

REPORT  
ON  
THE SANITARY CONDITION  
OF  
LEEDS,

FOR THE YEAR 1871,



*BY M. K. ROBINSON, M.D.,*

MEDICAL OFFICER OF HEALTH FOR THE BOROUGH OF LEEDS.

LEEDS :

PRINTED BY CHARLES GOODALL, PARK LANE.

1872.

Ag 23



REPORT  
ON  
THE SANITARY CONDITION  
OF  
LEEDS,



*BY M. K. ROBINSON, M.D.,*

MEDICAL OFFICER OF HEALTH FOR THE BOROUGH OF LEEDS.

---

LEEDS :

PRINTED BY CHARLES GOODALL, PARK LANE.

1872.



# CONTENTS.



|                                     | PAGE. |
|-------------------------------------|-------|
| LIST OF COMMITTEE ... ..            | 4     |
| REPORT ... ..                       | 5     |
| SANITARY WORK ... ..                | 14    |
| MONTHLY METEOROLOGICAL TABLE ... .. | 17    |
| WEEKLY REGISTER OF DEATHS ... ..    | 18    |
| YEARLY REGISTER OF DEATHS ... ..    | 19    |
| FEVER MAP ... ..                    | 20    |
| SMALL POX MAP ... ..                | 21    |

## Members of Committee.

---

JOHN BARRAN (MAYOR)

### ALDERMEN.

EDMUND STEAD

ROBERT MEEK CARTER

JOHN DARNTON LUCCOCK

HENRY ROWLAND MARSDEN

GEORGE TATHAM

### COUNCILLIORS.

JOHN WALES SMITH

RICHARD BISSINGTON

JAMES MOSLEY

ADAM BROWN

GODFREY MARTIN BINGLEY

THOMAS COGILL

WILLIAM MASON

WILLIAM TURTON

WILLIAM WRAY (CHAIRMAN)

JOHN OATES CLAYTON

JOHN CHILD

JOHN BLAKEY

GEORGE HOBSON

CHARLES HUTCHINSON

JOHN INGHAM

GEORGE SMITH

THE  
SANITARY CONDITION  
OF LEEDS.

---

TO THE SANITARY COMMITTEE OF THE TOWN COUNCIL  
OF THE BOROUGH OF LEEDS.

GENTLEMEN,

During the year ending December 31st, 1871, the number of deaths registered in the Borough of Leeds was 6,881, being 452 less than in the preceding year.

The births numbered 10,401, or 38 less than those in 1870, and yielded 3,520 as last year's natural increase of population.

The death-rate for the past year was 26·4 per 1,000, being 1·8 per 1,000 less than that of 1870. The average ratio of the last five years has equalled 26·8 per 1,000 per annum, contrasted with 31·3, the average rate of the previous five years, so that if we compare the latter half with the former of the decenniad 1862-1871, it is manifest that a great improvement has taken place, which vantage ground gained,

however, should only stimulate to renewed effort in order to obtain a still further reduction in our annual mortality, for it cannot be denied that there is scope for still greater achievement in this direction.

Of males the number of deaths registered was 3,573, that of females being 3,308. By reference to the age columns in the general table it will be seen that the mortality was as usual, largely made up of children's deaths, in fact 47·3 per cent. of the total deaths occurred under five years of age, the proportion under one being 31·2 per cent. The weekly death wave ranged from 95 in the 26th and 27th weeks, each respectively, with a rate of 19·0 per 1,000, to 213 in the 37th week, or a rate equal to 42·6 per 1,000 per annum.

The third quarter was the most fatal one of the year, more than 26 per cent. of the deaths during that period being caused by diarrhoea.

