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REPORT

ON THE

SANITARY CONDITION

OF THE

Borough of Birkenhead,

FOR THE YEAR 1881,

BY

FRANCIS VACHER,

MEDICAL OFFICER OF HEALTH.

BIRKENHEAD:

WILLMER BROTHERS & CO., LIMITED, 64 & 66, CHESTER-STREET.

1882.

HEALTH, BATHS, AND PARKS COMMITTEE

OF THE

BIRKENHEAD TOWN COUNCIL

1881-82.

Mr. Councillor FREDERICK SMITH, Chairman.
Mr. Councillor THOMAS INGLEFIELD, Deputy Chairman.
Mr. Alderman WILLIAM CROWE.
Mr. Alderman JOHN MUDIE.
Mr. Councillor RICHARD BELL.
*Mr. Councillor DUNN HENRY COLLINS.
Mr. Councillor JOSEPH CRAVEN.
Mr. Councillor ELLIS DAVIES.
Mr. Councillor ISHAM HENRY EDWARD GILL.
Mr. Councillor EDWARD BRAILEY HATFIELD.
Mr. Councillor EDWARD JONES.
Mr. Councillor JOHN ROWLAND JONES.
Mr. Councillor WILLIAM JOSEPH LITTLE.
Mr. Councillor ANDREW WHYTE.
Mr. Councillor THOMAS GOODALL WILKINSON.

AND

HIS WORSHIP THE MAYOR.

*In June, 1882, Mr. Councillor Samuel Spratly, M.D., took the place of Mr. Councillor Collins, deceased.

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1882.

THE SANITARY CONDITION

OF THE

BOROUGH OF BIRKENHEAD DURING 1881.

Report of the Medical Officer of Health to the Health Committee.

A CENSUS was taken in England and Wales on April 4th, 1881, and a preliminary report on the same was issued a few months later. The results, however, were not finally settled, so far as regards Birkenhead, till January 20th, 1882. Particulars are given below :—

CENSUS TAKEN APRIL 4th, 1881.		Houses.			Persons.		
		Inhabited	Uninhabited	Building	Males.	Females	Total
Townships.	Birkenhead	7676	946	130	26723	24887	51610
	Claughton	426	38	6	1069	1865	2934
	Tranmere	4264	610	155	11261	12726	23987
	Oxton	541	38	15	1219	2093	3312
	Higher Bebington (part of)	325	49	7	902	1261	2163
Wards.	Argyle	2428	371	32	9291	8187	17478
	Bebington	325	49	7	902	1261	2163
	Claughton	426	38	6	1069	1865	2934
	Cleveland	1971	223	23	6896	5922	12818
	Clifton	1993	276	111	5228	5773	11001
	Egerton	1370	186	21	3567	4412	7979
	Grange	3277	352	75	10536	10778	21314
	Mersey	901	148	23	2466	2541	5007
	Oxton	541	38	15	1219	2093	3312
Birkenhead Borough		13232	1681	313	41174	42832	84006

It will be seen that the population of the Borough, at the date of the Census, was 682 more than it was represented in the preliminary report. The return of houses building was also too low by 86, and the return of uninhabited houses too high by 76.

The population taken at the previous Census, on April 3rd, 1871, was 65,971; the increase in the population of the Borough during the decennium was, therefore, 18,035, *i.e.*, 27·3 per cent. The number of inhabited houses in the Borough at the taking of the Census in 1871 was 10,243; the increase in the number of inhabited houses during the decennium was, therefore, 2,989, *i.e.*, 29·1 per cent.

As, for the purposes of this Annual Report, an estimate is required of the number living at midsummer 1881, it will be necessary to add three months' increment to the Census enumeration. The natural increase to the local population (excess of births over deaths) during April, May, and June was 398; the population of the Borough was thus not less than 84,404 in the middle of the year 1881. The next table shows the population of the several townships forming the Borough, and the number of persons to an acre in each. To the figures as enumerated in April one quarter's births have been added and one quarter's deaths subtracted. Claughton, it will be seen, shows no increment during the quarter, and Bebington a slight decrement.

TOWNSHIPS.	Estimated population at Midsummer, 1881.			Persons per Acre.
	Males.	Females.	Total.	
Birkenhead	26843	25019	51862	40·5
Claughton	1069	1865	2934	6·6
Tranmere	11332	12802	24134	22·5
Oxton	1225	2092	3317	4·0
Higher Bebington (part of)	898	1259	2157	8·7
Birkenhead Borough	41367	43037	84404	21·9

During the year 1881 the returns of the local registrars recorded 3,059 births and 1,462 deaths in the Borough of Birkenhead. The natural increase to the population in 1881 was, therefore, 1,597. Of the births 1,578 were males and 1481 were females; of the deaths 800 were males, and 662 were females.

During 1880 the births registered were 3,048, and the deaths registered were 1,624. During 1879 the births were 3,112, and the deaths were 1,631. During 1878 the births were 2,932, and the deaths were 1,656.

In the year under review there were thus 28 more births and 175 fewer deaths among the local community than in the mean of the three years immediately preceding.

Further particulars as to the births and deaths in the Borough in 1881, that is to say, the numbers returned in each quarter of the year, and the numbers referred to each township, are given in tables subjoined. The births and deaths in premises belonging to the Union, it will be seen, are entered separately.

Births.	1st Qr.		2nd Qr.		3rd Qr.		4th Qr.		1881.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Birkenhead ..	254	223	253	240	235	242	270	240	1012	945
Claughton	7	5	9	4	6	9	7	5	29	23
Tranmere	114	117	117	107	108	105	122	117	461	446
Oxton	9	11	16	7	6	8	15	12	46	38
Bebington	5	5	3	1	4	2	3	2	15	10
Union Hospital..	3	8	2	4	5	4	5	3	15	19
Birkenhead Boro'	392	369	400	363	364	370	422	379	1578	1481

Deaths.	1st Qr.		2nd Qr.		3rd Qr.		4th Qr.		1881.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Birkenhead ..	151	122	133	108	106	96	126	112	516	438
Claughton	4	2	7	6	3	2	4	3	18	13
Tranmere	55	51	39	29	39	34	32	37	165	151
Oxton..	6	2	10	8	5	3	4	3	25	16
Bebington	6	2	7	3	3	—	1	2	17	7
Union Hospital..	26	17	9	6	9	3	15	11	59	37
Birkenhead Boro'	248	196	205	160	165	138	182	168	800	662

The annual rate, per 1,000 living, of births and deaths, as regards the incorporated area and the townships within it, appears in the next table.

1881.	Annual Rate per 1,000 Living.	
	Births.	Deaths.
Birkenhead	37.73	18.39
Claughton..	17.72	10.56
Tranmere	37.58	13.09
Oxton	25.32	12.36
Bebington..	11.59	11.12
Birkenhead Borough, including B. and D. in Union premises	36.24	17.32

The birth-rate of the Borough, in 1880, as corrected, is 36.99, and the death-rate 19.70. The birth-rate in 1879, as corrected, is 38.68, and the death-rate 20.27. The birth-rate in 1878, as corrected, is 37.34, and the death-rate 21.09.

The death-rate of Tranmere being so much lower than the township of Birkenhead, and the death-rate of Claughton, Oxton, and Bebington being lower than Tranmere, is in great part due to differences in density of population; Birkenhead being about twice as thickly populated as Tranmere, and about six times as thickly populated as the remainder of the Borough. Then in Oxton there are but few resident poor, and scarcely any in Claughton and Bebington. The proportion of domestic servants and unmarried adults is also exceptionally large in Claughton.

In order that the birth-rates and death-rates, in 1881, of the whole Borough, and the townships it contains, may be compared with the corresponding rates returned by the most populous cities and boroughs in England, we reproduce the following table from the Registrar-General's "Annual Summary of Births, Deaths, and Causes of Deaths, in London and other Large Towns." It gives the birth-rates and death-rates of the twenty chief towns in England, for the 52 weeks ending December 31st, 1881. The estimates of population in the middle of 1881, on which the rates are calculated, are based upon the numbers enumerated in April of that year.

Cities and Boroughs.	Annual Rate per 1,000 Living.	
	Births.	Deaths.
London	34·7	21·2
Brighton	30·6	19·0
Portsmouth	34·4	19·7
Norwich	33·6	19·5
Plymouth	32·7	19·9
Bristol	34·5	19·6
Wolverhampton	35·9	21·2
Birmingham	37·2	20·0
Leicester	38·4	21·8
Nottingham	36·7	22·4
Liverpool	37·6	26·7
Manchester	36·9	25·5
Salford	38·8	22·6
Oldham	35·4	22·8
Bradford	33·0	19·7
Leeds	36·8	21·6
Sheffield	38·0	21·1
Hull	36·4	23·8
Sunderland	39·3	20·9
Newcastle-on-Tyne	36·8	21·8
Mean	35·6	21·7

It will be seen that, of the twenty cities or boroughs in the table, nine had lower birth-rates, and all had higher death-rates than the Borough of Birkenhead; the mean birth-rate of the great cities and boroughs being 0.6 per 1,000 living lower, and the mean death-rate 4.4 per 1,000 living higher than in the Borough of Birkenhead. Yet the density of the population in Birkenhead is greater than in some of the towns in this list: thus the number of persons to an acre, at the middle of the year 1881, was in Norwich 11.8, in Leeds 14.4, in Sheffield 14.5, and in Nottingham 18-9; while in Birkenhead it was 21.9.

In instituting a comparison between the death-rate of Birkenhead and the death-rates of other towns, it should be noticed that whereas the union hospitals and workhouses of most of the cities and boroughs just named generally receive persons from within their own bounderies only; the Union Hospital and Workhouse of Birkenhead receive from Seacombe, Egremont, New Brighton, &c. Seven of those who died in the Birkenhead Union

Hospital and Workhouse, during the year under review, were thus derived from outside the municipal boundary. It may be assumed that some of the patients who died in the other hospitals in the Borough were also derived from without the municipal boundary: but considering the contiguity of a large city to Birkenhead, it is probable that the number of strangers dying in such hospitals does not exceed the number of those who, though ordinarily residing in Birkenhead, die in hospitals belonging to our neighbours.

The local birth-rate and death-rate also compare favourably with the mean of the corresponding rates returned by the fifty towns in England and Wales next in importance to the twenty English cities and boroughs in the table. The mean birth-rate, in 1881, of the fifty large town districts is given in the "Annual Summary" at 35.4, and the mean death-rate at 19.6 per 1,000 living. Birkenhead is one of the large town districts in Lancashire and Cheshire. The remaining twelve are given below. It will be seen that seven had lower birth-rates, and all had higher death-rates than Birkenhead.

Districts approximately representing Towns of	Annual Rate per 1000 Living	
	Births.	Deaths.
Stockport	34.0	22.5
Macclesfield	31.8	23.6
Chester	31.2	18.5
St. Helens'	42.2	20.6
Wigan	41.2	22.7
Bolton	35.9	20.4
Bury	34.7	21.9
Ashton-under-Lyne	35.0	24.0
Rochdale	30.3	20.9
Blackburn	37.9	22.8
Preston	36.3	22.8
Barrow-in.Furness	42.5	19.4

The birth-rate of the whole of England and Wales, for 1881, was, according to the Registrar-General's Quarterly Returns, 33.9, and the death-rate 18.9 per 1,000 living. Figures derived from the Quarterly Returns are subject to revision when the causes of death and other details are finally classified.

In the twenty-four European cities furnishing returns, the death-rates for 1881 were as follows:—Paris, 28.6; Geneva, 21.2; Brussels, 23.9; Amsterdam, 23.7; Rotterdam, 23.3; The Hague, 23.3; Copenhagen, 22,1; Stockholm, 24.7; Christiania, 18.8; St. Petersburg, 51.4; Berlin, 27.6; Hamburg (State), 24.5; Dresden, 25.4; Breslau, 32.5; Munich, 32.8; Vienna, 29.0; Prague, 28.9; Buda-Pesth, 35.2; Trieste, 35.6; Madrid, 37.4; Barcelona, 27.8; Turin, 25.6; Milan, 30.0; and Bucharest, 24.5.

The death-rates for 1881 in the three chief cities of the empire of India were:—Calcutta 30.1; Bombay 33.7; Madras 38.8.

The death-rates for 1881 in five American cities furnishing returns were as follows:— New York, 31.0; Brooklyn, 25.6; Philadelphia, 22.5; Baltimore, 26.0; and Chicago, 27. 2.

Birkenhead, therefore compares most favourably with towns at home and abroad, as well as with the whole of England and Wales.

Tabular statements of the year's mortality within the Borough of Birkenhead, classified according to diseases, ages, and localities, a weekly register of deaths, and of meteorological results, a monthly summary of deaths from all causes and zymotic diseases, with the rates per 1,000 per annum, together with a table specifying the occupation, or "description," of each person whose death was entered during the year, a return of deaths in the Birkenhead Union Hospital and Workhouse, and a sketch map showing the boundaries of the wards, &c., will be found appended.

Table I shows the deaths registered in the whole Borough during 1881, arranged with reference to the age at which death occurred in each case. They are disposed in four sub-tables—the deaths in the townships of Birkenhead and Claughton in the first, the deaths in Tranmere (exclusive of the Union premises) and Oxton in the second, the deaths in the incorporated portion of Higher Bebington in the third, and the deaths in the Union Hospital or Workhouse in the fourth. The deaths of infants are entered up in three columns, those under one year, those of one year and under two years, and those turned two years and under

five. Then follow the deaths of children and young persons, those turned five years and under twenty; and of adults, those turned twenty and under forty, and those turned forty and under sixty. In the last two columns are the deaths of old people turned sixty and under eighty, and those eighty and upwards. Reference to this table will show that, of the gross local mortality for 1881, the deaths of infants accounted for 592, children and young persons for 107, adults 461, old people 302. In the townships of Birkenhead and Claughton 422 deaths occurred among infants, 74 among children and young persons, 313 among adults, and 176 among old people. In the townships of Tranmere and Oxton the number of deaths of those under five years was 145, of children and young persons 26, of adults 111, and of old people 75.

The relative proportion of deaths, in 1881, among infants, children and young persons, adults and old people, to the whole number of deaths, in certain sub-divisions of the Borough, in the premises controlled by the Guardians of the Poor, and in the entire area incorporated, is readily shown in tabular form thus:—

Percentage of Deaths at Certain Ages to Total Deaths.	Age below			60 and Upwards.
	5	20	60	
Birkenhead and Claughton	42·8	7·5	31·7	17·8
Tranmere and Oxton	40·6	7·2	31·0	21·0
Bebington.....	25·0	12·5	37·5	25·0
Union Hospital and Workhouse	19·7	4·1	29·1	46·8
Birkenhead Borough	40·4	7·3	31·5	20·6

It is hardly necessary to point out that these figures represent the local mortality in a singularly favourable light. The proportion of deaths of infants, children and young persons to the sum of the deaths is far less than it averages in towns and populous districts, and the proportion of deaths of old people to the sum of the deaths is much more than it averages in towns and populous districts. The local mortality in 1881 compares favourably in this respect with the local mortality returned in previous years, as of the deaths recorded in the old Improvement District of Birkenhead, for a number of years, about fifty per cent. were of children under

five years, and about twelve per cent. were of persons sixty years or upwards, while of the deaths recorded in the Borough in the three years 1878-80 42·5 per cent. were of children under five years, and but 18·5 per cent. were of persons of sixty years or upwards. The figures opposite Bebington have little significance, the number of deaths at all ages being inconsiderable ; nor is there any special significance in the small proportion of infants and the large proportion of old people in the death-returns from the Union, the inmates of a workhouse differing from a normal population in respect of age.

Another way of ascertaining whether the infant mortality be in excess is by finding the proportion of deaths under one year to the births registered. Measured thus, the rate of infant mortality for 1881 is found to be equal to 121 per 1,000 in the townships of Birkenhead and Claughton, 89 per 1,000 in Tranmere and Oxton, and 112 per 1,000 in Birkenhead Borough. In the three years 1878-80 the rate of infant mortality was equal to 133 per 1,000 in the townships of Birkenhead and Claughton, 116 per 1,000 in Tranmere and Oxton, and 128 per 1,000 in Birkenhead Borough. The rate of infant mortality in the whole of England and Wales in 1881 was 130, and in the three years 1878-80 it was 146 per 1,000 births. In the fifty large town districts in 1881 it averaged 140 per 1,000 births, being 173 at Stockport, 169 at Macclesfield, 125 at Chester, 125 at St. Helens, 162 Wigan, 152 at Bolton, 154 at Bury, 162 at Ashton-under-Lyne, 135 at Rochdale, 183 at Blackburn, 173 at Preston, and 138 at Barrow-in-Furness. In the twenty most populous cities and boroughs in England it averaged 152, ranging between 119 at Portsmouth and 202 at Leicester.

As this is justly considered the fairest way of estimating the infant mortality, and the infant death-rate affords a better index of the local sanitary condition than the general death-rate, it is exceedingly satisfactory to note how favourably in this respect Birkenhead compares with the great centres of the population. The Registrar-General remarks upon the decline of infant mortality in 1881, compared with that which prevailed in preceding years,

and though Birkenhead has hitherto compared favourably with the general death-rate in this respect, the decline, in 1881, is more marked in Birkenhead than elsewhere.

Table II is the weekly register of deaths in the Borough of Birkenhead for 1881. The deaths are entered as in Table I into our sub-tables, representing Birkenhead and Claughton, Tranmere and Oxton, Bebington, and the Union Hospital and Workhouse. The upper portion of Table III is a summary of the weekly register of deaths, and the lower portion is a record of meteorological results.

By way of introduction to the few observations we propose making on the noteworthy features of the meteorology of the year, we submit the following statement of the mean temperature and atmospheric pressure, and the amount of rainfall, in each month of 1881. It has been kindly prepared for us by Mr. Hartnup, of the Bidston Observatory, who also furnishes particulars of the daily observations taken under his directions.

1881.	Mean Temperature.	Mean Barometer.	Rainfall on Ground.
	Dgs.	Inches.	Inches.
January	30·5	29·910	1·093
February	38·1	29·793	3·287
March	41·7	29·840	2·859
April	45·4	29·977	1·543
May	53·0	30·062	2·717
June	56·4	29·931	2·352
July	60·5	29·947	2·602
August	57·1	29·778	4·336
September	55.1	29·980	1·613
October	46.3	30·011	3·059
November	48·6	29·785	2·467
December	40·0	29·897	2·740

The record of results in the table appended gives the mean height of barometer, the mean temperature, mean of evaporation, the rainfall in inches, the number of hours in which rain fell, the average percentage of cloud to clear sky, as adduced from two daily observations, the mean hourly horizontal motion of air in miles, and the percentage of time westerly winds prevailed, for the fifty-two weeks ending December 31st, 1881.

The table of meteorological results shows as follows:—(1.) That the mean of the barometer was a little lower in 1881 than the average, and lower than in 1880. In the second quarter it was higher in 1881 than in the previous year, and than the average. (2.) The mean temperature of 1881 was about a degree and a third below the average, and the temperature of 1880. During January the temperature was unusually low, and there was no excessive heat during summer or autumn. (3.) The rainfall of 1881 was three-fifths of an inch below the rainfall of 1880, but about an inch-and-a-half above the average amount. The rain was more than usually evenly distributed over the four quarters. The number of hours in which rain fell is set down as 609—about 30 hours more than the average number. The proportion of cloud to clear sky was about the mean proportion. Westerly winds were more prevalent than in the last two years. The humidity of the air, during the year under review, was in excess; and the wind force considerably exceeded its mean, especially in the last quarter.

