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ANNUAL REPORT

MADE TO THE

URBAN SANITARY AUTHORITY

OF THE

CITY OF LEEDS,

FOR THE YEAR

1899,

AND PARTLY FOR 1900,

BY

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ANNUAL REPORT.

To the Chairman of the Sanitary Committee.

SIR,

The year 1899 was on the whole a healthy one, not only absolutely but comparatively. The death-rate of 19·1 was fractionally lower than that of the preceding year, and, though not absolutely the lowest on record, it is for the first time lower than the rate of the nine largest cities of the United Kingdom. (See table 2, page 10).

Reserving, however, the consideration of the vital statistics of the city, in the meantime I may perhaps be allowed to indicate briefly the more salient features in the history of the year from a sanitary standpoint.

MATTERS OF SANITARY INTEREST.

York Street area.—One feature in the sanitary history of the year especially prominent was the completion of the official offers and the holding of the arbitration in regard to the York Street Unhealthy Area. The work done by the Unhealthy Areas Sub-Committee during the last three years has been most arduous. This Sub-Committee at the first divided itself into sections, and, while each section reported to the whole Sub-Committee, the method left the actual negotiations for purchase generally in the hands of one or two members, —an obvious advantage.

As the number of properties to be negotiated for was 142, and as in many cases the question of finding accommodation within the area for certain businesses, already carried on there had to be considered, and as each stage of the negotiation had to receive the sanction of the Sub-Committee, and later on of the full Committee, and every purchase agreed upon that of the Council, it will be understood that the energies of this Sub-Committee were very fully taxed.

The owners agreed with the Corporation as to price in 131 out of the 142 properties, including 15 public houses. Only eleven cases had to be put before the Arbitrator.

Camp Field area.—The whole of the purchases having been completed in 1898, progress has been made with the improvement. The clearances in the southern half of the area were commenced towards the end of 1898. They were completed and the new structures erected early in 1899. The result is an exceedingly satisfactory one. Instead of the irregular yards, houses and outbuildings which, with division walls, filled up the space between the houses at the backs of Middle and Back Rows, there is now an open area, free from all obstruction, concreted and protected from traffic by posts at the end, thus forming an admirable playground for the children of the remaining houses. The two rows of back-to-back houses separating this from Back and Middle Row have been loopholed, and the conveniences for the houses placed in the spaces thus produced. Each block of property has its own conveniences, not more than two houses joining at one closet, the yards are all paved with concrete, and the ashbins are portable ones, placed under pent-houses in the open yards.

A similar transformation of the northern half is rapidly approaching completion. This portion of the area lent itself

more readily to the improvement. It was the portion of the district with the highest death-rate, and the sanitary advantage will probably be even greater than in the southern half.

Holbeck area.—A certain amount of progress has been made in the Holbeck area. Five buildings were certified by your Medical Officer as "obstructive," and it was resolved that they should be purchased and demolished. The purchase of several others has been arranged for, and negotiations are in progress. In a few cases where the purchases are practically complete, some of the demolitions have already taken place, but in the majority the actual removal of existing buildings is being delayed till others of the same group have been conveyed to the Corporation, and the provision of additional closet accommodation is being attended to at the same time.

House and nuisance inspection.—During the year the Committee resolved to increase the strength of the staff of inspectors, one special object being their desire to press forward the house-to-house inspection of the town, and the testing of drains referred to in previous reports. It is now arranged that each inspector shall devote four afternoons a week to the house-to-house examination of his ward testing the drains of every house so examined.

To give the extra time thus required the ward inspector has been relieved of that portion of his duties concerned in the oversight of alterations; this work is now in charge of four inspectors, each having supervision of structural changes in four wards.

Two women inspectors were also appointed, one to look after the workshops where women only are employed, the other to take supervision of a district.

One of the new inspectors appointed is a Hebrew, and speaks Yiddish. He is specially charged with the supervision

of the Hebrew population in the Brunswick and Central wards, the former inspector of the latter ward taking the remainder of both wards. The Jewish inspector also visits the workshops where Hebrews only are employed.

It is too soon to say anything about the results of the change as it has only been made a few months.

Food and dairy inspection.—An Assistant Food and Drugs and Dairies Inspector has also been appointed, and much more energy has been thrown into the examination of cow-sheds and the sampling of milk during the past two years. The new clauses relating to tubercle in our local Act of 1899, are, of course, also too recent to be reported upon.

Provision of water-closets.—Not only in Holbeck but throughout the city, much good work has been done in getting rid of offensive midden privies. A good many orders had been served towards the close of the preceding year to effect improvements of this kind, but legal difficulties as to the form of the notices had presented themselves, and several had to be withdrawn or withheld, and new ones issued in their stead.

The advice of the late Town Clerk, that the notice for the provision of water-closets for each property had to be the result of a distinct vote of the Committee, led you to order that the schedule of properties to be thus improved should be printed in detail and forwarded by post beforehand to each member of the Committee. The further requirement on the part of your Committee that a return should be made, at the end of a fixed period, as to each property in which the notice had not been complied with, has strengthened the hands of your officers in pressing on owners and their advocates the necessity of carrying out the resolutions of the Committee.

The chief reason that so many of these necessary improvements have been delayed until comparatively recently is that

it was still legal for a builder to erect a house with a privy midden in defiance of the express wishes of the Corporation, as represented by their Building Committee.

Although the Leeds Improvement Act of 1866 enables the Corporation to require the provision of a suitable water-closet for any house built either before or after the passing of that Act, should it seem desirable to them to do so, it was considered that this power did not enable us to insist upon provision of the water-closet at the time of passing plans, even though it seemed to the Corporation desirable. We could, however, demand the erection of such a closet as soon as the building became an occupied house.

It was felt that a certain amount of apparent injustice might be inflicted upon owners of comparatively recently erected properties in requiring them (as the Corporation had a perfect right to do by the Act above mentioned) to provide their houses with water-closets, the old form of conveniences having been quite recently recognised as complying with the Corporation bye-laws.

The Leeds local Act of 1899, now provides that in any new property, where there is a sufficient sewer within a requisite distance, each house should be provided with a suitable water-closet. The anomaly that the Sanitary Committee might be insisting on the provision of water-closets to houses in a street while the Building Clauses Committee were sanctioning, however unwillingly, the erection of privies just opposite, has been thus done away with. As for many years the sanction of privies has been under protest, the actual hardship to the property-owner in forcing him to comply with an Act passed in 1866, is not so great as it appears at first sight.

The inertia of the property owner or his agent made it exceedingly difficult to get some of the notices for the erection of new closets to existing houses carried out within anything

like a reasonable time, and although an effort was made early in the year, when the building weather was favourable, to get rid of a large number of the objectionable middens which become so offensive and dangerous during the hot weather, it was found difficult to get the owners to execute the work, and case after case had to be taken before the Stipendiary. The result has been excellent. Owner after owner was fined for not carrying out the order of the Corporation, until at length a great rush was made to Mr. Swallow's office with plans for the new closets required.

During the year new water-closets or trough closets had been provided to the number of 2,001*, of these 251 were additional closets required for property where those already provided were less than one for every two houses, while 1,750 were those in which water-closets were required for houses where privies already existed. In most cases the notice issued was in order to secure both these objects at the same time.

Trough closets.—The Committee also resolved in the course of the year to discourage the further erection of trough closets, and where new closets were to be erected to require ordinary water-closets where at all practicable.

The complaints so frequently made of the offensiveness of these conveniences, especially in hot weather, have been met by the addition each day during the summer of a deodorizer to the water when the closet is refilled. During the hotter part of the year certain of those closets, especially those under dwellings, have been attended to seven instead of six times a week.

Cleansing.—Gully flushing and cleansing generally was specially attended to during the hot weeks of summer. Special work of this kind was done in the South-East Registration District, and is referred to elsewhere (p. 89).

* Exclusive of 37 additional and 84 substituted for factories and workshops.

Disease prevalences.—Diphtheria has continued throughout the year to be an important element in our death returns. The mode of spread of this disease was very fully gone into in the report for 1898, and some further particulars will be found later on in the present one.

Diarrhœa was less fatal than during the previous year, but still figured largely in the returns for the third quarter.

Scarlet fever, without being in any respect unusually prevalent, kept our extended hospital accommodation fully occupied throughout the whole year. We were generally unable to take in promptly the cases we were urged to admit, and much of the advantage that should have been obtained from isolation was lost owing to our having to delay the removal of cases for want of room until other members of the family had contracted the disease.

Typhoid fever assumed a somewhat threatening aspect during the autumn, but during the fourth quarter the cases were not in excess of our average.

VITAL STATISTICS.

It has been already remarked that our death-rate was a low one. It is perhaps convenient as this is the tenth annual report I have prepared on the health of Leeds, briefly to review the life history of the town as revealed by its vital statistics.

Though this is my tenth report it will be remembered that much of what I have spoken of earlier is work that cannot yet have told upon our death-rate. The area about to be cleared still contains as many people as when the rate was 39 per 1,000. The Camp Field area, though partly done, has not yet had time, even in any small degree, to affect the death-rate. Still less have the promised improvements in Holbeck.

These and other things, such as more efficient house examination, will tell in time, but their effect is not to be measured yet in our decreased mortality. Great as this is, it is only part of what we have a right to expect from our work during these ten years.

Birth-rate.—During these ten years Leeds has shared in the general diminution which has taken case in the birth-rate of this country. In the three earlier years of this decade its birth-rate averaged 33·7, during the three following years it was 32·1, during the triennium 1896-8 it was 31·2. In 1899 the rate was 30·6. Compared with many other, however, of the largest towns our birth-rate stands high.

Death-rate.—The fall in the death-rate is, however, a more important matter. During the three triennia 1890-92, 1893-95, 1896-98 the death-rate of Leeds averaged respectively 21·8, 20·3, 19·3, the rate for 1899 being fractionally below the average rate for the three years preceding it.

Turning to table 1 in which the death-rate for the five years 1885-89 is also given, it will be seen that the death-rate from all causes of the triennium 1890-92 was above that of the quinquennium preceding it. This was not the case, however, as regards either the zymotic group or consumption. The increase in the deaths from lung diseases other than consumption more than made up for the fall in the two other groups. In these three years influenza claimed many victims, and, although the deaths actually certified as due to this cause are not included in any of the four groups in the table, the disease undoubtedly added many deaths indirectly to the lung groups. The fall in the zymotic group in the earliest of the three triennia is noteworthy, it was largely due to the small amount of diarrhœa in 1890 and 1891. With this exception the zymotic rate did not vary greatly in the three periods, though it was in each less than in the preceding quin-

quennium. The death-rate from consumption shewed a steady fall. There was a lessening of mortality from other lung diseases in each successive triennium.

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
Three years, 1890-92 ... (157 weeks)	21·79	2·33	1·62	4·90	0·30
Three years, 1893-95 ... (156 weeks)	20·27	2·72	1·58	3·74	0·29
Three years, 1896-98 ... (157 weeks)	19·34	2·72	1·44	3·47	0·20
Year 1899 (52 weeks)	19·19	2·73	1·41	3·30	0·22
1899 increase on '96-8	...	0·01	...	...	0·02
„ decrease „ '96-8	0·15	...	0·03	0·17	...
1899 increase on '85-9	...	...	...	...	...
„ decrease on '85-9	1·97	0·05	0·29	0·63	0·05

NOTE.—The seven zymotics in this table do not include membranous croup. Deaths from this disease have been included in those from diphtheria by the Registrar-General for England since 1894 inclusive, and are so included in Table F of these reports since 1895 inclusive.

COMPARATIVE MORTALITY.

The nine largest cities.—So far we have compared Leeds with itself. In the report for 1898 two tables were reprinted from the report of 1897, and contrasted with table 2 for that year. They shewed the position of Leeds with regard to the eight other largest cities of the United Kingdom as regards death-

rate in the four years 1890-93, when it stood fourth in the list, and in the three years 1894-97, when it stood third. In 1898 it stood second, last year it headed the list. The position in single years should not of course have too great importance attached to it, but the gradual rise in our comparative position is not altogether unsatisfactory. The figures for each year are given in the reports for 1897 and 1898, in tables numbered 2a and 2b.

TABLE 2.

Shewing the death-rates in the nine largest towns of the United Kingdom for the Fifty-two weeks ended December 30th, 1899.

	First quarter of 1899.	Second quarter of 1899.	Third quarter of 1899.	Fourth quarter of 1899.	52 Weeks.
Leeds -	*20·3*	*17·1*	*20·1*	*19·0*	*19·1*
Edinburgh -	23·7	17·8	18·6	18·3	19·6
London -	20·5	16·6	20·6	21·4	19·8
Birmingham -	19·8	18·5	24·2	20·9	20·8
Glasgow -	25·5	19·5	20·8	20·7	21·6
Sheffield -	21·3	18·2	27·4	21·8	22·2
Manchester -	25·9	23·6	27·6	21·3	24·6
Liverpool -	26·4	22·7	29·9	26·6	26·4
Dublin -	29·6	26·4	30·5	36·6	30·8

Some minuter details are given about the health of the several quarters of 1899.

First Quarter of 1899.

Conditions present in last quarter of 1898.—The fourth quarter of 1898, it will be remembered, had a death-rate of 18 per 1,000, fractionally below that of the 33 large towns, and considerably below the rate of the corresponding quarter of the three previous years. Measles, it will be remembered, was so prevalent in Bramley that the School Board closed their schools six weeks before the usual Christmas vacation.

The number of cases of scarlet fever reported in the last quarter of 1898 had been 410, and the deaths 27; of diphtheria 514, deaths 104; of continued fever 296, with 55 deaths. The temperature of the air had been lower than in the third quarter, the humidity greater, and the transparency of the atmosphere to heat less. The temperature and humidity of the fourth quarter had, however, been greater than in the corresponding quarter of 1897. The rainfall had been greater than in the preceding quarter of the same, or the corresponding quarter of the previous year.

First quarter of 1899.—The first quarter of 1899 had a slightly higher barometer, a considerably lower temperature, one per cent. more of humidity, a much greater diathermancy, and a smaller rainfall than the fourth quarter of 1898.

As compared with the first quarter, however, of the preceding year the barometer stood a little lower; the air temperature was lower, and its humidity greater, the daily range of the temperature having also been much wider. The rainfall was double that of the first quarter of 1898.

The death-rate from all causes was 20·4; 2·4 higher than in the concluding quarter of 1898, and 1 per 1,000 higher than in the corresponding first quarter of that year. The cases of scarlet fever reported was 387, and the deaths 16;

of diphtheria and membranous croup 488* cases, and 89 deaths; "fever" 108 cases, and 17 deaths. Diarrhœa caused only 2 deaths, against 64 in the previous quarter.

The infectious cases reported during the quarter, as compared with the last quarter of 1898, were, therefore, considerably fewer from either scarlet fever or diphtheria, and very little over one-third of those from fever.

As compared with the corresponding quarter of 1898 the cases reported in the first quarter of 1899 were about two-thirds from scarlet fever, four times as many from diphtheria, and about one-fourth more from continued fever.

Second Quarter of 1899.

During the second quarter of 1899, as compared with the corresponding quarter of 1898, the number of cases of scarlet fever reported was less by nearly two-fifths, those from diphtheria and membranous croup were, however, more than three times as numerous. The continued fever cases (67) were also about one-half greater. The deaths from scarlet fever were 16, as compared with 34 in 1898, from diphtheria and membranous croup they were 54, against 26, and from continued fever 14, against 10.

As compared with the preceding quarter of the same year the scarlet fever cases reported had been rather fewer, and the deaths the same, the cases of diphtheria and membranous croup (282*) were considerably fewer than in the earlier quarter, and the deaths certified 54, against 89. The 67 cases of fever reported were also below the 108 of the preceding quarter, and the deaths 14, against 17.

Meteorologically the barometer in the second quarter stood a little higher than in the first, and it was also slightly higher than in the corresponding quarter of the previous year.

* Including cases amongst the staff at Manston, outside the city.

The average air temperature was higher than in either the preceding quarter of the same, or the corresponding quarter of the year before. The humidity of the air was less than in the first quarter of 1899, and greater than in the second of 1898. The diurnal range of the thermometer was greater than in either of these two quarters, the rainfall greater than in the preceding, and less than in the corresponding quarter.

The death-rate from all causes was 17·1, that in the 33 large towns having been 17·5. Our birth-rate, however, was 32·1, against 30·8 in the 33 towns The death-rate was above the average of that of the whole city, in the North Registration District, considerably so in the South-East Registration District, and in the Central, East, South, East Hunslet, and West Wards. The death-rate in the preceding quarter of the same year had been 20·4, and in the corresponding quarter of the preceding year 18·9.

Third Quarter of 1899.

During the third quarter of 1899 the Leeds death-rate was 20·2, or 3·1 deaths per 1,000 living per annum higher than in the preceding quarter. The rate in the 33 towns was higher still, 21·9, notwithstanding that the birth-rate in Leeds (30·6) was 0·8 above that of the great towns. The matter of birth-rate in the current and preceding quarters is specially of import in considering the mortality of the third quarter. The Leeds births had for twelve months averaged 0·6 per 1,000 more than the large towns. During the second and third quarters the average excess of the Leeds birth-rate over that of the 33 towns had been more than 1·0 per 1,000. As the third quarter mortality is largely influenced by the infantile death-rate from diarrhœa, this excess of young lives would tell against us.

The death-rate in Leeds from diarrhœa in this third quarter was at the annual rate of 3·42 per 1,000 of the

estimated population at all ages. The rate was lower than in the third quarter of either of the two preceding years. What is specially noteworthy is that it was, for the first time in 16 years, lower in South-East Leeds than in the city as a whole. This will be referred to later in dealing with special diseases.

Measles caused 37 deaths, as against 41 in the preceding quarter of the same, and 26 in the corresponding quarter of the previous years.

The mortality from scarlatina was 18 in the third quarter of 1899, against 16 in the second quarter of the same year, and 25 in the third of 1898. The reported cases* of this disease were respectively in the three quarters named 411, 352, and 491, but we were able to isolate 197 out of the 411 this year, as against 116 out of the 491 last year. Diphtheria or membranous croup was reported in 446 cases this quarter against 282* in the second and 172 in the corresponding quarter of the previous year. The deaths registered were 80 (0·76 per 1,000), against 54 and 59, a case mortality of 18 per cent., against 19 and 34—the lowest case-mortality where the largest number were reported. "Continued fever" caused 19 deaths, against 14 and 13 respectively, the reported cases having been 162, 67, and 119, with case mortalities of 12, 21, and 11 respectively. The deaths from typhoid, however, are generally higher in the fourth quarter.

Meteorologically the third quarter had a higher barometer and a higher mean temperature than the preceding one, or than the corresponding one of the previous year, the humidity was less than in the second quarter of the same, greater than in the third of the previous year, as were also the diurnal range of the thermometer and the total rainfall. Though, as just said, the mean difference of day and night temperatures was greater than in the third quarter of the previous year,

* Including staff at Manston, outside city.

the difference was due chiefly to a slight increase in the mean of the daily maximums, the extra rainfall (nearly two inches) prevented this increased atmospheric diathermancy from reducing the humidity of the air below that of the year before, as it might otherwise have done.

Relation of temperature and rainfall to mortality from diarrhœa.—The average 10 and 4 o'clock readings of the dry bulb at the Philosophical Hall (thirteen observations in the week) was 64·54°F for the 13 weeks. This average was exceeded in each of the six earlier weeks, the highest average of the six having been in the week ended August 5th. It was 66·54°F in the sixth week, fell to 64·08° in the seventh, but rose to the highest weekly average (71·92°) in the eighth week, that ended on August 26th. The weekly means of the highest daily readings averaged 70·52° That average was exceeded in the three earlier weeks, and the weeks from the fifth to the tenth inclusive. The highest means of maximum readings occurred in the second week (76·43°), in the fifth, ended August 5th, (79·71°), and in the eighth week, ended August 26th (79·86°).

During this last named week there was no rain, and the wind varied from E. to N.W. The following week, with a persistence of the N.W. wind, rain to the amount of 0·83 inches fell. This was more than a seventh of all the rain that fell during the quarter. More than half the fall (0·54) was on August 27th.

The deaths registered from diarrhœa averaged 28 a week. They were 22 in the third, 26 in the fourth week. They rose to 50 in the fifth week, that ended on 5th of August, were 44, 42, and 43 in the sixth, seventh, and eighth weeks, 25, 28, 30, and 27 in ninth, tenth, eleventh, and twelfth weeks, falling to 14 in the concluding week of the quarter. On the whole Leeds compared favourably as to diarrhœa mortality with some of the large towns, in many of which secondary periods of maximal mortality occurred later in the quarter. This matter

will be dealt with under special diseases later. Special efforts of the cleansing sub-department were followed by a comparatively lessened mortality.

Fourth Quarter of 1899.

During the fourth quarter the barometer was slightly lower, the thermometer much lower than in the third. As compared with the corresponding period of 1898, the adjectives remain the same though the adverbs might perhaps with advantage change places. The humidity of the air was much greater than in the third quarter, considerably greater than in the second, though less than in either the first quarter of the same or the fourth quarter of the preceding year. Atmospheric diathermancy was greater than in the period last named, but less than in the third quarter of the same year, while the rainfall was less than in any of the three preceding quarters, only slightly so as compared with the first quarter of 1899, but considerably so as compared with the concluding quarter of 1898.

Diarrhœa and fever.—The mortality from diarrhœa fell to less than two deaths a week, instead of 28, as in the third quarter ; the average had been 5 in the fourth quarter of 1898.

The deaths from fever were 23—less than two a week, a slight rise from the 19 of the preceding quarter. In 1898 they had been 13 in the third, and 55 in the fourth quarter. For the 26 weeks, comprising the third, and fourth quarters, the mortality was thus 42 in 1899, as against 68 in 1898. The cases belonging to this group (161) were all reported as cases of typhoid, though in two admitted to hospital the symptoms closely resembled those of typhus. We were able to take 77 out of the 161 reported into hospital, and a few of the others went into the General Infirmary. In the third quarter the reported cases had been 162, and 69 of them had

been admitted to Beckett Street. In the previous year the reported cases had been 296 in the fourth, 119 in the third quarter, of which 69 and 28 respectively were sent to our own hospital.

In both the third and fourth quarters of 1899 we were able to admit nearly half the cases reported; in 1898 we had only been able to take in a fourth.

Other zymotics.—Measles, which is not a reportable disease, caused 36 deaths in the quarter, against 37 in the previous, and 27 in the corresponding quarter.

Scarlet fever was credited with 14 deaths, against 18 and 27. The cases of this disease reported were 470, against 411 in the preceding, and 410 in the corresponding quarter. The patients admitted to our hospital on account of this illness had been more than a fourth of those notified. The admissions had been 197 in the preceding, and 138 in the corresponding quarter—or nearly half and just over a third of the cases notified respectively.

Diphtheria, or membranous croup, was reported in 582 cases, of which only 44 were taken into hospital. The deaths from this disease were 112, 19 per cent. of the cases. The reported cases had been 446, and the deaths 80—about the same proportion, nearly 18 per cent.—in the third quarter. In the corresponding quarter of 1898 the cases had been 514, and the deaths 104, again in very nearly the same proportion, this time a little over 20 per cent.

A single case of small-pox, imported from Hull, occurred this quarter. The necessity of isolating this patient forced us to discharge several cases of scarlet fever, housed for the time being in a neighbouring pavillion, and prevented our taking in a number of very urgent cases.

General healthiness of quarter.—The general death-rate per 1,000 of the population per annum was 19·1, that of the 33 towns having been 20·8 during the same period of time. Our birth-rate was 30·1, that of the towns 29·4. The Leeds death-rate in the third quarter had been 20·2, the birth-rate 30·6.

In the fourth quarter of 1898 the deaths recorded had been 18·0, the births 31·2 per 1,000 per annum. The greater mortality in the fourth quarter of 1899, as compared with that of the previous year, was chiefly due to consumption and other lung diseases, and to diseases of the circulatory system. The mortality from the seven zymotic diseases was actually less.

The mortality of the fourth quarter was, however, below that of the third by 1·1 deaths per 1,000 per annum. Diarrhœa had naturally been less fatal, 24 deaths being returned, against 361. Phthisis and lung diseases, which caused 143 and 436 deaths in the fourth, had been credited with 130, and 216 only respectively in the third quarter.

AGE MORTALITY.

Rates per 1,000.—Estimated upon the population assigned to us by the Registrar-General, Leeds had a birth-rate, as already said, of 30·6. This is calculated on the supposition that our population was 423,889, and that there are 52·17747 weeks in a year, the number of births (12,939) registered in the 52 weeks ended Saturday, December 30th, being increased proportionately for the purposes of the calculation. The birth-rate of some of the several quarters has been already mentioned, it was lowest in the first, and highest in the second quarter. The rate is also found in table 4.

Deaths, all ages.—The rate of 19·19, calculated in the same manner upon the 8,105 deaths registered in the 52 weeks

TABLE 3.

Births and deaths registered in the City of Leeds in the periods of 13 weeks ended April 1st, July 1st, September 30th, and December 30th, 1899. Deaths in age groups.

		Deaths.						
1	2	3	4	5	6	7	8	9
1899. Estimated population at these ages ...	Registered Births.	At all Ages. 423,889	Under 1 Year. 12,037	1 and under 5. 41,011	5 and under 15. 94,487	15 and under 25. 87,181	25 and under 60. 166,237	60 and upwards. 22,936
I. Quarter	3,141	2,153	444	319	134	102	605	549
II. Quarter	3,388	1,809	434	263	101	97	509	405
III. Quarter	3,235	2,131	849	331	100	86	438	327
IV. Quarter	3,175	2,012	495	328	116	104	522	447
52 weeks. . .	12,939	8,105	2,222	1,241	451	389	2,074	1,728

TABLE 4.

		Deaths per Annum per 1,000 Living.								
1	2	3	4	5	6	7	8	9	10	11
1899.	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	29·7	20·4	148	31·2	5·7	4·7	14·6	96·1	16·7	142·9
II. Quarter	32·1	17·1	145	25·7	4·3	4·5	12·3	70·9	14·3	97·7
III. Quarter	30·6	20·2	283	32·4	4·2	4·0	10·6	57·2	12·2	78·7
IV. Quarter	30·1	19·1	165	32·1	4·9	4·8	12·6	78·2	14·2	117·4
52 weeks . .	30·6	19·2	185	30·4	4·8	4·5	12·5	75·6	14·3	109·2

includes, as already said, those of non-municipal paupers. The rates in the several quarters have been already referred to.

Other age groups.—While we naturally accept the geometrically increased population of the Registrar-General, there

TABLE 5.

Mortality in Children under one year of age, during the 52 weeks of 1899.

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Year.
Calculated per 1,000 of the population under 1, estimated to the middle of 1899, on the supposition that the whole population of the city had increased at G.P. at the rate of 1·745 per cent. per annum, which was the rate of increase per annum between 1881 and 1891, and that the children bear the same proportion to the population as in 1891	148	145	283	165	185
Deaths under 1 per 1,000 births registered in same period	141	128	262	156	172
Deaths per 1,000 registered births, the latter averaged during each quarter and the four quarters preceding it, and the average of these for the year ...	138	133	262	154	172
Average rate by last method for five preceding years *	150	139	258	166	178

* By mistake the average of the last line was inserted in last year's report, and probably some previous ones, instead of that of the last but one. The figures for last year were 157, 144, 261 166, and 182.

is considerable doubt as to the population at different ages. While, therefore, I print the rates at these ages, though they may be useful for comparing the mortality at the several age groups in different portions of the same year with one another, and with the year as a whole, they must not be regarded as having any claim to accuracy. When the results of the next census are published the rates can be re-calculated from the figures in table 3.

Children under one.—In regard to the first line in table 5 the remark in the last paragraph applies, but the second and third lines are calculated in respect to the births. The second line is the death-rate of children per 1,000 births in the several periods referred to. To get the figures in the third line, instead of births in the actual quarters, the average of those in the five preceding quarters have been taken.

On referring to previous reports it will be found that during the years 1890-93 the infant mortality, calculated as in the third line, amounted for three years to 174 per 1,000. It will be remembered that two of these years were years in which diarrhœa was not very fatal. During the triennium 1893-5 the rate rose to 183, falling slightly in the period 1896-98 to 181, while last year, I am happy to say, it fell again to 172.

J. SPOTTISWOODE CAMERON.

Leeds, March 8th, 1900.

SUPPLEMENT. PART II.—SPECIAL DISEASES.

TUBERCULOSIS.

In the report for last year I followed my usual practice of giving tuberculosis, as the most important, the first place amongst special diseases. In addition to the ordinary table 6, dealing with the several quarters and the whole year, and which corresponds to table 6 of the present report you had last year also a table, marked 6a, giving for three periods of three years each the death-rates under 5, over 5, and at all ages from phthisis, tabes mesenterica, "other tuberculous diseases," and the whole group.

TABLE 6.

Mortality from tuberculosis, 1899.

1899.	Tuberculosis, general and undefined.	Phthisis.	Hydro-cephalus.	Tuberculous meningitis.	Tuberculous peritonitis.	Tabes mesenterica.	Scrofula.	TOTAL.
I. Quarter	12	183	1	30	8	19	—	253
II. do. ...	30	140	2	30	5	13	—	220
III. do. ...	23	130	5	25	11	31	1	226
IV. do. ...	21	143	1	17	9	17	—	208
Year (52 weeks)..	86	596	9	102	33	80	1	907
Annual death-rate, 52 weeks of 1899 ...	0·21	1·41	0·02	0·24	0·08	0·19	0·00	2·15

Table 6, table 6c, and table C in the Appendix will afford the means of comparing the items in this table with the corresponding ones for the year 1899.

For convenience of reference table 6a is repeated in the present report.

TABLE 6a.

Shewing mortality per 1,000 living under and over the age of five, and at all ages from certain groups of tuberculous disease.

		Under five.	Over five.	All ages.
1890-2	Phthisis	0·48	1·78	1·62
	Tabes mesenterica ...	1·99	0·01	0·26
	Other tuberculous diseases	2·70	0·25	0·56
	Together	5·17	2·04	2·43
1893-5	Phthisis	0·41	1·75	1·58
	Tabes mesenterica ...	1·55	0·01	0·20
	Other tuberculous diseases	2·73	0·24	0·55
	Together	4·69	2·00	2·33
1896-8	Phthisis	0·34	1·60	1·44
	Tabes mesenterica ..	1·69	0·01	0·22
	Other tuberculous diseases	2·79	0·20	0·53
	Together	4·81	1·81	2·19

From phthisis the death-rate at all ages had been 1·62, 1·58, and 1·44 in the successive triennia. It was 1·41 last year. From tabes the rate had been 0·26, 0·20, 0·22. It was 0·19 last year. From the whole group it had been 2·43, 2·33, and 2·19 in the successive three-year periods. It was 2·15 last year.

Seasons. — The death-roll from tubercle in 1899 was highest in the first quarter, lowest in the fourth. The high rate of the early quarter was caused chiefly by the large number of deaths from consumption. Although these fell to their lowest in the third quarter, the number of infantile deaths from hydro-cephalus, tuberculous meningitis, and tabes mesenterica kept the whole rate in the third (which it will be remembered was the diarrhœa quarter) larger than in the fourth. The total deaths from the group were 18 more than in the preceding year, and the death-rate 2·15, against 2·14.

Preventive measures.—The general sanitary measures carried out by the department, especially those having for their object the prevention of overcrowding, the closing of dark and ill-ventilated apartments, the more stringent supervision of houses-let-in-lodgings, and the opening up of close yards and courts, by the removal of obstructive buildings, all have had their influence already in the lessening of our death-rate from this disease group. The work of the Unhealthy Areas Sub-Committee will eventually tend in the same direction, though at present, great as it has been, and thoroughly as it has been done, it, of course, is as yet chiefly preparatory, and has not seriously affected the health of the town.

Last year Parliament gave us further powers as to the inspection of dairies and dairy cattle, where tubercle was suspected. These powers have since been put gradually in action, and a large number of dairies visited within and, with the consent of the dairymen, outside the City, and many improvements effected in consequence.

The bacteriological examination of milks is being proceeded with slowly but systematically. Professor Trevleyan hopes soon to be able to deal with a larger number of specimens than he can at present do with.

The importance of this work will be best illustrated by a single case. Owing to information obtained, we visited a farm where we found that the milk of a cow with half of one udder, and the third of the other, full of caseating tubercle, had been used up to a few weeks before our visit for general dairy purposes, and to supply single-cow milk to a delicate child.

Open air treatment.—The subject of open air treatment is receiving attention at the hands of a committee formed by the combination of a committee, appointed at a meeting called by the Lord Mayor, and of members selected by the Holbeck and Hunslet Sanitary Aid Association. A small cottage in the country has been in actual use as a sanatorium, and the results have been so gratifying that the joint Committee who took the "home" over as a going concern from the Association, feel encouraged in seeking to carry out a larger scheme. Meantime the City Council have charged the Sanitary Committee with the duty of reporting upon the hospital treatment of this disease. This report has not yet been presented. The matter of tuberculosis, and especially consumption, is receiving so much attention, and the idea that something more must be done is fortunately becoming so prevalent that it has been thought worth while to lay before you the actual facts, chiefly encouraging, as to the diminishing prevalence of this disease during the last ten years.

At the tail end of an intercensal period all estimates of population must be received with caution. At the same time as this is my tenth annual report, it is a convenient time to deal with the subject statistically and topographically. So far as possible the actual figures have been preserved, so that should corrections of populations of any moment require to be made when the results of the 1901 census are available, the tables I give you will not be entirely lost, but will furnish material which can be subjected later to the appropriate corrections.

The mode in which the populations are arrived at on which the figures to be given will be based, is set forth in a later part of this report.

PHTHISIS.

DIMINUTION OF MORTALITY FROM PHTHISIS IN THE DECADE.

The deaths attributed to consumption in the five years, 1890-94, were 3,014. In the quinquennium, 1895-99, they were 2,985—an actual diminution of 29. This difference is so trifling that it might be neglected. It has, however, to be remembered that during this period the population of Leeds has been increasing rapidly. During the intercensal period, 1881-91, the population of Leeds increased 19 per cent. Assuming the increase during the decade 1890-99 to have been uniformly at the same rate, the 3,014 deaths in the earlier quinquennium are equivalent to a rate of 1·60 per annum per 1,000 of the population,* whilst the 2,985 deaths in the later period correspond to a rate of 1·46.*

The improvement in the death-rate, as between the first and the second period is, therefore, one of 9 per cent., and it has to be remembered that this improvement has taken place notwithstanding the disadvantages arising from the increasing number of houses in certain localities of the town.

In a previous report (1898, page 27) I reminded you that in the Camp Field area our death-rate from consumption during the five years, 1890-94, had been 2·35, against 1·61 in the City during the same period; and that in the York Street area in the three years, 1893-95, the phthisis death-rate was 6·87 per 1,000 amongst the persons domiciled, or recently domiciled, in the area, against 1·58 in the city.†

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* Deducting deaths of outsiders in institutions, 1·58 and 1·43.

† It was pointed out in that report that the number of persons passing from lodging-houses in the area into the Workhouse increased the apparent death-rate from phthisis, the deaths of such persons as had been previously domiciled in the area having been referred back to that area.

An endeavour has been made to carry this comparative mortality from phthisis a step further, and for this purpose deaths in the "intercepts" alluded to elsewhere* have been got out.

Bracketting of Districts.—In the larger table on page 47 we have taken out the death-rates approximately for the two periods, 1890-94 and 1895-99 for 23 districts of the town. Owing partly to the difficulty of getting an even approximately accurate population, partly because of their very smallness, areas of scanty population have sometimes been bracketted together, but in these cases the actual deaths in the separate districts have been stated, so that, should we be able to get more accurate information as to population later, the rates for the sub-divisions can be calculated out.

East and West.—Before dealing with the smaller details it may be worth while to glance at the two administrative divisions of the City, as separated by an irregular north and south line beginning on the northern boundary where the Chapeltown and Headingley registration districts join, passing along the division between the Headingley and the North ward and that between the Brunswick and North ward, then between the Brunswick and the Central ward, the Central and Mill Hill ward, thence up the river to the separation of the Holbeck and New Wortley wards, and along the boundary between those wards to a point where the New Wortley, the Armley and Wortley, and the West Hunslet wards join, thence along the division line between the Armley and Wortley and West Hunslet wards, and between the latter and Bramley (Farnley) to the borough boundary.

The Eastern division includes the residential quarter of Chapel-Allerton and Potternewton in the North ward—the part of that ward in the Leeds registration district; the whole

* See diarrhœa, page 93, and also health of districts, pages 103-6. In the latter place the difficulties of arriving at accurate estimates are pointed out.

of the Central ward; the North-east ward, both the portions in the Leeds township and those in Potternewton and Seacroft; the East ward in Leeds and its suburban part in Osmondthorpe; the South, East Hunslet, West Hunslet, and Holbeck wards. The Western division includes Bramley with Farnley (the Bramley ward), the Armley and Wortley ward, Headingley ward, including Meanwood (in Chapel-Allerton), the North West, Brunswick, Mill Hill, West and New Wortley wards.

The death-rate from phthisis in the EASTERN DIVISION was 1·73 in the earlier, 1·60 in the later period—an improvement of just under 8 per cent.

In the WESTERN DIVISION the figures were 1·47 and 1·31—an improvement of 11 per cent.

These numbers include the deaths of outsiders in public institutions. In the EASTERN DIVISION these were 26 in the earlier, 31 in the later period; in the WESTERN DIVISION 19 in the earlier, 15 in the later period. If these deaths of outsiders be deducted, the phthisis death-rate in the Eastern division becomes 1·71 for the earlier, and 1·57 for the later period—a decrease of nearly 8 per cent.; whilst in the Western division the decrease is from 1·45 to 1·29—a little less than 11 per cent. The decrease is scarcely affected by the corrections. In dealing with the intercept districts the deaths of outsiders are omitted altogether.

In both divisions during this period the population had increased. In the Eastern one from 191,640 in the middle of the earlier period (1892), to 209,648 in the middle of the later quinquennium (1897)—an increase of 9·4 per cent. In the Western division the population in 1892 is estimated as 183,900; in 1897 as 199,824—an increase of 8·6 per cent.

Phthisis in ten years.

	Estimated population at middle of periods.		Percentage increase or decrease of	
	1890-94.	1895-99.	estimated population	phthisis death-rate.
Eastern division ... (including outsiders)	191,640	209,648	+9·4	- 7·6
Western division ... (including outsiders)	183,900	199,824	+8·6	- 11·2
Whole city ... ... (including outsiders)	375,540	409,472	+9·0	- 9·2

The decrease in the phthisis mortality was greatest in the division of the town where the increase of population was least. In each of these divisions, however, the differences of mortality varied considerably. We may conveniently consider the intercepts under the registration districts to which they belong.

Holbeck registration district.—This consists of portions of two wards. It includes the whole of the HOLBECK ward and part (Beeston) of the ward described as WEST HUNSLET. Estimated from the number of houses, these districts have both increased*; the former from 22,635 in 1892 to 27,129 in 1897, the latter from 4,756 to 5,252 These figures correspond to increases of population in the period of approximately 20 and 10 per cent. respectively

In the district in which the increase of population was 20 per cent. the mortality fell from 1·37 to 1·33—less than 3 per cent. In the district where the increase of population was only 10 per cent., the fall was from ·84 to ·57, or more than 32 per cent.

* The population has been assumed to have increased uniformly.

The combined area had an increase of population of 18 per cent. The death-rates from phthisis was 1·28 in the earlier, 1·20 in the later period—an improvement of 6 per cent.

Hunslet registration area.—The more populous part of WEST HUNSLET, however, is now in the Hunslet registration district. This portion of the district had an estimated population in 1892 of 19,885, and in 1897 of 22,941; an increase of 15 per cent. Phthisis during the five years 1890-94, caused deaths upon the estimated population of 1892 at the rate of 1·43 per 1,000, and in the next quinquennium at the rate of 1·16, a diminution of nearly 19 per cent, notwithstanding the large increase in the population. In this case, however, those who know the district will remember that building has chiefly gone on in the outskirts, and very largely in that portion of the Hunslet township which once belonged to Holbeck.

The rest of the Hunslet township contains the whole of EAST HUNSLET ward and part of the SOUTH ward. The former is assumed to have increased from 25,892 to 28,017, or a little over 8 per cent., but the death-rate from phthisis has also increased from 1·13 to 1·29, or about 14 per cent.*

The remainder of the Hunslet township is in the South ward, and is estimated to have increased in population from 11,093 to 11,431, or 3 per cent. The deaths, which were 66 in the earlier, were 65 in the later period, corresponding to rates of 1·19 and 1·14—a decrease of a little over 4 per cent.

The whole township increased its population 10, and reduced its phthisis death-rate 3 per cent. The rates for the two periods were 1·25 and 1·21, both sufficiently high, though below those of the town.

* The more exact number, when the figures are carried to six places of decimals, is 13·8. When carried only to two it is 14·1. It would be absurd to take notice of so small a discrepancy when the uncertainties of an exact population are so great.

HOLBECK.—Phthisis in ten years.

	Estimated population at middle of periods.		Percentage increase or decrease of	
	1890-94.	1895-99.	estimated population	phthisis death-rate.
Holbeck ward ...	22,635	27,129	+ 20	- 3
West Hunslet (part) (Beeston)	4,756	5,252	+ 10	- 32
Registration area ...	27,391	32,381	+ 18	- 6

HUNSLET.—Phthisis in ten years.

	Estimated population at middle of periods.		Percentage increase or decrease of	
	1890-94.	1895-99.	estimated population	phthisis death-rate.
West Hunslet (part)	19,885	22,941	+ 15	- 19
East Hunslet ...	25,892	28,017	+ 8	+ 14
South (part) ...	11,093	11,431	+ 3	- 4
Registration area ...	56,870	62,389	+ 10	- 3

South-east Leeds.—The remainder of the SOUTH ward belongs to the township of Leeds, and forms that portion of the South-east registration sub-district of that township which

lies south of the river. The population was a diminishing one, and was estimated as having fallen from 6,140 to 5,808, or a little over 5 per cent. The death-rate from phthisis, though high, was not increasing. It was 2·51 in the earlier, and 2·20 in the later period—a diminution of a little over 12 per cent. It is convenient, however, more particularly on account of the number of lodging houses in this part of the South and the adjacent part of the Central ward, to consider these two portions of the South-east registration district together.

The deaths in the small portion of the CENTRAL ward which enters into South-east Leeds and lies immediately north of the river, increased from 14 in the earlier to 31 in the later period, notwithstanding that the population had decreased from 1,926 to 1,716, or a little more than 10 per cent. The increase in the mortality, however, would be 149 per cent.

If, however, we take the two districts together, with a population of 8,066 in 1892 and 7,524 in the later period, there is a falling off of 7 per cent. The phthisis death-rate in the whole area rose from 2·26 to 2·52, or nearly 12 per cent. One of the reasons for grouping these two districts together is that, as already hinted, there are a good many lodging houses in both, and it is rather a matter of accident on which side of the river patients stayed before admission to the workhouse. On investigating this matter we found that in one of the five later years there had been 12 deaths referred to this part of the Central ward—the average in the nine other years having been less than four. In that year, of these 12 deaths, 7 were workhouse patients, most of whom had gone to the workhouse from lodging houses from this portion of the Central ward. These nomads are difficult to deal with statistically.

The remaining portion of South-east Leeds is in the EAST ward, to whose population it contributed by far the

largest part. This was estimated for 1892 as 25,264, for 1897 as 25,728—or less than 2 per cent. of an increase. The death-rate from phthisis in this district was high—2·09 in the earlier 2·11 in the later period—an increase of a little over 1 per cent.

The registration area decreased in population, but to less than a quarter per cent., and increased its death-rate 3 per cent. The rates on estimated population, 2·13 and 2·20, are both considerably higher than those of the city.

SOUTH-EAST LEEDS.—Phthisis in ten years.

	Estimated population at middle of periods.		Percentage increase or decrease of	
	1890-94.	1895-99.	estimated population	phthisis death-rate.
South (part) ...	8,066	7,524	−7	+12
Central (part) ...				
East (part)	25,264	25,728	+2	+ 1
Registration area ...	33,330	33,252	0	+ 3

Osmondthorpe.—The remainder of the East ward is in the township of Osmondthorpe, and contributed 2 deaths in each of these periods. The population is probably stationary, or nearly so. It is, however, convenient to take along with this district the portion of the North-east ward lying immediately to the north of it, and situated partly in the township of Potternewton, and partly in the small portion of Seacroft which comes within the borough. This district has been increasing

rapidly: it furnished no death in the five earlier, but provided us with 6 in the five later years. It is possible we may have under-estimated the present population. We put down 890 as the combined population of these two areas in 1892, 2,098 in 1897—an increase at the rate of nearly 136 per cent. Although the number of deaths is small in both cases—2 in the former, 8 in the latter—the death-rate from phthisis increased nearly 70 per cent., but even then was only 0·76 per 1,000, a little more than half of the rate in the whole city in the later, and less than half in the earlier period. (See under Chapeltown.)

North Leeds.—The registration district of North Leeds is estimated as having had a population of 60,793 in 1892, and 61,545 in 1897—an increase of just under 1¼ per cent. The deaths from consumption were 685 in the earlier, and 622 in the later period—equivalent to death-rates of 2·25 and 2·02 respectively—a decrease upon the earlier death-rate of just over 10½ per cent.