The deaths occurred in the following districts of the Borough :--

| DISTRICTS.              | First Quarter | Second Quarter | Third Quarter | Fourth Quarter | TOTALS      | Death-rate per 1000. |
|-------------------------|---------------|----------------|---------------|----------------|-------------|----------------------|
| Leeds { North.....      | 376           | 348            | 524           | 409            | 1657        | 33·2                 |
| Town-ship. { West ..... | 386           | 349            | 420           | 378            | 1533        | 25·1                 |
| South .....             | 227           | 160            | 263           | 184            | 834         | 28·6                 |
| Hunslet .....           | 239           | 235            | 318           | 226            | 1018        | 27·0                 |
| Holbeck ... ..          | 155           | 110            | 123           | 110            | 498         | 24·9                 |
| Wortley .....           | 169           | 161            | 178           | 215            | 723         | 23·0                 |
| Kirkstall.....          | 77            | 73             | 79            | 74             | 303         | 21·5                 |
| Bramley .....           | 37            | 43             | 56            | 52             | 188         | 18·8                 |
| Chapelton.....          | 35            | 30             | 25            | 33             | 123         | 16·6                 |
| Hamlets .....           | 1             | ...            | 2             | 1              | 4           | 10·2                 |
| <b>BOROUGH.....</b>     | <b>1702</b>   | <b>1509</b>    | <b>1988</b>   | <b>1682</b>    | <b>6881</b> | <b>26·4</b>          |

The Leeds Workhouse and the House of Recovery, both of which institutions are in the North Registration District, contributed 258 deaths, and if this number be omitted the rate for the district would be reduced to 28·0, and again deducting the 210 deaths, which occurred in the Infirmary, the reduced rate for the West District would be represented by 21·7.



The following table shows the number of deaths referred to zymotic diseases during the last six years.

| DISEASES.   | 1866 | 1867 | 1868 | 1869 | 1870 | 1871 |
|---|------|------|------|------|------|------|
| Small Pox .....   | 59   | 46   | 17   | 42   | 9    | 41   |
| Measles .....   | 219  | 28   | 95   | 26   | 179  | 92   |
| Scarlatina .....  | 98   | 71   | 181  | 337  | 339  | 108  |
| Diphtheria .....  | 27   | 28   | 28   | 18   | 23   | 20   |
| Croup .....   | 98   | 71   | 81   | 49   | 44   | 38   |
| Whooping Cough.   | 242  | 168  | 79   | 75   | 187  | 146  |
| Fever, including<br>Typhus, Enteric,<br>Relapsing, and<br>Continued Fever | 490  | 257  | 314  | 237  | 345  | 341  |
| Diarrhœa .....  | 428  | 407  | 739  | 414  | 657  | 663  |
| Other Zymotics ...  | 84   | 81   | 97   | 92   | 106  | 89   |
| TOTALS.....   | 1745 | 1157 | 1631 | 1290 | 1889 | 1538 |

Small pox, which has never been entirely absent for a whole year since my official connexion with Leeds, has been lately a cause of considerable anxiety on account of the epidemic prevalence of the disease in so many large towns. During last year, 47 out of the 289 cases which came under notice were imported from other towns, and if active sanitary measures had not been adopted by your Committee in these cases, it is reasonable to presume that the epidemic would have assumed far more formidable proportions than it has hitherto done in Leeds, as, notwithstanding the praiseworthy exertions of the Poor Law Guardians, it is quite certain that careful vaccination, and re-vaccination require to be more vigorously practised in order that the protective power resulting from this operation may be extended to the entire population. It is no argument to say because persons contract the disease after vaccination has been resorted to that vaccination is no protection, for it must be remembered that the exception sometimes proves the rule, and even small pox may occur a second time in the same individual, yet no one doubts the immunity begotten by a first attack against a second one; and again, allowance must also be made for faulty or careless vaccination. The numerous statistics and reports already published have sufficiently established the

value of vaccination, but it is instructive to note that of the 41 persons killed by small pox last year in Leeds, 31 had not been vaccinated, 3 imperfectly so, in one instance it was not ascertained whether the operation had been performed or not, whilst in the remaining six, vaccination was believed to have been performed. It is lamentable to have to report how the disease was spread either by the ignorant or careless exposure of persons suffering from the malady, or through the medium of infected clothing. It is not always an easy matter to trace the connexion of one case with the other, but in 225 instances of persons suffering from the malady, the history of communication with previously infected sources was completely established.

