted the disease in Blackpool, worked on August 21st, the date of his own eruption. The eruptions of the two young men (6276:5 and 6276:7) were on

the 9th and 10th. This period is a little long, but the infection, of course, might have been retained in their clothes and the patients themselves infected from their own garments.

On the other hand we are assured that these two young men did not work in the same part of the foundry as patient 6254:1. That, of course, would not prevent their seeing one another in some neighbouring place. There is much difficulty in ascertaining the origin of cases where the eruption, as in the first instance, has occurred ten or twelve days before notification. It means tracing the movements of the first patient some three weeks earlier which is generally difficult, sometimes impossible. The probabilities in this case are that some person had been at the house who was either himself suffering from small-pox, or who had been living in a house with someone so suffering and had conveyed the infection to the various members of the family. Only one of the family escaped the disease and this was a boy of eleven attending the St. John's School, Newtown. He was also ill and was discharged as a case of impetigo. This, of course would not negative the suggestion that he himself might possibly have had a slight attack of small-pox a fortnight before his brother developed the disease. The house is one of two bedrooms and the probability is that the two boys slept together in one bed and the two young men in another, while the two women would sleep in the smaller room. If the first lad had a slight attack of the disease about the 18th of August, it is conceivable that he might have communicated it to his brother, with whom he slept, at an early stage, and when scabs of any slight pustules that he may have had were scaling off a week later, his brothers, mother and grandmother may have then received the infection. This, of course, is supposition but it is the ordinary way in which infection occurs in cases of this kind. It does not, of course, account for the origin of the younger boy's own infection which might, on this supposition, have been received about the 3rd or 4th of

August, a period in which there were several known cases in different parts of the town, some of them not notified until several days after. (See Nos. 6231:9 to 6235:0). Impetigo is by no means an uncommon sequel of small-pox.

It is possible that the brothers working at the foundry conveyed the infection to another workmate (6283:6) before they themselves developed the disease. His eruption appeared on the 18th of September. His attack seems to have been sharp, and when seen on that date, the rash was probably in part a prodromal one. His infection, however, may have been received about the 4th or 5th, when the two lads, whose brother at that time was ill, were working at the foundry. There is, however, another possible source of infection. The son of this patient, not himself ill, was working at the factory mentioned under patient 6266:2, and the house of this patient (6283:6) was being visited daily at the time that this man took ill, because his son had been working at that factory at the time that the cases mentioned above occurred. The dates down for daily visits were from the 11th to 28th of September. This man's illness was therefore heard of at once, and he was in hospital the day that his eruption appeared. The reason that the daily visits to the house were directed to be carried on through so long a period, was that the cases at the factory spread over a period from the 1st to the 10th, and it was considered advisable to extend the period for the inspection of contacts from the 7th day after the date of eruption (4th), to the 17th day after the date of disinfection (11th).

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Patient 6290:9. This man was a new inspector, appointed as probationer in 1902, and made assistant inspector the same year. He was re-vaccinated in February, 1903, and as the operation did not result in any great reaction, it was intended that he should be re-vaccinated later. In the meantime, however, he was not prevented from attending to his usual

work, which included in this case the investigation of the causation of case No. 6272:6, one of the 6266:2 group. He spent some time at the house getting the information on the 9th of September. On the 18th he felt out of sorts, had headache from the 18th to the 22nd, some backache from the 19th to the 21st, on which day he vomited. The case ran a very indefinite course, some eruption appearing about the 21st, but scarcely becoming definite until about the 24th. The illness was very slight, but it was thought necessary to treat it as a case of small-pox. He was re-vaccinated on the 21st, and the Resident Medical Officer reports successfully.

Case 6290:9 is instructive in two particulars. First of all it emphasises what is indeed a well-known medical fact that unsuccessful vaccination gives no protection. This is not a new doctrine. The popular doctrine that unsuccessful vaccination shows insusceptibility to small-pox is not held by medical men. The probability is that all it indicates is that the patient is not very susceptible and that the lymph is not very potent. It has happened to us frequently within the last few years that members of our staff, who have been re-vaccinated with commercial lymph unsuccessfully, have afterwards responded to the Government lymph. For instance, one of our clerks was re-vaccinated with purchased lymph in April, 1902, in four places unsuccessfully. In September, 1903, he was again re-vaccinated with Government lymph and the vaccination took in two out of the three places. The only proof of insusceptibility, to my mind, would be the re-vaccination at intervals of six months with reliable lymph. Several of our staff, who had been repeatedly re-vaccinated were found insusceptible, even with Government lymph, but in these cases there had been a previous thoroughly successful re-vaccination.

The other point is one which appears repeatedly in the table, and that is, that a person may be vaccinated, and the vaccination may take, although he is actually suffering at the

time from small-pox. Information as to these cases is to be found in the last column but one of table 8, where the dates of vaccination and of the appearance of the small-pox eruption are given. In most of these cases it will be noticed that the interval between the vaccination after contact and the eruption is less than a week. In a few cases, as for instance No. 5561:4, April, 1902; 5887:7, December of the same year; 6018:4, March, 1903; 6172:8, June, 1903; the present case 6290:9, September, 1903; 6300:7, October, 1903; the vaccination was done and reported as successful after the appearance of the eruption, and in another, 5950:3, January, 1903, the vaccination was performed, and successfully, the day before the appearance of the eruption and after the initial symptoms had been well developed. In another case 6084:1, April, 1903, the man's eruption is stated to have appeared on the 4th. The case was not heard of until the 21st. On the 22nd he was vaccinated and some slight reaction occurred. It would seem therefore that even the actual presence of small-pox does not always prevent successful re-vaccination.

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Patient 6295:7. This case was one that was deliberately concealed. When the cases of the group at the factory mentioned in the note to 6266:2 were reported the houses of all the workers in the same room were visited from September 8th to October 2nd, and amongst them the house in which this girl lived, her brother having been one of the co-workers of the patients in that group. The inspector was always met by the mother at the door who protested no one was ill. We have, however, reason to know that when the inspector called this girl (6295:7) was sent down into the cellar out of the way, and it was not until her sister (6295:8) developed the disease that the case came to our knowledge. The first of these two girls was really taken ill at Blackpool where she had gone on the 28th of August. She took ill about the 31st and had some sort of an eruption on the 2nd of September, came home

on the 5th, and went to work again on the 7th. Her illness, of course, ought to have been detected by the foreman. Her sister, who worked at the same place, was taken ill on the 21st and developed the eruption on the 24th. Even then the case was not reported to us until the 29th. The second girl was away from work from the 21st to the 28th, and on that date she returned to work, but consulted a medical man on account of her face, who reported the case to us. To the first of these two cases is traced the second and also in all probability two others (Nos. 6300:7 and 6401:2). The first case itself must have been infected about the 18th or 20th of August, the date already given as that of infection for the three other groups mentioned under notes to cases 6265:0, 6266:2, and 6276:4.

Patient 6300:7. There is reason to think that this man obtained the infection indirectly through his child, who was attending the same school and in the same standard as the two children of the next patient in the table (6401:2) and who himself developed the disease two days later. The latter patient was clearly infected at his workplace, where the two girls (6295:7 and 8) were engaged as warpers, he himself being a warp-dresser. The warps handled by these two girls went to him and thus came in contact with the clothing of this man. He himself afterwards developed the infection (eruption September 28th) but we suspect that through his clothing and those of his two children or those of the child of the other man (6300:7) the latter contracted the disease.

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Patient 6487:8. We have not been able to trace the origin of this case. No case was known to have occurred in Leeds after October 23rd, and this girl, on the 26th of December, developed the eruption of small-pox. None of the family were working at the same place as any members of the families

attacked two months earlier. The girl worked up to December 24th, and her workmates were all kept under observation, but none of them developed any illness.

* * *

Patient 6520:0. This man was a striker at a forge. No case had been known in Leeds for nearly a month. He was himself a lodger in the house where he lived and we had considerable difficulty in tracing a fellow-lodger, who was a carter, but who had a knack of disappearing and may possibly have been the source of infection, though when found, he showed no sign of recent illness.

* * *

Patient 6559:5. There seems to have been a community of infection between this case and the three following ones (6559:8, 6562:5, and 6562:0). The eruption in the earliest (6562:0) seems to have occurred on February 10th, 1904 and was either unrecognised or concealed. The man was a painter, occasionally in work. We spent a considerable amount of time tracing his movements without being able to ascertain that he had come in contact with any case of small-pox. His work, however, was principally at public-houses. He was away from work for a day or two and saw a medical man on the 8th. On the fourth of March his step-son (6562:5) developed an eruption. He was seen by a medical man who told the parents the case was one of chicken-pox. The existence of this case was, however, ascertained by one of our inspectors on the 27th of March, who had called at the house in connection with a contact from a recognised case (6559:5). It was then found that the case in Burton Street was referable to another member of this family who was frequently in contact at his work with the butcher (6559:5). This lad, who acted as carrier, is not on our list, not having been reported or taken into hospital. He was, however, isolated at the cottages and Dr. Pearson reported to me that he thought he had had a rash about the 7th of March, in which case he probably acted not merely as

a carrier, but as a new creator of infective material. If his eruption appeared on the 7th of March, the date of the infection of patient 6559:5, the period of incubation is a natural one. This un-entered patient was never away from work and was, of course, not heard of until the whole family were isolated at the cottages. The man (6559:5) was in the habit of visiting a public-house in York Street which the patient (6559:8) is supposed also to have frequented although his professional performances were at another public-house in the same neighbourhood.

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Patient 6566:7. We have no record as to the origin of this case. He was in the second standard at the Bewerley Street school. He is said to have been three times unsuccessfully vaccinated in infancy which does not reflect any credit upon the person who performed the operation.

* * *

Patient 6567:8 probably contracted the disease from his wife. He was a labourer out of work and was admitted to the Leeds Union workhouse along with his wife and child. He went out with his family on Sunday night (March 20th) and stayed in a furnished room off East Street. On the 21st (Monday), he was re-admitted to the workhouse with a relieving officer's order. On the 2nd of April he had headache and backache, shivering and sickness, and on the following day slight eruption on the forearms and legs. His case was telephoned on April 4th and he was removed to our hospital, his wife and child remaining at the workhouse. We were given to understand that he had been in Bradford from March 9th to 19th, including therefore his period of infection. His wife was confined on the 22nd of March in the workhouse and the child was dead. At first it was taken for granted that he had taken the disease in Bradford and as his wife was under treatment in the hospital at the workhouse we thought we were at the end of the matter. Unfortunately however, a series of cases occurred in the workhouse. They

are numbers 6570:9, 6571:6, 6572:7, 6574:7, and a second group from these, 6579:3, 6580:4, 6580:5, 6581:4, and 6583:7. It turned out that the wife of patient 6567:8 had had an unrecognised attack of small-pox, and it was not until the other cases arose that suspicion was aroused as to her having had the disease. There is very little doubt that she had small-pox in Bradford (possibly contracted in Lancashire), and was convalescent from it when she arrived in Leeds. She was unfortunately, introduced into the maternity ward at the workhouse in this infective condition.

Cases of Small-pox in 1904.—In the first quarter of 1904 there were 6 cases reported, and all removed to hospital. In the second quarter there were 22, all treated in hospital. These cases are entered in table 8 above. They are mentioned on page 47.

In the third quarter the new cases were only 12. The fourth quarter had 24. Considering that the Heavy Woollen district suffered severely during this quarter, we were fortunate in being able to escape so well. The 24 cases in the fourth quarter mean only 14 outbreaks in the town itself. Two of the 24 patients were contacts who were being watched by our inspectors, and notification was received therefore with great promptitude. Eight were contacts who had been isolated at our cottages at Seacroft, and had no opportunity of infecting anyone in the town. Of the 14 remaining first attacks, the disease in four was certainly contracted outside the town, in Dewsbury, Ossett, East Ardsley, and Worksop respectively. A fifth probably contracted the disease from contact with persons from the Dewsbury district, and even amongst the remaining nine there seems reason to think that four originated indirectly in the same way. The remaining five cases we cannot at present account for.

MEASLES.

Measles has been already mentioned in the general part of the report. The deaths which occurred were principally between the ages of one and five. It will be seen from table 25 that while the deaths in the city were 123, we investigated the house conditions in 122 cases. We also investigated the house conditions in 63 cases where measles had occurred without a death in the house.

Table showing cases of Scarlet Fever heard of in Leeds during the fourteen years, 1890-1903, with the numbers admitted to the city fever hospital and the deaths in the city and in hospital; showing also for biennial periods the relations to the population of the deaths in the city, and the admissions to hospital.

	Cases. †		Deaths.		Per 1,000 living (Annual rates).	
	Heard of.	Admitted to hospital.	City.	Hospital.	Deaths in city.	Cases in hospital.
1890	337	133	103	23	} 0·23	0·39
1891	328	152	66	18		
1892	812	440	74	19	} 0·14	0·83
1893	316	188	31	6		
1894*	967	453	52	18	} 0·13	1·21
1895	874	493	52	29		
1896	1,216	441	72	20	} 0·21	1·26
1897	1,791	576	95	27		
1898	2,002	532	121	25	} 0·22	1·43
1899	1,620	649	64	21		
1900	1,745	722	52	21	} 0·16	2·07
1901	2,280	1,038	82	39		
1902	1,962	1,041	56	23	} 0·19	2·37
1903	2,465	1,063	109	36		

* Notification became compulsory in May, 1894.

† "Cases heard of" does not include one fatal in the third quarter of 1894 (included, however, in the 52 deaths), of which we had no information till we received the Registrar's returns. Similarly one death in 1895, another in 1896, two in 1897, one in 1900, and one in 1901, are included in the death column, but not in that of cases heard of. Before May, 1894, there were, of course, many such.

SCARLET FEVER.

The deaths from scarlet fever were more numerous than in any year since 1898, and the cases heard of were more numerous than in any previous year. I give the cases heard of and admissions to hospitals since 1890. It will be remembered, however, that as notification did not become compulsory until 1894, the cases heard of now cannot be compared with those heard of in the earlier years. It will also be noticed that less than half the cases were admitted to hospital, and our office was, during many months of the year, daily besieged by anxious parents who wished their children to be admitted when we had no room. Had we had space we might easily have taken in half as many more without pressing unduly those parents who were anxious to nurse their children at home.

OTHER DISEASES.

The deaths at various age groups and in the several quarters from the more common causes are given in table 17, which also shows the death rate per thousand from the same causes. Further particulars as to localities to which the patients belonged will be found in table C in the appendix, cases dying in hospitals having been referred to their home districts, whilst the numbers actually dying in the various hospitals will be found in table A.

ILLNESSES NOTIFIED.

These have been already referred to in the principal part of the report, but the table showing the ages of cases notified and the quarters in which they were notified will be found as usual at pages 114, 115.

TABLE 17.

Causes of, and ages at, death during year (52 weeks) 1903.

CAUSES OF DEATH.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.							DEATHS IN SEVERAL QUARTERLY PERIODS (AT ALL AGES).				DEATH PER 1,000 FOR YEAR.
	All ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	I.	II.	III.	IV.	
Small-pox	23	1	2	...	3	17	..	7	11	5	...	0'05
Measles	123	32	82	9	...	...	...	23	27	23	50	0'28
Scarlet fever	109	7	54	42	4	2	...	26	30	29	24	0'25
Whooping-cough	119	51	63	5	...	...	...	15	25	32	47	0'27
Diphtheria and membranous croup	65	4	40	17	1	3	...	31	11	11	12	0'15
Croup	11	5	5	1	...	...	...	6	4	1	...	0'02
Fever { Typhus	...	...	...	...	...	...	...	...	...	...	...	...
Enteric	58	...	...	14	19	24	1	14	13	11	20	0'13
Other continued	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic influenza	49	...	2	2	4	27	14	33	5	4	7	0'11
Cholera	1	...	...	...	...	1	...	...	...	1	...	0'00
Plague	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea	275	225	41	...	1	2	6	20	14	196	45	0'62
Enteritis	76	56	6	3	...	8	3	8	6	46	16	0'17
Puerperal fever	10	...	...	...	3	7	...	3	5	2	...	0'02
Erysipelas	13	3	...	...	...	6	4	6	5	...	2	0'03
Other septic diseases	7	...	...	1	...	6	...	2	1	2	2	0'02
Phthisis	562	2	14	22	86	413	25	146	135	129	152	1'27
Other tubercular diseases	334	133	111	46	23	19	2	83	77	84	90	0'76
Cancer, malignant disease	406	1	2	1	...	304	98	93	101	106	106	0'92
Bronchitis	642	156	86	6	3	207	184	182	140	71	249	1'45
Broncho-pneumonia	269	119	116	7	1	17	9	54	51	32	132	0'61
Pneumonia and pleuro-pneu.	293	44	60	18	23	110	38	73	82	50	88	0'66
Pleurisy	17	2	1	1	...	10	3	2	7	6	2	0'04
Other diseases of respiratory organs	95	9	14	2	4	35	31	27	30	15	23	0'21
Alcoholism	54	1	1	...	2	43	7	16	19	11	8	0'12
Cirrhosis of liver	...	...	...	...	...	...	...	...	...	...	...	...
Venereal diseases	37	27	...	1	...	9	...	6	8	13	10	0'08
Premature birth	277	277	...	...	...	...	...	73	61	56	87	0'63
Diseases and accidents of parturition	55	9	...	...	5	41	...	10	15	16	14	0'12
Heart diseases	591	8	4	30	23	353	173	157	145	122	167	1'34
Accidents	236	40	38	16	15	91	36	63	57	50	66	0'53
Suicides	45	...	...	...	4	35	6	14	5	11	15	0'10
All other causes	2482	780	202	77	71	668	684	623	594	601	664	5'61
All causes	7334	1992	944	321	295	2458	1324	1816	1684	1736	2098	16'59

PART III.—HEALTH OF DISTRICTS.

The remarks already made on page 41 about the population in intercepts applies to a less extent to the populations of the several districts, the populations for which have, as formerly, been made up by adding together those of the intercepts of wards and of the intercepts of sub-districts for the populations of those several areas.

(1) MUNICIPAL WARDS.

Assuming the correctness of these figures, it will be seen from table 19 that the death rate in the Headingley Ward and the North Ward were respectively 12·25 and 12·40. This of course is after correcting the rates for persons dying in hospitals. Next in order came the North-West Ward 14·10, and the Bramley Ward, 14·28, followed by the Brunswick Ward 14·61. West Hunslet, Armley and Wortley and Mill Hill had rates between 15 and 16. The rate in the Central Ward was 16·28, and in East Hunslet 16·54, all below the rate of the city (16·59) including outsiders. In Holbeck and the North-East Ward the rates were 18·31 and 18·42, in the New Wortley and the West 19·21 and 19·26, in the South, 21·01, and in the East Ward, 22·24.

(2) REGISTRATION SUB-DISTRICTS.

Tables 20 and 21, as formerly, deal with the seven zymotic diseases group, phthisis and lung diseases separately. Leaving out outsiders the death rate in the city was 16·17. The rates were lower in Chapeltown (10·44), in Kirkstall (12·14), in Biamley (14·71), and in Hunslet and West Leeds (15·81 and 15·82 respectively). They were slightly above the average of the city in Wortley (16·59). They were 18·05, 18·83, and 18·88 in North Leeds, Holbeck, and Osmondthorpe, and rose to 23·31 in South East Leeds.

TABLE 19.

Table shewing deaths in the four quarters of 1903, for each Municipal Ward, with the estimated population and the death-rate of the ward for the Year.

MUNICIPAL WARDS.	Population, estimated to middle of 1903.	First quarter, 1903.	Second quarter, 1903.	Third quarter, 1903.	Fourth quarter, 1903.	Fifty- two weeks.	Death- rate.
Central	20,703	78	84	72	102	336	16·28
North	42,630	126	140	131	130	527	12·40
North-East	32,693	147	105	143	205	600	18·42
East	28,696	156	141	143	196	636	22·24
South	14,758	91	73	67	78	309	21·01
East Hunslet ...	34,704	143	122	159	148	572	16·54
West Hunslet ...	30,096	114	102	97	144	457	15·24
Holbeck	28,831	131	117	139	139	526	18·31
Mill Hill	7,557	31	30	24	35	120	15·93
West	23,815	116	112	107	122	457	19·26
North-West... ..	32,796	118	95	111	137	461	14·10
Brunswick	22,937	74	86	81	93	334	14·61
New Wortley ...	18,645	103	84	77	93	357	19·21
Armley & Wortley	37,828	109	153	147	188	597	15·84
Bramley	22,130	95	47	76	97	315	14·28
Headingley	44,740	147	136	111	152	546	12·25
Outsiders	...	37	57	51	39	184	..
Totals	443,559	1,816	1,684	1,736	2,098	7,334	16·59

From the seven zymotic diseases the rate of the city excluding outsiders was 1.74. It was below this rate in Chapeltown (0.47), in Bramley (0.85), in Kirkstall (0.88), and in West Leeds (1.39). It was above the rate of the city in Wortley (2.10). North Leeds and Hunslet each had a rate of 2.19, South-East Leeds 2.24, and Holbeck 2.72. In the last-named district the death rate from diarrhoea was 1.02, the district generally with the highest rate from this disease, South-East Leeds, having a rate of 0.93. In Holbeck, measles, scarlatina, and whooping cough had all been somewhat prevalent.

The death rate from phthisis was 1.25 in the whole city, excluding outsiders. It was 0.65 in Hunslet, 0.85 in Kirkstall, 0.98 in Chapeltown, 1.00 in Wortley, and 1.19 in Bramley, all below the rate of the city. In West Leeds it was 1.35, in Holbeck 1.39, in North Leeds 1.85, and in South-East Leeds 2.33.

(3) OTHER LOCAL FACTORS.

HOUSE CONDITIONS AND DISEASES.

As during the last few years, the houses examined on account of disease of an infective nature have been tabled according as they were throughs or back-to-backs, and according to the arrangement of their drains and closets. As said in previous reports, this table has comparatively little value until the matter contained in it has accumulated for a few years. The work that Mr. Turton made out of it in connection with his graduation thesis was referred to in my last report, page 86.

TABLE 20.

Shewing the number of deaths from certain specific causes and groups of causes in the 52 weeks of 1903 in the Sub-Registration Districts in the City of Leeds. All deaths in public institutions within the City of persons belonging to the City have been referred to the Sub-District to which they belonged.

	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough	"Fever."	Diarrhea.	All seven.	Croup.	Phthisis.	Influenza and diseases of the air-passages other than consumption.	All other causes.	All causes.
Leeds, North	7	14	25	5	19	13	49	132	1	112	234	611	1090
,, West ...	5	17	17	26	10	7	35	117	2	114	274	825	1332
,, South-E.	5	1	8	4	18	9	32	77	2	80	179	463	801
Hunslet	..	18	13	13	30	14	67	155	...	46	208	711	1120
Holbeck	4	14	15	2	17	3	33	88	1	45	92	383	609
Wortley... ..	...	42	21	5	13	9	38	128	5	61	174	642	1010
Kirkstall	1	12	4	4	5	2	10	38	2	37	86	363	526
Bramley... ..	1	2	...	1	3	..	8	15	...	21	49	174	259
Chapelton	...	3	6	1	4	1	3	18	2	37	54	285	396
Osmondthorpe ...	...	...	...	...	...	...	...	...	...	...	2	5	7
City of Leeds	23	123	109	61	119	58	275	768	15	553	1352	4462	7150

Nine deaths from phthisis, 13 from influenza and diseases of the air-passages other than consumption, and 162 deaths from other causes, occurred in the City of persons not belonging to Leeds; on the other hand 113 deaths occurred during the year of Leeds persons in West Riding Asylums and other public institutions, outside the City. Of these 21 were from phthisis, 6 from the lung groups, and 86 from other causes..

Croup includes 4 deaths from membranous croup, 1 in West, 1 in Wortley, 1 in Kirkstall, and 1 in Chapelton.

(For table 21 see page 122).

TABLE 25.

Shewing case-houses examined on account of certain diseases heard of during 1903, and some of the conditions found as to drainage and closet arrangements.

	1	2	3	4	5	6	7	8	9	10	
	Drains severed.										
	Water-closet.										52 weeks, 1903.
	Inside.				Outside.		T. W. C.		M. or P.		
	F. V.		not F. V.								
	def.	not	def.	not	def.	not	def.	not	def.	not.	
Through ...		6		1		30		6		6	Smallpox
Back-to-back ...		14		4		97		61		5	
Through ...	4	160		21	3	334		30		53	Scarlet fever
Back-to-back ...	5	121		7	7	618	1	270		94	
Through ...	7	20	5	1	17	44	1	5	2	6	Diphtheria
Back-to-back ...	11	16		1	37	142	9	57	4	16	
Through ...						2					Membranous croup
Back-to-back ...						1		1		1	
Through ...						1		1			"Croup"
Back-to-back ...		2				4					
Through ...											Typhus fever
Back-to-back ...											
Through ...	3	12	1	2	7	24	2	4	2	7	Typhoid fever
Back-to-back ...	4	8		1	22	66	3	61	2	7	
Through ...											Continued fever
Back-to-back ...											
Through ...	3	18		1		30		4		7	Erysipelas
Back-to-back ...		11		2		101		46		13	
Through ...		1			1						Puerperal fever... ..
Back-to-back ...		4			1	5		3		1	
Through ...		1		1		9		4		4	Measles : death-houses ..
Back-to-back ...		2		1		40		21		7	
Through ...		6				9				11	Measles : recovery houses ..
Back-to-back ...		2				19		1		3	
Through ...											Measles : recoveries in death-
Back-to-back ...						1					houses
Through ...		2		2		19		7		1	Diarrhoea
Back-to-back ...		6		1		81	1	47		12	
Through ...		19		3		39		9		2	Phthisis... ..
Back-to-back ...		14				82		41		8	
Through ...		4		2		44		21	1	5	Phthisis : recovery houses ...
Back-to-back ...		12				125		84		9	
Through ...		6			1	19		6		4	Broncho-pneumonia
Back-to-back ...				2	1	76		40		7	
Through ...		6		3		23		4		5	Pneumonia
Back-to-back ...		12				62		41		11	
Through ...				1		2					Pleuro-pneumonia
Back-to-back ...						4		1			
Through ...		1				1					Pleurisy... ..
Back-to-back ...		1				5		3		1	
Through ...		1				1		1			Laryngitis
Back-to-back ...		1			1			1		2	
Through ...		4				7		2			Influenza
Back-to-back ...		1				11		6			
Through ...	17	267	6	38	29	638	3	104	5	111	
Back-to-back ...	20	227		19	69	1540	14	785	6	197	
Both ...	37	494	6	57	98	2178	17	889	11	308	

TABLE 25.—Continued.

