

**[Report 1904] / Medical Officer of Health, Wigan County Borough.**

**Contributors**

Wigan (England). County Borough Council.

**Publication/Creation**

1904

**Persistent URL**

<https://wellcomecollection.org/works/anb8b2kb>

**License and attribution**

You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

THE NINTH  
**ANNUAL REPORT**  
ON THE  
**Health of the County Borough of Wigan,**

FOR THE YEAR ENDING DECEMBER 31st, 1904,

BY

**WILLIAM BERRY,**

F.R.C.S.I., D.P.H., F.P. & S., Glasgow.

Fellow of the Incorporated Society of Medical Officers of Health.

Past President of the North-Western Branch.

Fellow of the Royal Sanitary Institute.

Fellow of the Royal Institute of Public Health, and

Fellow of the Royal Academy of Medicine, Ireland.

Medical Officer of Health, and


Medical Superintendent of the Borough Sanatorium for Infectious  
Diseases.



WIGAN :

THOS. WALL AND SONS LIMITED, PRINTERS, "OBSERVER" OFFICE.

—  
1905.



Digitized by the Internet Archive  
in 2018 with funding from  
Wellcome Library

<https://archive.org/details/b30276214>



# TABLE OF CONTENTS.

	Pages.
Sanitary Works Committee ... ..	5
Health Committee ... ..	6
Sanatorium Sub-Committee ... ..	7
Insanitary Houses Committee ... ..	7
Medical Officer of Health's Department ... ..	8
Local Government Regulation ... ..	9

## PART I.

### VITAL STATISTICS.

Statistical Summary for 1904 ... ..	15
Acreage, Population, Births, and Mortality Rates ... ..	16
Vital Statistics for England and Wales for 1904 ... ..	16
Table I.—Weekly Return of Births and Deaths for 1904 ... ..	17
Table II.—Monthly Table of Deaths from all causes and Zymotic Diseases with Rates per 1,000 per annum ... ..	18
Table III.—Table showing Comparative Statistics between Wigan and other Towns during 1904 ... ..	18
Table IV.—Death Rate for Wigan during the last ten years... ..	19
Wigan Census 1901 ... ..	20
County Borough of Wigan, No. of Inhabited Houses, &c. ... ..	20
Local Government Board Returns :—	
Table I.—Vital Statistics of whole District during 1904 and previous years ... ..	21
Table II.—Vital Statistics of separate localities in 1904 and previous years ... ..	22
Table III.—Cases of Infectious Diseases notified during the year 1904 ... ..	23
Table IV.—Causes of, and Ages at, Death during year 1904 ... ..	24
List of Streets in which Deaths from various Diseases occurred ... ..	25

## PART II.

Causes of Death—The Zymotic Diseases ... ..	31
Table of Zymotic Diseases ... ..	31
Death Rates, 1904 ... ..	32
No. of Notification compared with other years ... ..	32
Analysis of Notifications ... ..	32
Smallpox ... ..	33
Vaccination Returns, 1903—1904 ... ..	36
Scarlet Fever ... ..	46
Death Returns, Charts (4) ... ..	Facing 48
Measles ... ..	51
Whooping Cough ... ..	54
Typhus Fever ... ..	54



## CONTENTS—Continued.

	Pages.
Enteric Fever ... ..	54
Diarrhœa ... ..	56
Diphtheria ... ..	57
Erysipelas ... ..	57
Puerperal Fever ... ..	59
Sanatorium... ..	59
Constitutional Diseases :	
Tubercular Diseases ... ..	63
Rheumatism ... ..	64
Local Diseases : Respiratory Diseases ... ..	64
Inquests and Uncertified Deaths ... ..	64

## PART III.

Bakehouses... ..	67
Factory and Workshops Act, 1895 and 1901, and Shop Hours Act, 1892 and 1899 :	67
Shop Hours Act, 1892—1899 ... ..	69
Factory and Workshop Act, 1895 and 1901 ... ..	69
Meat Inspection and Slaughter Houses ... ..	70
Dairies, Cowsheds, and Milkshops Order, 1885 and 1886 ... ..	71
Report of Inspectors ... ..	71
Water Supply ... ..	72
Black Smoke Nuisance ... ..	80
Rainfall ... ..	80
Property Unfit for Human Habitation ... ..	82
Unpaved Yards and Passages ... ..	82
Borough Surveyor's Department ... ..	83
Ankylostomiasis ... ..	84
The Inspection of Schools... ..	87
Report on the Milk and Meat Supply of the Borough ... ..	Facing 104

## **SANITARY WORKS COMMITTEE.**

---

From November, 1904, to November, 1905.

**CHAIRMAN :**

**COUNCILLOR W. LOWE.**

**VICE-CHAIRMAN :**

**COUNCILLOR J. BAYMAN.**

**COMMITTEE :**

**HIS WORSHIP THE MAYOR (WM. SHARROCK, ESQ., J.P.)**

**THE EX-MAYOR (ALDERMAN C. B. HOLMES, J.P.)**

**[ ALDERMAN R. BRITTON.**

**„ J. PHILLIPS, J.P.**

**„ LEVI BOOTH, J.P.**

**COUNCILLOR MATTHEW BENSON, M.D.**

**„ WILLIAM WILSON.**

**„ J. LOWE.**

**„ J. BOTT.**

**„ E. DICKINSON.**

**„ J. PAXTON.**

**„ H. MOORFIELD.**

---

**The Committee meet on the Second Monday in each month, at 3 45  
p.m., in the Committee Room.**

## **HEALTH COMMITTEE.**

From November, 1904, to November, 1905.

CHAIRMAN :

ALDERMAN J. PHILLIPS.

VICE-CHAIRMAN : COUNCILLOR H. ROSS.

THE MAYOR.

THE EX-MAYOR.

ALDERMAN A. BYWATER.

COUNCILLOR T. ASHTON.

„ RICHARD BANNISTER.

„ M BENSON.

„ J. BRADSHAW.

„ T. CLARKE.

„ ARTHUR E. MATHER.

„ JAMES O'DONAHUE.

„ T. SMITH.

„ J. WILSON.

„ G. WOLSTENHOLME.

The Committee meet on the Third Thursday in each month, at  
2 30 p.m., in the Committee Room.



## **SANATORIUM SUB-COMMITTEE.**

From November, 1904, to November, 1905.

**CHAIRMAN :** COUNCILLOR R. BANNISTER.

**ALDERMAN** PHILLIPS, J.P.

**COUNCILLOR** H. ROSS,

” T. CLARKE.

” J. BRADSHAW.

” J. O'DONAHUE.

” G. WOLSTENHOLME.

” M. BENSON.

” A. E. MATHER.

The Committee meet the Wednesday before the Third Thursday in each month, at 11 a.m., at the Hospital.

---

## **INSANITARY HOUSES COMMITTEE.**

From November, 1904, to November, 1905.

**CHAIRMAN :** COUNCILLOR J. CHEETHAM.

**VICE-CHAIRMAN :** COUNCILLOR G. WOLSTENHOLME.

**THE MAYOR.**

**THE EX-MAYOR.**

**ALDERMAN** R. BRITTON.

” H. SWIFT.

**COUNCILLOR** J. BOTT.

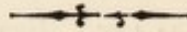
” T. LATHAM.

” H. LOMAX.

” H. MOORFIELD.

The Committee meet when required.

# **MEDICAL OFFICER OF HEALTH'S DEPARTMENT.**



Medical Officer of Health and Medical Superintendent of Sanatorium :

**WILLIAM BERRY**, F.R.C.S.I., D.P.H., F.P.S., Glasgow,  
Fellow of the Incorporated Society of Medical Officers of Health,  
Past President of North-Western Branch,  
Fellow of the Royal Sanitary Institute,  
Fellow Royal Inst. Public Health, and  
Fellow of the Royal Academy of Medicine, Ireland.

Chief Sanitary Inspector :

**JOHN SUMNER**, Certif. San. Inst., and Assoc. Royal San. Inst.  
Cert. City of London Guilds (Plumbing).

Assistant Sanitary Inspectors :

**CHARLES H. FRANCE**, Certif. San. Inst. and Assoc. Royal  
San. Inst.

**FRED. MARTLEW**, Certif. San. Inst.

**M. CLUNAN**, Certif. San. Inst.

**W. H. ROBY**, Certif. San. Inst., Assoc. Royal San. Inst.

Smoke, Shop Hours Act, and Factory and Workshop Act :

**FRED. G. BISHOP.**

Clerks :

**ERNEST KNOWLES,**

**JOHN ASHTON.**

Disinfectors :

**JAS. RISLEY.**

Master of Sanatorium :

**MICHAEL MOORE.**



By order of the Local Government Board, dated March 23rd, 1891,

Article 18, Section 14, it is prescribed that the Medical Officer of Health shall “ prepare an Annual Report, to be made to the  
“ end of December in each year, comprising a summary of the  
“ action taken during the year for preventing the spread of disease,  
“ and an account of the sanitary state of his district generally at  
“ the end of the year. The report shall also contain an account  
“ of the enquiries which he has made as to conditions injurious  
“ to health existing in his district, and of the proceedings in which  
“ he has taken part or advised under the Public Health Act, 1875,  
“ so far as such proceedings relate to those conditions ; and also  
“ an account of the supervision exercised by him or on his advice,  
“ for sanitary purposes over places and houses that the Sanitary  
“ Authorities have power to regulate, with the nature and results  
“ of any proceedings which may have been so required and taken  
“ in respect of the same during the year. It shall also record the  
“ action taken by him or on his advice, during the year, in regard  
“ to offensive trades, and to factories and workshops. The report  
“ shall also contain tabular statements (on forms to be supplied  
“ by the Local Government Board, or to the like effect) of the  
“ sickness and mortality within the district, classified according to  
“ diseases, ages, and localities.”