The year's meteorology naturally introduces the next subject to be considered, the distribution of the mortality over the four quarters; as the relative mortality of different portions of the year must necessarily be affected by the atmospheric conditions which have marked its progress. Of the sum of the deaths registered in the townships of Birkenhead and Claughton, 279 were entered to the first quarter, 254 to the second, 207 to the third, and 245 to the fourth; of the sum of the deaths in Tranmere and Oxton, 114 appear in the first quarter, 86 in the second, 81 in the third, and 76 in the fourth. In Bebington the numbers of the deaths registered in the four quarters were respectively 8, 10, 3, 3; and in the Union Hospital and Workhouse the numbers were 43, 15, 12, 26. The death totals were therefore very unequally distributed over the four quarters. In the first quarter, when the thermometer was for several weeks below freezing point, the mortality was highest; and in the third quarter, when the heat was below the mean of the quarter, the mortality was lowest.

The following table gives the mortality of the four quarters, in the Borough and in certain portions of it, stated as percentages of the year's deaths:—

Percentage of Quarters' Deaths to Year's.	Quarters.			
	1st	2nd.	3rd.	4th.
In Birkenhead and Claughton ..	28.3	25.7	21.0	24.8
In Tranmere and Oxton	31.9	24.0	22.6	21.2
In Bebington and Union Hospital..	42.5	20.8	12.5	24.1
In Birkenhead Borough	30.3	24.9	20.7	23.9

The increased death-rate which obtained in the first quarter is in part due to the prevalence of whooping-cough in the township of Birkenhead, and measles in Tranmere and at the Workhouse, and in part to the increased fatality of bronchitis during the severe weather.

The causes of death, as they appear in Tables I and II in the appendix, are systematically classified according to the principles laid down by Dr. W. Farr, the nosology being that adopted by the Registrar-General, which experience has shown to be the best for statistical purposes. The death-causes are arranged under classes and orders, the latter corresponding to the "families" of Natural History. Genera, or what in diseases would be called varieties, are not distinguished. All death-causes are thus conveniently classified under 116 heads, some of which, however, include diseases very distinct from one another.

At the beginning of Table I are the totals of deaths from all causes, and on the next line the totals of deaths from specified causes. The deaths which we are obliged to refer to unspecified causes are not only those ascribed, in legal phraseology, to "visitation of God" or "natural causes," but those which, with almost equal vagueness, are certified as due to "tumour," "abscess," "coma," &c. The deaths from specified causes are then divided into five classes. Class I (the zymotic) embraces all diseases, either epidemic, endemic, or contagious, which are induced by some specific body, or by want of or by the bad quality of food. The diseases coming under Class II (constitutional or cachectic) appear to be due to a bad habit of body, and are sometimes hereditary.

Class III takes in diseases the effects of which are manifest in disturbing or obliterating the functions of particular organs or systems. Class IV includes the conditions tending to produce death, which are the incidental results of the formative, reproductive, and nutritive processes. Class V groups together all deaths which are the evident and direct result of physical or chemical forces.

Of the 1,440 deaths from specified causes registered in the Borough during the year 1881, 231 were ascribed to zymotic diseases, 236 to constitutional diseases, 679 to local diseases, 221 to developmental diseases, and 73 to violence. The proportion of zymotic deaths to the whole number of deaths was 15·8 per cent.; in the townships of Birkenhead and Claughton it was 15·2 per cent.; in Tranmere and Oxton it was 16·8 per cent.; in Bebington 12·5 per cent.; and in the Union premises it was 18·7 per cent. The proportion deaths ascribed to zymotic diseases bear to deaths from all causes is, however, a matter of no great significance, as of course the general death-rate varies considerably from year to year, and any cause increasing this makes the proportion of zymotic diseases compare more favourably.

An accurate estimate of the relative fatality from zymotic diseases, and from the other four classes of death-causes just referred to, can only be made by taking out the death-rate per 1,000 living, as respects each of the five classes. This has been done, and the results are displayed in the following table. Parallel with the column containing the death-rates for 1881 are the corresponding death-rates for 1878, 1879, and 1880. The calculations are based upon the corrected census returns.

Classes.	Annual Death-rate per 1,000 Living.			
	1878.	1879.	1880.	1881.
Zymotic Diseases	4.87	3.81	4.01	2.73
Constitutional Diseases	3.08	2.49	3.28	2.79
Local Diseases	8.58	9.11	8.53	8.04
Developmental Diseases	3.36	3.53	2.86	2.61
Violent Deaths	.86	.95	.71	.86

The table shows at a glance that each of the four classes of diseases presented a lower death-rate in 1881 than in the previous year or than the average rate of the three previous years. It will be noticed that the zymotic death-rate was markedly lower in 1881 than in 1878-80. The deaths from violence in 1881 were slightly in excess of the average number in recent years.

The 231 deaths referred to zymotic diseases include 180 by what have been termed the chief zymotics (certain diseases belonging to the miasmatic order), viz., measles 49, scarlatina 20, diphtheria 5, whooping-cough 45, fevers 24, and diarrhœa, 24. The remaining 51 are entered to what have been called minor zymotics (diseases less prevalent, less fatal, or less obviously zymotic in character), viz., syphilis 14, croup 9, rheumatism 9, inanition of infancy 6, erysipelas 5, dysentery 2, alcoholism 2, and one each to carbuncle, mumps, purpura, and thrush.

The mortality from the chief zymotics is, like the gross zymotic mortality, far below the local mean in previous years; and it compares favourably with other urban mortalities during the same period. In Birkenhead Borough the chief zymotic death-rate was, in 1881, 2·1. In the twenty most populous English towns, during the same year, the mean rate was 3.4. In the fifty large town districts next in importance to the twenty the mean rate was 2.3.

The death-rates in respect of the principal and other zymotics during 1881, are given in the next table. Corresponding rates for 1878, 1879, and 1880 have been added for comparison. All the calculations are from estimates of the population based on the new census returns.

Zymotic Diseases.	Annual Death-rate per 1000 Living.			
	1878.	1879.	1880.	1881.
Measles	.91	.28	.18	.58
Scarlatina	.35	1.55	.90	.23
Diphtheria	.17	.23	.13	.05
Whooping-cough	1.14	.17	.84	.53
Fevers	.61	.42	.28	.28
Diarrhœa	.94	.41	.93	.43
Other Zymotics	.72	.73	.75	.60

It affords us satisfaction to note that another year has passed without any fatality from smallpox, an exemption enjoyed by the Borough since 1877, the year of the smallpox epidemic. On March 16th the town narrowly escaped a visitation of the disease, the sailing ship "Belvidere" arriving with six cases of smallpox on board. The initial case occurred on the high seas on February 25th, and this patient died on March 5th, and the body was thrown overboard. Subsequently six of the crew (all coloured men) caught the disease, and on the arrival of the vessel these men were removed to the Port Hospital and the ship cleansed and disinfected. About three months later, that is to say on June 20th, a mild case of the disease appeared at No. 14, Egerton Terrace. The patient was a youth, twenty years of age, and presented two fairly good vaccination marks. Though lodging at Birkenhead he was regularly employed at an insurance office in Liverpool. The eruption was discrete. The patient was not removed, but every care was taken to prevent the spread of the disease, and fortunately it did not spread. On no less than three occasions has the Sanitary Authority received information of an outbreak of smallpox, which on investigation was shown to be unfounded. On May 13th a case was reported at Lee's Place, which proved to be measles; on June 24th cases were reported at Prenton Lane, which proved to be chicken pox; and on December 3rd a case was reported at Union Street, which proved to be bronchitis.

The one zymotic disease the mortality from which was somewhat in excess of the mean rate was measles. It was epidemic in Tranmere during the first five months of the year, and during the same period to some extent in Birkenhead. Whooping-cough, which was more than usually prevalent during the latter part of 1880, continued unabated till April 1881. It was not confined to any part of the Borough, but in 1881 was most fatal in the township of Birkenhead. The mortality from scarlatina and diphtheria was, taken together, lower in 1881 than in any year on record. The death-rate from diarrhœa in 1881 was considerably less than half the mean rate of a number of years. This being so much lower than usual is doubtless in great part due to the comparatively low temperatures recorded during the summer and autumn.

Of the 24 deaths ascribed to fever 12 were distinguished as typhus, 11 as typhoid or enteric, and one as remittent. The fever death-rate is about half the mean rate of a number of years. Some particulars of the deaths referred to typhus are subjoined, viz., where each case occurred, the sex, age, and destination of each patient, and the date of each death.

Where Case occurred.	Sex and Age of Patient.		Destination.	Date of Death.	
29, Garnet Street	M	20	Fever Hospital..	March	12
6, Ruabon Street	M	39	Not Removed ..	April	24
2, Wye Street	M	44	Ditto ..	May	21
3, Wrexham Street	F	16	Ditto ..	June	24
38, Abbot Street	F	36	Fever Hospital..	October	3
140, Conway Street	F	44	Ditto ..	,,	9
17, Rock Lane	F	56	Ditto ..	,,	15
47, Cathcart Street	M	37	Not Removed ..	,,	18
Ditto	F	40	Ditto ..	,,	24
44, Abbot Street	M	40	Ditto ..	November	7
135, Beckwith Street ..	F	61	Ditto ..	,,	9
209, Market Street	F	63	Fever Hospital..	December	22

The history of the rise and spread of two local outbreaks of typhus during 1881 is not without interest as furnishing negative evidence of the advantages of early notification and isolation of cases of this disease. Again, it is worthy of observation that of the five cases which were reported and removed at once, the disease was not communicated in any one case. These five cases are (1) the patient in Garnet Street, a policeman, removed on March 2nd; (2) a seaman from shipboard, removed on March 9th—early advice was given, and the fever van was at the quay side when the vessel docked; (3) the patient in Conway Street, keeper of a small shop, removed on October 3rd; (4) the patient in Rock Lane who had lately arrived from Worcestershire, removed on October 13th; and (5) a joiner from No. 3, Menai Street, removed on Christmas Eve. The disease did not spread in the Wye Street case, though the Authority got no advice of it till after its fatal issue. The case was in the care of an experienced practitioner, and necessary precautions were taken.

The deaths in Ruabon Street, Wrexham Street, and Abbot Street were in connection with an outbreak of which the following is a record:—The subject primarily infected, so far as can be ascertained, was a "holder-up," residing at No. 6, Ruabon Street. The case was not reported till death had taken place, and then through the registrar. The deceased left behind five children who all took the disease, but eventually recovered. The parish surgeon was in attendance. The next family affected also resided in Ruabon Street, but, before manifesting any signs of the disease, had removed into a house in the adjoining court—No. 3, Wrexham Street. The members of this family had been in communication with the other family, and one after another they all (father, mother, five children and a lodger) caught the disease. On the death of the eldest child it was found necessary to apply to a magistrate for an order to remove the body to the public mortuary, and it was buried from there. This family also were throughout professionally attended by the parish surgeon, and they were in receipt of relief from the Guardians. A few days before the death took place the chief inspector of nuisances brought up a report on the condition of the premises and the accommodation available for the sick, and the Health Committee instructed the Town Clerk to write to the Local Government Board, enclosing a copy of the inspector's report, and requesting the Board to require the Guardians to remove the patients to hospital. This was done, and, in due course, the letter and report were forwarded to the Guardians by the Local Government Board, with a request for the observations of the Guardians thereon. The communication was considered at a special meeting of the Guardians, on July 1st, and it was decided to reply to the Board, reciting the facts, and stating that the responsibility rested upon the Sanitary Committee of the Birkenhead Corporation, and not upon the Guardians; and to ask the Board whether under the circumstances of this case the Guardians or the Town Council were the Sanitary Authority. Shortly afterwards the following letter was received by the clerk of the Guardians from the Local Government Board:—

LOCAL GOVERNMENT BOARD,

WHITEHALL, JULY 8, 1881.

SIR,—I am directed by the Local Government Board to acknowledge the receipt of your letter of the 1st instant, with reference to the cases of

typhus fever which have recently occurred in the Birkenhead urban sanitary district. In reply to your inquiry whether it is the duty of the Board of Guardians, or that of the Sanitary Authority, to provide infectious hospital accommodation for cases similar to those in question, the Board direct me to state that they consider it is the duty of the Guardians to arrange for the proper treatment of every person suffering from infectious disease who is without the means of obtaining such necessaries (including medical attendance and nursing) as he may require, and that it is only when the removal of the patient to an hospital is merely necessary for the purpose of isolation, and the person is not destitute either wholly or to the extent above referred to, that it devolves upon the Sanitary Authority to deal with the case. As regards your remarks respecting the charge of £1 a week made by the Birkenhead Town Council for the maintenance of each pauper patient in the Borough Fever Hospital, and which the Guardians think excessive, the Board direct me to observe that an arrangement has recently been made by the Guardians of the township of Manchester, under which they pay 25s. per head per week for the maintenance of pauper patients in an infectious hospital.

I am, &c.

J. F. BOLTON,

ASSISTANT SECRETARY.

At the meeting of the Guardians at which this was read, it was resolved that the terms offered by the Health Committee, to take pauper fever cases into their Hospital, at £1 a week, be accepted.

From Wrexham Street typhus was communicated to a family at No. 18, St. Mary's Gate. The eldest son had been a shopmate of one of the sufferers in Wrexham Street and had met him on several occasions, and caught the disease. This lad communicated the disease to his mother, whence it spread to five children. Here another difficulty stood in the way of removing the patients. They lived in a fairly commodious house, were attended by a private medical practitioner, and the head of the family was not himself ill, and declined to consent to the removal of the sick to hospital. They could not be removed under the 124th clause of the Public Health Act, as it was impossible to certify that they were "without proper lodging or accommodation, or lodged in a room occupied by more than one family." The disease lingered on in the house, one child sickening after another till September, and from this it spread to the family of a shoemaker at No. 38, Abbot Street. Here, on September 27th, a mother and four children were reported ill with

typhus, and were at once removed to Hospital. On October 6th, after the death of the mother, two more children were reported and received into Hospital. On October 30th another case was reported at No. 27, Abbot Street, and at once received into Hospital. The next case was reported at No. 44, Abbot Street, on November 6th, but the patient was then too ill for removal and died the following day. Four days afterwards a lodger from the same house was received into Hospital. The last case in this street was at No. 18, and was reported to the Authority on November 24th. On the same date three cases were reported at No. 9, St. Mary's Avenue. The final case of this outbreak, so far as is known, was the mother of the lodger at No. 44, who sickened at her lodging in Market Street early in December and died on th 22nd. We have only to add that while the family from No. 38, Abbot Street were in the Fever Hospital the disease was communicated to the matron of the Hospital, to one of the nurses, and to a domestic servant. Thus typhus spread from one fatal case in Ruabon Street, which was not reported or isolated, and was communicated to thirty-seven persons, four of whom died.

The outbreak of typhus in September, at the north end of the town, was not so widespread as the above, but, relatively, more atal. It appears to have originated at a house in Vittoria Street, No. 93, where a death took place on September 16th. The death was certified as from pneumonia, but there is reason to believe that the real cause of death was typhus. The body was kept nearly a week previous to burial. After the lapse of an incubation period of about a fortnight, the deceased's son, aged 41 years, also living at No 93, Vittoria Street, took fever, and died on October 12th, the death being certified as typhoid. This man's wife (40 years) and daughter (12 years) caught the fever and recovered. The next patient was a second son (37 years) of the man said to have died from pneumonia. He, with his brother, had attended the father's funeral. He resided at No. 47, Cathcart Street, and died on October 18th, the death being certified as from typhus. He communicated the disease to his wife (40 years) and she died on the 24th, the death being certified "typhus." The wife of a third son, residing in Liverpool, and who came over to the house in Vittoria Street to attend the funeral also caught fever, but recovered. The next victim was a nurse (61 years), living at No.

135, Beckwith Street, who was at No. 93, Vittoria Street, assisting the patients there, on October 11th. She died on November 9th and the death was certified "typhus." She communicated the disease to her daughter (28 years), who recovered. The clergyman of the district in which both No. 93, Vittoria Street and No. 47, Cathcart Street are situated, and who visited fever patients at both houses, also caught fever, and there is no doubt that what he suffered from was typhus. Thus from a case which was not diagnosed as fever, and which one is only led to conclude must have been fever from what followed, there arose nine cases, four terminating fatally.

The difficulties in the way of repression of typhus that the Sanitary Authority has had to contend with are therefore of four kinds :—

I. The Guardians of the Poor affording out-door relief to persons suffering from typhus instead of having them removed to hospital.

II. No intimation of cases of typhus being sent to the Sanitary Authority till after death, when the advice comes through the registrar.

III. Cases of typhus being incorrectly returned as pneumonia or typhoid fever. It may be said there is no sufficient proof of this. The reply is that it has several times happened that in a single family suffering from fever, the bread-winner attended by one doctor has been certified as suffering from typhus, and his wife or daughter attended by another doctor has been certified as suffering from typhoid, or *vice versa*.

IV. Inability to remove infectious patients to hospital, except in rare instances, without the consent of them or their friends—in other words the insufficiency of the power given in the 124th clause of the Public Health Act. What is wanted is power to remove without consent, on a justice's order, whenever a patient cannot be properly isolated so as to prevent the spread of the disorder, or properly treated. If the words "or lodged in a room

occupied by more than one family" could be struck out of the 124th clause it would be materially strengthened; as when a general description, such as "without proper lodging," is followed by a specific description of certain improper lodging, the specific description is apt to be construed by justices as interpreting the general description.

It is pleasant to reflect that some of these difficulties are in the way of being removed. The first is obviously not likely to recur, and the second disappeared when the Birkenhead Corporation Act, 1881, came into force, on January 1st, 1882.

Having given the death-rates in Birkenhead so far as regards the five classes into which death-causes have been divided, and the principal and other zymotics, we now submit a table showing the death-rates in the Borough so far as regards the orders under which the death-causes belonging to classes II, III, and IV have been grouped. Parallel with the column containing the rates for 1881 are death-rates for the three previous years, based upon estimates derived from the revised census returns.

Constitutional, Local, and Developmental Diseases.	Annual Death-rate per 1,000 Living.			
	1878.	1879.	1880.	1881.
Diathetic Diseases	.53	.61	.71	.46
Tubercular Diseases.....	2.54	1.88	2.57	2.33
Diseases of Nervous System.....	2.64	2.63	2.41	2.34
" Organs of Circulation..	1.20	.88	1.00	.88
" Respiratory Organs....	3.36	3.92	3.07	3.09
" Digestive Organs	.94	1.04	1.28	1.04
" Urinary Organs	.27	.39	.54	.43
" Organs of Generation..	.03	.06	.04	.02
" Organs of Locomotion..	.02	02	.08	.07
" Integumentary System	.07	.13	.07	.14
Developmental Diseases of Children	.96	.90	.78	·68
" " Adults..	.15	.08	.12	.16
" " Old People	.82	1.13	.68	.58
Diseases of Nutrition	1.41	1.40	1·28	1.18

The two orders under which constitutional diseases have been arranged have little in common except that in typical diseases in each order new morbid products are deposited. Diathetic diseases account for 39 deaths, of which 23 were due to cancer, 5 to mortification, 4 to dropsy, 3 to gout, 3 to anæmia, and 1 was due to cancrum oris. All but three in this order were deaths of adults. Tubercular diseases account for 197 deaths, of which 120 were due to phthisis pulmonalis, 53 to hydrocephalus, 17 to tabes mesenterica, and 7 to scrofula. Fifteen of the deaths from phthisis, and all but one of the deaths ascribed to the other tubercular diseases were of children and young persons. The diathetic and tubercular death-rates are both below the local mean rates.