The North Leeds registration district contains a considerable portion of the NORTH ward, which, it will be remembered, runs also into the Potternewton and Chapel-Allerton townships. This Leeds portion of the ward is estimated as having increased in population 5 per cent. The new building has been principally in the northern portion, to the right of Roundhay Road, across (*i.e.*, to the east of) the Gipton Beck. The death-rate from phthisis was 1·97 in the earlier, and 1·44 in the later period—a decrease of 27 per cent.

A considerable portion of the NORTH-EAST ward lies in this registration sub-district. This ward includes a large part of the York Street Insanitary Area, and of the larger area represented at the same time. It includes also Burmantofts and Saville Green. Notwithstanding the large number of new houses, the estimates of the population show

only an increase of 3 per cent. between the dates of the middle periods named. The number of deaths from phthisis was 292 in the earlier, and 278 in the later period, corresponding to annual rates of 2·47 and 2·23 per 1,000. This is equivalent to a diminution of 8 per cent.

NORTH LEEDS.—Phthisis in ten years.

	Estimated population at middle of periods.		Percentage increase or decrease of	
	1890-94.	1895-99.	estimated population	phthisis death-rate.
North ward (part of)	16,148	16,941	+5	-27
North-East ward (part of) ...	24,200	24,962	+3	- 8
Central ward (including a few houses from West Leeds) ...	20,831	19,985	-4	0
Registration area ...	60,793	61,545	+1	-10

In speaking of the CENTRAL ward, it is convenient to add to the larger portion in the North Leeds registration area the small triangle between New Briggate, Vicar Lane, and Lowerhead Row, which, when the wards were made, was included in the Central ward, although the West registration district even then extended to Vicar Lane.

This smaller district is estimated as having had a population of 386 and 343 respectively in 1892 and 1897, whilst the larger district had 20,445 in the earlier, 19,642 in the later. The two districts together have diminished 4 per cent. in population, and their death-rate from phthisis stands practically still.

Chapeltown, in East.—Excluding, for the moment, the portion in the NORTH-EAST ward, the remainder of the Chapeltown registration district on the east side of the line already mentioned lies entirely in the NORTH ward; partly in the township of Potternewton, and partly in that of Chapel-Allerton. The population of this portion of the district is considered as having increased from 11,980 to 17,640—or 47 per cent.

The deaths in the five earlier years were 63, in the subsequent ones 78.

CHAPELTOWN.—Phthisis in ten years.

	Estimated population at middle of periods.		Percentage increase or decrease of	
	1890-94.	1895-99.	estimated population	phthisis death-rate.
In North ward and Chapel-Allerton ...	3,413	3,487	+ 2	- 45
Do. and Potternewton	8,567	14,153	+ 65	- 2
In North-east ward and Potternewton, or Seacroft ...	454	1,644	+262	No death in earlier, 6 in later period.
In Headingley ward and Chapel-Allerton	1,012	1,137	+ 12	- 11
In North-west or Brunswick ward, and Potternewton	2,134	3,224	+ 51	- 17
Registration area ... (Including Coldcotes)	15,580	23,645	+ 52	- 15

Accepting the populations already given for the middle periods, these correspond to rates of 1·05 and 0·88 respectively, an improvement at the rate of nearly 16 per cent., notwithstanding a considerable increase of population.

One's opinion about this apparently fortunate circumstance is, however, somewhat modified if we separate this portion of the North ward into the areas in the townships of Potternewton and Chapel-Allerton. It is impossible to give exactly the increase of population, but I think the following figures, which have not been obtained without a considerable amount of trouble, may be regarded as approximately correct :

At the time of the census there were in the POTTERNEWTON part of the North ward 7,239 persons, in the CHAPEL-ALLERTON part 3,394. The houses in these two parts have been got out separately from Mr. Derry's books for 1891, 1895, and 1898. From a consideration of these figures it has been estimated that the probable population of these respective parts of the ward were in 1892, 8,567 and 3,413 ; and in 1897, 14,153 and 3,487 ; the increase being estimated in the period at 65 per cent. in the Potternewton, and 2 per cent. in the Chapel-Allerton portions.

The deaths in the Potternewton township portion of the ward were 40 in the earlier, and 65 in the later period, corresponding to rates of 0·93 and 0·92 respectively—a decrease of less than 2 per cent. The deaths in the Chapel-Allerton portion fell from 23 in the earlier, to 13 in the later period—an improvement, if the population be estimated correctly with a 2 per cent. increase, of nearly 45 per cent.

It need hardly be remarked that in dealing with such small numbers as 13 and 23 the possibilities of error are very great. The occurrence of 3 deaths on the dividing line (reducing the 23 in the earlier to 20, and increasing the 13 to 16 in the later period) would have considerably altered the large rate of improvement. The possibilities of mistake

in entering a death to its particular division weigh more largely in dealing with small numbers than with large, but, making all allowances, I think we may safely infer that the district with the nearly stationary population has had a much larger decrease in its death-rate from phthisis than the one in which building has been going on so rapidly.

In speaking of Chapel-Allerton, it will be noticed that the district just referred to does not include the whole of the township. A small portion (Meanwood) lies in the Headingley ward, and is included in the longer table, along with portions of the North-west and Brunswick wards lying in the Potternewton township. The deaths in this (Meanwood) district were 8 in each period, and as the increase of the population was probably 12 per cent., the decrease in the death-rate, 11 per cent., corresponds.*

Chapeltown, in West.—We have already spoken of the deaths in the Headingley part of Chapeltown, and have just seen that the number was 8 in each period, and that while the population had increased 12, the phthisis mortality had diminished 11 per cent.

The portions of the NORTH-WEST and BRUNSWICK wards lying in the township of Potternewton are so small that they may be conveniently taken together. In the former there was no phthisis death in either period, in the latter there were 4 in the earlier, and 5 in the later period. The populations of these small Potternewton portions of the two wards are estimated for 1892 as 103 and 2,031—together 2,134; for 1897 as 113 and 3,111—together 3,224—an increase on the combined district of 51 per cent. The deaths in the two periods were 4 and 5 respectively—equivalent to rates of 0·37

* At first sight it would look as if an increase of population of 12 per cent., with the deaths stationary, ought to have meant a 12 per cent. decrease in the death-rate. If, however, we add 12 per cent. to the diminished death-rate, it will restore the original rate.

and 0·31—an improvement in the phthisis death-rate of 17 per cent. If, however, we add the Meanwood (Headingley) population already mentioned to those of the two portions of the North-west and Brunswick wards in the Potternewton district (although Meanwood is in Chapel-Allerton), we get a combined tract, running from the notch in the North boundary of the borough, where Chapeltown and Headingley join, as far as the edge of the Potternewton portion of the North ward, and comprising that part of the Potternewton township not in the North or North-east ward, and that part of the Chapel-Allerton township not in the North ward, containing populations of 3,146 and 4,361, with an increase of 39 per cent. The death rates for the whole of this district are 1·76 and 0·60—an improvement of 22 per cent.

The REGISTRATION SUB-DISTRICT (including the small part of Seacroft) increased its population 52 per cent. Its death-rate from phthisis fell 15 per cent., from 0·96 to 0·82—a considerable improvement in an already low rate.

West Leeds.—The registration sub-district of West Leeds, with the exception of the small part of the Central ward just referred to, lies entirely to the west of the irregular north and south line already described. It contains the portions of the Brunswick and North-west wards within the Leeds township, the whole of the Mill Hill, the whole of the West, and the small triangle of the Central ward just mentioned. The population is estimated as having been in 1892, 84,079, and as having increased in 1897 to 86,435—rather under 3 per cent. The deaths in the earlier period were 674, in the later 649—equivalent, taking the slight increase of population into account, to a diminution in the phthisis mortality of a little over 6 per cent.

The portion of the BRUNSWICK ward in West Leeds (all of that ward within the Leeds township) had an estimated

population of 21,047 and 21,337 at the middle periods of the two quinquennia—an increase of a little over 1 per cent. The deaths from phthisis were 174 and 160—equivalent to 1·65 and 1·50 per 1,000 of these estimated populations, a decrease at the rate of a little over 9 per cent.

The NORTH-WEST ward in West Leeds, the most populous portion of that ward, had estimated populations of 28,811 and 31,117—an increase of 8 per cent. The deaths were 187 and 216, equivalent to rates of 1·30 and 1·39, an increase of 7 per cent. in the phthisis mortality.

In MILL HILL the population is estimated as having decreased nearly 6 per cent., from 9,093 in 1892, to 8,585 in 1897. The phthisis deaths were 79 and 57 (excluding those of outsiders in the infirmary), and the rates 1·74 and 1·33 —a decrease under 24 per cent.

The WEST ward had estimated populations of 24,742 and 25,053—an estimated increase of only 1¼ per cent. The phthisis deaths fell from 231 to 211, corresponding to rates of 1·87 and 1·68—a fall of about 10 per cent.

Kirkstall registration sub-district includes the hamlets of Kirkstall, Burley, and Headingley, and lies wholly in the Headingley ward, forming, with the Meanwood portion of Chapel-Allerton already spoken of, the whole of that ward. We have not been able to get with sufficient accuracy the populations of the several parts of the Kirkstall registration district, and, therefore, only give for the present the rates for the whole area.

The population was estimated at 31,305 and 37,162—an increase of 19 per cent. The deaths from phthisis in the township were 172 and 192, and the rates 1·10 and 1·03—an improvement of 6 per cent. I hope at some future time to be able to distribute these rates to the three districts for which we have got out the deaths separately.

WEST LEEDS.—Phthisis in ten years.

	Estimated population at middle of periods.		Percentage increase or decrease of	
	1890-94.	1895-99.	estimated population	phthisis death-rate.
Brunswick ward (part)	21,047	21,337	+ 1	9
North-west ward (part)	28,811	31,117	+ 8	+ 7
Mill Hill ward ...	9,093	8,585	6	−24
West ward	24,742	25,053	+ 1	−10
Registration area ...	84,079	86,435	+ 3	− 6

KIRKSTALL.—Phthisis in ten years.

	Estimated population at middle of periods.		Percentage increase or decrease of	
	1890-94.	1895-99.	estimated population	phthisis death-rate.
Kirkstall				
Burley	31,305	37,162	+19	−6
Headingley ...				
Registration area ...	31,305	37,162	+19	−6

Bramley registration sub-district does not contain the whole of the BRAMLEY ward. The population is estimated at 15,007 for 1892, and 15,949 for 1897—an increase of 6 per cent. The death-rates, which have been 1·33 and 1·40, also show an increase of 6 per cent.

BRAMLEY.—Phthisis in ten years.

	Estimated population at middle of periods.		Percentage increase or decrease of	
	1890-94.	1895-99.	estimated population	phthisis death-rate.
Bramley ward (part of)	15,007	15,949	+6	+6
Registration area ...	15,007	15,949	+6	+6

Wortley.—The remaining portion of the BRAMLEY ward (Farnley) is in the Wortley registration district. Farnley is a comparatively rural district, which has increased its population from 3,714 to 4,231—or nearly 14 per cent. The deaths have increased from 15 to 23, and the rates from 0·81 to 1·09—or 35 per cent.

The ARMLEY AND WORTLEY ward comprises the whole of the township of Armley, and that part of the Wortley township which is not contained in New Wortley ward. I am unable yet to furnish the exact populations of these areas. Armley has increased in population much more rapidly than the portion of Wortley associated with it. Grouping the two, it has been estimated that the increase in the ward has been from 27,592 to 32,446—18 per cent.; whilst the death rate has diminished from 1·56 to 1·10—29 per cent.

WORTLEY.—Phthisis in ten years.

	Estimated population at middle of periods.		Percentage increase or decrease of	
	1890-94.	1895-99.	estimated population	phthisis death-rate.
New Wortley ...	19,443	19,583	+ 1	− 16
Armley and Wortley	27,592	32,446	+18	− 29
Farnley (Bramley) ...	3,714	4,231	+14	+35
Registration area ...	50,749	56,260	+11	− 22

NEW WORTLEY has not altered much in population which has been estimated as 19,443 for 1892, and 19,583 for 1897—an increase of less than 1 per cent. The 146 deaths correspond, on the former population, to a rate of 1·50, that of the whole borough having been for the same period (when the outsiders are deducted) 1·58. The 123 deaths in the later period correspond to a rate of 1·26, an improvement of 16 per cent., and comparing favourably with the rate for the whole borough (less outsiders) 1·43 While the ward, therefore, has been stationary as to population, its death-rate from phthisis has fallen 16 per cent.

The Wortley registration district consists of the whole of the townships of Armley, Wortley, and Farnley. It contains the whole of the New Wortley ward, the whole of the Armley and Wortley ward, and part (Farnley) of the Bramley ward. It is thus estimated as having had a population of 50,749 in the earlier, and 56,260 in the later period—an increase of nearly 11 per cent. The phthisis deaths were 376 and 325, in the earlier and later periods, corresponding to annual rates per 1,000 of 1·48 and 1·16—an improvement of 22 per cent.

DISTRICTS GROUPED ACCORDING TO PHTHISIS MORTALITY.

The portion of the North-east ward in the North Leeds registration district had the distinction in the five earlier years of possessing the highest death-rate from phthisis. This rate of 2·47 fell 8 per cent. to 2·23 in the later lustrum, and North-east, in Leeds, notwithstanding its insanitary area, instead of being first, became third in the black list. The South ward and the Central ward portions of South-east Leeds had, in the later period, a rate of 2·52, and the remainder of the Central ward one of 2·27, both above the rate of the Leeds part of the North-east ward. The two districts last-named came next to the North-east (in Leeds) in the earlier period, the Central ward in North Leeds standing at 2·27, the portion of the South-east registration district surrounding the river (parts of Central and South wards) at 2·26. The phthisis mortality in the latter rose 12 per cent. in the following period. In the former district it was stationary.

Another high and stationary rate was that of the East ward (in Leeds), 2·09 in the earlier, 2·11 in the later period. These four were the only districts of the 23 with a phthisis rate above 2 per 1,000.

Six districts had a rate in 1890-94 of between 1·5 and 2·0 per 1,000. These were the portion of the North ward, in the Leeds township (1·97), the West ward (1·87), Mill Hill (1·74), the Leeds portion of the Brunswick ward (1·65), the Armley and Wortley ward (1·56), and the New Wortley ward (1·50). In all of these the rate fell in the following quinquennium. The estimated amount of the fall is 27, 10, 24, 9, 29, and 16 per cent. respectively in the order named. Except Armley and Wortley ward, whose fall in death-rate had been 29 per cent., none of these districts altered much in population, and here the estimated increase is only 13 per cent.

Nine of our 23 districts had phthisis rates between 1·0 and 1·5. These were West Hunslet, in Hunslet (1·43), Holbeck ward (1·37), Chapel-Allerton, in North ward, (1·35), Bramley township (1·33), North-west, Leeds portion (1·30), South ward, Hunslet portion (1·19), North ward, in Potternewton (1·18), East Hunslet ward (1·13), Kirkstall township (1·10). Of these nine, six reduced their death-rates from 1 to 45 per cent., three increased theirs from 6 to 14 per cent. Some of these changes, however, are so small that with the necessary uncertainty as to the figures we cannot attach great importance to them. It is sufficient to mention that West Hunslet (in Hunslet) reduced its rate 32, and Chapel-Allerton (in North ward) 45 per cent., while East Hunslet raised its rate 14 per cent.

Chapel-Allerton, in North, has too small a population for us to crow over its great apparent improvement. Its rate of 1·35 in the earlier period was due to 23 deaths in 5 years, and was probably only accidentally so high. As already remarked, a few deaths on one side or other of December 31st, 1894, would materially affect the rate, and a slight clerical error in our own office might loom large in decimals.

The four remaining districts had rates of less than 1 per 1,000 in the earlier period. They were West Hunslet, in Holbeck (Beeston) (0·84), Bramley, in Wortley (Farnley) (0·81), the strip of Potternewton and Chapel-Allerton, intercepted by the Brunswick, North-west and Headingley wards (0·76), and the Osmondthorpe and Potternewton (with Seacroft) portions of the East and North-east wards (0·45). The last-named increased its phthisis death-rate 70 per cent. to 0·76, still a reasonably low rate. The "strip" dropped its rate 22 per cent. Farnley increased its rate 35 per cent.—the 15 deaths in the five earlier years having risen to 23 in the five later. Beeston, also a district of small numbers, diminished its rate 32 per cent.

Change in phthisis mortality.—It will be seen from the table on page 49, where the districts are grouped according to the amount of improvement in their phthisis death-rate, that there is no very definite connection between increase or decrease of population, and decrease or increase of death-rate.

Some districts with fairly largely-increased populations, such as Armley and Wortley (+18), West Hunslet, in Hunslet (+15), have considerably diminished their death-rates. In many, however, it is not so. The North ward, in Potternewton (+65), has not appreciably lessened its rate, and several districts, which have moderately increased their population, have also increased their mortality from consumption. It is clearly necessary to view as well as count.

If we add to the North ward part of Chapel-Allerton, the part of the same township (Meanwood) included in the Headingley ward, and the adjacent portions of the Potternewton township lying within the North-west and Brunswick wards, we get a population of 6,559 for 1892 and 7,848 for 1897, and the death-rates from consumption in this enlarged district upon these estimated populations are for the five earlier years 1·06, and for the five later 0·66, or 38 per cent. less. The fallacies of the very small districts are thus minimized.

Acreage.—Chapel-Allerton has an area of 2,811 acres From the map I have estimated the acreage of the portions of the Brunswick and North-west wards in Potternewton at about 512 more, making for the areas just dealt with a total acreage of about 3,323. The estimated population for this district is, as just said, 6,559 for the earlier, and 7,848 for the later period, and if these numbers are correct, there were thus during the five earlier years an average of rather less, and for the five later rather more than, two persons to the acre.*

* 1·98 and 2·36.

PHTHISIS.

Registration districts.	Ward intercepts.	1890-94. Deaths.	1890-94. Death-rate per 1,000 per annum.	1895-99. Deaths.	1895-99. Death-rate per 1,000 per annum.	Increase or diminution of death-rate per cent.
EASTERN DIVISION.						
HOLBECK ...	Holbeck	155	1·37	180	1·33	− 3
	West Hunslet	20	0·84	15	0·57	−32
HUNSLET ...	West Hunslet	142	1·43	133	1·16	−19
	East Hunslet	147	1·13	181	1·29	+14
	South	66	1·19	65	1·14	− 4
SOUTH-EAST LEEDS	South	77	2·26	64	2·52	+12
	Central	14		31		
	East	264	2·09	271	2·11	+ 1
OSMONDTHORPE	East	2	0·45	2	0·76	+70
CHAPELTOWN ... (part of)	North-east	...		6		
	North (Chapel-Allerton ...	23	1·35	13	0·75	−45
	North (Potternewton ...	40	0·93	65	0·92	− 2
NORTH LEEDS	North	159	1·97	122	1·44	−27
	North-east	292	2·47	278	2·23	− 8
	Central	234	2·27	222	2·27	0
	Central in West	3		5		
WESTERN DIVISION.						
WORTLEY ...	New Wortley	146	1·50	123	1·26	−16
	Armley	169	1·56	147	1·10	−29
	Wortley	46		32		
	Bramley (Farnley) ...	15	0·81	23	1·09	+35
BRAMLEY ..	Bramley	100	1·33	112	1·40	+ 6
KIRKSTALL ...	Kirkstall	20	1·10	20	1·03	− 6
	Burley	96		133		
	Headingley	56		39		
CHAPELTOWN ... (part of)	Headingley (Meanwood)...	8	0·76	8	0·60	−22
	North-west	...		...		
	Brunswick	4		5		
WEST LEEDS ...	Brunswick	174	1·65	160	1·50	− 9
	North-west	187	1·30	216	1·39	+ 7
	Mill Hill	79	1·74	57	1·33	−24
	West	231	1·87	211	1·68	−10

The Chapeltown sub-district, comprising, in addition to the area just named, the rest of the township of Potternewton, and the small part of Seacroft intruded within the borough, has a total area of 4,744 acres. We have already spoken of its population as estimated at 15,580 and 23,645, or a little more than 3, and a little less than 5, to the acre respectively. The death-rate from phthisis in this district was 0·96 and 0·82 in the two periods as already stated. The first figure lower than that of the smaller district just spoken of contained in it, the latter higher.

Not only as we have just seen had the Chapel-Allerton township, with the Potternewton portion of the strip we associated with it, a somewhat higher death-rate in the earlier and lower one in the later period than the whole registration area, but naturally this difference is intensified if we compare it not with the whole but with the remaining part of the whole registration sub-district. This remaining part contains the North ward and North-east ward portions of Potternewton, and the fragment out of Seacroft. Its populations are estimated as 9,021, and 15,797, and its phthisis death-rates as ·89 and ·90—an increase of $1\frac{1}{3}$ per cent.*

The other district had rates of 1·06 and ·66, the first higher the second lower than either of these. The decrease, as already said, was 38 per cent. Both districts have had low rates.

On the other hand, the township of Holbeck has an acreage of only 596. If our estimates are correct there were 22,635 and 27,129 persons in 1892 and 1897, living within this area, or approximately 38 and 46 an acre respectively, and the phthisis death-rate, though it fell 3 per cent. (instead of 15 as in Chapeltown), averaged 1·35 throughout the decade. The rate, though much above that of Chapeltown, is not a high one for an urban population.

* When carried to 5 decimal places. The density of population increased from 6 to 11 per acre.

TABLE

Shewing districts in which the estimated death-rate from phthisis has decreased or increased in successive quinquenniums.

	Estimated population at middle of periods		Percentage increase or decrease of	
	1890-94.	1895-99.	estimated population.	phthisis death-rate.
Death-rates from phthisis decreased 20 per cent.				
Chapel-Allerton, in North ward ...	3,413	3,487	+ 2	− 45
West Hunslet, in Holbeck township	4,756	5,252	+ 10	− 32
Armley and Wortley ward	27,592	32,446	+ 18	− 29
North ward, in Leeds township ...	16,148	16,941	+ 5	− 27
Mill Hill ward	9,093	8,585	− 6	− 24
Meanwood, in Chapel-Allerton; North-west, and Brunswick, in Potternewton	3,146	4,361	+ 39	− 22
Death-rates decreased 10 to 20 per cent.				
West Hunslet, in Hunslet	19,885	22,941	+ 15	− 19
New Wortley ward	19,443	19,583	+ 1	− 16
West ward	24,742	25,053	+ 1	− 10
Death-rates varied from 10 per cent. below to 10 per cent. above.				
Brunswick, in Leeds township ...	21,047	21,337	+ 1	− 9
North-east, in Leeds township ...	24,200	24,962	+ 3	− 8
Kirkstall township	31,305	37,162	+ 19	− 6
South, in Hunslet township... ...	11,093	11,431	+ 3	− 4
Holbeck ward	22,635	27,129	+ 20	− 3
North, in Potternewton township ...	8,567	14,153	+ 65	− 2
Central, in North and West Leeds...	20,831	19,985	− 4	0
East ward, in Leeds	25,264	25,728	+ 2	+ 1
Bramley township	15,007	15,949	+ 6	+ 6
North-west, in West Leeds	28,811	31,117	+ 8	+ 7
Death-rates increased 10 per cent., or more.				
South and Central, in South-east Leeds	8,066	7,524	− 7	+ 12
East Hunslet ward	25,892	28,017	+ 8	+ 14
Farnley (*i.e.*, Bramley in Wortley)...	3,714	4,231	+ 14	+ 35
Osmondthorpe, with part Seacroft and Potternewton... ...	890	2,098	+ 136	+ 70

The township of Leeds (including the three sub-districts North, West, and South-east) has an acreage of 2,736; a population estimated at the middle of the two periods of 178,202 and 181,232—equivalent to 65 and 66 persons per acre. The death-rates were 1·92 and 1·80—a decrease of 6 per cent., notwithstanding an increase of nearly 2 per cent. in population.

On the whole this is re-assuring. While even the more populous townships of Leeds are still increasing in population, their mortality from phthisis is on the decline.

The following table gives the relations of area to population for the districts dealt with in the tables on pages 47 and 49:

TABLE

Showing approximately persons per acre in intercepts.

Township, Ward, &c.	1892.	1897.	Township, Ward, &c.	1892.	1897.
Holbeck—Holbeck ...	45	54	Wortley—New Wortley	47	47
West Hunslet	4	5	Armley ...	17	20
Hunslet—West Hunslet	67	77	Wortley ..		
East Hunslet	24	26	Farnley ...	2	2
South ...	54	56			
South-East—South ...	49	46	Bramley—Bramley ...	6	6
Central ...					
East ...	38	38	Kirkstall—Kirkstall ...	10	12
Osmondthorpe—East	...	1	Burley ...		
			Headingley ...		
Chapeltown—North-East ...					
North ...	4	6	Chapeltown—Headingley ...	3	5
(*Chapel-Allerton*	1	1)	North-West ...		
(*Potternewton*	16	27)	Brunswick ...		
North—North ...	100	105	West—Brunswick ...	104	106
North East ...	76	78	North West ...	56	61
Central ...	120	116	Mill Hill ...	39	37
Central in West			West ...	88	89

DISEASES AFFECTING CHIEFLY THE LUNGS AND AIR-PASSAGES.

These diseases have been referred to, somewhat briefly, at page 8, under the three groups of consumption—of bronchitis, pneumonia, and pleurisy—and of other lung diseases (exclusive of influenza), and it was shown that whilst there was a fall as compared both with the death-rate of the last triennium, and with that of the five years preceding 1890 from the two first of these groups just named, there was a slight rise in the small group of "other lung diseases" on comparing our rate with that of the three immediately preceding years.

All ages.—From table 6b it will be seen that our rate from all lung diseases (including consumption) was 4·94. This is a little higher than in the year before, when it was 4·67. The rates for the several quarters, at all ages, and under and over the age of five, will be found in the table mentioned.

Under five.—It will be noticed that the death-rate "under five" last year was 13·20 from the whole group. In 1898 it had been 12·63. The mortality amongst children in 1899 was heaviest in the combined group in the fourth quarter, least in the third quarter. With the exception of the second quarter the deaths at this age had been more numerous, in proportion to the estimated population, in each quarter of 1899 than in the corresponding period in 1898.

The variation in mortality, highest in the fourth, lowest in the third quarter, did not correspond to the variation in mortality of the all-age lung group, which was highest in the first, lowest in the third quarter.

Over five.—In persons over five the death-rate was also heavier in 1899 than in 1898—3·75 against 3·53. In 1899 the heaviest mortality, 5·02, was in the first quarter, the lowest,

2·54, in the third. In the preceding year the heaviest mortality was in the second, 4·34, the lowest in the third, 2·40. The mortality at this age-group was higher in 1899 than in the corresponding period of the previous year in each quarter except the second.

Age mortality from phthisis.—The subject of consumption has already been sufficiently dealt with under the head of tuberculosis. It may be well, however, to say something about the age mortality. It has been already shown that at all ages the mortality last year (1899) was 1·41. The corresponding mortality from this disease in 1898 was 1·39, showing a slight increase, although as already pointed out the mortality 1·41 was below that (1·44) of the three preceding years, as well as below the mortality in any of the three-year groups given in table 1, page 9.

Phthisis under five.—In 1899 this disease caused 0·36 deaths per thousand in children under the age of five, against 0·34 in the three immediately preceding years, and 0·41 and 0·48 in the two previous triennia. This age-group had shown a rather higher rate in 1898, 0·42. The greatest proportionate number of deaths, 0·53, occurred at this age last year in the second quarter, the smallest, 0·23, in the fourth. In the preceding year (1898) the number of phthisis deaths under five was the same in the second and fourth quarters, and equal but lower in the first and third. The second quarter had a rate of 0·46—lower than ours of 0·53 last year. The first and third quarters had rates of 0·38; the first corresponding with the rate of 1899, the second 0·08 higher. It will be noticed from table 6c that the rate for the whole year 1897 was only 0·23.

Phthisis over five.—Amongst persons over five, thus dealing of course with the bulk of deaths from pulmonary consumption, the rate for the year 1899 was 1·56. The first quarter had

TABLE 6b.

Shewing death-rates per 1,000 living, under and over the age of five, from all diseases of the breathing organs, including consumption, but not influenza.

	I.	II.	III.	IV.	Year.
Under 5 ...	15·58	12·25	8·32	16·64	13·20
Over 5 ...	5·02	3·60	2·54	3·85	3·75
All ages ...	6·34	4·69	3·27	5·46	4·94

the highest, 1·93, the third quarter the lowest rate, 1·36. In the preceding year the rate was calculated as 1·53 for the whole year; the highest quarter being the second, 1·81, the lowest the third, 1·29.

It will be noticed on comparing these figures which are given in table 6c with the middle line of figures in table 6b that the variation of phthisis mortality, highest in the first, lowest in the third, corresponded to the variation in the whole group of lung diseases, which also reached its highest rate in the first and lowest in the third quarter.

Bronchitis, pneumonia, and pleurisy.

All ages.—Bronchitis, pneumonia, and pleurisy caused a rate of 3·30 at all ages in 1899. This we have already seen was a lower rate than in any of the three preceding triennia, or than in the five years preceding 1890.

Under five.—This group had the highest death-rate in the fourth, the lowest in the third quarter. This was also the seasonal rate of mortality from the whole lung group. The rates which are not given in any of the tables were, first quarter, 14·30; second, 11·41; third, 7·49; and fourth, 16·19; and the whole year, 12·35.

Bronchitis.—It will be found on consulting table 6c that of all the five headings under which this group is sub-divided, bronchitis was the most important, causing in the whole year more than half the deaths of children under this group. This disease had been most fatal in the fourth, least so in the third.

COMMONER INFECTIVE DISEASES.

SMALL-POX.

During the year 1899 a single case of small-pox was reported and removed to hospital.

Circumstances of the attack.—The patient was a boatman on board the sloop " Andes," trading between Hull, Grimsby, and Leeds. The boat arrived in Hull from Leeds on 25th or 26th of October, took in a load of timber at the Victoria Dock, and on November 1st crossed to Grimsby, discharged all or part of her cargo there, and took in a new cargo of timber for Leeds. The patient, a lad of 19, assisted in the loading of both cargoes. He seems to have gone to the theatre at Grimsby on the night of the 9th or 10th, and on the 13th, the day before he left Grimsby, he complained to the captain that he had got a cold and had pains in the back. The boat left Grimsby on the 14th, arriving at Goole about five the same evening.

On the way from Grimsby the captain noticed an eruption on the patient's face and back. At Goole a medical man was called on board the same evening. He saw the lad again on the following morning, the 15th, and is said to have stated that the patient was suffering from cold and influenza, and to have advised him, if not better, to call in another doctor at Leeds. The boat arrived in Leeds on the 18th, having called at Goole, Brotherton, and Ferrybridge on the way. On arrival at the Leeds Island Wharf, the captain and acting mate set off to find a doctor, and after trying Kirkgate, obtained

TABLE 6c.

Shewing death-rates at the estimated population under and over the age of five years for each quarter of the year 1899, for the year, and for the three preceding years, from several groups of lung affections.

	1896.		1897.		1898.		1899.									
	YEAR.		YEAR.		YEAR.		I.		II.		III.		IV.		YEAR	
	− 5	+ 5	− 5	+ 5	− 5	+ 5	− 5	+ 5	− 5	+ 5	− 5	+ 5	− 5	+ 5	− 5	+ 5
Bronchitis	6·94	1·34	7·15	1·40	5·81	1·13	7·49	1·94	5·67	1·06	3·63	0·63	9·23	1·33	6·50	1·24
Broncho-pneumonia	4·01	0·15	4·01	0·10	3·52	0·11	4·46	0·17	3·93	0·10	2·42	0·06	5·75	0·22	4·14	0·14
Pneumonia	2·17	0·84	1·66	0·71	2·17	0·55	2·35	0·70	1·74	0·74	1·44	0·34	1·21	0·51	1·68	0·57
Pleuro-pneumonia	0·02	0·04	0·02	0·01	...	0·02	...	...	...	0·04	...	0·02	...	0·01	...	0·02
Pleurisy	0·06	0·06	...	0·03	...	0·04	...	0·05	0·07	0·06	...	0·01	...	0·03	0·02	0·04
Other lung diseases *	0·23	0·13	0·31	0·11	0·46	0·13	0·38	0·16	0·15	0·15	0·38	0·12	0·15	0·18	0·26	0·15
Non-tuberculous respiratory diseases †	13·43	2·56	13·16	2·37	11·97	1·99	14·68	3·03	11·57	2·15	7·87	1·18	16·34	2·28	12·61	2·16
Laryngitis	0·23	0·02	0·37	0·01	0·23	0·02	0·53	0·06	0·15	0·01	0·15	...	0·08	0·05	0·23	0·03
Phthisis	0·35	1·66	0·23	1·62	0·42	1·53	0·38	1·93	0·53	1·44	0·30	1·36	0·23	1·51	0·36	1·56

* Non-tuberculous and exclusive of croup, laryngitis, and influenza, and the groups in lines above. † Exclusive of phthisis, croup and laryngitis.

the advice of Dr. Taylor, Meadow Lane, who recognised the disease and ordered patient's removal to hospital. The captain, who had slept in the same cabin as the patient, and the acting mate were taken to the Isolation Cottages.

Serious risk to the public.—The patient made a good recovery, and, so far as we know, no other case resulted from his. This was almost better luck than the behaviour of those connected with the case deserved. Small-pox was known to be in Hull, and was known to be specially rife in the neighbourhood of the timber dock. The man, attacked with an eruption 14 days after leaving a notoriously small-pox-infected place, was seen by a medical man twice, who seems to have failed to recognise what was the matter, and who allowed him to travel on a canal sloop, calling at various places between Goole and Leeds, and to sleep in a cabin used by two men whose business or pleasure took them into other places at the villages at which the boat stopped.. The acting mate, who had used the same cabin, and had apparently slept on board on the 14th, slept on board another boat, the "Letitia," on the 15th. The man whose horse hauled the boat from Goole to Ferrybridge on the 16th, had three meals in the cabin with the sick man. The captain and the mate on the 16th slept at a house in Brotherton, and on the 17th the driver of the horse from Ferrybridge to Leeds had four meals in the cabin, and then slept on the boat "John and Annie" (792, Goole), leaving the boat at Leeds on the 18th. The patient having been in bed from the 13th, the mate of the "Letitia" already mentioned was several times in the cabin of the "Andes" between the 1st and 15th; he was certainly there on the 15th. The "Letitia" then went to Wakefield, and afterwards to Dewsbury and Huddersfield with timber.

The wanderings, in search of a doctor, of the captain and mate, who had both been in the cabin with the small-pox patient, whose eruption had been out for five days, are

interesting. They called first at Dr. Harral's, in Kirkgate, they then visited the "Brougham Arms," Kirkgate, where they allege they did not stop more than five minutes. They went then to Dr. Taylor's, in Meadow Lane, getting another drink at the "Red House," along with a man who was an inspector of the omnibuses running to Beeston Hill. They then went for dinner to an eating-house near Leeds Bridge, and thence back to the boat. The mate then went to a house in Black Bull Street, where he stayed two hours, going from there to a barber's shop in Hunslet Lane, and then back to the boat, while the captain occupied himself in visiting the "Palace Hotel" with the captain of a canal boat lying in Leeds.

Measures adopted.—When we heard of the case, the patient was of course at once removed, the other occupants of the boat quarantined, vaccinated, and the boat itself detained for disinfection. The cabins were washed down with corrosive sublimate solution, and the timber as it was unloaded was treated in the same way, by a solution thrown over it by a small hand pump. The medical officers at Huddersfield, Dewsbury, Wakefield, Knottingley, Hull, and Goole were communicated with, and I understand that the occupants of the "Letitia" were carefully watched, and their clothes and cabin disinfected. Handbills were distributed to all the barges leaving and entering Leeds, advising all persons dealing with Hull to get re-vaccinated, and pointing out the initial symptoms of small-pox. Lodging-houses and other places likely to have been visited by infected persons were specially inspected—visits being made by our staff for that purpose—and the canal boat population received particular attention.

Until the beginning of the present year, no other case so far as we know occurred in the town, when one was imported from the North Riding. Its history comes under the medical history of 1900. No spread of the disease occurred, however, from this case either.

Vaccination in Leeds.—From a report furnished to the Guardians of the Leeds Union, I learn that the number of successful vaccinations reported in their Union was 5,604 in 1899, against 5,507 in 1898.

The increase is not noticeable. What is important from a health point of view is that, whereas in the earlier year only 31 per cent. of the vaccinations were by public vaccinators and 69 by private practitioners, in the later 48 were by the officers of the Guardians, and 52 per cent. by the private medical attendants.

Measles.

Cases heard of.—Information was obtained as to 642 cases of measles, 487 during life, 155 after death. The houses of these patieuts were visited and afterwards in most cases disinfected. Of the 487 enquired into during life, 468 were in houses in which no fatal case occurred, 19 were recoveries in houses in which one or another of the 155 deaths occurred.

Death-rate.—The rate of mortality was equivalent to 0·37 per thousand per annum, the average of the three preceding years having been 0·44. I regret to add that measles has been again very prevalent in the spring of the present year. During 1899 we had to close several schools on account of this disease, choosing where practicable the weeks immediately before or immediately after a holiday, so as to interfere as little as possible with the scholastic work.

Scarlet Fever.

Cases.—The number of cases of this disease and the deaths in the several quarters have been already mentioned in the earlier part of the report.

During the 52 weeks of the year, 1,618* cases were heard of. Amongst these 453 were children under five years of

* Exclusive of 2 patients over 15 years of age, members of the Manston staff.

age, 962 were between the ages of five and fifteen, whilst the remaining 203 were persons over fifteen. Of the patients only 647 were treated in Hospital, and I regret that even these 647 were not in every case sent in at the very commencement of their illness. Had we been able promptly to isolate the first one reported, very many second, third, and even fourth cases in families might have been prevented. The details as to the incidence of the disease in various parts of the town will be found in table B, part 1, where the information is given in Registration Districts; in table B, part 2, where the cases are classed in Wards, and in the third, fourth, fifth, and sixth parts of the same table which deal both with wards and districts for the several quarters. Table B, part 7, is a similar report for the first quarter of the current year, bringing the statistical information up to the end of the financial year. In the text will be found a table giving cases and case-rates in intercepts of wards and districts.

Cases in intercepts.—From table 12 (p. 61) it will be seen that the number of cases heard of per thousand of the estimated population in the intercepts, or bracketted intercepts (corresponding nearly with the districts studied under the head of phthisis), varied from 1·65 in the "strip" consisting of Meanwood, and the Potternewton portions of the North-west and Brunswick wards, and 1·89 in the Northern (and chief) part of the Central ward, to 5·41 in Farnley, 5·46 in West Hunslet, 6·15 in the Hunslet portion of the South ward, and 6·60 in Kirkstall.

The two districts first mentioned were the only ones in which the case-rate was less than 2 per 1,000. The rate was between 2 and 2·5 in New Wortley, in the Leeds portion of the North ward, in the Chapel-Allerton and Potternewton portions of the same ward,* and in the Leeds portion of the Brunswick ward.

* Unfortunately we have not kept the cases separate in the portions of the ward in these two townships.

The rate was between 2·5 and 3 in Mill Hill, in West Hunslet in Holbeck, in the North-east ward in Leeds, and in the Bramley township.

It was between 3 and 3·5 in the large and slightly populated, but increasing, district on the east of the borough, containing the township of Osmondthorpe in the East ward, and the portions of the Seacroft and Potternewton townships in the North-east ward. It was also between 3 and 3·5 in the portions of the South and Central wards adjacent to the river, and lying in the South-east registration district. It was between 3·5 and 4 in East Hunslet, in the denser portion of the East ward lying within the Leeds township, and in the portion of the North-west ward in the same township.

It was between 4 and 4·5 in the Armley and Wortley ward and in Holbeck ward; between 4·5 and 5 in the West ward; between 5 and 5·5 in Farnley and the Hunslet portion of West Hunslet.

It was between 6 and 6·5 in the Hunslet part of the South ward, and above 6·5 in the township of Headingley (Kirkstall).

Proportion of cases hospitalled.—It will be noticed that the ratio of cases removed to the whole cases notified varied considerably in different districts. In the Leeds portion of the North ward three-fifths of the notified cases were removed. In the East ward, in the same township, slightly over three-fifths, whilst in Bramley, Kirkstall, North-west in Leeds, the West and the Holbeck wards, North-east in Leeds, the northern part of the Central, the southern part of same with the end of the South ward adjacent to it, and the North-east and East wards, in Chapeltown and Osmondthorpe, the cases removed were approximately from a third to a half of those notified. On the other hand, in the Beeston district and the Farnley district the proportion of removed cases was very much smaller.

TABLE 12.

Scarlet Fever cases in 1899.

Registration districts.	Ward Intercepts.	Estimated population, 1899.	Cases heard of.		
			treated		Per 1,000 of population.
			in hosp.	at home.	
EASTERN DIVISION.					
HOLBECK	Holbeck	29,038	52	72	4·28
	West Hunslet	5,462	1	13	2·57
HUNSLET	West Hunslet	24,239	43	89	5·46
	East Hunslet	28,920	33	70	3·57
	South	11,574	41	30	6·15
SOUTH-EAST LEEDS ...	South	7,294	9	12	3·44
	Central		2	2	
	East	25,925	64	38	3·95
OSMONDTHORPE	East	2,611	—	1	3·07
CHAPELTOWN .. (part of)	North-east... ...		4	3	
	North	20,045	9	38	2·35
NORTH LEEDS ...	North	17,278	24	16	2·32
	North-east...	25,286	35	33	2·70
	Central	19,625	15	22	1·89
	Central in West ...		—	—	
WESTERN DIVISION.					
WORTLEY	New Wortley	19,643	12	31	2·20
	Armley	34,508	25	96	4·10
	Wortley		3	17	
	Bramley (Farnley) ...	4,451	2	22	5·41
BRAMLEY	Bramley	16,349	24	23	2·88
KIRKSTALL ...	Kirkstall	39,651	6	15	6·60
	Burley		89	96	
	Headingley ...		15	40	
CHAPELTOWN ... (part of)	Headingley (Meanwood)	4,878	3	2	1·65
	North-west ...		—	—	
	Brunswick... ...		—	3	
WEST LEEDS ...	Brunswick...	21,461	16	37	2·48
	North-west	32,097	60	67	3·97
	Mill-Hill	8,369	13	8	2·52
	West	25,185	47	75	4·86

It will be remembered that the proportion which the hospitalled cases bore to those notified in the whole town was two-fifths.

Mortality.—I am happy to say that the death-rate from scarlet-fever, which during the three previous years had been on the increase, and had averaged 0·23, fell to 0·15.

Table showing deaths from scarlet fever in Leeds during three periods of ten years each.

Periods.	Deaths.	Deaths per 1,000.*	Fall per cent. on rate of preceding period.
Ten years, 1870-79 ...	3,090	1·09	...
Ten years, 1880-89 ...	2,255	0·68	38
Ten years, 1890-99 ...	725	0·18	73

* The rate 1·09 is probably somewhat lower than the real rate for the period. It is calculated on an over-estimated population, and should probably be 1·11. As, however, the recent populations are mere estimates the figure has been allowed to stand. The deaths are from the Registrar-General's returns.

Housing of cases.—Information in regard to the condition of the houses in which 1,608 patients lived will be found in table 25.

Of the 1,608 case-houses, 526, or 32·7 per cent., were throughs; 1,082, or 67·3 per cent., were back-to-backs. Of the former 76·8 per cent. had all their wastes (except the soil-pipes of inside closets) disconnected from the drains, 23·2 per cent. had not. Of the back-to-backs the proportions were 50·9 "severed," 49·1 "not severed." Amongst the 955 "severed" houses, throughs and back-to-backs together, eight, or less than 1 per cent., were found to be defective upon examination. Testing, it will be remembered, is not obligatory in scarlet-fever houses. Of the 653 "non-severed" houses, 18, or getting on for 3 per cent., were found otherwise defective.

Diphtheria and Membranous Croup.

Cases.—Diphtheria again continued to be prevalent in Leeds. During the fifty-two weeks 1,795* cases of this disease

* Exclusive of two over 15, and one between 5 and 15 years of age, members of the Manston hospital staff.

or membranous croup were heard of (a little in excess of the number of cases of scarlet fever), and the number taken to hospital was 154, or less than 8·6 per cent. Of the 1,795 cases reported, 555 were those of children under 5, 861 of patients between the ages of 5 and 15, and 379 of persons above that age.

Calculated upon the whole population the case-rate for diphtheria was one of 4·15 per 1,000, that for membranous croup of 0·10—together 4·25.

Case mortality.—There were 335 deaths in the town, but 14 deaths occurred amongst those of whose illness we had not previously heard. Deducting these cases we have a case death-rate of 17·9 per cent. The case mortality amongst those called diphtheria was 16·4 per cent., amongst those called membranous croup, 76·7.

Death-rate.—The deaths from the two diseases were equivalent to a rate of 0·80 per 1,000. There was in addition a rate of ·03 from forms of croup not distinguished as membranous.