## CORPORATION OF WIGAN.

## OFFICER OF HEALTH'S DEPARTMENT.

FEBRUARY 1ST, 1905.

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

GENTLEMEN,

I have pleasure in presenting to you my Ninth Annual Report on the health of your County Borough, which is for the year 1904.

This Annual Report embraces the County Borough as it existed on November 1st, 1904, so that no part of the statistics or remarks embrace any portion of Pemberton, which was added on November 9th, and now constitutes the larger Wigan County Borough. I have left out purposely the deaths for the six weeks of the added portion of the Borough, so that my reports may be consecutive for each year up to December 31st last. The next Annual Report will be from January 1st, and include the Township of Pemberton, which now is a portion of the Greater Wigan, and gives us an estimated population of 87,284 on January 1st, 1905.

Your staff has been increased by the addition of the late Inspector for Pemberton, and by the addition of Mr. Clunan to the permanent staff. Mr. Ernest Knowles has also during the past year been added as clerk in the office, and to make extra inspections when required, and he will, therefore, have an opportunity of qualifying as an Inspector by obtaining a Sanitary Certificate.

The death-rate for 1904 is 21.49 per 1,000 of the population, against 21.69 in the previous year, this is a slight diminution, namely :—20 per 1,000. Measles and Bronchial affections, with an increased death-rate from Infantile Diarrhoea, have maintained this high rate.



The total number of deaths from Zymotic Diseases are 62 below last year's number, or a rate of 3·14, against 4·18. The Diarrhœa-rate being 1·68, against 1·24. The Infantile-rate is 188 per 1,000 births, as against 174 in 1903.

We have an increase in the number of deaths in persons over 60 years of age, namely :—271, against 234 in 1903.

We had two cases of Small-pox. One in January, and the other in February.

Measles, however, recurred again in epidemic form in June and October, and during the year we had 831 cases, and 23 deaths, against 1,456 cases, and 104 deaths in 1903. We had to resort to school closure as an expedient to prevent its spread, and no matter how your Committee may regret such a step, it is the only efficient method of preventing and cutting short an epidemic. We had striking instances this year where early closure prevented it becoming epidemic in certain districts; whilst in others, through apathy and delay in closing the schools, the epidemic became rampant. The list of schools closed will be found under the heading of Measles in this report.

Scarlet Fever has been again less prevalent in the past year, 191 cases, against 362 cases in 1903. I have not seen any ill-effects from the congregation of Scarlet Fever in the Wards. We do use means of fumigation of the wards regularly, and I think will benefit. The nursing and attention counter balance any danger from accumulating cases.

The detailed work in the Sanitary Department will be found in the body of my report, and that of the Chief Inspector of Nuisances (Mr. Sumner).

I must record my thanks for the support given me by each member of the staff, and to Mr. Sumner especially, for his careful supervision of the correspon-

dence and the statistical department, which is becoming more and more arduous each year. To the Medical men practising in the town and adjoining districts, I tender my thanks for their cordial support in all sanitary matters, more especially for their co-operation in preventing the spread of infectious diseases.

In conclusion, I must also tender my thanks to the Chairman and Members of this Committee for their kind approval of my suggestions and loyal assistance in carrying out the work of this important department.

I am, Gentlemen,

Your obedient Servant,

WM. BERRY,

MEDICAL OFFICER OF HEALTH.



PART I.

**VITAL STATISTICS.**

VITAL STATISTICS

PART I

# REPORT.

---

## STATISTICAL SUMMARY FOR 1904.

Population estimated July 1st, 1904 ..... 64,249

*Marriages* are not ascertained for the County Borough.

„ Annual rate per 1,000 of population, ditto.

*Births* { Males..... 1124 } Total..... 2,223  
           { Females... 1099 }

Annual rate of births per 1,000 of population ..... 34·59

Ditto for England and Wales... 27·9

Illegitimate births, 89, or 1·38 per 1,000 of population, a percentage of..... 4·0

*Deaths* { Males..... 711 } Total ..... 1,381  
           { Females... 670 }

Annual rate of mortality ..... 21·49

Ditto in England and Wales ... 16·2

Death rate in 76 great towns..... 17·2

Ditto 103 smaller „ ..... 15·6

Ditto Rural England & Wales 15·3

Excess of registered births over deaths..... 842

Total deaths from zymotic diseases..... 202

Annual rate of mortality from zymotic diseases 3·14

Ditto in England and Wales..... 1·94

Total deaths from diarrhoea..... 108

Annual rate of mortality from diarrhoea ... 1·68

Infantile rate (deaths per 1,000 births), 1904 188

Ditto for England and Wales ..... 146

Deaths of infants under one day old number 36



*Acreage.*—With an acreage of 2,188, and a population estimated at 64,249, we have 29·36 persons per acre.

*Population.*—The population estimated at the middle of the year (June 30th, 1904) is 64,249, and this may be taken as fairly correct, in accordance with the number of inhabited houses on July 1st.

*Births.*—The number of births registered during 1904 is 2,223 (males, 1,124; females, 1,099), the rate per 1,000 of the population being 34·59. The birth rate, compared with 1903, is ·88 lower. The illegitimate births number 89, or 4·0 per cent.

*The Mortality Rate.*—The deaths for 1904 number 1,381 (711 males, 670 females), being an excess of 41 males over the females. The rate per 1,000 of the population per annum is 21·49; in 1903, 21·69; thus we have a decrease in deaths of 22, or ·20 per 1,000.

The death rate for each quarter is as follows :—

1904.	All causes.	Zymotics.
1st Quarter ...	24·13	1·83
2nd „ ...	18·37	·82
3rd „ ...	23·20	6·66
4th „ ...	19·78	3·13

The zymotic rate shows a decrease for 1904; it is 3·14. The previous year it was 4·18, showing a decrease of 1·04, this being due to a decrease in the number of deaths from zymotic diseases.

## THE VITAL STATISTICS FOR ENGLAND AND WALES DURING 1904.

ENGLAND AND WALES, 1904.

	1904.	1903.
Birth rate per 1,000 living.....	27·9	28·4
Death rate „ „ .....	16·2	15·4
Seven epidemic diseases per 1,000 living.	1·94	1·46
Infant mortality per 1,000 births .....	146	132



TABLE I.