The epidemic, still prevalent, has been widely distributed throughout the Borough, the North Registration District as yet, furnishing the largest number of cases; here it has prevailed chiefly in the streets bounded by Quarry Hill, Burmantofts Street, Green Road, and Mabgate, also the streets bounded by Beckett Street, Cardigan Street, Cherry Row, and Green Road, in Arthur Street, Arthur Terrace, Brown Square, Cross Templar Street, Galway Street, Gough Street, Grey Street, High Street, Hope Street, Lumb Square, Mushroom Street, Nelson Street, Nippet Street, Pilot Street, Shakespeare Street, Saville Green, Templar Street, and York Street. Cases also occurred at Bath Street, Catherine Street, Cookson Street, East Street, Joy Fold, Courts and Yards in Meadow Lane, Providence Street, Richmond Road, Richmond Street, Woodman Terrace, and Zion Street in the South-East District; at Back Barrack Street, Blenheim Terrace, Briggate, Burley Street, Carlton Cross Street, England Street, Glover Street, Meanwood Road, Primrose Street, Park Lane, Portland Crescent, Reuben Street, Wellington Street, and Woodhouse Street in the West District; at Anchor Street, Ebony Street, Garr Street, Hunslet Road, Jack Lane, and Pottery Field in Hunslet District; at Frost Fold in Holbeck; at Bradley Yard, Stanningley, and Grammathorpe in Bramley District; at Cardigan Place, Eddison's Buildings, and Spring Grove Avenue in Kirkstall; and at Smith's Buildings, Chapel-Allerton.

Scarlatina, one of childhood's special enemies, was less fatal during 1871 than it has been for many years, the deaths

registered numbering 108. The history of 85 of the subjects of these deaths revealed the contagious link in the connecting chain of one case with another.

The following table shews the deaths registered under the different forms of fever during the last six years, and by reference to the map in the Appendix it will be seen where the cases of fever which came under notice last year were distributed.

|                 | 1866 | 1867 | 1868 | 1869 | 1870 | 1871 |
|-----------------|------|------|------|------|------|------|
| Typhus .....    | 407  | 221  | 170  | 134  | 131  | 101  |
| Enteric .....   | 73   | 31   | 143  | 100  | 182  | 205  |
| Relapsing ..... | ...  | ...  | ...  | 1    | 13   | ...  |
| Continued ..... | 6    | ...  | ...  | 1    | 13   | 11   |
| Remittent ..... | 4    | ...  | ...  | 1    | 3    | 21   |
| Puerperal ..... | ...  | 3    | 1    | ...  | 3    | 3    |
| TOTAL .....     | 490  | 255  | 314  | 237  | 345  | 341  |

The above table exhibits the still further decline of typhus, but at the same time it will be seen that enteric, or filth fever, has increased; in 138 instances of the persons who succumbed to the disease the drainage of the houses where the victims had lived was found defective, and in 81 other cases privies adjoined the houses. These facts will help to strengthen the hands of the Committee in the work they have undertaken of filling up the middensteads (sepulchres of filth) which have so long required extinction. The arrears of defective drainage are seriously increasing, and it is becoming a matter of the first importance to obtain a removal or relaxation of the Chancery Injunction.


In 26 of the deaths from typhus the subjects of them were imported into Leeds from other towns, and 95 had previously held communication with infected sources. In addition to the

341 deaths registered, 511 persons suffering from fever were reported; 246 of these lived where the drainage was found defective, 158 dwelt next to privies, 61 had been exposed to contagion, 16 came from other towns, and 13 were the occupants of cellar dwellings.