The prevalence of diphtheria in the different quarters has already been spoken of in an earlier part of the report, and the wards and registration districts in which the cases occurred will be found in the appendix, table B, parts 3, 4, 5, and 6, and for the whole year, in table B, parts 1 and 2. Table B, part 7, gives cases in wards and districts during the first quarter of 1900.

Cases in intercepts.—I am able this year, through the energy of your clerks, to give you the cases which were heard of in the intercepts already described under the head of phthisis. Taking membranous croup and diphtheria together, the cases reported varied from 1·12 and 1·15 in the East ward, in the Leeds township, and in the rest of the East ward, in Osmondthorpe, along with the Chapeltown part of the North-

east ward, to 10·18 and 10·82 in the Armley and Wortley ward and in the township of Holbeck.

Two intercepts, Holbeck and Armley and Wortley, had, as already said, rates over 10. West Hunslet, in Holbeck, and the Meanwood and Potternewton "strip" had rates of 8·8 and 8·4 respectively. West Hunslet, in Hunslet, and the Bramley township had rates of 6·4 and 6·1; New Wortley and Kirkstall of 5·3 and 4·7; and Farnley of 3·6.

North-east, in Leeds, and East Hunslet, had rates of 2·7 and 2·6; the South ward in Hunslet, Mill Hill, and the North ward in Leeds, had rates of 2·4, 2·3, and 2·2 respectively. The South and Central ward portions of the South-east registration district round the river and the West ward sent 2·2 and 2·0. Chapeltown in the North ward, and the North-west ward in Leeds, furnished 1·9 and 1·8; the Leeds portion of the Brunswick ward, 1·7; the north and west portions of the Central ward, 1·3. The portions of the East and North-east wards in Osmondthorpe and Chapeltown had a rate of 1·2, and the East ward in Leeds of 1·1.

The whole South-east registration district, comprising the East ward, in the Leeds township, the southern portion of the Central, and the northern portion of the South ward, had a low rate, under 1·4. This is the district in which the catch-pits of the street gullies have been removed and replaced by shoots.

Table 13 deals only with the whole year. Two further tables, 13a and 13b (the former reprinted from the report for 1898) show respectively the proportion of cases in each monthly period from October, 1897, to March, 1899, and in each quarterly period from the last quarter of 1897 to the second quarter of 1900, inclusive. The former (13a) is printed in two types, the heavy type showing the month of maximum case-rate for the district, the other table (13b) is printed in three types,

TABLE 13.

Diphtheria and Membranous Croup in 1899.

Registration districts.	Ward Intercepts.	Estimated population, 1899.	Cases heard of.		
			treated		Per 1,000 of population.
			in hosp.	at home.	
EASTERN DIVISION.					
HOLBECK	Holbeck	29,038	19	294	*10·82*
	West Hunslet	5,462	1	47	*8·82*
HUNSLET	West Hunslet	24,239	2	153	*6·42*
	East Hunslet	28,920	3	72	*2·60*
	South	11,574	1	27	*2·43*
SOUTH-EAST LEEDS ...	South	7,294	—	16	*2·20*
	Central		—	—	
	East	25,925	3	26	*1·12*
OSMONDTHORPE	East	2,611	—	—	*1·15*
CHAPELTOWN ..	North-east... ...		—	3	
(part of)	North	20,045	2	36	*1·90*
NORTH LEEDS ...	North	17,278	8	30	*2·21*
	North-east...	25,286	9	58	*2·69*
	Central	19,625	2	21	*1·28*
	Central in West ...		1	1	
WESTERN DIVISION.					
WORTLEY	New Wortley	19,643	9	95	*5·31*
	Armley	34,508	14	301	*10·18*
	Wortley		1	34	
	Bramley (Farnley) ...	4,451	—	16	*3·60*
BRAMLEY	Bramley	16,349	21	79	*6·14*
KIRKSTALL ...	Kirkstall	39,651	16	67	*4·68*
	Burley		10	50	
	Headingley ...		5	37	
CHAPELTOWN ...	Headingley (Meanwood)	4,878	6	33	*8·43*
(part of)	North-west ...		—	—	
	Brunswick... ...		—	2	
WEST LEEDS ...	Brunswick...	21,461	2	35	*1·73*
	North-west	32,097	11	47	*1·81*
	Mill-Hill	8,369	4	15	*2·28*
	West	25,185	4	46	*1·99*

TABLE 13a.

Diphtheria : Cases heard of in Registration Districts and Ward intercepts during 18 months 1897-98-99, per 1,000 of the population, estimated to the middle of 1898.

EASTERN DIVISION.*

Registration Districts.	Wards intercepted.	1897. Oct., 4 wks.	1897. Nov., 4 wks.	1897. Dec., 5 wks.	1898. Jan., 4 wks.	1898. Feb., 4 wks.	1898. Mar., 5 wks.	1898. April, 4 wks.	1898. May, 4 wks.	1898. June, 5 wks.	1898. July, 4 wks.	1898. Aug., 5 wks.	1898. Sept., 4 wks.	1898. Oct., 4 wks.	1898. Nov., 5 wks.	1898. Dec., 4 wks.	1899. Jan., 4 wks.	1899. Feb., 4 wks.	1899. Mar., 5 wks.	Whole period. 78 wks.	1 of 52
HOLBECK	Holbeck	..	..	1·10	2·76	..	·37	..	·92	·74	·92	·37	·92	2·76	1·84	7·36	3·68	2·76	2·94	1·60	1
	West Hunslet	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
HUNSLET	West Hunslet	..	·55	2·64	3·30	·55	·88	..	..	·44	1·10	·88	..	1·65	1·76	1·10	3·85	5·50	3·08	1·52	
	East Hunslet	..	·46	·37	·46	..	·73	..	·46	·37	..	..	..	·46	5·13	4·12	4·12	4·58	4·40	1·46	1
	South *	1·14	..	·91	..	..	·91	..	..	..	..	..	..	..	·91	11·41	6·85	11·41	·91	1·81	1
LEEDS (South-East)	South Central	..	..	..	..	5·39	..	1·80	..	1·44	..	1·44	1·80	1·80	..	5·39	3·60	1·80	..	1·29	1
	East	1·53	..	·41	2·04	2·54	·41	..	..	·41	·51	·41	..	·51	1·22	1·02	3·56	4·07	·81	1·04	
OSMONDTHORPE	East	..	..	..	.	..	.	..	..	.	..	..	..	..	..	..	..	..	..	..	
CHAPELTOWN (part of)	North-east	..	..	..	..	..	5·42	..	..	..	..	..	..	..	5·42	..	6·78	..	..	1·04	1
	North	..	..	..	·68	2·03	..	..	..	·54	..	..	..	..	·54	4·74	1·36	3·39	·54	·73	
LEEDS (North)	North	·77	..	..	·77	..	..	..	·77	..	·77	..	2·30	·77	6·13	8·43	3·06	7·66	1·23	1·77	1
	North-east	..	·52	..	..	·52	..	..	·52	..	..	·84	..	3·13	2·51	3·65	7·31	8·87	5·43	1·82	
,, West*	Central Central*	·67	·67	..	·67	1·34	·54	..	..	..	..	1·07	·67	..	·54	1·34	..	4·68	·54	·65	

* The small part of the West Registration Division, with an estimated population of 325, has been added to the larger part of the Central Ward in the North District. No case was heard of in this district. The whole Central Ward is in the Eastern Division.

WESTERN DIVISION.

Registration Districts.	Wards intercepted.	1897. Oct., 4 wks.	1897. Nov., 4 wks.	1897. Dec., 5 wks.	1898. Jan., 4 wks.	1898. Feb., 4 wks.	1898. Mar., 5 wks.	1898. April, 4 wks.	1898. May, 4 wks.	1898. June, 5 wks.	1898. July, 4 wks.	1898. Aug., 5 wks.	1898. Sept., 4 wks.	1898. Oct., 4 wks.	1898. Nov., 5 wks.	1898. Dec., 4 wks.	1899. Jan., 4 wks.	1899. Feb., 4 wks.	1899. Mar., 5 wks.	Whole period. 78 wks.	52
WORTLEY	New Wortley ..	..	..	1·07	..	2·10	·54	..	2·68	2·68	9·40	6·44	10·07	12·75	12·88	11·41	12·75	6·71	5·37	5·33	
	Armley and Wortley	·39	..	·31	·39	1·16	1·24	·39	·39	1·24	9·73	4·95	6·19	9·28	22·89	33·63	17·40	9·28	3·71	6·62	
	Bramley (Farnley) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20·94	2·99	8·97	..	1·69		
BRAMLEY	Bramley	·81	..	·65	3·24	1·62	..	..	..	·65	..	1·30	..	·81	..	2·43	4·86	2·43	7·13	1·45	
KIRKSTALL	Headingley (Kirkstall Burley Headingley) ..	1·01	·34	·81	2·02	2·36	1·08	1·35	·67	·54	2·69	·27	1·35	3·70	2·42	10·77	11·78	13·47	5·93	3·35	
CHAPELTOWN (part of)	Headingley (Meanwood) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	North-west	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Brunswick	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
LEEDS (West, except Central)	Brunswick	..	1·23	..	1·84	1·84	·49	..	..	..	·61	..	..	1·23	3·44	3·07	·61	2·46	1·47	1·01	
	North-west	..	·41	..	·41	2·06	1·32	·82	·41	..	·41	..	3·72	4·12	2·31	3·72	4·53	2·06	·66	1·44	
	Mill Hill	..	..	1·25	3·13	3·13	1·25	1·57	..	..	1·57	..	..	3·13	15·04	1·57	..	6·27	5·01	2·49	
	West	·52	6·81	10·05	5·76	3·67	2·93	5·24	5·76	7·54	3·67	5·86	4·71	1·05	2·93	3·67	2·09	3·14	4·19	4·51	

This table was in the 1898 report.

the heavy type as before showing the maximum for the district, the sloping type showing rates below the whole period rate of the city, the erect type rates above the average city rate.

The march of the infection. — Diphtheria has now been unusually prevalent in Leeds since the latter part of 1897. At that time there was a somewhat localized outbreak in the West ward, the case-rate in what I called in my report for 1898 the A.B.C. portion of that ward being as high as 39·2 per 1,000 per annum, in November, 37·6 in December, 1897, and 27·4 in January, 1898.

The case-rate* for the whole West ward in those three months was 6·8, 10·1, and 5·8 respectively, after which it fell in February and March to 3·7 and 2·9, rising again in April and May until the rate reached 7·5 in June, 1898. Although it fell in July, it rose again in August to 5·9, after which to the end of March, 1899, it never rose in any month to 5 per 1,000. The average case-rate in the West ward for the whole 78 weeks from October, 1897, to March, 1899, inclusive, was 4·5, but for the twelve months of 1898 only 3·0. This rate still further fell in 1899 to 2·0† per 1,000.

In describing the onset of this disease, in the report for 1898, it was pointed out that while the greatest incidence was, as already said, in the streets between North Hall Street and Meynell Street in the three months November and December, 1897, and January, 1898, in the streets west of these, from Meynell Street to Ventnor Street, the largest number of cases occurred in February and March, 1898, while in the portion of the ward north of the first-named district the prevalence, which had been considerable in November,

*Calculated upon the population estimated to middle of 1898; see table 13a, pp. 66-7, reprinted from Annual Report for 1898. † Calculated on the 1899 population.

December, and January, though slight compared with that of the A.B.C. portion, fell during spring, but rose to 7·6 in the month of June. In the portion of the ward east of the first-named district, while the rate was as high as 10·3 in December, 1897, it fell in the three following months to about 4 per 1,000, but rose to 8·1, 14·5, and 11·6 in April, May, and June, 1898*.

As was pointed out at the time, the disease seemed to have spread from a centre by direct infection, the number of cases, however, in the first-named district having been so much greater, proportionately to the population, as to make the case-rate for the whole ward highest in December, 1897.

From the West ward the prevalence of the disease seemed to travel in the direction of Burley and Kirkstall, but no attempt was made to estimate in figures the exact proportions in these several districts, although in the report for 1898 it was shown how the disease extended from Burley, which adjoins the West ward, to the Kirkstall and Headingley parts of the ward of that name.

The whole Kirkstall registration district, which with the addition of Meanwood forms the Headingley ward, reached its highest rate, 13·5, in February, 1899. The rate for the whole district was 3·4 for the seventy-eight weeks, from October, 1897, to March, 1899, 2·7 for the fifty-two weeks of 1898, and as will be seen from table 13,† 4·7 for the fifty-two weeks of 1899.

Taking periods of thirteen weeks instead of single months it will be seen from table 13 b that the rate in the Kirkstall registration district was until the fourth quarter of 1898 below that of the whole city for the 143 weeks covered by the table. In that quarter it rose to nearly double that rate. It reached a maximum in the first quarter of 1899, since which time, with the exception of one quarter, the third of 1899, the rate has been lower than the rate during the whole period in the city.

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* See table page 50, Annual Report, 1898. † Page 65.

TABLE 13 b.

Cases of diphtheria and membranous croup reported in Ward intercepts during the several quarters from October 3rd, 1897, to June 30th, 1900, stated as rates per 1,000 per annum on the estimated populations for 1899.

WESTERN DIVISION.

Registration Districts.	Ward intercepts.	1897	1898.				1899.				1900.	
		IV.	I.	II.	III.	IV.	I.	II.	III.	IV.	I.	II.
WORTLEY	New Wortley	0·4	0·8	1·8	8·4	**12·3**	8·0	5·3	5·3	2·7	1·4	0·8
	Armley, Wortley	0·2	0·9	0·7	6·2	**21·5**	9·3	7·6	10·8	13·0	7·4	3·4
	Bramley (Farnley) ...	...	...	...	...	**6·3**	4·5	3·6	1·8	4·5	1·8	2·7
BRAMLEY	Bramley	0·5	1·5	0·2	0·5	1·0	4·4	6·1	5·6	**8·3**	3·7	6·1
KIRKSTALL	Kirkstall, Burley, Headingley	0·7	1·7	0·8	1·3	5·3	**9·9**	2·8	3·6	2·3	2·2	1·2
CHAPELTOWN (part of)	Headingley (Meanwood) ...	...	...	...	...	...	...	(18·8)	(**45·5**)	(40·2)	(5·4)	
	North-west ...							5·8	**15·6**	12·3	3·3	...
	Brunswick ...											
WEST LEEDS	Brunswick	0·4	1·3	...	0·2	**2·6**	1·5	1·5	1·7	2·2	2·2	1·7
	North-west	0·1	1·3	0·5	1·3	**3·3**	2·3	1·3	1·1	2·6	2·4	1·4
	Mill Hill	0·5	2·4	0·5	0·5	**7·2**	3·8	0·5	2·9	1·9	1·9	2·4
	West	**6·1**	4·0	**6·1**	4·6	2·6	3·2	0·6	3·3	0·8	1·4	4·3

EASTERN DIVISION.

Registration Districts.	Ward intercepts.	1897.	1898.				1899.				1900.	
		IV.	I.	II.	III.	IV.	I.	II.	III.	IV.	I.	II.
HOLBECK	Holbeck	*0·4*	*1·0*	*0·6*	*0·7*	3·7	3·0	5·4	13·0	**21·8**	8·4	6·8
	West Hunslet	...	...	...	...	...	...	...	6·6	**28·7**	5·1	*2·2*
HUNSLET	West Hunslet	*1·2*	*1·5*	*0·2*	*0·7*	*1·5*	4·0	*2·3*	6·6	**12·8**	6·0	7·3
	East Hunslet	*0·3*	*0·4*	*0·3*	...	3·3	**4·3**	*0·8*	*2·8*	*2·3*	*2·8*	4·2
	South	*0·7*	*0·3*	...	..	3·8	**5·9**	...	*1·0*	*2·8*	*1·4*	*0·7*
SOUTH-EAST LEEDS ...	South, Central	...	*1·7*	*1·1*	*1·1*	*2·2*	*1·7*	*0·6*	*2·2*	**4·4**	*2·8*	*1·1*
	East	*0·6*	*1·5*	*0·2*	*0·3*	*0·9*	**2·6**	*0·3*	*0·8*	*0·8*	*1·7*	*1·4*
OSMONDTHORPE ... CHAPELTOWN (part of)	East, North-east	...	*1·5*	...	...	*1·5*	*1·5*	...	*1·5*	*1·5*	**3·1**	...
	North	...	*0·8*	*0·2*	...	*1·6*	*1·6*	*0·8*	**2·6**	**2·6**	*1·8*	*0·8*
NORTH LEEDS ...	North	*0·2*	*0·2*	*0·2*	*0·9*	**5·1**	3·7	3·9	*0·9*	*0·2*	*2·6*	*1·2*
	North-east	*0·2*	*0·2*	*0·2*	*0·3*	3·0	**7·0**	*2·1*	*1·0*	*0·6*	*1·7*	*1·6*
	Central, Central in West ...	*0·4*	*0·8*	...	*0·6*	*0·6*	*1·8*	*1·4*	*0·6*	*1·2*	**2·0**	*1·4*

In both parts of this table figures in italics denote rates below the annual case-rate in the city during the whole period.
Figures in black type show the highest annual rate for the district

Taking the West ward in the same manner it will be found that the highest quarterly rate during the same period was in the fourth quarter of 1897, and the second quarter of 1898. After the third quarter of 1898, with three exceptions, it was in each quarter lower than the whole period rate of the town. I regret to say that in the second quarter of the present year, 1900, it rose again.

In the adjacent Mill Hill ward and the Leeds portion of the North-west, which bound the West ward on the east and north sides, the rate rose to its highest in the fourth quarter of 1898, falling in both wards below the whole period level of the town after the first quarter of 1899—and during that quarter in North-west Leeds.

In the portion of the Brunswick ward, which is in the same registration district of West Leeds, and which adjoins the North-west ward, the rate never equalled the rate for the whole period of the city, but reached its highest point, 2·6, in the fourth quarter of 1898. The rate since that time, however, has been persistently higher than before it had reached that maximum.

To the south of the West ward, across the river, lies the New Wortley ward, and to its west the Armley and Wortley ward, which, along with the thinly peopled district of Farnley to the south-west, form the Wortley registration district.

The New Wortley ward had case-rates in the last quarter of 1897 and the first of 1898 of 0·4 and 0·8, the Armley and Wortley ward of 0·2 and 0·9. In the second quarter of 1898 the New Wortley ward increased its rate to 1·8, then to 8·4, reaching in the fourth quarter its maximum of 12·3. In the three earlier quarters of 1899 its rate was 8·0, 5·3, and 5·3. The rate fell in the fourth quarter of 1899 below the whole period case-rate of the town, and reached, in the second quarter of 1900, 0·8.

The Armley and Wortley ward, which is much larger than the New Wortley one, both in regard to area and population, though the latter is less dense, had a somewhat lower case-rate in the second quarter of 1898, but the rate rose in the third to 6·2, and in the fourth to a maximum of 21·5.

The rate during the whole of 1899 varied considerably, without ever reaching so high a point as in the fourth quarter of 1898. During 1900 the rate, though still high, has fallen considerably, having been 7·4 in the first, and 3·4 in the second quarter. Unfortunately I have not the necessary data as to population to distinguish the rates in the two townships of the ward.

In Farnley the rate was *nil* till the fourth quarter of 1898, when it reached 6·3, its maximum. In the third quarter of 1899 and both quarters of 1900 it has been below the case-rate of the town.

Bramley, without Farnley, had low rates until the end of 1898. In 1899 it was 4·4, 6·1, and 5·6 in the three earlier quarters, and 8·3, its maximum, in the fourth quarter. The case-rate has kept above the average for the city during the present year, though it has in no instance been a very high one.

Holbeck is the ward adjacent to New Wortley, on the East. Its case-rate was even lower than that of the latter during 1898. In the fourth quarter of that year it reached 3·7, which was above the whole period average of the city. It remained above that average at 3·0 and 5·4 in the first and second, and rose to 13·0 in the third quarter of 1899, and 21·8, its maximum, in the fourth. The rate has been lower during the two earlier quarters of the present year.

The part of the West Hunslet ward which lies in the Holbeck registration district, and to the south of the ward of that name, seems to have had no case reported until the

third quarter of 1899, when the cases notified amounted to an annual rate of 6·6 per 1,000 for the period. In the fourth quarter this rate rose to 28·7, but fell to 5·1 in the first quarter of the present year. In the second quarter it was even lower, 2·2, a rate below the average one of the city for the whole period.

The remainder of the same ward, lying in the township of Hunslet, had rates below that of the city for the whole time till the first quarter of 1899. The rate rose with a slight intermission to a maximum of 12·8 in the fourth quarter of 1899, but has been less since.

To the east of Holbeck ward lies the Hunslet portion of the South ward, and the northern portion of the East Hunslet ward. The maximum in both these intercepts occurred in the first quarter of 1899, and was 5·9 and 4·3 respectively. The rise had occurred from nothing in the third quarter of 1898 to 3·8 and 3·3 in the fourth quarter. During the rest of 1899 in neither district did the rate exceed the whole period case-rate of the city, and, with the exception of East Hunslet in the second quarter, the same is true of both wards during the first half of the present year.

The remaining portion of the South ward, lying in the township of Leeds, has been grouped with the small portion of the Central district in the same South-east registration district. The rate was below that of the whole city for the eleven quarters until the fourth quarter of 1899, and has been so since. In the quarter named, however, it reached 4·4. The rate it will be noticed has never at any time been markedly high.

In the portion of the East ward in the Leeds township the rate has been throughout the whole period, and during the greater part of that time considerably so, below the whole period rate of the city. It may be taken, therefore, that in

the South-east registration district the cases of diphtheria and membranous croup reported have been comparatively speaking few. It is, as has been just said, in this district that the gully catchpits have been removed.

Osmondthorpe and the portion of the North-east ward in Chapeltown have also had low rates.

The North ward in Chapeltown has in no quarter had a rate equal to the average rate of the city.

Even in the Leeds portion of the North ward the conditions have been more favourable than on the South side of the river. The spread of the disease from the West ward towards the Mill Hill, North-west, and Brunswick wards in the fourth quarter of 1898 extended also to the North ward in Leeds when the rate reached 5·1. In the two following quarters it was 3·7 and 3·9. In the other eight quarters, four before and four since these three, the rate has been below that of the city, though it showed some tendency to rise during the early part of the present year.

The North-east ward in Leeds and the remainder of the Central ward had their maxima a little later—the former reaching 7·0 in the first quarter of 1899. This district had, however, a rate of 3·0 in the last quarter of 1898—ten times the rate of the preceding quarter—so that it may be said that the spread of the disease began in the same quarter as in so many of the wards surrounding the West ward. Before that time the rate had not been higher than 0·3. Since the first quarter of 1899 it has only been fractionally above 2, but never quite so low as in the early part of 1898.

In the portion of the Central ward lying chiefly in the North registration district, but including the Dispensary and New Briggate portion which belongs to the West registration district, the rate reached 1·8 in the first quarter of 1899—a

rate still below that of the average rate of the city. It then fell, but in the first quarter of the present year reached 2·0 per 1,000, though the rate has again fallen in the second quarter.

The Meanwood portion of Headingley ward, with the Potternewton portions of the North-west and Brunswick wards was free from notified cases until the second quarter of 1899. The rate then rose to 5·8, had a maximum in the third quarter of 15·6, fell to 12·3 to 3·3, and then to nothing.

The circumstances of this outbreak are exceedingly interesting. With the exception of four cases in the Brunswick ward, two in the third and two in the fourth quarter of 1899, the remaining cases were all in the Meanwood part of Headingley, and caused case-rates in that district of 18·8, 45·5, 40·2, and 5·4. The rates would have been even greater if we could have separated the district of Myrtle Square from the rest of the Chapel-Allerton portion of Headingley.

The commencement of the outbreak was as follows:—A young girl in service had been sent home with sore throat. The house was a crowded and a somewhat dirty one. The medical man who saw and promptly reported the case was consulted afterwards about the patient's removal, which had been suggested at once by the inspector. Unfortunately, if the parents are to be believed, he dissuaded them from this course. Five other members of the family afterwards took the disease, one died, and in four other houses in the immediate neighbourhood seven other cases occurred, one of them fatal. After an interval of two months another and fatal case occurred in another house in the same locality.

There can, I think, be little doubt from a study of the accompanying table in which the rates have been brought out in different types, that the spread of the disease has been almost entirely by direct contagion. The question how far school attendance, newly built houses, and drain ventilators may have assisted was pretty fully discussed in the 1898

report. The milk supply in each case reported was enquired into. There is no suspicion of any case having arisen in this way.

Though the disease has been more common in the town during the later periods dealt with in the table, I am inclined to think that it is rather because of its attacking the population in the outer districts and over a larger area than that the disease is more virulent in its form.

The special districts of the West ward, portions of Armley, and the Meanwood district of Headingley were centres of somewhat virulent outbreaks. The more extended presence of the disease means more cases, but not always a more violent outbreak.

Measures adopted.—The house at which each case occurred has been visited, the drains thoroughly examined, tested, and notice served if necessary. In every case the ashpit has been emptied shortly after receipt of the notice, and the drains flushed. Other members of the family have been advised not to attend school, and the attendance officers of the School Board have been informed of the existence of the disease in the house. From time to time a handbill has been circulated, in parts of the town where the disease has been prevalent, drawing attention to its infectious nature, and to the desirability of preventing intercourse, especially on the part of young children, with members of infected houses. It has been impressed upon mothers that persons themselves well may convey the disease, and that all houses where inmates had suffered from any kind of sore throat should be avoided by their children. We have received every assistance from the Clerk to the School Board, and from the managers of the various denominational schools.

Besides trying to prevent any spread of the disease at school, we have also, during the period covered in the table, taken a few cases of diphtheria into hospital. The cases admitted in

the first instance were only those which, from the state of their vaccination, it was felt safe to take into the unused small-pox hospital. Since other temporary provision has been made for small-pox we have been able to withdraw the embargo as to vaccination, and have been able to take the majority of the cases we were pressed to remove. We have not, however, in any case gone out into the highways and hedges and compelled them to come in. The space at our command would not have allowed of that proceeding. The public are not so anxious to have their children removed on account of diphtheria as they are in cases of scarlet fever. They have not yet arrived at an appreciation of the continued infectivity of the disease after the more dangerous symptoms have disappeared.

Though to some extent, even in scarlet fever, the disappearance of the pyrexia is apt to be regarded by the parents as the end of the illness, the medical man attending frequently impresses upon them the importance of having the patient removed during the desquamative stage. In cases of diphtheria, however, according to the parents' account, the medical man has occasionally taken the position that as the immediate danger was over it was unncecessary for a child to be removed to hospital. In a few cases this may possibly have been due to uncertainty as to the accuracy of the diagnosis. Unfortunately in some cases the doubt has been entirely removed by the occurrence of a consequent and fatal case of the disease.

Such cases as the following have not unfrequently occurred : Diphtheria reported ; removal suggested and pressed by the medical attendant. Hospital full at time. Next day, when a vacancy had occurred, removal refused because the child was "better." No pressure exerted to remove because several other cases waiting for beds. A fortnight later a second case in the house. Then we were pressed by parents to remove.

Whooping cough.

Whooping cough caused 159 deaths during the 52 weeks of 1899. Of these all but four were those of children under five. The death-rate of 0·38 per 1,000 is lower, in the second decimal place, than that for 1898, but higher than the rate in 1897, 1895, or 1894. The rate is considerably lower than in 1896, and slightly lower than in any of the four years 1890-1893.

In the supplementary portion of the report for 1896 a table was given showing the death-rate from this cause each quarter since 1889, and in which were added the rates for the several quarters for 1897. In that year it will be remembered that the death-rate, which had fallen in 1896 from 1·06 in the first, to 0·25 in the fourth quarter, continued low, being 0·18, 0·12, and 0·17 in the three earlier quarters, but rising in the fourth quarter of 1897 to 0·50. In 1898 it still further rose to 0·74 in the first quarter, falling to 0·49, 0·20, and 0·13 in the second, third, and fourth quarters respectively. In 1899 it was 0·16, 0·27, 0·58, and 0·49 in the several quarters. In the first quarter of the present year (1900) it was 0·90, but fell to less than half that amount in the second.

Since the middle of 1899 it has been thought desirable, in order to allow increased energy to be thrown into the house-to-house examination, to discontinue the examination of houses where fatal cases of certain diseases had occurred, and that greater advantage would be obtained by pressing forward the systematic examination than by sending the inspector to houses where whooping cough had been fatal.

Continued fever.

The deaths registered from continued fevers during 1899 were 73. Of these 69 were recorded as typhoid (or enteric), and 4 as due to other, or doubtful, fevers. There was no death from typhus.

Of the 69 fatal cases of typhoid, which are equivalent to a rate of 0·16 per 1,000 per annum, 16 occurred in the first, 13 in the second, 18 in the third, and 22 in the fourth quarter of the year. These deaths are equivalent to death-rates of 0·15, 0·12, 0·17, 0·21 per 1,000 of the population.*

In an earlier part of the present report the cases notified and the mortality for the separate quarters have been already considered. It will be convenient here to remind you that, keeping to typhoid fever only, the cases reported were 105, 65, 162, and 159 in the four quarters of 1899. In 1898 the cases of typhoid reported had been 81, 45, 119, and 294—in all 539. Of these 134 had been taken to hospital. In 1899 the cases numbered 491, and 212 of them were taken to hospital.

In table 14 will be found a list of the number of cases heard of in each of the intercepts of wards already dealt with, and the numbers of those treated in hospital, or left at home. For the same intercepts, grouping, however, some of the smaller ones together, the case-rate per 1,000 of the population is also given. It will be noticed that the case incidence was below 0·5 in the Chapeltown "strip." It was between 0·5 and 1·0 in Farnley, in the Armley and Wortley ward, in the Chapeltown part of the North ward, in the Hunslet portion of the South ward, in New Wortley, in the Mill Hill ward, in the Leeds portions of the Brunswick and North-west wards, in the Holbeck ward, and in the township of Bramley. The case-rate was between 1·0 and 1·5 in the combined North and West Leeds portions of the Central ward, and the combined South-east Leeds portions of the Central and South wards, in the combined Osmondthorpe and North-east ward part of Chapeltown, in the Kirkstall registration district, in the Hunslet part of the West Hunslet ward, and in the Leeds portion of the East ward. It was between 1·5 and 2·0 in the West ward, in the Leeds portion of the North ward, the Holbeck

* The rates for the two earlier quarters of 1900 are 0·17 and 0·18 respectively.

TABLE 14.

Typhoid cases in 1899.

Registration districts.	Ward intercepts.	Estimated population, 1899.	Cases heard of.		
			treated		Per 1,000 of population.
			in hosp.	at home.	
EASTERN DIVISION.					
HOLBECK	Holbeck	29,038	16	12	0·97
	West Hunslet	5,462	1	8	1·66
HUNSLET	West Hunslet	24,239	9	19	1·16
	East Hunslet	28,920	23	37	2·08
	South	11,574	6	3	0·78
SOUTH-EAST LEEDS ...	South	7,294	3	5	1·10
	Central		—	—	
	East	25,925	22	13	1·35
OSMONDTHORPE	East	2,611	2	—	1·15
CHAPELTOWN .. (part of)	North-east... ...		—	1	
	North	20,045	1	14	0·75
NORTH LEEDS ...	North	17,278	16	12	1·63
	North-east...	25,286	28	21	1·94
	Central	19,625	6	14	1·02
	Central in West ...		—	—	
WESTERN DIVISION.					
WORTLEY	New Wortley	19,643	7	9	0·82
	Armley	34,508	4	15	0·70
	Wortley		2	3	
	Bramley (Farnley) ...	4,451	2	1	0·67
BRAMLEY	Bramley	16,349	7	9	0·98
KIRKSTALL ...	Kirkstall	39,651	5	3	1·16
	Burley		12	19	
	Headingley ...		2	5	
CHAPELTOWN ... (part of)	Headingley (Meanwood)	4,878	—	—	0·21
	North-west ...		—	—	
	Brunswick... ...		1	—	
WEST LEEDS ...	Brunswick...	21,461	8	10	0·84
	North-west	32,097	11	17	0·88
	Mill-Hill	8,369	1	6	0·84
	West	25,185	17	23	1·59

portion of the West Hunslet ward, and in the Leeds portion of the North-east ward. It was just over 2·0 per 1,000 in East Hunslet.

Diarrhœa.

The death-rate from diarrhœa is so essentially dependent upon seasonal influences, that the mere comparison of one year's rate with that of another, unless we take also into account the meteorological conditions in the autumn quarter, is of very little value. It is, however, better to record the facts and comment upon them afterwards. During the 52 weeks of the year 1899, there were 404 deaths recorded as due to diarrhœa or dysentery. In 1898 the number had been 512; in 1897, 643; in 1896, 284; and in 1895, 621. In the five preceding years the number had averaged 375.

Distribution in time.—The 404 deaths occurred, 2 in the first, 17 in the second, 361 in the third, and 24 in the fourth quarter of the year. Each of these quarters consisted of thirteen weeks. They ended respectively upon the 1st of April, the 1st of July, the 30th of September, and the 30th of December.

The total number of deaths from diarrhœa with which the Registrar-General has credited us is 397. He gave us 2 more deaths than we had counted in the first, 1 more in the second, 11 fewer in the third, and 1 more in the fourth quarter. On the whole he treated us generously, crediting us with 7 fewer than we had ourselves returned. We consider that the 404 is probably the more correct number, and it is the one we shall use in comparing Leeds with itself and previous years, but in comparing Leeds with other towns we shall accept the Registrar-General's figures. According to him, we had, in the first quarter, a diarrhœa death-rate of 0·04, against 0·15 in the 33 large towns. During the second

quarter our rate in Leeds was 0·17, that of the large towns 0·19. In the third, or diarrhœa quarter, Leeds had a death-rate of 3·31, that of the 33 towns during the same period being 4·16. In the fourth quarter our rate fell to 0·24, that of the large towns having been 0·34. The rates for the whole year were for Leeds 0·94, for the great towns 1·21. On our own figures for the four quarters respectively the rates were 0·02, 0·16, 3·42, 0·23, and for the whole year 0·96.

Meteorology.—The conditions of the atmosphere in the third quarter, and those which preceded in the second, have been somewhat fully gone into in the earlier part of the report. I may, perhaps, simply remind you that the mean temperature of the air was higher than in the second quarter of the same, or in the third and corresponding quarter of the previous year; that the moisture in the atmosphere was less than in the preceding quarter, but greater than in the corresponding quarter of 1898. The diurnal range of the thermometer and the rainfall also were both less than in the second quarter of 1899, and both greater than in the third quarter of the previous year. Further information will be found on page 15. Some remarks are made in a later paragraph upon the number of hot days in Leeds and some other Yorkshire towns.

Comparison with other towns.—The Registrar-General, in Table X. of his report for the third quarter, gives the death-rate during the thirteen autumn weeks for each of the 33 towns, and for each week of the quarter. It has been already seen that our death-rate was 0·9 per 1,000 lower than the average rate of the 33 towns. Our rate was lower than in 21, higher than in 11 of those towns. The 11 with death-rates lower than that of Leeds were London, Cardiff, and Croydon 3·2, all within a decimal point of our rate, Oldham 3·0, Derby and

Huddersfield 2·9, Swansea, Birkenhead, and Blackburn with low rates of 2·5, Newcastle 2·4, and Halifax 1·6. The rate in Bradford was 3·4, in Plymouth 3·5, in Bristol 3·6, none of these three differing greatly from our own. In Gateshead and Sunderland it was 3·7 and 3·8. Wolverhampton, Norwich, Leicester, and Hull had death-rates, the three former just below, the latter just above 5. Sheffield, Bolton, West Ham, Brighton, Nottingham, and Birmingham had rates of 5·6 to 5·9; Portsmouth, Burnley, Manchester, Salford 6, or a little above it, Liverpool 6·5, and Preston 7·2. Our death-rate was a little below the average rate (3·6) with which the Registrar-General credits us for the ten years 1889-1898.

It is, perhaps, interesting to analyse our position during those ten years. In Table IX. the Registrar-General gives the diarrhœa death-rate in these ten years for 28 towns.

Leeds had a lower death-rate from diarrhœa during the ten years than eight of these towns, a higher death-rate than 18. The rate was the same as that of Leeds in one town, Bolton. Excluding Bolton, with a rate of 3·6, the 18 towns whose death-rate during the decade 1889-98 from diarrhœa was less than that of Leeds were Birmingham 3·4, Manchester 3·2, Blackburn and Nottingham 3·1, Norwich 3·0, Portsmouth 2·7, Bradford 2·6, Birkenhead 2·4, Cardiff 2·3, Brighton, Newcastle, and Derby 2·2, London 2·1, Plymouth 2·0, Oldham 1·7, Bristol 1·4, Huddersfield 1·0, and Halifax 0·7. Of these 19 towns, 9 only had rates below ours last year. They were London and Cardiff 3·2, Oldham 3·0, Derby and Huddersfield 2·9, Birkenhead and Blackburn 2·5, Newcastle 2·4, Halifax 1·6. The remaining 10 had, in 1899, along with all the eight with a higher rate for the decade, rates above ours.

Another point is also noteworthy. Of the 28 towns, in only 4 was the death-rate last year below the average which obtained in the previous ten years. These towns were

Blackburn, Leicester, Sunderland, and Leeds. In Blackburn the only one of the three with a lower death-rate than ours, the rate fell from a decade average of 3·1 to 2·5 last year. In Leicester, whose rate was considerably above ours, it fell from an average of 5·1 to 4·7 in 1899. In Sunderland with a decade rate of 3·9, the rate last year was 3·8.

The fall in death-rate last year in these four towns respectively was the greatest in Blackburn. With an already low decade death-rate, the fall from 3·1 to 2·5 per 1,000 is one of 19 per cent. The fall in Leicester was less than 8 per cent., in Sunderland a little over 2½ per cent., in Leeds just 8⅓ per cent.

Comparing ourselves with the five other Yorkshire towns, both Huddersfield and Halifax have for long had low rates from diarrhœa. Both, however, more than doubled their ten years' average last year, while our rate fell appreciably below our average. Bradford has also generally had a lower death-rate from diarrhœa than Leeds; last year the rate was a little, though only a little, higher. Sheffield has had a higher death-rate previously than Leeds. Its rate was also higher than that of Leeds last year. The same is true of Hull.

It will be noticed that in regard to these towns, Huddersfield, Halifax, and Bradford stand at greater elevations than Leeds. Sheffield is somewhat similarly situated, though rather more elevated than Leeds, whilst Hull stands in a flat country close to the sea. The towns with a comparatively greater elevation, the town with a similar elevation, and the town with a lower elevation all had death-rates last year higher than their average during the decade. The Yorkshire towns to the North of us, to the South of us, to the East of us, to the West of us, all increased their death-rate; ours fell.

Each of the six Yorkshire towns, except Sheffield, sends meteorological returns to the Registrar-General. In the report

for the third quarter already mentioned, Mr. Glaisher analyses the daily maximum temperatures of the principal stations for certain hot periods from the 6th to the 22nd of July, from the 29th of July to the 27th of August, and from the 3rd to the 8th of September.

In the first of these the maximum temperature in Huddersfield averaged 71·7° F., in Bradford 72·8°, in Halifax 72·9°, in Hull 74·3°, and in Leeds 75·2°. In the same order the number of days in which the temperature reached 78° was 2 in Huddersfield, on neither of these, however, did it reach 80°, 1 in Bradford, the temperature being on that one day above 80°, 2 in Halifax, on one of which the temperature exceeded 80°, 5 in Hull, on 2 of which the thermometer went above 80°, 6 in Leeds, including 2 with a temperature above 80°.

In the second period, including the end of July and the greater part of August, the average maximum temperature was 72·2° F. in Huddersfield; it was 72·8° in Bradford; 73·8° in Halifax; 72·2° in Hull, and, again the highest, 75·7° in Leeds. In Huddersfield on 6 days the thermometer was above 80°, on 1 of these above 85°, in Bradford on 5 days above 80° but never reached 85°, in Halifax on 9 days above 80°, on 2 of them above 85°, in Hull on 3 days above 80°, on 1 of which it rose above 85°, in Leeds the temperature was more than 80° on 9 days, and on 5 of these above 85°.

The average maximum temperature in the September period was 68·9° F. in Huddersfield; 69·3 in Bradford; 69·0 in Halifax; 73·2 in Hull, and 73·3 in Leeds. The number of days on which it exceeded 70° was 2 in Huddersfield, on 1 of which it rose above 75°, in Bradford it was 70° on 2, on both these occasions exceeding 75°, in Halifax the same, in Hull it was above 70° on 3 days, on 2 of them above 75° whilst in Leeds the maximum was upwards of 70° on 5 days, on 2 of which it exceeded 75°. The actual reading in

Hull on the 2 hottest days was greater than in Leeds; in the latter it was 77° and 78°, in the other 78° and 84°, but the average maximum temperature, as already pointed out, was higher in Leeds than in Hull during this period.

Shortly, in each of these three hot periods, Leeds had a higher average maximum temperature and a larger number of specially hot days than any of the other four Yorkshire towns.

Points noteworthy in regard to Leeds diarrhœa rate.—What we have seen, therefore, in regard to the diarrhœa death-rate in the third quarter is,—

That (1) in comparison with the 33 towns Leeds held a specially favourable position, having a lower death-rate than 21 out of the 33 in 1899.

That (2) taking into account the average mortality in the corresponding quarter of the preceding decade, given in regard to 28 out of the 33 towns, Leeds last year succeeded in attaining a more favourable position than 10 out of the 18 towns which in the preceding decade had the same or a lower diarrhœa death-rate than ours.

That (3) the only four towns showing a lower death-rate from diarrhœa in the third quarter of last year than they had in the third quarter of the preceding decade, included Leeds, and the fall in Leeds was proportionately greater than in 2 out of the remaining 3.

That (4) all the Yorkshire towns, except Leeds, had a higher rate last year than in the decade.

That (5) the fall in Leeds was not due to a lower temperature, as was shown by the fact that of the six Yorkshire towns, in the five who send figures to the Meteorological Office, Leeds had a higher average of maximum temperatures than any, and a larger number of specially hot days.

Possible explanation.—Unless, therefore, our more favourable position last year in regard to diarrhœa be a fortunate accident, there must be some discoverable cause for the sudden change. This cause, I am inclined to hope, will be found in the special attention paid last year to the cleansing of the town during the hot weather.

Before the weather attained anything like a high temperature, an extra amount of attention was paid to cleansing in the following respects.

(1) Instead of reducing the number of men employed in emptying ashpits to a minimum, as is apt to be done when the actual quantity in the receptacles is lessened, a greater amount of attention was given to getting rid of accumulations than has been usual during the summer months.

(2) Instead of using the occasional quantities of carbolic acid in the water carts, a weak solution of chlorinated soda was employed in the first instance, although later, owing to the complaints on the part of the men about their clothes, it was discontinued for a phenol compound.

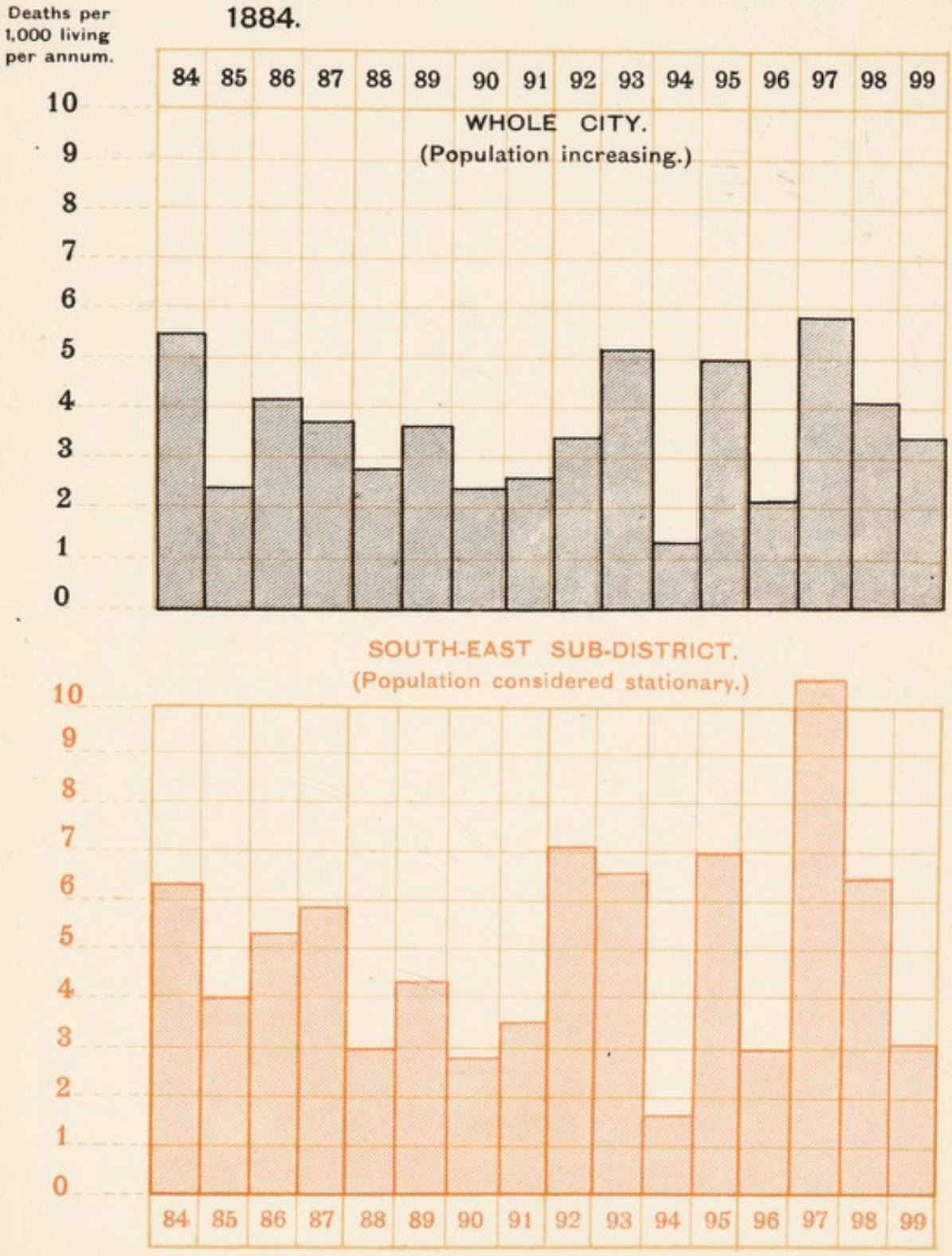
(3) Trough closets received a greater amount of attention, and this attention began earlier than in some previous years.