Of the eight orders under which local diseases have been arranged, the first four account for an overwhelming proportion of the mortality referable to this class. The deaths from diseases of the brain and nervous system, in 1881, were 198, the deaths from diseases of the heart and bloodvessels were 75, the deaths from diseases of the respiratory organs were 261, and the deaths from diseases of the digestive organs were 88. The deaths entered to diseases coming under the remaining four orders were 57. Of the whole number of deaths from local diseases 211 were of infants under five years of age. Nervous diseases, heart disease, and diseases of the respiratory and digestive organs all yield death-rates below the mean of previous years.

Of the death-causes in Class IV, 58 were ascribed to so-called developmental diseases of children, *i.e.*, premature birth, malformations and teething, 14 to diseases and conditions incidental to tedious or complicated travail, 49 to old age, and 100 to diseases of nutrition, that is atrophy, debility and marasmus. The death-rates in respect of all these orders of diseases, except the second order, are below the mean. Fourteen deaths is above the mean annual number ascribed to child-birth, in some years the sum of the deaths attributed to this cause being but six or seven. It is, however, an indisputable fact that deaths in child-bed are occasionally certified as due to peritonitis, convulsions, &c., without any reference in the certificate to the puerperal condition. The mortality in child-bed is in this country, according to M'Clintock 1 in 123. The

conclusion of Dr. Matthews Duncan, who has investigated this question with great care, is very similar, viz., that "not fewer than 1 in every 120 women delivered at or near the full time die within the four weeks of childbed." It is not therefore unreasonable to infer that as the number of births in Birkenhead in 1879, 1880, and 1881 were respectively 3,111, 3,048, 3,059 the number of deaths in child-bed were not as registered 7, 10, and 14, but about 25 in each year.

The number of inquests held during 1881 was 100; thus 6.8 per cent. of the sum of the deaths in the Borough formed the subject of judicial inquiries. Of these inquests 76 were in the township of Birkenhead, 20 were in Tranmere, two were in Oxton, and two were held in the workhouse; 72 were on the bodies of males and 28 on the bodies of females.

Not all the death-causes which are classified represent diseases or symptoms observed and certified by medical men in attendance during the last illness, or verdicts following official investigations. A significant proportion of the death-causes were entered in the register on the doubtful testimony of deceased persons' relatives, or friends, or fellow-lodgers. In an analysis of the mortality of a district the number of such deaths should always be noted; the registrars have, therefore, been required to mark in the returns furnished every death not certified by a registered practitioner, or made the subject of a coroner's inquest. In 1881, out of the 1,462 deaths registered 27 (18 males and 9 females) were marked "not certified"—that is 1.8 per cent. Six of these uncertified deaths (including one death in the workhouse) took place in Tranmere, the remainder in the township of Birkenhead. Only seven of the deceased were adults at the time of death, the rest being under one year. The causes of the 27 deaths have been entered in accordance with the statements of persons giving information to the registrars, as follows:—

1 to diarrhœa,
1 to chronic rheumatism,
1 to phthisis,
1 to apoplexy,
8 to convulsions,

1 to pneumonia,
1 to asthma,
1 to chronic disease of stomach,
6 to premature birth,
4 to debility,
1 to marasmus, and
1 to suppression or retention of urine.

As under the Registration of Births and Deaths Act, Clause 20, every registered medical practitioner is required to certify as to the cause of death of any person he may have attended during his or her last illness, it is but reasonable to assume that when a cause of death appears in the register as "not certified," the subject of the death has either been without attendance, or committed to the care of some quack or herbalist. The only local practitioner who possessed a registerable qualification, without being on the register, died in January, 1879; the alleged causes of death in the uncertified entries are therefore absolutely valueless, and must be accepted merely as representing the opinions of nurses or nostrum-vendors. Some of the expressions made use of, in the above list, as phthisis, pneumonia, chronic disease of the stomach, and marasmus, are terms that would hardly be employed except by those laying claim, rightly or wrongly, to some knowledge of medicine. The unqualified person who gave information to the registrar that a man had died of suppression *or retention* of urine must, if he had been treating the case have possessed an amount of assurance rarely surpassed. Fortunately the proportion of these uncertified deaths is diminishing year by year—in 1879 it was 3.3 per cent. of the whole number, and in 1880 it was 2.2 per cent. However, it is a sad reflection that nearly three-fourths of the number are infants. If professional advice is not obtained for an adult when sick, it may be owing to his own default, but if it is not obtained for a sick infant it is obviously referable to the neglect of others. In any case in which the services of a qualified medical practitioner are not procured they are probably not sought, for so manifold are the means of obtaining medical relief in Birkenhead, that no one can plead poverty as an excuse for not doing his duty to his child in this respect. The question arises—what was the actual cause of

death in respect of the twelve babies in the list who are supposed to have died of convulsions or debility? Doubtless, some died of tubercle, some of syphilis, some of exposure, and some from being dosed with soothing syrups or teething powders. Doubtless, also, in some the cause of death was more or less directly due to their being prodigies of uncleanliness—their poor little unwashed bodies being habitually wrapped in soiled clothes, and fed with sour pap from dirty bottles. Then as to the six deaths ascribed to premature birth, mainly on the representation of irresponsible midwives, one is tempted to ask—how is it possible to check the use of abortifacients if the deaths of infants can be thus readily registered?

Having now fully discussed Tables I, II, and III, in the appendix, we come to Table IV, in which the deaths registered during 1881 are classified according to the localities in which they occurred. The Street Register is divided into three parts—the part marked "A" including the streets and places in the old Birkenhead Improvement District; the part marked "B" the streets and places in Tranmere and Oxton; and the part marked "C" the streets and places in the incorporated portion of Bebington. Opposite each street or place is the number of deaths, from all causes and from zymotic diseases, registered as occurring in that street or place during the year. In the headings to the different parts of this table (and in Tables I, II, and III) we have not placed the names of townships as indicating the locality referred to, but the names of wards. Thus the old Improvement District appears as Cleveland, Claughton, Grange, and Argyle Wards; Tranmere and Oxton appear as Oxton, Egerton, Clifton, and Mersey Wards; and the portion of Bebington incorporated appears as Bebington Ward. As we felt that particulars of the number of deaths from all causes, zymotic diseases and causes not certified, in each ward, would prove interesting, and as the Street Register does not afford this information, we have drawn up the table here submitted. A few of the deaths could not be classed, as many of the streets in the Borough run through two or more wards, or form the boundaries between wards, and the person acting as informant to the registrar is occasionally unable to give the number of the house in which the death took place; and many sudden deaths occur at the docks, or the railway extension in connection therewith, or in the street, and the precise locality is never recorded.

Wards.	Deaths from all Causes.		Deaths from Zymotic Diseases.		Deaths from Causes Uncertified.	
	M.	F.	M.	F.	M.	F.
Cleveland	148	111	26	22	2	3
Claughton	18	13	1	1	..	..
Grange	214	179	30	32	9	1
Argyle.....	148	142	18	20	4	2
(Ward not Specified).....	6	6	..	..	..	..
Oxton	25	16	5	3	..	..
Egerton	44	44	5	8	..	..
Clifton	74	72	17	13	3	..
Mersey	44	34	5	4	..	2
(Ward not Specified).....	3	1	..	..	..	..
Bebington	17	7	3	1	..	..

This table will, with the Street Register, furnish all the information that can be required on the subject. It is well to note that the streets opposite which the highest death-totals appear are not the streets in which the mortality was really highest. In 1881, as in past years, there was most sickness, and most fatal sickness, in the smaller streets and alleys inhabited by the very poor.

The following table shows the relative mortality of the wards during 1881 :—

1881.	Estimated Population at Midsummer	General Death-rate per 1,000 Living	Zymotic Death-rate per 1,000 Living
Cleveland Ward..	12880	20·10	3·72
Claughton ,, ...	2934	10·56	0·68
Grange ,, ...	21419	18·34	2·89
Argyle ,, ...	17563	16·51	2·15
Oxton ,, ...	3317	12·36	2·41
Egerton ,, ...	8028	10·96	1·61
Clifton ,, ...	11068	13·19	2·71
Mersey ,, ...	5038	15·42	1·78
Bebington ,, ...	2157	11·12	1·85
Birkenhead, including deaths not localized and in Union Premises	84404	17·32	2·73

Except as regards Cleveland, Grange, and Argyle Wards, this may be taken as fairly indicating the great difference there is in the healthiness of different parts of the Borough. The number of deaths in Cleveland Ward is unduly high owing to the deaths in the Borough Hospital and Fever Hospital, and the number of deaths in Grange Ward is unduly high owing to the deaths in the

Children's Hospital and Hemingford Lodge. Taking these deaths from the ward totals, and arranging them as far as is possible, under the wards from which the deceased were derived, the general death-rate of Cleveland, Grange, and Argyle Wards is respectively 17.39, 17.55, and 17.08; and the zymotic rate is respectively 2.87, 2.98, and 2.27. Many of the deaths which took place in the hospitals could not be referred to any ward as the addresses are not given in the hospital books, and the deaths which took place in Hemingford Lodge (a sort of alms-house for the aged) could not be thus referred. The four deaths which took place in the Lying-in Hospital were of infants born on the premises.

As a supplement to the Street Register, it has been deemed advisable to add a return of the deaths in the Union Hospital and Workhouse, giving in each case the address of the deceased, when admitted into the Union, and the date of admission. The sex, age, occupation, date and cause of death are extracted from the register, and the information in the last column has been supplied by the Master of the Workhouse. The return is an important one in many respects, and enables us to submit a summary of the localities from which patients dying in the Union were received.

Localities from which Patients dying in Union were received.	Year when Admitted to Union.									Total.
	1866 to 1872	1874	1875	1876	1877	1878	1879	1880	1881	
Cleveland Ward	..	..	1	1	..	..	3	2	3	10
Claughton ,, ...	..	..	..	..	..	..	..	..	1	1
Grange ,, ...	..	..	..	..	1	..	2	2	7	12
Argyle ,, ...	1	1	..	..	3	3	3	5	18	34
Egerton ,, ...	..	..	..	..	..	..	..	..	1	1
Clifton ,, ...	..	..	..	..	..	..	1	2	2	5
Mersey ,, ...	..	..	..	..	..	..	..	1	2	3
B'head, Ward not specified	..	1	..	..	..	..	..	1	2	4
Seacombe	..	..	..	..	..	..	2	..	1	3
Egremont	..	..	..	..	..	..	..	..	2	2
New Brighton	..	..	..	..	..	..	1	..	..	1
s.s. "City of Manchester"	..	..	..	..	..	..	..	..	1	1
Kidderminster	..	..	..	..	..	..	..	..	1	1
No Address	3	..	..	..	..	..	..	1	5	9
Union Schools	..	..	..	..	..	..	..	..	2	2
Born in Workhouse ..	..	..	..	..	..	..	1	2	3	6
	4	2	1	1	4	3	13	16	51	95

It will be seen from this summary that 46 per cent. of the deaths which took place in the Union, during 1881, were of inmates who had been received prior to January 1st, 1881, and that a little over 7 per cent. were derived from outside the municipal boundary. No attempt has been made to add the deaths which took place in the workhouse to the death-totals of the wards. A large proportion of those who died had long been inmates, and of the 34 who were drawn from the wards in 1881 several were not ill till after being received into the Workhouse. For instance of the 18 deaths from zymotic diseases in the return two-thirds were due to measles probably in all cases but one caught on the premises.

Table V, in the appendix, shows the general and zymotic mortality, month by month, throughout the year. The general death-rate ranged from 22.9 in March to 13.4 at the end of the third quarter. The zymotic death-rate was also highest (4.3) in March and lowest (1.3) at the end of the third quarter.

The last of the tables appended, Table VI, gives the "description" of all those whose deaths have been registered during the year. The information is furnished in each case by the person registering the death, and is, doubtless, trustworthy. The table may be of some use in supplying the material for a rough estimate of the effects of the year's mortality on the local community; *i.e.*, the loss sustained by the professional and commercial classes, the artisan and labouring classes, and that largest class of all, the non-productive. Those also employed in any recognised form of skilled or unskilled labour may here see the number of deaths, in 1881, in the ranks of fellow-workers in the Borough. The number of bread-winners removed by death from the local community, in 1881, is computed thus :—The first two columns of table VI are cast and added together, giving 468, and from this is subtracted the sum of those described as annuitants, pensioners, gentlemen, ladies, retired tradesmen, &c., of no occupation, or whose occupation is "unknown," which leaves 423. The number of bread-winners (estimated in the same manner) dying in 1880 was 387, and the number dying in 1879 was 438. It does not, of course, follow that everyone described as belonging to a particular trade or calling was necessarily working for a living within a

reasonable time of his or her decease, or that everyone described as a son, daughter, wife, or widow, was non-productive, or merely occupied with domestic duties. Still, 423 may be regarded as a proximately correct estimate of those among the deceased who were self-supporting and family-supporting, as distinguished from those who were wholly dependent or only partially self-supporting. The number of those who must have been wholly dependent on others may be computed from the figures in the age table.

The sketch map of the Borough, which has been added, shows the boundaries of the wards, and the position of the houses in which deaths from zymotic diseases have occurred. The fatal cases of zymotic diseases received into the Fever Hospital, Borough Hospital and Children's Hospital have, in every instance, been referred to the localities from which they were drawn.

The ordinary sanitary operations of this department have received unremitting attention. House to house inspections of the cottage property in the Borough have been regularly made. Gullies and passage drains have been periodically cleansed, public fountains &c., have been scoured and kept in order, and the systematic removal of ashpit refuse at stated intervals has been carefully superintended.

As the department is not provided with a night-inspector, the regulation of common lodging-houses, and the repression of over-crowding in so-called "tenement houses" presents exceptional difficulties; and it is felt that the lodging accommodation provided for the poor is not under efficient control. A night-inspector would also be of great service in checking the practice of cellar-occupation. This offence cannot be proved without night-inspection, as only a cellar "in which any person passes the night" is occupied as a dwelling according to the Public Health Act.

The summary of nuisances investigated and dealt with during 1881, as usually returned to the Local Government Board on a form supplied, is as follows :—

Number of nuisances reported	2,482
Number abated without formal notice	71
Number of formal notices given	2,411
Number abated after formal notice and without proceedings	2,393
Number of cases in which proceedings were taken	18
Number abated after proceedings	15

A brief summary of other measures taken, in 1881, for correcting or getting rid of whatever appeared to be prejudicial to health is subjoined.

Sanitary defects reported by Inspectors and referred for the action of the Town Surveyor	104
Houses or parts of houses specially disinfected with sulphurous acid or other disinfectants	110
Notices to whitewash and efficiently cleanse dirty houses given and complied with	130
Offensive privies ordered for conversion into water-closets	190
Parcels of infected bedding and clothes disinfected	122
Parcels of infected bedding and clothes destroyed	26
Carcases of dogs and cats removed from pools and waste land and buried	140

The Superintendent of Markets and Abattoir, Mr. Gregory, has furnished the following particulars of the meat, unfit for human food, seized and destroyed :—

Beef	29,220	lbs.
Mutton	2,988	,,
Veal	789	,,
Pork	2,320	,,
Potted meat	16	,,
	35,333	lbs.

The livers of seven bullocks were also seized, and destroyed, but their weight was not taken. A considerable proportion of the beef was seized on the premises in connection with the foreign animals wharf. Much of the pork seized was owing to more than one outbreak of swine typhoid in the district.

A memorandum on trichinæ in pork having been received from the Local Government Board, the memorandum was ordered to be printed as a poster, and copies to be posted from time to time.

Two special reports have been made to the Committee in the course of the year. The first was presented in March and had reference to the pollution of the Mersey shore by sewage. Samples were taken from various parts of the mud flats which are exposed at every low tide, and it was found that they contained from four per cent. to upwards of nine per cent. of organic matter. The second was a report on a request of the Guardians of the Poor that the Health Committee, as representing the Local Sanitary Authority should receive pauper infectious patients in their Fever Hospital, and especially on certain specific proposals made by a deputation from the Guardians to the Health Committee on October 27th. An extract from this report will be found at page 39. No action has been taken during the year with reference to the special report, dated December, 1879, on Godfrey's Terrace and the contiguous courts and houses. The property was again inspected and reported on in November, 1881. On a site measuring 94 yards by 57 yards are seventy separate dwellings or shops—32 are back-to-back cottages and nine others have no windows in the rear. Buildings thus built and crowded together cannot possibly be properly ventilated. If the property could be brought under the operation of the Artisans' Dwellings Act it would be for the advantage of the whole neighbourhood.

Year after year we have had occasion to comment on the insanitary condition of Denbigh Street, Ruabon Street, Ruthin Street, Wrexham Street, and Wynnstay Street, five little paved courts between Jackson Street and the railway. The state of these streets was again brought under the attention of the Sanitary Authority in the summer of 1881, when typhus fever appeared in

an over-crowded dwelling in Wrexham Street, as already noticed. Later in the year the Corporation succeeded in acquiring the whole of the property, and by November all but six houses had been demolished. These six were vacated, but being back-to-back with houses in Gresford Terrace pulling them down might have perilled the safety of the whole block. The houses actually pulled down were as follows :—

A block of five large tenement houses	5
A block of 16 back-to-back houses	16
Three blocks of 14 back-to-back houses	42
	63

Two houses (199, Brook Street and 125, Chester Street) which were old and dilapidated and without proper sanitary accommodation, have been certified as unfit for human habitation, and an order for closing them obtained.

Early in the year Messrs. Salomonsky Brothers, fat renderers and butterine makers, were proceeded against for creating an effluvium nuisance, on complaint received from several residents in Tranmere. After the examination of a few witnesses the defendants admitted that they could not resist the evidence, and were fined £5 and costs. These works were shortly afterwards closed.

In July another visit of inspection was made to the works at Leeds for dealing with town refuse by cremation in a Fryer's "destructor," and on October 5th the Health Committee was authorized by the Council to procure and erect one of these destructors. A brief notice of the works as seen in operation at Leeds is given in the Report for 1879.

On December 6th an explosion took place at the gasworks. The explosion occurred a little after three in the morning, in a large purifying house, which was destroyed. The fire which followed was soon extinguished. Though the purifiers themselves were but slightly damaged, the immediate result of the explosion was that for some days afterwards complaints were constantly being received

from householders of nuisance from *sewer-gas* on their premises. On these complaints being investigated it was found that, almost in every case, the effluvium complained of was due to temporary imperfection in the gas purifying apparatus and was in no way connected with the house drains. The apparatus was of course soon put in order and then the complaints ceased.