## WEEKLY RETURN OF BIRTHS AND DEATHS FOR 1904.

1904. WEEK ENDING.	Deaths from all Causes.	Annual Rate per 1,000.	Deaths from Zymotics.	Zymotic Rate.	Births.	Annual Rate per 1,000.
January 2 .....	39	32.15	7	5.77	33	27.20
" 9 .....	24	19.77	2	1.64	55	45.32
" 16 .....	43	35.43	5	4.11	45	37.08
" 23 .....	30	24.71	5	4.11	40	32.95
" 30 .....	27	22.24	—	—	35	28.83
February 6 .....	33	27.18	2	1.64	55	45.30
" 13 .....	20	16.47	—	—	35	28.83
" 20 .....	22	18.10	4	3.29	46	37.86
" 27 .....	32	26.33	3	2.46	53	43.62
March 5 .....	28	23.04	—	—	47	38.68
" 12 .....	30	24.69	1	.82	32	26.33
" 19 .....	33	27.16	—	—	36	29.62
" 26 .....	20	16.44	—	—	34	27.96
April 2 .....	21	17.26	—	—	33	27.13
" 9 .....	21	17.26	1	.82	35	28.78
" 16 .....	27	22.20	1	.82	42	34.53
" 23 .....	19	15.61	—	—	43	35.33
" 30 .....	27	22.18	1	.82	54	44.37
May 7 .....	26	21.34	3	2.46	45	36.94
" 14 .....	18	14.77	2	1.64	36	29.55
" 21 .....	12	9.84	—	—	38	31.17
" 28 .....	25	20.50	1	.82	42	34.45
June 4 .....	37	30.35	3	2.46	43	35.27
" 11 .....	27	22.14	1	.82	45	36.91
" 18 .....	15	12.29	—	—	33	27.04
" 25 .....	16	13.11	—	—	46	37.70
July 2 .....	27	22.11	2	1.63	43	35.21
" 9 .....	15	12.28	—	—	41	33.57
" 16 .....	17	13.91	2	1.63	38	31.09
" 23 .....	10	8.18	—	—	53	43.37
" 30 .....	29	23.71	5	4.08	51	41.70
August 6 .....	24	19.62	4	3.27	36	29.43
" 13 .....	39	31.88	12	9.80	47	38.43
" 20 .....	44	35.97	22	17.98	48	39.24
" 27 .....	39	31.88	14	11.44	44	35.97
September 3 .....	30	24.50	15	12.25	39	31.86
" 10 .....	36	29.41	16	13.07	39	31.86
" 17 .....	36	29.41	11	8.98	41	33.49
" 24 .....	23	18.79	3	2.45	51	41.66
October 1 .....	31	25.32	4	3.26	44	35.94
" 8 .....	22	17.95	4	3.26	43	35.10
" 15 .....	17	13.87	5	4.07	42	34.28
" 22 .....	10	8.15	2	1.63	39	31.81
" 29 .....	15	12.23	2	1.63	36	29.36
November 5 .....	18	14.66	3	2.44	56	45.63
" 12 .....	28	22.81	1	.81	43	35.04
" 19 .....	24	19.55	5	4.07	31	25.26
" 26 .....	27	21.98	2	1.62	53	43.15
December 3 .....	34	27.68	3	2.44	37	30.13
" 10 .....	31	25.24	7	5.69	31	25.24
" 17 .....	29	23.61	5	4.07	46	37.45
" 24 .....	23	18.72	7	5.69	31	25.24
" 31 .....	31	25.22	4	3.25	39	31.73



**TABLE II.**

MONTHLY TABLE OF DEATHS FROM ALL CAUSES AND  
ZYMOTIC DISEASES WITH RATES PER 1,000 PER ANNUM.

MONTH.	No. of Deaths from all Causes.	Annual Rate per 1,000 living.	No. of Deaths from Zymotic Diseases.	Annual Rate per 1,000 living.	Deaths of	
					Infants under 1 yr.	Persons over 60 yrs.
January .....	163	26·86	19	3·12	40	34
February .....	107	22·02	9	1·84	29	33
March .....	111	22·83	1	·20	25	29
April .....	115	18·90	3	·49	33	18
May .....	81	16·61	6	1·23	17	20
June .....	95	19·47	4	·82	25	20
July .....	98	16·03	9	1·46	27	18
August .....	146	29·83	52	10·62	72	21
September .....	125	25·52	45	9·18	60	16
October .....	95	15·50	17	2·77	29	15
November .....	97	19·75	11	2·23	26	17
December .....	148	24·09	26	4·22	35	30
Totals .....	1381	21·49	202	3·14	418	271

**TABLE III.**

TABLE SHOWING COMPARATIVE STATISTICS BETWEEN WIGAN  
AND OTHER TOWNS DURING 1904.

TOWN.	Popula- tion.	Birth Rate.	Death Rate.	Zymotic Rate.	Infantile Death rate per 1,000 Births.	Respira- tory Death Rate.	Phthisis Death rate
Batn .....	49,800	20·76	13·94	0·90	111	2·57	0·90
Blackburn .....	131,908	23·5	17·2	2·4	191	3·7	·94
Blackpool .....	54,338	21·53	12·33	1·29	160	1·80	0·86
Bootle .....	62,000	30·9	18·6	3·6	180	3·8	1·6
Bradford .....	285,089	22·02	17·38	2·43	166	2·94	1·38
Burton-on-Trent ...	51,934	26·0	15·05	1·52	118	2·42	1·46
Bury .....	58,450	23·66	17·14	2·30	163	3·11	1·66
Cardiff .....	176,313	29·5	15·2	2·3	144	2·5	1·3
Carlisle .....	47,350	26·9	19·7	1·3	152	3·3	1·4
Coventry .....	73,904	31·4	15·5	1·6	137	2·5	1·05
Crewe .....	46,065	30·9	14·5	2·04	160	2·9	0·6
Croydon .....	144,419	26·1	13·8	—	128	—	—
Derby .....	120,449	27·25	15·15	1·5	143	2·3	1·03
East Ham .....	116,902	31·7	13·5	2·9	140	2·32	1·18
Halifax .....	107,000	20·1	15·3	1·4	130	2·6	1·2
Hanley .....	63,889	33·8	21·2	4·1	206	3·7	1·01
Hastings .....	66,503	17·60	13·14	0·37	107	1·92	1·43
Huddersfield .....	94,936	23·71	17·51	1·91	136	3·05	1·33
Kingston-on-Hull ..	253,865	30·8	18·2	3·4	181	3·0	1·2
Lancaster .....	43,570	24·48	13·01	·96	153	2·22	1·05
Leigh .....	43,000	33·18	16·55	2·9	192	3·39	0·72
Merthyr Tydvil ...	72,745	38·5	19·7	2·3	186	4·5	1·2
Nelson .....	35,000	20·3	12·2	1·3	162	·25	·68
Oldham .....	139,497	24·9	18·3	2·3	155	3·7	1·4
Plymouth .....	114,003	25·33	18·74	2·46	173	3·27	1·473



TABLE III.—Continued.

TOWN.	Popula- tion.	Birth Rate.	Death Rate.	Zymotic Rate.	Infantile Death rate per 1,000 Births	Respira- tory Death Date.	Phthisis Death rate
Reading .....	76,678	26·00	13·89	1·82	131	1·79	0·94
Rochdale .....	85,600	22·8	17·7	2·07	152	—	1·24
South Shields .....	107,334	34·5	18·1	1·77	144	3·22	1·52
St. Helens .....	88,740	37·33	20·39	3·96	174	4·16	1·58
Tottenham .....	121,279	29·5	11·5	1·9	138	—	0·61
Warrington .....	68,490	32·7	19·4	4·6	170	3·	1·16
West Bromwich ...	67,186	33·5	15·9	1·9	149	—	—
<b>WIGAN</b> .....	<b>64,249</b>	<b>34·59</b>	<b>21·49</b>	<b>3·14</b>	<b>188</b>	<b>2·45</b>	<b>1·08</b>
Wolverhampton ...	98,268	29·8	14·6	2·71	152	<b>4·74</b>	0·90
York .....	81,268	28·15	16·18	2·87	170	2·00	1·34

TABLE IV.

DEATH RATE FOR WIGAN DURING THE LAST TEN YEARS.

1895 .....	22·52	} Average for 10 years, 21·50.
1896 .....	23·09	
1897 .....	20·99	
1898 .....	18·88	
1899 .....	21·91	
1900 .....	21·95	
1901 .....	22·30	
1902 .....	20·25	
1903 .....	21·69	
1904 .....	21·49	

*Infantile Mortality.*—The number of deaths of children under one year is 418, or 188 per 1,000 births, and of children over one year and under 5 years 213, or 3·31 per 1,000 of the population.

In regard to this infantile mortality there were 36 deaths in children who did not live more than 24 hours, and if we deduct these there would only be 382 deaths, or 171 per 1,000 births ; in a large birth rate we necessarily have a larger proportion of premature births.

*Senile Mortality.*—The number of deaths of persons of 60 years of age and over is 271, or 4·21 per 1,000 of population.



## WIGAN CENSUS, 1901.

WARD.	Separate Families.	HOUSES.				Tenements with less than five rooms.	PERSONS.		Totals
		In-habited.	Uninhabited.				Males.	Females.	
			In Occu- pation.	Not in Occu- pation.	B'ding.				
No. 1, or St. George Ward ...	959	919	87	17	...	753	2406	2524	4930
No. 2, or Lindsay Ward .....	924	913	22	12	6	592	2310	2472	4782
No. 3, or St. Catharine Ward	1234	1193	20	5	...	863	3169	3435	6604
No. 4, or St. Patrick Ward...	1586	1567	46	10	3	954	4714	4470	9184
No. 5, or St. Thomas Ward...	939	890	42	4	...	703	2394	2451	4845
No. 6, or Poolstock Ward ...	977	950	18	3	4	523	2424	2613	5037
No. 7, or Victoria Ward .....	999	949	33	4	4	688	2440	2586	5026
No. 8, or St. Andrew Ward...	1684	1662	29	14	29	501	4658	4622	9280
No. 9, or Swinley Ward .....	1386	1368	46	41	14	453	3224	4043	7267
No. 10, or All Saints Ward...	709	709	327	28	25	360	1811	1925	3736
Canal Boats .....	...	...	...	...	...	...	60	19	79
Wards not stated .....	...	...	...	...	...	...	...	...	...
Totals.....	11388	11120	670	138	85	6390	29610	31160	60770

Percentage of increase in population, England and Wales  
since Census of 1891..... 12.15.  
The preceding period, 1881-91..... 11.65.  
Increase in Wigan ..... 10.46.