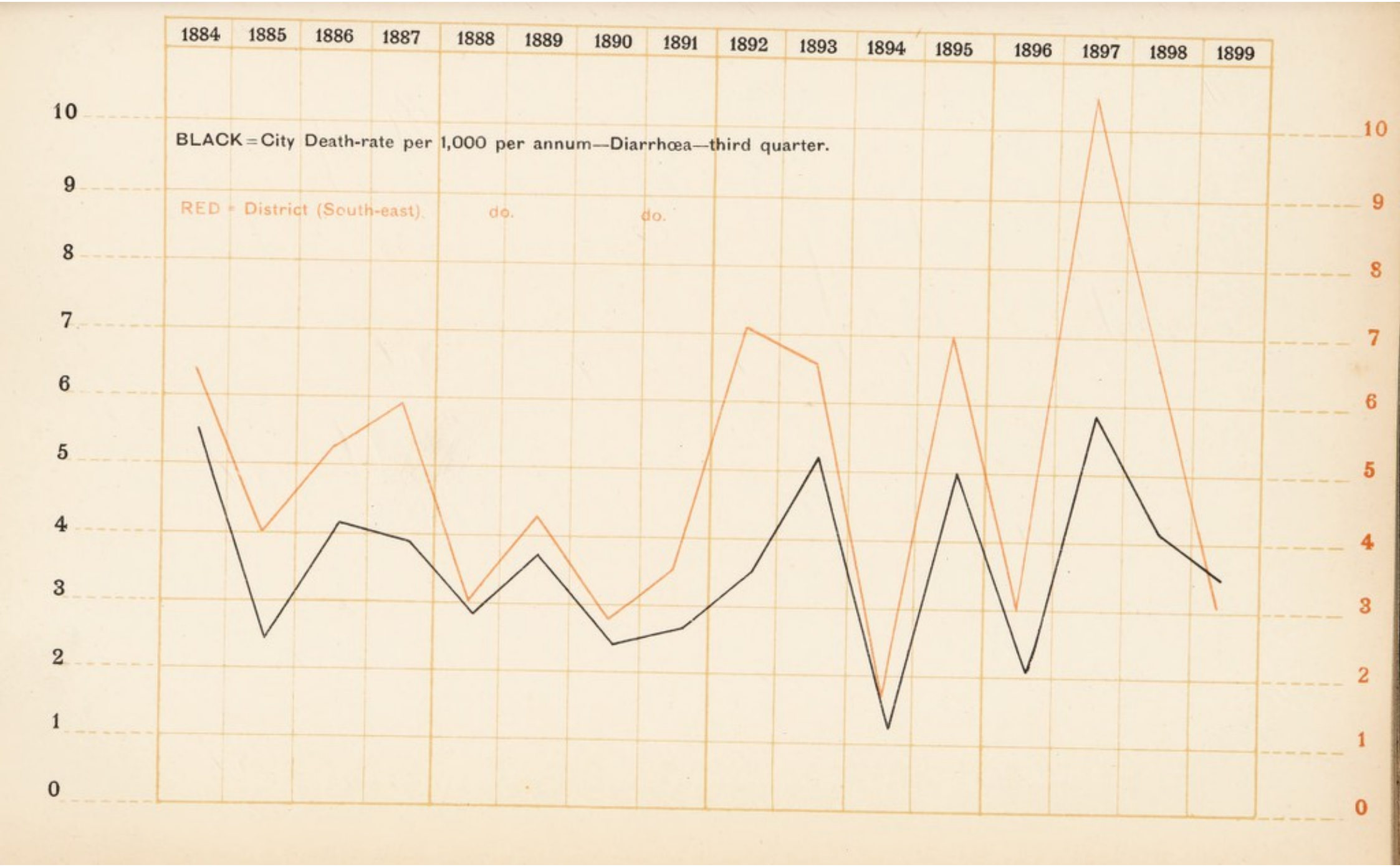
(*a*) The practice introduced rather too late the year before of placing a quantity of disinfectant in each trough at the time of its refilling was introduced earlier and continued later last year, although

(*b*) The six days' emptying which had been replaced by a seven days' emptying in all trough closets over which there was a dwelling room, was resumed, but the quantity of disinfectant added to the trough on Saturday was doubled, and the increase of quantity extended to all.

CHART

Showing for (1) Leeds City, and (2) the South-east Registration Sub-district, the Death-rate from Diarrhœa in the third quarter of each year since 1884.




1884
1885
1886
1887
1888
1889
1890
1891
1892
1893
1894
1895
1896
1897
1898
1899
BLACK = City Death-rate per 1,000 per annum—Diarrhœa—third quarter.
RED = District (South-east). do. do.
10
9
8
7
6
5
4
3
2
1
0

(4) The flushing of street gullies was carried out more effectively and thoroughly, and commenced earlier last year than formerly.

(5) The flushing of the sewers was to some slight extent carried out.

(6) A considerable quantity of chlorinated soda solution was put into the river during the hottest part of the year. For some years back we have employed manganate of soda for this purpose, but I am inclined to think that the other solution in the form of chloros is as effective and more manageable, the dissolving of the manganate being a troublesome process.

(7) The five earlier-mentioned of the above methods we pushed with a considerable amount of extra energy in the South-east registration district, one of the two districts in which diarrhœa has generally been most fatal.

DIARRHŒA FOR 16 YEARS IN SOUTH-EAST LEEDS.

Comparison of rate with that of city.—On the accompanying chart I have represented the comparative diarrhœa mortality in the whole city and in the South-east registration district for the third quarter of each year since 1884. It will be noticed, as might have been expected, that the variations in the rate of the smaller area are more marked than those in the whole city. It will be noticed also that the death-rates in the district have, with one exception, been always higher than in the city, the exceptional year having been 1899. The district curve descended nearly to the level of that of the city in the years 1888, 1890, and 1894. With two exceptions, although differing in extent it has been in the same direction as that of the city.

Differing direction of curve on two occasions.—In 1887 there was a slight diminution as compared with the previous year in the death-rate of the borough as a whole, but an

increase in that of the South-east registration district. In the year 1893, the death-rate in the whole town rose from 3·4 in the preceding year to 5·2, whereas in the South-east registration district it fell from 7·1 to 6·6. This fall was not very noticeable in itself, but was remarkable chiefly because it was only in this district that the diarrhœa rate was lower than it had been in the same quarter of the preceding year. In one district (North) it remained the same, in all the others it rose.

Three other points noteworthy.—Now putting aside the rise in 1887 of the district rate while that of the town fell, as to the cause of which I find no information in any of our records, there are three other remarkable things in connection with the death-rate in the South-east registration district: (1) The fall of the rate in that district in 1893 corresponding to a rise in the rate of the town, (2) the fall in the following year to a rate only a little above that of the town as a whole, and (3) the fall last year, 1899, to a rate below that of the whole city—the first time that such a thing occurred in any of the years to which the statistics go.

Possible explanation of foregoing.—After the heavy death-rate in 1892, already referred to, the Committee considered the desirability of specially attending to the scavenging of the town, and resolved experimentally to direct particular attention to the South-east registration district by the more systematic flushing of gullies, and the more frequent emptying of ashpits and tubs.

This greater attention was bestowed upon this district during the summers of 1893 and 1894. It was in the third quarter of 1893 that the death-rate of the district fell, notwithstanding the rise in that of the city as a whole. In 1894, which you will remember was an exceedingly healthy year, while the rate fell in both, that in the South-east registration district came down nearly to the level of the whole town.

After this the special cleansing of the South-east registration district was, however, less completely carried out. In 1897, the diarrhœa rate was again excessively high in this district, and although it fell in 1898, it was still considerably above that of the rest of the town. Last year, before the hot weather began, I impressed upon Mr. Darley the desirability of again giving our special attention to this district. This was done, and, as already said, for the first time the diarrhœa death-rate of the district fell below that of the city.

There is one other difference that was made in this district. About 1894 the Committee pressed upon the Streets and Sewerage Committee the desirability of getting rid of the deep catchpits attached to gullies in the paved streets. The removal of these gullies and the provision of "shoots" has been done here and there throughout the town, but, with exceptions due to special circumstances, it has been done universally throughout the South-east registration district. This district, as the Committee well know, is one that has had a bad record for many years back. Its mortality, not only from diarrhœa but generally, was specially mentioned in my annual reports for 1892 and 1893.

CLEANSING AND DIARRHŒA.

Was there a causal connection?—I venture, therefore, to suggest to the Committee that the information conveyed in the preceding paragraphs points somewhat in the direction of shewing that if still greater attention were paid to cleansing, we might hope for a diminution in our somewhat high diarrhœa death-rate for two reasons.

First, it has been shown that last year, when something of this kind was attempted, the autumn rate fell below the

average of the preceding ten years, while in 24 of the 27 other towns whose records are available the rate rose. In 3 towns only of the 27 did it fall. Only one of these towns, Blackburn, had a lower autumn death-rate last year than that of Leeds, but if, instead of restricting our attention to the third quarter, we had taken the whole year, it would have been found that the diarrhœa rate in Blackburn for the whole year 1899 was greater than that of Leeds.

May there not have been a causal connection between our special cleansing last year in Leeds and the circumstance that the increase in the death-rate, as compared with that of the preceding decade, in 89 per cent. of the large towns last year did not extend to Leeds although it did to other Yorkshire towns suffering less severely from the high temperature than ourselves?

Second, the apparent response in the death-rate in the South-east registration district to the special efforts made in that district in 1893, 1894, and 1899, suggests also a causal connection and strengthens the position.

Suggestion.—I am therefore inclined to recommend to the Corporation (1) that the more special cleansing of the whole town carried out last summer should be continued; (2) that particular attention be again given to the South-east registration district; and (3) that some other district be selected for a further experiment, in order that we may be able to compare the mortality in that district with that of the whole city. For this purpose it would be convenient that the district taken be if possible one of the sub-registration areas, as we shall be able to trace the diarrhœa death-rate in such case through a longer period of time.

DIARRHŒA IN CITY DURING DECADE.

In an earlier part of the report a comparison was made between the mortality from phthisis in the quinquennium 1890-1894 and that in 1895-1899. This was worked out for each in the intercepts. A similar table will be found attached, shewing the increase, or decrease, in the later, as compared with the earlier quinquennium (p. 94).

In the whole city the increase in this quinquennium had been one of 20 per cent. During the five years 1885-1889 the Leeds death-rate from diarrhœa had been 1·10, it fell in 1890-1894 to 1·00, but rose in 1895-1899 to 1·20.*

Owing to registration difficulties, and the possible under-estimate of our population, this increase of 20 per cent. may be more apparent than real. It has also to be remembered that the inclusion of a single year of heavy death-rate in any one of the periods would account for this difference. The years 1895 and 1897 were two such years of heavy mortality in the later period, whilst the year of lowest mortality in the whole decade (1894) occurred in the earlier period. It is convenient, however, to accept the apparent increase of 20 per cent.

Districts whose rate increased more than cent. per cent.— Taking this average increase in the borough, it will be found that it was very much exceeded in the part of the East ward in Osmondthorpe, with which we have combined the part of the North-east ward in Chapeltown. In this almost rural district the increase is actually 367 per cent., the deaths in the first period having been 1, in the second 11. Even with this increase,

* It will be noticed that these are annual rates. Those referred to earlier, in speaking of Leeds and other towns, were also annual rates, but they were annual rates dealing only with the third quarter—a quarter of heavy mortality. If third quarters only had been taken the increase in the rate would have been 26 per cent. instead of 20, the numbers being 2·98 in the earlier, and 4·04 in the later period.

TABLE 15.

DIARRHŒA (deaths in decade).

Registration districts.	Ward intercepts.	1890-94. Deaths.	1890-94. Death-rate per 1,000 per annum.	1895-99. Deaths.	1895-99. Death-rate per 1,000 per annum.	Increase or diminution of death-rate per cent.
EASTERN DIVISION.						
HOLBECK ...	Holbeck	135	1·19	175	1·29	+ 8
	West Hunslet	13	·55	11	·42	− 23
HUNSLET ...	West Hunslet	130	1·31	147	1·28	− 2
	East Hunslet	148	1·14	249	1·78	+ 55
	South	67	1·21	97	1·70	+ 40
SOUTH-EAST LEEDS	South	56	1·49	39	1·09	− 27
	Central	4		2		
	East	180	1·42	256	1·99	+ 40
OSMONDTHORPE	East	1	·22	2	1·05	+ 367
CHAPELTOWN ... (part of)	North-east	...		9		
	North (Chapel-Allerton ...	2	·12	4	·23	+ 96
	North (Potternewton ...	23	·54	47	·60	+ 24
NORTH LEEDS	North	110	1·36	135	1·59	+ 17
	North-east	204	1·69	222	1·78	+ 5
	Central	117	1·12	101	1·02	− 9
	Central in West	...		1		
WESTERN DIVISION.						
WORTLEY ...	New Wortley	81	·83	165	1·68	+ 102
	Armley	85	·79	139	1·08	+ 37
	Wortley	24		37		
	Bramley (Farnley) ...	5	·27	6	·28	+ 6
BRAMLEY ..	Bramley	44	·59	75	·94	+ 60
KIRKSTALL ...	Kirkstall	14	·69	15	·70	+ 2
	Burley	78		108		
	Headingley	15		24		
CHAPELTOWN ... part of)	Headingley (Meanwood)...	1	·25	2	·18	− 28
	North-west	1		...		
	Brunswick	2		2		
WEST LEEDS ...	Brunswick	59	·56	119	1·11	+ 99
	North-west	126	·87	148	·95	+ 9
	Mill Hill	17	·37	20	·47	+ 25
	West	133	1·07	106	·85	− 21

however, the rate only rose to 1·05; a lower rate than that of the whole city in the later period, which, as already said, was 1·20. The increase was 102 per cent. in New Wortley but in this case the rate in the later period rose above the rate of the borough. The population of this ward is nearly stationary, and about 47 to the acre. (See table p. 50).

Districts whose rate increased 50 to 100 per cent.—In the Leeds part of the Brunswick ward the rate 1·11 in the later period, though still below that of the city, was 99 per cent. above the earlier rate. The population in this ward was also nearly stationary, although denser than in New Wortley.

The Chapel-Allerton part of the North ward is considered as having increased its death-rate 96 per cent. The deaths from diarrhœa were 2 in the earlier and 4 in the later period, corresponding on the altered population to rates of 0·12 and 0·23—the district is too thinly populated for us to attach much importance to variations of this kind. There were 14 inhabitants for every ten acres in the earlier, 15 in the later period.

The rate in Bramley township increased 60 per cent., but even the higher rate was considerably below that of the city. The 6 per cent. increase in the population of the township left the ratio of persons per acre (6 : 1) practically unaltered.

In East Hunslet the rate had increased 55 per cent Both rates were above those for the corresponding periods in the city as a whole. The increase of 8 per cent. in population corresponded to an increase from 24 to 26 persons per acre. The real density of population is much greater than this in the northern part of the district. The southern part is very sparsely inhabited.

Districts with increased rates of 20 to 50 per cent.—Two districts, the South ward part of Hunslet, and the South-east

registration part of the East ward, increased their rates 40·5 and 39·7 per cent. respectively. The former had a rate in the earlier period slightly above that of the city in the later, or higher rate period, and in that period a rate, therefore, of more than 40 per cent. above that of the city.

The East ward (in Leeds) had a still higher diarrhœa rate, and had also increased its rate at double the increment in the whole city. The population was practically stationary, 38 per acre in each period. Here also the figure for the whole intercept is misleading. On some portions of the Bank the density is much above 38 per acre, but the intercept includes the thinly peopled district where Cross Green runs into Knostrop.

Armley and Wortley had a rate below that of the city in both quinquennia—considerably so in the first, only slightly so in the second—the increase in the rate having been 37 per cent., as against 20 per cent. in the city. The population rose from 17 to 20 per acre. The district is not a crowded one at any part, but the new houses are far from evenly distributed over the area.

Mill Hill is a small district with a low death-rate, but it added, to its rate in the earlier period, 25 per cent. in the second. This is a little in excess of the average city increase. The population is a somewhat uncertain quantity, but according to our estimate it decreased 6 per cent., and the population per acre fell from 39 to 37. The diarrhœa rate, however, even in the second and higher period, was only a little more than a third of that of the town.

The portion of the North ward in Potternewton had also a low death-rate, little more than half that of the city in both periods—but its increase was 24 per cent. The population is estimated to have increased 65 per cent., and the density per acre from 16 to 27:—a large increase in population without much greater increase in mortality from diarrhœa than the average of the town.

Districts whose increase was less than the city average.—The Leeds portion of the North ward increased 17 per cent., instead of 20, but the rates in both periods were above those of the city. It is one of the more densely populated of the intercepts, and had increased its population 5 per cent., from 100 to 105 persons per acre in the interval. This is a district in which a great many new houses were built a few years ago with the old fashioned midden closet accommodation.

The Leeds portion of the North-west ward had a lower rate than the city in both periods. Its death-rate, however, increased 9 per cent., though that is less than half the rate of increase in the city. The increase in persons per acre was from 56 to 61. The population had increased 8 per cent.

Holbeck had a higher death-rate than the district last named; 19 per cent. above the city rate for the earlier quinquennium, but only slightly above that of the later. Its increase was only 8 instead of 20 per cent. The population rose from 45 to 54 per acre, and increased 20 per cent.

Farnley and the Leeds portion of the North-east ward are very different both in their rates from diarrhœa and their surroundings, but they are similar in regard to their increase of rate, which was 6 in the former, 5 in the latter district, as again 20 per cent. in the whole town. Farnley is estimated as having only two persons per acre in either period, and its death-rate rose from 0·27 to 0·28. The earlier rate was a little more than a quarter of the rate in the whole town, the later a little less. The North-east portion of Leeds increased its population from 76 to 78 persons per acre, and its diarrhœa death-rate from 1·69 to 1·78, or 5 per cent., only a fourth of the increase in the city.

Kirkstall, a somewhat large district for our purpose, which unfortunately at present I am unable to subdivide, had in its

whole area 10 persons per acre in 1892, and 12 in 1897. This proportion was much exceeded in parts of Burley and Kirkstall proper. Its death-rate was 0·69 in the earlier, and 0·70 in the later period, a rise of 2 per cent.:—only a tenth of the rise in the whole city.

Districts which decreased their rate.—An actual decrease occurred in the Hunslet part of the West Hunslet ward, which diminished its diarrhœa rate 2 per cent., notwithstanding its increase of population from 67 to 77 persons per acre. The rate had been considerably higher than that of the city in the earlier, but was only slightly so in the later period. It may be remembered that the death-rate of this district from phthisis diminished 19 per cent. in the same interval.

West Hunslet, in Holbeck, decreased its death-rate 23 per cent., while it increased its population 10 per cent., but even with this increase there were only 5 persons per acre. It is evident that building had taken place into the surrounding country.

The portion of the Central ward in the North and West Leeds registration districts diminished its death-rate 9 per cent. The earlier rate was 12 per cent. above that of the city. The rate for the second period was 15 per cent. below the later city rate. The population had also decreased about 4 per cent., and the density of population fell from 120 to 116 per acre. This intercept had the highest estimated population per acre in the city.*

The West ward, with 88 persons per acre in 1892, and 89 in 1897, lowered its diarrhœa deaths from 1·07 to 0·85, or 21 per cent. The former rate was practically that of the

* It will be noticed that the persons per acre are for complete intercepts. In the Annual for 1890, pp. 2 and 3, it was shown that the triangular area, bounded by Quarry Hill, Marsh Lane, and the Lady Beck, had a population of 203 persons per acre, and that certain plots discribed within the area had densities of 217, 274, and 314.

TABLE 17.

Shewing the deaths of persons under and over five from certain causes in each quarter of 13 weeks, and in the 52 weeks of the year 1899.

1899.	Thirteen weeks ended April 1st, 1899.		Thirteen weeks ended July 1st, 1899.		Thirteen weeks ended Sept. 30th, 1899.		Thirteen weeks ended Dec. 28th, 1899.		Fifty-two weeks ended Dec. 30th, 1899.		Total.
	− 5	+ 5	− 5	+ 5	− 5	+ 5	− 5	+ 5	− 5	+ 5	All ages
Small-pox	...	...	...	...	...	...	...	...	...	...	...
Measles	39	3	40	1	37	...	35	1	151	5	156
Scarlatina	9	7	10	6	8	10	5	9	32	32	64
Diphtheria	36	39	27	18	40	34	54	51	157	142	299
Croup (membranous & undefined)	13	4	6	5	6	2	12	2	37	13	50
Whooping-cough	17	...	27	2	60	1	51	1	155	4	159
Continued fever. — Typhus	...	...	...	...	...	...	...	...	...	...	...
Continued fever. — Enteric	...	16	..	13	2	16	1	21	3	66	69
Continued fever. — Other or doubtful	...	1	...	1	1	...	...	1	1	3	4
Diarrhœa and dysentery ..	2	...	13	4	356	5	23	1	394	10	404
Cholera ¶	...	...	...	...	2	1	...	...	2	1	3
Rheumatic fever	...	3	...	2	...	1	...	...	...	6	6
Acute and sub-acute rheumatism	...	3	...	4	...	5	1	4	1	16	17
Erysipelas...	1	4	2	2	1	2	3	1	7	9	16
Pyæmia	...	1	...	...	...	2	1	...	1	3	4
Puerperal fever	...	3	...	...	...	1	...	2	...	6	6
Ague	...	...	...	...	...	...	...	...	...	...	...
Phthisis	5	178	7	133	4	126	3	140	19	577	596
Other tuberculous diseases ...	56	14	52	28	68	28	45	20	221	90	311
Bronchitis, pneumonia, and pleurisy	189	265	151	185	99	98	214	194	653	742	1395
Other diseases of the air-passages	12	21	4	15	7	11	3	22	26	69	95
Influenza	1	45	...	31	1	...	2	1	4	77	81
Heart disease	1	174	3	138	...	130	3	142	7	584	591
Other diseases of the circulatory system	...	12	...	8	...	5	...	7	...	32	32
Injuries	12	61	10	65	11	41	8	47	41	214	255
Other causes	370	536	345	451	477	432	359	522	1551	1941	3492
Total under 5	763		697		1180		823		3463		
Total over 5	...	1390		1112		951		1189		4642	
TOTAL ALL AGES	2,153		1,809		2,131		2,012		8,105		8105

¶ English.

borough, the latter nearly 30 per cent. below. As the borough death-rate had increased 20 per cent., the comparative improvement of the West ward is all the more striking.

The South and Central wards part of the South-east registration district had a fall in its diarrhœa rate from 1·49 to 1·09, or 27 per cent. The population of the district fell 7 per cent., and was 49 per acre in 1892, and 46 in 1897.

Another extremely rural district is the "strip" taking in the Chapel-Allerton part of Headingley, and the Potternewton portions of the North-west and Brunswick wards. This district had increased its population from 3 to 5 persons per acre, and had decreased its very low diarrhœa death-rate from 0·25 to 0·18, or 28 per cent.

The approximate persons per acre of the intercepts will be found in the table on page 50.

OTHER DISEASES.

Rheumatic fever, with acute and sub-acute rheumatism was responsible for 0·05 deaths per 1,000 of the population the same as in 1898. Erysipelas, pyæmia, and puerperal fever had 0·06, against 0·09. Ague caused no death, though two had been returned in 1898. Influenza was credited with a rate of 0·19, against 0·12 in the previous year. Diseases of the heart and circulatory system had a rate of 1·43, against 1·40. Injuries caused a rate of 0·60, against 0·62, whilst the "other causes," of which particulars will be found in table C caused a rate of 8·26, against 8·55.

NOTIFICATION OF DISEASE.

In the table are given the number of cases notified under The Infectious Diseases (Notification) Act, for the three years 1897-1899, also the number of deaths registered from the same diseases in the same years.

TABLE 18.

Shewing death-rate per 1,000 of the estimated population from certain causes and groups of causes, and for the periods of time dealt with in the preceding table.

1899.	I.	II.	III.	IV.	Year.
Small-pox	..	...	...	...	..
Measles	0·40	0·39	0·35	0·34	0·37
Scarlatina	0·15	0·15	0·17	0·13	0·15
Diphtheria	0·71	0·43	0·70	0·99	0·71
Croup (membranous & undefined)	0·16	0·11	0·08	0·13	0·12
Whooping-cough	0·16	0·27	0·58	0·49	0·38
Continued fever. Typhus	...	...	...	...	...
Continued fever. Enteric	0·15	0·12	0·17	0·21	0·16
Continued fever. Other or doubtful ...	0·01	0·01	0·01	0·01	0·01
Diarrhœa and dysentery ...	0·02	0·16	3·42	0·23	0·96
Cholera ¶	...	...	0·03	...	0·01
Rheumatic fever	0·03	0·02	0·01	...	0·01
Acute and sub-acute rheumatism	0·03	0·04	0·05	0·05	0·04
Erysipelas	0·05	0·04	0·03	0·04	0·04
Pyæmia	0·01	...	0·02	0·01	0·01
Puerperal fever	0·03	...	0·01	0·02	0·01
Ague	...	...	...	...	...
Phthisis	1·73	1·33	1·23	1·35	1·41
Other tuberculous diseases ...	0·66	0·76	0·91	0·62	0·74
Bronchitis, pneumonia, and pleurisy	4·30	3·18	1·87	3·86	3·30
Other diseases of the air-passages	0·31	0·18	0·17	0·24	0·23
Influenza	0·44	0·29	0·01	0·03	0·19
Heart disease	1·66	1·34	1·23	1·37	1·40
Other diseases of the circulatory system	0·11	0·08	0·05	0·07	0·03
Injuries	0·69	0·71	0·49	0·52	0·60
Other causes	8·58	7·53	8·61	8·34	8·26
ALL CAUSES	20·39	17·13	20·18	19·05	19·19

¶ English.

In 1895, the first complete year of notification, the cases of scarlet fever heard of were 874. They increased to 1,216 in 1896, to 1,791 in 1897, and then, as shown in the table, to 2,002 in 1898, decreasing last year to 1,620. During the first half of 1900 they have been 677.

Diphtheria, as we have already said, has continued to increase, but it will be noted that the deaths have not gone up in anything like the same proportion. The number of cases now returned as membranous croup is comparatively small. Even if they are added to the diphtheria cases they

Notifications since 1897.

Disease.	Cases notified.			Deaths registered.		
	1897.	1898.	1899.	1897.	1898.	1899.
Small-pox	...	5	1	...	2	...
Scarlet fever	1,791	2,002	1,620†	95	121	64
Diphtheria	180	853*	1,755‡	51	203	299
Membranous croup ...	30	38	43	23	26	36
Typhus fever ...	1	...	2	...	...	...
Typhoid fever ...	479	539	491	83	92	69
Continued fever ..	1	3	5	2	1	1
Puerperal fever ...	29	28	24	15	15	6
Erysipelas	330	345	401	20	12	16
Notifiable	2,841	3,813	4,342	289	472	491
Other (chiefly doubtful)	69	74	112	¶	¶	¶

* Excluding one. † Including two. ‡ Including three members of the staff at Manston Hall. ¶ To give either the deaths amongst "other diseases," or the whole deaths from other diseases in the city would be misleading, therefore they are omitted.

do not materially affect what has been just said. Together the cases of the group were four times as many in 1898 as in 1897, and the deaths three times. In 1899 the cases more than doubled, whilst the deaths increased a third.

Cases of continued fever did not vary very much, they were 481, 542, and 498 in the three years, whilst the deaths were 85, 93, and 70. In 1895 and 1896 the cases had been 443 and 482, and the deaths 86 and 87. The tendency had been to a slight increase towards 1898, since which time there has been a slight fall. The fall in the deaths is more conspicuous than the fall in the cases, and it is probable that in all notifiable diseases there is an increasing tendency to notify slight cases. It is better that these cases should be notified, but it is well to remember that the increase in the numbers notified does not necessarily imply an increase of disease.

PART III.—HEALTH OF DISTRICTS.

So much has been said under the head of phthisis and diarrhœa about the mortality in intercepts in the first and second five years of the decade, and about the case-rates last year in these intercepts from scarlet fever, diphtheria, and typhoid, and the intercept death-rates from diarrhœa, that I do not propose to dwell largely upon the health of districts. It may be convenient, however, to remind you how the populations dealt with, both for intercepts, wards, and registration districts, have been obtained.

Population.—Last year a full description was given of how the populations for that year were obtained. I hoped to have been able to dispense with any alteration of plan, but found that in some of the districts, which were actually decreasing, an apparent increase of population would have been claimed in 1899 if the same practice had been pursued, and thought it desirable, therefore, to modify the method. Accordingly, taking

the number of houses in each intercept counted for 1898, we increased or decreased the census population of the intercept at the same rate at which the houses had increased or decreased. When these fictitious populations were added together the result was in excess of the Registrar General's population for the year. Up to this point the method was to all intents and purposes the same as last year's. Instead, however, of diminishing the fictitious populations for 1898 proportionately to their amounts, we have in each case substracted the census population from the fictitious population, and increased or diminished the latter proportionately to these differences. The results vary very little, so far as 1898 is concerned, from those given last year, but in dealing with 1899 the difference is considerable. Using these differences between the census and the "fictitious" populations. we have increased or diminished the newly accepted populations for 1898 again proportionately to these differences, but so as to make the total correspond with the population for 1899,* accepted by the Registrar General. In the same way the populations for 1892 and 1897, used in the decade tables for phthisis and diarrhœa, have been obtained.

---

* Suppose the census population of the city to be P, and to be made up of the intercept populations A + B + C + D + &c , = P. Suppose the population for 1898 to have increased to P_2 by geometrical progression, and what is called above the "fictitious" populations of intercepts, to amount also on geometrical progression, from ratios of increase in dwelling-houses to A_2, B_2, C_2, D_2, &c., the sum of the latter amounting to S. If $S = P_2$ no correction is of course required. If not (and as a rule in Leeds S exceeds P_2), then subtract P_2 from S, and call the difference Q. In the same way subtract the census from the "fictitious" population of each intercept, and let the differences be a, b, – c, d, &c. Adding these differences (algebraically), use their sum as divisor of the difference, thus: Q ÷ (a + b – c + d + &c.) The quotient is now multiplied by a, b, – c, d, &c., separately, and the product of each operation is the correction for the fictitious intercept population, and has to be subtracted from it. It will be noticed that one of the intercept differences, $C_2 - C$, is supposed to be – c. That is, the population of the intercept was decreasing. Subtracting the correction – c from C_2 is really adding it. In obtaining the 1899 intercept populations from those for 1898, the increase of the whole city between 1898 and 1899 was divided by (a + b – c + d + &c.), and the quotient multiplied by a, b, – c, d, &c. The results were then added to the corrected intercept populations for 1898, observing of course the algebraic signs. The populations for 1892 and 1897 used in the decade tables were obtained similarly.

TABLE 19.

Table shewing deaths in the four quarters of 1899, for each Municipal Ward, with the re-estimated population and the death-rate of the ward for the Year.

Municipal Wards.	Population, estimated to middle of 1899.	First Quarter, 1899.	Second Quarter, 1899.	Third Quarter, 1899.	Fourth Quarter, 1899.	Fifty-two Weeks.	Death-rate.
Central	21,252	94	106	75	92	367	*17·5*
North	37,323	181	117	143	137	578	*15·0*
North-East	27,435	185	122	184	141	632	*22·8*
East	26,387	189	143	176	172	680	*25·8*
South	17,241	110	81	94	94	379	*22·1*
East Hunslet ...	28,920	135	145	161	132	573	*19·6*
West Hunslet ...	29,701	121	108	154	123	506	*16·7*
Holbeck	29,038	149	119	173	168	609	*20·4*
Mill Hill	8,369	45	32	24	41	142	*17·3*
West	25,185	132	130	129	129	520	*20·6*
North-West... ...	32,214	147	113	129	122	511	*15·7*
Brunswick	25,032	94	84	100	103	381	*15·1*
New Wortley ...	19,643	94	82	102	84	362	*18·5*
Armley & Wortley	34,508	156	150	185	196	687	*19·4*
Bramley	20,800	96	80	105	94	375	*17·8*
Headingley	40,841	180	150	148	144	622	*14·8*
Outsiders	...	45	47	49	40	181	..
Totals	423,889	2,153	1,809	2,131	2,012	8,105	*19·2*

The populations in the second columns, on which the rates in the last column have been calculated, differ from those used for the calculation of the rates in table E, parts 2, 3, 4, and 5.

It is not contended that this method is without its fallacies. It assumes, in the first place, that the increase of the population has been uniform during the nine years. It assumes, in the second place, that the populations of the whole city, obtained by the Registrar General by geometrical progression, are correct. Both these assumptions are probably somewhat daring.

The ward and district populations are obtained from those of the intercepts by exactly the same method as last year.

(1) Municipal wards.

The total death-rate in the municipal wards varied from 14·8 in the Headingley, 15·0 in the North, and 15·1 in the Brunswick ward, to 22·1 in the South, 22·8 in the North-east, and 25·8 in the East ward. In these figures the deaths of outsiders are omitted, those of Leeds people in public institutions are allocated to the wards from which they came.

(2) Registration sub-districts.

In tables 20 and 21 the deaths and the estimated death-rates for each district have been given. In these tables, as in table 19, the deaths, in public institutions within the city of persons belonging to the town, have been referred to the district to which they belong. Those of outsiders, in no way connected with the town, amounting, as will be seen, to 181, have been omitted, but the groups to which their illnesses belong are indicated in a footnote.

The death-rate of the districts varied from 12 per 1,000 in Chapeltown to 25 in South-east Leeds. As compared with the preceding year, the death-rate was lower in each district except Hunslet, Holbeck, Kirkstall, and Bramley. In Hunslet the

TABLE 20.

Shewing the number of deaths from certain specific causes and groups of causes in the 52 weeks of 1899 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.	Diarrhœa.	All seven.	Croup.	Phthisis.	Influenza and diseases of the air-passages other than consumption.	All other causes.	All causes.
Leeds, North	...	47	2	29	12	14	75	179	16	123	257	685	1260
,, West ...	...	28	11	31	20	11	61	162	8	140	301	937	1548
,, South-E.	...	44	5	5	17	11	31	113	1	70	172	467	823
Hunslet	..	7	16	49	45	11	98	226	1	68	227	743	1265
Holbeck ...	...	6	7	52	17	6	30	118	7	42	127	380	674
Wortley	...	6	12	73	30	6	58	185	9	57	207	650	1108
Kirkstall ...	...	8	10	20	9	6	26	79	2	46	114	361	602
Bramley	...	4	1	29	5	2	16	57	5	27	63	163	315
Chapeltown ...	...	6	...	10	4	3	12	35	1	14	68	204	322
Osmondthorpe	...	...	...	...	...	1	...	1	...	1	3	2	7
City of Leeds	...	156	64	298	159	71	407	1155	50	588	1539	4592	7924

One death from diphtheria, 2 from "fever," 8 from phthisis, 9 from influenza and diseases of the air-passages other than consumption, and 161 deaths from other causes, occurred in the City of persons not belonging to Leeds; on the other hand 90 deaths occurred during the year of Leeds persons in West Riding Asylums, outside the borough. Of these 17 were from phthisis, 11 from the lung groups, and 62 from other causes.

rate in 1899 was 19·6, against 18·1* in 1898; in Holbeck 19·6, against 17·4;* in Kirkstall 15·2, against 14·2; and in Bramley 19·3, against 18·6.

In Hunslet the rate from diphtheria and whooping cough had been higher than in 1898, and though the rate from "fever" was much lower, the seven disease rate was 3·50, against 2·98. The death-rates from croup and consumption were lower, but from influenza and diseases of the air-passages higher than the previous year. The rate in the remaining group of "other causes" was also higher.

In Holbeck, diphtheria and whooping cough again caused an increased mortality last year. Although the zymotic rate from measles, scarlatina, "fever," and diarrhœa was less than in 1898, the rate from the seven diseases was 3·43, against 2·83. From consumption the rate was also higher, as was that from influenza and lung diseases. The "other cause" groups had also a rate slightly higher. The total death-rate was 2 per 1,000 above that of 1898.

Although the Kirkstall rate was 1 per 1,000 higher than in 1898, both rates were considerably below that of the town. The zymotic group caused fewer deaths. It was principally in the lung disease and other cause-groups that the increase took place.

Bramley had a death-rate above that of the town, and one a little less than 1 per 1,000 higher than the previous year's. The zymotic rate was 3·50, against 2·43 in 1898. Though the rates from measles and scarlet fever were below, that from diphtheria was far above that of the preceding year.

* Owing to an error due chiefly to change of boundaries, the populations of Holbeck and Hunslet were given in the 1898 report as 30,545 and 66,817, instead of 33,733 and 63,629. The death-rates in table 21 (1898) for Holbeck should be reduced nearly 9½, and those for Hunslet increased just over 5 per cent. This correction has been made in the figures given in the text. The rates in Part II. of the 1898 report, and those in Part III. referring to Municipal Wards, were calculated on the more correct estimates.

TABLE 21.

Shewing the mortality stated in deaths per 1,000 of the population of the Sub-Districts, as estimated to the middle of 1899.

	Small-pox.	Measles.	Scarlatina.	Diphtheria	Whooping-cough.	"Fever."	Diarrhœa.	All seven.	Croup.	Phthisis.	Influenza and diseases of the air-passages, other than consumption	All other causes.	All causes.
Leeds, North	...	0·76	0·03	0·47	0·19	0·23	1·22	2·90	0·26	1·99	4·17	11·11	20·44
,, West	...	0·32	0·13	0·36	0·23	0·13	0·70	1·86	0·09	1·61	3·45	10·76	17·76
,, S. E.	...	1·33	0·15	0·15	0·51	0·33	0·94	3·41	0·03	2·11	5·20	14·11	24·86
Hunslet ...	...	0·11	0·24	0·76	0·70	0·17	1·52	3·50	0·02	1·05	3·52	11·52	19·61
Holbeck ...	...	0·17	0·20	1·51	0·49	0·17	0·87	3·43	0·20	1·22	3·69	11·06	19·60
Wortley ...	...	0·10	0·21	1·25	0·51	0·10	0·99	3·17	0·15	0·98	3·54	11·13	18·97
Kirkstall ...	...	0·20	0·25	0·51	0·23	0·15	0·66	2·00	0·05	1·16	2·88	9·13	15·24
Bramley ...	...	0·25	0·06	1·78	0·31	0·12	0·98	3·50	0·31	1·66	3·87	10·00	19·34
Chapeltown	...	0·22	...	0·37	0·15	0·11	0·44	1·30	0·04	0·52	2·52	7·56	11·94
Osmondthrp	...	...	...	...	...	2·17	...	2·17	...	2·17	6·51	4·34	15·20
City of Leeds	...	0·37	0·15	0·71	0·38	0·17	0·96	2·73	0·12	1·39	3·64	10·87	18·76

[1]One death from diphtheria, 2 from "fever," 8 from phthisis, 9 from influenza and other diseases of the air-passages other than consumption, and 161 deaths from other causes, occurred in the City of persons not belonging to Leeds.

Whooping cough was also more fatal, although "fever" and diarrhœa were less so. "Croup" caused nearly three times as high a rate as in the preceding year, and consumption exacted a heavier toll, as did also the group of lung diseases. The rate in the miscellaneous group was lower.

In Osmondthorpe the death-rate from fever looks alarming —2·17. A reference to table 20 shows that it was due to a single death.

Fuller particulars as to the deaths in each district will be found in table C in the appendix.

(3) Areas specially investigated.

It is perhaps convenient here to refer again to the increased amount of house-to-house work which is being attempted. The new arrangements have not been made sufficiently long to tell very much statistically, but an attempt is being made in regard to each ward to push the systematic examination of one portion forward, and to include the drain testing of every house in the district examined.

In an earlier part of the report allusion has been made to the special work done in the Holbeck area. Portions of the Mill Hill and West wards, towards the close of the year, were visited by the Areas Sub-Committee, and during the current year some slight progress has been made by negotiating with owners for certain improvements.

Intercepts.—Comparing the five later with the five earlier years of the decade, 1890-99, it will be seen from the phthisis table, and from table 15, that in the Holbeck registration district phthisis had diminished in the part of the district in the ward only to the extent of 3 per cent., whilst the diarrhœa death-rate had increased 8 per cent., though that was less than the increase in the city as a whole. In the part of the district in the

West Hunslet ward the decrease in consumption had been more considerable, 32 per cent., and there had been a decrease in the diarrhœa death-rate of 23 per cent., while the city increased its rate 20 per cent. Judging by these two diseases therefore, the Holbeck registration district may be said to be in a more favourable position as to both its intercepts at the end of the decade than at the beginning.

In Hunslet the phthisis death-rate had decreased in the remaining portion of West Hunslet and in the portion belonging to the South ward, but in East Hunslet the rate had increased. The diarrhœa rate had also increased 55 per cent., the average increase of the town having been 20. In the South ward portion of the district, the diarrhœa increase was also double that of the town, whilst in the West Hunslet portion of the district the rate had varied very little.

In the South-east registration district, which it will be remembered had the highest death-rate from all causes of any district in the borough, the phthisis death-rate had increased in the small portion of the South and Central wards surrounding the river, and which we have bracketted together, whilst the diarrhœa death-rate in this bracketted portion had decreased 27 per cent., notwithstanding the increase in the city as a whole. The East ward portion of the district, by far the most populous, was stationary as to consumption, but had increased its diarrhœa rate with an increment double that of the city.

In Osmondthorpe the rates on the small numbers are misleading. There were two deaths from consumption in the five earlier, two also in the five later years, one from diarrhœa in the earlier, two in the later years. Grouping, however, the Harehills portion of the North-east ward with the township of Osmondthorpe the phthisis mortality had increased 70, and the diarrhœa mortality 367 per cent. As both rates, even at their worst, were below that of the town, it is perhaps not necessary to dwell upon them.

The Chapeltown registration district contains a portion of the North ward, partly in Chapel-Allerton, partly in Potternewton. The phthisis rate had dropped 45 per cent. in the former, and that from diarrhœa had increased 96. In the latter the phthisis death-rate was practically stationary, whilst the diarrhœa death-rate had increased slightly more than that of the city as a whole. The rates, however, in both cases compare favourably with those of the city generally. The part of Chapel-Allerton in Headingley, and the part of Potternewton in the North-west and Brunswick wards, had decreased both their diarrhœa and phthisis rates—the former 28, and the latter 22 per cent.

North Leeds had somewhat diminished its death-rate from phthisis, and somewhat increased its rate from diarrhœa, though in the latter case not to the same extent as in the town. The portion of North Leeds in the North ward dropped its phthisis rate 27 per cent., but increased its diarrhœa rate 17 per cent., the increase in the town being 20. The North-east ward portion of North Leeds lessened its phthisis rate only 8 per cent., but the increase in its diarrhœa rate of 5 per cent. may be looked upon as a slight gain as compared with the town. In the remaining part of the Central ward the phthisis death-rate was stationary, the diarrhœa death-rate had actually dropped.

In West Leeds the phthisis death-rate had decreased ; the diarrhœa death-rate had increased. In the Brunswick ward portion of the district, the former was 9 per cent. less, the latter 99 per cent. more in the second as compared with the first quinquennium. The North-west ward portion had increased its rate 7 per cent. from consumption, and 9 per cent. from diarrhœa, whilst Mill Hill lessened its phthisis 24, and increased its diarrhœa rate 25 per cent., the West ward diminished both, the phthisis rate 10, the diarrhœa rate 21 per cent., the latter, as compared with the town as a whole, being a considerable gain.

In Kirkstall there was comparatively little change, the phthisis rate having dropped 6, the diarrhœa rate increased 2 per cent.

Bramley township increased both its rates, the phthisis 6, the diarrhœa 60 per cent.

The Bramley portion of Wortley (Farnley) increased its phthisis rate 35, its diarrhœa rate 6 per cent., the latter, however, only reached 0·28 per 1,000, against 1·20 in the town. Armley and Wortley diminished its phthisis rate 29, but increased its diarrhœa rate 37 per cent. In both cases the final rate was below that of the city. New Wortley, the statistics of which we pretty carefully considered in the report for 1898, diminished its phthisis rate 16 per cent., but doubled its death-rate from diarrhœa in the same interval.