The following were the localities visited by fever, viz. :—  
 In the North Registration District, the streets bounded by Accommodation Road, Burmantoft's Street, and York Road; streets bounded by Duke Street, Marsh Lane, and Quarry Hill; streets bounded by Burmantofts Street, Green Road, Mabgate, and Quarry Hill; streets bounded by Kirkgate, Lady Lane, Vicar Lane, and York Street; together with Alan Terrace, Arthur Street, Back Nile Street, Bertie Street, Cambridge Street, Hope Street, Lower Templar Street, Pollard Street, Primrose Street, Regent Street, and Stamford Street. In the South-East District, Bath Street, Lawrence Street, Mayor Street, Morpeth Street, Providence Street, Richmond Road, Rodney Street, Shannon Street, Saxon Lane, Upper Cross Street, Vincent Street, Woodman Terrace, and Weaver Square. In the West District, Baker Street, Benns Square, Bingley Street, Calvert Court, Corporation Street, Clarence Street, Dover Street, Forrest Street, Institution Street, Portland Street, Sackville Street, Stanhope Street, and Well's Yard. In Hunslet, the streets off Dewsbury Road, streets and yards in Pottery Field, streets and yards out of Waterloo Road, along with Alton Street, Branston Street, Coupland Street, Grape Street, Holdsworth Street, Low Road, Nevin Street, and Vine Street. In Holbeck, Ashley Place, Catherall Street, Charlotte Street, Derby Street, Isles Lane, Moor Side, and Provost Street. In Wortley, at Atkinson Place, Baptist Street, Bruce Street, Copley Hill, Langham Street, New Street, Wellington Road, Upper and Lower Wortley. In Armley, at Botany Bay, Canal Road, Far Fold, Main Road, Moor Side, Station Road, and Winker Green. In Farnley, at School Close. In Bramley, at Bradley Hill, Dickenson's Hill, Elm Row, Elswick Terrace, High Street, Hough End, Lumb Row, Smith Row, White Cote, and Waterslacks. In Kirkstall, at Alexandra Terrace, Ash Terrace, Cross Church Street, Commercial Street, Lloyd Street, Owen's Houses, St. Stephen's Terrace, St.

Ann's Row, Springfield Place, Tordoff Terrace, White Row, and Wellburn Yard. In Chapel-Allerton District, at Cowper Street, Henconner Lane, Moortown, Newton Grove, Union Place, and York Terrace.

Diarrhœa was again the principal zymotic of the year, killing more than any other one disease excepting bronchitis. Defective sanitary arrangements existed in 525 instances at the dwellings where these cases occurred consisting of either faulty drainage or improper excrement disposal. 451 of the deaths from diarrhœa occurred in children under one year of age, and 317 were not nursed by their mothers, but brought up by hand feeding. The parents of 27 of the children were intemperate in their habits, of 17 they were destitute, and of 18 both intemperate and destitute. Causes instrumental in the development of typhoid fever, have long been considered by sanitarians capable of producing diarrhœa under different circumstances, as such may be favourable to the production of one or the other disease. It is well known that a certain temperature is essential before this summer visitant can exert its fatal force on infant life. Just as the fungi spores lay dormant and concealed a greater part of the year, until under the influence of genial heat, the green sod becomes clothed with the white caps of the parent plant, so this annual epidemic casts its white shroud over infant existence in the sunny days of summer. The fact that the history of 525 cases last year points to the relationship of filth with this malady suggests the importance of removing all sources of impurity from contiguity to human habitations. The effect of rain is to wash the atmosphere, cleanse the streets and sewers, &c., and thus check the prevalence of diseases like diarrhœa, which probably depend on impurities (at any rate as a pabulum) for their existence.

*Printed by*  *J. W. & Co.*

*J. W. & Co.*

The following table shews the weekly deaths from Diarrhoea, together with the temperature and rainfall during the third quarter :—

| WEEK ENDING |            | Deaths from Diarrhoea | Mean Temperature | Amount of Rainfall |
|-------------|------------|-----------------------|------------------|--------------------|
| July        | 8th .....  | 5                     | 56·9             | 1·59               |
| „           | 15th ..... | 3                     | 59·2             | 0·83               |
| „           | 22nd ..... | 6                     | 61·3             | 0·30               |
| „           | 29th ..... | 23                    | 56·9             | 0·66               |
| August      | 5th .....  | 24                    | 56·6             | 0·15               |
| „           | 12th ..... | 41                    | 66·1             | 0·09               |
| „           | 19th ..... | 68                    | 63·7             | 0·54               |
| „           | 26th ..... | 76                    | 58·9             | 0·45               |
| September   | 2nd .....  | 59                    | 60·6             | 0·56               |
| „           | 9th .....  | 59                    | 56·9             | 1·39               |
| „           | 16th ..... | 78                    | 57·7             | 0·13               |
| „           | 23rd ..... | 48                    | 51·7             | 0·04               |
| „           | 30th ..... | 41                    | 48·4             | 3·53               |

The total deaths from zymotic diseases numbered 1,538, or 22·4 per cent. of the total deaths; affections of the respiratory organs, excluding phthisis, amounted to 1,210; of uncertain seat, 214; tubercular diseases, 886; affections of the brain and spinal cord, 814; diseases of the circulatory system, 330; of the stomach, liver, &c., 250; of the kidneys, 107; child-birth and diseases of the uterus, 61; diseases of the skin, cellular tissue, &c., 23; debility, atrophy, and marasmus, 408; developmental diseases, 227; old age, 247; inquests, deaths from violence, and sudden deaths, 295; and the remainder, 271, from causes not specified.