COUNTY BOROUGH OF WIGAN.  
(Parlimentary Area.)

STATEMENT OF HOUSES INHABITED, EMPTY, AND BUILDING  
ON SATURDAY, 23RD JULY, 1904.

WARD.	Inhabited.	Empty.	Building.	Total.	Average per House Inhabited.	Estimated Population on Census of 1901.
St. George.....	911	28	—	939	5.465	4978
Lindsay .....	947	7	25	979	"	5175
St. Catharine .....	1244	7	15	1266	"	6798
St. Patrick .....	1640	21	8	1669	"	8993
St. Thomas .....	868	16	—	884	"	4744
Poolstock .....	1017	10	—	1027	"	5558
Victoria .....	962	19	—	981	"	5257
St. Andrew .....	2013	17	25	2055	"	11001
Swinley .....	1460	21	18	1499	"	7979
All Saints .....	689	13	5	707	"	3766
Total .....	11751	159	96	12006	5.465	64249

Prepared for special use by W. Berry, Esq., J.P., F.R.C.S.I., &c. (Medical Officer), by T. Southworth (by permission of R. Halliwell, Esq., J.P., Conservative Agent), from the Survey Books of the Wigan Conservative Registration Association.

22, Rodney Street,  
Wigan, 23rd August, 1904.



LOCAL GOVERNMENT BOARD RETURNS.  
 TABLE I.—VITAL STATISTICS OF WHOLE DISTRICT DURING 1904 AND PREVIOUS YEARS. NAME OF DISTRICT—WIGAN.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.						Deaths of Non-Residents Registered in Public Institutions in District.	Deaths of Residents Registered in Public Institutions beyond the District.	Nett Deaths at all Ages belonging to the District.		
		Number.	Rate.	Under 1 Year of Age.		At all Ages.						Total Deaths in Public Institutions in District.	Number.	Rate.*
				Number.	Rate per 1000 Births Registered	Number.	Rate.*							
								5	6					
1	2	3	4	5	6	7	8	9	10	11	12	13		
1894	57190	2146	37.9	341	158	1100	19.3	194						
1895	57765	2256	39.16	413	187	1317	23.18	244						
1896	58340	2144	37.10	400	186	1376	23.84	158						
1897	58915	2247	38.58	398	175	1270	21.80	246	106					
1898	59590	2159	35.70	369	170	1182	19.54	225	91					
1899	60165	2148	35.36	422	195	1368	22.63	253	116					
1900	60740	2177	36.00	404	190	1520	25.06	290	133		1387	22.90		
1901	60923	2245	36.40	457	203	1537	24.87	280	158		1379	22.30		
1902	61827	2311	37.42	366	158	1393	22.58	269	142		1251	20.25		
1903	62689	2221	35.47	388	174	1511	24.09	313	152		1359	21.69		
Averages for years 1894—1903	59814	2205	36.82	395	179	1357	22.66	247						
1904	64249	2223	34.59	418	188	1528	23.78	301	147		1381	21.49		

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

Area of District in acres (exclusive of area covered by water) 2,188. At Census of 1901 the total population at all ages was 60,774; number of inhabited houses 11,120; average number of persons per house 5.7. Institutions within the District receiving sick and infirm persons from outside the District: Workhouse, Infirmary, and Sanatorium. Is the Union Workhouse within the District? Yes.



TABLE II.—VITAL STATISTICS OF SEPARATE LOCALITIES IN 1904  
AND PREVIOUS YEARS.

Name of District—Wigan County Borough.

YEAR.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
1894 .....	57190	2146	1100	341
1895 .....	57765	2256	1317	413
1896 .....	58340	2144	1376	400
1897 .....	58915	2247	1270	398
1898 ... ..	59590	2159	1182	369
1899 .....	60165	2148	1368	422
1900 .....	60740	2177	1520	404
1901 .....	60923	2245	1537	457
1902 .....	61827	2311	1393	366
1903 .....	62689	2221	1359	388
Averages of Years 1894 to 1903 ... }	59814	2205	1342	395
1904 .....	64249	2223	1381	418

TABLE III.—CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1904.

Name of District—Wigan County Borough.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							Cases Removed to Hospital.	
	At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 5.	25 to 65.	65 and upw'rds	H. W. Wigan.	Haigh.
Small-pox.....	2	—	—	—	1	1	—	2	—
Cholera .....	—	—	—	—	—	—	—	—	—
Diphtheria .....	9	—	3	4	—	2	—	1	—
Membran. Croup	—	—	—	—	—	—	—	—	—
Erysipelas .....	47	1	2	3	5	31	5	2	—
Scarlet Fever ...	191	—	88	92	8	3	—	132	10
Typhus Fever ..	—	—	—	—	—	—	—	—	—
Enteric Fever ...	56	—	2	13	16	25	—	43	—
Relapsing Fever	—	—	—	—	—	—	—	—	—
Continued Fever	—	—	—	—	—	—	—	—	—
Puerperal Fever.	8	—	—	—	4	4	—	—	—
Plague .....	—	—	—	—	—	—	—	—	—
Measles .....	831	46	525	257	2	1	—	—	—
Totals .....	1144	47	620	369	36	67	5	180	10

Mark (H) the locality in which the Hospital is situated.

Mark (W) the locality in which the Workhouse is situated.

Isolation Hospital—Wigan Sanatorium.



TABLE IV.—CAUSES OF, AND AGES AT, DEATH DURING YEAR 1904.  
Name of District—Wigan (County Borough).

CAUSES OF DEATH.	DEATHS IN OR BELONGING TO WHOLE DISTRICT AT SUBJINED AGES.							Total Deaths in Public Institutions in District.
	All Ages	Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and up- wards.	
Small-pox .....	1	—	—	—	—	1	—	—
Measles .....	23	5	17	1	—	—	—	—
Scarlet fever.....	11	—	4	6	—	1	—	—
Whooping-cough .....	34	9	19	6	—	—	—	—
Diphtheria and mem- branous croup .....	3	—	2	1	—	—	—	—
Croup.....	1	—	1	—	—	—	—	—
Fever—Enteric .....	16	—	1	2	6	7	—	—
Diarrhœa .....	108	77	25	—	—	3	3	—
Puerperal fever .....	4	—	—	—	—	4	—	—
Erysipelas .....	1	1	—	—	—	—	—	—
Phthisis (Pulmonary Tuberculosis) .....	70	6	9	5	7	43	—	—
Other tubercul'r diseases	26	11	11	3	—	1	—	—
Cancer, malign'nt dis'ase	47	—	1	—	1	36	9	—
Bronchitis .....	138	17	7	—	2	73	39	—
Pneumonia .....	167	45	46	12	11	47	6	—
Premature birth .....	50	50	—	—	—	—	—	—
Heart diseases .....	63	1	—	1	2	41	18	—
Accidents .....	38	3	5	4	3	19	4	—
Suicides .....	4	—	—	—	—	4	—	—
All other causes .....	576	193	65	24	20	164	110	—
All causes .....	1381	418	213	65	52	444	189	301

STATEMENT OF DEATHS OCCURRING IN WIGAN, BUT NOT BELONGING TO WIGAN.

Deaths from Accidents ...	...	...	...	...	...	...	26
„ Bronchitis ...	...	...	...	...	...	...	5
„ Cancer ...	...	...	...	...	...	...	4
„ Enteric Fever ...	...	...	...	...	...	...	3
„ Heart Affections ...	...	...	...	...	...	...	9
„ Other Diseases ...	...	...	...	...	...	...	80
„ Phthisis ...	...	...	...	...	...	...	3
„ Pneumonia ...	...	...	...	...	...	...	9
„ Rheumatism ...	...	...	...	...	...	...	2
„ Other Tubercular Diseases	...	...	...	...	...	...	4
„ Wasting Diseases ...	...	...	...	...	...	...	2