		1	2	3	4	5	6	7	8	9	10	11	Cases.		Total deaths in City.
		Drains not severed.													
		Water-closet.										No drain	Alive.	Dead.	
		Inside.		Outside.		T.W.C.		M. or P.							
		F.V.	not F.V.	def.	not	def.	not	def.	not	def.	not				
		def.	not	def.	not	def.	not	def.	not	def.	not				
Through	...	...	1	...	2	...	4	...	2	1	6	...	65	...	23
Back-to-back	...	...	...	...	...	...	49	...	44	...	2	1	275	2	
Through	...	1	11	...	3	1	58	...	32	...	16	3	729	1	109
Back-to-back	...	...	12	2	3	4	282	1	181	1	80	2	1687	4	
Through	...	1	...	1	...	2	9	1	6	1	3	...	130	2	61
Back-to-back	...	...	...	...	...	19	59	11	17	2	4	1	403	3	
Through	...	...	...	...	...	...	...	...	...	...	...	...	1	1	4
Back-to-back	...	...	...	...	...	...	...	1	1	...	...	...	4	1	
Through	...	...	...	...	...	...	...	...	...	...	...	...	1	1	11
Back-to-back	...	...	...	...	...	...	1	1	...	1	...	...	3	6	
Through	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Back-to-back	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Through	...	1	2	2	1	6	7	3	...	...	1	...	87	...	58
Back-to-back	...	2	...	...	...	14	37	11	22	3	1	1	262	3	
Through	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Back-to-back	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Through	...	...	1	1	...	...	6	...	4	...	1	...	76	...	13
Back-to-back	...	...	...	...	...	2	39	...	21	...	12	1	247	1	
Through	...	...	...	...	...	...	...	...	1	...	...	...	3	...	10
Back-to-back	...	...	...	...	...	1	3	2	3	...	...	...	21	2	
Through	...	...	...	...	1	...	3	...	1	...	...	...	...	24	123
Back-to-back	...	...	...	1	...	...	16	...	8	...	2	...	...	98	
Through	...	...	...	...	...	...	1	...	...	...	...	...	27	...	...
Back-to-back	...	...	...	...	...	...	4	...	3	...	4	...	36	...	
Through	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Back-to-back	...	...	...	...	...	...	...	...	...	...	...	...	1	...	
Through	...	...	...	...	1	...	4	...	4	...	4	...	...	44	275
Back-to-back	...	...	...	...	...	...	45	...	29	...	8	...	...	230	
Through	...	...	1	...	...	2	12	...	5	...	3	1	...	96	562
Back-to-back	...	...	...	...	...	...	34	...	33	...	12	2	...	226	
Through	...	...	1	...	...	...	6	...	5	...	...	...	89	...	...
Back-to-back	...	...	1	1	1	1	56	...	53	1	11	2	356	1	
Through	...	...	3	...	2	...	6	...	1	...	...	...	...	48	269
Back-to-back	...	...	1	...	...	...	38	1	41	...	5	2	...	214	
Through	...	...	1	...	...	...	15	...	3	...	3	...	...	63	280
Back-to-back	...	...	...	...	1	...	29	...	33	...	6	1	...	196	
Through	...	...	...	...	...	...	1	...	...	...	...	...	...	4	13
Back-to-back	...	...	...	...	...	...	3	...	1	...	...	...	...	9	
Through	...	...	1	...	...	...	...	...	...	...	...	...	...	3	17
Back-to-back	...	...	...	...	...	...	2	...	1	...	...	...	...	13	
Through	...	...	...	...	...	...	...	...	...	...	...	...	...	3	10
Back-to-back	...	...	...	...	...	...	...	...	...	...	1	...	...	6	
Through	...	...	...	...	...	...	2	...	1	...	...	...	...	16	49
Back-to-back	...	...	...	...	...	...	1	...	5	...	...	...	...	24	
Through	...	3	22	4	10	11	134	4	65	2	37	4	1208	306	...
Back-to-back	...	2	14	4	5	41	698	28	496	8	148	13	3295	1039	...
Both	...	5	36	8	15	52	832	32	561	10	185	17	4503	1345	1887

TABLE 21.

Shewing the mortality stated in deaths per 1,000 of the population of the Sub-Districts, as estimated to the middle of 1903.

	Small-pox.	Measles	Scarlatina.	Diphtheria	Whooping-cough.	"Fever."	Diarrhoea.	All seven.	Croup.	Phthisis.	Influenza and diseases of the air-passages, other than consumption	All other causes.	All causes.
Leeds, North	0·12	0·23	0·41	0·08	0·31	0·22	0·81	2·19	0·02	1·85	3·88	10·12	18·05
„ West	0·06	0·20	0·20	0·31	0·12	0·08	0·42	1·39	0·02	1·35	3·26	9·80	15·82
„ S. E.	0·15	0·03	0·23	0·12	0·52	0·26	0·93	2·24	0·06	2·33	5·21	13·48	23·31
Hunslet ...	...	0·25	0·18	0·18	0·42	0·20	0·95	2·19	...	0·65	2·94	10·03	15·81
Holbeck ...	0·12	0·43	0·46	0·06	0·53	0·09	1·02	2·72	0·03	1·39	2·84	11·84	18·83
Wortley ...	...	0·69	0·34	0·08	0·21	0·15	0·62	2·10	0·08	1·00	2·86	10·55	16·59
Kirkstall ...	0·02	0·28	0·09	0·09	0·12	0·05	0·23	0·88	0·05	0·85	1·98	8·38	12·14
Bramley ...	0·06	0·11	...	0·06	0·17	...	0·45	0·85	...	1·19	2·78	9·88	14·71
Chapeltown	...	0·08	0·16	0·03	0·11	0·03	0·08	0·47	0·05	0·98	1·42	7·52	10·44
Osmondthrp	...	...	...	...	...	...	...	...	...	...	5·39	13·49	18·88
City of Leeds	0·05	0·28	0·25	0·14	0·27	0·13	0·62	1·74	0·03	1·25	3·06	10·09	16·17

Nine deaths from phthisis, 13 from influenza and diseases of the air-passages other than consumption, and 162 deaths from other causes, occurred in the City of persons not belonging to Leeds.

Deaths from membranous croup are included under croup, not under diphtheria in this table.

PART IV.—ADMINISTRATIVE WORK.

CHANGES IN STAFF.

The four divisions remain as stated in my last report. The works' inspector of number IV., Mr. Turner, left us in July to assume the responsibility of the chief inspectorship at Cleethorpes. Mr. Turner, who belonged to that neighbourhood, came to us in September, 1896. Brought up as a plumber, he held the certificate of the Sanitary Institute, obtained in 1895. After some preliminary training he took charge for a short time of the West Hunslet, and later of the Holbeck ward. When Mr. Borrás left us, he went to the West ward where he remained until in 1899 he was made works' inspector on the institution of that new office.

On his resignation, Mr. Cartlidge, a ward inspector appointed to the Burley district in March, 1902, was made drainage inspector in number IV. division. His promotion has been somewhat rapid. He came to us in March, 1902, having been previously in the building trade; held the certificate of the Institute of Sanitary Engineers, as well as the Nuisance Inspector's certificate of the Sanitary Institute.

On his elevation, Mr. Wilkinson, at that time a probationer doing temporary work in the Burley district when Mr. Cartlidge had been acting during the Small-pox outbreak, temporarily as assistant to the Lodging House Inspector, was told off as assistant inspector to the Burley district.

Miss Brown, who had come to us so recently as the 24th of March, 1902, and who was a B.A. of the Royal University of Ireland, left us for an appointment in Fulham, in April, 1903. In December, Miss Hunter who had done work as a pupil without remuneration, was appointed an assistant inspector on the staff of Miss Sharples. In addition to the certificate of the Institute as a sanitary inspector, Miss Hunter has those of the preliminary and senior Cambridge local examinations.

TABLE I.
Table of Ward Inspectors' Work. Year 1903.

		Quarters.		City Total	Quarters.		City Total
		I.	II, III, IV.	1903.	I.	II, III, IV.	1903.
HOUSE INSPECTION.							
1.	Houses and premises completely examined on account of	1433	1421	1402	1319	5573	5573
2.	Alleged nuisances	142	155	200	60	557	557
3.	House-to-house work	661	249	365	1406	2081	2081
4.	Houses and premises examined	38	67	49	21	175	175
5.	Occupants	261	310	229	71	871	871
6.	Buildings and Offices	668	722	628	414	2432	2432
7.	Drainage	3203	2924	2873	3291	12291	12291
8.	Number of houses wholly or partly examined only as to	1184	933	902	936	3955	3955
9.	Total number of above houses where sanitary defects were found	1576	1227	1146	1320	5269	5269
10.	Sanitary defects found in above houses	122	70	119	167	487	487
11.	NUISANCES, &c.	83	63	84	75	304	304
12.	Houses dirty	116	82	99	350	647	647
13.	overcrowded	234	151	220	272	877	877
14.	damp or dilapidated	746	455	431	741	2373	2373
15.	with defective eave-gutters or fall pipes	20	20	7	40	87	87
16.	badly drained	3	4	10	4	21	21
17.	without sink drain	815	706	517	533	2391	2391
18.	badly lighted	332	280	254	331	1197	1197
19.	badly ventilated	408	425	352	415	1600	1600
20.	with defective or insufficient closet accommodation	626	587	603	919	2735	2735
21.	with dirty closets	3504	2853	2696	4168	13221	13221
22.	with drains, &c., temporarily stopped	3191	2811	2895	4124	13021	13021
23.	with other nuisances	215	203	215	250	889	889
24.	Total nuisances found in houses	70	40	56	66	238	238
25.	No. of houses in which above nuisances were found	185	207	280	277	949	949
26.	Street gullies stopped	3980	3393	3247	4767	15297	15297
27.	Offensive accumulations	11	16	13	11	51	51
28.	Other outside nuisances	14573	18497	12409	2323	48002	48002
29.	Total nuisances found	1526	1208	1378	2655	6747	6747
30.	Complaints unfounded	338	170	242	1111	1861	1861
31.	OTHER WORK DONE.	2724	2495	1569	2055	8843	8843
32.	Additional visits paid to houses for						
OTHER WORK DONE (continued).							
33.	Special examinations of drains by tests	1678	1208	1374	2598	6858	6858
34.	Defects found by ditto	745	456	493	789	2483	2483
35.	Appointments	358	260	243	344	1203	1203
36.	Notices and letters served	21	45	4	7	77	77
37.	Dwelling houses unfit for human habitation closed	9	..	..	3	12	12
38.	Dwelling houses rendered fit for human habitation	116	94	64	129	403	403
39.	Houses cleaned	65	52	67	53	237	237
40.	Overcrowded houses dealt with	151	151	85	127	494	494
41.	Defective spouting, &c., repaired	..	..	..	..	..	..
42.	New middens privies built	..	..	..	..	..	..
43.	Old middens privies repaired	..	..	..	..	..	..
44.	Do. rebuilt	..	..	..	..	..	..
45.	Privies converted into trough water closets*	4	2	..	2	8	8
46.	Do. do. ordinary water closets	287	477	332	274	1370	1370
47.	Water closets erected	19	43	40	27	138	138
48.	New dry ashpits or tubs	205	295	243	321	1064	1064
49.	New trough water closets built	..	..	..	..	..	..
50.	Pail closets converted into water closets	..	..	..	..	..	..
51.	Trough closets altered into water closets	3	..	..	6	14	14
52.	Closets cleaned (lime-washed, &c.)	356	240	216	282	1094	1094
53.	Drains in course of reconstruction	406	457	563	508	1934	1934
54.	" of reconstruction	556	486	477	388	1907	1907
55.	" inspected when connection made to sewer	83	62	40	47	241	241
56.	Disconnections of house drains effected	966	912	598	877	3353	3353
57.	Cesspools filled up	9	..	..	1	10	10
58.	Public or private wells abolished	2	4	..	2	8	8
59.	Houses supplied with town's water	..	..	..	..	..	..
60.	Trough and water closets repaired	302	242	130	177	851	851
61.	Other house nuisances remedied	890	765	659	943	3257	3257
62.	Total houses for which above work done	3103	2939	2648	2856	11546	11546
63.	Houses in which all defects found have been remedied	2327	2138	1937	2417	8819	8819
64.	Street gullies cleaned	247	173	110	243	873	873
65.	Offensive accumulations removed	35	16	23	29	103	103
66.	Pollutions of river or streams remedied	35	26	..	..	61	61
67.	Other non-domestic nuisances removed	124	171	132	132	559	559
68.	Additional visits paid to inspect work in progress	2099	2732	2137	2863	10731	10731
69.	Total nuisances abated	3709	3610	2817	3634	13770	13770
70.	* Automatic trough closets.	..	..	..	..	..	..

In October, one of our junior clerks, Mr. Benjamin C. Walker, who had been with us from boyhood went to Seacroft to help Mr. Pearson.

It should have been mentioned in my last report, that in August, 1902, Mr. Henry Jelbert, who had been appointed the previous year one of the two head foremen at Dock Street, left us to take the post of Cleansing superintendent to the Portsmouth Authority. His post was filled by Mr. Louis Thwaites who had been a foreman in the Cleansing department since 1896, and otherwise employed in the Scavenging yard since 1880.

WARD INSPECTION.

No fewer than 12,291 houses have been more or less systematically inspected during the year. Of these, 8,813 were fully inspected and their drains tested, particulars as to occupants, conveniences, ventilation etc., obtained, while in 3,473 the information related either to the occupants, buildings and offices, or the drainage, the latter figuring to the extent of 2,432 houses. These 12,291 houses show a decrease of 5,995 upon the number examined in 1902. In that year (which was a 53 weeks year), there was a slight decrease upon the number in 1901. A maximum of houses examined occurred in the year 1900, when 21,225 were examined more or less systematically. The falling off is chiefly due to the smaller number of houses examined house-to-house. In the year 1899 there were 4,033 so examined, in 1900 they rose to 12,496, in 1901 there were only 9,282. In 1902 they fell to 6,942, and last year to 2,681. The variation in this respect is chiefly due to the special work that was required in connection with small-pox during 1902 and 1903. I find that when one takes into account the extra visits paid on account of infectious disease, we find that while these were 5,958 in 1899, and 9,340 in 1900, and 4,873 in 1901, they rose to 12,010 in 1902, and 48,002 in 1903. Taking all the four lines 29, 30, 31, and 32, which include additional visits paid to houses on account of

TABLE II.

Analysis of work done by District Inspectors in the several Wards, 1903.

52 weeks ended Jan. 2nd, 1904.										No. I Division. Population—114,916.					No. II Division. Population—108,339.					No. III Division. Population—102,413.										No. IV. Division. Population—117,536.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
CITY TOTAL.	Mill Hill.	Central (South of Lady Lane).	North.	N. East.	East.	Division I.	South.	East Hunter.	West Hunter.	Holbeck.	Division II.	WARDS.										West.	New Worley.	Arny and Worley.	Bramley.	Division III.	Healing-leigh (part).	Burley.	N. West.	Brunswick.			Central (North of Lady Lane).			Division IV.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

TABLE II—continued.

[illegible]

* Automatic trough closets.

This table includes work done by four Works Inspectors and Yiddish Inspector.

infective disease, nuisances found, completion of reports, and other causes, in the first three of the five years named, the average was considerably over 23,000, in 1902 it went up to 31,000, in 1903 to 65,000. I regret exceedingly the necessity of limiting the house-to-house work on account of the prevalence of small-pox, but I see no other way of exercising some amount of control over the disease except by making special and energetic search for cases such as was made during 1902 and 1903. It is not so much the visits paid to infected houses that has taken up so much time of the inspectors, the number of such houses is, after all, small, and though each has been thoroughly inspected, and comes into the return of the first line of table I., it does not greatly effect the numbers in that line, whilst the enormous drop in the houses examined house-to-house from 12,000 in 1900, to less than 3,000 in 1903, tells considerably apparently in our disfavour. In natural sequence, the number of house-drains tested was 1,500 less than in 1902, and nearly 2,600 less than in 1900, which was our maximum year.

On the other hand, the number of houses examined merely as to buildings and offices, was 300 in excess last year of what it had been the year before. It is in the house-to-house work, not in the ordinary routine inspection that the diminution has occurred. This has naturally, however, involved the diminution in the number of nuisances found and remedied. The proportion remedied is greater to those found than in 1899, and the actual number also greater, but less than in any of the three intermediate years.

During the year, 1,370 privies were converted into water closets, and 138 new water closets provided, making a total of 1,508 new water closets to existing houses. The average in the four previous years had been 1,851, the maximum being in 1901, when it was 2,137. There are, of course, not quite so many privies now to convert into water closets as there were three years ago, but there is still great room for the erection of additional closets.

TABLE IIb.

House-to-house work in South-East Leeds by women inspectors. Year 1903.

	East Ward.	South Ward.	Total.		East Ward.	South Ward.	Total.
HOUSE INSPECTION.				OTHER WORK DONE (continued).			
1. Houses and premises completely examined on account of	..	..	..	33. Special examinations of drains by tests ..	..	..	..
2. Houses and premises examined only as to	..	..	..	34. Defects found by ditto ..	..	..	..
3. Number of houses wholly or partly examined	517	315	832	37. Notices and letters served ..	..	..	..
4. Total number of above houses where sanitary defects were found	..	..	..	38. Dwelling houses unfit for human habitation closed	..	..	..
5. Sanitary defects found in above houses	..	..	..	39. Dwelling houses rendered fit for human habitation	..	..	..
6. Houses dirty	517	315	832	40. Houses cleansed ..	42	70	112
7. Overcrowded	286	166	452	41. Overcrowded houses dealt with ..	..	..	..
8. Damp or dilapidated	347	315	662	42. Defective spouting, &c., repaired ..	53	46	99
9. Houses with defective eave-gutters or	..	..	..	43. New middlen privies built ..	10	4	14
10. Houses with defective eave-gutters or	68	103	171	44. Old middlen privies repaired ..	10	5	15
11. Houses with defective eave-gutters or	6	6	12	45. Do. rebuilt ..	..	..	..
12. Houses with defective eave-gutters or	78	62	140	46. Privies converted into trough water closets	..	..	..
13. Houses with defective eave-gutters or	..	..	..	47. Do. do. ordinary water closets	..	..	..
14. Houses with defective eave-gutters or	20	8	28	48. Water closets erected ..	..	..	..
15. Houses with defective eave-gutters or	1	11	12	49. New dry ashpits or tubs ..	..	..	..
16. Houses with defective eave-gutters or	..	..	..	50. New trough water closets built ..	..	..	..
17. Houses with defective eave-gutters or	..	..	..	51. Pail closets converted into water closets	..	..	..
18. Houses with defective eave-gutters or	15	10	25	52. Trough closets altered into water closets	..	..	..
19. Houses with defective eave-gutters or	27	11	38	53. Closets cleansed (lime-washed, &c.) ..	83	80	163
20. Houses with defective eave-gutters or	126	143	269	54. Drains in course of construction inspected	..	..	..
21. Houses with defective eave-gutters or	24	7	31	55. " of reconstruction ..	..	..	..
22. Houses with defective eave-gutters or	29	26	55	56. " inspected when connection made to sewer	..	..	..
23. Houses with defective eave-gutters or	394	387	781	57. Disconnections of house drains effected	..	..	..
24. Houses with defective eave-gutters or	300	175	475	58. Cesspools filled up ..	..	..	..
25. Houses with defective eave-gutters or	11	..	11	59. Public or private wells abolished ..	..	..	..
26. Houses with defective eave-gutters or	3	..	3	60. Houses supplied with town's water	..	..	..
27. Houses with defective eave-gutters or	4	21	25	61. Trough and water closets repaired ..	..	..	..
28. Houses with defective eave-gutters or	412	408	820	62. Other house nuisances remedied ..	53	46	99
29. Houses with defective eave-gutters or	..	..	..	63. Total houses for which above work done	260	197	457
30. Houses with defective eave-gutters or	..	..	..	64. Houses in which all defects found have been remedied	244	178	422
31. Houses with defective eave-gutters or	..	..	..	65. Street gullies cleansed ..	9	..	9
32. Houses with defective eave-gutters or	..	..	..	66. Offensive accumulations removed ..	2	..	2
33. Houses with defective eave-gutters or	..	..	..	67. Pollutions of river or streams remedied ..	..	..	..
34. Houses with defective eave-gutters or	4	..	4	68. Other non-domestic nuisances removed ..	..	2	2
35. Houses with defective eave-gutters or	625	275	900	69. Additional visits paid to inspect work in progress	5	..	5
36. Houses with defective eave-gutters or	5	..	5	70. Total nuisances abated ..	262	303	565
37. Houses with defective eave-gutters or	180	201	381	71. Total nuisances abated ..	..	..	..

This table includes only house-to-house work done in South-East Leeds. Other work in these and other wards done by the women inspectors is given elsewhere, see table Va., page 139 and text pp. 141-4.

Women's work.—These figures, however, do not include certain work done by the women inspectors. They examined altogether in the south-east registration district of Leeds 832 houses in house-to-house manner, leaving the testing of the drains, however, to the men inspectors. They detected 820 nuisances, and secured the remedy of 565 of them. On account of nuisances found in connection with those houses they made 900 other visits, in addition to 4 on account of infective disease, 5 for the completion of reports, and 381 for unassigned reasons. The table giving this work, which is only part of the work undertaken by the ladies, will be found in the part of the report dealing with their other work.

INSPECTION OF WORKPLACES.

Bakehouses.—Altogether 1,183 visits were paid by the ward inspectors to 372 bakehouses in their various wards. The workshops inspector also made 15 visits to ordinary bakehouses. In addition to these visits, chiefly on account of underground bakehouses, 173 special visits were made by Mr. Lonsdale or Mr. Ferguson, together or separately, in order to take measurements (89) and to obtain samples of air (84) of underground bakehouses.

Including both classes of work, visits paid to bakehouses may therefore be classified as follows in the usual manner:—In the Central ward 60 visits were made to 18 bakehouses by the ward inspector, and 19 special visits to underground bakehouses by the other officers named. Four bakehouses were found unoccupied, and 3 had been given up.

In the North ward 100 visits were paid to 36 bakehouses. One bakehouse was found closed. There were also 37 special visits to underground bakehouses.

In the North-east ward 95 visits were paid to 16 bakehouses. Three bakehouses were found closed, 1 was unoccupied, and 3 were new. In addition, 3 visits were made by special inspectors to bakehouses below ground.

TABLE III.

Shewing the number of drains or sources of pollution diverted from the River Aire and its tributaries and connected to the town sewers.

DATE.	Mill, factory, house drains, stables, and pigstyes.	Water closets.	Privies.	Trade pollu- tions.	Total.
Previous to 3rd Jan., 1903	5,806	492	232	78	6,608
During the 52 weeks end- ed 2nd Jan., 1904 ...	...	...	1	...	1
Totals ...	5,806	492	233	78	6,609

In the East ward 102 visits were made to 15 bakehouses by the ward inspectors. Two bakehouses were found closed.

In the South ward 31 visits were paid to 13 bakehouses. Two were found closed. Eight visits were made to underground bakehouses in addition to the foregoing.

In the East Hunslet ward 47 visits were made to 17 bakehouses. One bakehouse has been discontinued, and 1 was new. Seven special visits were also made to bakehouses underground.

In the West Hunslet ward 95 visits were paid to 46 bakehouses. Two bakehouses were found closed, and 5 were new. In addition, there were 13 visits to underground bakehouses by special inspectors.

In Holbeck ward 69 visits were made to 13 bakehouses. Two bakehouses were found closed, 3 unoccupied, and 71 were new to our list. Five special visits were also made to underground bakehouses.

In Mill Hill ward 217 visits were made to 38 bakehouses. One bakehouse was found closed, 1 unoccupied, 1 new. Twenty-three special visits were also made to bakehouses underground.

In the West ward 16 bakehouses received 46 visits. Two were found closed, and 2 unoccupied. Eleven special visits were paid to basement bakehouses.

In the North-west ward 44 visits were made to 25 bakehouses. Seventeen special visits were in addition paid to those underground.

In the Brunswick ward 21 bakehouses received 43 visits. One bakehouse was found closed, 1 new. Twelve extra visits were paid to underground bakehouses in connection with certificates.

In the Armley and Wortley ward 61 visits were made to 37 bakehouses. Four further visits were paid to bakehouses below ground.

In New Wortley ward 40 visits were paid to 11 bakehouses. Two other visits were paid by the inspectors dealing with underground bakehouses.

In the Bramley ward 12 bakehouses received 62 visits. One was found closed, 1 unoccupied, 1 new.

In the Headingley ward 71 visits were made to 38 bakehouses. Four bakehouses were new. Twelve visits in addition were paid to those underground.

Underground bakehouses.—Towards the close of 1902 the ward inspectors were instructed to make out a list, with measurements, of all underground bakehouses in their wards. It was found, however, afterwards that these lists were extremely imperfect. On May 23rd an advertisement was inserted in the local papers by the authority of the Committee drawing attention to the clauses of the Factory and Workshops Act, 1901, dealing with underground bakehouses; intimating that the use of all underground bakehouses, not occupied before the passing of the Act, must be discontinued after the 1st of January, 1904, and that any underground bakehouse in use before the passing of the Act could only continue to be used after the 1st of January, 1904, if it was certified by the Sanitary Authority to be suitable "as regards construction, light, ventilation, and in all other respects."

The matter of underground bakehouses and the adaptation of existing premises, so as to warrant their continued use, had been the subject of considerable discussion by the Incorporated Society of the Medical Officers of Health during 1902 and 1903. As President of that Society during the year, it fell to my lot to preside at these discussions, and to attend a conference suggested by the Master Bakers' Association at the Home Office. The Association last named had circularised the medical officers throughout the country, and pressed upon our Society the desirability of some common action. We naturally felt that it was exceedingly difficult to lay down rules which should be more than general—the circumstances of the bakehouses in each town differing so greatly. However, after several important meetings of the Council of the Society, to which several prominent Medical Officers of Health were specially added for the purpose, a general statement of what the Society considered should be recommended by our members to their several authorities was drawn up, was presented to the Society, sent by them in draft to every member, and formally reconsidered and adopted by a full meeting of the whole Society in London, and issued to the members as suggested recommendations.

When these recommendations had been thus issued the Master Bakers' Association approached the Home Office, again suggesting a conference. The Council of the Society of Medical Officers of Health, to whom the letter was referred, had no objection to such conference, but suggested to the Home Office that as the matter was one which affected largely the operatives, it was desirable that their representatives should be asked to any conference of the kind. Accordingly, on 13th of March, 1903, the representatives of the three bodies, the Master Bakers' Association, the Operatives' Association, and the Incorporated Society of Medical Officers of Health, met at the Home Office, under the presidency of the senior member of Dr. Whitelegge's staff. The conference was an exceedingly useful one, as it

enabled us to show that we were animated by no hostile feeling toward the Master Bakers, and it afforded an opportunity for the Operative Bakers to make their wishes known in regard to the conditions of work underground. The Council of the Incorporated Society of Medical Officers of Health, after hearing the report of their deputation upon the conference, did not think it necessary to modify in any way the suggested requirements which had already been issued by the Society, as it was understood in every case that these were merely indications suggesting the direction in which in any particular case modifications of existing conditions should be required.

The suggested requirements as adopted by the Society were laid by myself, as your Medical Officer, before the Sanitary Committee, and I asked you to refer the matter to the Plans Sub-Committee, which you did. The Plans Sub-Committee took the position that each case should be considered upon its own merits, but that the Society's suggested requirements should be used as a guide, and that in two particulars special explanation should be made in the printed suggestions. One of these, was that any particular kind of castors for furniture should not be insisted upon. The other, that the circulation of air mentioned in clause 8 should be understood to mean "fresh air from outside."