(4) Other local factors.

House conditions and diseases.

Alteration of disease groups. — Table 25 differs a little from the table of the same number in any previous year. In the first place, owing to the introduction of a larger amount of systematic house-to-house visitation, we have excluded from the list houses visited on account of the presence of whooping cough, the three forms of pneumonia, pleurisy, with its outcomes, and influenza, feeling that with a more vigorous house-to-house examination it will be better to save the inspectors' time by allowing the houses in which fatal cases of these diseases occurred to be examined in their regular topographical rotation. Owing to a misunderstanding a few cases of deaths from septic poisoning have also been omitted The diseases named, therefore, in the table are those of a more strictly zymotic class than some included in the earlier years. It will be remembered that the diseases now left out were only heard of through the death returns.

TABLE 25.

Shewing case-houses examined on account of certain diseases heard of during 1899, 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, 1899.
	Inside. FV.		Inside. not FV.		Outside.		T.W.C.		M. or P.		
	def.	not	def.	not	def.	not	def.	not	def.	not.	
Through ...	...	...	...	...	...	...	...	...	...	...	Smallpox ... ...
Back-to-back ...	...	...	...	...	...	...	...	...	...	...	
Through ...	1	99	1	49	1	173	...	26	2	52	Scarlet fever ... ...
Back-to-back ...	...	16	...	19	2	201	...	169	1	143	
Through ...	19	57	11	21	20	152	1	24	11	83	Diphtheria ... ...
Back-to-back ...	8	27	10	18	44	208	14	147	41	197	
Through ...	...	...	...	1	1	2	...	2	...	1	Membranous Croup ... ...
Back-to-back ...	...	1	...	...	...	6	1	3	1	5	
Through ...	...	...	...	...	1	1	...	...	...	...	"Croup" ... ...
Back-to-back ...	...	1	...	...	...	4	...	2	...	...	
Through ...	...	...	...	...	...	...	...	...	...	...	Typhus fever ... ...
Back-to-back ...	...	...	...	...	...	...	...	...	...	...	
Through ...	5	6	6	9	6	44	...	9	5	8	Typhoid fever ... ...
Back-to-back ...	1	1	1	6	5	58	2	53	12	35	
Through ...	...	3	...	...	1	...	...	...	...	...	Continued fever ... ...
Back-to-back ...	...	...	...	1	...	...	...	...	...	...	
Through ...	...	13	1	6	1	35	...	7	...	7	Erysipelas ... ...
Back-to-back ...	...	2	1	7	...	45	.	43	...	30	
Through ...	...	2	...	...	...	1	...	...	...	1	Puerperal fever... ... ...
Back-to-back ...	...	...	...	...	..	2	...	3	...	1	
Through ...	...	3	...	...	...	7	...	2	...	2	Measles: death-houses ...
Back-to-back ...	...	4	...	1	...	19	...	41	...	14	
Through ...	...	15	...	7	...	46	2	9	...	17	Measles: recovery houses ...
Back-to-back ...	...	3	...	8	...	51	...	54	1	36	
Through ...	...	1	...	...	...	...	...	1	...	...	Measles: recoveries in death-houses ... ...
Back-to-back ...	...	...	...	...	...	2	...	4	...	3	
Through ...	...	5	...	3	1	23	1	10	...	6	Diarrhœa ... ...
Back-to-back ...	...	8	...	5	...	55	2	55	...	48	
Through ...	...	...	...	...	...	2	...	1	1	2	Laryngitis ... ...
Back-to-back ...	...	...	...	...	1	2	...	...	...	4	
Through ...	25	204	19	96	32	486	4	91	19	179	
Back-to-back ...	9	63	12	65	52	653	19	574	56	516	
Both	34	267	31	161	84	1139	23	665	75	695	

TABLE 25.—*Continued.*

	1	2	3	4	5	6	7	8	9	10	11	Cases.		Total deaths in City.
	Drains not severed.													
	Water-closet.													
	Inside. F.V.		Inside. not F.V.		Outside.		T.W.C.		M. or P.		No drain	Alive.	Dead.	
	def.	not	def.	not	def.	not	def.	not	def.	not				
Through	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Back-to-back ...	...	...	...	...	...	...	...	...	...	..	...			
Through ...	...	13	2	14	2	46	...	16	...	26	3	1605	3	64
Back-to-back ...	...	1	...	4	9	156	1	157	4	194	5			
Through ...	5	3	4	5	20	26	4	11	12	21	1	1724	27	299
Back-to-back ...	6	...	1	2	45	40	62	94	148	113	15			
Through ...	...	...	...	...	..	1	...	3	2	...	...	38	8	36
Back-to-back ...	...	...	...	...	2	2	2	5	3	2	...			
Through ...	...	...	...	1	...	...	...	1	...	...	...	24	5	14
Back-to-back ...	...	...	...	...	3	3	5	2	3	1	1			
Through ...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
Back-to-back ...	...	...	..	...	...	...	...	1	...	1	...			
Through ...	1	1	2	6	4	6	4	4	10	3	1	479	2	69
Back-to-back ...	...	...	3	...	30	20	21	33	36	24	...			
Through ...	...	...	...	...	...	...	...	...	...	...	...	5	...	1
Back-to-back ...	...	...	...	...	...	...	...	...	...	...	...			
Through ...	...	3	...	4	1	11	...	3	...	8	1	374	2	16
Back-to-back ...	...	1	...	5	...	31	1	61	1	45	2			
Through ..	...	...	...	...	...	1	...	...	...	1	...	23	1	6
Back-to-back ...	...	...	...	...	1	3	1	3	1	3	...			
Through ...	...	...	...	...	...	...	...	2	...	...	...	...	155	156
Back-to-back ...	...	...	...	...	1	16	1	29	...	13	...			
Through ...	..	1	...	1	...	25	...	5	1	11	3	468	...	...
Back-to-back ...	...	1	...	2	...	48	2	54	1	57	7			
Through ...	...	...	...	...	...	...	...	..	...	...	...	19	...	...
Back-to-back ...	...	...	...	...	...	2	2	2	...	2	...			
Through ...	...	3	...	1	...	7	...	9	1	3	1	...	403	404
Back-to-back ...	...	1	...	...	1	28	2	53	4	64	3			
Through ...	...	...	...	...	...	1	...	...	1	...	...	...	19	24
Back-to-back ...	...	...	...	...	1	...	...	...	1	2	...			
Through ...		24	8	32	27	124	8	54	27	73	10			
Back-to-back ..		4	4	13	93	349	100	494	202	521	33			
Both	12	28	12	45	120	473	108	548	229	594	43	4761	625	1089

The diseases retained in the table are (1) those which are notifiable, (2) measles in its three groups, (3) croup and laryngitis, not certified as diphtheria or membranous croup, and (4) diarrhœa.

Re-arrangement of facts tabled.—An even more important change has been made in the nature of the table. It is more distinctly analytic than previously. A table for the two years 1897-98, intended to be to some extent of this character, was included in the appendix for 1898. By a re-arrangement of the methods of tabulation we are now able to extend this analytical process still further.

Table 25 is now printed upon two pages instead of one. On the first page, to the left of the names of the diseases, are the houses in which all wastes (other than the drain of the water closet, where this was inside the house) have been severed from the sewer. On the right-hand page the corresponding groups deal with houses in which the drains were not all disconnected from the house. In both groups, the through houses and the back-to-back houses are placed in separate lines, and in both groups the houses with inside water closets, with outside water closets, with troughs and with middens or pails, are grouped according as some defect, other than the one of construction, was or was not detected. It will, of course, be understood that all the houses on the right-hand page were "defective," in the sense that their wastes were not severed from the drain, but in those, in the columns headed "def.," other defects were discovered by a test or in some other way. On the other hand, it may be said approximately, that of the group on the left hand page only those under the heading "def." were discovered as having anything wrong with their drainage.

The gain by the new method of grouping is not so much in the new facts introduced to your notice in the present

report as in providing for future reports means by which the analysis of defects may be more easily and more usefully made, when the figures in these tables are more numerous than those for a single year.

It has been felt by your medical officer that much of the information collected, with no little labour, has been of less value than its importance warranted on account of the mixing up of different classes of house. For instance, the houses with inside water closets belong practically to a different class from those using trough closets. To compare the number of defects found on testing the one set of these houses with those in the other would be to compare things that differ greatly.

*Case-houses examined.**—During the sanitary year 1899 5,386 case-houses were examined on account of disease. Of these, 4,761 were visited when the patient was alive. In 625 the patient had died before we heard of the illness. The total deaths in the City from these causes numbered 1,089. With very few exceptions the houses in which these fatal cases occurred were examined either after death or during the life of the patient. These exceptions were chiefly, as in former years, where the death occurred in a public institution or where the relatives had moved.

Back-to-back houses.—Of the 5,386 houses examined—some of which are as usual counted again on account of subsequent cases—1,548 were houses with a through draught; 3,838 were back-to-backs, or houses of that type. These figures correspond to 28·7 and 71·3 per cent. respectively. In the two preceding years the numbers had been 27·2 and 72·8 It has, however, to be remembered that the present table excludes certain diseases included in those years.

* "Case-houses" is an expression used in previous reports to indicate that for purposes of tabulation an actual house is re-entered for each case reported in it. The convenience of the method has been explained in previous reports. The conditions which might favour the spread of, say, diphtheria, are thus counted again for every case in the house.

Severed and not severed (inside w.c.'s ignored).—Of the 5,386 houses examined, 3,174 (given on the left hand page), that is to say, 58·9 per cent. had all their wastes (except the soil pipe of an inside water closet) disconnected; while 2,212 (on the right hand page), or 41·1 per cent., either had no drain at all, or had some waste not severed from the sewer.

The corresponding numbers for the two previous years, in the slightly altered table, were 52·9 and 47·1. Were the two tables strictly comparable, one would regard the difference in the percentages as a sign of improvement in the house conditions of the town.*

Defects found in severed and non-severed houses.—Of the 3,174 houses with severed drains 7·8 per cent. had some drain defect discovered on examination. Of the 2,212 in which the drains were not severed, 23·7 per cent. had some defect.

These numbers, however, are not quite comparable with those given in the text of the report for last year. If stated in the same manner, we should now put it that of the 58·93 per cent. "severed" in 4·59 there was an obvious defect, and that this was the case in 8·93 out of the 40·27 not severed. The remaining 0·80 represents the houses without drain.† It may be well to repeat what was said on page 100 in that report that in saying an obvious defect we are "not excluding defects found on testing, but, as testing was done in a comparatively small number of the houses examined, it did not control the result."

* Extracting from the tables in the appendix to last year's report the diseases included in the table for 1899, it will be found that of 8,900 case-houses visited in 1897 and 1898, 53·2 per cent. were "severed," 45·9 "not severed," 0·9 had no drain. So that in the same class of houses we have a gain of 10 per cent. in the greater number of severed drains amongst those examined last year as compared with the two previous ones.

† Drain testing has been more vigorous in 1899, the comparison of defects found in the two classes of houses is not therefore quite fair. Omitting diseases not tabled this year, it will be found that the 53·2 per cent. of severed houses in 1897 and 1898 was made up of 2·7 in which drain defect was found, and 50·5 in which it was not—the 45·9 not severed, of 6·0 where defect was discovered. 39·9 where it was not—probably in many cases because it was not properly looked for. The remaining 0·9 of undrained houses is not altered.

Kind of closet in whole group.—In the whole group of 5,386 houses, contained on both pages of the table, 2,406, or 44·7 per cent., had some kind of ordinary water-closet; 1,344, or 25·0 per cent., had troughs; 1,593, or 29·6 per cent., had middens or pails, whilst the 43, or 0·8 per cent., houses without drains, are not classed in the table, although it may be stated that 6 had trough water-closets, 36 had midden privies, and 1 had a pail.

Grouped as severed and not.—Of the 2,406 houses with ordinary water-closets, 1,716 occurred amongst the group with the drains severed, and formed 54·1 per cent. of that group. The 690 which occurred amongst the non-severed (leaving undrained houses out of the group) formed 31·8 per cent. of that non-severed group. Of the 1,344 trough-closet houses, 688 belonged to the severed, 656 to the non-severed group—corresponding to percentages of those groups of 21·7 and 30·2. Of the 1,593 midden or pail houses 770 belonged to the severed, 823 to the non-severed group, forming 24·3 per cent. of the former and (again leaving undrained houses out of account) 37·9 per cent. of the latter group.

Put in another way, the 2,406 water closeted houses were nearly three-fourths of them severed in other respects from the sewers, that is to say, 71 per cent. were, 29 per cent. were not so dealt with.

The 1,344 trough closeted houses were rather more than half of them severed from the sewers, more exactly 51 per cent. were, 49 per cent. were not.

The 1,593 midden and pail houses nearly reversed this order, 48 per cent. being severed, 52 per cent. not.

Kind of closets in through and other houses.—It is interesting to note (and this is information never given before) what was the relation between the different classes of house—throughs and back-to-backs—as to the kind of closet found in each.

The through houses numbered 1,548. Amongst these 1,083, or 70 per cent., had water-closets of some kind. Of the 3,838 back-to-backs only 1,323, or 34 per cent., used water-closets. The houses in this respect belonged to two quite different classes of property.

Which were disconnected.—Of the 1,083 through houses with water-closets, 862, or 80 per cent., belonged to the "severed"; 221, or 20 per cent., to the "unsevered" group.

Of the 1,323 water-closet houses amongst the back-to-backs, 854 belonged to the severed, 469 to the unsevered groups, or 65 and 35 per cent. The houses with unsevered drains amongst the water-closet houses in the back-to-back group were proportionately half as many again as in the through house group.

Inside closet group.—Of the 1,548 through houses, 414 had the water-closets inside, or 27 per cent,* of these 414, 344 belonging to the severed, and 70 to the non-severed group of houses.

It will be noticed that the number 414 is rather less than half of the 1,083 water-closet houses amongst the throughs.

Amongst the 3,838 back-to-back houses only 176, or less than 5 per cent., had inside water-closets. Of these 149 belonged to the severed, 27 to the unsevered houses.

* This does not include all the houses with an inside water-closet, some houses have inside water-closets and also some other form of convenience. It is necessary for statistical purposes to reduce each house *qua* closet to its lowest denomination. For this purpose the practice, adopted in previous reports, is followed of classing the house, if more than one convenience is attached, under the sanitarily worst form of closet possessed. A house which has an inside water-closet, with soil pipe fully ventilated and a midden or pail closet outside, is not classed with the water-closet houses at all, but with those possessing middens. A house with a midden closet outside, and an inside water-closet with an imperfectly ventilated soil-pipe, is classed with the water-closet houses, this form of inside water-closet being looked upon as more dangerous to health than the midden. The kinds of closet beginning with the worst sanitarily are, therefore, in the following order: (1) inside water-closet, not F.V., (2) middens or pails, (3) trough water-closet, (4) inside water-closet F.V., (5) outside water-closet.

Altogether, of the 5,386 case-houses 590, or 11 per cent., had water-closets inside, while a little under 34 per cent. had outside water-closets. The numbers with water-closets of some kind were, as already said, 44·7 per cent. of all houses examined.

It would not do to attach too much importance to the accidental examination of small numbers of closets, but it may be put on record that of 344 inside closets in severed through houses, 44, or nearly 13 per cent., were found defective; whilst of 70 through houses, with water-closets, in which the drains were not cut off, defects were found in 14, or 20 per cent. The corresponding numbers amongst the back-to- ack houses were 149 and 27, of which 14 and 37 per cent. showed drain defects.

Taking the two groups together, 493 "severed houses" with inside closets furnished 13 per cent. which were defective in drainage; the 97 houses "not severed," 25 per cent., or nearly double.

It will be noted that the majority of these houses were not drain-tested. In previous reports I have shown that houses with water-closets inside give a larger percentage defective on testing than those with closets outside.

Outside W.C.'s.—Of the houses with water-closets outside in 1,223 "severed," 84 had obvious defects, or 7 per cent. Of those not severed (593) 120 were defective, or 20 per cent., nearly three times as many. In both cases the number of those found defective was smaller than where the closet was inside.

Trough-closets.—Of the 688 "severed" houses with trough-closets, 23, or 3 per cent., had obvious drain defects. Of 656 "unsevered," 108, or 16 per cent., were defective. The number of throughs are so small in this class of house that they may

be disregarded. There were 95 with 4 defective amongst the "severed;" 62 with 8 defective amongst the "unsevered;" together the defective houses were 8 per cent. of those examined.

Middens.—Amongst the 298 through houses, 198 were "severed," 100 not. Of the former 19, or 9·6 per cent., had defective drains. Of the latter 27, or 27 per cent.

Amongst the 1,295 back-to-back houses, 572 had "severed," 723 "unsevered" drains — the percentage of houses found otherwise defective as to their drainage was 9·8 in the former and 28 in the latter group.

Taking the whole 1,593 midden houses, through and back-to-backs together, the proportions found defective were 9·7 in the severed, and 27·8 in the unsevered.

Which were worst?—Of all the groups, therefore, that we have considered, the worst as regards proportion of drain defects found in our examination, were the back-to-back houses with inside water-closets, and their other wastes not severed from the drains. Fortunately their number was not large.

Soil pipes.—In some previous reports we have separated the houses with fully ventilated and those with not fully ventilated soil pipes. The number in the present table is too small to be divided into groups—those with soil pipes not fully ventilated amongst the non-severed back-to-backs—amounting only to 17, of which, however, 4 showed other drain defects. The whole group of inside closets, not F.V., consisting of 249 had 43 that were found to have other drainage faults, or 17 per cent.

PART IV.—INSPECTORS' WORK.

CHANGES IN STAFF.

Works inspectors.—Considerable changes took place in 1899 as stated earlier in the report. In order to give greater time to the ward inspectors for house-to-house examinations, and drain testing, the strength of the staff was increased by four, the new appointments being four "works inspectors," whose duties would be to superintend the carrying-out of structural alterations ordered by the Committee in the several wards under their charge.

Of the four men first appointed to these new offices, three were chosen from the existing staff, and one was an inspector of experience who had been selected along with three other new men as an addition to our staff. The three members of our own staff who were selected were Messrs. J. Coupe, F. Sharp, and E. Turner. The two former had been ward inspectors since 1893, the latter since August, 1896. They all held the Certificate of the Sanitary Institute, obtained respectively in June, 1898, July, 1896, and July, 1895. The fourth, Mr. R. Macara, a new comer appointed in June, 1899, had the certificate of the Scottish Board, and held up to the time of his coming to Leeds, an appointment as inspector of a district of the county of Ayr. His experience in works under the County Council led Mr. Swallow and myself to think that he would make an efficient works inspector. He remained with us nine months, and left on 30th March, 1900. His place as drainage inspector was supplied by Mr. E. Carratt, who had been in the service of the Corporation since May, 1891, as clerk and laboratory assistant, and since March, 1899, as ward inspector. Mr. Carratt held the certificate of the Sanitary Institute since June, 1898, and is one of the most promising men on the staff.

The work of these inspectors is somewhat arduous. The distances to be covered are great, and the demands of contractors somewhat exasperating. The position is a fine training for the faculty of arrangement.

Ward inspectors.—The elevation of the three men to the post of works inspectors left three vacancies among the ranks of the ward inspectors.

Two other vacancies had occurred, however, earlier in the year. Mr. G. Sainsbury, who having the previous month obtained the certificate of the Sanitary Institute, had been appointed in May, 1897, as ward inspector in East Hunslet, left us in February, 1899, to take another position under the Corporation as inspector of new buildings.

In May, 1899, Mr. Roger Marshall, who had been with us since December, 1896, and who held the certificate of the Sanitary Institute, left us to become inspector of nuisances and surveyor at Fenton, in Staffordshire.

These two vacancies were filled up in March and May by the appointment of Mr. E. Carratt, already mentioned, and Mr. F. Spetch, respectively to the Holbeck and East Hunslet wards. Mr. Spetch had obtained the certificate of the Sanitary Institute in December, 1898, and had been in the selected list on a previous occasion.

The vacancies created by the three appointments as works inspectors were filled up by the selection of Mr. Philip Raskin, Mr. B. Haigh, and Mr. F. H. Williams, who commenced their work respectively on the 5th June, 20th June, and 1st July, 1899. The two latter held certificates of the Sanitary Institute, both dated July, 1892. These two were appointed respectively to the Bramley and West wards, from which Messrs. Coupe and Turner had been promoted. The other appointment, that of Mr. Raskin, was made under somewhat different circumstances.

It had been for some time back my desire to have an inspector who spoke Yiddish, and in advertising for the four new assistant inspectors the Committee took the opportunity of selecting one who had this qualification.

As the selection of men with a knowledge of this language caused a necessary limitation, it was not considered convenient to insist upon the possession of the Sanitary Institute certificate. Mr. Raskin, however, who was selected from 12 applicants, all with a knowledge of Yiddish, agreed to take the certificate of the Institute. He is a well educated Russian Jew, who has spent some time at the University of Zurich, and has some knowledge of chemistry and physics. Up to the present time I have rather restrained him from presenting himself for the Institute examination, as I feared that he would be somewhat handicapped at an examination conducted entirely in English. His knowledge of our language, however, is very good, and in addition to speaking Yiddish he has a knowledge of German and Hebrew. He has thrown himself enthusiastically into the work, and has been especially useful amongst other things in translating into Yiddish handbills and notices.

Three other vacancies had occurred earlier in the year Mr. James Cromack had joined the staff in June, 1895. He was one of the first of the inspectors who came to us, having previously obtained the certificate of the Sanitary Institute. He left us on 25th August, 1899. Later in the year Mr. F. H. Williams, whose appointment has just been mentioned, left us rather unexpectedly, and a month later, on the 17th November, Mr. Paul Hick the oldest of our inspectors, and one of the few remaining men who came with Mr. Newhouse from the Police department, met with a serious accident. Mr. Hick, who had been through the Crimean war, fighting at Alma, Balaclava, and Inkerman, had been for the last eight

years inspector of the Mill Hill ward, and had gone house-to-house through his district twice over. He was a tried servant, and had done good work for the town. Returning home from his work in the middle of the day he was knocked down by a cyclist. He was taken to the Infirmary where it was found that he was suffering from a fracture of the leg and other injuries. He has not yet returned to his work.

The vacancy in the West ward, caused by the departure of Mr. Williams, was filled by the appointment of Mr. J. J. Quirk on the 31st October. Mr. Quirk is a native of the Isle of Man, and holds the certificate of the Sanitary Institute dated May, 1897.

The vacancy in the North ward, caused by the departure of Mr. Cromack, was at once filled up by moving Mr. S. Howe from the Brunswick ward.

The work in the Brunswick and Central wards was divided between Mr. E. Maude, at that time inspector for the Central ward, and Mr. Philip Raskin, the newly appointed Yiddish-speaking inspector.

On November 20th Mr. Joseph Cummings was appointed, and shortly afterwards transferred to the North-east ward, which had been for some time without an inspector. On the 17th December Mr. James Marshall was appointed an inspector, and afterwards detailed to the supervision of the Mill Hill ward. Both these men were selected from amongst a number of other applicants in November, and ran one another close for the first of the two appointments. Marshall was afterwards selected, without re-advertising, from the previous list. They both hold the certificate of the Sanitary Institute.

Women inspectors.—The question of appointing ladies as sanitary inspectors had been brought before the Committee on several occasions. In November, 1897, the Sanitary Committee instructed your Medical Officer to make a report

TABLE I.

Table of Ward Inspectors' Work. Year 1899.

		Quarters. I.	II.	III.	IV.	City Total 1899.
	HOUSE INSPECTION.					
1.	Houses and premises completely examined on account of — Infective disease	1463	1184	1613	1379	5644
2.	Houses and premises completely examined on account of — Alleged nuisances	422	267	143	158	990
3.	Houses and premises completely examined on account of — House-to-house work	208	97	1148	2580	4033
4.	Houses and premises examined only as to — Occupants	257	323	130	36	746
5.	Houses and premises examined only as to — Buildings and Offices	1500	1316	795	179	3790
6.	Houses and premises examined only as to — Drainage	1493	1420	1162	480	4555
7.	Number of houses wholly or partly examined	5348	4607	4991	4812	19758
8.	Total number of above houses where sanitary defects were found	2455	2116	2185	1683	8439
9.	Sanitary defects found in above houses	2486	2136	2464	2052	9138
	NUISANCES, &c.					
10.	Nuisances found in above or other houses:— Houses dirty	64	88	150	106	408
11.	,, overcrowded	46	81	62	90	279
12.	,, damp or dilapidated	103	63	116	166	448
13.	,, with defective eave-gutters or fall pipes	178	129	239	315	861
14.	,, badly drained	919	699	755	1004	3377
15.	,, without sink drain	20	11	13	20	64
16.	,, badly lighted	..	..	5	..	5
17.	,, badly ventilated	1	1	16	8	26
18.	,, with defective or insufficient closet accommodation	977	1214	1475	1550	5216
19.	,, with dirty closets	356	262	261	352	1231
20.	,, with drains, &c., temporarily stopped	343	332	374	306	1355
21.	,, with other nuisances	475	469	624	587	2155
22.	Total nuisances found in houses	3482	3349	4090	4504	15425
23.	No. of houses in which above nuisances were found	3470	3485	3510	4044	14509
24.	Street gullies stopped	375	315	292	257	1239
25.	Offensive accumulations	45	59	64	53	221
26.	Other outside nuisances	148	181	180	128	637
27.	Total nuisances found	4050	3904	4626	4942	17522
28.	Complaints unfounded	25	17	37	23	102
	OTHER WORK DONE.					
29.	Additional visits paid to houses for — Infective disease	1824	1778	1159	1197	5958
30.	Additional visits paid to houses for — Nuisances found	2224	2414	1749	1345	7732
31.	Additional visits paid to houses for — Completion of Reports	136	136	126	302	700
32.	Additional visits paid to houses for — Other causes	3558	2419	2471	1833	10281

		Quarters. I.	II.	III.	IV.	City Total 1899.
	OTHER WORK DONE (continued).					
33.	Special examinations of drains by tests	1144	985	1295	2343	5767
34.	Defects found by ditto	660	465	595	837	2557
37.	Appointments	350	354	348	316	1368
38.	Notices and letters served	720	437	398	109	1664
39.	Dwelling houses unfit for human habitation closed	3	..	..	..	3
40.	Dwelling houses rendered fit for human habitation	4	5	1	1	11
41.	Houses cleansed	63	94	46	73	276
42.	Overcrowded houses dealt with	31	41	37	58	167
43.	Defective spouting, &c., repaired	166	176	97	98	537
44.	New midden privies built	2	1	..	..	3
45.	Old midden privies repaired	4	3	7	2	16
46.	Do. rebuilt	..	..	..	..	..
47.	Privies converted into trough water closets	71	15	77	47	210
48.	Do. do. ordinary water closets	139	256	476	589	1460
49.	Water closets erected	34	44	43	75	196
50.	New dry ashpits or tubs	75	124	190	203	592
51.	New trough water closets built	21	13	..	21	55
52.	Pail closets converted into water closets	2	35	27	16	80
53.	Trough closets altered into water closets	..	3	2	..	5
54.	Closets cleansed (lime-washed, &c.)	245	184	67	150	646
55.	Drains in course of construction inspected	337	388	363	219	1307
56	,, ,, of reconstruction ,,	602	522	499	598	2281
57.	,, inspected when connection made to sewer	131	148	167	114	560
58.	Disconnections of house drains effected	984	737	833	1044	3598
59.	Ces-pools filled up	..	1	..	7	8
60.	Public or private wells abolished	5	1	..	..	6
61.	Houses supplied with town's water	..	..	12	15	27
62.	Trough and water closets repaired	316	394	257	217	1184
63.	Other nuisances remedied	673	688	511	523	2395
64.	Total houses for which above work done	3356	3744	3417	3270	13787
65.	Houses in which all defects found have been remedied	1850	1980	1442	1534	6806
66.	Street gullies cleansed	191	233	142	178	744
67.	Offensive accumulations removed	44	82	39	33	198
68.	Pollutions of river or streams remedied	19	257	9	1	286
69.	Other non-domestic nuisances removed	40	77	43	96	256
70.	Additional visits paid to inspect work in progress	4095	4278	3746	3828	15947
71.	Total nuisances abated	3417	3646	3105	3267	13435

This table includes work done by Lady Inspector, four Works Inspectors, and one Jewish Inspector during the later months of the year.

TABLE II.

Analysis of work done by District Inspectors in the several Wards, 1899.

Eastern Division. — *52 weeks ended 30th December, 1899.* — **Western Division.**

Central.	North.	N. East.	East.	South.	East Hunslet.	West Hunslet.	Holbeck.	Division.	WARDS.	Division.	Mill Hill.	West.	N. West.	Brunswick.	New Wortley.	Armley and Wortley.	Bramley.	Headingley.	City Total
									HOUSE INSPECTION.										
191	332	338	337	324	385	497	506	2910	1. Houses and premises completely examined on account of — Infective disease	2734	68	286	390	240	235	633	279	603	5,64
36	14	35	36	289	62	3	29	504	2. Houses and premises completely examined on account of — Alleged nuisances	486	55	142	2	85	123	2	51	26	99
261	303	32	865	119	300	191	139	2210	3. Houses and premises completely examined on account of — House-to-house work	1823	138	69	283	26	363	197	330	417	4,03
9	8	27	30	315	12	49	10	460	4. Houses and premises examined only as to — Occupants	286	6	62	2	5	132	42	16	21	74
246	445	106	64	821	156	80	187	2105	5. Houses and premises examined only as to — Buildings and Offices	1685	..	334	2	414	77	376	338	144	3,79
172	325	220	211	523	287	32	131	1901	6. Houses and premises examined only as to — Drainage	2654	3	202	524	288	390	532	306	409	4,55
915	1427	758	1543	2391	1202	852	1002	10090	7. Number of houses wholly or partly examined	9668	270	1095	1203	1058	1320	1782	1320	1620	19,75
400	777	349	603	653	496	582	412	4275	8. Total number of above houses where sanitary defects were found	4164	143	652	397	645	161	798	927	441	8,43
397	712	350	577	632	495	918	419	4500	9. Sanitary defects found in above houses	4638	149	715	455	772	125	792	1068	562	9,13
									NUISANCES, &c.										
20	10	28	91	48	18	14	39	268	10. Nuisances found in or above other houses — Houses dirty	140	6	18	24	24	23	19	9	17	40
14	8	17	33	29	28	60	19	208	11. Nuisances found in or above other houses — ,, overcrowded	71	3	8	11	2	13	13	9	12	27
22	17	16	90	70	61	31	46	353	12. Nuisances found in or above other houses — ,, damp or dilapidated	95	3	6	3	12	15	5	44	7	44
28	30	30	151	76	63	4	69	451	13. Nuisances found in or above other houses — ,, with defective eave-gutters or fall pipes	410	12	22	35	83	26	15	79	138	86
123	236	66	125	191	259	632	148	1780	14. Nuisances found in or above other houses — ,, badly drained	1597	101	166	217	232	46	294	261	280	3,37
8	1	..	8	2	..	4	5	28	15. Nuisances found in or above other houses — ,, without sink drain	36	12	1	2	..	..	..	21	..	6
..	..	..	..	1	..	..	..	1	16. Nuisances found in or above other houses — ,, badly lighted	4	..	1	..	..	..	..	..	3	
1	..	1	11	1	2	..	..	16	17. Nuisances found in or above other houses — ,, badly ventilated	10	..	1	..	..	..	..	7	2	2
234	370	117	225	381	292	799	324	2242	18. Nuisances found in or above other houses — ,, with defective or insufficient closet accommodation	2374	83	367	295	186	288	353	426	376	5,21
130	88	99	285	181	22	24	74	903	19. Nuisances found in or above other houses — ,, with dirty closets	328	7	97	34	28	62	39	26	35	1,23
96	129	89	110	105	113	63	111	816	20. Nuisances found in or above other houses — ,, with drains, &c., temporarily stopped	539	20	73	66	140	49	40	83	68	1,35
342	148	97	236	63	99	168	126	1279	21. Nuisances found in or above other houses — ,, with other nuisances	876	17	112	94	273	50	37	129	164	2,15
1118	1037	560	1365	1148	957	1799	961	8945	22. Total nuisances found in houses	6480	264	872	781	980	572	815	1094	1102	15,42
1082	1062	845	921	1124	887	1413	1390	8724	23. No of houses in which above nuisances were found	5785	292	846	565	828	534	807	978	935	14,50
55	61	67	128	101	114	160	114	800	24. Street gullies stopped	439	16	26	69	75	90	39	69	55	1,23
23	10	20	10	28	21	8	26	146	25. Offensive accumulations	73	2	8	4	22	1	3	22	13	22
14	22	39	95	28	71	67	50	386	26. Other outside nuisances	251	19	41	6	54	45	27	10	49	63
1210	1130	686	1598	1305	1163	2034	1151	10277	27. Total nuisances found	7245	301	947	860	1131	708	884	1195	1219	17,52
5	4	5	14	4	15	..	17	64	28. Complaints unfounded	38	8	14	..	6	1	1	1	7	10

	Central.	North.	N. East.	East.	South.	East Hunslet.	West Hunslet.	Holbeck.	Division.	WARDS.	Division.	Mill Hill.	West.	N. West.	Brunswick.	New Wortley.	Armley and Wortley.	Bramley.	Headingley.	City Total.
										OTHER WORK DONE.										
29.	281	440	453	152	318	474	538	847	3503	Additional visits paid to houses for — Infective disease	2455	87	626	408	274	66	232	282	480	5,938
30.	284	672	572	348	9	381	192	726	3184	Additional visits paid to houses for — Nuisances found	4548	353	522	326	756	550	52	1113	876	7,732
31.	14	40	2	35	197	20	..	22	330	Additional visits paid to houses for — Completion of Reports	370	3	156	69	21	8	..	82	31	700
32.	218	512	967	1433	404	257	25	573	4389	Additional visits paid to houses for — Other Causes	5892	564	1948	176	412	887	177	1174	554	10,281
33.	2215	391	247	357	209	544	281	530	2834	Special examinations of drains by tests	2933	156	282	235	213	412	609	270	756	5,767
34.	76	267	121	75	100	195	178	226	1238	Defects found by ditto	1319	26	125	84	222	63	231	90	478	2,557
37.	43	125	21	55	46	99	191	108	688	Appointments	680	23	83	52	65	55	149	164	89	1,368
38.	121	96	80	32	68	85	73	34	589	Notices and letters served	1075	483	116	67	130	66	73	66	74	1,664
39.	..	..	..	..	3	..	..	..	3	Dwelling houses unfit for human habitation closed	..	..	..	..	..	..	..	..	..	3
40.	..	1	..	..	2	..	..	..	3	Dwelling houses rendered fit for human habitation	8	7	..	..	1	..	..	..	..	11
41.	10	2	21	69	46	16	3	4	171	Houses cleansed	105	7	24	20	19	17	9	3	6	276
42.	10	1	16	22	14	15	31	10	119	Overcrowded houses dealt with	48	1	9	4	5	6	5	11	7	167
43.	19	17	12	116	55	68	7	40	334	Defective spouting, &c., repaired	203	12	6	22	77	7	..	16	63	537
44.	..	..	..	..	..	..	..	..	..	New midden privies built	3	..	..	..	..	..	..	3	..	3
45.	..	2	1	2	..	..	..	..	6	Old midden privies repaired	10	..	..	..	..	..	..	6	4	16
46.	..	..	..	..	..	..	..	..	..	Do. rebuilt	..	..	..	..	..	..	..	..	..	..
47.	5	31	2	8	11	14	37	3	111	Privies converted into trough water closets	99	..	6	10	21	12	17	25	8	210
48.	59	78	5	4	39	104	238	76	603	Do. do. ordinary water closets	857	8	83	288	16	130	117	75	140	1,460
49.	6	6	25	4	12	22	1	5	81	Water closets erected	115	..	27	27	7	6	14	14	20	196
50.	35	35	13	16	2	11	48	5	165	New dry ashpits or tubs	427	6	11	141	20	81	34	51	83	592
51.	..	..	3	18	..	1	..	2	24	New trough water closets built	31	..	5	3	1	8	2	12	..	55
52.	16	..	..	36	2	..	..	10	64	Pail closets converted into water closets	16	1	..	4	6	..	..	3	2	80
53.	..	..	..	..	..	..	..	2	2	T.W.C.'s altered into water-closets	3	..	..	..	..	..	..	3	..	5
54.	54	13	60	100	208	10	11	18	474	Closets cleansed (lime-washed, &c.)	172	16	47	16	31	20	20	8	14	646
55.	262	65	27	30	105	40	22	53	604	Drains in course of construction inspected	703	51	46	90	167	103	138	92	16	1,307
56.	139	159	63	160	152	270	393	162	1498	Do. do. of re-construction do.	783	29	89	29	199	182	121	121	13	2,281
57.	26	34	8	29	71	18	49	140	375	Do. inspected when connection made to sewer	185	30	18	29	26	38	21	23	..	560
58.	90	186	144	134	144	335	408	238	1679	Disconnections of house drains effected	1919	87	272	250	400	168	347	166	229	3,598
59.	1	..	1	1	..	..	..	..	3	Cesspools filled up	5	..	..	4	..	..	..	..	1	8
60.	..	..	..	..	..	..	..	..	..	Public or private wells abolished	6	..	..	..	5	..	..	..	1	6
61.	1	..	..	..	..	..	..	4	5	Houses supplied with town's water	22	..	..	16	..	..	..	..	6	27
62.	107	142	93	43	51	84	33	76	629	Trough and water closets repaired	555	45	160	60	119	50	6	11	104	1,184
63.	165	215	168	211	23	142	117	142	1183	Other house nuisances remedied	1212	47	176	106	181	96	156	181	269	2,395
64.	1020	929	756	795	927	1159	972	972	7530	Total houses for which above work done	6257	300	688	953	1369	702	867	662	716	13,787
65.	726	516	199	309	554	80	395	114	2893	Houses in which all defects found have been remedied	3913	239	445	327	614	698	561	564	465	6,806
66.	20	38	52	103	93	80	93	61	540	Street gullies cleansed	204	12	26	21	30	..	39	51	25	744
67.	22	11	42	2	35	12	3	10	137	Offensive accumulations removed	61	7	7	..	20	2	4	13	8	198
68.	..	1	..	243	..	1	..	1	246	Pollutions of river or streams remedied	40	19	..	..	2	..	..	18	1	286
69.	4	9	22	92	2	21	26	18	194	Other non-domestic nuisances removed	62	12	5	..	15	..	..	5	25	256
70.	902	1511	1246	1480	501	698	1240	567	8145	Additional visits paid to inspect work in progress	7802	529	1064	1357	924	1113	1113	1097	605	15,947
71.	845	762	679	1135	1011	984	861	745	7122	Total nuisances abated	6313	373	855	991	939	677	909	606	943	13,435

This table includes work done by Lady Inspector, four Works Inspectors, and one Jewish Inspector during the later months of the year.

on the probable duties of such inspectors. This report was submitted on the 6th December, and afterwards circulated amongst the Members of Committee in January, 1898.

On the 29th May, 1899, Miss R. A. Hobson and Miss M. L. Sharples, both holding certificates of the Sanitary Institute, were selected from several other candidates. The duties which they were to undertake are mentioned in an earlier part of the report (p. 3).

Food, drugs, and dairies.—On the 3rd June Mr. James Burke, a certified inspector, previously employed at Swansea as food and drugs inspector, was appointed as an assistant to Mr. Walker, who has since 1886 acted as inspector of cow-sheds and dairies under the Order, and as food and drugs inspector under the Acts, 1875, &c.

Clerks.—Amongst the clerks in the office there were few changes. Mr. J. M. Bailes, who had been with us from boy-hood, left on the 17th June to take the position of relieving officer and poor rate collector to the Thirsk Union, and Sydney B. Ryder was appointed office boy on 1st October.

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 pollutions.	Total.
Previous to Dec. 31st, 1898	5,422	437	232	32	6,123
During the 52 weeks ended Dec. 30th, 1899	335	53	...	26	414
Totals	5,757	490	232	58	6,537

Ward inspection.—Tables I., II., and III. give the work of the ward and works' inspectors.

Workshops' inspection.—Tables IV. and V. contain not only work done by Mr. Lonsdale, but also some in regard to Jewish workshops by Mr. Raskin, who had also ward work The work of Miss Hobson and Miss Sharples, chiefly of the former in visiting workshops where women were employed, is also included.

TABLE IV.

Shewing the sanitary condition of workshops on register, and occupied during the 52 weeks ended December 30th, 1899.

Date. 1899.	Visits to Workshops.	Employees.			Ventilation.		Condition of Premises.				Workshops closed.
							Rooms.		Closets.		
		Male.	Female.	Total.	Good.	Defective.	Clean.	Dirty.	Clean.	Dirty.	
4 weeks ended Jan. 28	35	117	89	206	30	5	26	9	26	9	24
4 weeks ended Feb. 25	32	120	65	185	25	7	18	14	18	14	4
5 weeks ended April 1	31	150	86	236	25	6	16	15	16	15	3
4 weeks ended ,, 29	35	200	144	344	33	2	20	15	20	15	4
5 weeks ended June 3	18	113	108	221	18	...	8	10	7	11	9
4 weeks ended July 1	95	829	528	1,357	95	...	63	32	94	1	11
4 weeks ended ,, 29	3	6	...	6	3	...	2	1	3	...	2
5 weeks ended Sept. 2	8	75	20	95	8	...	3	5	4	4	15
4 weeks ended ,, 30	19	254	101	355	13	6	13	6	10	9	9
4 weeks ended Oct. 28	157	189	458	647	138	19	141	16	138	19	16
5 weeks ended Dec. 2	173	714	1,285	1,999	163	10	135	38	125	48	11
4 weeks ended ,, 30	123	650	921	1,571	114	9	66	57	66	57	27
Total	729	3,417	3,805	7,222	665	64	511	218	527	202	135

TABLE V.

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

Date. 1899.	Workshops added to register.	Description of Drainage.			Situation of Closets.				Workshops closed.
					Inside.		Outside.		
		Cut off.	Not cut off.	Without.	W.C. soil-pipe carried up.	W.C. soil-pipe not carried up.	W.C.	Privies.	
4 weeks ended Jan. 28	10	7	3	...	2	1	6	1	6
4 weeks ended Feb. 25	15	6	3	6	3	1	10	1	...
5 weeks ended April 1	31	11	11	9	5	...	23	1	2
4 weeks ended ,, 29	23	8	6	9	6	...	16	1	2
5 weeks ended June 3	17	5	8	4	5	2	9	1	...
4 weeks ended July 1	9	5	2	2	2	1	6	...	3
4 weeks ended ,, 29	14	12	1	1	7	1	5	1	2
5 weeks ended Sept. 2	26	12	5	9	8	5	9	4	...
4 weeks ended ,, 30	8	5	1	2	3	1	4	...	...
4 weeks ended Oct. 28	13	7	3	3	1	4	7	1	35
5 weeks ended Dec. 2	20	15	2	3	3	2	13	2	3
4 weeks ended ,, 30	44	20	12	12	16	2	20	6	8
Total	230	113	57	60	61	20	128	21	61

Other work of workshops inspector.

In addition to work shewn in tables IV. and V., 1,582 additional visits were paid to workshops, and 1,199 to factories. On account of infectious disease 28 visits were made to workshops, and 94 to factories; for drain and closet inspection, 215 and 301 respectively; for drain testing, 62 and 39; in regard to complaint, 335 and 200; for non-abatement of nuisance, 546 and 319; for other causes, 396 and 158 visits were made; and in regard to rivers pollution, 88 visits were made.

Nuisances were abated in workshops to the number of 204, and 139 in factories, including the provision of 18 new w.c.'s and 16 instead of privies for workshops, and 19 and 68 for factories, not including 88 rivers pollutions abated at the latter.

TABLE VI.

Ashpits inspected during the 52 weeks ended 30th December, 1899.

Number of inspections of ashpits	Requisitions to cleanse sent to Refuse Removal Department from Sanitary Office.	Number of latter returned as carried out.	Ashpits not cleansed within four days of requisition.	Condition of ashpits generally.
57,346	9,152	9,114	233	Good.

TABLE VII.

No. of middens emptied.	No. of dry ashpits or tubs emptied.	No. of boxes or pails emptied.	Total.	LOADS REMOVED.			Total.
				Night-soil.	Dry ashes.	Rubbish.	
78,319	421,343	53,416	553,078	30,743	113,669	16,079	160,491

DESTRUCTORS.

At Armley Road 28,925 loads of rubbish, weighing 24,597 tons (0·85, or 17 cwts. per load), were destroyed during 303 working days,. During six months in winter the whole 16 cells were used, but during the summer six months, 12 only. On an average of 14 cells the work per cell day will be 5·8 tons. The highest observed temperature was 1,500°;* the lowest, 900°; average, 1,455°. There were 7,272 observations taken.

At Beckett Street 12,374 loads of rubbish, weighing 11,075·4 tons (0·90 tons, or, 17·9 cwts. per load), were destroyed in eight cells during 302 working days, being an average of 4·6 tons per cell-day. The highest observed temperature was 1,500° Fahr.*; the lowest, 600°; average, 1,473°. There were 7,248 observations taken.