147



List of Streets in which Deaths from the following diseases have occurred :—

Street.	Ward.	Small-pox.	Scarlet.	Enteric.	Typhus.	Diphtheria.	Whoop. Cough.	Measles.	Diarrhoea.	Pulmonary.	Rheumatism.	Cancer.	Others.	Total.
Albion Yard ...	1												1	1
Acton's Yard, Marsh Lane...	1										1			1
Arundel Street..	2									2				2
Ardern Street...	2											1		1
Ascroft Street...	4								1					1
Amy Lane .....	4								1					1
Anderton Street	4			1						1			7	9
Afghan Street...	4									1				1
Ashton Street...	4								1					1
Ashcroft's Yard.	5								1					1
Adelaide Street.	5						1	1	2					6
Alker Street.....	5												2	2
Acton's Walk.....	5												6	6
Ann Street .....	5												1	1
Ashton's Yard, Princess Street	5								1	1				3
Addison Street..	7												2	2
Acton's Entry....	7								1	1				3
Appleton Street.	7								1	1				3
Avondale Road...	9												1	1
Acton Street .....	9												1	1
Ashton's Yard, Duke Street ..	9								1				3	4
Atherton Street	10												1	1
Atherton's Yard, Hallgate .....	10									1				1
Bold Street .....	1												3	3
Butler Street.....	1						1							1
Boys' Well Lane	1								1	3				10
Black Swan Ter.	1	1							1					4
Bottling Wood...	2								4					7
Bradshaw Street	2										1		1	2
Beaconsfield St..	2								1					1
Bath Street.....	3												1	1
Baron Street .....	3	1											1	2
Bedford Street...	3												1	1
Bolton Street .....	3								1				2	3
Birkett Bank .....	3								1					2
Birkett Bank Ter	3												1	1
Birkett Street...	3								2					2
Birkett Bk (even)	4								1					4
Banks Street .....	4												3	3
Bryham Street...	4												2	2
Belvoir Street...	4								1		1		3	5
Bradshawgate...	4						1		1					2
Brookhouse St...	4			1										2
Brown's Yard, Queen Street..	5												1	1
Barnes Court, Queen Street..	5									1				2
Bridgewater St..	5												1	1
Bradford Street	5												2	2
Bradford Place..	5								1					3
Bridge Street .....	5									1				6
Brook Street.....	6								1					1
Byrom Street .....	6						1		1				7	9
Byron Street .....	6								1					1
Baker Street .....	6								1					1
Bywater Street..	6												2	2
Barton's Terrace	6								1					1
Brown Street .....	7								1				1	2
Bigham's Yard..	7											1		1
Ball Street .....	8								1					1
Benson's Yard, Gidlow Lane...	8													2
Buckley Terrace	8													1
Beech Hill Lane	8													1
Barnsley Street.	8		1											2
Beech Hall St...	8									1				1
Beresford Street.	8												1	1
Bridgeman Ter...	9												2	2
Bull Hey .....	10												1	1
Bishopgate .....	10												1	1
Bolton's Yard, Hallgate .....	10													1
Bailey's Court...	10									1			1	2
Clarence Street.	1													1
Church Street...	1													1
Crawford Ter...	2													1
Coop Street.....	2									1				2
Cumberland St..	3									1				1
Caunce Street...	3	1								1				3
Catherine Street	3												1	1
Cecil Street .....	3									1				2
Cambridge St...	4									3				5
Chancery Street	4													2
Church Terrace..	4									1				3
Clarington Grove	4													2
Caroline Street..	5	1	1							1				4
Cross Street.....	5									1				2
Chapel Lane...	5													1
Carlton Street...	6									1				2
Chadwick St....	6									2				3
Cudworth Street	6												1	1
Corporation St..	6									1				4
Crawford Road.	6												1	1
Crown Street .....	6									1				1
Coronation St...	6		1							1				3
Clayton Street...	7									2				5
Clare Street.....	7													1
Chadwick's Sq...	8									1				1
Canal Street.....	8													1
Clifton Street...	9									1				2
Charles Street...	9													1
Collier's Yard, High Street...	9													1
Cherry Croft .....	9													1
Chapel Lane.....	10									1				3
Commercial Yrd	10		1											1
Derby Street .....	1													1
Derby Terrace...	1									1				2
Douglas Terrace	1									1				1
Derby Street .....	2													2
Darlington St.	4													1
East .....	4									2				19
Dean Street .....	4									1				3
Driving Lane ...	5									1				2
Dobson's yard, Princess Street	5													1
Dover Street .....	6									1				1
Drake Street...	6									1				1
Dobb's Fold.....	7									1				2
Dawber's Ter., York Street...	7													1
Delph Street .....	8									4				7
Dicconson Street	9									2				2
Duke Street .....	9									1				2



[illegible]



Street.	Ward.	Small-pox.	Scarlet.	Enteric.	Typhus.	Diphtheria.	Whoop. Cough.	Measles.	Diarrhoea.	Pulmonary.	Rheumatism.	Cancer.	Other.	Total.
Mount Street	1									1				1
Mount Street	2									1				1
Mint Terrace	2										1	1	2	4
Morris Row	3												3	3
McCormick St.	4											1	1	2
Marsh's Court,														
Chapel Lane	5						1		1				3	4
Morris Yard,														
Bridge Street	5							1				1	2	3
Melverley Street	6												2	2
Milton Street	6									2			2	4
Mill Street	7											1	1	2
Miry Lane	7						1	3	10			3	17	24
Mason Street	7							1						2
Miry Lane	8								1			1	2	3
Moore's Build'gs	8						2					1	3	4
Marzaret Street	8												1	1
Moorfield Street	8								2	1	1	4	4	8
Meadow Street	8									2			2	4
Mesnes Street	9								1				1	2
Mar'bonne Pl'ce	9								1				1	2
Millstone Yar'l.	9											1	1	2
Market Street	10											1	1	2
Marsden Street	10											2	2	4
Manor Street	10											1	1	2
Marsden's Court	10								1			1	2	3
Northumberland														
Street	3								2			2	4	6
Neville Street	3								2			1	3	5
Newark Street	8											2	2	4
New Square	9								1			1	2	3
New Lodge	9								1				1	2
New Market St.	10											1	1	2
Orchard Street	1											2	2	4
Oxford Street	2								2			3	5	7
Osborne Street	2							1	2			1	4	6
Oak Street	4											1	1	2
Orm'ndy's H'ses	6											4	4	8
Ormesher's Y'rd														
Clayton Street	7											1	1	2
Primrose Hill	2								1				1	2
Portland Street	2								1				1	2
Platt Lane	3						1	2	4	1			5	13
Prescott's Yard	4												2	2
Peers's Court,														
Vauxhall Road	4						1						1	2
Princess Street	5								3				6	9
Potter's Square,														
Princess Street	5								1				1	2
Poolstock Lane	6							1	2	1			4	8
Pool Street	6	1					1		2				11	15
Park Street	6							1					1	2
Pottery Street	6						2	1					2	5
Pottery Road	6										1	1	2	4
Peet Street	6											1	1	2
Potter's Yard,														
Milton Street	6											2	2	4
Pitt Street	7							1	1				3	5
Prescott Street	8							2	3				7	12
Park Road	8								1				6	7
Pagefield Street	8										1		1	2
Penson Street	9		1					1					2	3
Penson's Yard	9								1				1	1
Powell Street	9											1	1	2

Street.	Ward.	Small-pox.	Scarlet.	Enteric.	Typhus.	Diphtheria.	Whoop. Cough.	Measles.	Diarrhoea.	Pulmonary.	Rheumatism.	Cancer.	Other.	Total.
Peer's Court,														
Douglas Street	10									1				1
Park Road	10												1	1
Queen Street	5						1		2	1			6	10
Rigby's Yard,														
Scholes	1						1			1			4	6
Russell Street	1									1			2	4
Regent Street	2								1				4	5
Rupert Street	4												1	1
Red Lion Court	5												1	1
Red Lion Place	5												1	1
Rylands Street	8			1									4	5
Railway Street	8												1	1
Ratcliffe Street	8						1		1				1	3
Rainford's Bldgs	9												1	1
Rodney Street	10												1	1
Richmond Street	10												1	1
Scholes	1									1			2	3
School Lane	1								1				2	3
Schofield's Place	1			1										1
School Street	1									2	1		8	11
Standishgate	1												3	3
Standishgate Terrace	1												2	2
Shared Street	4												1	1
Scholes	2								1			1	3	5
Salmon Street	3												1	1
Sole Street	3									1			1	2
Seed Street	3			1					1	1				3
Scholes	3		1							2		1	2	6
Stanley Square	3												1	1
Stanley Street	3									1			1	2
Schofield Lane	3								1				4	5
Schofield Lane	4								2	1		1	1	5
St. Patrick Street	4								1	2			3	6
Scholes	4												4	4
Stuart Street	4								1					1
Spring Street	4									1	3		3	7
Silver Street	4						1			2		1	3	7
Sovereign Road	4									1			1	2
St. Thomas St.	5									1				1
Swift's Yard,														
Adelaide St.	5									1				1
St. James' Ter.	6													1
Swan Meadow Rd	6												2	2
Sharp Street	7									1			1	2
Snake Street	7									1			1	2
Swann Street	7												3	3
Scott Street	8												1	1
Stratford Street	8												4	4
Springfield Road	8												1	1
Second Avenue	8									1			1	2
Swinley Road	9									2			1	3
Swinley Street	9								1					1
Swinley Lane	9											1	1	2
Standishgate	9									1	1		2	4
Shaw Street	9												3	3
Smithy Yard,														
Wigan Lane	9								1				1	2
St. Ann's Square	9						1							1
Saracens Head														
Yard	9												1	1
Sterling Street	9									1			2	3
Spencer Road	9												1	1
St. Malo Road	9											1		1