The Fever Hospital continues to afford the Sanitary Authority the means of isolating and treating a few subjects of infectious disease. Neither in 1881 nor in the three preceding years was the usefulness of the institution put to a severe test as it was in 1877. The patients treated in the hospital in 1878-79-80 and '81 were respectively 46, 32, 47, and 37, whereas the number treated in 1877 was 194. If the small number received merely indicated that only a small number of cases of fever had occurred, it would be impossible to complain at the Hospital not being more largely used; but in 1881 it is an undoubted fact that there were many cases of fever treated outside which might with advantage have been transferred to Hospital, and it is to be regretted that the accommodation provided was not more frequently taken advantage of. Any practitioner sending in private patients can continue to attend them throughout, and if desired special nurses can be engaged. It is to be hoped that in future medical men may be induced to avail themselves of the facilities offered for keeping separate first cases of infectious disease, and that the patients may be sent in as soon as the disease is diagnosed. During the past year it has often happened that a case has only been sent to the Fever Hospital on the fifth or sixth day of the fever or later, and after other cases have already appeared in the same house.

Of the 37 patients received during the year, 5 were from shipboard. Particulars of the localities (wards, ships, &c.) from which the patients were derived, and the specific diseases of patients received from each locality, are given in the following table. The case in the column marked "no disease" was a child, a fortnight old, admitted with its mother, a typhus subject, and who died after the decease of the parent.

Localities.	Measles.	Scarlatina.	Typhus Fever.	Enteric Fever.	No Disease.
Cleveland Ward..	..	1	3	..	..
Grange ,, ...	1	6	4	..	..
Argyle ,, ...	..	2	9	..	1
Egerton ,, ...	..	1	..	..	..
Clifton ,, ...	..	..	..	1	..
Mersey ,, ...	..	2	..	..	..
Bebington ,, ...	..	..	1	..	..
Ship "City of Brussels"	..	3	..	..	..
Ship "Iberia"	..	..	1	..	..
Ship "Indefatigable"	..	1	..	..	..
Total	1	16	18	1	1

Particulars as to results are given in the next table :—

Diseases.	Admitted		Recovere		Died		Remaining	
	M.	F.	M.	F.	M.	F.	M.	F.
Measles	..	1	..	1	..	..	..	..
Scarlatina	10	6	6	5	2	1	2	..
Typhus Fever	7	11	5	7	1	4	1	..
Enteric Fever	1	..	..	..	1	..	..	..
No Disease	..	1	..	..	..	1	..	..
Total	18	19	11	13	4	6	3	..

Thus out of 36 cases of febrile disease treated in 1881, 9 died and 27 recovered—the mortality being 25 per cent. The mortality in 1880 was 6.6 per cent., and in 1879 but 3.3 per cent. However, in 1880 the Hospital received only two typhus patients and in 1879 only one typhus patient, whereas 18 of the patients in 1881 were admitted for typhus. One of the scarlatina cases was moribund on arriving, and died in seven hours.

The Disinfecting House, of which a description was given in the Report for 1880, has rendered good service during 1881, but the applications for disinfection are still comparatively few, and the inference is that the existence of the premises is not generally known. Perhaps the little use made of the apparatus is in part due to the inefficient arrangements hitherto for carrying clothes to and fro. The two light carts, recommended in the last Report, were not received till February, 1882.

A report on the sanitary condition and progress of the Borough during 1881 would be incomplete without some reference to the Public Baths in South Argyle Street, which, although not yet open, were actually built in 1881. The site chosen being almost on the boundary line between Birkenhead and Tranmere, is conveniently central. Beside the private baths and large swimming-bath for adults, a special swimming-bath for children has been provided. is trusted that the institution may be opened at an early date, and that it may efficiently supply a long-acknowledged want.

At the conclusion of the Annual Report it has been our practice to notice any measure affording increased facility for the maintenance of public health which the year under review has added to the Statute Book. The one general enactment of last Session which has any directly sanitary bearing is the Alkali Works Act, 1881, and this affects Birkenhead only in respect of the works of one small firm. Local legislation has, however, not been neglected, many local Acts, containing important sanitary provisions, having been passed. Among others was the Birkenhead Corporation Act, 1881, which received the royal assent on July 18th, 1881, and came into operation on January 1st, 1882.

FRANCIS VACHER.

Birkenhead, June 27th, 1882.

Extract from a Special Report on a request of the Guardians that the Health Committee would receive pauper infectious patients into the Corporation Fever Hospital, and on the specific proposals made by a deputation from the Guardians to the Health Committee on October 27th, 1881.

"The Medical Officer having duly considered the matters referred to him, and in view of the necessity of providing for the isolation of the infectious sick, is of opinion that the request of the Guardians should be acceded to. The accommodation at present available at the Fever Hospital will not be equal to the requirements of the Borough should paupers be admitted, but as the Guardians offer to pay interest at the rate of 5 per cent. on the cost of extending the Hospital increased accommodation might be readily provided.

"The accommodation for infectious patients at present provided at the Fever Hospital has recently been reported on by an Inspector of the Local Government Board, and he computes it as sufficient for eight adult patients. The accommodation required for the infectious sick among the destitute or very poor is not less than three times that required for voluntary patients, so that the additional accommodation required (should it be decided to receive pauper patients into the Hospital) will be for 24 patients. As to each bed, according to the Government estimate, there should be 2,000 cubic feet air-space, the most convenient way of extending the Hospital would be by building out two wings in the rear, each wing to contain two wards, one above the other. Allowing a width of 20ft. for each ward, and a height of 12ft., there would still be space to admit of the wings being 38ft. apart—the rule being that hospital wings should be separated by a distance equal to a height and a half. To afford accommodation for 24 patients, wards of the width and height given would require to be 50ft. in length. Each ward would require to have, in connection with it, a lavatory and closet and a nurse's bed room and kitchen, and should be lighted by not less than three windows on each side. There is room for this extension on the ground in rear of the Fever Hospital, without interfering with the disinfecting house recently erected, and there would still be yard-space behind about equal to the yards now in use. The cost of this extension, estimated at sixpence per cubic foot, would be about £1,400.

"The land adjoining the Hospital, at present in use as a stone-yard, should be cleared, and enclosed by a wall of the height of the wall enclosing the Hospital ground. This would add to the quiet and comfort of the inmates, provide an exercise ground, keep the public from too near an approach to the Hospital, and might (in time of an epidemic) be used for temporary wooden erections.

"The Medical Officer is not prepared to say that the extension o f the Fever Hospital would be a better way of making the requisite provision for the infectious sick than erecting an entirely new building; but the first cost would be less, and there is reason for believing that the difficulty of finding an unobjectionable site for a new hospital might lead to the work being postponed.

"The Medical Officer is of opinion that the Guardians' offer to pay a fair maintenance charge for each patient sent into Hospital by them should be accepted, and the Medical Officer considers that the amount hitherto paid by the Guardians, in this respect, is a fair charge, and that their agreeing to pay 20s. per week per patient should be deemed satisfactory."

"November 22nd, 1881."

APPENDIX.

TABLE I.—Deaths registered in the Borough of Birkenhead during the year ending December 31st, 1881, classified according to age.

TABLE II.—Weekly register of Deaths in the Borough of Birkenhead for the year ending December 31st, 1881.

TABLE III.—Weekly condensed Register of Deaths and Meteorological Results for 1881.

TABLE IV.—Street Register of Deaths—1881.

A. Cleveland, Claughton, Grange, and Argyle Wards.

B. Oxton, Egerton, Clifton and Mersey Wards.

C. Bebington Ward.

SUPPLEMENT TO TABLE IV.—Return of Deaths in Birkenhead Union Hospital Workhouse, registered in 1881.

TABLE V.—Monthly totals of Deaths from all Causes and Zymotic Diseases, in 1881, with the rates per 1,000 per annum.

TABLE VI.—"Description" of those who Died during 1881.

SKETCH MAP of the Borough of Birkenhead showing the Boundaries of the Wards, and the position of houses in which Deaths from Zymotic Diseases took place in 1881.

TABLE 1.—Deaths Registered in the Borough of Birkenhead during the Year, ending December 31st, 1881.

Class	Causes of Death	Cleveland, Claughton, Grange, and Argyle Wards (Ages at Death; Sex M. F.; Total)	Oxton, Egerton, Clifton, and Mersey Wards (Ages at Death; Sex M. F.; Total)	Bebington Ward (Ages at Death; Sex M. F.; Total)	Union Hospital (Ages at Death; Sex M. F.; Total)	Sum (Sex M. F.; Total)
	All Causes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Specified Causes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	(Classes.)					
I.	Zymotic Diseases	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
II.	Constitutional Diseases	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
III.	Local Diseases	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IV.	Developmental Diseases	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
V.	Violent Deaths	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	(Orders.)					
I.	1. Miasmatic Diseases	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. Enthetic "	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	3. Dietic "	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	4. Parasitic "	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
II.	1. Diathetic Diseases	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. Tubercular "	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
III.	1. Diseases of Nervous System	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. " Organs of Circulation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	3. " Respiratory Organs	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	4. " Digestive Organs	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	5. " Urinary Organs	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	6. " Organs of Generation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	7. " Organs of Locomotion	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	8. " Integumentary System	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IV.	1. Developmental Diseases of Children	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. " " Adults	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	3. " " Old People	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	4. Diseases of Nutrition	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
V.	1. Accident or Negligence	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. Homicide	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	3. Suicide	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Violent Deaths not Classed	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
I.	Order 1.					
	2. Measles	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	3. Scarlatina	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	4. Diphtheria	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	5. Croup	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	7. Whooping Cough	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	8. Typhus Fever	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Enteric or Typhoid Fever	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	9. Erysipelas	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	11. Carbuncle	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	13. Dysentery	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	14. Diarrhoea	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	17. Remittent Fever	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	18. Rheumatism	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	19. Mumps	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 2.					
	1. Syphilis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 3.					
	2. Inanition of Infancy	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	3. Purpura	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	4. Alcoholism—Delirium Tremens	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Intemperance	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 4.					
	1. Thrush	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
II.	Order 1.					
	1. Gout	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. Dropsy	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Anaemia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	3. Cancer	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	4. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	5. Mortification	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 2.					
	1. Scrofula	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. Tabes Mesenterica	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	3. Phthisis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	4. Hydrocephalus	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
III.	Order 1.					
	1. Cephalitis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. Apoplexy	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	3. Paralysis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	4. Epilepsy	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	5. Convulsions	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	6. Brain Disease (undistinguished)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Spinal Disease	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 2.					
	1. Pericarditis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. Aneurism	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	3. Embolism	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Angina Pectoris	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Heart Disease (undistinguished)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 3.					
	1. Laryngitis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. Bronchitis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	3. Pleurisy	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Empyema	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	4. Pneumonia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	5. Asthma	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	6. Congestion of Lungs	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 4.					
	1. Pharyngitis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Stricture of Œsophagus	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Gastritis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. Enteritis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	3. Peritonitis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	4. Ulceration of Intestines	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	6. Hernia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	7. Obstruction of Intestines	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Ileus	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	8. Intussusception	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	11. Hæmatemesis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Stomach Disease (undistinguished)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	13. Hepatitis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	14. Jaundice	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	15. Cirrhosis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Liver Disease	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 5.					
	1. Nephritis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. Bright's Disease (Nephria)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	4. Diabetes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	5. Cystitis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Prostatic Disease	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	7. Uræmia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Kidney Disease (undistinguished)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 6.					
	2. Uterus Disease	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 7.					
	2. Joint and Bone Disease	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 8.					
	1. Pyæmia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Phlegmon	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. Ulcer	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	3. Skin Disease	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IV.	Order 1.					
	1. Premature Birth	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. Cyanosis	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	3. Spina Bifida	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	4. Cleft Palate	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	5. Teething	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 2.					
	1. Childbirth	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 3.					
	1. Old Age	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 4.					
	1. Atrophy and Debility	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
V.	Order 1. (Accident or Negligence.)					
	1. Fractures and Contusions—Crushes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	" " Falls	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. Gunshot Wound	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	3. Perforation of the Eye with a Piece of Slate Pencil	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	4. Burns and Scalds	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	5. Poison	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	6. Drowning	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	7. Suffocation (found dead in bed)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 2. (Homicide.)					
	1. Manslaughter	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Order 4. (Suicide.)					
	1. Pistol-shot Wound	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	2. Hanging	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Violent Deaths (not classed)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Causes not specified, or ill-defined	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

TABLE II.—Weekly Register of Deaths in the Borough of Birkenhead for the Year ending December 31st, 1881.

CLEVELAND, CLAUGHTON, GRANGE, AND ARGYLE WARDS.

Class	Causes of Death	1	2	3	4	5	6	7	8	9	10	11	12	13	1st Qr.	14	15	16	17	18	19	20	21	22	23	24	25	26	2nd Qr.
I.—	Measles			1						1		1	1	2	6	2			1	1			1				1	2	8
	Scarlatina															2					1	2		1	1		1		8
	Diphtheria																	1											1
	Croup																			1				1					2
	Whooping Cough	4	3	2	2	1	2	2	1		1	2	2		22	2	3		1		1			2			1		10
	Typhus Fever											1			1				1									1	2
	Enteric or Typhoid Fever																	1							1				2
	Erysipelas										1				1														
	Carbuncle																												
	Dysentery																												
	Diarrhœa						2			1	2				5				1				1				1		3
	Remittent Fever																												
	Rheumatism												1		1					1				2					3
	Mumps																												
	Syphilis		1	1	1	1									4								1	1					2
	Inanition of Infancy																												
	Purpura																												
	Alcoholism—Delirium Tremens																												
	Intemperance																												
	Thrush																			1									1
II.—	Gout																												
	Dropsy																												
	Anæmia																		1										1
	Cancer			1	1				1		2				5											1			1
	Cancrum Oris																		1										1
	Mortification									1					1		1			1									2
	Scrofula																1												1
	Tabes Mesenterica			1					1	1					3	1		1	1									1	4
	Phthisis	1			1	2	3		1		3	2	2	2	17		7	3	1	2	4	2			3	1	1	2	26
	Hydrocephalus			1	1	2					1		1	1	7		2	4	1		2	1			1	1	2	1	15
III.—	Cephalitis	1													1			1											1
	Apoplexy		1	1	1	2	2	1			1		1		10	2	2				1							1	6
	Paralysis										1				1		1					1		1	1	1			5
	Epilepsy																	1				1						1	3
	Convulsions	1	1	2		4	3	1	2	1	1	3	2	2	23	4	1	1	2				1	1		1	1	1	13
	Brain Disease (undistinguished)	1				1					1		1		4													1	1
	Spinal Disease																1						1						2
	Pericarditis																												
	Aneurism																												
	Embolism																												
	Angina Pectoris																				1								1
	Heart Disease (undistinguished)			4	2	1	1		3			2		1	14	2	1		1			1			1				6
	Laryngitis									1					1				1										1
	Bronchitis	2	3	4	7	4	4	6	4	6	1	6	4	2	53	3	1	1	4		1	1	1	1	1	3	2	1	20
	Pleurisy																											1	1
	Empyema																												
	Pneumonia		1	1		1		3		2				1	9	2	3	1			1	1	3	3	1		3	1	19
	Asthma																												
	Congestion of Lungs								1						1											2			2
	Pharyngitis						1								1											1	1		2
	Stricture of Œsophagus																												
	Gastritis				1	1	1				1				4				2									1	3
	Enteritis											1			1									1					1
	Peritonitis		1												1													1	1
	Ulceration of Intestines																												
	Hernia																		1										1
	Obstruction of Intestines										1			1	2														
	Ileus									1					1														
	Intussusception																												
	Hæmatemesis															1					1								2
	Stomach Disease (undistinguished)					1									1						1								1
	Hepatitis													1	1													1	1
	Jaundice				1										1		1												1
	Cirrhosis									1	1	1			3		1												1
	Liver Disease								1			1			2			1			1			1					3
	Nephritis		1							1			1		3			1						1					2
	Bright's Disease (Nephria)																				1				1				2
	Diabetes											1			1					1									1
	Cystitis							1							1						1								1
	Prostatic Disease																												
	Uræmia																												
	Kidney Disease (undistinguished)																												
	Uterus Disease										1				1									1					1
	Joint and Bone Disease																								1				1
	Pyæmia								1			1	1		3			1	1										2
	Phlegmon																												
	Ulcer																												
	Skin Disease							1							1														
IV.—	Premature Birth	3						2					2		7			1		1		1		2	1				6
	Cyanosis																												
	Spina Bifida			1											1														
	Cleft Palate																												
	Teething							1							1	1			1							1			3
	Childbirth												1	1	2														
	Old Age		1		2		1								4		1				1	1				2	1		6
	Atrophy and Debility		2	4		1	1	2	2	4	1	2	1	1	21	1	3	2	3	2	3	1	2	1		1		2	21
V.—	Accident or Negligence—																												
	Crushes	1					1						3		5	1			1				1					1	4
	Falls					1	2							1	4					1							2		3
	Gunshot Wound																												
	Perforation of the Eye with a Piece of Slate Pencil																												
	Burns and Scalds					2							1	1	4			1											1
	Poison																				1								1
	Drowning																							1					1
	Suffocation (found dead in bed)									1		1	2		4					1							1		1
	Homicide—Manslaughter																												1
	Suicide—																												
	Pistol-shot Wound																												
	Hanging																												
	Violent Deaths (not classed)															1				1				1					3
	Causes not specified, or ill-defined	1	1		1	3	1							1	8		1								1				2
	Males	9	7	17	10	13	15	13	9	11	11	15	18	7	155	15	12	16	12	9	11	7	9	12	10	9	10	8	140
	Females	6	9	7	11	15	10	7	9	11	9	10	9	11	124	10	19	6	14	5	11	6	3	10	4	6	8	12	114