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

At Kidacre Street 24,096 loads of rubbish, weighing 22,758·5 tons (0·94 tons, or, 18·9 cwts. per load), were destroyed in 12 cells during 303 working days, being an average of 6·3 tons per cell-day. There were 7,272 observations of temperature taken, the readings averaging 1,429° Fahr.; the highest was 1,500°*; the lowest, 700°.

At Meanwood Road 14,383 loads of rubbish, weighing 13,530·4 tons (0·94 tons, or, 18·8 cwts. a load), were destroyed in eight cells during 302 working days, being an average of 5·6 tons per cell-day.

No observations of temperature were taken.

Street Cleansing.

Mr. Darley reports that during 309 working days, 232,528 streets cleansings were effected, an average of 752 per day. The cleansing of gullies was equivalent to cleansing 161,228, or an average of 522 per day. In addition to this, 50,364 loads of street refuse were carted away and deposited, and 117,861 cleansings of courts in yards effected.

The number of horse-days for street cleansing was 19,158 and for watering, 4,646.

During the 101 street-watering days, 77,728 barrels of water were used.

During the year 1899, the cleansing of certain unpaved streets was taken over by this department, and for this period (229 working days) work was done equivalent to the cleansing of 22,648 roads and 12,859 gullies, while 13,196 loads of refuse were removed, averaging respectively 99 roads, 56 gullies, and 57 loads per day.

The number of loads of snow removed was 11,074, at a cost of £1,094 16s. 1d.

The cost of street cleansing was £18,878 9s. 11d.; for street watering, £2,404 16s. 2d.; and for cleansing highways, £4,770 13s. 11d.: together making a total cost of £27,148 16s. 1d.

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

TABLE VIII.

Shewing work in connection with the Cowsheds and Dairies order, 52 weeks ended 30th December, 1899.

Cowsheds on the register	188
Milkshops „	526
Visits to both	1,024
Unsuitable cowsheds closed	9
New ones built	7
Cowsheds reconstructed and provided with additional light and ventilation	26

Legal proceedings were taken against four cowkeepers for neglecting to comply with notice from the Authority to provide proper light, ventilation, air space, &c. They were fined, in the total, sums amounting to £10 and costs.

TABLE IX.

Samples of food sent to the City Analyst for examination during the 52 weeks ended December 30th, 1899.

Article.	Genuine.	Poor in quality.	Adulterated.	Total.	Summoned.	Convicted.	Dismissed.
Milk	245	98	24	367	16	16	...
Condensed milk	5	...	...	5	...	...	...
Butter	14	...	14	28	13	13	...
Cheese	6	...	...	6	...	...	...
Lard	1	...	1	2	...	...	...
Milk of sulphur	9	...	9	18	4	4	...
Spanish juice ...	2	...	1	3	...	...	...
Jam	2	...	...	2	...	...	...
Brimstone ...	1	...	1	2	...	...	...
Bacon	1	...	1	2	...	...	...
Golden syrup ...	1	...	...	1	...	...	...
Gregory powder	1	...	...	1	...	...	...
Seidlitz powder	1	...	...	1	...	...	...
Marmalade ...	1	...	...	1	...	...	...
Total ...	290	98	51	439	33	33	...

TABLE IXa.

Summonses issued under the Sale of Food and Drugs Acts, 1875—9, and the Margarine Act, 1887, during the year 1899.

No. of sample.	Article.	Percentage of adulteration.	Fines. £ s. d.	Remarks.
7	Milk ...	31% added water	5 0 0	Second conviction
14	Do. ...	17% do.	0 10 0	
36	Do. ...	13% do.	0 10 0	Second conviction
38	Do. ...	10% do.	0 5 0	
181	Do. ...	10% do.	1 0 0	
190	Do. ...	10% do.	2 0 0	
195	Do. ...	11½% do.	1 0 0	
199	Do. ...	10% do.	5 0 0	
215	Do. ...	49% cream abstracted	0 10 0	
225	Do. ...	11½% do.	0 10 0	
309	Do. ...	15% do.	2 0 0	
310	Do. ...	17% do.	2 0 0	
328	Do. ...	13% do.	10 0 0	
369	Do. ...	21% do.	0 5 0	
397	Do. ...	10% do.	5 0 0	
438	Do. ...	15% do.	2 0 0	
444	Do. ...	11½% do.	—	To pay costs
118	Milk of Sulphur	62% calcium sulphate	0 10 0	
119	Do. ...	61% do.	0 10 0	
120	Do. ...	76% do.	0 10 0	
121	Do. ...	78% do.	0 10 0	
	The Margarine Act, 1887.			
44	Butter ...	75% foreign fat	3 0 0	
64	Do. ...	68% do.	1 0 0	
65	Do. ...	69% do.	1 5 0	
88	Do. ...	83% do.	3 0 0	
112	Do. ...	77% do.	30 0 0	Fourth conviction
244	Do. ...	95% do.	2 0 0	
268	Do. ...	84% do.	0 10 0	
270	Do. ...	74% do.	3 0 0	
348	Do. ...	81% do.	5 0 0	Second conviction
348	Do. ...	81% do.	5 0 0	
391	Do. ...	81% do.	1 0 0	
392	Do. ...	78% do.	1 0 0	
418	Do. ...	86% do.	5 0 0	
		£	100 5 0	

TABLE X.

Slaughter House and Meat Inspection, Fifty-two Weeks ended December 30th, 1899.

Class of meat seized and destroyed.	Weight in stones of 14 lb.	No. of seizures.	No. of persons summoned.	No. of convictions.	Penalties.
Beef } ... Mutton }	8	1	1	1	£3 0s. 0d. and costs.

Two butchers were fined each £1 and costs for slaughtering on unregistered premises.

The Meat Inspector paid 17,413 visits to 106 slaughter-houses during the year, and 2,183 stones weight of beef, mutton, veal, and pork, and 24½ stones of bananas were destroyed by the owners.

TABLE XI.

Smoke Inspector's Report, 1899.

Complaints received	14
Furnaces inspected	7,589
Observations taken of chimneys (for a period of sixty minutes each)	1,995
Total number of minutes dense smoke	2,055
Average minutes dense smoke emitted during each observation of one hour's duration	1·03
Smoke prevention appliances adapted to furnaces ...	75
Chimneys newly erected	13
Furnaces in connection with new chimneys	34
Notices served upon manufacturers	15
Do. do. stokers	24
Persons summoned before the magistrates	2
Do. convicted	2
Total amount in fines ...	£1 0s. 0d.

TABLE XII.

Work done by Disinfecting Staff, 1899.

Houses disinfected	3,899
Rooms disinfected (stripped 564, limewashed 418)	10,376
Beds and mattresses disinfected	10,290
Articles of bed clothing disinfected	33,118
Articles of wearing apparel disinfected ...	56,882
Miscellaneous articles	18,504

Flushing.—During the 52 weeks of the year, six carts, each with two attendants, have been employed flushing drains. In this period 47,692 house drains, 15,009 water-closets, and 34,283 outside drains, and the drains in connection with 342 schools have been flushed. In addition to this, two men have been engaged putting in an iron solution into tanks connected with the sewers, and in this manner 11,880 gallons of disinfecting solution have been allowed to trickle into certain of the sewers.

TABLE XIII.

Cases removed to hospital by our own staff.

Classified according to diseases certified.

Small-pox.	Scarlet fever.	Diph-theria.	Typhus fever.	Typhoid fever.	Other diseases.	Total, 1899.
2	661	157	—	240	1	1,061

OTHER WORK OF REMOVAL STAFF.

In addition to the above work 127 persons were removed to Gildersome Convalescent Home, 129 to Manston Cottages, 380 from Manston Hospital to Beckett Street Hospital, 20 from Beckett Street to Manston, 46 to Beckett Street for disinfection, 2 to the General Infirmary, and 1 case from Meanwood Convalescent Home to own home, making a total of 705 additional removals.

TABLE XIV.

Return for the 52 weeks ended December 30th, 1899, 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 Saturday, 31st December, 1898...	...	89	12	...	29	6	136
No. since admitted ...	1	681	161	2	213	97	1155
No. discharged	...	680	139	...	183	91	1093
No. died	...	21	18	...	22	8	69
No. remaining in Hospital, Dec. 30th, 1899... ...	1	69	16	2	37	4	129

TABLE XV.

Canal Boats.

Registered during the year 1899	9
Transfers to fresh owners	13
Struck off register	5
On register, 31st December, 1899	335
Visits of inspection to wharves and locks	...1765
Boats completely inspected	553
Visits to Boats as to small pox	151

TABLE XVI.

Houses Let in Lodgings.

	Houses.	Rooms.
Registered during the year; used by weekly lodgers or boarders	40	91
Registered during the year; let as furnished rooms	161	292
Struck off register	5	15
On register, 31st December, 1899	402	794
Houses let in furnished rooms visited, but not yet registered	142	287
Total visits for registration purposes ...	343	670
Total visits for additional inspection ...	2541	
Nuisances found and abated—		
	Found.	Abated.
Overcrowded rooms	60	60
Dirty rooms	201	201
Dirty and bad bedding	9	9
Dilapidated dwellings	36	37
Defective drains	28	27
Dirty closets	12	12
Cellars let as furnished rooms	3	closed 0
Cellars let as separate dwellings... ...	7	„ 12
Total ...	356	358

TABLE XVII.

Other work of Temporary Dwellings' Inspector.

Visits to common lodging-houses	145
„ vans	158
„ tents	4
, cellar dwellings	96
overcrowded houses...	38
„ houses as to drainage	47
„ infectious diseases	6
„ as to other causes	169
„ common lodging-houses as to small pox...	89
Total ...	752

APPENDIX.

TABLE A, Part I.

Table shewing deaths recorded in the City of Leeds during the fifty-two weeks ended 30th December, 1899, classified according to cause, age, and the registration sub-districts in which they occurred.

TOWNSHIP, &c.	LEEDS.						Hunslet.		Holbeck.		Wortley.		Kirkstall		Bramley		Chapeltown.		Osmondthorpe.		Infirmary, &c.		Fever Hospitals *		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 †		Outsiders occurring in City.	
Re-estimated Population.	61,865		87,436		33,219		64,733		34,500		58,602		39,651		16,349		27,072		462																					
Under and over 5.	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	ov. 5	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	ov 5	und 5	ov. 5	und 5	ov. 5	und 5	ov. 5	all ages					
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	46	1	28	..	41	1	7	..	5	1	6	..	7	1	4	..	5	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	151	5	156	0·37	..	..	..	..
Scarlatina	..	1	1	4	2	1	9	4	2	2	4	7	3	3	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	32	32	64	0·15	..	..	..	..
Diphtheria	13	12	15	13	3	2	26	22	26	23	37	32	5	11	14	11	3	6	..	..	4	1	11	10	..	..	..	..	..	..	1	1	157	142	299	0·71	..	..	..	1
Croup (memb)	8	1	3	3	..	1	..	1	6	..	5	3	..	2	2	..	1	..	..	..	..	..	10	8	..	..	..	..	..	..	..	..	25	11	36	0·09	..	..	..	..
,, undefined	6	1	2	..	..	..	..	..	1	..	1	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	2	14	0·03	..	..	..	..
Whooping-cough	11	..	19	1	15	1	44	1	17	..	30	..	9	..	5	..	3	1	..	..	..	..	..	..	2	..	..	..	..	..	..	..	155	4	159	0·38	..	..	..	..
Contin. Fevers. Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric	2	6	..	8	..	3	1	7	..	5	..	4	..	3	..	2	..	1	..	..	..	2	..	22	..	2	..	..	..	..	..	1	3	66	69	0·16	..	..	..	1
Other or doubtful	..	..	..	..	..	..	1	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	4	0·01	..	..	..	..
Diarrhœa	74	1	59	1	29	1	96	2	29	1	56	1	24	2	15	1	11	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	394	10	404	0·96	..	..	..	..
¶Cholera	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	0·01	..	..	..	..
Rheumatic Fever	..	2	..	..	..	..	..	2	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	6	6	0·01	..	..	..	..
Acute & Sub-acute Rheumatism	..	3	1	2	..	1	..	4	..	..	..	..	..	2	..	2	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	16	17	0·04	..	..	..	..
Erysipelas	1	..	..	3	2	1	3	2	..	..	1	..	..	1	..	1	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	7	9	16	0·04	..	1	..	..
Pyæmia	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	3	4	0·01	..	..	..	..
Puerperal Fever	..	..	..	1	..	..	..	3	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	6	0·01	..	..	..	..
Ague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis	1	72	6	107	4	44	1	59	2	36	1	53	1	43	..	27	..	13	..	1	..	11	..	..	..	3	100	..	4	..	3	..	4	19	577	596	1·41	..	17	..	7
Bronchitis Pneumonia Pleurisy	107	101	116	137	73	84	106	90	57	55	98	75	38	62	24	28	24	33	1	1	7	16	..	1	1	44	..	7	..	3	1	5	653	742	1395	3·30	..	10	1	7
Heart Disease	2	51	1	96	..	34	2	70	1	36	..	92	..	48	..	26	..	33	..	..	1	30	..	..	..	51	..	3	..	3	..	11	7	584	591	1·40	..	13	..	10
Injury, &c.	1	20	7	23	1	15	7	15	2	8	3	16	1	10	1	8	..	7	..	..	18	84	..	..	..	7	..	..	..	..	..	1	41	214	255	0·60	..	..	2	24
Total of Above causes	272	272	259	399	170	190	303	283	148	168	242	287	88	189	67	108	48	96	1	2	32	145	21	42	7	205	..	14	..	9	3	24	1661	2433	4094	9·69	..	41	3	50
All other causes	263	237	297	431	201	135	320	261	157	132	274	231	120	159	45	82	68	93	..	2	38	234	..	6	11	141	2	31	2	20	4	14	1802	2209	4011	9·49	..	49	16	112
Total under and over 5	535	509	556	830	371	325	623	544	305	300	516	518	208	348	112	190	116	189	1	4	70	379	21	48	18	346	2	45	2	29	7	38					..	90	19	162
Total	1,044		1,386		696		1,167		605		1034		556		302		305		5		449		69		364		47		31		45		3463	4642	8105	19·19	90		181	
Mortality per 1,000 per an.	16·9		15·9		21·0		18·1		17·6		17·7		14·1		18·5		11·3		10·9														65·5	12·6	19·19					

TABLE A, Part II.

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 1899. at each age group.			423,889	12,037	41,011	94,487	87,181	166,237	9,747	13,189	
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 1891	Estimated to middle of 1899.		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 ..	60 618	61,865	2,158	1,044	348	187	41	29	255	55	129	16·93
Do. do. West ..	83,520	87,436	2,085	1,386	374	182	58	60	379	77	256	15·90
Do. do. South ..	33,385	35,219	1,207	696	237	134	41	26	166	33	59	21·02
Hunslet	58,164	64,733	2,262	1,167	427	196	54	57	220	56	157	18·09
Holbeck	23,592	34,500	1,056	605	177	128	39	22	120	27	92	17·60
Wortley	49,436	58,602	1,769	1,034	329	187	70	42	205	48	153	17·70
Kirkstall	29,911	39,651	1,067	556	146	62	36	32	127	28	125	14·07
Bramley	14,787	16,349	496	302	56	56	25	20	77	17	51	18·54
Chapeltown	13,661	27,072	735	305	81	35	11	13	77	21	67	11·30
Osmondthorpe .. .	431	462	4	5	1	..	1	..	..	2	1	10·90
Infirmary	..	..	..	449	27	43	46	57	228	26	22	..
*Fever Hospitals	..	..	..	69	..	21	21	9	18	..	..	..
WORKHOUSES — Leeds ..	..	..	76	364	10	8	4	19	166	36	121	..
WORKHOUSES — Hunslet ..	..	..	9	47	2	..	..	1	16	5	23	..
WORKHOUSES — Holbeck ..	..	..	7	31	2	..	2	..	10	7	10	..
WORKHOUSES — Bramley ..	..	..	8	45	5	2	2	2	10	3	21	..
For the whole City	367,505	423,889	12,939	8,106	2,222	1,241	451	389	2,074	441	1,287	19·19

* Including the deaths of 26 persons at Manston Hospital (outside the city boundary).

A. 3.

1899.—FIRST QUARTER.

Table shewing Deaths recorded in the City of Leeds during the thirteen weeks ended April 1st, 1899, 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.		In-firmary, etc.		Fever Hospitals *		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.†		Outside occurr in City
Population—423,889	62,261		87,948		34,467		67,984		31,077		58,546		39,418		16,390		26,335		463																				
Under and over 5.	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	ov. 5	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	ov. 5	und 5	ov. 5	und 5	ov. 5	und. 5	over. 5	All Ages		und 5	ov. 5	und 5
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	15	1	..	..	12	1	4	..	2	..	1	..	1	1	1	..	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlatina	..	..	1	3	..	1	3	1	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	39	3	42	0·40	..	..	..
Diphtheria	4	8	4	3	1	..	5	2	1	..	..	..	2	8	1	..	1	..	..	..	..	..	2	4	..	..	..	..	..	..	..	..	..	9	7	16	0·15	..	..	..
Croup (memb)	4	1	2	1	..	1	..	..	3	..	12	14	..	..	..	..	1	..	..	..	2	..	3	4	..	..	..	..	..	..	..	..	..	36	39	75	0·71	..	..	..
,, undefined	1	..	1	..	..	..	..	..	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	4	14	0·13	..	..	..
Whooping Cough	2	..	..	..	1	..	8	..	3	..	..	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3	0·03	..	..	..
Contin. Fevers. Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17	..	17	0·16	..	..	..
Enteric	..	1	..	4	..	1	..	1	..	1	..	..	..	1	..	1	..	..	..	..	..	1	..	4	..	1	..	..	..	..	..	..	..	..	16	16	0·15	..	..	..
Other or doubtful	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	0·01	..	..	..
Diarrhœa	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	0·02	..	..	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatic Fever	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	0·03	..	..	..
Acute & Sub-acute Rheumatism	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	0·03	..	..	..
Erysipelas	..	..	..	1	..	..	1	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	4	5	0·05	..	..	..
Pyæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	0·01	..	..	..
Puerperal Fever	..	..	..	1	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	0·03	..	..	..
Ague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis	..	24	2	30	1	13	..	18	1	11	..	16	..	16	..	5	..	5	..	..	..	3	..	..	1	36	..	..	..	1	..	..	5	178	183	1·73	..	..	..
Bronchitis Pneumonia Pleurisy	27	34	40	47	22	35	33	32	16	23	25	27	6	24	6	10	10	14	1	1	2	4	..	..	..	12	..	..	..	2	1	..	189	265	454	4·30	..	..	1
Heart Disease	1	18	..	33	..	8	..	19	..	12	..	28	..	15	..	6	..	9	..	..	..	4	..	..	..	17	..	2	..	..	..	3	1	174	175	1·66	..	..	..
Injury, &c.	..	7	3	5	..	3	1	..	2	3	1	6	..	..	..	1	..	5	..	..	5	25	..	..	..	5	..	..	..	..	..	1	12	61	73	0·69	..	..	..
Total of above causes	55	94	53	128	37	63	56	75	31	51	39	93	11	68	9	26	14	33	1	1	10	38	5	10	2	72	..	2	..	3	1	5	324	762	1086	10·28	..	..	1
All other causes	67	81	64	112	50	47	78	69	40	33	55	67	30	57	11	25	26	24	..	2	12	45	..	1	4	48	1	9	..	5	1	3	439	628	1067	10·10	..	..	4
Total	297		357		197		278		155		254		166		71		97		4		105		16		126		12		8		10		763	1390	2153	20·39	..		45
Mortality per 1,000 per an.	19·1		16·3		23·6		16·4		20·0		17·4		16·9		17·4		14·8		34·7														61·0	15·9	20·4				

Table shewing Deaths recorded in the City of Leeds during the thirteen weeks ended July 1st, 1899, classified according to cause, age, and the registration sub-districts in which they occurred.

TOWNSHIP &c. .. Re-estimated Population—423,889	LEEDS. North. 65,261		West. 87,948		South E. 34,467		Hunslet. 67,984		Holbeck 31,077		Wortley. 58,546		Kirkstall 39,418		Bramley. 16,390		Chapeltown. 26,335		Osmondthorpe. 463		Infirmary, etc.		Fever Hospitals *		Workhouses. Leeds.		Hunslet.		Holbeck		Bramley.		Total Mortality in City.			Annual rate per 1,000 pop.	Deaths of Leeds persons occurring outside City.†		Outsiders occurring in City.	
Under and over 5.	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	ov. 5	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	ov. 5	und 5	ov. 5	und 5	ov. 5	und. 5	over. 5	All Ages		und 5	ov. 5	und 5	ov.
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	13	..	10	..	7	..	..	..	2	..	..	..	3	..	1	..	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	40	1	41	0·39	..	..	..	..
Scarlatina	..	..	..	..	2	..	2	1	..	..	1	3	2	..	..	..	..	..	..	..	..	..	3	2	..	..	..	..	..	..	..	..	10	6	16	0·15	..	..	..	..
Diphtheria	5	1	1	1	..	..	1	4	5	2	6	4	1	..	4	3	..	2	..	..	..	..	4	1	..	..	..	..	..	..	..	..	27	18	45	0·43	..	..	..	..
Croup (memb)	1	..	..	1	..	..	..	..	1	..	2	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	4	9	0·09	..	..	..	..
,, undefined	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	0·02	..	..	..	..
Whooping Cough	3	..	2	..	4	1	9	1	2	..	3	..	1	..	..	..	1	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	27	2	29	0·27	..	..	..	..
Contin. Fevers. Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric	..	..	..	1	..	..	..	1	..	1	..	2	..	1	..	..	..	1	..	..	..	..	..	6	..	..	..	..	..	..	..	..	..	13	13	0·12	..	..	..	..
Other or doubtful	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	0·01	..	..	..	..
Diarrhœa	5	..	1	..	1	..	2	..	..	1	1	1	3	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13	4	17	0·16	..	..	..	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatic Fever	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	0·02	..	..	..	..
Acute & Subacute Rheumatism	..	1	..	1	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	4	0·04	..	..	..	..
Erysipelas	..	..	..	..	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	4	0·04	..	..	..	..
Pyæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis	1	16	3	24	1	9	1	13	..	9	..	11	..	7	..	9	..	2	..	..	..	3	..	..	1	24	..	2	..	2	..	2	7	133	140	1·33	..	..	..	..
Bronchitis Pneumonia Pleurisy	26	32	32	27	16	14	27	25	11	7	26	17 13	7	21	2	8	3	12	..	..	1	5	..	1	..	10	..	3	..	1	..	2	151	185	336	3·18	..	..	..	..
Heart Disease	..	10	1	28	..	8	1	20	..	9	..	..	..	10	..	4	..	7	..	..	1	12	..	..	..	11	..	1	..	1	..	4	3	138	141	1·34	..	..	..	..
Injury, &c.	..	4	2	8	..	5	2	8	..	4	..	5	1	8	..	3	..	..	..	..	5	19	..	..	..	1	..	..	..	..	..	..	10	65	75	0·71	..	..	..	..
Total of above causes	55	67	52	91	32	38	46	76	21	33	39	58	18	49	8	29	8	25	..	..	7	39	7	10	3	46	..	6	..	4	..	8	296	579	875	8·28	..	..	..	1
All other causes	60	43	74	112	48	32	70	64	30	30	63	62	27	38	8	19	6	21	..	..	11	62	..	1	2	31	..	9	1	4	1	5	401	533	934	8·85	..	..	5	2
Total ..	225		329		150		256		114		222		132		64		60		..		119		18		82		15		9		14		697	1112	1809	17·13	..		47	
Mortality per 1,000 per an.	14·5		15·0		18·0		15·1		14·7		15·1		13·4		15·7		9·14																52·7	12·0	17·1					

* There were 5 deaths at Manston during the quarter. † No return received during quarter

A. 5. **1899.—THIRD QUARTER.**

Table shewing Deaths recorded in the City of Leeds during the thirteen weeks ended 30th September, 1899, classified according to cause, age, and the registration sub-districts in which they occurred.

TOWNSHIP &c. .. Re-estimated. Population— 423,889	LEEDS. North. 65,261		West. 87,948		South E. 34,467		Hunslet. 67,984		Holbeck 31,077		Wortley. 58,546		Kirkstall 39,418		Bramley. 16,390		Chapel-town. 26,335		Osmond-thorpe. 463		In-firmary, etc.		Fever Hospitals *		Workhouses. Leeds.		Hunslet.		Holbeck		Bramley.		Total Mortality in City.			Annual rate per 1,000 pop.	Deaths o Leeds persons occurring outside City.†		Ou side occur in City	
Under and over 5.	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	ov. 5	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	ov. 5	und 5	ov. 5	und 5	ov. 5	und. 5	over. 5	All Ages		und 5	ov. 5	und 5
Smallpox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles ..	3	..	12	..	13	..	2	..	..	..	3	..	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	37	..	37	0·35	..	..	..	..
Scarlatina ..	..	..	..	1	..	..	2	1	..	1	3	2	..	2	..	..	..	..	..	..	..	..	3	3	..	..	..	..	..	..	..	..	8	10	18	0·17	..	..	..	..
Diphtheria ..	3	..	3	3	2	..	3	8	6	10	10	4	1	1	6	3	2	4	..	..	1	..	3	1	..	..	..	..	..	..	..	..	40	34	74	0·70	..	..	..	..
Croup (memb)	2	..	..	..	..	..	..	1	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	1	6	0·06	..	..	..	..
,, undefined	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	0·02	..	..	..	..
Whooping Cough	2	..	7	..	8	..	17	..	8	..	13	..	2	..	3	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	60	1	61	0·58	..	..	..	..
Contin. Fevers. Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric ..	2	2	..	1	..	1	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	8	..	1	..	..	..	..	..	..	2	16	18	0·17	..	..	..	..
Other or doubtful	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	0·01	..	..	..	..
Diarrhœa ..	65	1	55	1	26	..	85	2	29	..	52	..	20	1	13	..	10	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	356	5	361	3·42	..	..	..	..
¶Cholera ..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	0·03	..	..	..	..
Rheumatic Fever	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	0·01	..	..	..	..
Acute & Sub-acute Rheumatism	..	1	..	..	..	..	..	2	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	5	0·05	..	..	..	..
Erysipelas ..	1	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	0·03	..	..	..	..
Pyæmia ..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	0·02	..	..	..	..
Puerperal Fever	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	0·01	..	..	..	..
Ague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis ..	..	17	..	26	2	10	..	12	..	6	..	10	1	9	..	6	..	4	..	1	..	4	..	..	1	18	..	1	..	..	..	2	4	126	130	1·23	..	..	..	..
Bronchitis Pneumonia Pleurisy	17	18	16	22	13	6	17	15	6	6	15	8	5	2	6	6	1	2	..	..	2	1	..	..	1	10	..	2	..	..	..	..	99	98	197	1·87	..	..	..	..
Heart Disease	..	10	..	17	..	7	..	14	..	8	..	25	..	11	..	9	..	8	..	..	..	9	..	..	..	10	..	..	..	1	..	1	..	130	130	1·23	..	..	..	..
Injury, &c. ..	1	4	1	5	1	1	3	3	..	1	1	2	..	1	..	..	..	2	..	..	4	22	..	..	..	..	..	..	..	..	..	..	11	41	52	0·49	..	..	1	..
Total of above causes	97	53	95	77	65	26	130	62	51	32	98	54	32	29	29	25	14	22	..	1	7	36	6	12	2	39	..	3	..	1	1	3	627	475	1102	10·44	..	..	1	..
All other causes	77	50	92	84	55	25	103	50	62	28	83	51	35	34	14	19	21	23	..	..	6	68	..	1	4	27	1	7	..	6	..	3	553	476	1029	9·74	..	..	3	..
Total	217		348		171		345		173		286		130		87		80		1		117		19		72		11		7		7		1180	951	2131	20·18	..		4	
Mortality per	17·9		15·9		20·5		20·4		22·3		19·6		13·2		21·3		12·2		8·7														39·3	10·3	20·18					

* There were two deaths in persons [illegible]

A. 6.

1899.—FOURTH QUARTER.

Table shewing Deaths recorded in the City of Leeds during the thirteen weeks ended 30th December, 1899, classified according to cause, age, and the registration sub-districts in which they occurred.

TOWNSHIP &c.	LEEDS. North.		West.		South E.		Hunslet.		Holbeck		Wortley.		Kirkstall		Bramley.		Chapel-town.		Osmond-thorpe.		In-firmary, etc.		Fever Hospitals *		Workhouses. Leeds.		Hunslet.		Holbeck		Bramley.		Total Mortality in City.			Annual rate per 1,000 pop.	Deaths of Leeds persons occurring outside City.†		Ou side occurr in City	
Re-estimated Population— 423,884†	65,261		87,948		34,467		67,984		31,077		58,546		39,418		16,390		26,335		463																					
Under and over 5.	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	ov. 5	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	ov. 5	und 5	ov. 5	und 5	ov. 5	und. 5	over. 5	All Ages		und 5	ov. 5	und 5	
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	15	..	6	..	9	..	1	..	1	1	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	35	1	36	0·34	..	..	..	..
Scarlatina	..	1	..	..	..	..	2	1	..	1	..	2	..	1	..	..	..	..	..	..	..	..	3	3	..	..	..	..	..	..	..	..	5	9	14	0·13	..	..	..	..
Diphtheria	1	3	7	6	..	2	17	8	14	11	9	10	1	2	3	5	..	..	..	..	1	1	..	2	..	..	..	..	..	..	1	1	54	51	105	0·99	..	..	..	..
Croup (memb)	1	..	1	1	..	..	..	..	..	..	2	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	2	7	0·07	..	..	..	..
,, undefined	3	..	1	..	..	..	..	..	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	..	7	0·07	..	..	..	..
Whooping Cough	4	..	10	1	2	..	10	..	4	..	14	..	5	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	51	1	52	0·49	..	..	..	..
Contin. Fevers: Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Contin. Fevers: Enteric	..	3	..	2	..	1	1	4	..	3	..	1	..	..	..	1	..	..	..	..	..	1	..	4	..	..	..	..	..	..	..	1	1	21	22	0·21	..	..	..	..
Contin. Fevers: Other or doubtful	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	0·01	..	..	..	..
Diarrhœa	3	..	3	..	2	1	8	..	..	..	3	..	1	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	23	1	24	0·23	..	..	..	..
¶Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatic Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Acute & Sub-acute Rheumatism	..	1	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	4	5	0·05	..	..	..	..
Erysipelas	..	..	..	1	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4	0·04	..	..	..	..
Pyæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	0·01	..	..	..	..
Puerperal Fever	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	0·02	..	..	..	..
Ague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	22	..	1	..	..	..	..	3	140	143	1·35	..	..	..	..
Phthisis	..	15	1	27	..	12	..	16	1	10	1	16	..	11	..	7	..	2	..	..	..	1	..	..	..	12	..	2	..	..	..	3	214	194	408	3·86	..	..	..	..
Bronchitis, Pneumonia, Pleurisy	37	17	28	41	22	29	29	18	24	19	32	23	20	15	10	4	10	5	..	..	2	6	..	..	..	13	..	..	..	1	..	3	3	142	145	1·37	..	..	..	..
Heart Disease	1	13	..	18	..	11	1	17	1	7	..	26	..	12	..	7	..	9	..	..	..	5	..	..	..	1	..	..	..	..	..	1	8	47	55	0·52	..	..	1	..
Injury, &c.	..	5	1	5	..	6	1	4	..	..	1	3	..	1	1	4	..	..	..	..	4	18	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total of above causes	65	58	59	103	36	63	71	70	45	52	66	82	27	43	21	28	12	16	..	..	8	32	3	10	..	48	..	3	..	1	1	8	414	617	1031	9·76	..	..	1	..
All other causes	59	63	67	123	48	31	69	78	25	41	73	51	28	30	12	19	15	25	..	..	9	59	..	3	1	35	..	6	1	5	2	3	409	572	981	9·29	..	..	4	..
Total ..	245		352		178		288		163		272		128		80		68		..		103		16		84		9		7		14		823	1189	2012	19·05	..		4	
Mortality per 1,000 per an.	15·8		16·1		21·3		17·0		21·0		18·6		13·0		19·6		10·4		..														62·3	12·9	19·1					

* There were six deaths at Manston Hospital during this quarter. † No return received during quarter. ¶ English.

A. 7.

1900.—FIRST QUARTER.

Table shewing Deaths recorded in the City of Leeds during the thirteen weeks ended 31st March, 1900, classified according to cause, age, and the registration sub-districts in which they occurred.

TOWNSHIP &c. .. Re-estimated. Population—431,287	LEEDS. North. 62,029		West. 87,950		South E. 33,202		Hunslet. 65,937		Holbeck 35,588		Wortley. 59,805		Kirkstall 40,929		Bramley. 16,554		Chapel-town. 28,827		Osmond-thorpe. 466		In-firmary, etc.		Fever Hospitals		Workhouses. Leeds.		Hunslet.		Holbeck		Bramley.		Total. Mortality in City.			Annual rate per 1,000 pop.	Deaths of Leeds persons occurring outside City.†		Outside occurr in City	
Under and over 5.	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	ov. 5	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	ov. 5	und 5	ov. 5	und 5	ov. 5	und. 5	over. 5	All Ages.		und 5	ov. 5	und 5	
Smallpox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	0·00	..	..	..	
Measles ..	20	1	..	..	7	..	11	..	..	..	1	..	..	..	..	..	1	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	41	1	42	0·39	..	..	..	
Scarlatina ..	..	..	..	..	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	5	0·05	..	..	..	
Diphtheria ..	3	1	3	3	2	2	6	4	11	3	4	4	1	1	5	..	2	3	..	..	2	..	4	1	..	..	..	..	..	..	..	..	43	22	65	0·60	..	..	..	
Croup (memb)	3	..	2	2	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	2	10	0·09	..	..	..	
,, undefined	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	0·00	..	..	..	
Whooping Cough	10	1	21	1	4	..	22	1	9	..	18	..	7	..	..	..	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	94	3	97	0·90	..	..	1	
Contin. Fevers. Typhus ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Enteric ..	..	1	..	..	..	..	..	3	..	1	..	1	..	2	..	1	..	..	..	..	..	1	..	7	..	1	..	..	..	..	..	..	18	18	0·17	..	..	..	
Other or doubtful	..	..	4	..	1	1	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	3	9	0·08	..	..	..	
Diarrhœa ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Cholera ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	0·00	..	..	..	
Rheumatic Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	5	6	0·06	..	..	..	
Acute & Sub-acute Rheumatism	1	2	..	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	2	3	5	0·05	..	..	..	
Erysipelas ..	1	1	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	0·02	..	..	..	
Pyæmia ..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	6	6	0·06	..	..	..	
Puerperal Fever	..	2	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Ague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	11	..	..	..	5	..	..	..	37	..	2	..	1	..	1	9	166	175	1·63	..	..	..	
Phthisis ..	..	20	1	28	1	15	1	11	2	7	2	19	1	8	..	1	1	11	..	..	..	5	..	..	..	37	..	2	..	1	..	1	9	166	175	1·63	..	..	..	
Bronchitis Pneumonia Pleurisy	42	71	47	77	29	31	50	59	19	17	25	35	21	30	7	14	4	9	..	..	4	5	1	..	..	23	..	4	..	..	..	1	249	376	625	5·82	..	..	..	
Heart Disease	..	17	..	30	..	12	..	28	..	7	..	22	..	14	..	5	..	9	..	..	..	4	..	..	..	8	..	4	..	..	..	3	..	163	163	1·52	..	..	..	
Injury, &c. ..	2	1	3	9	..	2	2	7	..	3	1	5	1	..	..	3	..	2	..	1	10	18	..	1	..	3	..	..	..	1	..	..	19	56	75	0·70	..	..	..	
Total of above causes	84	119	81	152	45	64	95	113	41	40	53	86	32	58	12	25	11	34	..	1	17	34	5	12	1	74	..	10	..	2	..	5	477	829	1306	12·15	..	..	1	
All other causes	77	73	79	145	64	48	76	85	41	42	59	83	43	62	15	21	22	37	..	1	14	63	..	3	6	53	..	12	1	4	..	6	497	738	1235	11·49	..	..	4	
Total	353		457		221		369		164		281		195		73		104		2		128		20		134		22		7		11		974	1567	2541	23·64	..		4	
Mortality per 1,000 per an	22·8		20·9		26·7		22·5		18·5		18·9		19·1		17·7		14·5		17·2														72·4	17·9	23·6					

TABLE B, Part I. (SUB-DISTRICTS.)

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 1899, in the Urban Sanitary District of Leeds; classified according to Diseases, Ages, and Localities.

Names of Localities adopted for the purpose of these Statistics. (a)	Population at all ages. Census, 1891. (b)	Estimated to middle of 1899. (c)	Registered Births. (d)	Aged under 5, 5 under 15, 15 upwards. (e)	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health. 1 Small-pox.	2 Scarlatina.	3 Diphtheria.	4 Membranous Croup.	5 Fevers. Typhus.	6 Fevers. Enteric or Typhoid.	7 Fevers. Continued.	8 Fevers. Relapsing.	9 Fevers. Puerperal.	10 Cholera.	11 Erysipelas.	12 Other.	13 Total.	Number of such Cases Removed from their Homes in the several Localities for Treatment in the Isolation Hospitals. 1 Small pox.	2 Scarlatina.	3 Diphtheria.	4 Membranous Croup.	5 Fevers. Typhus.	6 Fevers. Enteric or Typhoid.	7 Fevers. Continued.	8 Fevers. Relapsing.	9 Fevers. Puerperal.	10 Cholera.	11 Erysipelas.	12 Other.	13 Total.
North (H)	60,618	61,865	2,234	Under 5,	..	45	42	9	..	10	..	..	..	..	4	5	115	..	18	4	..	..	3	..	..	..	..	..	..	25
				5 under 15,	..	78	58	1	..	26	..	..	..	..	3	14	180	..	43	12	..	..	15	..	..	..	..	..	3	73
				15 upwards.	..	22	18	..	1	61	..	..	1	..	54	6	163	..	13	3	..	1	32	..	..	..	..	..	6	55
West	83,520	87,436	2,085	Under 5,	..	80	56	6	..	4	..	..	..	..	6	6	153	..	28	7	..	..	..	..	..	..	..	..	3	38
				5 under 15,	..	208	56	2	..	24	..	..	..	..	15	11	316	..	93	8	..	..	9	..	..	..	..	..	7	117
				15 upwards.	..	35	46	..	..	65	1	..	6	..	81	7	241	..	15	7	..	..	28	..	..	..	..	..	7	57
South-East	33,385	33,219	1,207	Under 5,	..	42	6	1	..	2	..	..	..	..	4	1	56	..	25	1	..	..	..	..	..	..	..	..	..	26
				5 under 15,	..	74	24	1	..	11	..	..	..	..	2	..	112	..	44	2	..	..	5	..	..	..	..	..	..	51
				15 upwards.	1	11	13	..	1	30	..	..	1	..	32	3	92	1	6	..	..	1	20	..	..	..	..	..	3	31
Hunslet	58,164	64,733	2,271	Under 5	..	85	80	..	..	5	..	..	..	..	6	4	180	..	25	..	..	..	..	..	..	..	..	..	..	26
				5 under 15	..	178	102	1	..	25	..	..	..	..	14	3	324	..	73	2	..	..	10	..	..	..	..	..	2	87
				15 upwards.	..	43	75	..	..	66	1	..	5	..	62	17	269	..	18	4	..	..	28	..	..	..	..	..	14	64
Holbeck	23,592	34,500	1,063	Under 5,	..	49	97	6	..	1	..	..	..	..	4	1	158	..	15	5	..	..	..	..	..	..	..	..	..	20
				5 under 15,	..	77	179	..	..	9	..	..	..	..	2	2	269	..	31	12	..	..	2	..	..	..	..	..	2	47
				15 upwards.	..	12	79	..	..	27	..	..	..	..	15	6	139	..	7	3	..	..	15	..	..	..	..	..	4	29
Wortley	49,436	58,602	1,777	Under 5,	..	50	137	7	..	2	..	..	..	..	1	1	198	..	8	5	..	..	..	..	..	..	..	..	..	13
				5 under 15,	..	130	238	3	..	8	1	..	..	..	1	4	385	..	29	16	..	..	3	..	..	..	..	..	1	49
				15 upwards.	..	28	85	..	..	33	2	..	3	..	35	2	188	..	5	3	..	..	12	..	..	..	..	..	2	22
Kirkstall	29,911	39,651	1,067	Under 5,	..	69	48	..	..	5	..	..	..	..	2	..	124	..	31	5	..	..	3	..	..	..	..	..	..	39
				5 under 15,	..	155	100	2	..	13	..	..	..	..	3	4	277	..	61	23	..	..	4	..	..	..	..	..	2	90
				15 upwards.	..	37	35	..	..	28	..	..	6	..	23	2	131	..	18	3	..	..	12	..	..	..	..	..	1	34
Bramley	14,787	16,349	496	Under 5,	..	15	40	2	..	2	..	..	..	..	1	1	61	..	7	9	..	..	1	..	..	..	..	..	..	17
				5 under 15,	..	28	52	..	..	4	..	..	..	..	..	4	88	..	16	12	..	..	2	..	..	..	..	..	4	34
				15 upwards.	..	4	6	..	..	10	..	..	1	..	16	..	37	..	1	..	..	..	4	..	..	..	..	..	..	5
Chapeltown	13,661	27,072	735	Under 5,	..	17	16	2	..	2	..	..	..	..	1	3	41	..	2	..	..	..	..	..	..	..	..	..	..	2
				5 under 15.	..	34	42	..	..	3	..	..	..	..	2	4	85	..	10	6	..	..	..	..	..	..	..	..	..	16
				15 upwards.	..	11	22	..	..	12	..	..	1	..	12	1	59	..	4	2	..	..	2	..	..	..	..	..	1	9
Osmondthorpe .	431	462	4	Under 5,	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
				5 under 15,	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	1
				15 upwards.	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	1
Totals	367,505	423,889	12,939	Under 5,	..	453	522	33	..	33	..	..	..	..	29	22	1092	..	160	36	..	..	7	..	..	..	..	..	3	206
				5 under 15,	..	962	851	10	..	125	1	..	..	..	42	45	2037	..	400	93	..	..	51	..	..	..	..	..	21	565
				15 upwards.	1	203	379	..	2	333	4	..	24	..	330	44	1320	1	87	25	..	2	154	..	..	..	..	..	38	307
Grand total ..	.	..	..	..	1	1618	1752	43	2	491	5	..	24	..	401	112	4449	1	647	154	..	2	212	..	..	..	..	..	62	1078

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. Four cases of illness occurred amongst the staff at this hospital. One of diphtheria, and three of typhoid, all 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 Manston Hall outside the town. New wards for general fever cases were opened on the same estate in October, 1893. Six hundred and four of the 1,078 cases were admitted there during 1899. One case of scarlet fever admitted to the Manston Isolation Hospital, came from outside the city and is not included in this table. Also five members of the Manston Hospital staff were admitted, two over 15 for scarlet, and two over 15 for diphtheria to Manston, one between 5 and 15 for diphtheria to Beckett Street. None of these five are counted, as they could not be classified under any district of the city. The six cases mentioned in note to table B for 1898, reported in 1898, but hospitalled in 1899, are not included above. One case of diphtheria and one case of typhoid fever, included in the 4,449 notified in 1899, are included in the 1,078 removed to hospital, although the actual removal did not take place until 1900.