Street.	Ward.	Small-pox.	Scarlet.	Enteric.	Typhus.	Diphtheria.	Whoop. Cough.	Measles.	Diarrhoea.	Pulmonary.	Rheumatism.	Cancer.	Others.	Total
Shelmerdine St..	10	...	...	...	...	...	...	...	1	2	...	...	3	6
Standishgate .....	10	...	...	...	...	...	...	...	...	...	...	...	1	1
Spring Gardens..	10	...	...	...	...	...	...	...	...	...	...	...	1	1
Turner Street .....	2	...	...	...	...	...	...	...	...	3	1	3	7	7
Thompson Street	2	...	...	...	...	...	...	...	...	1	...	4	5	5
Tickle Street ...	7	...	...	...	...	...	...	1	...	...	...	...	1	1
Taylor Street,...	7	...	...	...	...	...	...	...	3	...	...	3	6	6
Upper Morris St.	1	...	...	...	...	...	1	...	3	...	2	10	16	16
Union Street,...	4	...	...	...	...	...	...	...	1	...	...	2	3	3
Union Work'se	8	...	...	...	...	...	...	...	17	4	64	85	85	85
Upper St.														
Stephen Street	8	...	...	...	...	...	...	...	1	...	1	3	5	5
Upper Diccons'n														
Street .....	9	...	...	...	...	...	...	...	...	1	3	4	4	4
Vaughan Street.	2	...	...	...	...	...	...	...	...	...	...	1	1	1
Vine Street,...	2	...	...	...	...	...	...	...	...	1	...	...	1	1
Von Blucher Sqr.	3	...	...	...	...	...	...	...	...	...	...	2	2	2
Vauxhall Road.,	4	...	...	...	...	...	...	...	2	4	...	...	1	7
Vine Grove,...	5	...	...	...	...	...	...	...	1	...	...	...	1	2
Victoria Street..	5	...	...	...	...	...	...	1	1	7	...	...	3	12
Vere Street,...	5	...	...	...	...	...	...	...	...	...	...	...	1	1
Victoria Avenue	8	...	...	...	...	...	...	...	...	...	...	3	3	3
Withnail Street.	1	...	...	...	...	...	...	...	1	...	...	...	2	2
Wolfendale's Yd	1	...	...	...	...	...	...	...	...	...	...	...	1	1
Windmill Street,	1	...	...	...	...	...	...	...	...	...	...	...	1	1
Woods' Square,														
Lime Street ...	1	...	...	...	...	...	...	...	1	...	...	...	1	2
Walmesley Sqr..	1	...	...	...	...	...	...	...	...	...	...	...	1	1
Water Street ...	1	...	...	...	...	...	...	...	...	...	...	...	2	2
Westminster St.	2	...	...	...	...	...	...	...	...	...	...	...	2	2
Windsor Street.	2	...	...	...	...	...	...	...	1	1	...	...	2	2
Whelley .....	2	...	...	...	...	...	...	...	2	1	...	...	7	10
Whelley .....	3	...	...	...	...	...	...	...	3	1	...	...	3	7
Street.	Ward.	Small-pox.	Scarlet.	Enteric.	Typhus.	Diphtheria.	Whoop. Cough.	Measles.	Diarrhoea.	Pulmonary.	Rheumatism.	Cancer.	Others.	Total
Westmorel'nd St	3	...	...	...	...	...	...	...	...	...	...	...	2	2
William Street..	3	...	...	...	...	...	...	...	...	...	...	...	1	1
Windermeres St.	3	...	...	...	...	...	...	...	...	...	...	...	2	2
Well Street .....	3	...	...	...	...	...	...	...	...	...	...	...	1	1
Wellington St...	4	...	...	...	...	...	...	...	...	1	...	...	1	2
Warrington Lne	4	...	1	...	...	...	...	...	1	5	...	1	4	12
Warringt'n Lane	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Terrace .....	4	...	...	...	...	...	...	...	1	...	...	...	1	1
Walmesley St...	4	...	...	1	...	...	...	...	...	...	...	...	1	2
Woods' Grove...	5	...	...	...	...	...	...	...	...	...	...	...	2	2
Wood Street ...	5	...	...	...	...	...	...	...	...	1	...	...	1	1
Wood Yard .....	5	...	...	...	...	...	...	...	...	...	...	1	1	1
Wallgat- .....	6	...	...	...	...	...	...	...	...	...	...	1	2	4
Wignall Street..	6	...	1	...	...	...	...	...	...	1	...	...	4	6
Walmer Street..	6	...	1	...	...	...	...	...	...	...	...	...	3	4
Wilcock Street..	7	...	...	...	...	...	...	...	...	2	...	...	4	6
Wallgate .....	7	...	...	...	...	...	...	...	...	2	...	...	5	7
Waddington's														
Buildings .....	7	...	...	...	...	...	...	...	...	2	...	...	...	2
Walker's Yard.,	7	...	...	...	...	...	...	...	1	...	...	...	1	2
Woodhouse Lne.	8	...	...	...	...	...	...	...	...	2	...	1	11	14
Whiteside Aven	8	...	...	...	...	...	...	...	...	1	...	...	...	1
Wrightington St	9	...	...	...	...	...	...	...	...	...	...	1	2	3
Wigan Lane,...	9	...	...	...	...	...	1	...	1	...	...	2	10	14
Woods' Yard,														
Duke Street...	9	...	...	...	...	...	...	...	...	...	...	...	1	1
Wright's Yard,														
Wigan Lane...	9	...	...	...	...	...	...	...	...	...	...	...	1	1
Wall-ate .....	10	...	...	...	...	...	...	...	...	1	...	...	1	2
Woodcock Street	10	...	...	...	...	...	...	...	...	...	...	...	1	1
Yates Street,...	7	...	...	...	...	...	...	...	...	...	...	...	1	1
York Street .....	7	...	...	...	...	...	1	1	1	1	...	...	4	8
Zulu Street .....	4	...	...	...	...	...	1	...	1	1	...	...	1	4



PART II.

**THE ZYMOTIC DISEASES.  
CONSTITUTIONAL DISEASES.  
LOCAL DISEASES.  
INQUESTS.**

# THE HISTORY OF

THE DISEASES OF THE

INTERNAL ORGANS

I

OF THE

INTERNAL ORGANS

OF THE

INTERNAL ORGANS

OF THE



## CAUSES OF DEATH.

### THE ZYMOTIC DISEASES.

The Mortality from the principal zymotic diseases, namely, Small Pox, Scarlet Fever, Measles, Whooping Cough, Typhus, Enteric Fever, Puerperal Fever, Diphtheria, and Diarrhœa, gives us a rate of 3·14 per 1,000 of the population, against 4·18 in 1903.

The deaths numbered 202.

The zymotic rate 3·14 is made up as follows :—

DEATHS PER 1,000.		
	1904.	1903.
Small Pox.....	·015	·016
Scarlet Fever .....	·17	·41
Measles .....	·35	1·86
Whooping Cough .....	·52	·44
Typhus .....	...	...
Enteric .....	·24	·17
Diphtheria.....	·062	·2
Diarrhœa .....	1·68	1·24
Puerperal .....	·062	·016
Erysipelas.....	·015	·03

The zymotic rate during each of the four quarters was :—

	1904.	1903.
1st Quarter .....	1·83	4·68
2nd     " .....	·82	5·05
3rd     " .....	6·66	4·73
4th     " .....	3·13	2·28

### TABLE OF ZYMOTIC DISEASES.

	Notified.	Died.	Case Mortality per cent.
Small Pox .....	2	1	50·0
Scarlet Fever .....	191	11	5·75
Enteric Fever .....	56	16	28·57
Diphtheria.....	9	4	44·4
Measles .....	831	23	2·76
Whooping Cough.....	...	34	...
Diarrhœa .....	...	108	...
Puerperal Fever .....	8	4	50·0
Erysipelas.....	47	1	2·12

# DEATH RATES, 1904.

Disease.	No. of Deaths.	Rate.
Small Pox .....	1	·015
Measles .....	23	·35
Scarlet Fever .....	11	·17
Diphtheria and Croup .....	4	·062
Whooping Cough .....	34	·52
Enteric Fever .....	16	·24
Erysipelas .....	1	·015
Septicæmia .....	...	...
Puerperal Fever .....	4	·062
Diarrhœa .....	108	1·68
Phthisis .....	70	1·08
Other Tubercular Diseases .....	26	·40
Bronchial Diseases .....	138	2·14
Pulmonary Diseases .....	167	2·59
Wasting Diseases of Infants .....	59	·91
Convulsive " " .....	42	·65
Cancer .....	47	·73
Rheumatism .....	12	·18
Diseases of Heart .....	63	·98
Other Diseases .....	555	8·63
Total .....	1381	21·49