Causes of Death	27	28	29	30	31	32	33	34	35	36	37	38	39	3rd Qr.	40	41	42	43	44	45	46	47	48	49	50	51	52	4th Qr.	Year.	Total for the Borough.
Measles					1									1	1													1	16	49
Scarlatina					1	1	1					1		4	1											1	1	3	15	20
Diphtheria																						1		1				2	3	5
Croup	1		1					1						3	1		1											2	7	9
Whooping Cough	1			1		1								3												1	3	4	39	45
Typhus Fever															1	1	2	1		2						1		8	11	12
Enteric or Typhoid Fever															1	1	1					1				1		5	7	11
Erysipelas																													1	5
Carbuncle																														1
Dysentery																						1						1	1	2
Diarrhœa	1	1	3	3	2	1	1	1		1				14		1		1		2			2					6	28	37
Remittent Fever							1							1															1	1
Rheumatism											1			1		1												1	6	9
Mumps																														1
Syphilis	1	1		1						1				4															10	14
Inanition of Infancy	1													1										1				1	2	6
Purpura																							1					1	1	1
Alcoholism—Delirium Tremens																														1
Intemperance				1										1															1	1
Thrush																													1	1
Gout												1		1															1	3
Dropsy																				1								1	1	4
Anæmia							1							1															2	3
Cancer	1													1	1									1			1	3	10	23
Cancrum Oris																													1	1
Mortification																										1		1	4	5
Scrofula					1			1						2				1					1					2	5	7
Tabes Mesenterica			1							1				2												1		1	10	17
Phthisis	4	3	4	3	2		2	1	2		1	1	3	26	1	2	3		2	1		2	2		1	2	1	17	86	120
Hydrocephalus	1	2	1	2			1		1		1	1		10							1		1			1	1	4	36	53
Cephalitis											1			1		1				1				1				3	6	9
Apoplexy			1		1			1			2	1		6				1		1			1				2	5	27	39
Paralysis				1	1		1			1		1		5		1	2		1		1				1	1		7	18	32
Epilepsy																1			1									2	5	9
Convulsions	3	2	1		2		1	1	1	2	1		3	17	4	1	1	3		3	1	3	1	1	1	1		20	73	90
Brain Disease (undistinguished)			1								1			2											1			1	8	13
Spinal Disease						1								1												1		1	4	6
Pericarditis																								1				1	1	1
Aneurism											1			1															1	3
Embolism																														2
Angina Pectoris													1	1															2	3
Heart Disease (undistinguished)		1		3				2		1				7	2	2		1	4	1	2	1	1	2		1	1	18	45	66
Laryngitis																1											1	2	4	6
Bronchitis	3	2	1		2	3	2	1	1	2		3		20		2			3	1	2	2	4	3	1	1	6	25	118	149
Pleurisy																													1	1
Empyema								1						1															1	1
Pneumonia		1	2				3			2	1	1	1	11		3		3	2	3	1	3	1	1		5	2	24	63	90
Asthma	1													1	1	1												2	3	4
Congestion of Lungs	1													1															4	9
Pharyngitis																											1	1	4	4
Stricture of Œsophagus																											1	1	1	1
Gastritis		1					1							2															9	13
Enteritis			2		1									3								1						1	6	7
Peritonitis																					1							1	3	6
Ulceration of Intestines					1									1															1	1
Hernia																							1					1	2	4
Obstruction of Intestines																													2	4
Ileus																													1	3
Intussusception																														1
Hæmatemesis											1			1															3	4
Stomach Disease (undistinguished)																									1			1	3	4
Hepatitis		1	1								1			3			1			1								2	7	12
Jaundice																				1								1	3	3
Cirrhosis									1					1															5	10
Liver Disease																					1				1	1		3	8	12
Nephritis															1													1	6	10
Bright's Disease (Nephria)	1			1			1	1						4					1									1	7	12
Diabetes																													2	4
Cystitis	1						1							2													1	1	5	
Prostatic Disease								1						1															1	2
Uræmia																					1							1	1	1
Kidney Disease (undistinguished)												1		1															1	2
Uterus Disease																													2	2
Joint and Bone Disease																									1			1	2	6
Pyæmia																							1					1	6	6
Phlegmon																														2
Ulcer																														2
Skin Disease																													1	2
Premature Birth								1					2	3						1					1	2	1	5	21	41
Cyanosis									1					1															1	1
Spina Bifida																										1	1	2	3	4
Cleft Palate													1	1															1	1
Teething																				1	2							3	7	11
Childbirth													1	1	1				1				1	1				4	7	14
Old Age															1				1			2		1				5	15	49
Atrophy and Debility		1		1	1		3	1	4	1	1	1	1	15	2		4	2	1	3	1		1	2	3	2		21	78	100
Accident or Negligence—																														
Crushes							1				1		1	3				1	1		1							3	15	19
Falls		1	2										1	4			1						1			1		3	14	14
Gunshot Wound																				1								1	1	1
Perforation of the Eye with a Piece of Slate Pencil																									1			1	1	1
Burns and Scalds	1													1								1						1	7	9
Poison	2													2															3	3
Drowning						1								1												1		1	3	5
Suffocation (found dead in bed)																													5	13
Homicide—Manslaughter																													1	1
Suicide—																														
Pistol-shot Wound																														2
Hanging																														1
Violent Deaths (not classed)																													3	3
Causes not specified, or ill-defined			1	2				1					1	5	1												1	2	17	22
Males	14	11	10	10	8	4	8	7	7	7	8	8	7	109	9	10	10	4	10	13	9	9	9	10	9	16	12	130	534	800
Females	10	6	12	9	8	4	13	8	4	5	6	4	9	98	11	9	6	10	8	11	6	10	10	6	4	11	13	115	451	662

TABLE II.—Weekly Register of Deaths in the Borough of Birkenhead for the Year ending December 31st, 1881.

OXTON, EGERTON, CLIFTON, AND MERSEY WARDS.

CLASS.	CAUSES OF DEATH.	1	2	3	4	5	6	7	8	9	10	11	12	13	1st Qr.	14	15	16	17	18	19	20	21	22	23	24	25	26	2nd Qr.	27	28	29	30	31	32	33	34	35	36	37	38	39	3rd Qr.	40	41	42	43	44	45	46	47	48	49	50	51	52	4th Qr.	YEAR.	TOTAL FOR THE BOROUGH.
I.—	Measles		2	3	1	2		1	1	2				1	13		1		1	2	1	1							6																							1					1	20	49
	Scarlatina								1					2	3		1			1									2																													5	20
	Diphtheria																				1				1				2																													2	5
	Croup		1												1																																											1	9
	Whooping Cough			1	1	1									3										1				1		1							1					2															6	45
	Typhus Fever																							1						1																													1	12
	Enteric or Typhoid Fever	1											1		2											1			1																													3	11
	Erysipelas																																																	1	1						2	2	5
	Carbuncle																																																		1						1	1	1
	Dysentery																																													1											1	1	2
	Diarrhœa																													1		1	1			1		1				1	6	1										1			2	8	37
	Remittent Fever																																																										1
	Rheumatism																	1						1					2								1						1															3	9
	Mumps			1											1																																											1	1
	Syphilis																1		1										2																													2	14
	Inanition of Infancy																																				1								1		1			1								3	4	6
	Purpura																																																										1
	Alcoholism—Delirium Tremens																																																										1
	Intemperance																																																										1
	Thrush																																																										1
II.—	Gout																					1							1					1									1																2	3
	Dropsy																1													1																													1	4
	Anæmia																														1												1															1	3
	Cancer			1		1						1			3	1		2	1							1			5									1	1				2	1													1	11	23
	Cancrum Oris																																																										1
	Mortification																																																										5
	Scrofula				1										1					1									1																													2	7
	Tabes Mesenterica																					1							1											1			1										1				1	3	17
	Phthisis	1	1	1					1	1		1		2	8	1	1	1		2	1			2	1				9		1	1		1		1	1	1	1	1		2	10	1										1			2	29	120
	Hydrocephalus										1	1	1		3		1				1	1			1	1			5								3					1	4		2			1		1							4	16	53
III.—	Cephalitis									1					1																		1										1															2	9
	Apoplexy						2						1	1	4	1				1								2				1			1						2								1	1			1		3	11	39
	Paralysis																				2	1								3		1												1										2	1		1	4	8	32
	Epilepsy		1												1			1			2								3																													4	9
	Convulsions								1	1		4	1		7									1					1	1									1	1		1	4						1			1		1			3	15	90
	Brain Disease (undistinguished)													1	1																																			1							1	2	3	13
	Spinal Disease													1	1																																					1						1	2	6
	Pericarditis																																																										1
	Aneurism		1												1																														1												1	2	3
	Embolism																						1						1																													1	2
	Angina Pectoris																																																										3
	Heart Disease (undistinguished)	1			2	1	1				1				6	1				1								1	3							1							1	1						1	1						3	13	66
	Laryngitis																	1											1									1					1															2	6
	Bronchitis	2		1		4		1		1		2			11			1				1		1					3	1		2		1					1	1			6											1			1	21	149
	Pleurisy																																																										1
	Empyema																																																										1
	Pneumonia	1		1				1	3	1			1		8								1					1	2						1	1				1		1	4				1	1		1				1			4	18	90
	Asthma				1										1																																											1	4
	Congestion of Lungs								1						1									1					1	1								2					3															5	9
	Pharyngitis																																																										4
	Stricture of Œsophagus																																																										1
	Gastritis																1													1																				1					1				2	3	13
	Enteritis				1										1																																											1	7
	Peritonitis																																											1															1	5
	Ulceration of Intestines																																			1																							1
	Hernia																																								1			1															1	4
	Obstruction of Intestines						1			1					2																																											2	4
	Ileus																																																1							1	1	8
	Intussusception					1									1																																											1	1
	Hæmatemesis																						1					1																													1	4
	Stomach Disease (undistinguished)																																																										4
	Hepatitis			1											1		1								1	1		1	4																													5	12
	Jaundice																																																										3
	Cirrhosis				1										1																													1		1															2	10
	Liver Disease																									1					1												1			1				1						1			2	4	12
	Nephritis						1			1					2																										1			1									1					1	4	10
	Bright's Disease (Nephria)																																	1						1			2							2				1		3	5	12
	Diabetes									1				1	2																																											2	4
	Cystitis					1										1																																											1	6
	Prostatic Disease																		1										1																													1	2
	Uræmia																																																										1
	Kidney Disease (undistinguished)																																																							1	1	1	2
	Uterus Disease																																																										2
	Joint and Bone Disease								1						1							1							1								1						1															3	6
	Pyæmia												1																																														6
	Phlegmon									1					1																										1				1															2	2
	Ulcer																																																										2
	Skin Disease											1			1																																											1	2
IV.—	Premature Birth			1			1			1	1		1		5	2										1			3		1		1		1		2						5					1			1	1			1		4	17	41
	Cyanosis																																																										1
	Spina Bifida																																																							1	1	1	4
	Cleft Palate																																																										1
	Teething																						1					1		1				1			1					3															4	11
	Childbirth					1								1	2													1	1											1			1								1		1		1		3	7	14
	Old Age		1		1										2	1	1			1							1		4		1				1								2			1				1			1	1		1	5	13	49
	Atrophy and Debility					1			1	2					4								3					1	4			1	1		1				1				4						1	3	1	1					6	18	100
V.—	Accident or Negligence—																																																										
	Crushes																																																	1						1	2	2	19
	Falls																																																										14
	Gunshot Wound																																																										1
	Perforation of the Eye with a Piece of Slate Pencil																																																										1
	Burns and Scalds		1												1					1									1																													2	9
	Poison																																																										3
	Drowning																																1										1			1											1	2	5
	Suffocation (found dead in bed)			1			1	1							3			1									1		2							1							1													1	1	7	13
	Homicide—Manslaughter																																																										1
	Suicide—																																																										
	Pistol-shot Wound																																			1							1							1							1	2	2
	Hanging										2				2																																											2	1
	Violent Deaths (not classed)																																																										3
	Causes not specified, or ill-defined																				1								1				1								1		2	1												1	2	5	22
	Males	3	5	7	4	6	2	2	5	6	4	8	5	4	61	4	2	2	2	8	6	3	4	5	6	4	..	3	49	3	2	4	3	3	2	4	6	5	2	5	1	4	44	4	1	2	..	4	2	8	7	3	1	2	..	2	36	190	800
	Females	3	3	5	5	7	5	2	5	8	1	2	1	6	53	5	5	6	2	4	2	3	2	3	..	1	2	2	37	1	5	1	3	2	4	3	3	3	4	5	1	2	37	1	3	1	1	2	1	4	3	3	5	6	4	6	40	167	662

TABLE II.—Weekly Register of Deaths in the Borough of Birkenhead for the Year ending December 31st, 1881.

UNION HOSPITAL.

Class	Causes of Death	1	2	3	4	5	6	7	8	9	10	11	12	13	1st Qr.	14	15	16	17	18	19	20	21	22	23	24	25	26	2nd Qr.
I.—	Measles									5	4	1	1		11							1							1
	Scarlatina																												
	Diphtheria																												
	Croup																												
	Whooping Cough																												
	Typhus Fever																												
	Enteric or Typhoid Fever																												
	Erysipelas																		1										1
	Carbuncle																												
	Dysentery																												
	Diarrhœa																												
	Remittent Fever																												
	Rheumatism																												
	Mumps																												
	Syphilis																		1										1
	Inanition of Infancy																												
	Purpura																												
	Alcoholism—Delirium Tremens																		1										1
	Intemperance																												
	Thrush																												
II.—	Gout																												
	Dropsy					1	1								2														
	Anæmia																												
	Cancer													1	1														
	Cancrum Oris																												
	Mortification																												
	Scrofula																												
	Tabes Mesenterica													1	1				1										1
	Phthisis																												
	Hydrocephalus																												
III.—	Cephalitis																												
	Apoplexy																												
	Paralysis		1												1										2				2
	Epilepsy																												
	Convulsions		1												1	1													1
	Brain Disease (undistinguished)							1							1								1						1
	Spinal Disease																												
	Pericarditis																												
	Aneurism																												
	Embolism																	1											1
	Angina Pectoris																												
	Heart Disease (undistinguished)												1		1				1							1			2
	Laryngitis																												
	Bronchitis			1				1	1	1					4							1							1
	Pleurisy																												
	Empyema																												
	Pneumonia				1	3	1								5														
	Asthma																												
	Congestion of Lungs																												
	Pharyngitis																												
	Stricture of Œsophagus																												
	Gastritis										1				1														
	Enteritis																												
	Peritonitis																												
	Ulceration of Intestines																												
	Hernia																												
	Obstruction of Intestines																												
	Ileus												1		1														
	Intussusception																												
	Hæmatemesis																												
	Stomach Disease (undistinguished)																												
	Hepatitis																												
	Jaundice																												
	Cirrhosis								1						1														
	Liver Disease																												
	Nephritis																												
	Bright's Disease (Nephria)																												
	Diabetes																												
	Cystitis																												
	Prostatic Disease																												
	Uræmia																												
	Kidney Disease (undistinguished)																												
	Uterus Disease																												
	Joint and Bone Disease															1													1
	Pyæmia																												
	Phlegmon																												
	Ulcer											1			1														
	Skin Disease																												
IV.—	Premature Birth						1								1														
	Cyanosis																												
	Spina Bifida																												
	Cleft Palate																												
	Teething																												
	Childbirth																												
	Old Age		1		1	2		1		1		1	2		9						1								1
	Atrophy and Debility								1						1														
V.—	Accident or Negligence—																												
	Crushes																												
	Falls																												
	Gunshot Wound																												
	Perforation of the Eye with a Piece of Slate Pencil																												
	Burns and Scalds																												
	Poison																												
	Drowning																												
	Suffocation (found dead in bed)																												
	Homicide—Manslaughter																												
	Suicide—																												
	Pistol-shot Wound																												
	Hanging																												
	Violent Deaths (not classed)																												
	Causes not specified, or ill-defined																												
	Males		2	1	1	2	2	2	1	5	3	2	4	1	26	1			4			1	1		1	1			9
	Females		1		1	4	1	1	2	2	2	1	1	1	17	1		1	1		1	1			1				6

Causes of Death	27	28	29	30	31	32	33	34	35	36	37	38	39	3rd Qr.	40	41	42	43	44	45	46	47	48	49	50	51	52	4th Qr.	Year	Total for the Borough
Measles																													12	49
Scarlatina																														20
Diphtheria																														5
Croup																														9
Whooping Cough																														45
Typhus Fever																														12
Enteric or Typhoid Fever																											1	1	1	11
Erysipelas		1												1															2	5
Carbuncle																														1
Dysentery																														2
Diarrhœa																														37
Remittent Fever																														1
Rheumatism																														9
Mumps																														1
Syphilis																								1				1	2	14
Inanition of Infancy																														6
Purpura																														1
Alcoholism—Delirium Tremens																													1	1
Intemperance																														1
Thrush																														1
Gout																														3
Dropsy																													2	4
Anæmia																														3
Cancer																													1	23
Cancrum Oris																														1
Mortification									1					1															1	5
Scrofula																														7
Tabes Mesenterica																			1									1	3	17
Phthisis																			1									1	1	120
Hydrocephalus																														53
Cephalitis																														9
Apoplexy																			1									1	1	39
Paralysis																	1				1							2	5	32
Epilepsy																														9
Convulsions																													2	90
Brain Disease (undistinguished)																													2	13
Spinal Disease																														6
Pericarditis																														1
Aneurism																														3
Embolism																													1	2
Angina Pectoris																														3
Heart Disease (undistinguished)		1			1		1		1					4					1									1	8	67
Laryngitis																														6
Bronchitis																				1	1						1	3	8	149
Pleurisy																														1
Empyema																														1
Pneumonia																	1	1										2	7	91
Asthma																														4
Congestion of Lungs																														9
Pharyngitis																														4
Stricture of Œsophagus																														1
Gastritis																													1	13
Enteritis																														7
Peritonitis																														5
Ulceration of Intestines																														1
Hernia																														4
Obstruction of Intestines																														4
Ileus																													1	3
Intussusception																														1
Hæmatemesis																														4
Stomach Disease (undistinguished)																					1							1	1	4
Hepatitis																														12
Jaundice																														3
Cirrhosis																					1					1		2	3	10
Liver Disease																														12
Nephritis																														10
Bright's Disease (Nephria)																														12
Diabetes																														4
Cystitis																														6
Prostatic Disease																														2
Uræmia																														1
Kidney Disease (undistinguished)																														2
Uterus Disease																														2
Joint and Bone Disease																													1	6
Pyæmia																														6
Phlegmon																														2
Ulcer																							1					1	2	2
Skin Disease																														2
Premature Birth																										1		1	2	41
Cyanosis																														1
Spina Bifida																														4
Cleft Palate																														1
Teething																														11
Childbirth																														14
Old Age								1	1			1		3					2	1			1	1		1		6	19	49
Atrophy and Debility							1	1						2													1	1	4	100
Accident or Negligence—																														
Crushes																		1										1	1	19
Falls																														14
Gunshot Wound																														1
Perforation of the Eye with a Piece of Slate Pencil																														1
Burns and Scalds																														9
Poison																														3
Drowning																														5
Suffocation (found dead in bed)												1		1															1	13
Homicide—Manslaughter																														1
Suicide—																														
Pistol-shot Wound																														2
Hanging																														2
Violent Deaths (not classed)																														3
Causes not specified, or ill-defined																														22
Males		1			1		1	2	2			2		9			2	2	3	2	1			2			3	15	59	800
Females		1					1		1					3					3		3		2			3		11	37	662

TABLE II.—Weekly Register of Deaths in the Borough of Birkenhead for the Year ending December 31st, 1881.

BEBINGTON WARD.