The advertisement already spoken of had required persons occupying existing bakehouses for which they wished certificates to make application to myself. Applications came in at first rather slowly, and were dealt with as nearly as possible in the order in which they arose. In 64 of the earlier cases, one of our officers made a plan of the premises, but it was found later to be better to insist upon a plan being furnished by the applicant, and this has since been done. Where structural alterations to the building have been required, a plan and two tracings have been submitted, where no such structural alteration has been required, only a plan and one tracing. In the former case, plans

have been submitted and one of the tracings kept by the Building Clauses Committee. In all cases plans have been submitted to your Plans Committee and a tracing has been retained by us.

Towards the close of the year it was found that so very few bakers had made application, that a special notice was sent out to occupiers on our list of underground bakehouses, reminding them of the requirements of the Factory and Workshops' Act already advertised. Their almost universal reply was that they had not seen the advertisement and were expecting us to warn them of what was necessary. Owing to this delay, up to the close of the year, the requisite alterations had been made in so very few cases, that it will be better to leave the tabulation until the next report.

It may be stated however, generally, that the Committee refused in every case to sanction the continued use of underground bakehouses, unless the room used was at least eight feet high, contained not less than 1,500 cubic feet, free of oven or furniture, had permanent and temporary inlet and exit ventilators, smooth floor, walls, and ceilings, sufficient daylight to allow the Factory Abstract to be read in ordinary weather in any part of the bakehouse during the middle of the day, and unless there was freedom from neighbouring nuisances.

During the earlier part of the year, every bakehouse for which a certificate was applied for was visited by Mr. Lonsdale, Mr. Ferguson, or both, and one or two specimens of air were collected and examined for carbonic acid. The following tabulated result of these examinations may be of interest. They were made in the existing bakehouses before any changes had been effected, and show that on the whole, even before alteration, in most cases the air compared with that of many ordinary workshops was comparatively pure.*

* In No. 2 no work was going on. No. 12 was built under plans approved by the Building Clauses Committee. No. 22 was outside the city boundary. No. 42 and 43 had been opened after passing of Act. No. 44 was disused. In No. 45, 47, 48, 50 and 52 the analysis was not completed.

No. of Application.	Height.		Net cubic capacity.	Date and time of examination. 1903.			Temperature (Degrees Fahrenheit).	CO ₂ (parts per 10,000).
	ft.	in.						
1	8	0	1,740	April 16th	3.30	p.m.	63	6.3
				April 23rd	10. 0	a.m.	70	7.7
				May 8th	12.20	p.m.	74	5.9
3	7	11	1,111	April 24th	11. 0	a.m.	67	14.6
				April 27th	11.15	a.m.	65	13.0
				May 8th	11.40	a.m.	65	11.4
4	7	6	1,645	April 16th	4. 0	p.m.	61	9.3
				April 23rd	10.10	a.m.	61	7.5
				May 8th	1.10	p.m.	67	5.2
5	7	8	1,671	May 28th	10.50	a.m.	66.5	7.2
6	7	11	1,170	May 28th	11.30	a.m.	76	5.8
7	8	0	1,567	May 28th	1.15	p.m.	74	6.1
8	6	4	971	May 28th	12.15	p.m.	73	5.3
9	7	6	2,652	June 4th	11. 5	a.m.	67	5.5
				June 23rd	10.20	a.m.	70	9.5
10	6	10	1,598	June 4th	10.10	a.m.	68	7.4
				June 27th	10.30	a.m.	72	6.1
11	7	4	881	June 17th	11.50	a.m.	72	4.4
13	9	2	1,706	April 20th	3.30	p.m.	64	7.1
				April 28th	10.30	a.m.	66	7.7
				June 17th	12.30	p.m.	63	5.8
14	8	6	4,980	April 20th	3.45	p.m.	76	8.3
	and			April 28th	10. 0	a.m.	74	7.2
	6	6		June 17th	12.15	p.m.	72	6.7
15	6	11	5,626	June 17th	11. 0	a.m.	65	6.5
16	6	11	1,304	July 29th	11.25	a.m.	70	6.5
17	6	6	1,345	July 24th	12.40	p.m.	80	7.3
18	9	3	11,184	Sept. 11th	12. 5	p.m.	74	7.0
19	6	1	1,197	Sept. 3rd	11.55	a.m.	83	11.7
	and							
	6	8						
20	8	3	1,917	July 24th	11.45	a.m.	77	7.3
21	8	0	1,101	July 26th	11.50	a.m.	79	13.8
23	6	8	2,280	July 24th	11.25	a.m.	77	10.7
	and							
	6	9						
24	6	8	902	July 24th	12.10	p.m.	71.5	6.1
25	7	2	1,151	July 29th	12. 5	p.m.	81	14.3
26	8	8	1,261	Sept. 3rd	11.30	a.m.	79	7.5
27	7	2	2,307	July 29th	10.50	a.m.	74	8.5
	and							
	7	9						
28	9	1	4,669	Sept. 11th	11.30	a.m.	75	7.0
29	8	0	834	Sept. 3rd	10.55	a.m.	83	10.0
30	5	9	1,026	Sept. 2nd	11.55	a.m.	77	8.3
31	6	0	1,019	Sept. 2nd	11.35	a.m.	79	10.4
32	6	6	1,013	Sept. 2nd	11.25	a.m.	77	5.7
33	6	6	1,315	Sept. 2nd	11. 0	a.m.	83	18.0
34	8	0	1,453	Sept. 3rd	11. 0	a.m.	75	10.9
35	6	6	1,182	Oct. 20th	11.35	a.m.	68	5.8
36	6	6	1,023	Oct. 20th	10.30	a.m.	74	9.7
37	6	4	3,090	Oct. 20th	12.25	p.m.	77	6.8
	and							
	7	6						
38	8	0	1,310	Oct. 20th	12. 5	p.m.	79	8.9
39	6	6	1,045	Oct. 20th	11. 0	a.m.	67	7.5
40	7	5	967	Nov. 27th	10.35	a.m.	65	8.4
41	6	8	2,395	April 21st	3.30	p.m.	68	7.9
46	8	0	1,428	Nov. 27th	11. 5	a.m.	68	7.1
49	8	0	2,770	Nov. 27th	10.25	a.m.	68	9.4
51	8	2	1,214	Nov. 27th	10.50	a.m.	63	10.1
53	6	3	2,090	Nov. 27th	11.30	a.m.	64	8.3
54	7	6	1,091	Nov. 27th	10.15	a.m.	72	10.3

Workshops.—Tables IV. and V. are the ordinary ones dealing with workshops visited. They are on the same lines as in previous years. Table IV. contains the record of 1,106 visits to workshops made by the chief workshops inspector, by the Yiddish inspector, or by the women inspectors. The number of visits paid by the latter will be found separately stated in another part of the report. The corresponding number in table IV. for the 53 weeks of last year was 1,189.

TABLE IV.

Shewing the sanitary conditions at time of visit of workshops on register and occupied, during the 52 weeks ended January 2nd, 1904.

DATE. 1903	Visits to workshops.	EMPLOYEES AT TIME OF VISIT.			VENTILA- TION.		CONDITION OF PREMISES.				Workshops found closed.
		male.	female.	total.	good.	defect- ive.	rooms.		closets.		
							clean.	dirty.	clean.	dirty.	
4 weeks ended Jan. 31	45	259	349	608	43	2	40	5	38	7	30
4 weeks ended Feb. 28	95	493	520	1,013	92	3	87	8	65	30	13
5 weeks ended Apl. 4	143	492	805	1,297	140	3	121	22	118	25	26
4 weeks ended May 2	177	957	973	1,930	167	10	139	38	130	47	10
4 weeks ended „ 30	62	206	273	479	58	4	49	13	56	6	16
5 weeks ended July 4	20	161	66	227	19	1	12	8	16	4	12
4 weeks ended Aug. 1	67	533	427	960	66	1	50	17	48	19	6
4 weeks ended „ 29	108	215	409	624	107	1	97	11	98	10	38
5 weeks ended Oct. 3	83	327	594	921	78	5	76	7	71	12	12
4 weeks ended „ 31	135	650	650	1,300	135	...	104	31	96	39	13
4 weeks ended Nov. 28	73	353	305	658	70	3	68	5	58	15	13
5 weeks ended Jan. 2 [1904.	98	400	462	862	91	7	78	20	94	4	14
Totals	1,106	5,046	5,833	10,879	1066	40	921	185	888	218	203

Table V. shows that 282 visits were made to workshops proposed to be added to the register, as against 277 in the 53 weeks of 1903. This work was also done by the same staff, except that the Yiddish inspector had no share in it.

TABLE V.

Shewing workshops not previously visited to which visits have been paid during the year, and the sanitary arrangements at time of visit.

DATE. 1903.	Workshops added to register.	DESCRIPTION OF DRAINAGE.			SITUATION OF CLOSETS.				Workshops found closed.
		cut off.	not cut off.	none.	inside.		outside.		
					W.C. soil-pipe carried up.	W.C. soil-pipe not car- ried up.	W.C.	Privies.	
4 weeks ended Jan. 31	11	9	...	2	...	1	8	2	...
4 weeks ended Feb. 28	40	26	9	5	15	3	17	5	2
5 weeks ended April 4	41	28	8	5	13	3	25	...	1
4 weeks ended May 2	23	13	8	2	2	1	20	...	4
4 weeks ended „ 30	33	23	7	3	5	3	25	...	5
5 weeks ended July 4	23	13	3	7	7	...	13	3	3
4 weeks ended Aug. 1	16	10	3	3	8	...	6	2	2
4 weeks ended „ 29	15	8	2	5	3	2	8	2	1
5 weeks ended Oct. 3	32	19	8	5	17	...	11	4	2
4 weeks ended „ 31	16	10	3	3	3	2	11	...	...
4 weeks ended Nov. 28	21	13	5	3	8	...	10	3	3
5 weeks ended Jan. 2 [1904.	11	3	1	7	4	...	6	1	...
Totals	282	175	57	50	85	15	160	22	23

TABLE Va. (Outworkers).

Showing visits paid by Women Inspectors to the houses of Outworkers during the 52 weeks ended 2nd January, 1904.

Wards.	Complete inspections of houses on first visit.	Additional visits about			Total.
		work ordered.	infectious disease.	other causes.	
Central	51	44	3	79	177
North	121	58	6	136	321
North East... ..	114	37	1	103	255
East	36	15	...	46	97
South	17	6	...	24	47
East Hunslet ...	25	7	...	34	66
West Hunslet ...	73	31	...	78	182
Holbeck	94	33	4	100	231
Mill Hill	38	1	...	32	71
West	208	94	17	220	539
North West ...	45	13	...	83	141
Brunswick	59	31	1	109	200
New Wortley ...	51	10	2	54	117
Armley	51	5	3	38	97
Bramley	...	...	...	...	...
Headingley ...	35	9	...	48	92
Totals	1,018	394	37	1,184	2,633

Outworkers.—The inspection of houses occupied by outworkers was made in 1,018 cases in the 52 weeks, as against 1,024 in the 53 weeks of 1903. The total visits in the past year made to such houses were 2,633, against 2,196 in the preceding and longer year. This work was entirely that of the lady inspectors. It is an inquiry which has been added to our ordinary inspection since you appointed women inspectors, and is an exceedingly valuable part of our work.

Other work.—The other work done by the senior workshops' inspector (Mr. Lonsdale), will be found in table Vb. The analyses of air in bakehouses have been mostly made by my laboratory assistant, Mr. Ferguson, under the guidance in the first instance of Dr. Harold Macfarlane, now of Hong-Kong.

TABLE Vb.
Visits paid by Senior Workshops Inspector on account of

	Factories.	Workshops.
Non-abatements	148	300
Drain inspection	11	3
Disease enquiries	67	12
River pollution	20	...
Complaints	112	158
Measurement of workrooms	...	27
Wage enquiries	93	21
Appointments	28	46
Bakehouses	...	15
Air Samples } Underground	...	84
Measurements } bakehouses	...	74
Other causes	68	128
TOTAL	547	868

Work done.

	Factories.	Workshops.
Drains tested	18	31
River pollutions abated	1	...
Nuisances abated	90	106

WOMEN INSPECTORS.

The changes in our staff of women inspectors have been already mentioned in the earlier part of this report. At the close of the year 1903, the inspectors were Miss Sharples, chief, Miss Stuart, Miss Burrows, Miss Turner, and Miss Hunter. We had also as probationers at this time, Miss Smith, and Miss Pearson.

Infectious disease.—On account of puerperal fever, our women inspectors examined 27 houses completely from cellar to attic, reporting upon the condition of the houses as to cleanliness, drainage, offices, etc. The drains of these houses were also tested by the smell test by the ward inspector. Further visits were made to these houses to the number of 59, visits were made to the nurses or midwives who had been in charge of the patient to the number of 32, and the personal disinfection of such nurses was carried out under the superintendence of the women inspectors in 20 cases.

In consequence of measles, 15 houses were completely inspected, and 51 further visits paid on account of this disease.

On account of a scarlet fever case in a workroom, one complete house inspection was made, and 4 further visits in connection with the disinfection.

On account of small-pox, 146 visits were made to factories, 20 to other workplaces, 232 to schools, and visits to contacts at home numbered 1195.

On account of other infectious diseases, 54 inspections were made to factories, and 10 to other workplaces, and 6 to houses where others were employed.

Elementary schools were visited in 176 cases, on account of infectious disease, other than small-pox, amongst children in the girls or infant departments, and 420 visits were made to the homes of pupils away from school, as well as 147 repeat visits on account of information obtained, or to secure further information, and 41 other house visits were made.

In connection with schools, notices were given in 30 cases, the defects were remedied during the year 1903 in 13, while 15 have been remedied during the present year, and 2 still remain unremedied in May, 1904. In addition, 13 notices were given to cleanse or limewash, 5 were carried out during the year, and 8 have since been done.

Five houses visited for infectious disease were cleansed and limewashed after notice had been given.

Workplaces.—The inspections made of the houses of outworkers are given in table Va. In connection with this work 75 ordinary notices were given, in 65 the work was carried out during 1903, and in 10 during the present year. In addition to these, 157 notices for cleansing or whitewashing were issued, and the work was carried out in every case but one during the year. In that instance the notice lapsed because the occupier had removed.

In addition to the work given in table Va., showing the visits paid in connection with the outworkers, 992 inspections were made of workshops either on the register or to be put upon the register. These inspections are included in those given in tables IV. and V. In addition to these there were visits of inspection to the number of 1,375 to workshops and workplaces. These latter are not included in either table IV. or V., being chiefly visits to see whether the orders given had been carried out, and not complete inspections of the workplaces.

Notices for cleansing or limewashing were made in the case of 390 workshops. Work of this kind was carried out in 354 cases, and since the close of 1903 in 22 further cases the work ordered has been done. In 14 cases the work lapsed because the workplaces changed hands or were closed. Notices were given for other causes, including 14 for overcrowding, 8 for deficient ventilation, in all 102 cases. A further notice was held back because the occupier ceased to employ women; in 3 the work was not carried out as the workshop was closed.

In 77 instances workshops where protected persons were employed were reported to the Medical Officer of Health, and by him to the factory inspector.

Ninety-three complete inspections and 88 further visits were paid to laundries. These are not included in the tables just named.

Domestic workshops received 261 visits. These also are not included in table IV. or V.

Restaurant kitchens and bakehouses were inspected in 103 cases, and 85 further visits were made. Twenty-five notices were issued for cleansing or limewashing; the work has been done in 24. In the remaining case the premises were closed. Five other notices were given on account of defects found, and the work was carried out in 4 before the end of the year.

In connection with factories, 43 visits were made for the investigation of complaints, and 73 to secure abatement of nuisances found. In addition to 24 notices given to cleanse or limewash, 34 other notices were issued, and the defects remedied in the year in all the 58 cases.

Infantile mortality.—The work, mentioned in my last report, of visiting every house in South-east Leeds where a death had occurred in a child under two years of age, has been carried on partly by Miss Burrows, partly by Miss Smith. A somewhat complete tabulation of the conditions found has been made, and will be dealt with elsewhere. In consequence of what was found it was necessary for the inspectors to give 64 preliminary notices, and in 56 cases the remedy has been secured. Five of the 56 were cases of overcrowding, and 51 other nuisances were remedied. Eight of the nuisances for which notices were given were unremedied at the end of the year, though 3 of them has been since put right. Cleansing and limewashing notices were given in 106 instances; 105 were carried out during 1903, and 1 since.

Other work.—Eighty-three visits were paid to public lavatories for women, and 8 notices for cleansing or limewashing issued; 6 of these were carried out during 1903, the remaining 2 during the present year.

At the request of the lodging-house inspector, 128 visits were paid to tents and vans, and in a few cases to lodging-houses where women resort.

On account of the Midwives' Act, 73 houses were visited for verification of addresses, &c.

Exclusive of the house-to-house work contained in table II.b, already referred to under the head of ward inspection, 147 visits were paid for miscellaneous causes, including 10 special and complete inspections of dwellings for complaints, and 10 return visits to the same houses

Matters referred.—The ladies have made their examinations of houses as complete as possible, but it has been necessary in some instances to refer the testing of drains and some of the special matters to other inspectors. In this way 39 complaints made to the women inspectors at their visits were transferred by them to the divisional and special inspectors, and in 147 cases sanitary defects were found which it was desirable to refer to the appropriate officer. Of these, 93 were structural defects in houses, 7 in restaurant kitchens, 6 in schools, and were referred to divisional inspectors. In workshops 34 were referred to the senior workshops inspector. Defects found in 2 cases were referred to the Jewish inspector, and in 5 to the temporary dwellings inspector, and 67 reports were made to other corporation departments.

CLEANSING.

House refuse.—Table VI., as usual, shows the number of ashpits examined by the ward inspectors. It again shows a very considerable decline from the numbers examined during the previous year. In 1901 the numbers were 52,667, in 1902 45,508, last year 39,848. This is, after all, merely check work, as there is now a cleansing foreman charged with the duty of seeing that the ashpits and streets are kept clean in each ward.

TABLE VI.

Ashpits inspected by Nuisance Inspectors during the 52 weeks ended 2nd January, 1904.

Number of inspections of ashpits	Requisitions to cleanse sent to Cleansing Sub-Department from Sanitary Office.	Number of latter returned as carried out.	Ashpits not cleansed within four days of requisition.	Condition of ashpits generally.
39,848	6,981	6,851	118	Good.

It will be noticed that the number of midden emptyings in table VII. is steadily on the decrease. This is not because the individual middens are emptied less frequently, but because the number of these nuisances is being rapidly diminished.

TABLE VII.

Refuse Removal (same period).

No. of midden emptyings.	No. of dry ashpit or tub emptyings.	No. of box or pail emptyings.	Total.	LOADS REMOVED.			Total.
				Night-soil.	Dry ashes.	Rubbish.	
32,750	853,273	20,549	906,572	10,415	155,011	7,963	173,389

Up to the year 1899, when a special clause in a local Act was obtained requiring new houses, where there was a proper water supply and sewer available, to be provided with water

closets, it had been the practice of our Building Clauses Committee to sanction plans for the provision of privy middens for new properties. They were advised by the Town Clerk that they could not insist upon water closets where the owners of property preferred to build middens.

Since 1866 the Corporation have had power to require the provision of a water closet for any building in Leeds, but till 1899 it was considered that that power did not come into force until the building was erected. Consequently, there was great reluctance on the part of the Corporation to require an owner to provide a water closet for a house where a midden privy had been quite recently erected in accordance with stamped plans.

When the power of requiring, in practically every case, a water closet for a new house was obtained, by the Act of 1899, the work of getting rid of midden privies in old properties progressed rapidly.

The "wet ashpits," or privy middens, in 1894 were 10,211. In 1898 they were 8,749. Notwithstanding that they had been increased by the building of new ones up to the year 1900, chiefly in the outer districts, the number had decreased at the end of 1903 to 4,374.

In 1894 the number of wet ashpit emptyings was 85,882. In each case the number of emptyings was about 8 times the number of middens.

On the other hand in 1894 the number of dry ashpit emptyings was 325,779, against 853,273 in 1903. The next column, boxes or pails, refers to the pail system of removing excreta. There were 135,659 such emptyings in 1894, although even at that time pails had been largely got rid of. The number was reduced last year to 20,549, notwithstanding which the total emptyings of all kinds rose from 547,320 in 1894 to 906,572 in 1903.

Following table VII. to the next column it will be noticed that the amount of night soil removed has dropped to 10,415 loads. In 1894 it was 34,618, in 1891 it had been 40,302. To these should really be added what is called in the table "rubbish," that is to say, the portion of the wet ashpit refuse which is not marketable as manure. The quantity last year was 7,963 loads, against 19,967 loads in 1894, and 25,151 loads in 1891. About these large quantities in 1891, however, there was a certain amount of doubt, as there had been a tendency to magnify the amount of work done by our destructors which we used to consume rubbish and dry ashes.

The figures in this respect are more reliable in 1894 than in 1891.

We may take it however, that the dry ashes, that is the ashes removed from the houses where the water carriage system prevailed, increased from 65,726 loads in 1894 to 155,011 loads last year. The total loads removed, wet and dry and including "rubbish," had therefore increased from 120,311 in 1894 to 173,389 in 1903. This increase is largely due to the increase of population, the frequency of emptying does not make any real difference to the number of loads removed.

Destructors.—The following work has been done at the four destructors :—

At Armley Road 27,281 loads of rubbish, weighing 24262·4 tons (0·89 tons or 17·79 cwts. per load) were destroyed during 305 working days. On an average of 12 cells, the work per cell per day would be 6·63 tons. The highest observed temperature was 1,500° Fahr.,* the lowest 500°; average, 1,474°. There were 7,320 observations taken. The firemen employed averaged 14·2 a day, and the amount turned over by each averaged 5·62 tons daily.

* The pyrometer does not register above 1,500° Fahr.

At Beckett Street, 16,455 loads of rubbish, weighing 14,257·1 tons (0·87 tons or 17·33 cwts. per load) were destroyed in 8 cells during 305 working days being an average of 5·84 tons per cell per day. The highest observed temperature was 1,500° Fahr.,* the lowest 870°; average 1,483°. There were 7,320 observations taken. The average number of firemen employed was 8·07, and their daily turn over 5·79 tons.

At Kidacre Street, 25,090 loads of rubbish weighing 22,444·6 tons (0·89 tons, or 17·89 cwts. per load) were destroyed in 12 cells during 305 working days, being an average of 6·13 tons per cell per day. There were 7,320 observations of temperature taken, the readings averaged 1,446° Fahr., the highest was 1,500°,* the lowest 450°. The average number of firemen was 11·93, and they turned over an average of 6·17 tons a man daily.

At Meanwood Road, 15,899 loads of rubbish, weighing 15,528·65 tons (0·98 tons or 19·53 cwts. per load) were destroyed in 8 cells during 305 working days, being an average of 6·36 tons per cell per day. There were 7,320 observations of temperature taken, the readings averaged 1,455° Fahr., the highest was 1,500°,* the lowest 500°. The average number of firemen was 6·12, and they turned over an average of 8·30 tons each daily.

Street cleansing.—This heading is intended to include the work done in the ordinary sweeping and gully cleansing to the paved streets, in the watering of streets and roads, in the cleansing of certain Macadam roads and their gullies and in the removal of snow.

Mr. Darley reports that during 310 working days, 307,409 street cleansings were effected, an average of 992 a day. The length of paved streeting cleansable by us is 250 miles.

* The pyrometer does not register above 1,500° Fahr.

The cleansing of gullies was equivalent to cleansing 231,492 or an average of 747 per day. In addition to this, 68,389 loads of street refuse were carted away (221 a day), and 85,944 cleansings of courts and yards were effected, an average of 277 a day.

The number of horse-days for street cleansing was 25,360 and for watering 4,572, being an average of 82 and (during 96 days) 48 horses a day respectively.

During the 96 street watering days 83,216 barrels of water were used.

The work done in connection with the unpaved streets was equivalent to the cleansing of 26,509 roads and 12,079 gullies; whilst 21,186 loads of refuse were removed, averaging for 307 working days, respectively 86 roads, 39 gullies, and 69 loads per day. The number of horse-days was 6,009, an average of 20 horses a day.

During the 52 weeks, the sub-department removed 973 loads of snow at a cost to the city of £133.

The cost of street cleansing was £21,683, of street watering £2,723, and of cleansing highways £7,507, making a total cost (including snow removal) of £32,045.

FOOD INSPECTION.

FOOD, DRUGS, AND DAIRIES.

Cowkeepers.—The number of cowkeepers on the register was reduced from 148 to 145, and the number of milk retailers from 573 to 497. The number of visits paid to both had increased from 831 to 1,364. This figure is smaller than the one for 1901, which was 2,202. There has to be added however, to the visits to milkshops, 195 visits to railway stations to procure samples of milk sent in by train. Three cowkeepers had discontinued business as against 15 last year. One new cowkeeper was registered as against 2, and 1 new cowshed built. Cowsheds reconstructed were 13 as against 9, and the farm or milkshops visited on account of infectious disease was 62 as against 33.

TABLE VIII.

Work done in connection with the Cowsheds and Dairies
Order during the 52 weeks ended 2nd Jan., 1904.

Cowkeepers on the register	...	...	...	145
Milk-retailers	„	...	...	497
Visits to cowsheds	...	...	...	515
„ milkshops	...	...	...	849
„ railway stations	...	...	...	195
Cowkeepers discontinued business	...	...	...	3
New cowkeeper registered	...	...	...	1
New cowshed built	...	...	...	1
Cowsheds reconstructed and provided with additional light and ventilation	...	...	...	13
Farms or milkshops visited on account of infectious disease	...	...	...	62

Cowsheds.—The veterinary inspection of cattle and cowsheds has been continued during the year. One hundred and fifty-eight cowsheds have been thus visited, and, though several of them are still unsatisfactory, the report is on the whole less so than last year.

In regard to the condition of the shed at farm No. 64, visited on January 19th, it was found deficient in light. Since that time new windows have been put into this cowshed.

On the same day cowshed No. 85 was found badly ventilated. Since that time two air grates have been put in, and the occupier was advised to put in two glass openable windows. [Since done].

On January 28th, register number 378, one cowshed was found unsuitable. This cowshed is now disused for dairy purposes. It is still used for storing fattening cattle. There is ample room in the new cowshed for all milch cows now kept.

On the same day shed No. 204 was found dirty and the drains stopped. A notice was given and the matters were put right immediately.

On February 2nd at No. 813, where the cow with the diseased udder was found, the cowshed was dirty. The man was spoken to, and on subsequent visits it has been found clean.

On February 16th farm No. 344, where cow with a diseased udder was also found, was not very clean. On subsequent visits later on in the year it was better attended to, and the place is not now used as a dairy farm at all.

On the same day, at farm No. 398, in the same ward, a shed was found close, dirty, and badly ventilated. This applied only to one shed. The other was in good condition, comparatively new. Plans have been submitted for a new mistal in lieu of the old shed.

On the same date the sheds at No. 765 were dirty, and one place was badly ventilated. At the last visit this shed was clean and the ventilation properly attended to.

On the same day at No. 73, one cowshed was satisfactory and one required alteration. The unsatisfactory shed is not now used for dairy cows.

On March 6th, at farm No. 384, the shed was rather dirty. The then occupier has since given up cow-keeping. The new occupier keeps the place cleaner.