Number of notifications compared with other years :—

Disease.	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
Small Pox .....	13	2	91	33	0	0	0	0	0	4	66	2
Typhus .....	20	34	33	20	1	0	0	0	0	0	0	0
Scarlet .....	335	359	161	151	191	420	245	484	264	557	362	191
Enteric .....	264	68	64	101	64	93	173	104	71	76	51	56
Continued .....	71	32	29	2	0	0	0	0	0	0	0	0
Diphtheria .....	16	10	13	10	23	12	13	20	49	58	38	9
Puerperal .....	10	7	5	7	7	4	4	4	8	10	5	8
Cholera .....	0	0	0	0	1	0	0	0	0	0	0	0
Erysipelas .....	0	0	0	0	0	0	0	39	65	65	51	47
Mem. Croup ...	0	0	0	0	0	0	0	0	0	2	0	0
Total ...	729	512	396	324	287	529	435	651	457	772	573	313

## Analysis of Notifications :—

1904.	Jan.	Feb.	Mar.	Apl.	May	Jun	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Small Pox...	1	1	...	...	...	...	...	...	...	...	...	...	2
Scarlet .....	25	8	9	7	11	19	25	8	11	23	27	18	191
Typhus .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric .....	1	1	3	2	2	4	5	3	6	12	8	9	56
Continued...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria..	...	1	2	...	...	...	...	1	1	1	1	2	9
Puerperal...	2	...	...	...	1	...	...	2	...	1	1	1	8
Erysipelas ..	5	8	5	4	2	4	...	5	2	3	4	5	47
Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Total .....	34	19	19	13	16	27	30	19	20	40	41	35	313



## SMALL POX.

In my last Annual Report (1903) I stated that the last case of Small Pox in that year was discharged from the Decker Hospital on November 27th, 1903. Unfortunately we had two cases in this year (1904), namely, one in January and the other in February.

Case I. E. T., female, 22 years of age, removed January 16th, factory operative ; source of infection could not be traced. Vaccinated. Very mild case.

Case II. E. R., female, 44 years of age, removed February 5th ; her daughter worked with the case No. I. She was unvaccinated. Fatal case.

Small Pox is prevalent in districts not far from us, as will be seen by the Local Government returns which we receive every week. It is difficult to understand the apathy of the people, especially those who of necessity in their daily occupation are exposed to infection, fail to avail themselves of the protection offered to them in the way of re-vaccination.

This again only shows the disadvantages of a free country, an exception which may be said to prove the rule, but we should consider that the liberty of the subject is not interfered with, if the subject is prevented from exposing others to dangers which are unnecessary and preventable. An unvaccinated person is a danger to the community, more especially when Small Pox is prevalent.

The Small Pox epidemic which still exists in Dewsbury will, when its history is written, prove a fine object-lesson not only to those who advocate the abolition of vaccination, but also to the ratepayers.

The "Hospital," in a leading article on Small Pox in Germany in its issue of April 30th, 1904, gives some significant facts in reference to the report made by Dr. Bruce Low to the Local Government Board from information he had collected in Germany.

The immunity of Germany from Small Pox epidemics is well known, notwithstanding the frequency of its



introduction from Russia, Austria, and Italy, and this immunity dates from 1874, when the re-vaccination law came into force.

The leading article in question states that Dr. Low went in the first instance to Berlin to confer with the Central Imperial Health Office, but as no cases of Small Pox as far as the office was aware existed in Germany at the time of his visit, it was arranged that he should extend that visit to representative towns in the four chief states of the German Empire, namely, to Berlin, Cologne, Frankfort-on-Main, Wiesbaden, and Mainz, in the kingdom of Prussia; Munich and Nuremberg, in the kingdom of Bavaria; Dresden and Leipsig, in the kingdom of Saxony; and Struttgart, in the kingdom of Wurtemberg.

In each of these towns he conferred with the physicians of the hospitals, excepting at Mainz, where circumstances compelled him to be content with the evidence of lay officials, inspected the accommodation provided for Small Pox patients, and obtained general information from local medical men, municipal officials, and others.

Before proceeding to give the detailed results of his inquiry, Dr. Low explains that, under the law of 1874, and throughout the German Empire, young children must be vaccinated before the end of the calendar year following the year of birth, and all school children must be re-vaccinated in their twelfth year, obedience being enforced by fine or imprisonment. The notification of Small Pox to the police authorities is obligatory throughout the Empire; and, as soon as these authorities have received a notification, the information is at once communicated to the Medical Officer of Health, whose duty it is to examine into the circumstances, and to report. All persons suffering or suspected to be suffering from Small Pox can be ordered to hospital for isolation if, in the opinion of the medical adviser of the local authority, they cannot be isolated at home.

The most remarkable part of the case, however, is that in Germany, with a very few exceptions, there are



no "Small Pox Hospitals," and there is nothing which would be called isolation according to the English acceptance of the term.

The patients, as a rule, are removed to the general hospital of the town or district, where commonly a pavilion is kept in readiness for their reception, although it is often thought enough to clear out the patients from some occupied pavilion, and transfer them elsewhere, to make room for the Small Pox case, or cases. At Frankfort-on-Main, the portion of the general hospital site on which the Small Pox Hospital stands, is enclosed by a wall, but, in the absence of Small Pox, this pavilion is used for the treatment of other maladies, infectious or not, as may be required.

At Dresden arrangements are made to erect a temporary wooden fence round the Small Pox pavilion as soon as the case is admitted. But, generally speaking, the cases are "isolated" in a pavilion standing on the site of the general hospital, and in no way shut off from the rest of the establishment.

In most cases this pavilion is supplied with food from the central kitchen, and the soiled linen is sent to the general laundry, after being steeped in some disinfecting solution.

The nurses and the medical officer, or any other persons, whose business bring them into relation to the Small Pox pavilion, are at once re-vaccinated as a matter of routine; but re-vaccination of the whole hospital *personnel* is not attempted, complete reliance being placed upon the statutory vaccination and re-vaccination of the whole people, as conducted under the law of 1874.

It follows that in Germany there is no isolation of Small Pox, as we should understand it, and that there is certainly nothing of the kind which would ever hinder, much less prevent, the occurrence of widespread epidemics among a susceptible population. In England, as we know only too well such epidemics not only occur, but are sources of great mortality, great suffering, and great expense. In Germany, they are unknown, obviously because the people generally have been rendered in-