Class.	Causes of Death.	Weeks. 1	2	3	4	5	6	7	8	9	10	11	12	13	1st Qr.	Weeks. 14	15	16	17	18	19	20	21	22	23	24	25	26	2nd Qr.	Weeks. 27	28	29	30	31	32	33	34	35	36	37	38	39	3rd Qr.	Weeks. 40	41	42	43	44	45	46	47	48	49	50	51	52	4th Qr.	Year.	Total for the Borough.
I.—	Measles																																																			1					1	1	49
	Scarlatina																																																										20
	Diphtheria			1											1																																														5
	Croup																																																									1	9
	Whooping Cough																																																										45
	Typhus Fever																																																										12
	Enteric or Typhoid Fever																																																										11
	Erysipelas																																																										5
	Carbuncle																																																										1
	Dysentery																																																										2
	Diarrhœa																																																						1	1	1	37
	Remittent Fever																																																										1
	Rheumatism																																																										9
	Mumps																																																										1
	Syphilis																																																										14
	Inanition of Infancy																																																										6
	Purpura																																																										1
	Alcoholism—Delirium Tremens																																																										1
	Intemperance																																																										1
	Thrush																																																										1
II.—	Gout																																																										3
	Dropsy																																																										4
	Anæmia																																				1																						3
	Cancer																																										1														1	23
	Cancrum Oris																																																										1
	Mortification																																																										5
	Scrofula	1													1																																													7
	Tabes Mesenterica																								1				1						1	1																							1	17
	Phthisis																1												1														2									1				1	4	120
	Hydrocephalus																					1							1																													1	53
III.—	Cephalitis																																																									1	9
	Apoplexy																		1																																								39
	Paralysis																												1																													1	32
	Epilepsy																																																										9
	Convulsions																																																										90
	Brain Disease (undistinguished)																																																										13
	Spinal Disease																																																										6
	Pericarditis																																																										1
	Aneurism																																																										3
	Embolism																																																										2
	Angina Pectoris																							1					1																													1	3
	Heart Disease (undistinguished)																																																										66
	Laryngitis																																																										6
	Bronchitis			1	1										2																																									2	149
	Pleurisy																																																										1
	Empyema																																																										1
	Pneumonia						1								1		1					1							2																													3	91
	Asthma																																																										4
	Congestion of Lungs																																																										9
	Pharyngitis																																																										4
	Stricture of Œsophagus																																																										1
	Gastritis																																																										13
	Enteritis																																																										7
	Peritonitis			1											1																																										1	5
	Ulceration of Intestines																																																										1
	Hernia																	1											1																													1	4
	Obstruction of Intestines																																																										4
	Ileus																																																										3
	Intussusception																																																										1
	Hæmatemesis																																																										4
	Stomach Disease (undistinguished)																																																										4
	Hepatitis																																																										12
	Jaundice																																																										3
	Cirrhosis																																																										10
	Liver Disease																																																										12
	Nephritis																																																										10
	Bright's Disease (Nephria)																																																										12
	Diabetes																																																										4
	Cystitis																																																										6
	Prostatic Disease																																																										2
	Uræmia																																																										1
	Kidney Disease (undistinguished)																																																										2
	Uterus Disease																																																										2
	Joint and Bone Disease																																																										6
	Pyæmia																																																										6
	Phlegmon																																																										2
	Ulcer																																																										2
	Skin Disease																																																										2
IV.—	Premature Birth													1	1																																										1	41
	Cyanosis																																																										1
	Spina Bifida																																																										4
	Cleft Palate																																																										1
	Teething																																																										11
	Childbirth																																																										14
	Old Age	1													1				1										1																												2	49
	Atrophy and Debility																																																										100
V.—	Accident or Negligence—																																																										
	Crushes																		1										1																												1	19
	Falls																																																										14
	Gunshot Wound																																																										1
	Perforation of the Eye with a Piece of Slate Pencil																																																										1
	Burns and Scalds																																																										9
	Poison																																																										3
	Drowning																																																										5
	Suffocation (found dead in bed)																																																										13
	Homicide—Manslaughter																																																										1
	Suicide—																																																										
	Pistol-shot Wound																																																										2
	Hanging																																																										2
	Violent Deaths (not classed)																																																										3
	Causes not specified, or ill-defined																																																										22
	Males	1		2	1			1						1			1		2			2		1	1				7					1	1	1						3								1					1	17	800
	Females	1		1													1	1		1									3																						1		1		2	7	662

TABLE III.

Weekly Condensed Register of Deaths and Meteorological Results for 1881.

	CAUSES OF DEATH.	1	2	3	4	5	6	7	8	9	10	11	12	13	1st Qr.
Borough of Birkenhead.	All Causes	23	27	40	33	47	35	28	31	43	30	38	38	31	444
	Specified Causes	22	26	40	32	44	34	28	31	43	30	38	38	30	436
	I. Zymotic Diseases	5	7	10	5	5	4	3	3	9	8	5	6	5	75
	II.—Constitutional Diseases	3	1	5	4	6	4	..	4	3	7	5	4	7	53
	III.—Local Diseases	9	12	18	19	25	18	18	20	22	11	24	15	12	223
	IV.—Developmental Diseases	4	5	6	4	5	4	6	4	8	2	3	7	4	62
	V.—Violent Deaths	1	1	1	..	3	4	1	..	1	2	1	6	2	23
Cleveland, Claughton, Grange, and Argyle Wards.	All Causes	15	16	24	21	28	25	20	18	22	20	25	27	18	279
	Specified Causes	14	15	24	20	25	24	20	18	22	20	25	27	17	271
	I.—Zymotic Diseases	4	4	4	3	2	4	2	1	2	4	4	4	2	40
	II – Constitutional Diseases	1	..	3	3	4	3	..	3	2	6	2	3	3	33
	III.—Local Diseases	5	8	12	12	15	12	13	12	13	9	16	10	8	145
	IV.—Developmental Diseases	3	3	5	2	1	2	5	2	4	1	2	4	2	36
	V.—Violent Deaths	1	..	..	..	3	3	..	..	1	..	1	6	2	17
Oxton, Egerton, Clifton, and Mersey Wards.	All Causes	6	8	12	9	13	7	4	10	14	5	10	6	10	114
	Specified Causes	6	8	12	9	13	7	4	10	14	5	10	6	10	114
	I.—Zymotic Diseases	1	3	5	2	3	..	1	2	2	..	..	1	3	23
	II —Constitutional Diseases	1	1	2	1	1	..	..	1	1	1	3	1	2	15
	III.—Local Diseases	4	2	3	5	7	5	2	6	8	1	7	3	4	57
	IV.—Developmental Diseases	..	1	1	1	2		..	1	3	1	..	1	1	13
	V.—Violent Deaths	..	1	1	..	..	1	1	..	..	2	..	..	..	6
Bebington Ward.	All Causes	2	..	3	1	..	..	1	..	..	..	..	..	1	8
	Specified Causes	2	..	3	1	..	..	1	..	..	..	..	..	1	8
	I.—Zymotic Diseases	..	..	1	..	..	..	..	..	..	..	..	..	..	1
	II.—Constitutional Diseases	1	..	..	..	..	..	..	..	..	..	..	..	..	1
	III.—Local Diseases	..	..	2	1	..	..	1	..	..	..	..	..	..	4
	IV.—Developmental Diseases	1	..	..	..	..	..	..	..	..	..	..	..	1	2
	V.—Violent Deaths	..	..	..	..	..	..	..	..	..	..	..	..	..	....
Union Hospital.	All Causes	..	3	1	2	6	3	3	3	7	5	3	5	2	43
	Specified Causes	..	3	1	2	6	3	3	3	7	5	3	5	2	43
	I.—Zymotic Diseases	..	..	..	..	..	..	..	..	5	4	1	1	..	11
	II.—Constitutional Diseases	..	..	..	..	1	1	..	..	..	..	..	..	2	4
	III.—Local Diseases	..	2	1	1	3	1	2	2	1	1	1	2	..	17
	IV.—Developmental Diseases	..	1	..	1	2	1	1	1	1	..	1	2	..	11
	V.—Violent Deaths	..	..	..	..	..	..	..	..	..	..	..	..	..	....
Meteorological Results.	Percentage of time Wind blew from S., S.W., W., and N.W.	33·1	37·5	20·2	8·3	61·8	70·2	14·2	35·1	21·4	86·9	68·4	83·3	25·0	43·3
	Mean Hourly Horizontal Motion of the Air in Miles	13·7	8·4	16·6	12·9	17·0	24·3	17·3	11·6	23·4	28·7	18·4	25·3	13·8	17·8
	Average Percentage of Cloud to Clear Sky	71·4	58·5	52·9	68·5	75·7	64·2	91·4	77·1	85·7	84·2	65·7	77·1	31·4	69·5
	Rainfall in Inches	·000	·617	·121	·292	·448	1·867	·777	·228	1·284	·553	·369	·703	·000	7·239
	Rainfall as to Hours	0·0	4·8	2·0	9·3	10·2	34·1	20·3	7·9	21·2	15·9	17·0	18·2	0·0	161·0
	Thermometer Means	36·8	26·5	24·6	28·5	41·6	37·8	39·8	35·3	35·4	48·3	46·2	37·9	37·2	36·6
	Mean of Evaporation	35·0	25·3	23·0	28·1	40·1	35·7	38·7	33·3	33·8	45·7	43·5	35·7	34·2	34·7
	Barometer Means, reduced to Sea Level, and to 32° Fahrenheit	30·458	29·876	29·847	29·597	29·424	29·483	29·868	30·209	29·801	29·661	30·193	29·628	29·962	29·846

	CAUSES OF DEATH.	14	15	16	17	18	19	20	21	22	23	24	25	26	2nd Qr.
Borough of Birkenhead.	All Causes	36	40	32	37	27	31	23	19	31	23	21	20	25	365
	Specified Causes	36	39	32	37	27	30	23	19	31	22	21	20	25	362
	I. Zymotic Diseases	6	6	3	9	7	4	4	4	8	4	1	4	3	63
	II.—Constitutional Diseases	4	14	11	7	6	8	6	..	2	7	5	3	4	77
	III.—Local Diseases	19	14	13	15	5	12	10	9	15	10	10	7	13	152
	IV.—Developmental Diseases	5	5	3	4	5	5	3	5	4	1	5	2	4	51
	V.—Violent Deaths	2	..	2	2	4	1	..	1	2	..	..	4	1	19
Cleveland, Claughton, Grange, and Argyle Wards.	All Causes	25	31	22	26	14	22	13	12	22	14	15	18	20	254
	Specified Causes	25	30	22	26	14	22	13	12	22	13	15	18	20	252
	I.—Zymotic Diseases	6	3	2	4	4	2	2	3	7	2	..	4	3	42
	II – Constitutional Diseases	1	11	8	5	3	6	3	..	..	4	3	3	4	51
	III.—Local Diseases	14	12	8	12	1	9	5	6	10	6	8	7	10	108
	IV.—Developmental Diseases	2	4	3	4	3	4	3	2	3	1	4	1	2	36
	V.—Violent Deaths	2	..	1	1	3	1	..	1	2	..	..	3	1	15
Oxton, Egerton, Clifton, and Mersey Wards.	All Causes	9	7	8	4	12	8	6	6	8	6	5	2	5	86
	Specified Causes	9	7	8	4	12	7	6	6	8	6	5	2	5	85
	I.—Zymotic Diseases	..	3	1	2	3	2	1	1	1	2	1	..	..	17
	II —Constitutional Diseases	3	2	3	1	3	2	3	..	2	2	2	..	..	23
	III.—Local Diseases	3	1	3	1	4	3	2	2	4	2	1	..	3	29
	IV.—Developmental Diseases	3	1	..	..	1	..	..	3	1	..	1	1	2	13
	V.—Violent Deaths	..	..	1	..	1	..	..	..	..	..	..	1	..	3
Bebington Ward.	All Causes	..	2	1	2	1	..	2	..	1	1	..	..	..	10
	Specified Causes	..	2	1	2	1	..	2	..	1	1	..	..	..	10
	I.—Zymotic Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	....
	II.—Constitutional Diseases	..	1	..	..	..	..	..	..	..	1	..	..	..	2
	III.—Local Diseases	..	1	1	1	..	..	2	..	1	..	..	..	..	6
	IV.—Developmental Diseases	..	..	..	..	1	..	..	..	..	..	..	..	..	1
	V.—Violent Deaths	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Union Hospital.	All Causes	2	..	1	5	..	1	2	1	..	2	1	..	..	15
	Specified Causes	2	..	1	5	..	1	2	1	..	2	1	..	..	15
	I.—Zymotic Diseases	..	..	..	3	..	..	1	..	..	..	..	..	..	4
	II.—Constitutional Diseases	..	..	..	1	..	..	..	..	..	..	..	..	..	1
	III.—Local Diseases	2	..	1	1	..	..	1	1	..	2	1	..	..	9
	IV.—Developmental Diseases	..	..	..	..	..	1	..	..	..	..	..	..	..	1
	V.—Violent Deaths	..	..	..	..	..	..	..	..	..	..	..	..	..	....
Meteorological Results.	Percentage of time Wind blew from S., S.W., W., and N.W.	0·0	32·7	41·6	83·8	73·1	67·8	92·2	84·5	76·1	50·0	44·6	76·7	94·0	59·5
	Mean Hourly Horizontal Motion of the Air in Miles	15·5	12·3	15·1	17·2	16·9	8·7	23·0	11·7	9·2	11·8	13·6	15·8	16·3	14·3
	Average Percentage of Cloud to Clear Sky	22·8	84·2	65·7	60·0	61·4	37·1	64·2	52·8	35·7	71·4	72·8	55·7	68·5	57·8
	Rainfall in Inches	·000	1·122	·051	·370	·619	·302	·646	1·150	·630	·492	·298	·689	·229	6·592
	Rainfall as to Hours	0·0	21·2	1·4	7·6	12·6	12·3	12·4	14·0	11·5	19·3	20·6	14·8	8·6	156·3
	Thermometer Means	39·4	50·5	44·0	49·8	49·6	50·6	51·2	57·9	59·5	49·7	58·2	58·4	57·6	52·0
	Mean of Evaporation	34·8	47·2	39·7	46·1	45·7	46·1	47·1	52·8	54·0	45·9	54·7	53·3	53·5	47·7
	Barometer Means, reduced to Sea Level, and to 32° Fahrenheit	30·070	29·869	29·984	29·984	29·996	30·449	29·661	30·052	30·187	29·887	29·910	29·783	30·064	29·992

	CAUSES OF DEATH.	27	28	29	30	31	32	33	34	35	36	37	38	39	3rd Qr.
Borough of Birkenhead.	All Causes	28	26	27	25	22	15	31	27	22	18	24	16	22	303
	Specified Causes	28	26	26	22	22	15	31	26	22	18	24	15	21	296
	I. Zymotic Diseases	6	4	5	7	4	4	4	3	2	2	1	1	1	44
	II.—Constitutional Diseases	6	7	7	5	5	1	6	7	6	3	4	3	6	66
	III.—Local Diseases	13	10	11	6	12	5	14	10	7	11	16	8	7	130
	IV.—Developmental Diseases	..	4	1	3	1	4	4	6	7	2	2	2	5	41
	V.—Violent Deaths	3	1	2	1	..	1	3	..	..	..	1	1	2	15
Cleveland, Claughton, Grange, and Argyle Wards.	All Causes	24	17	22	19	16	8	21	15	11	12	14	12	16	207
	Specified Causes	24	17	21	17	16	8	21	14	11	12	14	12	15	202
	I.—Zymotic Diseases	5	2	4	6	4	3	3	2	..	2	1	1		33
	II – Constitutional Diseases	6	5	6	5	3	..	4	2	3	1	2	3	3	43
	III.—Local Diseases	10	8	9	5	8	4	10	8	3	8	9	7	5	94
	IV.—Developmental Diseases	..	1	..	1	1	..	3	2	5	1	1	1	5	21
	V.—Violent Deaths	3	1	2	..	..	1	1	..	..	..	1	..	2	11
Oxton, Egerton, Clifton, and Mersey Wards.	All Causes	4	7	5	6	5	6	7	9	8	6	10	2	6	81
	Specified Causes	4	7	5	5	5	6	7	9	8	6	10	1	6	79
	I.—Zymotic Diseases	1	1	1	1	..	1	1	1	2	..	..	..	1	10
	II —Constitutional Diseases	..	2	1	..	2	..	1	4	2	2	2	..	3	19
	III.—Local Diseases	3	1	2	1	3	1	3	2	3	3	7	1	2	32
	IV.—Developmental Diseases	..	3	1	2	..	4	..	2	1	1	1	..	..	15
	V.—Violent Deaths	..	..	..	1	..	..	2	..	..	..	..	..	..	3
Bebington Ward.	All Causes	..	..	..	..	..	1	1	1	..	..	..	..	..	3
	Specified Causes	..	..	..	..	..	1	1	1	..	..	..	..	..	3
	I.—Zymotic Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	....
	II.—Constitutional Diseases	..	..	..	..	..	1	1	1	..	..	..	..	..	3
	III.—Local Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	....
	IV.—Developmental Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	....
	V.—Violent Deaths	..	..	..	..	..	..	..	..	..	..	..	..	..	....
Union Hospital.	All Causes	..	2	..	..	1	..	2	2	3	..	..	2	..	12
	Specified Causes	..	2	..	..	1	..	2	2	3	..	..	2	..	12
	I.—Zymotic Diseases	..	1	..	..	..	..	..	..	..	..	..	..	..	1
	II.—Constitutional Diseases	..	..	..	..	..	..	..	..	1	..	..	..	..	1
	III.—Local Diseases	..	1	..	..	1	..	1	..	1	..	..	..	..	4
	IV.—Developmental Diseases	..	..	..	..	..	..	1	2	1	..	..	1	..	5
	V.—Violent Deaths	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Meteorological Results.	Percentage of time Wind blew from S., S.W., W., and N.W.	89·8	92·2	92·8	94·6	91·6	97·0	86·3	55·9	33·3	51·7	66·6	44·6	50·0	72·8
	Mean Hourly Horizontal Motion of the Air in Miles	17·0	13·5	13·1	19·1	17·8	21·8	17·1	17·5	13·3	8·8	8·9	15·1	11·5	14·9
	Average Percentage of Cloud to Clear Sky	71·4	40·0	77·1	77·1	67·1	91·4	80·0	90·0	72·8	78·5	70·0	78·5	48·5	72·4
	Rainfall in Inches	·774	·003	·438	·744	·721	1·130	·658	1·420	1·050	·018	·158	·852	·585	8·551
	Rainfall as to Hours	8·9	0·8	14·5	11·9	4·2	20·4	12·3	23·8	13·4	0·7	4·7	13·8	9·0	138·4
	Thermometer Means	61·3	63·0	60·1	57·9	61·4	56·8	56·4	55·2	53·9	55·2	54·3	56·8	54·3	57·4
	Mean of Evaporation	56·9	57·6	55·7	53·5	56·5	53·7	53·1	52·3	50·9	52·2	51·4	53·9	51·4	53·7
	Barometer Means, reduced to Sea Level, and to 32° Fahrenheit	29·978	30·119	29·929	29·808	29·937	29·760	29·632	29·610	30·096	29·803	30·083	29·752	30·213	29·901