March 12th, farm No. 195. One shed was found good, and two were regarded as unfit to keep cows in. One of these sheds has been made fit by removal of boards from windows. The other has been entirely disused.

On the same day, on a farm, No. 77, with 24 cows, one shed was dirty. At a subsequent visit it was found clean. On the 14th December it was again visited, and again dirty. It has been kept somewhat cleaner since.

On March 23rd, farm No. 90, one shed was bad. New ventilating glass windows have been put in, and air grates and roof ventilators

On the same day a very bad shed was found at farm No. 41. This matter has received attention, and something has been done to improve the condition of affairs by introducing a new roof light. A lot of timber over heads of cattle has been removed.

On the same day, at farm No. 782, was a shed badly ventilated. This is probably a matter of management rather than of structure, the habit of blocking up ventilators being far too common. The bagging has in this case been taken out of the windows.

April 9th, farm No. 49. Some good sheds were found rather dirty. They have been kept fairly clean since, and the floor has been relaid.

On April 9th, at farm No. 94, the veterinary surgeon remarked that the shed required more ventilation. The boards over the cows' heads have been cut away to the extent of four feet, to give better ventilation.

On April 27th, at farm No. 343a, the yard was dirty for want of a manure pit. The yard has been kept cleaner since. There really is a manure pit. It was probably covered by accumulation at the visit of the vet.

On April 29th, at farm No. 126, shed rather dirty; badly ventilated. Alterations have been made, and the place has been kept cleaner. Two new windows at head of cows.

Same date, farm No. 201. "Shed bad and poorly ventilated." One large new window put in. Cows put back two feet from wall.

On May 1st, at farm 574. Large shed was satisfactory, but smaller one was badly ventilated. This cowshed has also been altered. A new glass openable window has been made at the head of the cattle.

Same date, farm No. 408. The shed required cleaning. This has been done.

The same date, No. 63. Walls dirty, shed badly ventilated. The walls have been cleaned, and the occupier has been required to keep the place better ventilated.

Same day, farm No. 310. The ventilators in the roof had been found blocked. This is not a structural defect, but one on the part of the occupier, who has since complied with our notice.

On May the 6th, a shed at farm No. 35 was found dirty and badly ventilated. Re-arrangements of the stands and ventilation have been made.

Same date, No. 812. Shed since altered by relaying of floors, the making of a front passage, and re-arrangement of stands.

During the summer the cows were out, and it was not considered desirable to pursue the examination.

On October the 29th, farm No. 430, in Bramley, not visited in spring, was found dirty. This has been attended to.

November 13th, shed at farm No. 321, Headingley, which had been visited on May 6th, and reported as having 13 cows, and as satisfactory, was found with 16 cows and reported as clean, but very hot and short of ventilation. Alterations have been made in this shed which is now in the occupation of another cowkeeper.

November 26th, at farm No. 153, the veterinary surgeon remarked the shed would be better with more ventilation. This has since been provided. The cowshed is in the insanitary area, and is coming down, but temporary measures have been taken to improve the ventilation.

On the same day, at farm No. 559, a shed was badly ventilated and dark. The place has been since better ventilated but is still dark.

On the same day a shed at farm No. 154 was found dirty and the shed described as unfit and filthy. This man is under notice, and is a very difficult person indeed to deal with. He has, however kept the place a little cleaner lately.

On December 23rd, No. 128 had shed rather dirty and untidy. At last visit it was thoroughly clean and newly white washed.

Inspection of cattle.—The principal object, however, of the veterinary's visit was the examination of the udders of the cattle.

On the 19th of January, out of 11 cows examined in the cowshed at farm No. 135, two had unhealthy udders; one of them was sent to a private slaughter-house and killed. The meat was found healthy. The other was injected with tuberculin. The animal's temperature, which was 101.6° on February 22nd at the time of injection, rose nine hours afterwards to 103.4° , and three hours later to 106.4° . This was considered as a positive proof of the presence of tubercle. The cow was afterwards sold.

On the 2nd of February, amongst 27 cows examined in two cowsheds at farm No. 431, and amongst 15 cows in cowshed at farm No. 813, in each case one cow with diseased udder was found. The milk was stopped from the date of the examination. These cattle were afterwards tested with tuberculin. In the case at 431 the cow's temperature was 101.6° on February 4th; 101.4° at 9 a.m. February 5th, at the time of injection. It rose to 104° and 105.8° nine and twelve hours later, and was therefore certified as tuberculous. The cow was afterwards sold. In the cow at 813 the temperature on February 4th was 102.2° . At nine next morning it was 101.2° , when the injection was made, and rose to 102° and 103.4° nine and twelve hours later. The reaction was therefore regarded as doubtful. We kept the cow some weeks under observation, and paid £3 3s. as compensation to the owner.

On the 16th of February, of 17 cows in cowshed at farm No. 344 in Bramley, one had disease of the udder. The animal had been already sold, and was killed a few days after. The tuberculin test was not applied.

On April 9th, of 26 cows examined in three cowsheds at farm No. 522, one cow had an inflamed udder. The cow's milk was stopped from the supply, and the veterinary surgeon saw the animal again on April 20th, and still considering the udder as tuberculous, at my request he tested her with tuberculin. Her temperature was 101.6° at time of injection on April 23rd, and rose to 103° and 105.4° nine and twelve hours later. Mr. Bowman considered the reaction as showing the existence of tubercle. On June 18th the cow was again examined, and the udder found worse than before. The owner was paid £8 as compensation for loss of milk not sold at our request. The animal was killed out of town, and the carcase alleged to have been found free from tubercle.

On the 29th of April, out of 19 cows examined on farm No. 682, one had a "tubercular udder." The animal was not tested with tuberculin. As there was a difference of opinion in this case, £3 3s. was paid for milk sacrificed. The animal recovered.

On April 29th, out of 8 cows examined on farm No. 21, in Bramley, one was found "ill," though the udder appeared healthy. The milk was stopped by consent. There was no reason to suspect tubercle. No test was made. The animal recovered.

On November 13th, out of 16 cows examined on farm No. 813, one was found with a diseased udder. The milk was stopped, as Mr. Bowman considered the disease tubercular. A specimen of the discharge—it was scarcely milk—from the diseased quarter was sent to the pathological laboratory at the Yorkshire College. No tubercle was found. The tuberculin

TABLE VIII a.
Veterinary Inspection of Cattle, year ended 2nd Jan., 1904.

Date of Inspection.	Register No.	Ward.	Cattle and Condition.			Condition of Shed.
			No. Examined	Udder diseased.	General Condition	
1903.						
Jan. 13.	405	A. & W.	20	...	healthy	Satisfactory.
"	1014	W. H.	15	...	"	Do.
"	96	New W.	7	...	"	Do.
Jan. 19.	392	W. H.	18	...	"	In good order.
"	390	"	9	...	"	Do.
"	135	"	11	2	others healthy.	Do.
"	182	"	10	...	healthy	Do.
"	64	"	11	...	"	Deficient in light.
"	85	Hol.	8	...	"	Badly ventilated.
Jan. 23.	676	Hdy.	9	...	"	Old, in good order.
"	353	"	15	...	"	In good order.
"	550	"	11	...	"	Do.
Jan. 28.	159a	E. H.	23	...	"	Satisfactory.
"	159b	"	16	...	"	Do.
"	493	"	31	...	"	Do.
"	378	W. H.	7	...	"	One unsuitable.
"	359	E. H.	7	...	"	In good order.
"	204	"	7	...	dirty	Dirty, drains stopped.
Feb. 2.	632	A. & W.	3	...	healthy	Clean.
"	445	"	9	...	"	Do.
"	611	"	8	...	"	Do.
"	246a	"	7	...	"	Do.
"	246b	"	6	...	"	Do.
"	402	"	8	...	"	Do.
"	708	"	10	...	"	Do.
"	38	"	23	...	"	Do.
"	104	"	21	...	"	Satisfactory.
"	431	"	27	1	others healthy.	Do.
"	813	"	15	1	"	Dirty.
Feb. 16.	344	Brmy.	17	1	"	Not very clean.
"	141	"	16	...	healthy	Satisfactory.
"	318	"	24	...	"	Do.
"	127	"	22	...	"	Do.
"	398	"	12	...	"	Close, dirty, badly ventilated.
"	765	"	9	...	"	Dirty; one badly ventilated.
"	92	"	5	...	"	Satisfactory.
"	249	"	8	...	"	Do.
"	73	"	16	...	"	One satisfactory, one requires alteration.
"	400	"	20	...	"	Satisfactory.
March 6.	133	Hdy.	3	...	"	Do.
"	384	"	10	...	"	Rather dirty.

TABLE VIII a.—Continued.

Date of Inspection.	Register No.	Ward.	Cattle and Condition.			Condition of Shed.
			No. Examined	Udder diseased.	General Condition	
1903.						
March 6.	470	Hdy.	8	...	healthy	Satisfactory.
"	912	"	22	...	"	Do.
"	146	"	23	...	"	Do.
"	660	"	10	...	"	Building new shed.
March 12.	515	Brmy.	13	...	"	Satisfactory.
"	120	"	23	...	"	Do.
"	78	"	17	...	"	Do.
"	199	"	12	...	"	One good, two unfit to keep cows in.
"	635	"	6	...	"	Satisfactory.
"	77	"	24	...	"	One shed dirty.
"	909	"	11	...	"	Satisfactory.
"	801	"	7	...	"	Do.
"	173	"	10	...	"	Do.
March 23.	198	E.	17	...	"	Do.
"	90	"	25	...	"	One bad, two satisfactory.
"	34	"	12	...	"	Satisfactory.
"	41	N.E.	4	...	"	Very bad shed.
"	782	"	6	...	"	Badly ventilated.
"	693	"	31	...	"	Satisfactory.
April 9.	49	N.	22	...	"	Good sheds, rather dirty.
"	213	"	5	...	"	Clean.
"	644	Hdy.	3	...	"	Satisfactory.
"	609	"	7	...	"	Do.
"	393	N.	31	...	"	Clean.
"	347	"	5	...	"	Do.
"	522	"	26	1	others healthy.	Satisfactory.
"	94	"	7	...	healthy	Requires more ventilation.
April 20.	553	Bnk.	14	...	"	Clean.
"	195	N.	17	...	"	Do.
"	343	"	26	...	"	Do.
"	196	"	19	...	"	Do.
"	338	"	3	...	"	Do.
"	75	Hdy.	15	...	"	Do.
"	714	"	6	...	"	Do.
"	522	N.	1	1	"	Do.
April 27.	39	"	50	...	healthy	Clean and satisfactory.
"	602	"	14	...	"	Do.
"	343a	"	15	...	"	Yard dirty, manure pit required.
"	45	"	14	...	"	Clean and satisfactory.
"	1,108	N.E.	32	...	"	Do.
April 29.	410	NewW.	3	...	"	Satisfactory.

TABLE VIII a.—Continued.

Date of Inspection.	Register No.	Ward.	Cattle and Condition.			Condition of Shed.
			No. Examined	Udder diseased.	General Condition	
1903.						
April 29.	121	A.&W.	14	...	healthy	Satisfactory.
"	99	Brmy.	20	..	"	Ventilators closed.
"	89	"	5	...	"	Satisfactory.
"	126	"	13	...	"	Rather dirty, badly ventilated.
"	36	"	2	...	"	Satisfactory.
"	984	"	3	...	"	Do.
"	243	"	9	...	"	Do.
"	682	"	19	1	others healthy	Do.
"	201	"	7	...	healthy	Bad, and poorly ventilated.
"	554	"	8	...	"	Satisfactory.
"	21	"	8	...	7 healthy, 1 ill.	Do.
May 1.	337	"	21	...	healthy	In good order.
"	574	"	14	...	"	One satisfactory, one badly ventilated.
"	634	"	2	...	"	Satisfactory.
"	408	"	12	...	"	Shed wants cleaning.
"	360	"	18	...	"	Satisfactory.
"	63	"	8	...	"	Walls dirty, badly vent'ed.
"	336	"	3	...	"	Satisfactory.
"	817	"	7	...	"	Do.
"	227	"	7	...	"	Do.
"	110	"	7	...	"	Do.
"	462	"	6	...	"	Do.
"	310	"	7	...	"	Ventilators in roof blocked.
May 6.	35	W.	9	...	"	Dirty and badly vent'ated.
"	812	Hdy.	10	...	"	Shed to be altered.
"	167	"	12	...	"	Satisfactory.
"	389	"	11	...	"	Do.
"	164	"	2	...	"	Do.
"	321	"	13	...	"	Do.
Oct. 29.	405	W.H.	21	...	"	Do.
"	332	"	55	...	"	Do.
"	430	Brmy.	16	...	"	Dirty.
"	1014	W.H.	14	...	"	In good order and clean.
"	96	NewW.	7	...	"	Do.
Nov. 5.	632	A.&W.	3	...	"	Satisfactory.
"	445	"	5	...	"	Do.
"	246	"	17	...	"	Do.
"	402	"	8	...	"	Do.
"	708	"	10	...	"	Do.
"	38	"	23	...	"	In splendid order.
"	121	"	13	...	"	Satisfactory.

TABLE VIII a.—Continued.

Date of Inspection.	Register No.	Ward.	Cattle and Condition.			Condition of Shed.
			No. Examined	Udder diseased.	General Condition	
1903						
Nov. 5.	104	A. & W.	23	...	healthy	Satisfactory.
Nov. 13.	321	Hdy.	16	...	"	Clean, but very hot; short of ventilation.
"	431	A. & W.	32	...	"	Sheds satisfactory.
"	813	"	16	1	others healthy.	Do.
"	389	Hdy.	12	...	healthy	Clean and satisfactory.
"	167	"	16	...	"	Do.
"	812	"	9	...	"	Do.
Nov. 26.	153	C.	9	...	"	Better with more vent'at'n.
"	151	"	7	...	"	Shed satisfactory.
"	66	"	13	1	others healthy.	Do.
"	284	N.W.	18	...	healthy	Do.
"	559	"	5	...	"	Badly ventilated and dark
"	88	"	26	...	"	Sheds very clean.
"	154	"	8	...	"	Dirty, unfit, filthy.
Dec. 2.	344	Brmy.	22	...	"	Shed satisfactory.
"	318	"	25	...	"	Do.
"	127	"	15	...	"	Do.
"	398	"	12	...	"	Do.
"	141	"	22	...	"	Do.
Dec. 14.	440	A. & W.	2	...	"	Do.
"	801	Brmy.	7	...	"	Do.
"	909	"	11	...	"	Do.
"	205	A. & W.	5	...	"	Do.
"	77	Brmy.	30	...	healthy, but very dirty.	Sheds very dirty.
"	73	"	17	...	healthy	Sheds satisfactory.
"	400	"	21	...	"	Do.
"	635	"	6	...	"	Do.
"	173	"	11	...	"	Do.
Dec. 23.	10	"	5	...	"	Do.
"	765	"	10	...	"	Do.
"	249	"	8	...	"	Do.
"	199	"	12	...	"	Do.
"	78	"	22	...	"	Do.
"	120	"	24	...	"	Do.
"	128	"	7	...	"	Rather dirty and untidy.
"	515	"	10	...	"	Shed satisfactory.

test was applied on November 18th. The temperature at time of injection was 101.6° , and 102° and 104.6° nine and twelve hours later. Next morning it fell to 102° . The certificate stated that "this cow has a diseased udder, and has reacted to the tuberculin test."

On the 26th of November, out of 13 cows examined on farm No. 66, one cow was found with a suspicious udder. It was re-visited a week later, and the disease diagnosed as mammitis.

The number of visits paid by the veterinary surgeon to cowsheds for the inspection of cattle—leaving out one repeat visit to an affected cow—was 158. Ninety were visits paid once to the farms enumerated, while in 34 others the farms were visited twice during the year. There were, in several cases, more than one cowshed at the same farm.

Food and Drugs.—One hundred and thirty-nine margarine shops were visited during the year. Our experience with prosecutions for selling margarine as butter was rather unfortunate. From the table it will be seen that, amongst them, No. 5 was dismissed on invoice. No. 42 was also dismissed on invoice, and the prosecution for false warranty failed. Nos. 55, 56 and 57 were dismissed on invoice, and the prosecution for warranty also failed. No. 71 was dismissed on warranty, and £10 fine was inflicted on the warrantor. No. 73 was dismissed the defendant been retained as a witness in another case. No. 124 was also dismissed on invoice, and again the prosecution for false warranty broke down. The law in this matter is exceedingly unsatisfactory, as under the Margarine Act it seems that the retailer who sells margarine for butter invoiced to him as such escapes, but that a mere invoice does not constitute a warranty and the wholesale dealer gets off scot free.

TABLE IX.

Samples of food sent to the City Analyst for examination during the 52 weeks ended 2nd January, 1904.

Article.	Genuine.	Poor in quality.	Adulterated.	Total.	Summoned.	Convicted.	Dismissed or Withdrawn.
Milk	348	4	95	447	22	21	1
Butter	25	..	19	44	18	11	8*
Cheese	1	...	1	2	..	...	...
Beer	16	...	14	30	...	...	...
Jam	8	...	8	16	...	...	...
Lemonade ...	6	...	12	18	...	...	...
Lard	11	...	...	11	...	...	...
Cream	3	...	...	3	...	...	...
Treacle	4	...	...	4	...	...	...
Fruit Wine ...	...	...	1	1	...	...	...
Salmon	1	...	...	1	...	...	...
Brawn	1	...	...	1	...	...	...
Mace	1	...	...	1	...	...	...
Enamelled tin ...	1	...	...	1	...	...	...
Total	426	4	150	580	40	32	9

* Seven cases dismissed on account of an invoice which was not a warranty. In an eighth case the warranty was good and the wholesale dealer fined £10. In a case where the retailer was discharged on warranty in December, 1902, the wholesale dealer was fined £3 for false warranty, and £1 for selling margarine without a licence. This accounts for the convictions and discharges exceeding in number the samples in regard to which summonses were taken out.

TABLE IXa.

Summonses issued during the 52 weeks of 1903 under the Sale of Food and Drugs Acts, 1875, 79 and 99*, for articles other than butter.

No. of sample.	Article.	Percentage of adulteration.	Fines.			Remarks.
			£	s.	d.	
66	Milk ...	12% added water ...	1	0	0	
77	Do. ...	14% do. 16% fat removed	2	0	0	and costs
80	Do. ...	10% added water ...	—			dismissed
97	Do. ...	15% do. ...	0	10	0	
99	Do. ...	8% do. 12% fat removed	0	10	0	
238	Do. ...	6% do. 20% do.	—			bound over
286	Do. ...	12% added water ...	0	10	0	
306	Do. ...	7% do. ...	—			to pay costs
312	Do. ...	12% do. ...	10	0	0	
314	Do. ...	9½% do. ...	2	0	0	
353	Do. ...	9½% do. ...	1	0	0	
370	Do. ...	29% do. ...	5	0	0	} † to pay costs
374	Do. ...	8½% do. ...	1	0	0	
375	Do. ...	8½% do. ...	—			
392	Do. ...	7½% do. ...	1	0	0	and costs
433	Do. ...	10% do. ...	5	0	0	do.
462	Do. ...	13% do. ...	1	0	0	do.
501	Do. ...	11½% do. ...	0	10	0	
504	Do. ...	17½% do. ...	0	10	0	
505	Do. ...	27% do. ...	1	10	0	and costs
515	Do. ...	33% do. ...	2	0	0	do.
545	Do. ...	13% do. ...	0	10	0	
			£	35	10	0

* For cases under Margarine Act see table IXb.

† Three cases against same farmer, on first fined £5, £1 for second and costs for third.

TABLE IXb.

Other Summonses taken out under the Margarine Act, 1887, and the Food and Drugs Acts, 1875, 79 and 99, during the 52 weeks ended 2nd January, 1904.

No. of sample.	Article.	Percentage of adulteration.	Fines.			Remarks.
			£	s.	d.	
2	Butter ...	87% foreign fat...	0	10	0	
5	Do. ...	82% do. ...	—			dismissed on invoice
41	Do. ...	86% do. ...	1	0	0	
42	Do. ...	81% do. ...	—			do. sec below
54	Do. ...	86% do. ...	5	0	0	and costs
55	Do. ...	83% do. ...	—			dismissed on invoice do.
56	Do. ...	84% do. ...	—			do. do.
57	Do. ...	86% do. ...	—			do. do.
70	Do. ...	73% do. ...	4	0	0	
71	Do. ...	84% do. ...	—			dismissed on warranty
73	Do. ...	87% do. ...	—			[see below dismissed
124	Do. ...	86% do. ...	—			dismissed on invoice
130	Do. ...	85% do. ...	2	0	0	[see below
157	Do. ...	84% do. ...	—			to pay costs
163	Do. ...	84% do. ...	1	0	0	
400	Do. ...	77% do. ...	1	0	0	and costs, third convict'n
473	Do. ...	82% do. ...	1	0	0	
(478)	Trading as	wholesale dealer unregistered	1	0	0	478 is No. of sample in
(478)	For giving	false warranty in writing	3	0	0	do. do. 1902
71	Do. ...	do. do.	10	0	0	
42	Do. ...	do. do.	—			dismissed
51	Do. ...	do. do.	—			do.
55 & 57	Do. ...	do. do.	—			do.
56	Do. ...	do. do.	—			do.
124	Do. ...	do. do.	—			do.
			£	29	10 0	

Meat and Markets.—The inspectors paid 6,794 visits to 101 slaughter-houses. They have also visited the general market, the wholesale meat market and the cattle market, the shops in the town in which meat, fish and fruit are sold, and two knackers' yards. Their visits to these number 3,556.

In addition to the articles seized officially and included in table X., 21,120 lbs. of beef, 4,481 of mutton, 3,652 of veal, 2,612 of pork, and 1,156 of fish ; together, 33,021 lbs. or 2,359 stones were destroyed by the owners with our consent. There were also destroyed 104 rabbits, 4 barrels of grapes (4 cwts.), 21 of blackberries (11 cwts.), and 5 tons 14 cwts. of apples, in all, 6 tons 9 cwts. of fruit. There were destroyed 173 bags of onions weighing 4 tons 6 cwts., and of foreign offal, 26 cases of ox kidneys, 7 of ox livers, 7 kegs of tripe, and 61 ox tails, which with other home offals amounted to 1,520 lbs. In addition there were 540 eggs destroyed.

TABLE X.

Slaughter House and Meat Inspection, 52 weeks ended
2nd January, 1904.

Class of meat seized and des- troyed.	Weight in stones of 14 lb.	No. of seizures.	No. of persons sum- moned.	No. of convic- tions.	Penalties.
Beef... ..	90	5	...	...	...

TABLE XI.
Smoke, 1903 (52 weeks).

Complaints received	...	...	...	...	...	26
Furnaces inspected	...	...	...	...	...	8,193
Observations taken of chimneys (for a period of sixty minutes each)	...	...	...	...	...	1,747
Total number of minutes dense smoke	...	...	...	...	...	3,067
Average minutes duration of dense smoke during each observation of one hour (1 minute 45 seconds)	...	...	...	...	...	
Smoke prevention appliances adapted to furnaces	...	...	...	...	...	69
Chimneys newly erected	...	...	...	...	...	15
Furnaces in connection with new chimneys	...	...	...	...	...	61
Notices served upon manufacturers	...	...	...	...	...	12
Do. do. stokers	...	...	...	...	...	8
Persons summoned before the magistrates	...	...	...	...	...	2
Do. convicted	...	...	...	...	...	2
Total amount in fines	...	£1	os.	od.		
Costs	...	...	...	...	8s.	od.

REMOVAL AND DISINFECTING WORK.

Removals.—In addition to the work shown in tables XII. and XIII., 202 persons were removed, some from their own homes, most of them from our hospital, to Gildersome Convalescent Home, and 1 from Beckett Street Hospital to the General Infirmary. One person was taken from Bolton Abbey to her home in Leeds. Two cases of small-pox were removed from Halton (Hunslet Rural) to the Waterloo Cottage Hospital for the District Authority, and another from Stourton to the Cottage used by the Rothwell Urban Council for that Authority. Our staff also removed 684 contacts to Manston Hall Cottages, transferred 809 Convalescent patients from the Manston Hall Hospital, Seacroft, to the one at Beckett Street for discharge, and carried 168 persons to Burmantofts for disinfection. In addition, 479 small-pox contacts were removed to one or the other of the temporary shelters in the town. Two bodies of persons who

died from small-pox were removed respectively to the Burmantofts and Killingbeck cemeteries. We may thus consider that there was a total of 2,349 additional acts of removal performed by our staff, besides the 1,825 given in the table.

TABLE XII.
Work done by Disinfecting Staff, 1903 (52 weeks).

Houses disinfected	...	...	...	...	3,604
Rooms disinfected (stripped 201, limewashed 52)					15,806
Beds and mattresses disinfected	...	...			13,748
Articles of bed clothing disinfected	...	...			51,111
Articles of wearing apparel disinfected			...		109,888
Miscellaneous articles disinfected	...	...			38,846

TABLE XIII.
Cases removed to hospital by our own staff.
Classified according to diseases certified.

Small-pox.	Scarlet fever.	Diphtheria.	Typhus fever.	Typhoid fever.	Other diseases.	Total, 1903.
446	1,043	164	...	163	9	1,825

(52 weeks).

Flushing.—During the fifty-two weeks of the year nine carts, each with two attendants, have been employed flushing drains. In this period 61,169 house drains, 21,489 water closets, and 36,591 gullies have been flushed, chiefly on account of illness. The above-mentioned figures include the flushing of drains in connection with 157 schools. In addition to this, two men with a horse and cart have been engaged putting an iron solution into tanks connected with the sewers, and in this manner 4,280 gallons of disinfecting solution have been allowed to trickle into certain of the sewers.

TABLE XIV.

Return for the 52 weeks ended 2nd January, 1904,
of patients in hospital.

	1 Small-pox.	2 Scarlet fever.	3 Diphtheria.	4 Typhus fever.	5 Enteric, or typhoid fever	6 Other or doubtful cases.	7 Total.
No. in Hospital on 3rd January 1903	32	158	20	...	22	9	241
No. since admitted ...	434	1,062	110	...	163	101	1,870
No. discharged	444	1,020	111	...	137	98	1,810
No. died	21	36	12	...	20	8	97
No. remaining in Hospital, 2nd Jan., 1904	1	164	7	...	28	4	204

TABLE XV.

Canal Boats (52 weeks).

Registered during the year 1903	13
Transfers to fresh owners	12
Struck off register	21
On register, 2nd January, 1904	386
Visits of inspection to wharves and locks ...	803
Boats completely inspected	265

TABLE XVI.
Houses Let in Lodgings.

	Houses.	Rooms.
Registered during the year ; let as furnished rooms	0	0
Struck off register	30	70
On register, 2nd January, 1904	233	431
Houses let in lodgings visited, but not yet registered	518	975
Visits for registration purposes	0	0
Total visits for additional inspection	2672	
Nuisances found and abated—		
	Found	Abated.
Overcrowded rooms	21	21
Dirty rooms	151	151
Dirty and bad bedding	2	2
Dilapidated dwellings	19	19
Defective drains	20	18
Dirty closets	6	6
Total	219	217

TABLE XVII.
Other work of Temporary Dwellings Inspector.