B. 2. **TABLE B, Part 2. (Wards).**

Names of Localities adopted for the purpose of these Statistics. (a)	Population at all ages. Census, 1891. (b)	Population at all ages. Estimated to middle of 1899. (c)	Aged	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health. 1 Small-pox.	2 Scarlatina.	3 Diphtheria.	4 Membranous Croup.	5 Fevers. Typhus.	6 Fevers. Enteric or Typhoid.	7 Fevers. Continued.	8 Fevers. Relapsing.	9 Fevers. Puerperal.	10 Cholera.	11 Erysipelas.	12 Other.	13 Total.
Central	23,009	21,252	Under 5,	..	17	8	6	..	4	..	..	..	..	2	2	39
			5 under 15,	..	19	6	..	..	4	..	..	..	..	..	2	31
			15 upwards.	..	5	5	..	..	12	..	..	..	..	15	4	41
North	26,596	37,323	Under 5,	..	26	18	4	..	3	..	..	..	..	2	4	57
			5 under 15,	..	47	34	..	..	15	..	..	..	..	5	8	109
			15 upwards.	..	14	20	..	..	25	..	..	..	..	33	..	92
North-East (H) ..	24,190	27,435	Under 5,	..	18	24	1	..	5	..	..	..	..	1	2	51
			5 under 15,	..	44	37	1	..	10	..	..	..	..	..	8	100
			15 upwards.	..	13	7	..	1	35	..	..	1	..	17	3	77
East	25,598	26,387	Under 5,	..	35	4	..	..	1	..	..	..	..	4	..	44
			5 under 15,	..	62	14	..	..	8	..	..	..	..	2	..	86
			15 upwards.	..	6	11	..	1	28	..	..	1	..	23	3	73
South	17,255	17,241	Under 5,	..	37	11	1	..	1	..	..	..	..	1	3	54
			5 under 15,	..	46	20	1	..	7	..	..	..	..	1	1	76
			15 upwards.	1	9	11	..	..	9	..	..	..	..	17	1	48
East Hunslet ..	25,386	28,920	Under 5,	..	20	17	..	..	3	..	..	..	..	4	2	46
			5 under 15,	..	68	25	..	..	17	..	..	..	..	7	..	117
			15 upwards.	..	15	33	..	..	40	1	..	2	..	32	8	131
West Hunslet ..	23,794	29,701	Under 5,	..	42	62	..	..	2	..	..	..	..	1	..	107
			5 under 15,	..	80	98	1	..	11	..	..	..	..	6	3	199
			15 upwards.	..	24	42	..	..	24	..	..	3	..	22	8	123
Holbeck	21,563	29,038	Under 5,	..	42	89	6	..	1	..	..	..	..	4	1	143
			5 under 15,	..	71	148	..	..	4	..	..	..	..	2	1	226
			15 upwards.	..	11	70	..	..	23	..	..	..	..	14	6	124
Mill Hill	9,214	8,369	Under 5,	..	4	5	..	..	..	..	..	..	..	1	1	11
			5 under 15,	..	9	11	..	..	1	..	..	..	..	..	3	24
			15 upwards.	..	8	3	..	..	6	..	..	..	..	16	..	33
West	24,668	25,185	Under 5,	..	31	17	5	..	2	..	..	..	..	..	2	57
			5 under 15,	..	73	10	..	..	11	..	..	..	..	2	2	98
			15 upwards.	..	18	18	..	..	27	..	..	1	..	16	4	84
North-West	28,363	32,214	Under 5,	..	30	19	1	..	1	..	..	..	..	5	2	58
			5 under 15,	..	91	20	2	..	9	..	..	..	..	9	6	137
			15 upwards.	..	6	16	..	..	18	1	..	3	..	30	1	75
Brunswick . ..	22,752	25,032	Under 5,	..	15	15	..	..	1	..	..	..	..	..	1	32
			5 under 15,	..	37	14	..	..	3	..	..	..	..	4	..	58
			15 upwards.	..	4	10	..	..	15	..	..	3	..	19	2	53
New Wortley ..	19,410	19,643	Under 5,	..	11	35	1	..	1	..	..	..	..	..	1	49
			5 under 15,	..	27	45	..	..	1	..	..	..	..	..	..	73
			15 upwards.	..	5	23	..	..	14	..	..	1	..	15	1	59
Armley and Wortley	26,436	34,508	Under 5,	..	33	97	6	..	1	..	..	..	..	1	..	138
			5 under 15,	..	89	183	3	..	5	1	..	..	..	1	3	285
			15 upwards.	..	19	61	..	..	18	2	..	2	..	20	1	123
Bramley	18,377	20,800	Under 5,	..	21	45	2	..	2	..	..	..	..	1	1	72
			5 under 15,	..	42	62	..	..	6	..	..	..	..	..	5	115
			15 upwards.	..	8	7	..	..	11	..	..	1	..	16	..	43
Headingley	30,894	40,841	Under 5,	..	71	56	..	..	5	..	..	..	..	2	..	134
			5 under 15,	..	157	124	2	..	13	..	..	..	..	3	4	303
			15 upwards.	..	38	42	..	..	28	..	..	6	..	25	2	141
Totals	367,505	423,889	Under 5,	..	453	522	33	..	33	..	..	..	..	29	22	1092
			5 under 15,	..	962	851	10	..	125	1	..	..	..	42	46	2037
			15 upwards.	1	203	379	..	2	333	4	..	24	..	330	44	1320
Grand total ..	.	..	..	1	1618	1752	43	2	491	5	..	24	..	401	112	4449

TABLE B, Part 2.—Wards (*continued*).

Names of Localities adopted for the purpose of these Statistics.	Population at all ages. Census, 1891.	Population at all ages. Estimated to middle of 1899.	Aged	Number of such Cases Removed from their Homes in the several Localities for Treatment in Isolation Hospitals. 1 Small-pox.	2 Scarlatina.	3 Diphtheria.	4 Membranous Croup.	5 Fevers. Typhus.	6 Fevers. Enteric or Typhoid.	7 Fevers. Continued	8 Fevers. Relapsing.	9 Fevers. Puerperal.	10 Cholera.	11 Erysipelas.	12 Other.	13 Total.
(*a*)	(*b*)	(*c*)	(*d*)													
Central .. .	23,009	21,252	Under 5,	..	6	2	..	..	..	..	..	..	..	..	..	8
			5 under 15,	..	9	..	..	..	1	..	..	..	..	..	1	11
			15 upwards.	..	2	1	..	..	5	..	..	..	..	..	4	12
North	26,596	37,323	Under 5,	..	5	1	..	..	..	..	..	..	..	..	..	6
			5 under 15,	..	20	6	..	..	7	..	..	..	..	..	1	34
			15 upwards.	..	8	3	..	..	10	..	..	..	..	..	..	21
North-East (H) ..	24,190	27,435	Under 5,	..	8	2	..	..	3	..	..	..	..	..	..	13
			5 under 15,	..	24	6	..	..	7	..	..	..	..	..	1	38
			15 upwards.	..	7	1	..	1	18	..	..	..	..	..	3	30
East	25,598	26,387	Under 5,	..	21	1	..	..	..	..	..	..	..	..	..	22
			5 under 15,	..	39	2	..	..	5	..	..	..	..	..	..	46
			15 upwards.	..	4	..	..	1	19	..	..	..	..	..	3	27
South	17,255	17,241	Under 5,	..	22	..	..	..	..	..	..	..	..	..	..	22
			5 under 15,	..	24	..	..	..	2	..	..	..	..	..	..	26
			15 upwards.	1	4	1	..	..	7	..	..	..	..	..	1	14
East Hunslet ..	25,386	28,920	Under 5,	..	2	.	..	..	..	..	..	..	..	..	..	2
			5 under 15,	..	24	1	..	..	8	..	..	..	..	..	..	33
			15 upwards.	..	7	2	..	..	15	..	..	..	..	.	6	30
West Hunslet ..	23,794	29,701	Under 5,	..	6	.	..	..	..	..	..	..	..	..	..	6
			5 under 15,	..	28	2	..	..	2	..	..	..	..	..	3	35
			15 upwards.	..	10	1	..	..	8	..	..	..	..	..	7	26
Holbeck	21,563	29,038	Under 5,	..	15	5	..	..	..	..	..	..	..	..	..	20
			5 under 15,	..	31	11	..	..	1	..	..	..	..	..	1	44
			15 upwards.	..	6	3	..	..	15	..	..	..	..	..	4	28
Mill Hill	9,214	8,369	Under 5,	..	3	..	..	..	..	..	..	..	..	..	..	3
			5 under 15,	..	6	2	..	..	..	..	..	..	..	..	2	10
			15 upwards.	..	4	2	..	..	1	..	.	..	..	..	..	7
West	24,668	25,185	Under 5,	..	11	3	..	..	..	..	..	.	..	..	..	14
			5 under 15,	..	28	1	..	..	7	..	..	..	..	..	1	37
			15 upwards.	..	8	..	..	..	10	..	..	..	..	..	4	22
North-West	28,363	32,214	Under 5,	..	11	2	..	..	..	..	..	..	..	..	2	15
			5 under 15,	..	47	5	..	..	2	..	..	..	..	..	4	58
			15 upwards.	..	2	4	..	..	9	..	..	..	..	..	1	16
Brunswick	22,752	25,032	Under 5,	..	3	1	..	..	..	..	..	..	..	..	1	5
			5 under 15,	..	12	..	..	..	..	..	..	..	..	..	..	12
			15 upwards.	..	1	1	..	..	9	..	..	..	..	..	2	13
New Wortley ..	19,410	19,643	Under 5,	..	2	2	..	..	..	..	..	..	..	..	..	4
			5 under 15,	..	9	7	..	..	..	..	..	..	..	..	..	16
			15 upwards.	..	1	..	..	..	7	..	..	..	..	..	1	9
Armley and Wortley	26,436	34,508	Under 5,	..	6	3	..	..	..	..	..	..	..	..	..	9
			5 under 15,	..	18	9	..	..	2	..	..	..	..	.	1	30
			15 upwards.	..	4	3	..	..	4	..	..	..	..	..	1	12
Bramley	18,377	20,800	Under 5,	..	7	9	..	..	1	..	..	..	..	..	..	17
			5 under 15,	..	18	12	..	..	3	..	..	..	..	..	4	37
			15 upwards.	..	1	..	..	..	5	..	..	..	..	..	..	6
Headingley	30,894	40,841	Under 5,	..	32	5	..	..	3	..	..	..	..	..	..	40
			5 under 15,	..	63	29	..	..	4	..	..	..	..	..	2	98
			15 upwards.	..	18	3	..	..	12	..	..	..	..	..	1	34
Totals	367,505	423,889	Under 5,	..	160	36	..	..	7	..	..	..	..	..	3	206
			5 under 15,	..	400	93	..	..	51	..	..	..	..	..	21	565
			15 upwards.	1	87	25	..	2	154	..	..	.	..	..	38	307
Grand total ..	..	..	..	1	647	154	..	2	212	..	..	..	..	..	62	1078

Sub-districts and Wards of the City of Leeds during the thirteen weeks ended April 1st, 1899.

		Where treated.	Small-pox.	Scarlet fever.	Diphtheria.	Membranous croup.	Typhus fever.	Typhoid fever.	Continued fever.	Puerperal fever.	Erysipelas.	Cholera.	Other.	TOTAL	
SUB-DISTRICTS.	North	Hosp.	...	17	5	...	...	18	...	...	...	...	...	40	139
		Home	...	11	58	5	...	5	...	1	16	...	3	99	
	West	Hosp.	...	26	2	...	...	4	...	...	...	...	6	38	180
		Home	...	38	49	4	...	17	...	1	33	...	...	142	
	South-East	Hosp.	...	7	...	...	...	3	...	...	...	..	1	11	65
		Home	...	16	19	1	...	7	...	...	11	...	...	54	
	Hunslet	Hosp.	...	30	2	...	...	4	...	...	...	...	3	39	214
		Home	...	77	70	...	...	5	...	2	19	...	2	175	
	Holbeck	Hosp.	...	17	...	...	...	...	...	...	...	...	1	18	78
		Home	...	28	20	2	...	7	...	...	2	...	1	60	
	Wortley	Hosp.	...	9	1	...	...	3	...	...	...	...	...	13	168
		Home	...	16	122	1	...	5	3	...	8	...	...	155	
	Kirkstall	Hosp.	...	34	14	...	...	2	...	...	...	...	1	51	195
		Home	...	34	84	...	...	12	...	2	12	...	...	144	
	Bramley	Hosp.	...	9	5	...	...	4	...	...	...	...	2	20	55
		Home	...	7	13	...	...	4	...	...	6	...	...	30	
	Chapeltown	Hosp.	...	2	...	...	...	...	...	...	...	...	...	2	34
		Home	...	9	8	1	...	5	...	1	8	...	...	32	
	Osmondthorpe	Hosp.	...	...	...	...	...	...	...	...	...	...	...	...	..
		Home	...	...	...	...	...	...	...	...	...	...	...	...	
WARDS.	Central	Hosp.	...	3	1	...	...	...	...	...	...	...	...	4	20
		Home	...	3	6	2	...	2	...	...	3	...	...	16	
	North	Hosp.	...	4	2	...	...	9	...	...	...	...	...	15	66
		Home	...	8	20	2	...	8	...	...	13	...	...	51	
	North-East	Hosp.	...	11	3	...	...	9	...	...	...	...	...	23	85
		Home	...	8	40	2	...	...	...	1	8	...	3	62	
	East	Hosp.	...	6	...	...	...	2	...	...	...	...	1	9	45
		Home	...	9	17	...	...	3	...	...	7	...	...	36	
	South	Hosp.	...	2	1	...	...	1	...	...	...	..	...	4	51
		Home	...	18	18	1	...	4	...	...	6	...	...	47	
	East-Hunslet	Hosp.	...	10	1	...	...	4	...	...	...	...	2	17	87
		Home	...	27	30	...	...	2	...	2	7	...	2	70	
	West-Hunslet	Hosp.	...	19	...	...	...	...	...	...	...	...	1	20	102
		Home	...	41	24	...	...	8	...	...	9	...	...	82	
	Holbeck	Hosp.	...	17	...	...	...	...	...	...	...	...	1	18	71
		Home		26	20	2	...	2	...	...	2	...	1	53	
	Mill Hill	Hosp.	..	1	..	...	...	...	...	...	...	...	2	3	23
		Home	..	1	8	...	...	3	...	...	8	...	...	20	
	West	Hosp.	...	10	1	...	...	2	...	...	...	...	1	14	53
		Home	...	13	17	2	...	3	...	...	4	...	...	39	
	North-West	Hosp.	...	12	...	...	...	...	...	...	...	...	2	14	74
		Home	...	18	16	2	...	8	...	...	16	...	...	60	
	Brunswick	Hosp.	...	3	...	...	...	2	...	...	...	...	1	6	30
		Home	...	6	8	...	...	3	...	2	5	...	...	24	
	New Wortley	Hosp.	...	5	1	...	...	...	...	...	...	...	...	6	58
		Home	...	5	38	...	...	4	...	...	5	...	....	52	
	Armley & Wortley	Hosp.	...	4	...	...	...	1	..	...	...	...	...	5	102
		Home	...	10	79	1	...	1	3	...	3	...	...	97	
	Bramley	Hosp.	...	9	5	...	...	6	...	...	...	...	2	22	58
		Home	...	8	18	...	...	4	...	...	6	...	...	36	
	Headingley	Hosp.	...	35	14	...	...	2	...	...	...	...	1	52	198
		Home	...	35	84	...	...	12	...	2	13	...	...	146	
CITY		Hosp.	...	151	29	...	...	38	...	...	...	...	14	232	1123
		Home	..	236	443	14	...	67	3	7	115	...	6	891	
		Cases	...	387	472	14	...	105	3	7	115	...	20	1123	

Two nurses at Manston Hall contracted diphtheria, and were treated in the hospital. They are ot included in the 29 given above. Case 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 232 cases hospitalled (out of the 1,123 reported during the quarter) 5 cases of scarlet fever, and 1 case of typhoid fever, which had been reported in previous quarter, were also taken to hospital.

Sub-districts and Wards of the City of Leeds during the thirteen weeks ended July 1st, 1899.

		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.	...	11	7	...	...	3	...	...	...	...	2	23	95
		Home	...	14	29	1	...	7	...	...	16	...	5	72	
	West	Hosp.	...	44	5	...	...	9	...	...	...	...	2	60	163
		Home	...	46	17	1	...	11	1	3	20	...	4	103	
	South-East	Hosp.	...	23	1	...	...	2	...	...	...	...	1	27	45
		Home	...	5	1	1	...	3	...	...	8	...	...	18	
	Hunslet	Hosp.	...	42	1	...	...	5	...	...	...	...	5	53	137
		Home	...	31	19	...	...	6	1	..	22	...	5	84	
	Holbeck	Hosp.	...	11	1	...	...	2	...	...	...	...	2	16	71
		Home	...	11	36	2	...	1	...	...	4	...	1	55	
	Wortley	Hosp.	...	10	4	...	...	1	...	...	...	...	2	17	150
		Home	...	30	87	4	...	3	...	2	7	...	...	133	
	Kirkstall	Hosp.	...	23	12	...	...	...	...	...	...	...	1	36	103
		Home	...	36	15	1	...	3	...	2	7	...	3	67	
	Bramley	Hosp.	...	2	7	...	...	1	...	...	...	...	1	11	38
		Home	...	3	18	...	...	2	...	1	2	...	1	27	
	Chapeltown	Hosp.	...	2	...	...	...	1	...	...	...	...	...	3	35
		Home	...	7	10	1	...	4	...	...	4	...	6	32	
	Osmondthorpe	Hosp.	...	...	...	...	...	1	...	...	...	...	...	1	1
		Home	...	...	...	...	...	...	...	...	...	...	...	...	
WARDS.	Central	Hosp.	...	3	1	...	...	...	...	...	...	...	...	4	27
		Home	...	8	5	1	...	3	...	...	5	...	1	23	
	North	Hosp.	...	3	4	...	...	2	...	...	...	...	...	9	55
		Home	...	9	16	1	...	4	...	...	11	...	5	46	
	North-East	Hosp.	...	7	2	...	...	1	...	...	...	...	2	12	40
		Home	...	4	11	...	...	4	...	...	4	...	5	28	
	East	Hosp.	...	20	1	...	...	2	...	...	...	...	1	24	37
		Home	...	4	1	...	...	3	...	...	5	...	...	13	
	South	Hosp.	...	27	...	...	...	2	...	...	...	..	1	30	55
		Home	...	14	...	1	...	1	...	...	6	...	3	25	
	East-Hunslet	Hosp.	...	7	1	...	...	3	...	...	...	...	1	12	36
		Home	...	3	5	...	...	4	1	...	10	...	1	24	
	West-Hunslet	Hosp.	...	10	...	...	...	1	...	...	...	...	3	14	55
		Home	...	16	14	...	...	1	...	...	9	...	1	41	
	Holbeck	Hosp.	..	11	1	...	...	2	...	...	...	...	2	16	69
		Home	...	9	36	2	...	1	...	...	4	...	1	53	
	Mill Hill	Hosp.	...	6	...	...	...	...	...	...	...	...	...	6	14
		Home	..	1	1	...	...	2	...	...	2	...	2	8	
	West	Hosp.	...	15	...	...	...	4	...	...	...	...	...	19	58
		Home	...	22	4	...	...	5	...	1	5	...	2	39	
	North-West	Hosp.	...	18	5	...	...	3	...	...	...	...	2	28	62
		Home	...	15	4	1	...	2	1	1	10	...	...	34	
	Brunswick	Hosp.	...	5	...	...	...	3	...	...	...	...	...	8	31
		Home	...	9	8	...	...	2	...	1	3	...	...	23	
	New Wortley	Hosp.	...	3	...	...	...	...	...	...	...	...	1	4	52
		Home	...	16	26	...	...	1	...	1	4	...	...	48	
	Armley & Wortley	Hosp.	...	7	4	...	...	1	..	...	...	...	1	13	92
		Home	...	14	57	4	...	1	..	1	2	...	...	79	
	Bramley	Hosp.	...	2	7	...	...	1	...	...	...	...	1	11	44
		Home	...	3	22	...	...	3	...	1	3	...	1	33	
	Headingley	Hosp.	...	24	12	...	...	...	...	...	...	...	1	37	111
		Home	...	36	22	1	...	3	...	2	7	...	3	74	
CITY		Hosp.	...	168	38	...	...	25	...	...	...	...	16	247	838
		Home	..	183	232	11	...	40	2	8	90	...	25	591	
		Cases	...	351	270	11	...	65	2	8	90	...	41	838	

One servant at Manston Hall contracted diphtheria, and a caretaker's wife scarlet fever. Both were treated in the hospital but are not included in the figures 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.

thirteen weeks ended September 30th, 1899.

		Where treated.	Small-pox.	Scarlet fever.	Diphtheria.	Membranous croup.	Typhus fever.	Typhoid fever.	Continued fever.	Puerperal fever.	Erysipelas.	Cholera.	Other.	TOTAL
SUB-DISTRICTS.	North	Hosp.	...	17	4	...	...	15	...	...	...	...	6	42 } 1
		Home	...	16	6	2	...	21	...	...	14	...	...	59
	West	Hosp.	...	46	12	...	...	10	...	...	...	...	5	73 } 1
		Home	...	49	33	1	...	16	...	...	25	...	...	124
	South-East	Hosp.	...	29	1	...	...	5	...	...	...	..	...	35 }
		Home	...	9	8	...	...	3	...	...	11	...	...	31
	Hunslet	Hosp.	...	29	2	...	...	15	...	...	...	...	6	52 } 1
		Home	...	21	60	1	...	27	...	..	17	...	1	127
	Holbeck	Hosp.	...	10	7	...	...	6	...	...	...	...	1	24 } 1
		Home	...	19	94	2	...	4	...	...	6	...	1	126
	Wortley	Hosp.	...	14	8	...	...	7	...	...	...	...	...	29 } 2
		Home	...	51	112	1	...	11	...	...	10	...	1	186
	Kirkstall	Hosp.	...	39	1	...	...	10	...	...	...	...	...	50 } 1
		Home	...	35	35	...	...	7	...	1	3	...	...	81
	Bramley	Hosp.	...	7	3	...	...	...	...	...	...	...	1	11 }
		Home	...	7	20	...	...	1	...	...	2	...	...	30
	Chapeltown	Hosp.	...	5	2	...	...	1	...	...	...	...	...	8 }
		Home	...	7	31	...	...	3	...	...	2	...	1	44
	Osmondthorpe	Hosp.	...	...	...	...	...	...	...	...	...	...	...	... }
		Home	...	...	...	...	...	...	...	...	...	...	...	...
WARDS.	Central	Hosp.	...	3	...	...	...	2	...	...	...	...	5	10 }
		Home	...	9	2	1	...	7	...	...	5	...	...	24
	North	Hosp.	...	9	2	...	...	4	...	...	...	...	...	15 }
		Home	...	11	14	1	...	8	...	...	5	...	1	40
	North-East	Hosp.	...	10	2	...	...	10	...	...	...	...	1	23 }
		Home	...	3	5	...	...	9	...	...	5	...	...	22
	East	Hosp.	...	22	1	...	...	4	...	...	...	...	...	27 }
		Home	...	6	4	...	...	3	...	...	9	...	...	22
	South	Hosp.	...	19	...	...	...	2	...	...	...	..	...	21 }
		Home	...	4	7	...	...	1	...	...	3	...	...	15
	East-Hunslet	Hosp.	...	9	1	...	...	9	...	...	...	...	2	21 }
		Home	...	10	19	...	...	18	...	...	13	...	1	61
	West-Hunslet	Hosp.	...	8	1	...	...	6	...	...	...	...	4	19 }
		Home	...	18	47	1	...	8	...	...	3	...	...	77
	Holbeck	Hosp.	..	9	7	...	...	5	...	...	...	...	1	22 }
		Home	...	11	85	2	...	4	...	...	6	...	1	109
	Mill Hill	Hosp.	...	2	4	...	...	...	...	...	...	...	...	6 }
		Home	..	2	2	...	...	...	...	...	4	...	...	8
	West	Hosp.	...	11	3	...	...	4	...	...	...	...	3	21 }
		Home	...	16	17	1	...	8	...	...	5	...	...	47
	North-West	Hosp.	...	27	3	...	...	3	...	...	...	...	1	34 }
		Home	...	19	0	...	...	5	...	...	7	...	...	37
	Brunswick	Hosp.	...	6	2	...	...	3	...	...	...	...	1	12 }
		Home	...	12	9	...	...	3	...	...	9	...	...	33
	New Wortley	Hosp.	...	3	4	...	...	3	...	...	...	...	...	10 }
		Home	...	3	21	1	...	1	...	...	3	...	1	30
	Armley & Wortley	Hosp.	...	11	4	...	...	4	..	...	...	...	...	19 }
		Home	...	48	91	...	...	10	..	...	7	...	...	156
	Bramley	Hosp.	...	7	3	...	...	...	...	...	...	...	1	11 }
		Home	...	7	20	...	...	1	...	...	2	...	...	30
	Headingley	Hosp.	...	40	3	...	...	10	...	...	...	...	...	53 } 1
		Home	...	35	50	...	...	7	...	1	4	...	...	97
CITY		Hosp.	...	196	40	...	...	69	...	...	...	...	19	324 } 1
		Home	...	214	399	7	...	93	...	1	90	...	4	808
		Cases	...	410	439	7	...	162	...	1	90	...	23	1132

A nurse at Manston contracted scarlet-fever, and was admitted to hospital. Her case is not included in table. 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 324 cases hospitalled (out of the 1,132 reported during the quarter), 1 case of diphtheria which had been reported in previous quarter was also taken to hospital.

A typhoid case (not removed) in the North registration district was entered as having occurred in the North instead of the North East ward, and another (not removed) in the Hunslet registration district was placed in the East Hunslet instead of the West Hunslet ward. These errors are corrected in the table for the year.

New cases of Infectious Sickness heard of in the several Sub-districts and Wards of the City of Leeds during the thirteen weeks ended December 30th, 1899.

		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.	...	29	3	...	1	14	...	...	...	...	1	48 } 123
		Home	...	30	6	2	...	14	...	...	15	...	8	75
	West	Hosp.	...	20	2	...	...	14	...	...	...	...	4	40 } 175
		Home	...	54	38	2	...	12	...	2	24	...	3	135
	South-East	Hosp.	1	15	1	...	1	15	...	...	...	..	1	34 } 84
		Home	...	23	12	...	...	5	...	1	8	...	1	50
	Hunslet	Hosp.	...	16	1	...	...	11	...	...	...	...	2	30 } 243
		Home	...	60	102	...	...	24	...	3	24	...	...	213
	Holbeck	Hosp.	...	15	12	...	...	8	...	...	...	...	2	37 } 267
		Home	...	27	185	...	...	9	...	...	9	...	...	230
	Wortley	Hosp.	...	9	11	...	...	3	...	...	...	...	1	24 } 238
		Home	...	69	115	4	...	10	...	1	12	...	3	214
	Kirkstall	Hosp.	...	13	4	...	...	7	...	...	...	...	1	25 } 103
		Home	...	47	18	1	...	5	...	1	6	...	...	78
	Bramley	Hosp.	...	6	5	...	...	2	...	...	...	...	...	13 } 57
		Home	...	6	27	2	...	2	...	...	7	...	...	44
	Chapeltown	Hosp.	...	7	5	...	...	...	...	...	...	...	1	13 } 64
		Home	...	23	24	...	...	3	...	...	1	...	...	51
	Osmondthorpe	Hosp.	...	...	...	...	...	1	...	...	...	...	...	1 } 2
		Home	...	1	...	...	...	...	...	...	...	...	...	1
WARDS.	Central	Hosp.	...	8	1	...	...	4	...	...	...	...	...	13 } 30
		Home	...	4	3	2	...	2	...	...	4	...	2	17
	North	Hosp.	...	17	2	...	...	2	...	...	...	...	1	22 } 83
		Home	...	26	12	...	...	7	...	...	11	...	5	61
	North-East	Hosp.	...	11	2	...	1	8	...	...	...	...	1	23 } 57
		Home	...	21	3	...	...	8	...	...	1	...	1	34
	East	Hosp.	...	15	1	...	1	16	...	...	...	...	1	34 } 72
		Home	...	21	4	...	...	4	...	1	8	...	...	38
	South	Hosp.	1	2	...	...	...	4	...	...	...	..	...	7 } 36
		Home	...	6	16	...	...	2	...	...	4	...	1	29
	East-Hunslet	Hosp.	...	7	...	...	...	5	...	...	...	...	1	13 } 90
		Home	...	30	18	...	...	16	...	...	13	...	...	77
	West-Hunslet	Hosp.	...	7	2	...	...	2	...	...	...	...	2	13 } 175
		Home	...	27	114	...	...	10	...	3	8	...	...	162
	Holbeck	Hosp.	...	15	11	...	...	8	...	...	...	...	1	35 } 222
		Home	...	26	147	...	...	6	...	...	8	...	...	187
	Mill Hill	Hosp.	...	4	...	...	...	1	...	...	...	...	...	5 } 17
		Home	..	4	4	...	...	1	...	...	3	...	...	12
	West	Hosp.	...	11	...	...	...	7	...	...	...	...	1	19 } 60
		Home	...	24	3	2	...	7	...	...	4	...	1	41
	North-West	Hosp.	...	3	2	...	...	5	...	...	...	...	2	12 } 63
		Home	...	15	19	...	...	2	...	2	11	...	2	51
	Brunswick	Hosp.	...	2	...	...	...	1	...	...	...	...	1	4 } 37
		Home	...	13	12	...	...	2	...	...	6	...	...	33
	New Wortley	Hosp.	...	1	4	...	...	3	...	...	...	...	...	8 } 31
		Home	...	7	9	...	...	4	...	...	3	...	...	23
	Armley & Wortley	Hosp.	...	6	7	...	...	...	..	...	...	...	1	14 } 186
		Home	...	50	101	4	...	6	.	1	8	...	2	172
	Bramley	Hosp.	...	8	5	...	...	2	...	...	...	...	...	15 } 78
		Home	...	18	32	2	...	2	...	...	8	...	1	63
	Headingley	Hosp.	...	13	7	...	...	7	...	...	...	...	1	28 } 119
		Home	...	48	30	1	...	5	...	1	6	...	...	91
CITY		Hosp.	1	130	44	...	2	75	...	...	...	...	13	265 } 1356
		Home	..	340	527	11	...	84	...	8	106	...	15	1091
		Cases	1	470	571	11	2	159	...	8	106	...	28	1356

In addition to the 265 cases hospitalled (out of the 1,356 reported during the quarter), 2 cases of scarlet, 1 of diphtheria, and 4 of typhoid fever, which had been reported in previous quarter were also taken to hospital.

Sub-districts and Wards of the City of Leeds during the thirteen weeks ended March 31st, 1900.

		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.	...	21	9	...	...	2	...	...	...	...	1	33 } 104
		Home	...	10	19	4	...	9	...	3	25	...	1	71
	West	Hosp.	...	22	10	...	...	5	...	...	...	...	5	42 } 148
		Home	...	37	29	5	...	4	1	2	20	...	8	106
	South-East	Hosp.	...	13	1	...	...	3	...	...	...	..	2	19 } 58
		Home	...	14	14	1	...	...	...	...	10	...	...	39
	Hunslet	Hosp.	1	14	6	...	...	8	...	...	...	...	4	33 } 161
		Home	...	39	54	...	...	11	...	1	23	...	...	128
	Holbeck	Hosp.	...	10	6	...	...	2	...	...	...	...	...	18 } 107
		Home	...	17	61	1	...	...	...	...	6	...	4	89
	Wortley	Hosp.	...	23	4	...	...	2	...	...	...	...	1	30 } 186
		Home	...	65	69	...	...	6	...	...	16	...	...	156
	Kirkstall	Hosp.	...	9	...	...	...	1	...	...	...	...	...	10 } 63
		Home	...	20	21	1	...	3	...	1	7	...	...	53
	Bramley	Hosp.	...	3	4	...	...	1	...	...	...	...	1	9 } 27
		Home	...	2	8	3	...	3	...	...	2	...	...	18
	Chapeltown	Hosp.	...	4	...	...	...	...	...	...	...	...	...	4 } 41
		Home	...	14	14	1	...	...	...	...	7	...	1	37
	Osmondthorpe	Hosp.	...	...	...	...	...	...	...	...	...	...	...	... } ...
		Home	...	...	...	...	...	...	...	...	...	...	...	...
WARDS.	Central	Hosp.	...	6	...	...	...	...	...	...	...	...	...	6 } 35
		Home	...	7	10	1	...	3	...	...	8	...	...	29
	North	Hosp.	...	6	...	...	...	...	...	...	...	...	1	7 } 53
		Home	...	10	16	4	...	...	...	2	14	...	...	46
	North-East	Hosp.	...	12	9	...	...	2	...	...	...	...	...	23 } 59
		Home	...	6	4	...	...	6	...	1	9	...	1	27
	East	Hosp.	...	11	1	...	...	3	...	...	...	...	1	16 } 48
		Home	...	13	9	1	...	...	...	...	9	...	...	32
	South	Hosp.	...	3	1	...	...	2	...	...	...	..	1	7 } 21
		Home	...	4	7	...	...	...	...	...	3	...	...	14
	East-Hunslet	Hosp.	1	10	3	...	...	4	...	...	...	...	4	22 } 80
		Home	...	18	17	...	...	7	...	1	15	...	...	58
	West-Hunslet	Hosp.	...	3	2	...	...	2	...	...	...	...	...	7 } 78
		Home	...	19	41	...	...	4	...	...	7	...	...	71
	Holbeck	Hosp.	..	10	6	...	...	2	...	...	...	...	...	18 } 98
		Home	...	16	54	1	...	...	...	...	5	...	4	80
	Mill Hill	Hosp.	...	5	1	...	...	...	...	...	...	...	...	6 } 16
		Home	..	...	3	...	...	...	...	...	7	...	...	10
	West	Hosp.	...	3	...	...	...	...	...	...	...	...	...	3 } 27
		Home	...	12	8	1	...	1	...	...	1	...	1	24
	North-West	Hosp.	...	9	3	...	...	4	...	...	...	...	4	20 } 63
		Home	...	15	13	3	...	2	...	1	7	...	2	43
	Brunswick	Hosp.	...	6	6	...	...	1	...	...	...	...	1	14 } 48
		Home	...	11	7	1	...	1	1	1	6	...	6	34
	New Wortley	Hosp.	...	3	1	...	...	1	...	...	...	...	...	5 } 25
		Home	...	7	6	...	...	4	...	...	3	...	...	20
	Armley & Wortley	Hosp.	...	18	3	...	...	1	..	...	...	...	...	22 } 146
		Home	...	51	61	...	...	1	..	...	11	...	...	124
	Bramley	Hosp.	...	5	4	...	...	1	...	...	...	...	2	12 } 42
		Home	...	9	10	3	...	4	...	...	4	...	...	30
	Headingley	Hosp.	...	9	...	...	...	1	...	...	...	...	...	10 } 65
		Home	...	20	23	1	...	3	...	1	7	...	...	55
CITY		Hosp.	1	119	40	...	...	24	...	...	...	...	14	198 } 895
		Home	...	218	289	16	...	36	1	7	116	...	14	697
		Cases	1	337	329	16	...	60	1	7	116	...	28	895

Two nurses and a wardmaid at Manston Hall contracted scarlet fever, and were treated in the hospital. They are not included in the 119 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 198 cases hospitalled (out of the 895 reported during the quarter) 1 case of diphtheria, and 1 case of typhoid fever which had been reported in previous quarter, were also taken to hospital.

C. 1.

TABLE C.

Table shewing deaths recorded in the City of Leeds during the fifty-two weeks ended 30th December, 1899, classifie according to cause, age, and the registration sub-districts to which the patients belonged. Deaths in institutions allocate to districts to which patients belonged.

TOWNSHIPS, &c. .. .. Estim. Pop., 423,889 ..	LEEDS.						Hunslet. 67,984		Holbeck. 31,077		Wortley. 58,546		Kirkstall. 39,418		Bramley. 16,390		Chapeltown. 26,335		Osmondthorpe. 463		Deaths of outsiders occurring in City.		TOTAL mortality in City.			Annua rate per 1,0 pop.
	North. 65,261		West. 87,948		South E. 34,467																					
Under and over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	All ages.	
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	46	1	28	..	43	1	7	..	5	1	6	..	7	1	4	..	5	1	..	..	..	..	151	5	156	0·37
Scarlet fever	1	1	4	7	3	2	10	6	4	3	5	7	5	5	..	1	..	..	..	..	..	..	32	32	64	0·15
Contin. Fevers. Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Contin. Fevers. Enteric	2	12	..	11	..	11	1	8	..	5	..	5	..	6	..	2	..	3	..	1	..	2	3	66	69	0·16
Contin. Fevers. Other or doubtful	..	..	..	..	..	..	1	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	1	3	4	0·01
Influenza	..	12	..	16	1	1	..	10	..	5	..	14	..	11	3	4	..	4	..	..	..	..	4	77	81	0·19
Whooping-cough	12	..	19	1	16	1	44	1	17	..	30	..	9	..	5	..	3	1	..	..	..	..	155	4	159	0·38
Diphtheria	13	16	18	13	3	2	27	22	28	24	40	33	7	13	18	11	3	7	..	..	..	1	157	142	299	0·71
Cholera (English)	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2	1	3	0·01
Diarrhœa, &c.	74	1	59	1	29	1	96	2	29	1	57	1	24	2	15	1	11	..	..	..	..	..	394	10	404	0·96
Ague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Zoogenous diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis	19	..	4	2	7	1	6	1	2	..	1	..	1	..	1	..	..	..	..	..	1	..	42	4	46	0·11
Gonorrhœa, Stricture of urethra	..	4	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	1	..	..	..	1	..	8	8	0·02
Erysipelas	1	..	..	4	2	1	3	2	..	..	1	..	..	1	..	1	..	..	..	..	..	..	7	9	16	0·04
Pyæmia (1), Phagedena (0), Septicæmia (1), Phlebitis (2)	..	1	1	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	1	3	4	0·01
Puerperal fever	..	..	..	1	..	..	..	3	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	6	6	0·01
Parasitic diseases	2	..	1	..	..	..	1	..	2	..	1	..	2	..	..	..	1	..	..	..	..	1	10	1	11	0·03
Starvation	12	..	11	1	9	1	26	..	1	..	16	1	1	..	..	..	2	..	..	..	..	..	78	3	81	0·19
Alcoholism	..	8	..	11	..	2	..	4	..	1	..	1	..	..	..	2	..	2	..	..	..	..	..	31	31	0·07
Rheumatic fever	..	2	..	..	..	..	..	2	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	6	6	0·01
Acute and Sub-acute rheumatism	..	3	1	2	..	1	..	4	..	..	..	1	..	2	..	2	..	1	..	..	..	..	1	16	17	0·04
Rheumatism	..	2	..	1	..	2	..	5	..	1	..	3	..	1	..	..	..	2	..	..	..	..	..	17	17	0·04
Gout	..	1	..	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	4	0·01
Rickets	25	..	11	..	7	..	3	..	6	..	..	..	2	..	..	..	1	..	..	..	1	..	56	..	56	0·13
Cancer	..	38	..	71	..	26	..	44	..	9	..	36	..	27	..	16	..	14	..	..	1	35	1	316	317	0·75

TABLE C *(continued).*

TOWNSHIPS, &c.	LEEDS. North. under 5	LEEDS. North. over 5	LEEDS. West. under 5	LEEDS. West. over 5	LEEDS. South E. under 5	LEEDS. South E. over 5	Hunslet. under 5	Hunslet. over 5	Holbeck. under 5	Holbeck. over 5	Wortley. under 5	Wortley. over 5	Kirkstall. under 5	Kirkstall. over 5	Bramley. under 5	Bramley. over 5	Chapeltown. under 5	Chapeltown. over 5	Osmondthorpe. under 5	Osmondthorpe. over 5	Deaths of outsiders occurring in City. under 5	Deaths of outsiders occurring in City. over 5	Total mortality in City. under 5	Total mortality in City. over 5	Total mortality in City. all ages.	Ann rat per 1, pop
Tabes mesenterica	8	..	16	1	11	..	19	..	10	..	6	..	2	..	2	1	4	..	..	..	..	..	78	2	80	0·1
Tub. meningitis	10	1	14	7	5	5	14	3	4	5	10	4	8	6	2	..	3	1	..	..	..	..	70	32	102	0·2
Hydrocephalus	..	..	..	..	..	..	3	..	1	..	3	..	2	..	..	..	..	..	..	..	..	..	9	..	9	0·0
Phthisis	3	120	6	134	4	66	2	66	2	40	1	56	1	45	..	27	..	14	..	1	..	8	19	577	596	1·4
Tub. peritonitis	4	4	3	1	1	1	1	..	1	..	1	1	2	2	..	..	2	1	..	..	1	7	16	17	33	0·0
Other tuberculous	7	4	11	6	2	7	11	9	5	1	5	3	3	5	..	1	1	1	..	..	2	2	47	39	86	0·2
Scrofula	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	0·0
Anæmia	..	..	..	3	1	2	..	3	..	1	..	2	..	1	..	1	..	..	..	..	..	..	1	13	14	0·0
Diabetes, &c	..	4	..	9	..	4	..	3	..	2	..	2	..	2	..	2	..	..	..	..	..	1	..	29	29	0·0
Premature birth	31	..	45	..	18	..	34	..	18	..	37	..	24	..	5	..	15	..	..	..	..	..	227	..	227	0·5
Malformations and atelectasis (31)	5	..	12	..	2	..	14	..	8	..	5	..	8	..	1	..	4	..	..	..	3	..	62	..	62	0·1
Old age	..	40	..	68	..	14	..	57	..	43	..	31	..	27	..	16	..	15	..	1	..	3	..	315	315	0·7
Brain disease	..	26	..	42	1	24	3	23	..	18	3	28	..	17	..	10	..	7	..	1	1	1	8	197	205	0·4
Meningitis	9	3	8	4	6	4	19	3	3	1	14	3	3	2	8	3	1	..	..	..	..	1	71	24	95	0·2
Apoplexy	..	19	..	32	..	12	..	34	..	14	..	24	..	9	..	4	..	5	..	..	..	..	..	153	153	0·3
Paralysis	..	19	..	13	..	15	..	7	..	10	..	15	..	9	..	3	..	4	..	..	..	..	..	97	97	0·2
Gen. paralysis—Insanity	..	3	..	2	..	..	..	3	..	..	..	2	..	1	..	1	..	..	..	..	..	..	..	12	12	0·0
Epilepsy	..	5	..	7	..	2	1	5	1	4	..	5	1	3	..	1	..	..	..	..	..	1	3	33	36	0·0
Convulsions	39	1	48	1	39	..	38	1	20	..	51	..	10	..	4	..	13	..	..	..	..	..	262	3	265	0·6
Laryngismus stridulus	1	..	2	1	..	..	3	1	2	..	6	..	..	..	..	..	..	..	..	..	1	..	15	2	17	0·0
Other diseases of nervous system	1	3	..	5	..	5	..	3	..	1	2	..	2	2	..	1	..	1	..	..	..	1	5	22	27	0·0
Dis. of organs of special sense	1	3	..	2	..	2	1	1	..	1	4	1	..	1	..	..	1	..	..	..	2	4	9	15	24	0·0
Endocarditis, &c.	1	26	..	31	..	14	..	21	..	8	..	42	..	16	..	6	..	10	..	..	..	7	1	181	182	0·4
Pericarditis	..	..	..	2	..	2	..	..	..	..	..	2	..	..	..	..	..	1	..	..	..	1	..	8	8	0·0
Heart disease	1	53	1	74	1	31	2	55	1	32	..	61	..	34	..	20	..	22	..	..	..	5	6	387	393	0·9
Angina pectoris	..	..	..	2	..	..	..	..	..	..	..	2	..	2	..	..	..	2	..	..	..	..	..	8	8	0·0
Syncope	..	..	..	1	..	2	..	2	..	1	..	1	..	..	..	..	1	..	..	..	..	..	1	7	8	0·0
Aneurism	..	2	..	3	..	..	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	1	..	9	9	0·0
Other circulatory	..	3	..	4	..	1	..	1	..	..	..	1	..	2	..	..	..	2	..	..	..	1	..	15	15	0·0
Laryngitis	1	1	1	4	..	..	2	1	..	1	7	2	..	1	..	..	1	1	..	1	..	..	12	12	24	0·0
Croup (membranous)	8	1	3	3	..	1	..	1	6	..	5	3	..	2	2	..	1	..	..	..	..	..	25	11	36	0·0
Croup (undefined)	6	1	2	..	..	..	..	..	1	..	1	..	..	..	2	1	..	..	..	..	..	..	12	2	14	0·0
Bronchitis	62	76	55	97	40	63	46	50	30	36	69	55	20	46	12	12	10	19	..	1	..	3	344	458	802	1·9
Broncho-pneumonia	33	7	45	14	24	4	32	12	23	3	25	6	11	2	11	2	13	1	1	..	1	..	219	51	270	0·6
Pneumonia	17	37	16	36	8	28	28	30	5	21	6	15	7	13	1	15	1	12	..	..	..	4	89	211	300	0·7
Pleuro-pneumonia	..	1	..	2	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	7	7	0·0
Pleurisy	..	1	..	3	1	1	..	5	..	..	..	2	..	2	..	..	..	1	..	..	..	..	..	11	11	0·0

TABLE C (continued).