The foregoing is a summary of the different causes of deaths in the register for 1871. Typhoid fever figures far too largely in the record, and contagious diseases were spread to a fearful extent on account of the defective powers for procuring isolation in these cases, the waste of life in consequence is a question deserving the serious consideration of our legislators. As the law exists at present, the Town Clerk is of opinion that the Council have power to build hospitals, but none to supply medicine and attendance, &c., nor has the Council power of compulsory removal to such hospitals,

except the sufferers are without proper lodging or accommodation, or members of more than one family; therefore, for the purpose of securing isolation, the law on this subject is defective, except in the case of such as would probably come under the head of paupers. In the event of an Epidemic Hospital being built for all classes, as contemplated by your Committee, the suggestion of Dr. Eddison, that an arrangement be made to permit medical gentlemen to attend their own patients when removed to such institution, would render it more generally available, as there is often a natural indisposition on the part of persons to lose the services of their own medical advisers.

It would occupy too much space in this report to give a detailed account of the devastations produced from the extension of infectious diseases through the ignorance or recklessness of persons having charge of the sick. Previous communication with infected sources was discovered to have existed in 95 out of the 341 deaths from all forms of fever, in 74 out of the 92 deaths from measles, in 85 out of the 108 deaths from scarlatina, and in 30 out of the 41 deaths from small pox registered last year in Leeds.

Two or three instances taken from my notes of the history of the present epidemic of small pox will illustrate the general mischief occasioned by disregard to the communicability of the disease. A woman proceeded from Leeds to Wakefield to nurse a man suffering from small pox, this man died, and the woman brought the bed home with her, on which the man had laid, to Duce Square, Wortley, and on it placed the child of a man who was lodging with her; this child very soon suffered from small pox, and two other men and a woman, frequenters of this house, subsequently sickened from the disease. Another woman, living in Pollard Street, whose two children had been afflicted with small pox, gave the bed on which they had laid to three boys; these boys, all members of different families, carried the bed to the top of Mabgate, and there made a bonfire of it. Each of these boys contracted small pox, and subsequently it was communicated to several members of their respective families. A man from Woodhouse visited at a house in Primrose Street, where a convivial gathering was being held; the man having imbibed

rather freely, fell asleep, when the mistress of the house took a pillow, upon which a child, afflicted with small pox, was reclining, and placed it under the head of the slumbering man. This man soon contracted the disease, and subsequently a brother, who slept with him, also suffered.

It is gratifying to turn from the catalogue of deaths to a review of the sanitary work accomplished in 1871, otherwise an impression might be created that the enemies to human life had been quietly allowed to take the citadel whilst its defenders slept.

The following return shews that the duties of the Committee performed in the administration of the Nuisances Removal and Sanitary Acts, have been neither few nor trivial.

|  |          |
|--|----------|
| Notices and Letters issued ... ..  | 17,137   |
| Cottage houses visited with the object of improving their sanitary condition .. .. | 20,314   |
| Houses limewashed .. ..  | 19,978   |
| Houses disinfected ... ..  | 1,635    |
| Articles disinfected at the dry heat apparatus ... ..                              | 5,023    |
| Overcrowded houses partially emptied ... ..  | 97       |
| Offensive midden sumps filled up ... ..  | 75       |
| Privies converted into box system ... ..   | 156      |
| Miscellaneous nuisances removed ... ..   | 16,642   |
| Diseased beasts destroyed ... ..   | 3        |
| "    pigs    "    ... ..   | 8        |
| Unsound rabbits    "    ... ..   | 190      |
| "    fish    "    ... ..   | 12 6     |
| Summonses issued ... ..  | 60       |
| Orders made by Magistrates ... ..  | 49       |
| Penalties inflicted ... ..   | £73 16 6 |

Foremost in magnitude as a sanitary undertaking, and one which will render the year 1871 memorable in the sanitary annals of Leeds, was the determination by your Committee to purchase and destroy that whole block of unwholesome dwellings situated off Kirkgate, in one of the most densely populated, and unhealthy districts of the Borough, containing 10 cellar dwellings, and comprising 93 houses, followed by a like decision to demolish property of an equally objectionable character, situated between Back George Street, Nelson Street, and Millgarth Street, containing 20 courts, 46 cellar dwellings, and comprising 200 houses.