Visits to common lodging-houses	68
" " " as to small pox	4,842
" furnished rooms as to small pox	962
" vans	107
" tents	15
" cellar dwellings	12
" overcrowded houses	3
" infectious diseases	2
" as to other causes	975
College lodging houses—	
Houses inspected, 14 ; containing 59 rooms.	
Drain testings, 14 (defects found 24, in 8 houses).	
Retesting of drains of houses previously examined (1901-02) 40 (defects found 5, in 4 houses).	
Total visits to these houses	75
Total	7,061

APPENDIX.

TABLE A, Part 2.

Table of populations, registered births, and mortality at certain ages,
in the registration sub-districts.

(Public institutions regarded as sub-districts.)

Population estimated to middle of 1903. at each age group.				443,559	11,618	39,952	90,933	89,272	186,579	10,946	14,259	
REGISTRATION SUB-DISTRICTS OF LEEDS CITY.	Population at all ages.		Registered Births.	Mortality from all causes, at subjoined ages.								Death- rate per 1,000 for each district.
	Census 1901	Estimated to middle of 1903.		At all ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25	25 and under 60	60 and under 65	65 and upwards	
Leeds Township—North ..	59,281	60,587	1,984	871	305	142	28	22	229	42	103	14.43
Do. do. West ..	84,340	84,440	1,994	1,121	288	127	35	49	294	78	250	13.32
Do. do. South ..	34,299	34,474	1,258	649	231	96	32	25	150	35	80	18.89
Hunslet	69,064	71,088	2,272	1,016	379	148	33	38	224	53	141	14.34
Holbeck	31,572	32,459	1,098	541	188	95	24	18	115	20	81	16.72
Wortley	59,328	60,937	1,745	927	266	154	53	37	209	50	158	15.23
Kirkstall	41,561	43,480	1,101	486	122	48	23	17	130	31	115	11.22
Bramley	17,299	17,666	491	248	56	21	8	10	73	19	61	14.09
Chapelton	31,845	38,046	941	374	99	35	14	16	91	25	94	9.86
Osmondthorpe	379	372	9	7	2	..	..	1	4	..	..	18.88
Infirmary	..	..	..	463	42	45	43	41	237	20	35	..
Fever Hospitals	..	..	..	97	1	27	27	10	31	1	..	..
WORKHOUSES {	Leeds	..	73	410	11	4	..	9	193	48	145	..
	Hunslet	..	10	48	..	..	..	1	19	7	21	..
	Holbeck	..	5	22	..	..	..	..	10	2	10	..
	Bramley	..	15	54	2	2	1	1	10	8	30	..
For the whole City ..	428,968	443,559	12,996	7,354	1,992	944	321	295	2,019	439	1,324	16.59

* Including the deaths of 36 persons at Manston Hospital, and 22 persons at Killingbeck Hospital (outside the city boundary).

1903.—SECOND QUARTER.

Table shewing Deaths recorded in the City of Leeds during the thirteen weeks ended 4th July, 1903, classified according to cause, age, and the registration sub-districts in which they occurred.

TOWNSHIP &c. Estimated Population— 445,559	LEEDS.						WORKHOUSES.												Fever Hospitals *	In- firmaries, etc.	Osmond- thorpe. 372	Chapel- town.		Kirkstall		Wortley.		Holbeck		Hunslet.		Bramley.		Chapel- town.		Kirkstall		Wortley.		Holbeck		Hunslet.		Bramley.		Chapel- town.		Osmond- thorpe.		In- firmaries, etc.		Fever Hospitals *		WORKHOUSES.				TOTAL Mortality in City.		Annual rate per 1,000 pop.	DEATHS OF																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	North.		West.		South E.		Leeds.		Hunslet.		Holbeck		Bramley.		Chapel- town.		Kirkstall					Wortley.		Holbeck		Hunslet.		Bramley.		Chapel- town.		Kirkstall		Wortley.		Holbeck		Hunslet.		Bramley.		Leeds.		Mortality in City.		und. 5	ov. 5	and ov. 5 5	persons occurring outside City	Deaths occurring in City																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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1903.—THIRD QUARTER.

Table shewing Deaths recorded in the City of Leeds during the thirteen weeks ended 3rd October, 1903, classified according to cause, age, and the registration sub-districts in which they occurred.

TOWNSHIP &c.	LEEDS.						Hunslet.	Holbeck.	Wortley.	Kirkstall.	Bramley.	Chapel-town.	Osmond-thorpe.	Infirmary, etc.	Fever Hospitals.	WORKHOUSES.								TOTAL Mortality in City.		Annual rate per 1,000 pop.	DEATHS OF																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	North.		West.		South E.											Leeds.	Hunslet.	Holbeck.	Bramley.	und.	ov.	und.	ov.	und.	ov.		und.	ov.	und.	ov.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	und.	ov.	und.	ov.	und.	ov.																									und.	ov.	und.	ov.	und.	ov.	und.	ov.	und.	ov.	und.	ov.	persons occurring outside City.	Outsiders occurring in City.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Estimated Population—143,559	60,587	84,440	34,474				32,459	60,937	43,480	17,666	38,046	372																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			</

1903.—FOURTH QUARTER.

Table shewing Deaths recorded in the City of Leeds during the thirteen weeks ended 2nd January, 1904, classified according to cause, age, and the registration sub-districts in which they occurred.

TOWNSHIP &c.	L E E D S.						WORKHOUSES.												Fever Hospitals *.	In- firmaries, etc.	Osmond- thorpe.	TOTAL Mortality in City.								Annual rate per 1,000 pop.	DEATHS OF							
	North.		West.		South E.		Hunslet.		Holbeck.		Wortley.		Kirkstall.		Bramley.		Chapel- town.					Leeds.		Hunslet.		Holbeck.		Bramley.			und.	ov.	und.	ov.	Leeds persons occurring outside City.†	und.	ov.	
	und.	ov.	und.	ov.	und.	ov.	und.	ov.	und.	ov.	und.	ov.	und.	ov.	und.	ov.	und.	ov.				und.	ov.	und.	ov.	und.	ov.	und.	ov.									und.
Estimated Population— 445,559	60,587	84,440	34,474	71,088	32,459	60,937	43,480	17,666	38,046	372																												
Under and over 5.	6	9	1	16	6	1	4	1	2	1	1	2	1	1	1	2	1	1	1	4	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Smallpox	1	3	1	1	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	3	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Measles	1	3	1	1	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	3	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Scarlatina	1	3	1	1	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	3	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Diphtheria	1	3	1	1	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	3	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Croup (mem- ber undefined)	1	3	1	1	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	3	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Whooping Cough	10	2	1	9	3	5	1	1	2	1	1	1	1	1	1	2	1	1	1	7	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Typhus	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Enteric	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Other or doubtful	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Diarrhoea	2	4	1	9	4	13	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Cholera	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Rheumatic Fever	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Acute & Sub- acute Rheu- matism	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Erysipelas	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Pyæmia	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Puerperal Fever	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Ague	3	20	16	11	10	16	10	8	4	1	16	10	8	4	1	16	10	8	4	3	1	33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Phthisis	60	30	50	33	25	33	23	16	10	1	45	23	12	12	6	9	11	6	1	1	1	33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Bronchitis	18	1	23	11	14	11	2	8	2	1	1	23	2	8	11	10	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Pneumonia	2	4	6	11	5	1	2	2	2	1	1	8	2	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Heart Disease	84	82	81	93	61	52	79	53	32	39	69	75	23	34	9	33	18	24	1	2	1	57	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Injury, &c.	69	46	59	94	50	28	84	61	44	30	65	69	30	53	14	21	36	1	1	1	4	50	9	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Total of above causes	281	327	191	282	145	273	140	77	99	4	118	18	112	14	7	4	50	9	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
All other causes	18.6	15.5	22.2	15.9	17.9	18.3	12.9	17.5	10.4	43.2																												
Total ..	281	327	191	282	145	273	140	77	99	4	118	18	112	14	7	4	50	9	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mortality per 1,000 per an.	18.6	15.5	22.2	15.9	17.9	18.3	12.9	17.5	10.4	43.2																												

* There were six deaths at Manston Hospital during this quarter. † No return received during quarter. ‡ English.
For Wortley Diarrhoea group read 14 and 1, instead of 10, blank, totals in district and city columns to alter accordingly.

1904.—FIRST QUARTER.

Table shewing Deaths recorded in the City of Leeds during the thirteen weeks ended 2nd April, 1904, classified according to cause, age, and the registration sub-districts in which they occurred.

TOWNSHIP &c. Estimated Population— 450,142	LEEDS.						Fever Hospital etc.	WORKHOUSES.						TOTAL Mortality in City.		Annual rate per 1,000 pop.	DEATHS OF	
	North.		West.		South E.			Leeds.	Hunslet.		Holbeck.		Bramley.				Leeds persons occurring outside City.	Out- siders occurring in City.
	und. 5	ov. 5	und. 5	ov. 5	und. 5	ov. 5			und. 5	ov. 5	und. 5	ov. 5	und. 5	ov. 5	und. 5			
Under and over 5.	59,089	84,588	34,566	71,870	32,856	61,596	44,279	17,805	43,122	371	371	371	371	371	371	371	371	371
Smallpox	15	30	5	17	11	5	3	..	15	4	..	104	10	114	1.62	..	..	
Measles	..	1	1	..	1	1	..	..	..	..	..	14	5	19	0.17	..	..	
Scarlatina	1	2	1	1	1	1	..	2	2	..	..	13	3	16	0.14	..	..	
Diphtheria	..	2	..	1	1	1	..	1	..	..	..	2	1	3	0.03	..	..	
Group (membr.)	..	..	..	..	..	..	..	1	..	..	..	1	..	1	0.01	..	..	
" undefined	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Whooping Cough	20	1	7	7	2	19	9	2	5	1	..	91	4	95	0.85	..	..	
Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Enteric	..	1	..	..	1	..	..	1	..	..	..	..	8	8	0.07	..	..	
Other or doubtful	..	..	..	1	..	..	1	..	..	..	..	13	..	13	0.12	..	..	
Diarrhoea	3	2	5	1	..	..	..	..	..	..	..	..	..	..	..	..	..	
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	1	1	0.01	..	..	
Rheumatic Fever	..	..	..	..	..	..	1	..	..	..	..	..	7	7	0.06	..	..	
Acute & Sub-acute Rheumatism	1	..	1	2	2	1	..	..	..	..	..	1	2	3	0.03	..	..	
Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	1	1	0.01	..	..	
Pyæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.04	..	..	
Puerperal Fever	..	2	..	..	..	1	..	..	1	..	..	..	4	4	..	..	..	
Ague	2	25	..	1	22	7	22	..	8	..	..	34	..	190	1.69	..	5	
Phthisis	..	27	..	15	1	..	..	..	..	..	..	1	..	..	..	..	..	
Bronchitis	18	33	40	51	34	21	33	5	6	7	..	1	2	472	4.21	..	1	
Pneumonia	..	45	23	19	19	10	23	12	10	..	..	27	..	189	1.69	..	5	
Pleurisy	3	32	2	1	2	3	1	5	1	2	..	..	..	56	0.50	..	3	
Heart Disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Injury, &c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Total of above causes	63	82	86	79	83	31	61	35	29	33	10	494	698	1192	10.63	..	14	
All other causes	66	59	120	79	68	31	59	13	20	40	1	413	695	1108	9.83	..	28	
Total	271	374	216	309	143	296	166	66	122	..	21	907	1393	2300	20.51	..	45	
Mortality per 1,000 per an.	18.4	17.7	25.1	17.3	17.5	19.5	15.0	14.9	11.4	..	..	69.6	141	20.5	..	..	..	

TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of Health, during the 52 weeks of 1903, in the Urban Sanitary District of Leeds; classified according to Diseases, Ages, and Localities.

[illegible]

Notification has been compulsory since the first of May, 1894. The City General Fever Hospital (the old House of Recovery), is situated in the district marked H. Two cases of illness occurred amongst the staff at this hospital, one of scarlet fever, and one of diphtheria, both in patients over 15. They are included above as coming from the North district. Non-infectious illnesses of the staff are not counted. The Small-pox Hospital is at Killingbeck outside the town. New wards for general fever cases were opened on the Manston estate in October, 1898. One thousand and fifty-four of the 1,809 were admitted there during 1903. Three cases of scarlet fever, admitted to Manston Hospital, one case of diphtheria, and one case of typhoid fever, admitted to the Beckett Street Hospital, and three cases of small-pox, admitted to the Killingbeck Hospital, came from outside the city and are not included in this table. Also fifteen members of the Manston Hospital staff were admitted to Manston for scarlet fever, all over 15. None of these fifteen are counted, as they could not be classified under any district of the city. The three cases of scarlet fever, one case of diphtheria, and one case of typhoid fever, mentioned in note to table B for 1902, were reported in 1902, but hospitalised in 1903, are included in the 4,532 notified in 1903, are included in the 1,809 removed to hospital, although the actual removal did not take place until 1904.

B. 2.

TABLE B, Part 2. (Wards).

Names of Localities adopted for the purpose of these Statistics.	Population at all ages.		Aged under 5, 5 under 15, 15 upwards.	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.												
	Census, 1901.	Estimated to middle of 1903.		1	2	3	4	5	6	7	8	9	10	11	12	13
				Small-pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.				Typhus.	Cholera.	Erysipelas.	Other.	TOTAL.
								Enteric or Typhoid.	Continued	Relapsing.	Puerperal.					
(a)	(b)	(c)	(d)													
Central	21,006	20,703	Under 5, .. 32 5 under 15, 2 41 15 upwards. 36 12	6	2	6	5	1	2	1	1	1	1	5	45	
North	33,762	42,630	Under 5, .. 77 5 under 15, 1 146 15 upwards. 40 32	5	2	2	19	1	1	1	1	1	12	175		
North-East (H) ..	29,084	32,693	Under 5, 2 48 5 under 15, 6 137 15 upwards. 34 30	13	1	6	20	1	1	1	1	1	13	176		
East	23,297	28,696	Under 5, .. 40 5 under 15, 4 103 15 upwards. 56 12	5	11	16	22	3	3	3	3	3	6	53		
South	15,047	14,753	Under 5, .. 13 5 under 15, 2 23 15 upwards. 32 4	1	6	5	8	1	1	1	1	1	6	42		
East Hunslet ..	33,450	34,704	Under 5, 1 58 5 under 15, 4 115 15 upwards. 20 19	29	22	15	39	5	5	5	5	5	11	172		
West Hunslet ..	29,267	30,096	Under 5, .. 69 5 under 15, 1 121 15 upwards. 12 33	7	2	11	20	2	2	2	2	2	19	178		
Holbeck	27,861	28,831	Under 5, .. 40 5 under 15, 5 82 15 upwards. 36 21	9	9	4	13	3	3	3	3	3	7	56		
Mill Hill	7,736	7,557	Under 5, .. 6 5 under 15, 2 10 15 upwards. 6 3	15	13	1	6	1	1	1	1	1	1	22		
West	23,914	23,815	Under 5, 5 27 5 under 15, 2 52 15 upwards. 22 26	12 2	22	8	11	3	3	3	3	3	7	92		
North-West ..	32,239	32,796	Under 5, 2 34 5 under 15, .. 79 15 upwards. 21 30	18	37	5	12	1	1	1	1	1	5	128		
Brunswick ..	22,893	22,937	Under 5, .. 30 5 under 15, 1 90 15 upwards. 19 14	13	13	2	9	1	1	1	1	1	3	47		
New Wortley ..	18,734	18,645	Under 5, .. 58 5 under 15, .. 97 15 upwards. 18 22	5 1	3	7	17	1	1	1	1	1	5	113		
Armley and Wortley	36,243	37,828	Under 5, 1 92 5 under 15, 5 152 15 upwards. 22 29	3 1	12	8	17	2	2	2	2	2	10	108		
Bramley	21,650	22,130	Under 5, .. 17 5 under 15, 2 53 15 upwards. 7 4	1	6	1	2	1	1	1	1	1	2	64		
Headingley ..	42,785	44,740	Under 5, 2 49 5 under 15, .. 116 15 upwards. 8 52	18 1	34	7	12	1	1	1	1	1	10	84		
Totals	428,968	443,559	Under 5, 13 690 5 under 15, 37 1417 15 upwards. 389 343	5 1	184	104	232	26	26	26	26	26	118	1024		
Grand total ..	..	..	..	439	2450	588	6	358	..	..	26	..	361	304	4532	

TABLE B, Part 2.—Wards (continued).

Names of Localities adopted for the purpose of these Statistics.	Population at all ages.		Aged under 5, 5 under 15, 15 upwards.	Number of such Cases Removed from their Homes in the several Localities for Treatment in Isolation Hospitals.																
	Census, 1901.	Estimated to middle of 1903.		1	2	3	4	5	6	7	8	9	10	11	12	13				
				Small-pox.	Scarlatina.	Diphtheria.	Membranous Group.	Fevers.				Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Other.	TOTAL.
(a)	(b)	(c)	(d)																	
Central	21,006	20,703	Under 5, .. 18 5 under 15, 2 25 15 upwards, 35 8	..	1	..	..	..	1	..	..	..	..	..	..	..	..	2	22	
									3	..	..	..	..	..	..	..	..	1	33	
									2	..	..	..	..	..	..	..	..	..	45	
North	38,762	42,630	Under 5, .. 32 5 under 15, 1 86 15 upwards, 40 18	..	..	2	..	..	..	..	..	..	..	..	..	..	..	6	95	
						3	..	..	6	..	..	..	..	..	..	..	..	5	72	
North-East (H) ..	29,084	32,693	Under 5, 1 21 5 under 15, 6 87 15 upwards, 33 20	..	4	7	..	..	2	..	..	..	..	..	..	..	..	1	27	
						2	..	..	9	..	..	..	..	..	..	..	..	5	102	
East	28,297	28,696	Under 5, .. 13 5 under 15, 4 52 15 upwards, 56 8	..	1	6	..	..	12	..	..	..	..	..	..	..	..	1	15	
						..	..	..	12	..	..	..	..	..	..	..	..	5	74	
						..	..	..	..	..	..	..	..	..	..	..	..	..	81	
South	15,047	14,758	Under 5, .. 6 5 under 15, 2 12 15 upwards, 32 2	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	6	
						..	..	..	5	..	..	..	..	..	..	..	..	1	16	
East Hunslet ..	33,450	34,704	Under 5, 1 22 5 under 15, 4 73 15 upwards, 20 13	..	2	5	..	..	4	..	..	..	..	..	..	..	..	1	30	
						..	..	..	9	..	..	..	..	..	..	..	..	2	93	
						1	..	..	21	..	..	..	..	..	..	..	..	5	60	
West Hunslet ..	23,267	30,096	Under 5, .. 18 5 under 15, 1 52 15 upwards, 12 13	..	1	5	..	..	1	..	..	..	..	..	..	..	..	6	21	
						..	..	..	9	..	..	..	..	..	..	..	..	..	73	
						5	..	..	9	..	..	..	..	..	..	..	..	..	39	
Holbeck	27,861	28,831	Under 5, .. 10 5 under 15, 5 36 15 upwards, 36 11	..	4	2	..	..	1	..	..	..	..	..	..	..	..	1	15	
						..	..	..	7	..	..	..	..	..	..	..	..	..	44	
						..	..	..	..	..	..	..	..	..	..	..	..	..	55	
Mill Hill	7,736	7,557	Under 5, .. 2 5 under 15, 2 8 15 upwards, 6 1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	
						7	..	..	3	..	..	..	..	..	..	..	..	1	10	
						..	..	..	..	..	..	..	..	..	..	..	..	..	18	
West	23,914	23,815	Under 5, 5 7 5 under 15, 2 10 15 upwards, 22 8	..	..	1	..	..	2	..	..	..	..	..	..	..	..	1	15	
						2	..	..	1	..	..	..	..	..	..	..	..	1	14	
						..	..	..	1	..	..	..	..	..	..	..	..	1	34	
North-West	32,239	32,796	Under 5, 2 15 5 under 15, .. 35 15 upwards, 19 17	..	6	15	..	..	..	..	..	..	..	..	..	..	..	1	24	
						..	..	..	2	..	..	..	..	..	..	..	..	1	53	
						5	..	..	5	..	..	..	..	..	..	..	..	2	48	
Brunswick	22,893	22,937	Under 5, .. 12 5 under 15, 1 44 15 upwards, 19 6	..	3	8	..	..	1	..	..	..	..	..	..	..	..	..	16	
						2	..	..	5	..	..	..	..	..	..	..	..	1	55	
						..	..	..	..	..	..	..	..	..	..	..	..	..	32	
New Wortley ..	18,734	18,645	Under 5, .. 15 5 under 15, .. 38 15 upwards, 18 12	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	16	
						1	..	..	11	..	..	..	..	..	..	..	..	..	40	
						..	..	..	..	..	..	..	..	..	..	..	..	..	42	
Armley and Wortley	36,243	37,828	Under 5, 1 14 5 under 15, 5 45 15 upwards, 22 12	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	16	
						..	..	..	3	..	..	..	..	..	..	..	..	1	50	
						6	..	..	..	..	..	..	..	..	..	..	..	2	39	
Bramley	21,650	22,130	Under 5, .. 6 5 under 15, 2 20 15 upwards, 7 3	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	6	
						..	..	..	..	..	..	..	..	..	..	..	..	..	23	
						7	..	..	..	..	..	..	..	..	..	..	..	..	10	
Headingley	42,785	44,740	Under 5, 2 12 5 under 15, .. 35 15 upwards, 8 16	..	1	3	..	..	1	..	..	..	..	..	..	..	..	..	16	
						..	..	..	3	..	..	..	..	..	..	..	..	..	41	
						..	..	..	6	..	..	..	..	..	..	..	..	..	30	
Totals	428,968	443,559	Under 5, 12 223 5 under 15, 37 657 15 upwards, 385 168	..	23 57	.. 29	..	.. 105	..	..	..	..	..	..	..	..	..	10 19 27	279 816 714	
Grand total ..	..	..	..	434	1048	109	..	.. 162	..	..	..	..	..	..	..	..	..	56	1809	

New cases of Infectious Sickness heard of in the several
Sub-districts and Wards of the City of Leeds during the
thirteen weeks ended 4th April, 1903.

	Where treated.	Small-pox.	Scarlet fever.	Diphtheria.	Membranous croup.	Typhus fever.	Typhoid fever.	Continued fever.	Puerperal fever.	Erysipelas.	Cholera.	Other.	TOTALS.
SUB-DISTRICTS.	North	{ Hosp. 43 Home 2	{ 50 35	{ 5 11	...	...	{ 5 7	...	...	{ ... 21	...	{ 4 7	{ 107 84 } 191
	West	{ Hosp. 10 Home ...	{ 47 71	{ 24 96	...	...	{ 9 5	...	...	{ ... 32	...	{ 2 12	{ 92 218 } 310
	South-East	{ Hosp. 38 Home ...	{ 22 32	{ 3 2	...	...	{ 15 5	...	...	{ ... 6	...	{ 1 9	{ 79 54 } 133
	Hunslet	{ Hosp. 10 Home ...	{ 48 54	{ 1 17	...	...	{ 5 10	...	...	{ ... 14	...	{ 1 20	{ 65 118 } 183
	Holbeck	{ Hosp. 4 Home ...	{ 18 49	{ 2 6	...	...	{ 5 2	...	...	{ ... 8	...	{ ... 10	{ 29 76 } 105
	Wortley	{ Hosp. 17 Home ...	{ 14 38	{ ... 12	...	...	{ 3 9	...	...	{ ... 16	...	{ 2 6	{ 36 82 } 118
	Kirkstall	{ Hosp. 2 Home ...	{ 23 68	{ 4 26	...	...	{ ... 4	...	...	{ ... 9	...	{ ... 5	{ 29 113 } 142
	Bramley	{ Hosp. 3 Home ...	{ 8 8	{ ... 1	...	...	{	...	...	{ ... 4	...	{ ... 2	{ 11 15 } 26
	Chapelton	{ Hosp. 5 Home 1	{ 18 27	{ 1 9	...	...	{ 2 4	...	...	{ ... 1	...	{ 1 8	{ 27 55 } 82
	Osmondthorpe ...	{ Hosp. ... Home ...	{	{	...	...	{	...	...	{	...	{	{
WARDS.	Central	{ Hosp. 26 Home 1	{ 13 10	{ 2 5	...	...	{ ... 2	...	...	{ ... 5	...	{ ... 3	{ 41 26 } 67
	North	{ Hosp. 12 Home ...	{ 20 28	{ ... 10	...	...	{ 3 4	...	...	{ ... 15	...	{ 3 5	{ 38 63 } 101
	North-East	{ Hosp. 15 Home 2	{ 37 21	{ 4 3	...	...	{ 4 5	...	...	{ ... 1	...	{ 2 8	{ 62 46 } 108
	East	{ Hosp. 18 Home ...	{ 20 32	{ 3 1	...	...	{ 15 5	...	...	{ ... 5	...	{ 1 5	{ 57 48 } 105
	South	{ Hosp. 17 Home ...	{ 1 4	{ ... 5	...	...	{ ... 2	...	...	{ ... 1	...	{ ... 3	{ 18 21 } 39
	East-Hunslet	{ Hosp. 8 Home ...	{ 28 25	{ ... 6	...	...	{ 5 5	...	...	{ ... 1	...	{ ... 5	{ 41 50 } 91
	West-Hunslet	{ Hosp. ... Home ...	{ 22 34	{ 1 8	...	...	{ ... 4	...	...	{ ... 1	...	{ 1 15	{ 24 67 } 91
	Holbeck	{ Hosp. 4 Home ...	{ 15 40	{ 2 5	...	...	{ 5 1	...	...	{ ... 1	...	{ ... 7	{ 26 61 } 87
	Mill Hill	{ Hosp. 1 Home ...	{ 2 2	{ 4 38	...	...	{ 1 ...	...	...	{ ... 7	...	{ 1 1	{ 9 48 } 57
	West	{ Hosp. 2 Home ...	{ 12 31	{ 1 25	...	...	{ 3 3	...	...	{ ... 1	...	{ ... 5	{ 18 74 } 92
	North-West	{ Hosp. 1 Home ...	{ 18 12	{ 14 25	...	...	{ 3 2	...	...	{ ... 8	...	{ 1 3	{ 37 50 } 87
	Brunswick	{ Hosp. 6 Home ...	{ 15 26	{ 5 9	...	...	{ 2 ...	...	...	{ ... 9	...	{ ... 3	{ 28 47 } 75
	New Wortley	{ Hosp. 6 Home ...	{ 8 13	{ ... 6	...	...	{ 2 3	...	...	{ ... 5	...	{ ... 4	{ 16 31 } 47
	Armley & Wortley	{ Hosp. 10 Home ...	{ 6 25	{ ... 6	...	...	{ 1 6	...	...	{ ... 10	...	{ 2 2	{ 19 49 } 68
	Bramley	{ Hosp. 4 Home ...	{ 8 8	{ ... 1	...	...	{	...	...	{ ... 1	...	{ ... 5	{ 12 17 } 29
	Headingley	{ Hosp. 2 Home ...	{ 23 71	{ 4 27	...	...	{ ... 4	...	...	{ ... 9	...	{ ... 5	{ 29 117 } 146
CITY	...	{ Hosp. 132 Home 3	{ 248 382	{ 40 180	...	...	{ 44 46	...	...	{ ... 8	...	{ 11 79	{ 475 815 } 1290
	Cases	135	630	220	3	...	90	...	8	114	...	90	1290

Two nurses and two maids at Manston Hall contracted scarlet fever and were treated in the Hospital. They are not included in the 248 given above. Cases of infectious illness occurring amongst the staff at the Beckett Street Hospital are entered in the district and ward in which the hospital is situated. Manston Hall is outside the city. In addition to the 475 cases hospitalised (out of the 1290 reported during the quarter) three cases of scarlet fever, one case of typhoid fever, and one case of diphtheria, which had been reported in the previous quarter were also taken to hospital.