TOWNSHIPS, &c.	LEEDS. North. under 5	LEEDS. North. over 5	LEEDS. West. under 5	LEEDS. West. over 5	LEEDS. South E. under 5	LEEDS. South E. over 5	Hunslet. under 5	Hunslet. over 5	Holbeck. under 5	Holbeck. over 5	Wortley under 5	Wortley over 5	Kirkstall. under 5	Kirkstall. over 5	Bramley. under 5	Bramley. over 5	Chapeltown. under 5	Chapeltown. over 5	Osmondthorpe. under 5	Osmondthorpe. over 5	Deaths of outsiders occurring in City under 5	Deaths of outsiders occurring in City over 5	Total mortality in City. under 5	Total mortality in City. over 5	Total mortality in City. all ages.	Ann rat per 1, pop
Stomatitis	1	..	..	..	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	3	1	4	0·0
Dentition	14	..	22	..	14	..	25	..	15	..	30	..	13	..	6	..	3	..	..	..	..	..	142	..	142	0·3
Tonsillitis, &c.	..	1	..	2	..	..	..	..	1	1	3	..	..	..	..	..	..	..	..	..	..	1	4	5	9	0·0
Dis. of stomach	..	5	2	9	..	3	..	3	1	..	1	7	2	5	1	3	2	5	..	..	..	1	9	41	50	0.1
Enteritis	17	2	34	5	16	2	25	5	25	2	25	2	5	1	1	..	6	..	..	..	..	..	154	19	173	0·4
Hernia	..	3	..	4	..	..	..	..	..	3	..	..	..	..	..	..	..	1	..	..	1	8	1	19	20	0·0
Fistula	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	..	4	4	0·0
Peritonitis	..	5	1	4	2	4	..	1	..	1	..	8	1	1	1	..	..	3	..	..	..	1	5	28	33	0.0
Ascitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Jaundice	1	3	2	3	1	1	..	..	2	1	..	..	..	1	..	..	..	..	..	..	..	..	6	9	15	0·0
Cirrhosis	..	7	..	19	..	5	..	10	..	5	..	1	..	5	..	1	..	4	..	..	..	1	..	58	58	0·1
Dis. of liver	..	5	..	7	..	4	1	3	..	2	..	4	..	2	..	1	..	2	..	..	..	..	1	30	31	0·0
Dis. of bowels	2	13	2	13	2	5	4	8	..	5	..	3	3	5	1	7	1	..	..	..	1	5	16	64	80	0·1
Disease of ductless glands	..	1	1	2	..	2	1	1	..	..	..	3	..	..	..	..	..	1	..	..	..	2	2	12	14	0·0
Nephritis	1	13	2	20	..	10	..	13	..	6	1	9	..	5	..	1	..	5	..	..	..	3	4	85	89	0·2
Kidney disease	..	18	1	22	1	1	..	10	..	4	1	8	..	6	..	2	..	4	..	..	..	..	3	75	78	0·1
Albuminuria	..	..	..	1	..	..	..	2	1	2	..	..	..	..	..	..	..	..	..	..	..	..	1	5	6	0·0
Other urinary	..	..	..	6	..	1	..	3	..	..	..	..	..	1	..	1	..	1	..	..	..	7	..	20	20	0·0
Dis. of generative Organs	..	1	..	8	..	..	..	..	..	2	..	6	..	4	..	1	..	3	..	..	1	4	..	30	30	0·0
Childbirth	1	4	..	4	..	4	3	6	1	3	3	5	2	..	1	1	..	..	..	..	..	..	11	27	38	0·0
Disease of bones (21), Joints (8), arthritis (11)	..	5	..	11	..	4	1	4	..	1	1	6	..	4	..	..	..	..	..	..	1	2	3	37	40	0·0
Ulcer: Phlegmon (1)	..	..	..	4	..	4	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	8	9	0·0
Skin disease	2	..	1	1	..	..	1	..	..	..	1	1	1	..	..	..	..	1	..	..	..	..	6	3	9	0·0
Injury	5	31	10	41	3	24	10	22	2	18	5	22	3	16	1	9	..	7	..	..	2	24	41	214	255	0·6
Lead poisoning	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.
Mortification	..	1	..	2	1	1	..	2	..	..	..	1	..	4	..	..	..	..	..	..	..	1	1	12	13	0·0
Debility	20	4	16	5	13	1	27	2	11	..	14	1	7	..	2	..	1	1	..	..	..	1	111	15	126	0·3
Marasmus, Atrophy	38	..	30	..	37	..	33	1	18	1	28	..	13	..	5	..	4	..	..	..	..	..	206	2	208	0·2
Tumour	..	4	1	5	..	1	..	1	..	..	..	1	..	1	..	3	..	3	..	..	..	5	1	24	25	0·0
Abscess	..	..	1	3	1	1	2	2	3	1	1	2	..	1	..	..	..	..	..	..	..	1	8	11	19	0·0
Other causes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.
Total under 5 and over 5	560	700	575	973	376	447	636	629	315	359	534	574	214	388	115	200	117	203	1	6	20	161	3,463	4,642	8,105	19·3
Total	1,260		1,548		823		1,265		674		1,108		602		315		322		7		181		8,105			.
Mortality per 1,000 per annum	20·4		17·8		24·9		19·6		19·6		19·0		15·2		19·3		11·9		15·2		..		65·5	12·6	19·2	.

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 1, 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 181 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 (1), phlebitis (2), phagedæna (0), septicæmia (not puerperal) (1). *Parasitic* diseases include thrush (10). *Starvation* includes purpura hæmorrhagica (3), scurvy (0), privation and want of breast milk (0), malnutrition (23), and inanition (55 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, Table A, and Tables 17 and 18, 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), hœmophilia (0), but not leucocythemia; deaths from the latter have been referred to diseases of the *ductless glands*. In *malformations* are included cyanosis (3), patent foramen ovale (6), spina bifida (8), atelectasis (31), imperforate anus (5), cleft palate (0), harelip (0), and (8) other congenital defects.

Brain disease includes deaths registered from such causes as cerebral congestion, cerebral hœmorrhage, and softening of the brain. *Meningitis* includes diseases classified as meningitis (90),and spinal (5) 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 (12) 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 (17), emphysema (22), empyæma (7), pulmonary congestion (16), "lung disease" (1), and others (8). *Diseases of the stomach* includes dyspepsia, hœmatemesis, gastritis. *Diseases of the bowels* includes melœna (0), ulcer of intestines, obstruction of bowels, strangulation not due to hernia, intussusception, appendicitis. *Kidney disease* includes deaths from granular kidney (4), Bright's disease (57), other kidney diseases (9), and uræmia (8). *Albuminuria* includes only deaths in which the symptom without any pathological cause was registered. *Diseases of the urinary system* includes calculus, hœmaturia, cystitis and other diseases of the bladder. *Disease of the generative organs* includes uterine disease (5), ovarian disease (6), and "other diseases" of the generative organs, male (17), female (13). *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* (11) includes cellulitis (1), carbuncle (0). *Injury* includes deaths from accident or negligence, homicide, suicide, and execution.

TABLE D.

Shewing death-rates from certain causes for the years 1890-1-2-3-4-5-6-7-8-9.

	SEVEN COMMON ZYMOTICS.										
	Small-pox.	Measles.	Scarlatina.	Diph-theria.	Whooping cough.	"Fever."	Diarrhœa.	All seven.	Croup (mem-branous 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

TABLE E.
VITAL STATISTICS FOR 1899
(On provisional populations).

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the fifty-two weeks ended 30th December, 1899. 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.	Death Rate. 7 Zymotics.
LEEDS. North	2,234	*36·0*	1,260	*20·3*	*3·0*
LEEDS. West	2,085	*23·8*	1,548	*17·7*	*1·9*
LEEDS. South-East ...	1,207	*36·2*	824	*24·7*	*3·4*
Hunslet	2,271	*33·5*	1,264	*18·7*	*3·4*
Holbeck	1,063	*34·3*	674	*21·8*	*4·0*
Wortley	1,777	*30·4*	1,108	*19·0*	*3·3*
Kirkstall	1,067	*27·2*	602	*15·3*	*2·1*
Bramley	496	*30·4*	315	*19·3*	*3·6*
Chapeltown ...	735	*27·9*	322	*12·2*	*1·3*
Osmondthorpe ...	4	*8·7*	7	*15·2*	*2·2*
Outsiders ...	...	...	181	...	...
Totals ...	12,939	*30·6*	8,105	*19·2*	*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	367	*17·1*	Mill Hill	142	*16·8*
North	578	*15·7*	West	520	*20·6*
North-East ...	632	*23·2*	North-West ...	511	*15·9*
East	680	*25·7*	Brunswick	381	*15·3*
South	379	*21·9*	New Wortley ...	362	*18·4*
East Hunslet ...	573	*19·9*	Armley	687	*20·1*
West Hunslet ...	506	*17·1*	Bramley	375	*18·1*
Holbeck	609	*21·2*	Headingley ...	622	*15·4*

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 twenty-six deaths at Manston Hospital during the year.

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the thirteen weeks ended April 1st, 1899. The figures in italics after the Births and Deaths give the proportion per annum per 1,000 of the provisional population.

Districts.		Births.	Birth Rate.	Deaths.	Death Rate. All causes.	Death Rate. 7 Zymotics.
LEEDS.	North	574	*37·0*	348	*22·4*	*2·6*
	West	522	*23·8*	417	*19·0*	*1·0*
	South-East ...	312	*37·4*	236	*28·3*	*2·6*
	Hunslet	529	*31·2*	307	*18·1*	*1·5*
	Holbeck	251	*32·4*	167	*21·6*	*1·7*
	Wortley	417	*28·6*	272	*18·6*	*2·0*
	Kirkstall	253	*25·8*	177	*18·0*	*1·8*
	Bramley	116	*28·4*	74	*18·1*	*1·5*
	Chapeltown ...	166	*25·3*	106	*16·2*	*0·8*
	Osmondthorpe ...	1	*8·7*	4	*34·7*	...
	Outsiders ...	...	...	45	...	...
	Totals ...	3,141	*29·7*	2,153	*20.4*	*1·7*

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	94	*17·6*	Mill Hill	45	*21·3*
North	181	*19·7*	West	132	*20·9*
North-East ...	185	*27·1*	North-West ...	147	*18·2*
East	189	*28·6*	Brunswick	94	*15·0*
South	110	*25·4*	New Wortley ...	94	*19·1*
East Hunslet ...	135	*18·7*	Armley	156	*18·2*
West Hunslet ...	121	*16·4*	Bramley	96	*18·5*
Holbeck	149	*20·7*	Headingley ...	180	*17·8*

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 10 deaths at Manston Hospital during this quarter.

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the thirteen weeks ended July 1st, 1899. 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.	Death Rate. 7 Zymotics.
LEEDS. North	598	*38·6*	280	*18·1*	*2·1*
LEEDS. West	537	*24·5*	359	*16·4*	*0·8*
LEEDS. South-East ...	303	*36·3*	181	*21·7*	*2·2*
Hunslet	614	*36·3*	289	*17·1*	*1·4*
Holbeck	271	*35·0*	132	*17·0*	*1·9*
Wortley	469	*32·2*	243	*16·7*	*1·8*
Kirkstall	290	*29·5*	144	*14·7*	*1·5*
Bramley	146	*35·8*	69	*16·9*	*2·9*
Chapeltown ...	159	*24·2*	64	*9·8*	*1·5*
Osmondthorpe ...	1	...	1	*8·7*	*8·7*
Outsiders ...	...	...	47	...	...
Totals ...	3,388	*32·1*	1,809	*17·1*	*1·6*

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	*19·8*	Mill Hill	32	*15·2*
North	117	*12·7*	West	130	*20·6*
North-East ...	122	*17·9*	North-West ...	113	*14·0*
East	143	*21·6*	Brunswick	84	*13·4*
South	81	*18·7*	New Wortley ...	82	*16·6*
East Hunslet ...	145	*20·1*	Armley	150	*17·5*
West Hunslet ...	108	*14·6*	Bramley	80	*15·4*
Holbeck	119	*16·6*	Headingley ...	150	*14·8*

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 5 deaths at Manston Hospital during this quarter.

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the thirteen weeks ended 30th September, 1899. 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.	Death Rate. 7 Zymotics.
LEEDS.	North	555	*35·8*	330	*21·3*	*5·4*
	West	546	*24·9*	378	*17·3*	*4·0*
	South-East ...	281	*33·7*	201	*24·1*	*6·4*
Hunslet		554	*32·7*	365	*21·6*	*7·4*
Holbeck		279	*36·0*	190	*24·5*	*7·5*
Wortley		412	*28·3*	300	*20·6*	*6·2*
Kirkstall		274	*27·9*	142	*14·5*	*3·5*
Bramley		125	*30·6*	91	*22·3*	*6·6*
Chapeltown ...		208	*31·7*	83	*12·7*	*2·7*
Osmondthorpe ...		1	*8·7*	2	*17·4*	...
Outsiders ...		...	...	49	...	...
Totals ...		3,235	*30·6*	2,131	*20·2*	*5·5*

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	75	*14·0*	Mill Hill	24	*11·4*
North	143	*15·5*	West	129	*20·4*
North-East ...	184	*27·0*	North-West ...	129	*16·0*
East	176	*26·6*	Brunswick	100	*16·0*
South	94	*21·7*	New Wortley ...	102	*20·7*
East Hunslet ...	161	*22·3*	Armley	185	*21·6*
West Hunslet ...	154	*20·9*	Bramley	105	*20·2*
Holbeck	173	*24·1*	Headingley ...	148	*14·6*

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 five deaths at Manston Hospital during this quarter.

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the thirteen weeks ended December 30th, 1899. 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.	Death Rate. 7 Zymotics.
LEEDS.	North	507	*32·7*	302	*19·5*	*2·1*
	West	480	*21·9*	394	*18·0*	*1·8*
	South-East ...	311	*37·3*	206	*24·7*	*2·4*
	Hunslet	574	*33·9*	303	*17·9*	*3·1*
	Holbeck	262	*33·8*	185	*23·9*	*4·9*
	Wortley	479	*32·8*	293	*20·1*	*3·3*
	Kirkstall	250	*25·5*	139	*14·2*	*1·4*
	Bramley	109	*26·7*	81	*19·8*	*3·4*
	Chapeltown ...	202	*30·8*	69	*10·5*	*0·3*
	Osmondthorpe ...	1	*8·7*	...	...	...
	Outsiders ...	...	...	40	...	...
	Totals ...	3,175	*30·1*	2,012	*19·1*	*2·5*

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	92	*17·2*	Mill Hill	41	*19·4*
North	137	*14·9*	West	129	*20·4*
North-East ...	141	*20·7*	North-West ...	122	*15·1*
East	172	*26·0*	Brunswick	103	*16·5*
South	94	*21·7*	New Wortley ...	84	*17·0*
East Hunslet ...	132	*18·3*	Armley	196	*22·9*
West Hunslet ...	123	*16·7*	Bramley	94	*18·1*
Holbeck	168	*23·4*	Headingley ...	144	*14·2*

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 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 March 31st, 1900. 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.	Death Rate. 7 Zymotics.
LEEDS.	North	562	*36·4*	432	*28·0*	*2·8*
	West	560	*25·6*	514	*23·5*	*1·9*
	South-East ...	311	*37·6*	262	*31·7*	*2·4*
Hunslet		571	*34·8*	413	*25·1*	*3·2*
Holbeck		249	*28·1*	182	*20·5*	*2·8*
Wortley		468	*31·4*	297	*19·9*	*2·1*
Kirkstall		283	*27·8*	204	*20·0*	*1·5*
Bramley		105	*25·5*	78	*18·9*	*1·5*
Chapeltown ...		189	*26·3*	108	*15·0*	*1·3*
Osmondthorpe ...		...	...	2	*17·2*	...
Outsiders ...		...	...	49	...	...
Totals ...		3,298	*30·7*	2,541	*23·6*	*2·3*

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	109	*20·8*	Mill Hill	46	*22·4*
North	183	*19·0*	West	176	*27·8*
North-East ...	235	*33·9*	North-West ...	182	*22·4*
East	214	*32·4*	Brunswick	119	*18·9*
South	133	*31·0*	New Wortley ...	98	*20·0*
East Hunslet ...	199	*27·2*	Armley	177	*20·0*
West Hunslet ...	147	*19·4*	Bramley	100	*19·0*
Holbeck	157	*21·0*	Headingley ...	217	*20·7*

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 five deaths at Manston Hospital during this quarter.

TABLE F.

Shewing Births, Deaths, from all and certain causes, Home Patients of the Dispensary, admissio to the Fever Hospitals, and some of the Meteorological conditions and the Death-rates from certa causes in Leeds; with the Birth and Death-rates from all causes in the 33 large English towns for ea of the thirteen weeks ended 1st April, 1899.

1899.		JANUARY.				FEBRUARY.				MARCH.					TOTALS OR
		Jan. 7th.	Jan. 14th.	Jan. 21st.	Jan. 28th.	Feb. 4th.	Feb. 11th.	Feb. 18th.	Feb. 25th.	Mar. 4th.	Mar. 11th.	Mar. 18th.	Mar. 25th.	April 1st.	
Total Births	1	290	248	252	225	237	244	226	269	233	252	247	204	214	3,14
Total Deaths	2	175	173	135	137	154	170	150	148	169	167	192	203	180	2,15
Under 1 year	3	43	29	38	23	25	35	28	28	43	38	36	41	37	44
1 to 2 years.....	4	14	12	7	6	9	18	12	16	13	17	18	19	11	17
2 to 5 years.....	5	18	11	11	7	12	12	8	13	13	7	7	13	15	14
5 to 60 years	6	65	69	49	63	69	57	58	60	60	68	80	82	61	84
60 yrs. and upwards	7	35	52	30	38	39	48	44	31	40	37	51	48	56	54
Deaths: Small-pox..	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	9	5	4	1	1	...	1	...	1	3	4	10	5	7	4
Scarlet Fever	10	...	4	2	1	2	1	1	2	1	...	...	...	2	1
*Diphtheria	11	10	8	3	8	10	11	5	13	4	7	2	7	1	8
Whooping-cough..	12	2	2	...	...	3	1	1	...	...	2	...	6	...	1
Typhus Fever.....	13	...	...	...	...	...	...	...	..	...	...	...	...	...	...
Enteric Fever.....	14	...	3	...	1	3	2	4	1	2	...	...	...	...	1
Other or doubtful	15	...	...	...	...	...	1	...	...	..	...	...	...	...	
Diarrhœa or Dysent.	16	...	...	...	...	...	1	...	...	...	...	...	...	1	
All seven.....	17	17	21	6	11	18	18	11	17	10	13	12	18	11	18
Cholera	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	19	...	...	1	1	...	1	...	..	...	...	...	...	...	.
Dis. of Resp. System	20	29	36	31	28	27	27	40	35	44	55	60	63	58	53
Influenza†	21	1	...	2	1	1	1	...	...	2	7	6	11	14	4
Phthisis	22	20	17	16	8	14	6	9	8	16	17	20	20	12	18
Dis. of Circul. System	23	16	13	5	20	12	15	11	20	12	15	16	15	17	18
Violent Deaths	24	5	6	4	7	9	12	4	8	3	7	6	1	1	7
Inquest cases	25	18	11	13	19	20	23	17	16	14	13	11	11	10	19
Deaths in Pub. Inst.	26	18	20	15	23	19	23	21	21	22	21	22	25	27	27
Dispensary: visits pd.	27	356	345	361	379	374	353	408	421	421	452	481	447	424	5,22
Cases admitted to our own hospitals	28	21	19	16	21	15	21	10	18	17	10	30	26	30	25
Barom. (inches)	29	29·61	29·24	29·35	30·17	29·60	29·20	29·45	30·16	30·16	29·54	30·26	29·68	29·76	29·7
Attached Ther. °F...	30	44·38	46·62	48·62	44·46	42·38	46·77	48·77	46·38	45·69	46·46	50·38	40·31	50·33	46·2
Dry bulb.....	31	40·23	42·70	45·08	36·31	37·23	45·23	45·54	41·62	42·46	44·31	47·08	35·77	50·92	42·6
Wet bulb.....	32	38·70	41·00	43·08	34·23	35·38	43·62	43·46	39·46	40·38	41·77	44·69	34·38	49·25	40·6
Humidity	33	87·31	87·00	85·15	80·15	83·31	87·15	85·23	84·08	84·38	81·15	83·08	87·15	88·58	84·9
Mn. of highest reading	34	46·14	46·57	50·71	48·43	42·14	48·86	53·71	49·00	49·29	50·57	54·86	46·00	55·14	49·3
,, lowest ,,	35	34·86	37·29	40·00	32·29	33·29	38·00	39·57	35·86	35·57	35·57	39·86	27·43	41·86	36·2
,, daily range ...	36	11·28	9·28	10·71	16·14	8·85	10·86	14·14	13·14	13·72	15·00	15·00	18·57	13·28	13·0
Total rainfall (inches)	37	0·60	0·77	1·82	0·08	0·14	1·05	0·18	...	0·05	0·14	0·01	0·25	0·58	5·67
Wind Direction ...	38	SW	SW	SW	NW	NW	NW SE	SW	SE	NW	SW	SE	NW	NW	...
Wind Force 0-6 ...	39	1	1	2	1	1	1	1	1	1	1	1	1	2	1
Amount of Cloud 0-10	40	...	...	...	...	...	...	...	...	...	..	...	...	...	...
Birth-rate (Leeds) ...	41	35·7	30·5	31·0	27·7	29·2	30·0	27·8	33·1	28·7	31·0	30·4	25·1	26·3	29·7
Death-rate (Leeds)...	42	21·5	21·3	16·6	16·9	19·0	20·9	18·5	18·2	20·8	20·6	23·6	25·0	22·1	20·4
Death-rate(33 towns)	43	19·1	18·3	18·2	17·0	19·6	22·0	19·6	20·6	21·6	22·2	23·3	23·1	23·1	20·6
Birth-rate (33 towns)	44	33·1	30·1	31·5	30·9	30·7	30·8	32·2	31·6	30·7	29·9	30·6	28·4	30·1	30·8
D.R. lung dis. (Leeds)	45	3·6	4·4	3·8	3·4	3·3	3·3	4·9	4·3	5·4	6·8	7·4	7·8	7·1	5·0
D.R. diphtheria ,,	46	1·2	0·9	0·4	0·9	1·2	1·4	0·6	1·7	0·5	0·9	0·2	0·9	0·1	0·8

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 me 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 thirteen observations of the wet and dry bulbs. The corrected humidity in Mr. Glaisher's report for the quarter is, for the calendar month of January, 88; February, 89; March, 93. Average, 90.

* Including membranous croup. Line 19 includes non-spasmodic croup not returned as membranous.

† Line 21 is included in line 20.

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 33 large English towns for each of the thirteen weeks ended 1st July, 1899.

1899.		APRIL.				MAY.					JUNE.				TOTALS OR AVERAGES.
		Apl. 8th.	Apl. 15th.	Apl. 22nd.	Apl. 29th.	May 6th.	May 13th.	May 20th.	May 27th.	June 3rd.	June 10th.	June 17th.	June 24th.	July 1st.	
Total Births	1	248	281	285	302	265	267	267	233	281	250	237	235	237	3,388
Total Deaths	2	181	135	155	163	150	124	135	124	140	120	135	130	117	1,809
Under 1 year	3	54	30	23	29	32	36	38	30	37	34	30	30	31	434
1 to 2 years.....	4	9	14	15	10	7	12	5	11	12	9	9	11	8	132
2 to 5 years.....	5	17	8	5	15	18	11	6	4	10	6	15	9	7	131
5 to 60 years	6	59	47	68	65	58	37	60	43	56	51	52	61	50	707
60 yrs. and upwards	7	42	36	44	44	35	28	26	36	25	20	29	19	21	405
Deaths: Small-pox..	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	9	6	5	2	4	6	1	1	4	4	3	3	1	1	41
Scarlet Fever	10	...	4	...	2	...	2	...	...	2	1	...	2	3	16
*Diphtheria	11	4	3	4	6	5	4	3	3	3	2	4	8	5	54
Whooping-cough..	12	1	4	4	3	1	...	3	2	2	1	3	2	3	29
Typhus Fever.....	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever.....	14	2	...	2	3	2	...	...	...	1	...	2	1	...	13
Other or doubtful	15	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Diarrhœa or Dysent.	16	...	...	1	...	1	2	1	3	1	...	3	2	3	17
All seven.....	17	13	16	13	18	15	9	8	12	14	7	15	16	15	171
Cholera	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	19	...	...	...	1	...	...	...	...	1	...	...	...	...	2
Dis. of Resp. System	20	59	42	34	29	34	24	35	24	20	24	24	23	14	386
Influenza†	21	9	6	3	2	3	1	4	1	1	...	...	1	...	31
Phthisis	22	13	10	14	11	13	7	10	7	13	10	12	10	10	140
Dis. of Circul. System	23	13	11	12	15	10	11	11	11	10	8	13	15	9	149
Violent Deaths	24	9	4	8	10	6	3	6	7	3	3	2	10	4	75
Inquest cases	25	21	10	12	14	15	7	17	15	10	14	9	14	10	168
Deaths in Pub. Inst.	26	21	13	31	30	20	14	22	18	19	17	16	12	24	257
Dispensary: visits pd.	27	322	382	331	352	345	368	353	332	329	319	295	307	323	4,358
Cases admitted to our own hospitals	28	16	18	26	21	29	21	22	8	18	24	20	15	18	256
Barom. (inches)	29	29·61	29·23	29·82	29·54	30·03	29·79	29·43	29·86	30·11	30·20	29·98	29·59	29·81	29·77
Attached Ther. °F...	30	52·23	47·15	47·77	52·69	50·92	51·54	54·08	52·00	58·08	63·92	62·54	63·63	62·92	55·34
Dry bulb.....	31	50·62	45·08	46·38	54·31	50·23	51·38	56·31	50·08	66·08	68·23	68·00	63·92	63·62	56·48
Wet bulb.....	32	48·62	42·54	42·08	50·70	45·77	49·15	52·08	46·31	58·62	63·54	58·92	58·92	58·31	51·96
Humidity	33	86·69	82·23	72·08	77·85	72·31	85·46	76·00	76·31	65·23	76·31	58·92	74·00	71·77	75·01
Mn. of highest reading	34	55·43	50·14	52·71	59·14	55·57	58·14	62·00	59·57	72·00	76·71	79·14	72·14	68·86	63·19
,, lowest ,,	35	44·00	37·71	37·71	44·71	39·43	43·57	46·86	40·43	47·71	54·28	52·86	54·57	52·29	45·86
,, daily range ...	36	11·43	12·43	15·00	14·43	16·14	14·57	15·14	19·14	24·29	22·43	26·28	17·57	16·57	17·33
Total rainfall (inches)	37	0·28	0·87	0·02	0·47	0·22	1·04	0·98	0·66	...	..	...	0·77	0·80	6·11
Wind Direction ...	38	SE SW	SW	SW	SW W	SW SE	SW	NE W	SW NE	SE	SE SW	E	SE SW	SE SW	...
Wind Force 0-6 ...	39	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Amount of Cloud 0-10	40	...	..	...	...	...	...	...	...	...	..	...	...	...	...
Birth-rate (Leeds) ...	41	30·5	34·6	35·1	37·2	32·6	32·9	32·9	28·7	34·6	30·8	29·2	28·9	29·2	32·1
Death-rate (Leeds)...	42	22·3	16·6	19·1	20·1	18·5	15·3	16·6	15·3	17·5	14·8	16·6	16·0	14·4	17·1
Death-rate (33 towns)	43	21·9	19·5	18·3	17·7	16·6	17·7	17·6	16·0	17·7	16·4	16·5	16·3	15·7	17·5
Birth-rate (33 towns)	44	29·6	34·9	33·4	31·7	30·7	30·4	30·7	25·9	33·2	30·3	30·6	29·5	29·4	30·8
D. R. lung dis. (Leeds)	45	7·3	5·2	4·2	3·6	4·2	3·0	4·3	3·0	2·5	3·0	3·0	2·8	1·7	3·7
D. R. 7 zymotics ,,	46	1·6	2·0	1·6	2·2	1·8	1·1	1·0	1·5	1·7	0·9	1·8	2·0	1·8	1·6

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 thirteen observations of the wet and dry bulbs. The corrected humidity in Mr. Glaisher's report for the quarter is, for the calendar month of April, 92; May, 79; June, 79. Average, 83.

* Including membranous croup. Line 19 includes non-spasmodic croup not returned as membranous.

† Line 21 is included in line 20

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 33 large English towns for each of the thirteen weeks ended 30th September, 1899.

1899.		JULY.				AUGUST.					SEPTEMBER.				TOTALS OR AVERAGES.
		July 8th.	July 15th.	July 22nd.	July 29th.	Aug. 5th.	Aug. 12th.	Aug. 19th.	Aug. 26th.	Sep. 2nd.	Sep. 9th.	Sep. 16th.	Sep. 23rd.	Sep. 30th.	
Total Births	1	230	267	243	270	254	216	248	227	257	245	251	250	277	3,235
Total Deaths	2	114	140	166	172	199	173	184	189	162	147	147	175	163	2,131
Under 1 year	3	33	47	49	75	109	78	83	77	59	55	55	69	60	849
1 to 2 years.....	4	9	11	8	11	8	12	15	22	13	14	11	17	12	163
2 to 5 years.....	5	12	12	16	12	15	14	9	10	18	13	15	9	13	168
5 to 60 years	6	33	46	66	52	40	45	49	48	46	48	48	53	50	624
60 yrs. and upwards	7	27	24	27	22	27	24	28	32	26	17	18	27	28	327
Deaths: Small-pox..	8	...	...	...	...	...	...	...	...	...	...	...	..	...	...
Measles	9	2	4	3	6	4	4	3	3	1	4	1	1	1	37
Scarlet Fever	10	2	1	3	2	1	1	1	2	2	1	...	1	1	18
*Diphtheria	11	7	3	12	7	9	6	2	4	5	4	10	3	8	80
Whooping-cough..	12	2	5	3	6	9	4	...	9	9	3	3	4	4	61
Typhus Fever.....	13	...	...	...	...	...	...	...	..	...	...	...	...	...	...
Enteric Fever.....	14	1	1	...	1	2	1	...	1	3	1	2	1	4	18
Other or doubtful	15	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Diarrhœa or Dysent.	16	3	7	22	26	50	44	42	43	25	28	30	27	14	361
All seven.....	17	17	21	43	48	75	61	48	62	45	41	46	37	32	576
Cholera (English) ...	18	...	...	...	...	...	2	1	...	...	...	...	...	...	3
Croup	19	...	...	...	...	...	...	...	1	...	1	...	...	...	2
Dis. of Resp. System	20	13	24	16	16	13	13	21	17	14	13	16	25	15	216
Influenza†	21	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Phthisis	22	7	10	13	12	5	8	11	13	8	10	10	10	13	130
Dis. of Circul. System	23	6	12	9	11	13	12	11	10	9	9	10	13	10	135
Violent Deaths	24	6	6	3	4	2	2	6	2	5	4	6	5	1	52
Inquest cases	25	10	8	12	12	6	7	15	4	7	9	11	11	6	118
Deaths in Pub. Inst.	26	13	19	24	20	20	11	21	17	22	14	19	18	15	233
Dispensary: visits pd.	27	299	248	251	264	259	216	238	214	202	185	217	299	255	3,147
Cases admitted to our own hospitals	28	29	21	35	26	20	19	23	22	30	33	24	27	28	337
Barom. (inches)	29	29·95	29·84	29·93	30·00	30·09	30·07	30·01	30·02	29·60	29·85	29·84	29·48	29·36	29·85
Attached Ther. °F...	30	64·08	69·23	66·85	65·00	68·92	64·69	64·85	67·46	64·85	64·77	61·23	56·85	53·46	64·02
Dry bulb.....	31	67·08	69·38	67·23	65·15	71·54	66·54	64·08	71·92	63·92	65·15	60·38	55·08	51·54	64·54
Wet bulb.....	32	61·15	62·46	61·92	59·85	64·00	60·00	59·08	63·92	58·15	59·69	55·00	50·54	47·85	58·74
Humidity	33	69·92	65·92	73·15	69·23	65·23	68·00	73·62	63·77	69·08	71·92	70·08	72·62	76·23	69·90
Mn. of highest reading	34	72·71	76·43	71·50	69·14	79·71	72·29	71·86	79·86	70·00	72·29	64·29	59·86	56·86	70·52
,, lowest ,,	35	55·71	58·57	58·33	56·29	58·14	54·71	55·00	56·43	54·86	54·71	51·14	48·86	44·00	54·37
,, daily range ...	36	17·00	17·86	13·17	12·85	21·57	17·58	16·86	23·43	15·14	17·58	13·15	11·00	12·86	16·16
Total rainfall (inches)	37	0·38	0·30	0·59	0·02	0·57	0·15	0·15	...	0.83	0·19	0·07	1·52	1·26	6·03
Wind Direction ...	38	W	SE W	NW NE	W SW	E	E NE	NE NW	E NW	NW	SW	WNW	NW	NW SE	...
Wind Force 0-6 ...	39	1	1	1	1	1	1	1	1	1	1	1	2	1	1
Amount of Cloud 0-10	40	...	..	...	...	...	...	...	...	...	..	...	...	...	...
Birth-rate (Leeds) ...	41	28·3	32·9	29·9	33·2	31·3	26·6	30·5	27·9	31·6	30·2	30·9	30·8	34·1	30·6
Death-rate (Leeds)...	42	14·0	17·2	20·4	21·2	24·5	21·3	22·6	23·2	19·9	18·1	18·1	21·5	20·1	20·2
Death-rate (33 towns)	43	16·0	16·9	18·4	20·7	24·6	24·3	25·7	26·9	25·5	25·2	21·1	20·6	19·2	21·9
Birth-rate (33 towns)	44	29·7	28·2	28·8	29·8	30·5	26·5	31·4	31·0	30·5	30·3	31·5	29·2	29·7	29·8
D. R. lung dis. (Leeds)	45	1·6	3·0	2·0	2·0	1·6	1·6	2·6	2·1	1·7	1·6	2·0	3·1	1·8	2·1
D. R. diarrhœa ,,	46	0·4	0·9	2·7	3·2	6·2	5·7	5·3	5·3	3·1	3·4	3·7	3·3	1·7	3·4

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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 thirteen observations of the wet and dry bulbs. The corrected humidity in Mr. Glaisher's report for the quarter is, for the calendar month of July, 78; August, 77; September, 79. Average, 78.

* Including membranous croup. Line 19 includes non-spasmodic croup not returned as membranous.

† Line 21 is included in line 20.

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 33 large English towns for each of the thirteen weeks ended 30th December, 1899, and the totals for the year.

1899.		OCTOBER.				NOVEMBER.					DECEMBER.				TOTALS OR AVERAGES.	YEAR.
		Oct. 7th.	Oct. 14th.	Oct. 21st.	Oct. 28th.	Nov. 4th.	Nov. 11th.	Nov. 18th.	Nov. 25th.	Dec. 2nd.	Dec. 9th.	Dec. 16th.	Dec. 23rd	Dec. 30th.		
Total Births	1	279	230	260	263	253	280	231	244	233	246	208	254	194	3,175	12,939
Total Deaths	2	156	130	157	180	145	164	142	170	117	148	167	155	181	2,012	8,105
Under 1 year	3	44	45	35	42	33	48	33	37	29	46	30	32	41	495	2,222
1 to 2 years.....	4	12	11	14	14	14	14	18	12	5	10	15	14	14	167	634
2 to 5 years.....	5	4	12	7	11	12	14	13	22	8	16	19	13	10	161	607
5 to 60 years	6	60	43	64	69	50	51	43	64	42	45	73	64	74	742	2,914
60 yrs. and upwards	7	36	19	37	44	36	37	35	35	33	31	30	32	42	447	1,728
Deaths: Small-pox..	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	9	2	1	3	2	1	4	3	2	1	7	2	3	5	36	156
Scarlet Fever	10	1	1	2	...	2	...	1	1	1	1	1	1	2	14	64
*Diphtheria	11	10	6	13	7	6	7	7	7	8	11	16	8	6	112	335
Whooping-cough..	12	1	3	6	4	...	2	6	6	3	5	5	8	3	52	159
Typhus Fever.....	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever.....	14	3	2	3	3	2	...	...	...	3	...	5	...	1	22	69
Other or doubtful	15	...	...	...	...	...	...	1	...	...	...	...	...	...	1	4
Diarrhœa or Dysent.	16	11	2	...	3	5	1	...	1	...	...	...	...	1	24	404
All seven.....	17	28	15	27	19	16	14	18	17	16	24	29	20	18	261	1,191
Cholera (English) ...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Croup	19	...	1	2	...	2	...	1	1	...	...	...	...	...	7	14
Dis. of Resp. System	20	22	27	37	54	39	37	34	34	19	28	29	34	42	436	1,571
Influenza+	21	...	...	...	...	...	...	...	1	...	...	1	...	1	3	81
Phthisis	22	10	5	9	11	4	12	8	20	13	5	13	13	20	143	596
Dis. of Circul. System	23	15	7	12	9	16	14	10	9	10	8	17	13	12	152	623
Violent Deaths	24	4	2	2	5	1	3	3	11	1	4	6	4	9	55	255
Inquest cases	25	16	9	7	10	5	12	11	18	14	17	21	15	24	179	661
Deaths in Pub. Inst.	26	17	11	17	24	13	19	20	15	16	20	22	15	29	238	1,005
Dispensary: visits pd.	27	357	318	347	331	276	310	317	342	394	365	325	293	219	4,221	16,948
Cases admitted to our own hospitals	28	28	27	25	25	19	20	20	25	15	19	26	20	14	283	1,130
Barom. (inches)	29	29·75	29·89	30·08	29·85	29·43	29·46	30·29	30·11	30·10	29·86	29·66	29·96	29·08	29·81	29·79
Attached Ther. °F ...	30	52·31	53·15	49·46	52·69	54·00	53·62	50·62	50·46	53·00	48·92	37·92	41·38	41·25	49·18	53·70
Dry bulb.....	31	51·38	52·15	47·85	51·46	52·08	50·31	46·15	49·08	49·23	43·00	30·31	36·54	36·08	45·87	52·37
Wet bulb.....	32	47·23	47·77	44·38	48·85	48·62	47·23	43·69	46·23	46·23	41·31	29·00	35·15	34·75	43·16	48·63
Humidity	33	74·08	72·77	81·46	83·15	77·77	79·62	82·38	80·77	80·15	85·77	78·92	87·08	87·08	80·82	77·66
Mn. of highest reading	34	56·14	58·43	55·57	55·71	57·14	56·28	51·00	52·14	53·14	50·00	41·29	39·14	42·00	51·38	58·61
,, lowest ,,	35	42·14	44·00	36·71	45·00	46·14	46·14	40·57	42·57	45·86	39·29	25·00	32·57	29·43	39·65	44·03
,, daily range ...	36	14·00	14·43	18·86	10·71	11·00	10·14	10·43	9·57	7·28	10·71	16·29	6·57	12·57	11·73	14·58
Total rainfall (inches)	37	0·26	1·19	...	0·44	0·41	0·72	...	·02	0·08	0·86	0·23	0·28	1·10	5·59	23·40
Wind { Direction ...	38	NW	NW SW	SE	SW	SE SW	SW W	SE	NE	SW	SE	SE NE	NW NE	NE	...	...
Wind { Force 0-6 ...	39	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1
Amount of Cloud 0-10	40	...	..	...	...	...	...	...	...	...	..	...	...	...	...	...
Birth-rate (Leeds) ...	41	34·3	28·3	32·0	32·4	31·1	34·4	28·4	30·0	28·7	30·3	25·6	31·3	23·9	30·1	30·6
Death-rate (Leeds)...	42	19·2	16·0	19·3	22·2	17·8	20·2	20·9	17·5	14·4	18·2	20·6	19·1	22·3	19·1	19·2
Death-rate (33 towns)	43	18·8	18·7	19·0	21·1	18·8	18·0	19·3	19·3	18·9	20·8	22·0	27·5	30·6	20·8	20·2
Birth-rate (33 towns)	44	30·6	29·8	31·2	30·0	30·9	30·9	31·2	29·8	29·0	27·8	27·0	31·0	23·1	29·4	30·2
D.R. lung dis. (Leeds)	45	2·7	3·3	4·6	6·7	4·8	4·6	4·2	4·2	2·3	3·4	3·6	4·2	5·2	4·1	3·7
D.R. diphtheria ,,	46	1·2	0·7	1·6	0·9	0·7	0·9	0·9	0·9	1·0	1·4	2·0	1·0	0·7	1·1	0·8

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 thirteen 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, 78; November, 82; December, 89. Average, 83.

* Including membranous croup. Line 19 includes non-spasmodic croup not returned as membranous.

† Line 21 is included in line 20.

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 33 large English towns for each of the thirteen weeks ended 31st March, 1900.

1900.		JANUARY.				FEBRUARY.				MARCH.				TOTALS OR AVERAGES.
		Jan. 6th.	Jan. 13th.	Jan. 20th.	Jan. 27th.	Feb. 3rd.	Feb. 10th.	Feb. 17th.	Feb. 24th.	March 3rd.	March 10th.	March 17th.	March 24th	March 31st.	
Total Births	1	280	257	238	261	277	249	200	243	242	275	247	258	271	3,298
Total Deaths	2	211	178	171	197	191	235	236	244	174	174	172	166	192	2,541
Under 1 year	3	37	35	40	36	44	59	58	44	45	36	52	40	45	571
1 to 2 years.....	4	15	15	12	22	17	20	23	20	14	15	20	12	24	229
2 to 5 years.....	5	13	10	13	14	11	17	17	17	11	13	8	12	19	175
5 to 60 years	6	86	71	62	72	66	66	74	88	50	63	54	66	61	879
60 yrs. and upwards	7	60	47	44	53	53	73	64	75	54	47	38	36	43	687
Deaths: Small-pox..	8	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Measles	9	3	4	3	2	2	2	...	5	7	2	4	2	6	42
Scarlet Fever	10	...	...	...	1	...	...	...	1	...	...	2	...	1	5
*Diphtheria	11	5	4	5	5	4	11	5	2	6	6	5	8	9	75
Whooping-cough..	12	5	9	6	11	5	6	3	12	5	6	10	9	10	97
Typhus Fever.....	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever.....	14	2	4	...	1	...	1	...	4	4	1	1	...	...	18
Other or doubtful	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa or Dysent.	16	2	1	...	1	...	2	2	...	...	...	...	...	1	9
All seven.....	17	17	22	14	21	11	23	10	24	22	15	22	19	27	247
Cholera (English) ...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	19	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Dis. of Resp. System	20	62	44	56	52	57	81	84	85	52	44	41	42	55	755
Influenza†	21	3	1	8	5	13	12	7	16	7	5	7	4	5	93
Phthisis	22	18	12	7	18	13	12	13	19	12	11	10	16	14	175
Dis. of Circul. System	23	15	15	5	11	19	18	17	7	9	10	12	13	12	163
Violent Deaths	24	6	4	9	5	4	5	10	7	7	6	5	5	2	75
Inquest cases	25	27	18	14	16	12	18	34	23	14	15	25	11	13	240
Deaths in Pub. Inst.	26	29	22	26	22	26	30	16	39	19	26	18	27	20	320
Dispensary: visits pd.	27	307	267	265	344	366	302	309	295	280	280	223	221	230	3,689
Cases admitted to our own hospitals	28	25	17	20	17	17	17	17	15	18	21	14	21	13	232
Barom. (inches)	29	29·52	29·97	29·51	29·61	29·61	29·54	28·38	28·97	29·82	30·08	29·88	29·55	29·71	29·55
Attached Ther. °F...	30	43·85	44·06	44·31	50·08	42·92	38·38	38·15	44·23	47·77	46·23	43·23	44·15	42·92	43·86
Dry bulb.....	31	39·15	40·31	41·69	45·62	36·23	32·77	36·00	42·77	41·54	41·38	43·00	39·85	40·54	40·07
Wet bulb.....	32	37·85	38·54	39·46	43·23	34·38	31·62	33·62	40·38	39·62	37·92	39·69	37·77	37·00	37·77
Humidity	33	88·77	85·85	82·69	82·62	83·23	85·77	84·85	82·00	85·23	74·23	76·85	84·46	74·62	82·40
Mn. of highest reading	34	41·29	42·29	45·71	49·71	43·29	36·14	38·14	50·43	50·43	44·86	50·57	45·29	44·43	44·81
,, lowest ,,	35	35·00	35·00	36·43	37·86	31·86	27·71	29·00	36·43	38·14	36·29	35·71	33·43	32·43	34·25
,, daily range ...	36	6·29	7·29	9·28	11·85	11·43	8·43	9·14	14·00	12·29	8·57	14·86	11·86	12·00	10·56
Total rainfall (inches)	37	1·85	0·14	0·56	0·44	0·23	0·93	1·78	1·01	0·98	...	0·05	0·27	0·12	8·36
Wind {Direction ...	38	NE	SW	SE W	NWW	NE	NW SW	NW	SE	NE	NE	WNW	NE	NE	...
Wind {Force 0-6 ...	39	1	1	1	2	1	1	1	1	1	1	1	1	1	1
Amount of Cloud 0-10	40	...	..	...	...	...	...	...	...	...	..	...	...	...	...
Birth-rate (Leeds) ...	41	33·9	31·1	28·8	31·6	33·5	30·1	24·2	29·4	29·3	33·3	29·9	31·2	32·8	30·7
Death-rate (Leeds)...	42	25·5	21·5	20·7	23·8	23·1	28·4	28·6	29·5	21·1	21·1	20·8	20·1	23·2	23·6
Death-rate(33 towns)	43	30·9	29·1	24·9	22·6	21·2	22·7	25·8	24·2	21·2	20·4	20·5	20·3	21·6	23·6
Birth-rate (33 towns)	44	32·1	32·0	30·5	30·2	30·2	32·0	27·3	31·8	30·3	32·8	30·8	30·7	31·9	31·0
D.R. lung dis. (Leeds)	45	7·5	5·3	6·8	6·3	6·9	9·8	10·2	10·3	6·3	5·3	5·0	5·1	6·7	7·0
D.R. 7 zymotics ,,	46	2·1	2·7	1·7	2·5	1·3	2·8	1·2	2·9	2·7	1·8	2·7	2·3	3·3	2·3

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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 thirteen observations of the wet and dry bulbs. The corrected humidity in Mr. Glaisher's report for the quarter is, for the calendar month of January, 86; February, 88; March, 85. Average, 86.

* Including membranous croup. Line 19 includes non-spasmodic croup not returned as membranous.

† Line 21 is included in line 20