A great number of these houses are totally unfit for occupation as such, and there is ample scope for the development of a company for the purpose of building Model Lodging Houses to be constructed on sound sanitary principles. The Social Improvement Society, which has done so much good as a truly philanthropic association, might take this matter up, and if no actual commercial profit could be realised, a real benevolent work might be developed without much risk or loss.

The following is a return of the number of observations and summonses issued by Inspector Sands, together with the convictions, &c., obtained by the Town Clerk under the Smoke Prevention Clauses of the Improvement Act, 1866 :—

| Observations. | 60 minutes' Observations. | Total Summonses Issued. | Convictions Obtained. | Summonses Dismissed or Withdrawn. | Amount of Penalties imposed by Justices. |
|---------------|---------------------------|-------------------------|-----------------------|-----------------------------------|--|
| 1025          | 88                        | 28                      | 24                    | 4                                 | £53 0 0                                  |

The accompanying tables and maps, being each designated, need no explanation.

I am,

Gentlemen,

Your obedient Servant,

M. K. ROBINSON, M.D., &c.,

*Officer of Health.*

*January 14th, 1872.*

MONTHLY METEOROLOGICAL TABLE  
FOR THE YEAR ENDING DECEMBER 31<sup>ST</sup>, 1871,

*Taken at the Philosophical Hall, by*

LOUIS C. MIALL, ESQ.

| M O N T H<br>1871 | Mean<br>Readings<br>of<br>Barometer | Mean<br>Tempera-<br>ture<br>of the Air | Mean<br>Tempera-<br>ture<br>Dew Point | Most<br>Prevalent<br>Wind | Amount<br>of<br>Rainfall |
|-------------------|-------------------------------------|--|---------------------------------------|---------------------------|--------------------------|
| January.....      | 29·618                              | 33·4                                   | 29·1                                  | N.W.                      | 0·66                     |
| February .....    | 29·769                              | 42·1                                   | 39·2                                  | N.W.                      | 1·09                     |
| March .. .....    | 29·832                              | 45·3                                   | 38·4                                  | N.W.                      | 0·43                     |
| April .....       | 29·620                              | 45·9                                   | 40·8                                  | N.E.                      | 3·15                     |
| May .....         | 29·938                              | 52·8                                   | 43·2                                  | N.W.                      | 1·00                     |
| June .....        | 29·795                              | 54·5                                   | 51·0                                  | N.E.                      | 4·08                     |
| July .....        | 29·632                              | 60·0                                   | 55·7                                  | S.W.                      | 3·22                     |
| August .....      | 29·820                              | 63·5                                   | 53·8                                  | S.W.                      | 0·99                     |
| September. . .    | 29·757                              | 54·9                                   | 50·8                                  | N.W.                      | 5·57                     |
| October .....     | 29·763                              | 49·8                                   | 44·2                                  | S.W.                      | 2·95                     |
| November.....     | 29·863                              | 39·0                                   | 32·7                                  | N.W.                      | 0·75                     |
| December .....    | 29·873                              | 40·2                                   | 34·7                                  | S.W.                      | 1·21                     |

---

CHARLES GOODALL, PRINTER, PARK LANE, LEEDS.

---











THE CROSSES REPRESENT THE PLACES WHERE CASES OF FEVER OCCURRED DURING 1871.



Handwritten text in red ink at the top of the page, possibly a header or title, including the number '11' and some illegible characters.



THE CROSSES REPRESENT THE PLACES WHERE CASES OF SMALL POX OCCURRED DURING 1871.



PUB BY W. BIERLEY 2 B'ND ST LEEDS. AGENT TO THE YORKS J. S. PUB CO. LIND.

ENTERED AT STATIONERS HALL.