B 4.

New cases of Infectious Sickness heard of in the several Sub-districts and Wards of the City of Leeds during the thirteen weeks ended 4th July, 1903.

	Where treated.	Small-pox.	Scarlet fever.	Diphtheria.	Membranous croup.	Typhus fever.	Typhoid fever.	Continued fever.	Puerperal fever.	Erysipelas.	Cholera.	Other.	TOTALS.
SUB-DISTRICTS.	North	{ Hosp. 38 Home 1	58	7	...	...	5	...	...	...	...	5	113
	West	{ Hosp. 44 Home 2	52	11	...	...	10	...	...	...	...	3	110
	South-East	{ Hosp. 36 Home ...	18	1	...	...	...	...	...	...	...	1	56
	Hunslet	{ Hosp. 18 Home ...	36	4	...	...	11	...	...	...	...	2	71
	Holbeck	{ Hosp. 27 Home ...	24	1	...	...	...	...	...	...	...	1	53
	Wortley	{ Hosp. 13 Home ...	23	...	...	...	3	...	...	...	...	1	40
	Kirkstall	{ Hosp. 8 Home ...	19	...	...	...	...	...	...	...	...	...	27
	Bramley	{ Hosp. 3 Home ...	5	1	...	...	...	...	...	...	...	...	9
	Chapelton	{ Hosp. 4 Home ...	17	1	...	...	1	...	...	...	...	...	23
	Osmondthorpe ...	{ Hosp. ... Home ...	...	...	...	...	...	...	...	...	...	...	...
WARDS.	Central	{ Hosp. 7 Home ...	19	...	...	...	2	...	...	...	...	1	29
	North	{ Hosp. 15 Home ...	31	2	...	...	1	...	...	...	...	1	50
	North-East	{ Hosp. 21 Home 1	26	6	...	...	3	...	...	...	...	3	59
	East	{ Hosp. 28 Home ...	16	1	...	...	...	...	...	...	...	1	46
	South	{ Hosp. 11 Home ...	...	...	...	...	1	...	...	...	...	...	12
	East-Hunslet	{ Hosp. 13 Home ...	25	2	...	...	4	...	...	...	...	1	45
	West-Hunslet	{ Hosp. 1 Home ...	22	2	...	...	6	...	...	...	...	2	33
	Holbeck	{ Hosp. 27 Home ...	13	1	...	...	...	...	...	...	...	...	41
	Mill Hill	{ Hosp. 2 Home ...	1	1	...	...	...	...	...	...	...	...	4
	West	{ Hosp. 14 Home ...	7	...	...	...	...	...	...	...	...	1	22
	North-West	{ Hosp. 17 Home 2	28	7	...	...	...	...	...	...	...	1	53
	Brunswick	{ Hosp. 11 Home ...	16	3	...	...	...	...	...	...	...	1	31
	New Wortley	{ Hosp. 7 Home ...	9	...	...	...	3	...	...	...	...	...	19
	Armley & Wortley	{ Hosp. 5 Home ...	14	...	...	...	...	...	...	...	...	1	20
	Bramley	{ Hosp. 4 Home ...	5	1	...	...	...	...	...	...	...	...	10
	Headingley	{ Hosp. 8 Home ...	20	...	...	...	...	...	...	...	...	...	28
			42	15	...	...	3	...	1	9	...	15	85
	CITY	{ Hosp. 101 Home 3	252	26	...	...	20	...	...	...	...	13	502
			461	135	1	...	43	...	10	68	...	96	817
	Cases		713	161	1	...	63	...	10	68	...	100	1319

A nurse, a laundrymaid, and a wardmaid at Manston Hall contracted scarlet fever and were treated in the Hospital. They are not included in the 252 given above. Cases of infectious illness occurring amongst the staff at the Beckett Street Hospital, are entered in the district and ward in which the hospital is situated. Manston Hall is outside the city. In addition to the 502 cases hospitalised (out of the 1319 reported during the quarter) one case of scarlet fever, and one case of small pox, which had been reported in the previous quarter, were also taken to hospital.

New cases of Infectious Sickness heard of in the several Sub-districts and Wards of the City of Leeds during the thirteen weeks ended 3rd October, 1903.

	Where treated.	Small-pox.	Scarlet fever.	Diphtheria.	Membranous croup.	Typhus fever.	Typhoid fever.	Continued fever.	Puerperal fever.	Erysipelas.	Cholera.	Other.	TOTALS.
SUB-DISTRICTS.	North	(Hosp. 16 Home ...)	53 25	1 9	...	...	2 4	...	...	...	...	7 3	79 52
	West	(Hosp. 22 Home ...)	31 44	8 20	...	...	5 10	...	...	...	...	1 3	67 95
	South-East	(Hosp. 19 Home ...)	14 15	1 4	...	...	4 8	...	...	...	...	5 3	43 38
	Hunslet	(Hosp. 15 Home ...)	48 42	10 21	...	...	17 15	...	...	...	...	5 8	95 99
	Holbeck	(Hosp. 12 Home ...)	18 19	1 12	...	...	...	...	...	...	...	...	31 44
	Wortley	(Hosp. 18 Home ...)	56 35	1 9	...	...	3 12	...	...	...	...	...	78 178
	Kirkstall	(Hosp. ... Home ...)	13 20	...	...	...	3 3	...	...	...	...	...	16 44
	Bramley	(Hosp. ... Home ...)	11 17	...	...	...	...	...	...	...	...	...	11 20
	Chapeltown	(Hosp. 2 Home ...)	27 22	2 3	...	...	...	...	...	...	...	1 1	32 33
	Osmondthorpe	(Hosp. ... Home ...)	...	...	...	...	...	...	...	...	...	...	...
WARDS.	Central	(Hosp. 3 Home ...)	11 6	...	...	...	2 ...	...	...	...	...	2 2	18 14
	North	(Hosp. 14 Home ...)	40 19	2 3	...	...	...	...	...	...	...	6 1	62 32
	North-East	(Hosp. 1 Home ...)	29 19	1 6	...	...	...	...	...	...	...	...	31 32
	East	(Hosp. 14 Home ...)	13 14	1 3	...	...	4 5	...	...	...	...	4 1	36 30
	South	(Hosp. 6 Home ...)	8 7	1 1	...	...	...	...	...	...	...	1 4	16 19
	East-Hunslet	(Hosp. 4 Home ...)	21 16	4 17	...	...	10 10	...	...	...	...	4 2	43 54
	West-Hunslet	(Hosp. 12 Home ...)	23 23	5 10	...	...	7 5	...	...	...	...	1 4	48 45
	Holbeck	(Hosp. 10 Home ...)	14 15	1 6	...	...	...	...	...	...	...	...	25 32
	Mill Hill	(Hosp. 5 Home ...)	5 1	1 1	...	...	2 ...	...	...	...	...	...	13 4
	West	(Hosp. 13 Home ...)	5 18	1 11	...	...	...	...	...	...	...	...	19 52
	North-West	(Hosp. 2 Home ...)	6 15	4 6	...	...	2 1	...	...	...	...	1 ...	15 24
	Brunswick	(Hosp. 2 Home ...)	16 13	2 3	...	...	1 2	...	...	...	...	...	21 22
	New Wortley	(Hosp. 5 Home ...)	25 53	1 4	...	...	3 7	...	...	...	...	...	34 70
	Armley & Wortley	(Hosp. 13 Home ...)	30 79	...	...	...	...	...	...	...	...	...	43 105
	Bramley	(Hosp. ... Home ...)	12 20	...	...	...	...	...	...	...	...	...	12 23
	Headingley	(Hosp. ... Home ...)	13 21	...	...	...	3 3	...	...	...	...	...	16 45
	CITY	(Hosp. 104 Home ...)	271 339	24 89	...	...	34 59	...	...	...	...	19 29	452 603
	Cases	104	610	113	...	...	93	...	5	82	...	48	1055

Two nurses at Manston Hall contracted scarlet fever and were treated in the hospital. They are not included in the 271 given above. Cases of infectious illness occurring amongst the staff at the Beckett Street Hospital are entered in the district and ward in which the hospital is situated. Manston Hall is outside the city. In addition to the 452 cases hospitalised (out of the 1,056 reported during the quarter) 12 cases of scarlet fever, and 1 case of "other" disease, which had been reported in previous quarter, were also taken to hospital.

B 7.

New cases of Infectious Sickness heard of in the several Sub-districts and Wards of the City of Leeds during the thirteen weeks ended 2nd April, 1904.

	Where treated.	Small-pox.	Scarlet fever.	Diphtheria.	Membranous croup.	Typhus fever.	Typhoid fever.	Continued fever.	Puerperal fever.	Erysipelas.	Cholera.	Other.	TOTALS.
SUB-DISTRICTS.	North	(Hosp. 2 Home 24)	5	...	...	10	...	...	...	...	...	3	44
	West	(Hosp. 11 Home 50)	3	...	...	4	...	...	...	...	...	1	58
	South-East	(Hosp. 26 Home 15)	26	1	...	8	...	4	...	...	...	3	85
	Hunslet	(Hosp. 3 Home 44)	3	...	...	4	...	...	...	...	...	1	20
	Holbeck	(Hosp. 18 Home 12)	8	...	...	3	...	...	...	...	...	...	29
	Wortley	(Hosp. 6 Home 20)	6	...	...	...	...	...	...	...	...	1	22
	Kirkstall	(Hosp. 5 Home 16)	5	...	...	4	...	1	10	...	...	1	37
	Bramley	(Hosp. 4 Home 12)	4	...	...	4	...	1	11	...	...	2	32
	Chapelton	(Hosp. 14 Home 1)	1	...	...	1	...	2	6	...	...	3	15
	Osmondthorpe	(Hosp. 19 Home 12)	2	...	...	2	...	...	...	...	...	...	23
WARDS.	Central	(Hosp. 4 Home 3)	1	...	...	1	...	...	...	...	...	...	6
	North	(Hosp. 1 Home 27)	4	...	...	5	...	...	...	...	...	3	40
	North-East	(Hosp. 11 Home 10)	8	...	...	3	...	1	14	...	...	6	43
	East	(Hosp. 7 Home 15)	3	...	...	2	...	1	1	...	...	1	20
	South	(Hosp. 3 Home 1)	2	...	...	1	...	...	...	...	...	...	18
	East-Hunslet	(Hosp. 9 Home 4)	4	...	...	3	...	...	...	...	...	...	12
	West-Hunslet	(Hosp. 26 Home 9)	2	...	...	...	...	...	...	...	...	...	32
	Holbeck	(Hosp. 17 Home 7)	3	...	...	3	...	...	...	...	...	...	26
	Mill Hill	(Hosp. 18 Home 11)	8	...	...	3	...	...	...	...	...	...	20
	West	(Hosp. 11 Home 9)	6	...	...	...	...	1	2	...	...	3	15
	North-West	(Hosp. 9 Home 18)	7	...	...	3	...	3	7	...	...	1	30
	Brunswick	(Hosp. 11 Home 6)	2	...	...	1	...	...	5	...	...	...	13
	New Wortley	(Hosp. 6 Home 10)	1	...	...	...	...	1	2	...	...	...	6
	Armley & Wortley	(Hosp. 12 Home 6)	4	...	...	3	...	...	8	...	...	1	14
	Bramley	(Hosp. 16 Home 1)	1	...	...	2	...	2	6	...	...	...	22
	Headingley	(Hosp. 13 Home 5)	2	...	...	4	...	1	11	...	...	3	17
	CITY	(Hosp. 6 Home 216)	26	...	...	26	...	...	...	...	...	9	283
	Cases	6	319	102	1	53	...	11	86	...	...	35	613

Three nurses and a maid at Manston Hall contracted scarlet fever, and one maid diphtheria. All were treated in the hospital. They are not included in the 216 and 26 given above. Cases of infectious illness occurring amongst the staff at the Beckett Street Hospital are entered in the district and ward in which the hospital is situated. Manston Hall is outside the city. In addition to the 283 cases hospitalised (out of the 613 reported during the quarter) 4 cases of scarlet fever which had been reported in previous quarter, were also taken to hospital.

O. 1.

TABLE C.

Table shewing deaths recorded in the City of Leeds during the fifty-two weeks ended 2nd January, 1904, classified according to cause, age, and the registration sub-districts to which the patients belonged. Deaths in institutions allocated to districts to which patients belonged.

TOWNSHIPS, &c. ..		LEEDS.												Hunslet. 71,098		Holbeck. 32,459		Wortley. 60,937		Kirkstall. 43,480		Bramley. 17,666		Chapeltown. 38,046		Osmond- thorpe. 372		Deaths of outsiders occurring in City.				TOTAL mortality in City.			Annual rate per 1,000 pop.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		North. 60,587				West. 84,440				South E. 34,474																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
		under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5																							under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5

TABLE C (continued).

TOWNSHIPS, &c. ..	LEEDS.						Wortley.	Kirkstall.	Bramley.	Chapelton.	Osmond- thorpe.	Deaths of outsiders occurring in City.		TOTAL mortality in City.			Annual rate per 1,000 pop.				
	North.		West.		South E.							under 5	over 5	under 5	over 5	under 5		over 5	under 5	over 5	all ages.
	under 5	over 5	under 5	over 5	under 5	over 5															
Under and over 5	11	1	26	..	5	..	14	..	14	..	..	..	..	..	70	3	82	0.19			
Tabes mesenterica	19	6	15	4	5	..	15	5	7	4	..	..	1	1	76	30	106	0.24			
Tub. meningitis	..	..	1	..	1	..	1	..	1	..	..	..	..	..	8	..	8	0.02			
Hydrocephalus	7	105	1	113	..	80	2	44	3	58	..	..	..	9	16	546	562	1.27			
Phthisis ..	5	1	3	4	2	2	3	1	1	1	..	..	1	..	22	15	37	0.08			
Tub. peritonitis	3	1	5	11	4	5	24	5	1	8	..	..	2	2	59	41	100	0.23			
Other tuberculous	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	0.00			
Scrofula ..	1	3	..	1	1	1	1	1	1	1	..	..	1	1	4	18	22	0.05			
Anæmia ..	..	2	..	3	..	1	..	..	..	6	..	..	..	..	..	28	28	0.06			
Diabetes, &c	35	..	44	..	23	..	52	..	45	..	..	..	..	..	277	..	277	0.63			
Premature birth	7	1	19	..	8	..	13	..	9	..	..	..	1	..	74	1	75	0.17			
Malformations and atelectasis (37)	..	26	..	72	..	28	..	54	..	44	..	..	..	..	..	319	319	0.72			
Old age ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Brain disease	40	..	47	..	22	..	1	28	..	31	..	..	..	..	3	259	262	0.59			
Meningitis	4	3	6	5	9	..	19	4	9	8	..	..	..	..	64	28	92	0.21			
Apoplexy	..	21	..	16	..	21	..	22	..	19	..	..	..	..	1	125	126	0.29			
Paralysis	..	7	..	12	..	3	..	7	..	8	..	..	..	..	2	50	52	0.11			
Gen. paralysis—	..	4	..	1	1	..	..	1	..	5	..	..	..	..	1	19	20	0.05			
Insanity	..	1	..	3	..	5	..	1	..	5	..	..	..	..	..	21	21	0.05			
Epilepsy	48	..	23	..	33	..	33	..	24	1	..	..	..	..	204	3	207	0.47			
Convulsions	..	..	4	..	..	..	..	..	1	..	..	..	..	..	7	..	7	0.02			
Laryngismus stridulus	..	4	..	12	..	3	..	3	2	5	..	..	..	..	3	35	38	0.09			
Other diseases of nervous system	1	2	1	..	..	1	..	1	1	2	..	..	..	..	..	..	..	0.04			
Dis. of organs of special sense	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Endocarditis, &c.	29	2	1	48	..	22	..	20	..	26	..	..	..	..	1	221	222	0.50			
Pericarditis	..	..	..	..	..	..	..	4	..	1	..	..	..	..	..	9	9	0.02			
Heart disease	1	54	5	64	..	39	1	36	26	55	2	24	5	5	11	344	355	0.80			
Angina pectoris	..	..	..	1	..	1	..	2	..	1	..	..	..	..	..	5	5	0.01			
Syncope ..	..	2	..	..	2	..	..	..	..	..	..	..	..	..	..	5	5	0.01			
Aneurism	..	..	..	..	2	..	..	2	1	..	..	..	..	..	..	5	5	0.01			
Other circulatory	..	1	..	2	..	1	..	1	..	1	..	3	..	..	..	11	11	0.02			
Laryngitis	2	..	..	..	..	..	..	1	..	..	..	..	..	..	9	1	10	0.02			
Group (membranous)	..	..	1	..	1	..	..	1	..	..	..	..	..	..	3	1	4	0.01			
Croup (undefined)	1	..	1	..	1	..	..	..	..	..	..	..	..	..	10	1	11	0.02			
Bronchitis	48	55	42	87	45	57	25	65	24	40	4	35	2	2	242	400	642	1.45			
Broncho-pneumonia	41	9	41	9	33	2	43	4	18	2	34	10	1	1	235	34	269	0.61			
Pneumonia ..	19	30	19	45	2	20	24	34	12	16	6	8	1	1	102	178	280	0.63			
Pleuro-pneumonia	1	2	..	..	..	..	..	2	1	3	1	1	..	..	2	11	13	0.03			
Pleurisy ..	..	3	2	3	..	2	..	..	4	1	1	1	..	..	3	14	17	0.04			
Other respiratory	1	17	4	12	1	11	2	3	5	12	2	1	1	1	14	71	85	0.19			

TABLE C (continued).

TOWNSHIPS, &c. ..	LEEDS.						Hunslet.		Holbeck.		Wortley.		Kirkstall.		Bramley.		Chapelton.		Osmond- thorpe.		Deaths of outsiders occurring in City.		TOTAL mortality in City.			Annual rate per 1,000 pop.
	North.		West.		South E.		under	over	under	over	under	over	under	over	under	over	under	over	under	over	under	over	under	over	all ages.	
Under and over 5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Stomatitis ..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'01
Dentition ..	19	..	..	..	10	..	..	..	..	..	26	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'27
Tonsillitis, &c. ..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'01
Dis. of stomach ..	3	4	9	3	2	..	..	..	..	..	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'13
Enteritis (Gastro 22) ..	..	..	4	5	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'17
Hernia ..	..	..	15	4	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'02
Fistula ..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'09
Peritonitis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'07
Ascitis ..	1	..	..	2	..	..	..	..	..	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'00
Jaundice ..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'03
Cirrhosis ..	2	1	1	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'08
Dis. of liver ..	7	1	4	..	2	..	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'08
Dis. of bowels ..	3	..	7	..	..	..	..	..	..	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'20
Dis. of ductless glands ..	7	1	14	..	5	..	..	..	..	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'03
Nephritis ..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'22
Kidney disease ..	1	15	1	16	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'15
Albuminuria ..	..	11	..	15	..	..	..	..	..	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'02
Other urinary ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'02
Dis. of generative Organs ..	..	..	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'05
Childbirth ..	1	9	1	7	2	2	..	..	..	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'12
Disease of bones (16), Joints (o), arthritis (o) }	2	6	2	4	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'06
Ulcer: Phlegmon (o) ..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'01
Skin disease ..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'01
Injury ..	10	20	14	39	5	28	..	..	..	..	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'64
Lead poisoning ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'00
Mortification ..	..	..	..	3	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'05
Debility ..	13	1	11	2	14	1	..	..	..	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'25
Marasmus, Atrophy ..	19	..	19	..	26	..	..	..	..	..	20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'33
Tumour ..	5	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'06
Abscess ..	2	2	1	3	..	3	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0'06
Other causes ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total under 5 and over 5 ..	475	615	447	885	334	467	545	575	296	313	433	517	351	175	77	182	136	260	2	5	16	168	2,936	4,398	7,334	16'59
Total ..	1,090	1,332	801	1,120	609	1,010	1,010	1,120	609	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	1,010	..
Mortality per 1,000 per annum ..	18'1	15'8	23'3	15'8	18'8	16'6	15'8	18'8	18'8	18'8	16'6	16'6	12'1	12'1	14'7	14'7	10'4	18'9	7	18'9	..	..	..	..	..	..

NOTES TO TABLE C.

This table is printed for the first time in the report for 1892. In it the causes of death are more detailed than in the other tables. They are classified as in Table A, part 2, according as the deaths were those of persons under or over the age of five. All the deaths which occurred in the following public institutions: the Infirmary, the Women and Children's Hospital, the Borough Fever and Small-pox Hospitals, the Leeds, Hunslet, Holbeck, and Bramley Workhouses, have been classified under the districts to which the patients belonged. The 184 deaths of persons who belonged to no district in the city have been separated in two columns by themselves, as deaths of outsiders; these deaths are, however, included in the total mortality of the city. As far as possible, the order of the Registrar-General has been followed in the arrangement of this table. The horizontal lines correspond with the groups in the Registrar-General's annual report.

Septicæmia includes deaths from pyæmia (0), phlebitis (1), phagedæna (0), septicæmia (not puerperal) (6). *Parasitic* diseases include thrush (8). *Starvation* includes purpura hæmorrhagica (5), scurvy (0), privation and want of breast milk (7), malnutrition (19), and inanition (60 deaths). *Rheumatic fever* in reports previous to 1892 had only the deaths ascribed in those terms to this disease by the medical attendant. Deaths from acute and sub-acute rheumatism had previously been classed under "rheumatism." A separate line has been given, both in Table C and Table A, to prevent confusion and enable comparison. "*Rheumatism*" includes chronic rheumatism and disease simply described as "rheumatism" (see Report, 1893, page 144). *Anæmia* includes chlorosis (0), hæmophilia (2), but not leucocythæmia; deaths from the latter have been referred to diseases of the ductless glands. In *malformations* are included cyanosis (5), patent foramen ovale (0), spina bifida (13), atelectasis (37), imperforate anus (1), cleft palate (0), harelip (0), and (19) other congenital defects.

Brain disease includes deaths registered from such causes as cerebral congestion, cerebral hæmorrhage, and softening of the brain. *Meningitis* includes diseases classified as meningitis (92), and spinal (0) meningitis, but not tuberculous. *Apoplexy* includes all apoplexies not otherwise defined. *Paralysis* includes hemiplegia, paraplegia, and "paralysis." *General paralysis* (12) is included under insanity, and does not include deaths from "softening of the brain." *Convulsions* includes diseases so certified, and deaths (0) due to "fits." Fits of apoplexy, &c., come under other headings. We have tried, as far as possible, to keep to the old headings.

Endocarditis, &c., includes valvular disease of the heart. "Heart disease" includes such diseases as hypertrophy, atrophy, fatty degeneration, weak heart, cardiac disease or degeneration and "disease of the heart." *Angina pectoris* includes only those deaths in which the symptom but no disease is stated. *Aneurism* includes all the aneurisms so stated. *Other diseases of the circulatory system* includes atheroma. *Other respiratory diseases* includes asthma (23), emphysema (31), empyæma (5), pulmonary congestion (13), "lung disease" (1), and others (12). *Tonsillitis, &c.* includes pharyngitis (1), parotiditis (1). *Diseases of the stomach* includes dyspepsia, hæmatemesis, gastritis. To avoid too many lines six deaths from disease of the pancreas and three from stricture of the œsophagus have been included. *Disease of liver* includes hepatitis (6). *Diseases of the bowels* includes melæna (1), ulcer of intestines, obstruction of bowels, strangulation not due to hernia, intussusception, appendicitis. *Kidney disease* includes deaths from granular kidney (3), Bright's disease (42), other kidney diseases (16), and uræmia (6). *Albuminuria* includes only deaths in which the symptom without any pathological cause was registered. *Diseases of the urinary system* includes calculus, hæmaturia, cystitis and other diseases of the bladder. *Disease of the generative organs* includes uterine disease (0), ovarian disease (5), and "other diseases" of the generative organs, male (18), female (0). *Childbirth* includes all the accidents of parturition, except puerperal fever.

Diseases of the bones and joints includes disease of the spinal column, but not, of course, such diseases as spinal sclerosis, which are now referred to disease of the nervous system. A comparison of mortality previous to 1890 is difficult, as the term spinal disease was used to include both diseases of the spinal column and of the spinal marrow. *Abscess* includes cellulitis (11), carbuncle (1). *Injury* includes deaths from accident or negligence, homicide, misadventure, suicide, and execution.

TABLE D, Part 1.

Shewing death-rates from certain causes for the years 1890 to 1903.

SEVEN COMMON ZYMOTICS.											
	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping cough.	"Fever."	Diarrhoea.	All seven.	Croup (membranous and undefined)	Phthisis.	Influenza and diseases of the air-passages other than consumption.
1890 (53 wks.)	0'00	0'27	0'28	0'07	0'50	0'30	0'98	2'39	0'09	1'66	5'62
1891 (52 wks.)	0'00	0'71	0'18	0'04	0'41	0'20	0'86	2'41	0'08	1'79	6'11
1892 (52 wks.)	0'02	0'20	0'20	0'08	0'42	0'17	1'10	2'18	0'13	1'42	4'56
1893 (52 wks.)	0'08	0'90	0'08	0'15	0'44	0'30	1'60	3'55	0'18	1'70	4'60
1894 (52 wks.)	0'01	0'75	0'13	0'15	0'34	0'14	0'45	1'98	0'17	1'49	3'64
1895 (52 wks.)	...	0'35	0'13	0'10	0'29	0'22	1'58	2'65	0'12	1'55	4'34
1896 (53 wks.)	0'00	0'48	0'18	0'10	0'60	0'21	0'69	2'27	0'09	1'50	4'02
1897 (52 wks.)	...	0'40	0'23	0'13	0'24	0'21	1'58	2'79	0'10	1'44	3'90
1898 (52 wks.)	0'00	0'45	0'29	0'49	0'39	0'23	1'24	3'10	0'12	1'39	3'41
1899 (52 wks.)	...	0'37	0'15	0'71	0'38	0'17	0'96	2'73	0'12	1'41	3'72
1900 (52 wks.)	0'00	0'58	0'12	0'55	0'39	0'20	1'09	2'93	0'06	1'41	4'19
1901 (52 wks.)	...	0'58	0'19	0'38	0'33	0'19	1'47	3'14	0'07	1'41	3'46
1902 (53 wks.)	0'01	0'43	0'13	0'18	0'46	0'18	0'61	2'00	0'05	1'31	3'52
1903 (52 wks.)	0'05	0'28	0'25	0'14	0'27	0'13	0'62	1'74	0'03	1'27	3'09

See note to table D, part 2.

TABLE D, Part 2.
For whole District.