	CAUSES OF DEATH.	40	41	42	43	44	45	46	47	48	49	50	51	52	4th Qr.	YEAR.
Borough of Birkenhead.	All Causes	25	23	21	17	30	29	31	29	28	25	21	35	36	350	1462
	Specified Causes	23	23	21	17	30	29	31	29	28	25	21	35	34	346	1440
	I. Zymotic Diseases	6	5	5	2	1	4	2	5	5	3	1	5	5	49	231
	II.—Constitutional Diseases	4	4	3	1	5	2	2	2	4	3	2	5	3	40	236
	III.—Local Diseases	9	14	6	10	17	15	17	16	13	12	12	14	19	174	679
	IV.—Developmental Diseases	4	..	5	2	6	7	7	5	5	7	5	9	5	67	221
	V.—Violent Deaths	..	..	2	2	1	1	3	1	1	..	1	2	2	16	73
Cleveland, Claughton, Grange, and Argyle Wards.	All Causes	20	19	16	14	18	24	15	19	19	16	13	27	25	245	985
	Specified Causes	19	19	16	14	18	24	15	19	19	16	13	27	24	243	968
	I.—Zymotic Diseases	5	4	4	2	..	4	..	3	3	2	..	4	4	35	150
	II – Constitutional Diseases	2	2	3	1	2	2	1	2	4	1	1	5	3	29	156
	III.—Local Diseases	8	13	4	8	12	12	10	11	9	9	7	11	15	129	476
	IV.—Developmental Diseases	4	..	4	2	3	5	3	2	2	4	4	5	2	40	133
	V.—Violent Deaths	..	..	1	1	1	1	1	1	1	..	1	2	..	10	53
Oxton, Egerton, Clifton, and Mersey Wards.	All Causes	5	4	3	1	6	3	12	10	6	6	8	4	8	76	357
	Specified Causes	4	4	3	1	6	3	12	10	6	6	8	4	7	74	352
	I.—Zymotic Diseases	1	1	1	..	1	..	2	2	1	..	1	..	..	10	60
	II —Constitutional Diseases	2	2	..	..	1	..	1	..	..	1	1	..	..	8	65
	III.—Local Diseases	1	1	..	1	3	2	3	5	3	3	5	2	3	32	150
	IV.—Developmental Diseases	..	..	1	..	1	1	4	3	2	2	1	2	2	19	60
	V.—Violent Deaths	..	..	1	..	..	..	2	..	..	..	..	..	2	5	17
Bebington Ward.	All Causes	..	..	..	..	..	..	..	..	1	1	..	1	..	3	24
	Specified Causes	..	..	..	..	..	..	..	..	1	1	..	1	..	3	24
	I.—Zymotic Diseases	..	..	..	..	..	..	..	..	1	..	..	1	..	2	3
	II.—Constitutional Diseases	..	..	..	..	..	..	..	..	..	1	..	..	..	1	7
	III.—Local Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	....	10
	IV.—Developmental Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	....	3
	V.—Violent Deaths	..	..	..	..	..	..	..	..	..	..	..	..	..	....	1
Union Hospital.	All Causes	..	..	2	2	6	2	4	..	2	2	..	3	3	26	96
	Specified Causes	..	..	2	2	6	2	4	..	2	2	..	3	3	26	96
	I.—Zymotic Diseases	..	..	..	..	..	..	..	..	..	1	..	..	1	2	18
	II.—Constitutional Diseases	..	..	..	..	2	..	..	..	..	..	..	..	..	2	8
	III.—Local Diseases	..	..	2	1	2	1	4	..	1	..	..	1	1	13	43
	IV.—Developmental Diseases	..	..	..	..	2	1	..	..	1	1	..	2	1	8	25
	V.—Violent Deaths	..	..	..	1	..	..	..	..	..	..	..	..	..	1	2
Meteorological Results.	Percentage of time Wind blew from S., S.W., W., and N.W.	11·3	93·4	5·3	4·7	25·0	52·9	69·6	74·4	60·1	73·2	35·1	63·0	70·2	49·0	56·1
	Mean Hourly Horizontal Motion of the Air in Miles	10·7	34·7	22·6	16·7	19·0	17·7	21·7	23·1	25·4	14·6	17·4	*	*	20·3	16·8
	Average Percentage of Cloud to Clear Sky	58·5	78·5	47·1	81·4	77·1	64·2	72·8	51·4	60·0	55·7	84·2	51·4	60·0	64·7	66·1
	Rainfall in Inches	·310	1·612	1·048	·029	·500	·159	·499	·749	·710	·174	1·281	1·088	·107	8·266	30·648
	Rainfall as to Hours	8·4	21·9	15·1	1·5	10·3	2·8	11·9	18·0	9·6	4·4	24·6	21·3	3·8	153·6	609·3
	Thermometer Means	50·1	49·1	45·2	42·5	43·0	52·2	50·5	46·9	46·1	40·5	36·1	37·5	42·9	44·8	47·7
	Mean of Evaporation	46·7	46·5	42·5	40·3	41·0	50·2	47·7	44·5	44·1	38·9	35·2	35·7	41·2	42·6	44·7
	Barometer Means, reduced to Sea Level, and to 32° Fahrenheit	30·286	29·665	29·981	30·011	29·895	30·053	29·986	29·578	29·634	29·848	29·823	29·609	30·194	29·894	29·908

*Instrument under repair.

The Meteorological Results are for the 52 Weeks ending December 31st, 1881.

TABLE IV.

STREET REGISTER OF DEATHS.

A.—Cleveland, Claughton, Grange, and Argyle Wards.

Streets.	Total from all Causes.	From Zymotic Diseases only.	Streets.	Total from all Causes.	From Zymotic Diseases only.
Abbey Street	1	0	Ivy Bank	2	0
Abbot Street	4	1	Camden Street	3	2
Adelphi Street	2	0	Camperdown Street	2	1
Albion Street	5	0	Canning Street	3	0
Albert Terrace	5	0	Cannon Hill	1	0
Castle Buildings	3	0	Cardigan Street	1	0
Hamilton Terrace	1	1	Carlyle Street	4	1
Wilbraham Terrace	2	0	Cathcart Street	13	6
Alexandra Road	3	0	Cavendish Street	1	1
Alfred Road	2	1	Chapel Street	2	1
Argyle Street	3	0	Chester Street	12	0
Arthur Street	1	0	Carpenter's Row	1	0
Ashville Road	1	0	Chester Place	1	0
At Sea	1	0	Eaton Place	1	0
Atherton Street	1	0	Mersey Place	1	1
Austin Street	3	0	Windsor Place	1	0
Back Beckwith Street	4	0	Christchurch Road	1	0
No. 2 Terrace	2	2	Church Street	5	2
Back Camden Street	0	0	Clarendon Street	3	1
Campbell Terrace	1	1	Claughton Firs	1	0
Back Oliver Street	1	1	Claughton Road	8	0
Back Price Street	3	2	Clayton Street	2	0
Back St. Anne Street	5	2	Cleveland Street	12	3
Back Willaston Place	1	1	Cleveland Avenue	3	1
Barton Street	3	0	Russell Place	1	0
Beaufort Road	2	0	Clifton Crescent	5	0
Beckwith Street	27	5	Coburg Street	2	0
Byrom Place	1	1	Collingwood Street	3	1
Church Terrace	1	0	Conway Street	5	0
Bedford Street	1	1	Cook Street	5	1
Bentinck Street	4	0	Corporation Road	1	0
Berry Street	4	1	Cottage Street	5	0
Bertha Street	2	0	Cromwell Street	0	0
Blackpool Street	4	0	Taylor's Buildings	4	0
Cambridge Place	3	2	Cross Street	3	1
Ruabon Street	1	1	Crown Street	3	2
Ruthin Street	1	0	Dacre Street	7	2
Wrexham Street	1	1	Davies Street	3	0
Borough Hospital	34	2	Devonshire Place	3	0
Borough Road	12	3	Devonshire Road	3	0
Boundary Road	2	0	Dock Cottages	22	1
Brassey Street	3	0	Dover Street	3	0
Bridge Street	8	1	Duke Street	2	0
Bridge End Terrace	1	0	Duncan Street	1	0
Bright Street	3	0	Eaton Road	1	0
Brook Place	3	0	Edgar Street	2	1
Brook Street	36	2	*Egerton Dock*	3	0
Brook Square	1	1	Egerton Street	9	0

TABLE IV.—*Continued.*

Streets.	Total from all Causes.	From Zymotic Diseases only.	Streets.	Total from all Causes.	From Zymotic Diseases only.
Connor's Court	1	0	Abbey Terrace	1	0
Evan's Place	1	0	Laird Street	1	0
Eldon Place	3	0	Leicester Street	2	0
Eldon Street	2	2	Leicester Terrace	1	0
Elgin Street	6	1	Leinster Street	1	1
Elizabeth Place	1	0	Lingdale Road	1	0
Elizabeth Street	6	1	Livingstone Street	1	0
Back Elizabeth Street	1	0	Lord Street	2	0
Elm Street	1	0	Lorne Street	4	2
Enfield Terrace	1	1	Lowther Street	7	3
Euston Grove	1	0	*Lying-in Hospital*	4	0
Exmouth Street	2	0	Maddock Street	3	0
Fever Hospital	10	9	Manor Hill	1	0
Field Street	8	0	Marion Street	1	0
Flamank Street	11	0	Market Street	15	2
Flint Street	1	0	Market Place	1	0
Fore Street	4	0	Marshall Street	1	1
Fox Street	2	1	Meacock Street	2	1
Frederick Street	4	1	Menai Street	4	0
Garnet Street	2	1	Midland Street	6	0
George Street	3	0	Mona Street	2	0
Gillbrook	1	0	Rimmer's Court	2	0
Gladstone Street	4	1	Moon Street	2	0
Glover Street	1	0	Mornington Street	5	3
Gomer Street	3	0	*Morpeth Dock*	3	9
Gore Street	1	0	Mount Grove	2	0
Grafton Street	1	0	Myrtle Street	2	0
Grange Lane	9	0	Napier Street	2	0
Grange Road	3	0	Nelson Street	3	0
Grange Street	1	0	Neptune Street	3	0
Graving Dock	2	0	Oak Street	4	0
Great Float	2	0	Old Bidston Road	7	1
Greenfield Street	2	0	Cumberland Place	3	1
Grosvenor Place	1	0	Old Priory	1	0
Grosvenor Road	2	0	Oliver Lane	1	0
Halkin Street	2	0	Oliver Place	1	0
Hamilton Lane	0	0	Oliver Street	13	0
Hamilton View	1	0	Chapel Place	2	0
Hamilton Square	3	0	Oxton Road	8	1
Hamilton Street	3	1	Belmont	1	0
Hampton Street	4	0	Palm Grove	1	0
Havelock Street	1	0	Palm Hill	1	1
Hemingford Street	1	0	Park Road South	1	1
Henry Street	4	0	Park Road West	3	0
Hilton Street	1	0	Park Street	7	1
Hinson Street	1	0	Mason's Court	2	0
Hope Street	8	2	Parkfield	1	0
Howard Street	1	1	*Hemingford Lodge*	17	2
Huskisson Street	1	0	Parkfield Avenue	1	0
Ivy Street	8	1	Patten Street	2	0
Jackson Street	8	1	Pilgrim Street	1	1
King's Mount	4	1	Pleasant Street	5	2
Kinmel Street	1	0	Pool Street	1	0
Knox Street	0	0	Price Street	19	1

TABLE IV.—*Continued.*

Streets.	Total from all Causes.	From Zymotic Diseases only.	Streets.	Total from all Causes.	From Zymotic Diseases only.
German Terrace	1	0	Tranmere Vale.....	6	0
Myrtle Place.....	4	1	Tranmere Vale Terrace	2	0
Prince's Square	2	1	Tunnel Road	1	0
Prince's Street.....	3	0	Godfrey's Terrace ..	3	1
Prince's Terrace	1	0	Matthews' Court	2	0
Priory Street	3	0	Upper Beckwith Street	4	0
Pym Street	2	0	Eagle Court	3	0
Quarry Bank Place...	3	1	Upton Road	1	0
Queensbury Street	3	0	Vicker Street	2	1
Railway Station	1	0	Vincent Street	1	0
Reedville	1	1	Vine Street	5	0
Rhyl Street	3	0	*Victoria Wharf*	1	0
Roberts Street.....	1	0	Vittoria Street	2	1
Rose Street	3	1	Vulcan Street	6	1
Rowland Street	2	0	*Wallasey Dock*.....	1	0
Russell Street	1	0	Walton Street	1	0
St. Anne Street	24	5	Warwick Street	8	0
St. Anne's Terrace..	2	0	Waterloo Place.....	2	1
St. John Street	0	0	Rushton's Court	3	0
St. John's Place	3	1	Watson Street	9	2
St. Mary's Avenue	2	0	Byrom Street	4	1
St. Mary's Gate	2	0	Oakfield View	2	1
Priory Court.....	1	0	Orderly Residence ..	1	0
Salisbury Street	1	0	*West Float*	1	0
Samuel Street	2	0	Westbourne Road	3	0
Shore Road	1	0	Whetstone Lane	2	0
Shrewsbury Road	1	0	Whetstone View	2	1
Sidney Street	3	1	White Street.....	6	1
Slatey Road	1	0	Wilbraham Street.....	2	0
Somerville Street.....	3	0	Wilkinson street	4	0
Shaw's Terrace.....	2	0	Willaston Place	1	0
Stanley Road	2	2	William Street.....	6	1
Stanley Court	2	0	Wilson Street	5	0
Sun Street	8	2	Wilton Street.....	2	0
Taylor Street	4	2	Windsor Street.....	3	1
Tetbury Street..	0	0	*Wirral Hospital*	14	4
Richmond Cottages..	1	0	Wood Street.....	9	0
Thomas Street.....	12	1	Morpeth Buildings ..	4	2
Tollemache Road.....	1	0	Woodchurch Road	1	0

TABLE IV.—*Continued,*

B.—Oxton, Egerton, Mersey, and Clifton Wards.

Streets.	Total from all Causes.	From Zymotic Diseases only	Streets.	Total from all Causes.	From Zymotic Diseases only.
Albert Place	3	1	Holt Hill	2	0
Alison Street	1	0	Holt Road	1	0
Allerton Grove	1	0	Houldin's Place	2	0
Allerton Road	1	0	Howson Street	2	0
Argyle Street South	3	0	Hughes' Lane	1	0
Back Pitt Street	1	0	Kellett's Place	1	0
Back Portland Street	1	0	Kingsland Road	2	0
Barton's Buildings	1	1	Lee's Place	1	0
Beaconsfield Road	5	0	Lilley Street	1	0
Bebington Road	1	0	Lingdale, Oxton	1	0
Bedford Place	1	0	Liverpool Buildings	1	0
Bedford Road	5	1	Liversidge Road	1	0
Beech Road	3	1	Livingstone Road	3	1
Beresford Road, Oxton	3	0	Lorne Road	1	0
Birkenhead Buildings	2	0	Lowwood Road	1	0
Blucher Street	2	0	Lunar Street	3	0
Booth Street	1	1	Marsden Villas	1	0
Borough Road	8	0	Meadow Lane	5	2
Brougham Street	5	2	Medway Road	3	0
Brunswick Street	2	0	Mersey Road	1	0
Buxton Road	5	0	Meteor Street	2	0
Carlton Road	1	0	Mill Street	4	0
Chapel Place	1	1	Milton Road	2	0
Chapel Street	2	0	Mount Pleasant, Oxton	1	0
Charlescombe Street	1	1	Moss Grove	1	0
Chatham Road	2	0	Newburn'sCott'ges, Oxtn	1	1
Chesnut Grove	1	0	New Chester Road	11	0
Church Road	5	0	Oaktree Place	2	0
Clare Street	1	0	Old Chester Road	10	1
Claughton Firs, Oxton	3	0	Olive Crescent	1	0
Clifton Road	3	0	Olive Mount, Oxton	1	0
Clyde Street	2	0	*Oxton*	1	0
Cobden Street	6	0	Palm Grove, Oxton	1	0
Combermere Terrace	1	0	Parr's Road	1	1
Comet Street	1	0	Peel Street	15	6
Dee Street	2	0	Pitt Street	4	0
Dial Road	1	1	Planet Street	1	0
Dingle Road	3	0	Poplar Road	4	0
Earl Street	2	1	Prenton Lane	3	0
Egerton Park	3	0	Prince's Place	4	1
Fairfield Road	2	0	Queen Street	2	2
Fair View	1	0	Queen's Buildings	4	2
Fairview Road, Oxton	2	0	Queen's Court	1	0
Foundry Street	1	0	Queen's Place	3	1
Frodsham Street	4	0	Randle Street	4	2
Green Lane	2	1	Rich View, Oxton	1	0
Green Lawn	1	1	Ripon Street	1	0
Grosvenor Street	3	0	Rockville Street	1	0
The Grove, Oxton	1	1	Rodney Street	6	2
Grove Road	2	0	Rose Mount, Oxton	4	0
Helmingham Road	1	1	Rose Cottages	1	1
Hollybank Road	1	0	Russell Court	1	1

TABLE IV.—*Continued.*

Streets.	Total from all Causes.	From Zymotic Diseases only.	Streets.	Total from all Causes.	From Zymotic Diseases only.
Russell Place	1	1	Tower Hill	1	0
Russell Road.....	10	2	*Tranmere*	1	0
St. Paul's Place	2	0	Tudor Road	2	0
St. Paul's Road	5	0	Union Street.....	1	1
Salem View	1	1	Victoria Mount	2	0
Seabank Cottages.....	4	1	Victoria Road	10	1
Seton Road	1	0	Village Road, Oxton ..	1	1
Seymour Street	2	1	Walker Street	2	1
Shrewsbury Road, Oxton	3	3	Well Cottage, Oxton ..	1	0
Sidney Terrace	2	0	Well Lane.....	6	0
Sidney Road.....	1	0	Wellington Terrace....	1	0
South Bank, Oxton	1	0	Wesley Street	1	0
South Road	1	0	Westbury Street	1	0
Spring Villas, Oxton ..	2	0	West View	2	1
Spring Street	2	0	Whitford Road.....	3	1
Stanley Street	2	0	Whitfield Street	2	0
Stanley Terrace	1	1	Whetstone Lane	6	1
Star Street	2	1	Willey Street	1	0
Stewart's Delf	1	0	Willow Bank Road	1	0
Stewart's Place	2	0	Woodchurch Lane	1	0
Stewart's Road.....	2	0	Woodchurch Rd., Oxton	2	1
Storeton Road, Oxton..	2	0	The Woodlands	1	0
Taylor's Delf	2	0	Woodland Terrace	1	0
Thompson Street.....	1	0	Wye Street	4	2

C.—Bebington Ward.

Streets.	Total from all Causes.	From Zymotic Diseases only.	Streets.	Total from all Causes.	From Zymotic Diseases only.
Dacre Hill.....	2	0	Rock Park	3	1
Highfield North	2	0	Wilton Road.....	1	0
Highfield Road.....	1	1	Wilton Terrace	1	0
Nelson Road.....	1	0	Woodlands	1	0
Queen's Road	1	0	Woodlands Park	1	0
Ravenswood	1	0	Woodlands Terrace	1	0
Rock Ferry	8	1			

SUPPLEMENT TO TABLE IV.

RETURN of DEATHS in Birkenhead Union Hospital and Workhouse Registered during 1881.