Year.	Population estimated to middle of each year. *	Births.		Deaths under one year of age.		Deaths at all ages. Total.		Deaths in Public Institutions.	Deaths of non-residents registered in district.	Deaths of residents registered beyond district.	Deaths at all ages net.	
		Number.	Rate.*	Number	Rate per 1,000 births registered.	Number	Rate.*				Number	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1890	362,768	12,336	33.4	2,128	173	8,370	22.7	819	132	No return	8,238	22.4
1891	369,099	12,538	34.1	2,216	177	8,429	22.9	869	144	do.	8,285	22.5
1892	375,540	12,546	33.5	2,114	168	7,403	19.8	789	129	do.	7,274	19.4
1893	382,094	12,348	32.4	2,542	206	8,512	22.4	874	147	24	8,365	22.0
1894	388,761	12,502	32.3	1,945	156	6,935	17.9	772	142	7	6,793	17.5
1895	395,546	12,478	31.7	2,384	191	8,101	20.6	882	167	No return	7,934	20.1
1896	402,449	12,573	30.8	2,120	169	7,682	18.8	908	161	8	7,521	18.4
1897	409,472	12,912	31.6	2,454	190	8,148	20.0	881	175	1	7,973	19.5
1898	416,618	12,971	31.2	2,372	183	7,996	19.3	940	142	9	7,854	18.9
1899	423,889	12,939	31.2	2,222	172	8,105	19.2	1,005	181	26	7,924	18.8
1900	431,287	13,091	30.5	2,397	183	8,619	20.1	1,084	184	90	8,525	19.8
1901	430,630	12,898	30.1	2,429	188	8,283	19.3	1,176	171	92	8,204	19.1
1902	437,341	13,245	29.8	2,113	160	7,814	17.6	1,154	211	96	7,699	17.3
Averages for years 1893-1902		12,796	31.2	2,298	180	8,020	19.5	968	168	...	7,879	19.1
1903	443,559	12,996	29.4	1,992	153	7,334	16.6	1,094	184	113	7,263	16.4

* Rates calculated per 1,000 of estimated population. The populations given in column 2 for the 11 years, 1890 to 1900, are those estimated by geometrical progression at the rate of increase which obtained between censuses of 1881-1891. That for 1901 has been estimated similarly from the rate which prevailed between the censuses of 1891-1901. To make the populations for 1900 and the previous years correspond they should be decreased respectively by the following percentages: (for 1900) 1.72, (for 1899) 1.53, (for 1898) 1.34, diminishing by about 0.19 each year to (for 1892) 0.21, and (for 1891) 0.05. The rates in columns 4, 8, and 13 must be correspondingly increased by these percentages (see Annual, 1901, and table on p. 58).

The deaths included in column 7 of this table are the whole of those registered during the year as having actually occurred within the City or in the fever hospital at Seacroft. The deaths included in column 12 are the numbers in column 7, corrected by the subtraction of the numbers in column 10 and the addition of the numbers in column 11. Column 11 is however, incomplete in some of the years. Deaths in fever hospitals belonging to but outside the City are, unless those of strangers, included in column 7.

By the term "Non-residents" is meant persons brought into the district on account of illness, and dying in some public institution, and paupers from townships outside the City dying at the Workhouse; and by the term "Residents" is meant persons who have been taken out of the district on account of illness, and have died in some public institution, other than our own fever hospitals, and inmates of the County Asylums from the City townships.

TABLE E.
VITAL STATISTICS FOR 1903.

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the fifty-two weeks ended 2nd January, 1904. The figures in italics after the Births and Deaths give the proportion per annum per 1,000 of the estimated population.

Districts.	Births.	Birth Rate.	Deaths.	Death Rate.	
				All causes.	7 Zymotics.
LEEDS: { North ...	2,057	<i>34·07</i>	1,090	<i>18·05</i>	<i>2·19</i>
{ West ...	1,994	<i>23·69</i>	1,332	<i>15·82</i>	<i>1·40</i>
{ South-East ...	1,258	<i>36·62</i>	801	<i>23·31</i>	<i>2·24</i>
Hunslet ...	2,282	<i>32·21</i>	1,120	<i>15·81</i>	<i>2·19</i>
Holbeck ...	1,103	<i>34·10</i>	609	<i>18·83</i>	<i>2·72</i>
Wortley ...	1,760	<i>28·91</i>	1,010	<i>16·59</i>	<i>2·12</i>
Kirkstall ...	1,101	<i>25·41</i>	526	<i>12·14</i>	<i>0·90</i>
Bramley ...	491	<i>27·89</i>	259	<i>14·71</i>	<i>0·85</i>
Chapelton ...	941	<i>24·82</i>	396	<i>10·44</i>	<i>0·50</i>
Osmondthorpe ...	9	<i>24·28</i>	7	<i>18·88</i>	...
<i>Outsiders</i> ...	...	...	184	...	...
Totals ...	12,996	<i>29·40</i>	7,334	<i>16·59</i>	<i>1·75</i>

Considered as occurring in the Municipal Wards, the foregoing Deaths are classed as follows:—

Wards.		Deaths.	Death Rate.	Wards.		Deaths.	Death Rate.
Eastern Division.				Western Division.			
Central ...	...	336	16·28	Mill Hill ...	...	120	15·93
North ...	...	527	12·40	West ...	...	457	19·26
North-East ...	...	600	18·42	North-West ...	...	461	14·10
East ...	...	636	22·24	Brunswick...	...	334	14·61
South ...	...	309	21·01	New Wortley ...	...	357	19·21
East Hunslet ...	...	572	16·54	Armley ...	...	597	15·84
West Hunslet ...	...	457	15·24	Bramley ...	...	315	14·28
Holbeck ...	...	526	18·31	Headingley ...	...	546	12·25

In both these tables deaths occurring in public institutions have been referred to the districts to which the patients belonged. The births in workhouses are included in those of the districts in which these institutions are situated. There were thirty-six deaths at Manston Hospital, and twenty-two deaths at Killingbeck Hospital, during the year.

E 2.

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the thirteen weeks ended 4th April, 1903. The figures in italics after the Births and Deaths give the proportion per annum per 1,000 of the estimated population. *

Districts.	Births.	Birth Rate.	Deaths.	Death Rate.	
				All causes.	Zymotics.
LEEDS. { North	525	34·8	257	17·0	1·5
{ West	526	25·0	327	15·5	1·6
{ South-East	307	35·7	204	23·8	1·4
Hunslet	573	32·3	291	16·4	0·8
Holbeck	276	34·1	149	18·4	1·5
Wortley	421	27·7	226	14·9	1·1
Kirkstall	274	25·3	142	13·1	1·4
Bramley	130	29·5	81	18·4	1·4
Chapeltown	212	22·4	101	10·7	0·4
Osmondthorpe	1	10·8	1	10·8	...
<i>Outsiders</i>	...	...	37	...	...
Totals	3,245	29·4	1,816	16·4	1·2

Considered as occurring in the Municipal Wards, the foregoing Deaths are classed as follows:—

Wards.			Deaths.	Death Rate.	Wards.			Deaths.	Death Rate.
Eastern Division.					Western Division.				
Central	...	...	78	15'1	Mill Hill	...	...	31	16'5
North	...	...	126	11'9	West	...	...	116	19'6
North-East	...	...	147	18'0	North-West	...	...	118	14'4
East	...	...	156	21'8	Brunswick	...	...	74	12'9
South	...	...	91	24'7	New Wortley	...	...	103	22'2
East Hunslet	...	...	143	16'5	Armley	...	...	109	11'6
West Hunslet	...	...	114	15'2	Bramley	...	...	95	17'2
Holbeck	...	...	131	18'2	Headingley	...	...	147	13'2

In both these tables deaths occurring in public institutions have been referred to the districts to which the patients belonged. The births in workhouses are included in those of the districts in which these institutions are situated. There were twelve deaths at Manston Hospital and six deaths at Killingbeck Hospital during this quarter.

The district Registrar of West Leeds returned 4 births too many in week ended February 28th. The error was discovered in comparing our quarterly return with that of the Registrar General, but not until this table had been stereotyped. Birth rate for district should read 24·8, and for city 29·3.

E 3.

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the thirteen weeks ended 4th July, 1903. The figures in italics after the Births and Deaths give the proportion per annum per 1,000 of the estimated population.

Districts.	Births.	Birth Rate.	Deaths.	Death Rate.	
				All causes.	Zymotics.
LEEDS. { North ...	530	35.1	233	15.4	1.3
{ West ...	508	24.1	313	14.9	0.7
{ South-East ...	305	35.5	185	21.5	1.0
Hunslet ...	578	32.6	236	13.3	1.2
Holbeck ...	290	35.9	144	17.8	2.6
Wortley ...	448	29.5	245	16.1	2.3
Kirkstall ...	286	26.4	130	12.0	0.6
Bramley ...	120	27.3	39	8.9	0.5
Chapelton ...	230	24.3	101	10.7	0.2
Osmondthorpe ...	3	32.4	1	10.8	...
<i>Outsiders</i> ...	...	...	57	...	...
Totals ...	3,298	29.8	1,684	15.2	1.2

Considered as occurring in the Municipal Wards, the foregoing Deaths are classed as follows:—

Wards.	Deaths.	Death Rate.	Wards.	Deaths.	Death Rate.
Eastern Division.			Western Division.		
Central ...	84	16.3	Mill Hill ...	30	15.9
North ...	140	13.2	West ...	112	18.9
North-East ...	105	12.9	North-West ...	95	11.6
East ...	141	19.7	Brunswick ...	86	15.0
South ...	73	19.9	New Wortley ...	84	18.1
East Hunslet ...	122	14.1	Armley ...	153	16.2
West Hunslet ...	102	13.6	Bramley ...	47	8.5
Holbeck ...	117	16.3	Headingley ...	136	12.2

In both these tables deaths occurring in public institutions have been referred to the districts to which the patients belonged. The births in workhouses are included in those of the districts in which these institutions are situated. There were ten deaths at Manston Hospital and eleven deaths at Killingbeck Hospital during this quarter.

E 4.

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the thirteen weeks ended 3rd October, 1903. The figures in italics after the Births and Deaths give the proportion per annum per 1,000 of the estimated population.

Districts.	Births.	Birth Rate.	Deaths.	Death Rate.	
				All causes.	Zymotics.
LEEDS. { North ...	483	32·0	262	17·4	4·0
{ West ...	486	23·1	315	15·0	1·9
{ South-East ...	309	36·0	178	20·7	3·1
Hunslet ...	573	32·3	277	15·6	4·3
Holbeck ...	286	35·4	156	19·3	4·3
Wortley ...	469	30·9	240	15·8	3·4
Kirkstall ...	288	26·6	108	10·0	0·8
Bramley ...	107	24·3	60	13·6	0·9
Chapelton ...	272	28·7	88	9·3	0·4
Osmondthorpe ...	3	32·4	1	10·8	...
<i>Outsiders</i> ...	...	...	51	...	...
Totals ...	3,276	29·6	1,736	15·7	2·8

Considered as occurring in the Municipal Wards, the foregoing Deaths are classed as follows:—

Wards.		Deaths.	Death Rate.	Wards.		Deaths.	Death Rate.
Eastern Division.				Western Division.			
Central ...	...	72	14'0	Mill Hill ...	...	24	12'7
North ...	...	131	12'3	West ...	...	107	18'0
North-East	...	143	17'6	North-West	...	111	13'6
East ...	...	143	20'0	Brunswick...	...	81	14'2
South ...	...	67	18'2	New Wortley	...	77	16'6
East Hunslet	...	159	18'4	Armley ...	...	147	15'6
West Hunslet	...	97	12'9	Bramley ...	...	76	13'8
Holbeck ...	...	139	19'4	Headingley	...	111	10'0

In both these tables deaths occurring in public institutions have been referred to the districts to which the patients belonged. The births in workhouses are included in those of the districts in which these institutions are situated. There were eight deaths at Manston Hospital and five deaths at Killingbeck Hospital during this quarter.

E 5.

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the thirteen weeks ended 2nd January, 1904. The figures in italics after the Births and Deaths give the proportion per annum per 1,000 of the estimated population.

Districts.	Births.	Birth Rate.	Deaths.	Death Rate.	
				All causes.	Zymotics.
LEEDS. { North ...	519	54.4	338	22.4	1.9
{ West ...	478	22.7	377	17.9	1.5
{ South-East ...	337	39.2	234	27.2	3.4
Hunslet ...	558	31.5	316	17.8	2.4
Holbeck ...	251	31.0	160	19.8	2.5
Wortley ...	422	27.8	299	19.7	1.7
Kirkstall ...	253	23.4	146	13.5	0.8
Bramley ...	134	30.4	79	17.9	0.7
Chapeltown ...	227	23.9	106	11.2	0.9
Osmondthorpe ...	2	21.6	4	43.2	...
<i>Outsiders</i> ...	...	...	39	...	...
Totals ...	3,181	28.8	2,098	19.0	1.8

Considered as occurring in the Municipal Wards, the foregoing Deaths are classed as follows:—

Wards.			Deaths.	Death Rate.	Wards.			Deaths.	Death Rate.
Eastern Division.					Western Division.				
Central	...	...	102	19.8	Mill Hill	...	...	35	18.6
North	...	...	130	12.2	West	...	...	122	20.6
North-East	...	...	205	25.2	North-West	...	...	137	16.8
East	...	...	196	27.4	Brunswick	...	...	93	16.3
South	...	...	78	21.2	New Wortley	...	...	93	20.0
East Hunslet	...	...	148	17.1	Armley	...	...	188	19.9
West Hunslet	...	...	144	19.2	Bramley	...	...	97	17.6
Holbeck	...	...	139	19.4	Headingley	...	...	152	13.6

In both these tables deaths occurring in public institutions have been referred to the districts to which the patients belonged. The births in workhouses are included in those of the districts in which these institutions are situated. There were six deaths at Manston Hospital during this quarter.

E 6.

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the thirteen weeks ended 2nd April, 1904. The figures in italics after the Births and Deaths give the proportion per annum per 1,000 of the estimated population.

Districts.	Births.	Birth Rate.	Deaths.	Death Rate.	
				All causes.	7 Zymotics.
LEEDS. { North	472	32.1	336	22.8	3.0
{ West	477	22.6	428	20.3	2.1
{ South-East	320	37.2	269	31.2	4.5
Hunslet	561	31.3	355	19.8	2.0
Holbeck	310	37.9	155	18.9	2.0
Wortley	449	29.3	326	21.2	2.4
Kirkstall	277	25.1	179	16.2	1.5
Bramley	125	28.2	72	16.2	1.4
Chapelton	224	20.8	135	12.6	2.7
Osmondthorpe	1	10.8	...	...	...
<i>Outsiders</i>	...	...	45	...	...
Totals	3,216	28.7	2,300	20.5	2.4

Considered as occurring in the Municipal Wards, the foregoing Deaths are classed as follows:—

Wards.	Deaths.	Death Rate.	Wards.	Deaths.	Death Rate.
Eastern Division.			Western Division.		
Central	106	20.6	Mill Hill	40	21.4
North	176	16.7	West	149	25.1
North-East	180	19.8	North-West	139	16.9
East	219	30.5	Brunswick	110	19.2
South	114	31.2	New Wortley	99	21.3
East Hunslet	156	17.8	Armley	201	21.0
West Hunslet	154	20.3	Bramley	98	17.6
Holbeck	127	17.4	Headingley	187	16.5

In both these tables deaths occurring in public institutions have been referred to the districts to which the patients belonged. The births in workhouses are included in those of the districts in which these institutions are situated. There were fourteen deaths at Marston Hospital during this quarter.

TABLE F (1).

Shewing Births, Deaths, from all and certain causes, Home Patients of the Dispensary, admissions to the Fever Hospitals, and some of the Meteorological conditions and the Death-rates from certain causes in Leeds: with the Birth and Death-rates from all causes in the 76 large English towns for each of the fourteen weeks ended 3rd January, 1903.

1902.	OCTOBER.					NOVEMBER.					DECEMBER.					TOTALS OR AVERAGES.	YEAR.
	Oct. 4th.	Oct. 11th.	Oct. 18th.	Oct. 25th.	Nov. 1st.	Nov. 8th.	Nov. 15th.	Nov. 22nd.	Nov. 29th.	Dec. 6th.	Dec. 13th.	Dec. 20th.	Dec. 27th.	1903. Jan. 3rd.			
Total Births	1	227	247	230	267	256	265	231	216	204	219	238	227	189	264	3,280	13245
Total Deaths	2	156	164	150	157	156	167	158	134	165	137	151	157	136	156	2,144	7811
Under 1 year	3	54	59	45	39	42	49	36	28	34	36	41	44	31	26	564	2113
1 to 2 years	4	11	16	14	18	19	16	16	10	11	13	14	10	11	6	185	602
2 to 5 years	5	8	8	7	10	11	6	6	11	10	10	7	11	9	14	128	461
5 to 60 years	6	50	46	53	47	55	62	63	55	57	47	63	47	50	66	761	2811
60 yrs. and upwards	7	33	35	31	43	29	34	37	30	53	31	26	45	35	44	506	1827
Deaths: Small-pox..	8	...	...	...	...	...	...	...	1	...	1	1	...	1	...	4	6
Measles	9	5	5	6	11	7	9	13	5	7	7	6	4	5	5	95	192
Scarlet Fever	10	1	1	1	2	2	1	...	1	1	3	1	1	4	1	20	56
*Diphtheria	11	1	...	6	3	6	1	...	2	3	2	3	2	...	3	32	96
Whooping-cough..	12	...	1	2	2	1	2	...	1	2	2	3	1	...	...	17	203
Typhus Fever	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Typhoid Fever ...	14	...	1	3	1	...	4	1	1	1	2	7	3	2	3	29	76
Other or doubtful	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Diarrhoea or Dysent.	16	27	18	11	7	5	3	...	...	...	...	...	2	2	4	79	271
All seven.....	17	34	26	29	26	21	20	14	11	14	17	21	13	14	16	276	903
Cholera (English) ...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	19	...	...	...	...	...	...	...	...	...	...	1	...	1	...	2	6
Dis. of Resp. System	20	20	27	21	27	26	25	28	23	36	28	25	34	30	46	396	1565
Influenza†	21	...	...	1	...	...	...	...	1	...	1	1	1	3	1	9	52
Phthisis	22	13	11	6	12	10	22	9	14	9	9	12	10	14	10	161	584
Dis. of Circul. System	23	8	11	12	9	15	11	16	12	12	12	5	11	9	13	156	620
Violent Deaths	24	6	6	3	4	4	5	10	7	10	7	9	5	4	8	88	298
Inquest cases	25	14	9	12	15	16	12	25	12	20	15	17	9	11	21	208	695
Deaths in Pub. Inst.	26	25	26	21	23	19	26	22	23	39	19	37	18	18	30	346	1154
Dispensary: visits pd.	27	198	247	250	241	285	263	292	315	282	294	267	303	235	287	5,759	14377
Cases admitted to our own hospitals	28	43	31	39	27	28	33	37	30	51	34	38	39	20	1	501	1530
Barom. (inches)	29	30.08	29.71	29.58	29.96	29.90	29.62	29.83	30.04	29.38	29.84	30.04	29.81	30.09	29.15	29.78	29.80
Attached Ther. °F....	30	54.85	52.69	54.08	53.69	54.46	52.62	52.59	45.77	47.69	45.85	43.23	50.62	51.75	45.31	50.37	51.87
Dry bulb	31	53.23	50.62	53.46	53.38	53.38	49.69	50.08	39.31	45.23	38.77	38.46	45.85	48.92	39.92	47.15	51.09
Wet bulb	32	49.38	48.00	50.23	49.85	50.31	47.38	47.46	36.38	43.92	36.77	36.54	43.31	45.58	37.77	44.49	46.90
Humidity	33	75.62	82.77	79.23	78.00	80.48	84.15	82.46	76.85	90.31	82.69	83.62	81.77	77.50	82.69	81.29	74.65
Mn. of highest reading	34	57.43	52.86	56.71	56.00	56.43	52.71	52.43	44.14	48.00	40.57	40.14	48.71	50.71	43.14	50.00	55.13
lowest	35	47.71	45.57	47.43	46.00	47.00	44.71	45.57	34.86	38.29	34.71	32.29	38.43	44.29	34.43	41.52	42.95
daily range ...	36	9.72	7.29	9.28	10.00	9.43	8.00	6.86	9.28	9.71	5.86	7.85	10.28	6.42	8.71	8.48	12.18
Total rainfall (inches)	37	0.17	0.87	0.90	0.38	0.04	0.55	0.12	0.01	0.59	1.03	0.01	0.62	0.25	0.87	6.41	21.41
Wind { Direction ...	38	ENE	NE	W	WSW	SW W	SW E	SW SE	E	SE	E	ENE	W	SW	SW W	...	...
{ Force 0-6 ...	39	1	1	2	1	1	1	1	1	1	1	1	2	2	1	1	1
Amount of Cloud	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Birth-rate (Leeds) ...	41	27.1	29.5	27.4	31.9	30.5	31.6	27.6	25.8	24.3	26.1	28.4	27.1	22.5	31.5	28.0	29.8
Death-rate (Leeds)...	42	18.6	19.6	17.9	18.7	18.6	19.9	18.9	16.0	19.7	16.3	18.0	18.7	16.2	18.6	18.3	17.6
Death-rate (76 towns)	43	17.0	18.1	17.4	16.9	16.6	17.3	17.4	16.9	19.1	17.2	19.6	19.6	16.9	20.0	17.9	17.4
Birth-rate (76 towns)	44	28.7	29.6	29.5	31.1	31.6	30.8	30.6	28.6	27.4	27.2	28.6	28.7	21.3	33.0	29.0	30.0
D.R. lung dis. (Leeds)	45	2.4	3.2	2.5	3.2	3.1	3.0	3.3	2.7	4.3	3.3	3.0	4.1	3.6	5.5	3.4	3.5
D.R. 7 Zymotics ..	46	4.1	3.1	3.5	3.1	2.5	2.4	1.7	1.3	1.7	2.0	2.5	1.6	1.7	1.9	2.4	2.0

The Dispensary returns are furnished me by the kindness of the resident staff, and have regard to a week ended in each case a day earlier than that given in the heading.

The meteorological data are compiled from returns sent us by Mr. Crowther. They are uncorrected readings, made at 10 a.m. and 4 p.m. The humidity each week is the average of the humidities calculated on each of the four observations of the wet and dry bulbs. The corrected humidity in Mr. Glaisher's report for the quarter is, for the calendar month of October, 81; November, 85; December, 81. Average, 82.

* Includes membranous croup. Line 10 includes non-spasmodic croup not returned as membranous. Line 26 includes "N."

TABLE F (2).

Shewing Births, Deaths, from all and certain causes, Home Patients of the Dispensary, admissions to the Fever Hospitals, and some of the Meteorological conditions and the Death-rates from certain causes in Leeds: with the Birth and Death-rates from all causes in the 76 large English towns for each of the thirteen weeks ended 4th April, 1903.

1903.	JANUARY.				FEBRUARY.				MARCH.					TOTALS OR AVERAGES.	
	Jan. 10th.	Jan. 17th.	Jan. 24th.	Jan. 31st.	Feb. 7th.	Feb. 14th.	Feb. 21st.	Feb. 28th.	Mar. 7th.	Mar. 14th.	Mar. 21st.	Mar. 28th.	Apr. 4th.		
Total Births	1	254	235	245	241	264	253	241	243	237	284	234	271	243	3,245
Total Deaths	2	164	137	166	147	159	145	139	133	129	128	126	124	119	1,816
Under 1 year	3	43	31	31	25	36	36	33	29	41	31	25	34	30	425
1 to 2 years.....	4	9	5	16	13	9	11	6	9	4	11	12	4	9	118
2 to 5 years.....	5	8	7	6	3	8	5	10	9	5	7	9	2	9	88
5 to 60 years	6	55	53	70	66	57	56	54	60	51	40	46	48	45	701
60 yrs. and upwards	7	49	41	43	40	49	37	36	26	28	39	34	36	26	484
Deaths: Small-pox..	8	...	...	...	...	1	1	2	...	1	2	...	...	...	7
Measles	9	4	3	4	2	1	1	...	...	2	2	1	2	1	23
Scarlet Fever	10	1	...	1	3	3	4	1	3	...	1	5	2	2	26
*Diphtheria	11	1	2	...	2	3	5	3	5	1	2	...	...	7	31
Whooping-cough..	12	2	1	1	1	4	1	...	1	1	...	...	...	3	15
Typhus Fever.....	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhoid Fever ...	14	1	2	1	1	2	...	1	1	1	1	1	...	2	14
Other or doubtful	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea or Dysent.	16	2	2	3	1	1	1	2	3	1	3	1	...	...	20
All seven.....	17	11	10	10	10	15	13	9	13	7	11	8	4	15	136
Cholera (English) ...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	19	1	...	...	1	1	...	...	...	...	...	1	1	1	6
Dis. of Resp. System	20	42	25	32	31	32	38	27	21	21	24	32	23	23	371
Influenza†	21	3	1	2	1	7	7	2	1	1	1	4	2	1	33
Phthisis	22	7	13	11	9	17	10	14	9	15	13	10	9	9	146
Dis. of Circul. System	23	9	14	23	5	12	13	14	13	11	12	11	9	13	159
Violent Deaths	24	5	7	4	7	7	7	7	7	6	2	4	9	5	77
Inquest cases	25	15	15	17	16	17	16	10	15	11	9	11	16	9	177
Deaths in Pub. Inst.	26	29	19	12	30	28	25	22	20	15	21	22	17	22	282
Dispensary: visits pd.	27	260	298	287	324	269	282	311	282	255	262	219	271	152	3,472
Cases admitted to our own hospitals	28	33	29	45	27	42	49	46	35	38	38	35	39	34	490
Barom. (inches)	29	29.25	30.22	29.93	29.76	29.84	30.13	30.07	29.47	29.40	29.80	29.60	29.33	29.74	29.73
Attached Ther. °F ...	30	46.08	40.31	46.00	51.92	49.62	53.62	50.08	48.38	46.54	48.00	48.62	52.15	48.69	48.46
Dry bulb.....	31	43.31	31.92	41.00	48.38	46.38	49.69	47.62	43.85	44.15	46.69	48.77	51.46	48.46	45.51
Wet bulb.....	32	41.08	30.69	39.54	45.69	42.92	46.85	43.77	40.92	40.54	43.00	45.15	47.77	45.15	42.54
Humidity	33	83.15	84.15	88.31	81.38	75.54	80.77	74.31	78.85	75.31	75.00	75.92	76.15	78.00	78.99
Mn. of highest reading	34	46.00	36.00	43.00	51.00	50.14	52.57	50.14	48.14	47.86	51.29	51.71	57.29	52.29	49.03
„ lowest „	35	35.29	27.29	34.86	42.14	39.00	43.86	39.14	38.43	36.00	37.29	41.86	45.00	41.00	38.55
„ daily range ...	36	10.71	8.71	8.14	8.86	11.14	8.71	11.00	9.71	11.86	14.00	9.85	12.29	11.29	10.48
Total rainfall (inches)	37	1.00	0.19	0.24	0.10	0.04	0.08	0.91	0.87	0.72	0.69	0.82	0.48	0.48	6.62
Wind { Direction ...	38	S W	S E	S E	S W	W S W	W	S W	S W W	W S W	S E	S W W	S W	W	...
{ Force 0-6 ...	39	1	1	1	2	1	1	1	2	2	1	1	1	1	1
Amount of Cloud	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Birth-rate (Leeds) ...	41	29.9	27.6	28.8	28.3	31.1	29.8	28.3	28.6	27.9	33.4	27.5	31.9	28.6	29.4
Death-rate (Leeds)...	42	19.3	16.1	19.5	17.3	18.7	17.1	16.4	15.6	15.2	15.1	14.8	14.6	14.0	16.4
Death-rate (76 towns)	43	18.5	17.5	20.1	18.1	17.9	17.1	16.7	16.6	16.6	17.2	17.0	16.2	15.8	17.3
Birth-rate (76 towns)	44	31.7	29.4	30.4	30.7	31.9	30.5	29.2	27.7	30.1	30.6	29.4	30.5	29.3	30.1
D. R. lung dis. (Leeds)	45	4.9	2.9	3.8	3.6	3.8	4.5	3.2	2.5	2.5	2.8	3.8	2.7	2.7	3.4
D. R. 7 Zymotics ..	46	1.3	1.2	1.2	1.2	1.8	1.5	1.1	1.5	0.8	1.3	0.9	0.5	1.8	1.2

The Dispensary returns are furnished me by the kindness of the resident staff, and have regard to a week ended in each case a day earlier than that given in the heading.