Date	Sex.	Age.	Occupation, &c.	Cause of Death.	Date and Address of Deceased when Admitted.	
Jan.						
3	M.	66	Labourer	General paralysis	Unknown	June, '66
5	M.	3 m	Servant's son	Convulsions	Born in Wk'house	
7	F.	80	Stonemason's wid..	Senility	9, Field-street ..	13 Oct., '79
15	M.	69	Labourer	Bronchitis.....	No address	10 Jan., '81
22	F.	80	Plasterer's widow..	Senility	39, Old Bidston-rd	29 Oct., '79
23	M.	83	Shipwright	Senile pneumonia	Albert-place, Tranmere	26 July, '80
28	F.	77	Nurse.....	Senility.....	8, William-street, Seacombe	12 Mar., '79
29	M.	67	Labourer	Senile pneumonia	6, Castle-b'ldings, Birkenhead ..	6 Sep., '79
29	F.	16	Domestic servant..	Pneumonia	Union schools ..	28 Jan., '81
Feb.						
2	F.	71	Shipwright's widow	Dropsy	400, Price-street.	18 May, '75
2	F.	70	Labourer's widow..	Senility.....	Dock Cottages ..	7 Sep., '76
2	M.	52	Labourer	Pneumonia	97, St. Ann-st. ..	1 Feb.. '81
3	F.	60	Stonemason's wid..	Dropsy	44, Egerton-st. ..	27 Jan., '81
7	M.	31	Shoemaker	Pneumonia	Tramp sheds....	31 Jan., '81
7	M.	1 d.	Servant's son	Premature birth..	Born in W'khouse	6 Feb., '81
11	M.	44	Labourer	Capillary bronchitis	5, Oak-street....	9 Feb., '81
12	F.	45	Painter's widow ..	Cerebral softening	12, Myrtle-place, Price-street ..	6 Nov., '79
17	M.	76	Labourer	Senility.....	Not known.....	10 Apl., '67
19	F.	1	Labourer's d'ghter..	Marasmus.....	47, Thomas-st. ..	7 Dec., '80
19	M.	63	Labourer	Cirrhosis	5, Meacock-st. ..	27 Jan., '81
22	F.	40	Painter's widow ..	Chronic bronchitis	5, Back Church-st., Egremont..	6 Jan., '81
24	M.	1	Charwoman's son..	Measles	3, Oak-street....	16 July, '80
24	M.	1	Labourer's son....	Measles	6, Walton-street..	15 Oct., '79
26	M.	1	Charwoman's son..	Measles.....	7, Meacock-st ..	25 Jan., '81
Mar.						
2	M.	1	Seamstress's son ..	Measles	Born in W'khouse	1 Jan., '80
4	F.	73	Shoemaker's widow	Senility.....	27, Old Chester-road	8 Sep. '77
4	F.	82	Shipwright's widow	Senile bronchitis.	8, Derby-street, Tranmere	18 May, '80
4	M.	1	No occupation	Measles.....	High Seacombe..	10 Nov., '79
4	M.	1	Bricklayer's son ..	Measles	Queen-st., Tranmere	17 Aug., '80
4	M.	16m	Labourer's son....	Measles.....	9, Herbert-place..	21 Jan., '81
7	F.	23m	Fireman's daughter	Measles.....	29, Queensbury-st	2 Dec., '79
7	M.	72	Sawyer	Gastritis	No address	11 Dec., '69
8	F.	1	Charwoman's d'hter	Measles.....	Born in W'khouse.	4 June, '79
11	F.	81	Locksmith's widow.	Senile decay....	35, Egerton-st. ..	23 Oct., '80
12	M.	6 m	Servant's son	Measles.....	97, Old Chester-rd	18 Feb., '81
13	M.	67	Coach-spring maker	Ulcer.....	20, Jackson-st. ..	16 Nov., '77

SUPPLEMENT TO TABLE IV.—*continued.*

ate.	Sex.	Age.	Occupation, &c.	Cause of Death.	Date and Address of Deceased when Admitted.	
17	F.	53	Blacksmith's wife..	Ileus	2, West-view, New Chester - road, Tranmere	15 May, '81
17	M.	5	Fireman's son	Measles.....	Queen's-buildings, Tranmere	4 Feb., '79
18	M.	77	Labourer	Senile decay	18, Abbey-street..	8 Nov., '77
20	M.	80	Ropemaker	Senility	Green-lane, Tranmere	17 Jan., '81
20	M.	59	Labourer	Heart disease ..	12, Minstral-st...	19 Oct., '80
24	M.	6	Unknown	Tuberculosis....	Union schools ..	10 Jan., '81
30	F.	76	Charwoman	Cancer	23, Albion-street..	15 Jan., '72
Apl. 1	F.	2 m	Charwoman's d'hter	Convulsions	Born in W'khouse	10 Jan., '81
5	M.	54	Labourer	Ulceration of knee joint....	29, Windsor-st...	3 Mar., '81
19	F.	38	Labourer's wife ..	Embolism	2, Castle-buildings	6 Apr., '81
23	M.	60	Cab driver.....	Tuberculosis....	20 Watson-st. ..	8 Feb., '81
24	F.	45	Bricklayer's widow..	Delirium tremens	5 Tranmere Vale-terrace	21 Apl., '81
24	M.	56	Seaman.....	Heart disease ..	258, Conway-st...	14 Apl., '81
28	M.	70	Labourer	Erysipelas	22, Earle-st, Tranmere	28 Mar., '81
28	M.	46	Labourer	Paralysis syphilis	126, Market-st ..	14 July, '80
May 9	F.	68	Shoemaker's widow	Senility.....	William-street ..	22 Jan., '74
12	M.	64	Joiner	Bronchitis	No address (daughter at Hoylake)	4 May, '81
12	F.	3	Shopman's d'ghter..	Measles	Removed from Kidderminster, lived at New Brighton in May, 1879....	11 Feb., '81
20	M.	28	Tailor	Cerebral disease..	Tramp sheds....	28 July, 80
Jun. 3	M.	60	Watchmaker.....	Hemiplegia	Abbotsford-street, Seacombe	19 Apl., '81
9	F.	65	Charwoman	Hemiplegia	127, Oliver-st. ..	8 Aug., '77
16	M.	32	Bookkeeper	Cardiac insufficiency	111, Oliver-st. ..	20 May, '81
July 7	F.	29	Charwoman	Disease of heart..	17, Nelson-st....	28 June, '81
12	M.	59	Bricklayer	Erysipelas.....	"Birkenhead," no address	25 May, '81
30	M.	28	Labourer	Cardiac dropsy..	18, Byrom-place..	28 July, '81
Aug. 15	M.	53	Labourer	Heart disease ..	20, Egerton-st...	1 Jan., '81
17	F.	53	Labourer's widow ..	Debility.....	Magazines, New Brighton	22 Sep., '79
21	M.	60	Painter	Debility.....	271 Cleveland-st.	23 July, '81
24	M.	77	Cab driver	Senility	Grange Lane....	8 Dec., '74
25	M.	83	Cabinetmaker	Senile grangrene.	St. John's-place...	11 Aug., '81
25	F.	40	Labourer's wife ..	Cardiac	No address	9 July, '81
31	M.	64	Blacksmith	Senility	87 Claughton-rd.	5 Mar., '78

SUPPLEMENT TO TABLE IV.—*continued.*

Date.	Sex.	Age.	Occupation, &c.	Cause of Death.	Date and Address of Deceased when Admitted.	
Sep.						
18	M.	66	Labourer	Senile decay....	Matthew's - place Old Chester-rd.	24 Feb., '79
24	M.	15 d	Servant's son	Found dead in bed	9 Hughes's-buildings	20 Aug., '81
Oct.						
16	M.	60	Seaman.....	Pneumonia	S.S. "City of Manchester"..	14 Oct., '81
18	M.	64	Seaman.....	Paralysis	Priory-street	25 Apr., '78
22	M.	50	Labourer	Pneumonia	Egerton-street ..	21 Oct., '81
22	M.	67	Labourer	Accidentally killed by blow on head.....	Tramp Sheds ..	16 Mar., '81
27	F.	5	Labourer's daughter	Tuberculosis....	Claughton	20 June, '81
28	M.	77	Farmer	Senile decay....	Egremont	27 Oct., '81
28	F.	61	Seaman's widow ..	Old age, apoplexy	165 Albion-street.	17 Oct., '81
30	M.	52	Hospital Nurse ..	Cardiac disease...	An Officer of the Union.....	
31	M.	63	Labourer	Phthisis.....	Cocoa Rooms, Chester-street..	22 Oct., '81
Nov.						
2	F.	78	Coachman's widow.	Senility	58 Watson-street.	28 July, '79
9	M.	75	Labourer	Senility	Connor's court, Egerton-street.	11 Sep., '78
9	M.	74	Labourer	Senile bronchitis.	Back St. Ann-st..	13 Sep., '80
10	F.	39	Rigger's widow....	Bronchitis.....	47 Thomas-street.	26 Oct., '81
14	F.	62	Labourer's widow..	Dropsy, cirrhosis.	12 Bebington-rd., Tranmere	22 July, '81
14	M.	37	Labourer	Gastric ulcer....	2 Bridge-end-ter..	13 Oct., '81
16	F.	57	Groom's widow....	General paralysis	Collingwood-st...	21 Aug., '80
28	F.	75	Labourer's widow..	Senile decay ..	81 Arthur-street..	19 Nov., '80
28	F.	60	Labourer's wife ..	Ulcerated legs ..	Cathcart-street..	9 Apr., '81
Dec.						
7	M.	66	Labourer	Senile dementia..	Egerton-street ..	8 May, '80
8	M.	35	Printer	Syphilitic ulceration	30 Oliver-street...	14 Nov., '81
15	F.	42	Labourer's wife ..	Cirrhosis, dropsy.	105 Albion-st. ..	19 Oct., '81
16	F.	10m	Servant's daughter.	Premature birth..	Born in W'house.	16 Dec., '81
17	F.	65	Flour de'ler's widow	Senile decay....	39 Thomas-street.	5 June '80
25	M.	5 m	Unknown	Marasmus.....	Found in Albion-st	27 Aug., '81
27	M.	8 m	Commission agent's son	Capillary bronchitis	Thomas-street ..	19 Nov., '81
28	M.	40	Painter	Typhoid fever ..	Meacock-street ..	5 Dec., '81

TABLE V.

Lunar Monthly Table of Deaths from all Causes and Zymotic Diseases, with the Rates per 1,000 per annum.

1881.	No. of Deaths from all Causes.	Annual Rate per 1,000 Living.	No. of Deaths from Zymotic Diseases	Annual Rate per 1,000 Living.
1st Month ending Jan. 28th.....	123	18.94	27	4.15
2nd ,, ,, Feb. 25th.....	141	21.71	15	2.31
3rd ,, ,, March 25th....	149	22.95	28	4·31
4th ,, ,, April 22nd	139	21.41	20	3·08
5th ,, ,, May 20th.....	118	18.17	24	3·69
6th ,, ,, June 17th	94	14.47	17	2 61
7th ,, ,, July 15th.....	99	15.24	17	2·61
8th ,, ,, Aug. 12th	89	13.70	20	3·08
9th ,, ,, Sept. 9th.....	98	15.09	11	1·69
10th ,, ,, Oct. 7th	87	13.40	9	1·38
11th ,, ,, Nov. 4th	91	14.01	13	2·00
12th ,, ,, Dec. 2nd	117	18.02	16	2.46
13th ,, (+ one day) ending December 31st	117	18.02	14	2.15
Year.....	1462	17.32	231	2.73

TABLE VI.

Description of those who Died during 1881.

Occupation, &c.	M.	F.	Son.	Daughter.	Wife.	Widow.
Accountant	1	..	2	1	2	..
Agent	4	..	5	4	2	1
Annuitant	..	3	..	..	..	..
Apprentice	6	..	..	2	..	..
Architect	2	..	2	..	..	..
Army officer	..	..	1	..	..	1
Artist	1	..	..	..	..	..
Baker	..	..	3	6	1	1
Banker	..	..	..	1	..	..
Barman	2	..	2	..	..	..
Basketmaker	1	..	..	..	..	..
Blacksmith	8	..	4	2	5	..
Blockmaker	..	..	1	..	..	..
Boatman	..	..	4	2	1	..
Boilermaker	11	..	14	14	3	..
Bookbinder	1	..	..	..	..	..
Bookkeeper	14	..	6	4	4	4
Bookseller	..	..	..	..	..	..
Bottler	..	..	1	..	..	..
Brassfinisher	1	..	..	..	..	..
Brewer	..	..	..	..	2	1
Bricklayer	5	..	6	1	2	1
Bridewell keeper	..	..	..	..	1	..
Broker	6	..	3	4	1	..
Builder	2	..	..	..	2	5
'Bus driver	1	..	1	..	..	..
Butcher	10	..	5	2	3	..
Cabinetmaker	3	..	1	..	..	..
Caulker	..	..	..	..	1	..
Car driver	3	..	1	..	3	..
Car proprietor	1	..	1	1	..	..
Carter	6	..	7	4	1	..
Cart Owner	1	..	1	1	..	..
Carver	1	..	..	..	..	..
Cashier	3	..	1	1	1	..
Charwoman	..	3	3	3	..	..
Chemist	1	..	..	..	..	..
Chimney sweeper	..	..	..	..	1	..
Civil engineer	..	..	1	..	..	2
Clergyman	3	..	..	3	..	1
Clerk	6	..	3	3	..	2
Coachbuilder	1	..	..	..	..	1
Coachman	3	..	8	3	1	4
Coachsmith	..	..	..	1	..	..
Coal merchant	2	..	..	1	3	..
Colliery proprietor	..	..	1	..	..	..
Confectioner	1	..	..	..	1	..
Contractor	1	..	..	..	..	..
Cooper	1	..	..	1	..	..
Cotton spinner	1	..	..	..	..	..
Customs' officer	1	..	..	..	1	..

TABLE VI.—*Continued.*

Occupation, &c.	M	F	Son.	Daughter.	Wife.	Widow.
Dairyman	1	..	..	..	..	..
Dockgateman	1	..	1	..	..	..
Domestic servant	1	12	15	6	..	..
Draper	1	..	..	2	..	1
Draughtsman	..	..	..	1	1	..
Driller	.	..	3	2	1	..
Dyer	..	..	..	..	1	..
Engine driver	1	..	2	7	3	..
Engine fitter	5	..	7	9	1	1
Engineer	1	..	5	5	..	..
Errand boy	2	..	..	..	..	..
Farmer	3	..	1	3	3	5
Farrier	..	..	1	1	..	..
Ferry collector	2	..	..	..	..	..
File cutter	..	..	1	..	1	..
Fireman	3	..	3	4	..	..
Fisherman	..	..	..	..	2	..
Fishmonger	..	..	..	..	1	..
Flatmaster	2	..	3	1	..	..
Foreman	2	..	..	..	..	..
French polisher	..	..	1	2	2	..
Furnaceman	..	..	..	1	..	..
Gardener	7	..	5	3	1	4
Gasfitter	1	..	2	2	..	..
Gentleman	10	..	1	2	2	6
Glass blower	..	..	..	..	1	..
Glass cutter	..	..	1	1	..	..
Glass stainer	..	..	1	..	..	..
Glazier	..	..	..	1	..	..
Governess	..	1	..	..	..	..
Greengrocer	1	..	..	1	1	..
Grocer	2	..	2	2	1	2
Groom	..	..	..	2	..	1
Gunner	..	..	..	..	1	..
Gunmaker	1	..	..	..	..	..
Hairdresser	1	..	..	..	1	..
Hatter	1	..	..	..	..	..
Hawker	2	..	..	2	..	1
Horsekeeper	1	..	1	..	1	..
Hotelkeeper	1	..	..	..	..	..
Home proprietor	1	..	1	1	1	..
Iron grinder	1	..	..	..	..	..
Iron moulder	..	..	..	1	1	1
Iron turner	..	..	2	3	2	..
Joiner	18	..	15	8	5	2
Labourer	103	..	87	85	38	24
Lamplighter	..	..	..	..	1	..
Laundress	..	1	..	..	..	..
Leather dealer	1	..	..	..	..	..
Licensed victualler	3	..	4	1	7	2
Locksmith	..	..	..	..	..	1
Machinist	1	..	1	2	1	1
Manager	2	..	1	..	1	..

TABLE VI.—*Continued.*

Occupation, &c.	M	F	Son.	Daughter.	Wife.	Widow.
Manufacturer	..	..	..	..	..	1
Maori Chief	..	..	1	..	..	..
Marine store dealer	2	..	..	..	1	..
Mariner	12	..	16	13	2	4
Master mariner	3	..	1	..	..	1
Medical practitioner	2	..	..	1	1	..
Merchant	1	..	5	1	3	4
Milk dealer	2	..	..	..	1	..
Millwright	..	..	..	..	1	..
Miner	..	..	1	..	..	..
No occupation	4	3	..	..	..	..
Nurse	1	1	..	..	..	..
Optician	1	..	..	..	..	..
Ostler	1	..	..	..	..	..
Painter	7	..	6	11	2	2
Pattern maker	..	..	1	..	2	..
Pawnbroker	1	..	1	..	..	1
Pensioner	4	..	1	1	..	..
Photographer	1	..	..	1	..	..
Pilot	1	..	..	..	..	..
Plasterer	4	..	1	2	2	1
Plumber	4	..	4	2	..	..
Policeman	2	..	3	3	..	..
Porter	5	..	2	1	2	2
Potter	1	..	1	..	..	..
Printer	2	..	1	2	..	..
Provision dealer	1	..	1	..	1	..
Puddler	1	..	..	..	..	1
Quarryman	1	..	1	..	..	1
Railway servant	5	..	4	9	1	3
Retired army officer	1	..	..	..	..	..
Retired customs' officer	1	..	..	..	..	..
Retired merchant	1	..	..	..	..	..
Retired tradesman	4	..	..	..	..	1
Rigger	1	..	5	1	..	2
Rivetter	..	..	1	..	..	..
Rope maker	1	..	..	..	..	..
Saddler	..	..	..	3	..	..
Sailmaker	..	..	..	1	..	..
Salesman	1	..	1	1	..	..
Sawyer	2	..	..	2	1	2
Schoolmaster	1	..	..	..	..	..
Secretary	..	..	..	..	..	1
Seamstress	..	1	1	..	..	..
Seedsman	1	..	..	..	..	..
Shaft sinker	..	..	..	1	..	..
Shipbuilder	..	..	..	..	..	2
Ship carpenter	..	..	..	..	..	1
Ship chandler	1	..	..	..	..	..
Ship cook	..	..	1	..	..	..
Ship keeper	2	..	..	..	..	..
Ship owner	..	..	1	..	..	..
Ship purser	1	..	..	..	..	..

TABLE V—*Continued.*

Occupation, &c.	M	F	Son.	Daughter.	Wife.	Widow.
Ship smith	..	..	1	1	..	..
Ship steward	1	..	..	..	1	..
Shipwright	9	..	7	11	1	2
Shoemaker	5	..	5	6	4	3
Shopkeeper	1	..	..	..	..	..
Silversmith	..	..	..	..	..	1
Shorthand writer	1	..	..	..	..	..
Slater	..	..	..	1	..	..
Solicitor	1	..	..	1	..	2
Stationer	1	..	..	1	..	..
Stevedore	2	..	..	..	..	2
Stoker	2	..	4	8	2	..
Stonemason	6	..	4	2	1	5
Storekeeper	1	..	3	1	..	1
Student	..	..	..	1	..	..
Surveyor	..	..	..	..	..	1
Tanner	..	..	1	..	..	..
Tailor	9	..	6	3	1	1
Timekeeper	..	.	4	1	2	1
Tinsmith	1	..	1	1	1	..
Traveller	..	..	1	3	..	..
Turner	..	..	..	2	..	..
Unknown	9	2	..	..	..	..
Upholsterer	..	..	3	..	..	1
Van driver	..	..	..	..	2	..
Veterinary surgeon	..	..	..	..	..	1
Warehouseman	..	..	..	2	3	..
Watchmaker	2	..	..	..	..	..
Watchman	2	..	..	..	..	..
Waterman	1	..	3	1	..	..
Weaver	..	..	1	1	..	..
Wheelwright	..	..	..	2	2	3
Whitesmith	2	..	1	1	..	2
Windowblind maker	..	..	..	..	1	..
Yardman	..	..	1	..	1	..
	441	27	359	331	168	316

Plan of the Borough of Birkenhead.

Shewing the Various Wards.

Localities in which Deaths from Zymotic Diseases took place in 1881 are marked in red.

Fatal cases of Zymotic Diseases received into the Fever Hospital, Borough Hospital, and Children's Hospital, have been referred to the localities from which they were removed.

SCALE.