The meteorological data are compiled from returns sent us by Mr. Crowther. They are uncorrected readings, made at 10 a.m. and 4 p.m. The humidity each week is the average of the humidities calculated on each of the four observations of the wet and dry bulbs.

* Includes membranous croup. Line 19 includes non-spasmodic croup not returned as membranous. Line 20 includes line 21.

For week ended February 28th, births should read 239, and the total column 3,241. The weekly birth-rate should read 28.1, and for the quarter 29.3.

TABLE F (3).

Shewing Births, Deaths, from all and certain causes, Home Patients of the Dispensary, admissions to the Fever Hospitals, and some of the Meteorological conditions and the Death-rates from certain causes in Leeds: with the Birth and Death-rates from all causes in the 76 large English towns for each of the thirteen weeks ended 4th July, 1903.

1903.		APRIL.				MAY.				JUNE.					TOTALS OR AVERAGES.
		April 11th.	April 18th.	April 25th.	May 2nd.	May 9th.	May 16th.	May 23rd.	May 30th.	June 6th.	June 13th.	June 20th.	June 27th.	July 4th.	
Total Births	1	251	245	287	267	253	223	225	205	204	296	275	252	255	3,298
Total Deaths	2	144	120	138	147	133	127	148	130	106	130	130	110	121	1,684
Under 1 year	3	36	25	24	32	28	35	28	33	17	38	22	28	37	383
1 to 2 years	4	11	11	7	9	12	15	15	6	9	7	12	7	5	126
2 to 5 years	5	6	3	12	5	8	9	7	4	4	8	41	4	7	88
5 to 60 years	6	45	54	53	65	56	47	58	59	46	44	50	45	45	664
60 yrs. and upwards	7	46	30	42	36	29	21	40	28	30	33	35	26	27	423
Deaths: Small-pox ..	8	1	3	...	...	1	2	1	3	...	...	...	...	...	11
Measles	9	...	...	2	3	2	1	1	2	3	4	2	4	3	27
Scarlet Fever	10	1	1	4	2	2	2	2	2	2	2	3	3	4	30
*Diphtheria	11	...	...	...	1	2	5	...	...	1	...	1	1	...	11
Whooping-cough ..	12	...	2	1	2	2	1	4	1	1	1	2	3	5	25
{ Typhus Fever	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Typhoid Fever	14	2	1	1	...	2	1	1	...	...	...	3	...	2	13
{ Other or doubtful ..	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea or Dysent.	16	2	1	...	1	1	...	2	...	1	1	...	1	4	14
All seven	17	6	8	8	9	12	12	11	8	8	8	11	12	18	131
Cholera (English) ...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	19	...	...	2	...	...	...	...	...	...	...	2	...	...	4
Dis. of Resp. System	20	27	19	26	28	29	28	40	24	21	19	21	17	16	315
Influenza†	21	3	...	1	...	1	...	...	...	...	...	...	...	...	5
Phthisis	22	12	7	12	9	17	10	14	9	9	12	8	9	7	135
Dis. of Circul. System	23	12	8	13	17	4	14	11	17	13	13	12	8	10	152
Violent Deaths	24	8	2	6	7	4	2	3	4	2	9	5	4	6	62
Inquest cases	25	18	12	15	16	8	7	9	11	6	16	14	8	8	148
Deaths in Pub. Inst.	26	20	23	31	25	23	20	23	29	14	32	19	17	22	298
Dispensary: visits pd.	27	250	189	247	237	250	290	282	219	229	246	237	254	258	3,188
Cases admitted to our own hospitals	28	14	28	38	36	59	50	53	42	34	51	40	42	32	519
Barom. (inches)	29	29.84	29.97	29.60	29.32	29.41	29.76	29.94	30.06	30.14	30.03	29.69	30.03	30.00	29.83
Attached Ther. °F ...	30	51.00	44.08	46.00	51.46	51.46	50.69	53.62	58.77	60.46	59.62	54.62	59.23	64.46	54.29
Dry bulb	31	50.92	42.85	47.92	52.23	48.23	50.92	59.08	63.69	64.15	58.85	54.46	65.23	66.85	55.83
Wet bulb	32	47.50	36.77	42.00	48.54	46.31	46.85	51.46	54.69	56.46	52.23	49.46	57.38	57.23	49.77
Humidity	33	77.92	59.31	62.15	77.38	86.54	74.23	61.15	57.85	60.54	64.38	71.00	61.77	53.92	66.71
Mn. of highest reading	34	55.43	47.57	51.71	56.57	51.43	54.14	64.00	69.86	69.14	64.71	58.14	71.14	72.29	60.47
„ lowest „	35	43.71	32.43	34.43	43.43	44.00	43.00	46.14	47.00	49.00	48.14	45.29	48.71	53.14	44.49
„ daily range ...	36	11.72	15.14	17.28	13.14	7.43	11.14	17.86	22.86	20.14	16.57	12.85	22.43	19.15	15.98
Total rainfall (inches)	37	0.10	0.18	0.01	1.88	1.73	0.31	0.01	0.17	0.01	0.46	0.56	0.37	0.14	5.93
Wind { Direction ...	38	W	WNW	NWNE	ESE	E	W	SEW	E	E	E	NE	SE	SW	...
{ Force 0-6 ...	39	1	1	1	1	1	1	1	1	1	1	1	1	3	1
Amount of Cloud ..	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Birth-rate (Leeds) ...	41	29.5	28.8	33.8	31.4	29.8	26.2	26.5	31.2	24.0	34.8	32.3	29.6	30.0	29.8
Death-rate (Leeds) ...	42	16.9	14.1	16.2	17.3	15.6	14.9	17.4	15.3	12.5	15.3	15.3	12.9	14.2	15.2
Death-rate (76 towns)	43	15.6	15.9	17.4	17.5	15.9	15.4	15.5	14.9	14.3	13.9	14.3	14.3	14.4	15.3
Birth-rate (76 towns)	44	29.0	28.2	32.2	30.4	29.9	30.8	31.2	30.0	26.8	32.3	30.9	31.4	30.2	30.2
D. R. lung dis. (Leeds)	45	3.2	2.2	3.1	3.3	3.4	3.3	4.7	2.8	2.5	2.2	2.5	2.0	1.9	2.9
D. R. 7 Zymotics ..	46	0.7	0.9	0.9	1.1	1.4	1.4	1.3	0.9	0.9	0.9	1.3	1.4	2.1	1.2

The Dispensary returns are furnished me by the kindness of the resident staff, and have regard to a week ended in each case a day earlier than that given in the heading.

The meteorological data are compiled from returns sent us by Mr. Crowther. They are uncorrected readings, made at 10 a.m. and 4 p.m. The humidity each week is the average of the humidities calculated on each of the four observations of the wet and dry bulbs.

* Includes membranous croup. Line 19 includes non-spasmodic croup not returned as membranous. Line 20 includes line 21.

TABLE F (4).

Shewing Births, Deaths, from all and certain causes, Home Patients of the Dispensary, admissions to the Fever Hospitals, and some of the Meteorological conditions and the Death-rates from certain causes in Leeds: with the Birth and Death-rates from all causes in the 76 large English towns for each of the thirteen weeks ended 3rd October, 1903.

1903.		JULY.				AUGUST.				SEPTEMBER.					TOTALS OR AVERAGES.
		July 11th.	July 18th.	July 25th.	Aug. 1st.	Aug. 8th.	Aug. 15th.	Aug. 22nd.	Aug. 29th.	Sep. 5th.	Sep. 12th.	Sep. 19th.	Sep. 26th.	Oct. 3rd.	
Total Births	1	253	273	251	251	218	254	244	268	284	230	240	254	256	3,276
Total Deaths	2	114	132	143	141	134	161	134	156	132	101	146	137	105	1,736
Under 1 year	3	27	39	45	50	49	70	41	71	35	31	50	41	32	581
1 to 2 years	4	7	13	15	9	8	5	15	11	10	7	6	10	7	123
2 to 5 years	5	7	1	10	6	6	13	5	5	2	1	7	6	4	73
5 to 60 years	6	38	52	41	43	42	50	50	37	53	34	56	43	38	577
60 yrs. and upwards	7	35	27	32	33	29	23	23	32	32	28	27	37	24	382
Deaths: Small-pox	8	1	...	1	2	1	...	...	...	...	...	...	...	...	5
Measles	9	3	1	9	2	2	1	...	...	...	1	1	...	3	23
Scarlet Fever	10	4	2	2	...	2	3	6	2	5	...	2	...	1	29
*Diphtheria	11	2	...	1	2	1	1	...	3	...	...	...	1	...	11
Whooping-cough	12	2	2	4	4	4	3	2	...	2	2	5	2	...	32
Typhus Fever	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhoid Fever	14	1	1	1	1	...	1	...	...	1	2	...	1	2	11
Other or doubtful	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea or Dysent.	16	4	12	13	17	22	34	19	32	13	7	11	8	4	196
All seven	17	17	18	31	28	32	43	27	37	21	12	19	12	10	307
Cholera (English)	18	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Croup	19	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Dis. of Resp. System	20	20	12	12	16	11	11	15	11	15	10	17	18	10	178
Influenza†	21	...	...	...	1	...	...	...	...	1	...	...	1	1	4
Phthisis	22	7	17	7	7	9	14	7	4	13	6	18	12	8	129
Dis. of Circul. System	23	15	8	15	10	7	6	13	11	8	13	9	7	5	127
Violent Deaths	24	6	6	3	3	2	8	5	6	4	2	4	7	5	61
Inquest cases	25	12	15	11	12	5	15	11	9	4	3	13	14	9	133
Deaths in Pub. Inst.	26	18	17	23	24	18	27	20	18	16	10	20	19	10	240
Dispensary: visits pd.	27	262	231	226	238	218	249	284	283	263	212	209	216	245	3,136
Cases admitted to our own hospitals	28	42	34	34	32	30	27	30	46	38	42	37	48	41	481
Barom. (inches)	29	30.01	29.67	29.47	29.63	29.64	29.51	29.57	29.79	29.86	29.64	30.14	30.01	29.69	29.74
Attached Ther. °F	30	62.69	62.00	61.54	61.69	62.31	61.85	58.00	59.54	61.15	57.08	54.31	59.92	59.31	60.11
Dry bulb	31	66.31	61.92	64.38	61.77	64.15	63.62	59.38	59.62	61.85	57.62	55.62	61.23	60.69	61.40
Wet bulb	32	58.54	55.85	58.31	56.69	56.54	56.15	53.31	55.23	57.69	53.00	52.38	58.85	57.54	56.16
Humidity	33	61.54	67.15	68.15	71.92	60.62	62.31	66.77	74.77	76.77	72.62	79.31	85.77	81.38	71.47
Mn. of highest reading	34	72.71	66.71	70.71	66.57	67.57	67.14	62.29	64.86	65.43	61.71	59.71	64.71	63.43	65.66
„ lowest „	35	52.43	51.86	55.14	54.14	53.57	51.71	50.14	51.43	51.29	45.86	42.43	52.14	46.71	50.68
„ daily range	36	20.28	14.85	15.57	12.43	14.00	15.43	12.15	13.43	14.14	15.85	17.28	12.57	16.72	14.98
Total rainfall (inches)	37	0.44	0.53	0.23	0.76	0.14	0.32	1.23	0.44	0.96	1.60	0.09	0.57	0.55	7.86
Wind { Direction	38	NW W	SW	SW W	NW	NW W	NW	SW W	W NW	SW	SW W	SE NE	SE	SW SE	...
Force 0-6	39	3	3	2	3	4	3	3	4	3	3	3	3	4	3
Amount of Cloud	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Birth-rate (Leeds)	41	29.8	32.1	29.5	29.5	25.6	29.9	28.7	31.5	33.4	27.1	28.2	29.9	30.1	29.6
Death-rate (Leeds)	42	13.4	15.5	16.8	16.6	15.8	18.9	15.8	18.4	15.5	11.9	17.2	16.1	12.4	15.7
Death-rate (76 towns)	43	13.7	13.5	13.4	14.4	14.3	15.7	15.7	16.0	15.7	15.8	16.5	16.3	15.3	15.1
Birth-rate (76 towns)	44	30.6	30.0	30.1	30.6	28.6	31.0	31.5	29.3	30.1	29.0	30.8	28.5	27.9	29.9
D.R. lung dis. (Leeds)	45	2.4	1.4	1.4	1.9	1.3	1.3	1.8	1.3	1.8	1.2	2.0	2.1	1.2	1.6
D.R. Diarrhoea	46	0.5	1.4	1.5	2.0	2.6	4.0	2.2	3.8	1.5	0.8	1.3	0.9	0.5	1.8

The Dispensary returns are furnished me by the kindness of the resident staff, and have regard to a week ended in each case a day earlier than that given in the heading.

The meteorological data are compiled from returns sent us by Mr. Crowther. They are uncorrected readings, made at 10 a.m. and 4 p.m. The humidity each week is the average of the humidities calculated on each of the four observations of the wet and dry bulbs.

* Includes membranous croup. Line 19 includes non-spasmodic croup not returned as membranous. Line 20 includes line 21.

TABLE F (5).

Shewing Births, Deaths, from all and certain causes, Home Patients of the Dispensary, admissions to the Fever Hospitals, and some of the Meteorological conditions and the Death-rates from certain causes in Leeds: with the Birth and Death-rates from all causes in the 76 large English towns for each of the thirteen weeks ended 2nd January, 1904.

1903.		OCTOBER.				NOVEMBER.				DECEMBER.					TOTALS OR AVERAGES.	YEAR.
		Oct. 10th.	Oct. 17th.	Oct. 24th.	Oct. 31st.	Nov. 7th.	Nov. 14th.	Nov. 21st.	Nov. 28th.	Dec. 5th.	Dec. 12th.	Dec. 19th.	Dec. 26th.	Jan. 2nd.		
Total Births	1	238	258	235	269	255	250	233	250	241	252	242	193	265	3,181	12,996
Total Deaths	2	140	130	133	159	171	203	158	172	147	168	163	173	181	2,098	7,334
Under 1 year	3	35	39	36	45	54	66	50	48	43	48	45	45	49	603	1,992
1 to 2 years	4	7	11	11	14	17	17	17	20	14	14	14	23	19	198	565
2 to 5 years	5	9	5	7	12	7	10	9	12	7	9	14	14	15	130	379
5 to 60 years	6	57	47	47	53	50	59	50	62	52	58	43	53	62	693	2,635
60 yrs. and upwards	7	32	28	32	35	43	51	32	30	31	39	47	38	36	474	1,763
Deaths: Small-pox..	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23
Measles	9	...	1	1	1	1	...	4	7	3	7	5	10	10	50	123
Scarlet Fever	10	2	5	1	3	...	3	3	4	...	1	1	1	...	24	109
*Diphtheria	11	...	1	...	1	3	1	...	...	2	1	...	2	1	12	65
Whooping-cough..	12	1	1	3	1	2	3	2	3	2	9	5	5	10	47	119
Typhus Fever	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhoid Fever	14	1	4	...	3	1	2	...	1	1	1	1	3	2	20	58
Other or doubtful	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea or Dysent.	16	10	9	8	1	1	4	3	2	1	2	2	2	...	45	275
All seven	17	14	21	13	10	8	13	12	17	9	21	14	23	23	198	772
Cholera (English) ..	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Croup	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11
Dis. of Resp. System	20	29	23	18	30	38	74	45	49	36	37	41	42	39	501	1,365
Influenza†	21	...	...	...	...	...	...	1	...	...	2	1	2	1	7	49
Phthisis	22	10	15	10	12	7	11	8	15	17	16	10	8	13	152	562
Dis. of Circul. System	23	13	9	11	16	16	16	9	15	15	15	10	16	13	174	612
Violent Deaths	24	5	3	6	8	3	8	8	7	7	6	5	8	7	81	281
Inquest cases	25	14	9	13	13	11	20	14	18	10	19	10	12	17	180	638
Deaths in Pub. Inst.	26	18	18	18	35	26	19	22	13	16	19	32	11	27	274	1,094
Dispensary: visits pd.	27	283	272	302	280	254	298	370	368	307	348	318	359	290	4,049	13,845
Cases admitted to our own hospitals	28	30	28	28	37	32	28	26	27	34	30	32	13	35	380	1,870
Barom. (inches)	29	29.56	29.42	29.49	29.33	30.26	29.89	29.78	29.69	29.35	29.12	29.60	29.91	29.93	29.64	29.74
Attached Ther. °F ...	30	54.77	53.23	53.54	52.38	49.62	51.69	47.31	48.92	43.08	44.54	47.08	47.58	42.54	48.95	52.96
Dry bulb	31	52.77	52.77	51.00	50.00	45.62	50.92	43.77	45.46	37.69	41.39	41.62	43.50	35.46	45.55	52.08
Wet bulb	32	50.38	50.08	49.08	47.46	44.00	48.77	41.92	43.92	36.23	39.92	40.15	41.83	33.54	43.65	48.04
Humidity	33	84.46	82.08	86.92	82.85	88.54	85.08	85.92	88.46	87.00	88.08	88.54	87.50	81.85	85.93	75.77
Mn. of highest reading	34	55.86	55.71	53.57	53.43	49.71	52.00	46.86	51.14	40.29	44.00	44.57	45.43	37.14	48.44	55.90
„ lowest „	35	47.57	43.86	43.14	41.20	38.00	38.14	34.14	38.43	33.86	34.71	35.86	39.71	31.86	38.51	43.06
„ daily range ...	36	8.29	11.85	10.43	12.14	11.71	13.86	12.72	12.71	6.43	9.29	8.71	5.72	5.28	9.93	12.84
Total rainfall (inches)	37	3.14	1.47	0.70	1.19	0.32	0.07	0.07	0.64	0.35	0.62	0.07	0.10	0.03	8.83	29.24
Wind (Direction) ...	38	SE SW	SW	SE SW	SW	W SE	W SW	W NW	W SW	SW NW	SE	E	SE SW	SE	...	...
Force 0-6 ...	39	3	4	3	3	2	3	4	3	3	3	2	2	3	3	3
Amount of Cloud	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Birth-rate (Leeds) ...	41	28.0	30.3	27.6	31.6	30.0	29.4	27.4	29.4	28.3	29.6	28.5	22.7	31.2	28.8	29.4
Death-rate (Leeds) ...	42	16.5	15.3	15.6	18.7	20.1	23.9	18.6	20.2	17.3	19.8	19.2	20.4	21.3	19.0	16.6
Death-rate (76 towns)	43	15.8	15.8	15.9	16.3	16.2	17.9	17.4	17.6	18.6	19.2	17.9	15.5	20.6	17.3	16.3
Birth-rate (76 towns)	44	28.2	29.3	29.0	30.5	30.3	29.0	27.8	27.5	28.1	28.4	29.7	21.6	32.4	28.6	29.7
D.R. lung dis. (Leeds)	45	3.4	2.7	2.1	3.5	4.5	8.7	5.3	5.8	4.2	4.4	4.8	4.9	4.6	4.5	3.1
D.R. 7 Zymotics ..	46	1.6	2.5	1.5	1.2	0.9	1.5	1.4	2.0	1.1	2.5	1.6	2.7	2.7	1.8	1.7

The Dispensary returns are furnished me by the kindness of the resident staff, and have regard to a week ended in each case a day earlier than that given in the heading.

The meteorological data are compiled from returns sent us by Mr. Crowther. They are uncorrected readings, made at 10 a.m. and 4 p.m. The humidity each week is the average of the humidities calculated on each of the four observations of the wet and dry bulbs.

* Includes membranous croup. Line 19 includes non-spasmodic croup not returned as membranous. † Line 20 includes line 21.

TABLE F (6).

Shewing Births, Deaths, from all and certain causes, Home Patients of the Dispensary, admissions to the Fever Hospitals, and some of the Meteorological conditions and the Death-rates from certain causes in Leeds: with the Birth and Death-rates from all causes in the 76 large English towns for each of the thirteen weeks ended 2nd April, 1904.

1904.		JANUARY.				FEBRUARY.				MARCH.					TOTALS OR AVERAGES.
		Jan. 9th.	Jan. 16th.	Jan. 23rd.	Jan. 30th.	Feb. 6th.	Feb. 13th.	Feb. 20th.	Feb. 27th.	Mar. 5th.	Mar. 12th.	Mar. 19th.	Mar. 26th.	Apr. 2nd.	
Total Births	1	247	241	260	252	254	252	264	245	217	252	258	238	236	3,216
Total Deaths	2	196	187	176	177	168	183	185	167	190	152	168	172	179	2,300
Under 1 year	3	45	45	33	35	47	40	56	34	38	36	30	39	37	515
1 to 2 years.....	4	25	16	20	16	10	17	20	13	19	7	20	17	14	214
2 to 5 years.....	5	15	17	10	17	12	6	15	16	13	13	12	15	17	178
5 to 60 years	6	64	56	63	58	47	52	61	62	61	54	64	54	68	764
60 yrs. and upwards	7	47	53	50	51	52	68	33	42	59	42	42	47	43	629
Deaths: Small-pox..	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	9	8	10	7	10	6	6	9	6	10	4	13	13	12	114
Scarlet Fever	10	2	3	...	2	4	2	1	...	1	...	2	2	...	19
*Diphtheria	11	1	1	1	3	...	1	2	...	4	...	1	2	3	19
Whooping-cough..	12	8	4	6	8	12	6	15	6	11	3	7	8	1	95
{ Typhus Fever.....	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Typhoid Fever	14	3	...	...	...	...	...	...	1	...	...	1	1	2	8
{ Other or doubtful	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa or Dysent.	16	2	...	...	...	4	...	3	...	...	...	...	1	3	13
All seven.....	17	24	18	14	23	26	15	30	13	26	7	24	27	21	268
Cholera (English) ...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	19	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Dis. of Resp. System	20	67	45	46	28	30	38	25	36	45	37	37	40	37	511
Influenza†	21	...	2	...	2	...	2	...	3	...	...	...	4	1	14
Phthisis	22	15	14	15	15	12	12	18	13	16	16	16	11	17	190
Dis. of Circul. System	23	14	17	13	16	15	16	15	18	12	15	14	18	19	202
Violent Deaths	24	3	2	7	3	3	3	5	4	8	6	7	...	5	56
Inquest cases	25	12	15	14	8	16	13	19	13	20	13	19	10	12	184
Deaths in Pub. Inst.	26	27	31	30	24	32	28	21	20	29	26	24	21	24	337
Dispensary: visits pd.	27	358	393	333	296	268	355	366	359	326	319	326	320	346	4,365
Cases admitted to our own hospitals	28	31	31	26	25	27	21	16	20	20	27	22	18	18	302
Barom. (inches)	29	29.67	29.27	30.35	29.54	29.22	28.91	29.23	29.94	29.96	29.88	29.66	30.03	29.58	29.63
Attached Ther. °F...	30	44.69	45.46	47.23	46.69	45.31	45.08	44.39	45.08	42.54	42.62	41.54	49.46	44.25	44.95
Dry bulb.....	31	40.46	42.31	44.00	43.23	39.31	41.00	38.92	38.85	36.08	41.08	43.15	44.77	44.92	41.37
Wet bulb.....	32	39.00	40.31	42.31	40.77	37.69	39.00	36.15	36.62	33.92	39.00	40.92	41.15	40.83	39.04
Humidity	33	88.00	84.23	86.92	81.31	91.00	84.31	78.08	81.46	80.54	84.08	83.23	74.69	71.58	82.02
Mn. of highest reading	34	42.71	44.86	47.14	44.71	41.71	44.29	42.29	41.71	38.00	44.43	46.14	50.14	50.29	44.49
„ lowest „	35	35.14	36.29	36.14	37.86	35.57	36.14	33.86	35.29	31.14	33.29	33.71	34.57	35.57	34.97
„ daily range ...	36	7.57	8.57	11.00	6.85	6.14	8.15	8.43	6.42	6.86	11.14	12.43	15.57	14.72	9.52
Total rainfall (inches)	37	0.80	0.63	0.06	0.58	1.59	1.04	0.44	0.20	0.09	0.54	0.47	0.15	0.46	7.05
Wind (Direction ...	38	SE	SW	SW	SW SE	SE	SE SW	SW	SE SW	SE NE	SW	NE	SW	...	...
{ Force 0-6 ...	39	2	4	3	3	2	3	2	2	3	2	2	2	2	2
Amount of Cloud	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Birth-rate (Leeds) ...	41	28.6	27.9	30.1	29.2	29.4	29.2	30.6	28.4	25.2	29.2	29.9	27.6	27.4	28.7
Death-rate (Leeds)...	42	22.7	21.7	20.4	20.5	19.5	21.2	21.4	19.3	22.0	17.6	19.5	19.9	20.7	20.5
Death-rate (76 towns)	43	20.3	19.0	18.1	19.4	17.2	18.4	18.5	17.5	18.6	19.0	19.7	18.7	18.7	18.7
Birth-rate (76 towns)	44	32.2	29.6	29.8	29.1	30.7	29.7	31.0	29.1	28.0	30.4	29.7	29.1	27.6	29.7
D. R. lung dis. (Leeds)	45	7.8	5.2	5.3	3.2	3.5	4.4	2.9	4.2	5.2	4.3	4.3	4.6	4.3	4.6
D. R. 7 Zymotics ..	46	2.8	2.1	1.6	2.7	3.0	1.7	3.5	1.5	3.0	0.8	2.8	3.1	2.4	2.4

The Dispensary returns are furnished me by the kindness of the resident staff, and have regard to a week ended in each case a day earlier than that given in the heading.

The meteorological data are compiled from returns sent us by Mr. Crowther. They are uncorrected readings, made at 10 a.m. and 4 p.m. The humidity each week is the average of the humidities calculated on each of the four observations of the wet and dry bulbs.

* Includes membranous croup. Line 19 includes non-spasmodic croup not returned as membranous. † Line 20 includes line 21.