## Cities and Towns in which Small Pox occurred during 1904 :—

Week Ending.	TOWN.	Cases.	Week Ending.	TOWN.	Cases.	Week Ending.	TOWN.	Cases.
Jan. 2	Tunbridge Wells	1	Jan. 9	London .....	6	Jan. 30	Gorton .....	1
"	Portsmouth ....	1	Jan. 16	Edmonton .....	1	"	Ashton-u-Lyne .	2
"	Southampton ..	1	"	Tottenham ....	7	"	Brighouse .....	1
"	Tottenham ....	1	"	Burton-on-Trent	3	"	Leeds .....	1
"	West Ham .....	2	"	Loughborough .	3	"	Sheffield .....	1
"	Birmingham ...	1	"	Leicester .....	1	"	York .....	2
"	Nottingham ...	6	"	Nottingham ...	5	"	Darlington ....	1
"	Warrington ....	2	"	Derby .....	2	"	Sunderland ....	1
"	Bolton .....	1	"	Stockport .....	2	"	Hebburn .....	2
"	Stretford .....	1	"	St. Helens (Lanc.)	1	"	Jarrow .....	4
"	Manchester .....	3	"	Wigan .....	1	"	Gateshead .....	20
"	Ashton-u-Lyne .	10	"	Warrington ....	2	"	Tynemouth ....	4
"	Oldham .....	1	"	Bolton .....	1	"	London .....	3
"	Huddersfield ...	1	"	Stretford .....	1	Feb. 6	Edmonton ....	1
"	Leeds .....	1	"	Gorton .....	3	"	Stafford .....	1
"	Sheffield .....	1	"	Manchester ....	1	"	Loughborough..	16
"	York .....	2	"	Ashton-u-Lyne .	2	"	Leicester .....	6
"	Middlesborough.	1	"	Oldham .....	5	"	Nottingham ...	11
"	Sunderland ....	5	"	Brighouse .....	1	"	Derby .....	1
"	Hebburn .....	4	"	Sheffield .....	1	"	Hyde .....	1
"	Jarrow .....	1	"	York .....	2	"	St. Helens .....	2
"	South Shields ..	—	"	Sunderland ....	6	"	Widnes .....	1
"	Gateshead .....	13	"	Gateshead .....	18	"	Wigan .....	1
"	N'castle-on-Tyne	1	"	N'castle-on-Tyne	2	"	Warrington ....	3
"	Tynemouth ....	3	"	Tynemouth ....	11	"	Manchester ....	3
"	London .....	4	"	London .....	3	"	Chadderton ....	4
Jan. 9	Bromley .....	—	Jan. 23	Stafford .....	1	"	Blackpool .....	1
"	Newport (I. of W.)	—	"	Walsall .....	1	"	Brighouse .....	1
"	Tottenham ....	2	"	Loughborough..	7	"	Sheffield .....	2
"	Kidderminster ..	1	"	Leicester .....	4	"	Kingston-on-Hull	3
"	Birmingham ...	1	"	Nottingham ...	16	"	Middlesborough.	2
"	Nuneaton and		"	Liverpool .....	1	"	Sunderland ....	1
"	Chilvers ....C	1	"	St. Helens (Lanc.)	6	"	Hebburn .....	4
"	Loughborough. .	3	"	Widnes .....	2	"	South Shields ..	1
"	Leicester .....	1	"	Warrington ....	4	"	Gateshead ....	25
"	Grimsby .....	1	"	Manchester ....	2	"	N'castle-on-Tyne	2
"	Nottingham ...	8	"	Ashton-u-Lyne .	4	"	Tynemouth ....	2
"	Stockport .....	1	"	Brighouse .....	1	"	London .....	7
"	Liverpool .....	1	"	Kingston-on-Hull	1	Feb. 13	Loughborough..	12
"	St. Helens (Lancs)	1	"	South Shields ..	2	"	Leicester .....	8
"	Widnes .....	1	"	Gateshead .....	18	"	Grimsby .....	1
"	Warrington ....	2	"	N'castle-on-Tyne	3	"	Nottingham ...	14
"	Ashton-u-Lyne .	11	"	Blyth .....	1	"	Stockport .....	1
"	Brighouse .....	1	"	Tynemouth ....	2	"	St. Helens (Lanc.)	2
"	Halifax .....	1	"	London .....	5	"	Warrington ....	4
"	York .....	1	Jan. 30	Tottenham ....	1	"	Manchester ....	1
"	Middlesborough.	2	"	West Ham ....	1	"	Ashton-u-Lyne .	1
"	Stockton-on-Tees	1	"	Loughborough..	5	"	Chadderton ....	3
"	Sunderland ....	7	"	Leicester .....	6	"	Brighouse .....	2
"	Hebburn .....	1	"	Nottingham ...	7	"	Dewsbury .....	1
"	Jarrow .....	1	"	Hyde .....	2	"	Sheffield .....	4
"	South Shields ..	1	"	St. Helens (Lanc.)	3	"	Kingston-on-Hull	3
"	Gateshead ....	19	"	Warrington ....	4	"	Middlesborough.	1
"	Newcastle-on-Tyne	6	"	Bolton .....	2	"	Hebburn .....	1



## LIST OF TOWNS, &amp;c.—CONTINUED.

<i>Week</i> <i>Ending.</i>	<i>TOWN.</i>	<i>Cases.</i>	<i>Week</i> <i>Ending.</i>	<i>TOWN.</i>	<i>Cases.</i>	<i>Week</i> <i>Ending.</i>	<i>TOWN.</i>	<i>Cases.</i>
Feb. 13	Jarrow .....	1	Mar. 5	Stockport .....	6	Mar. 19	Brighthouse .....	6
"	South Shields ..	2	"	St. Helens (Lanc.)	2	"	Halifax .....	2
"	Gateshead .....	24	"	Southport .....	1	"	Sheffield .....	2
"	London .....	1	"	Manchester .....	1	"	York .....	2
Feb. 20	Loughborough..	8	"	Brighthouse .....	2	"	Kingston-on-Hull	6
"	Leicester .....	3	"	Halifax .....	1	"	Jarrow .....	4
"	Grimsby .....	1	"	Batley .....	2	"	South Shields ..	1
"	Ilkeston .....	2	"	Dewsbury .....	1	"	Gateshead .....	14
"	Nottingham ...	21	"	Hebburn .....	2	"	N'castle-on-Tyne	7
"	Derby .....	12	"	Jarrow .....	4	"	Tynemouth ....	18
"	Chesterfield ....	2	"	South Shields ..	1	"	London .....	23
"	Stockport .....	1	"	Gateshead .....	6	Mar. 26	West Ham .....	1
"	St. Helens (Lanc.)	2	"	Cardiff .....	1	"	Nottingham ...	11
"	Warrington ....	6	"	London .....	7	"	Tottenham ....	3
"	Manchester ....	1	Mar. 12	Oxford .....	1	"	Smethwick ....	1
"	Brighthouse .....	4	"	Loughborough..	5	"	Loughborough..	2
"	Sheffield .....	2	"	Leicester .....	7	"	Leicester .....	12
"	Middlesborough..	2	"	Grimsby .....	2	"	Grimsby .....	1
"	Hebburn .....	2	"	Nottingham....	18	"	Hyde .....	1
"	Jarrow .....	1	"	Derby .....	6	"	Stockport .....	3
"	Gateshead .....	15	"	Stockport .....	2	"	Birkenhead ....	13
"	N'castle-on-Tyne	11	"	Birkenhead ....	2	"	Wallasey .....	1
"	Tynemouth ....	1	"	St. Helens (Lanc.)	1	"	St. Helens (Lanc.)	4
"	Whitehaven ...	1	"	Bolton .....	2	"	Southport .....	1
"	London .....	8	"	Manchester ....	3	"	Manchester ....	12
Feb. 27	Brighton .....	1	"	Ashton-u-Lyne .	3	"	Ashton-u-Lyne .	15
"	Colchester .....	1	"	Stalybridge ....	1	"	Chadderton ....	1
"	Loughborough..	16	"	Brighthouse .....	8	"	Oldham .....	1
"	Leicester .....	8	"	Halifax .....	3	"	Huddersfield ...	1
"	Lincoln .....	3	"	Dewsbury .....	1	"	Brighthouse .....	5
"	Grimsby .....	8	"	Sheffield .....	1	"	Halifax .....	4
"	Nottingham ...	14	"	Kingston-on-Hull	7	"	Leeds .....	2
"	Derby .....	7	"	Hebburn .....	2	"	Kingston-on-Hull	6
"	St. Helens (Lanc.)	1	"	South Shields ..	3	"	Hebburn .....	4
"	Southport .....	1	"	Gateshead .....	27	"	Jarrow .....	2
"	Warrington ....	4	"	N'castle-on-Tyne	3	"	Gateshead .....	21
"	Bolton .....	2	"	London .....	24	"	N'castle-on-Tyne	3
"	Ashton-u-Lyne .	1	Mar. 19	Oxford .....	1	"	Tynemouth ....	18
"	Leeds .....	1	"	Leyton .....	2	"	Carlisle .....	1
"	Batley .....	2	"	Ilford .....	7	"	London .....	54
"	Dewsbury .....	2	"	Birmingham ...	1	April 2	Erith .....	1
"	Sheffield .....	4	"	Loughborough..	1	"	East Ham .....	1
"	Kingston-on-Hull	6	"	Leicester .....	8	"	Leyton .....	2
"	Hebburn .....	1	"	Nottingham ...	13	"	Walthamstow ..	1
"	Jarrow .....	3	"	Derby .....	5	"	Ilford .....	1
"	Gateshead .....	15	"	Chesterfield ....	1	"	Ilfracombe ....	1
"	N'castle-on-Tyne	5	"	Stockport .....	2	"	Stafford .....	1
"	London .....	2	"	Birkenhead ....	10	"	Newcastle-u-Lyne	1
Mar. 5	Leyton .....	1	"	St. Helens (Lanc.)	7	"	Burton .....	1
"	Loughborough..	4	"	Gorton .....	1	"	Coventry .....	1
"	Leicester .....	4	"	Manchester ....	3	"	Nottingham ...	12
"	Grimsby .....	1	"	Ashton-u-Lyne .	18	"	Derby .....	6
"	Nottingham ...	14	"	Stalybridge ....	1	"	Chesterfield ....	1
"	Derby .....	6	"	Ripon .....	1	"	Stockport .....	2



## LIST OF TOWNS, &amp;c.—CONTINUED.

<i>Week Ending.</i>	<i>TOWN.</i>	<i>Cases.</i>	<i>Week Ending.</i>	<i>TOWN.</i>	<i>Cases.</i>	<i>Week Ending.</i>	<i>TOWN.</i>	<i>Cases.</i>
April 2	Birkenhead . . . .	2	April 16	Loughborough..	2	April 23	Gateshead . . . .	16
"	Wallasey . . . . .	1	"	Leicester . . . . .	21	"	N'castle-on-Tyne	5
"	Southport . . . . .	1	"	Nottingham . . .	6	"	Tynemouth . . . .	3
"	Bolton . . . . .	3	"	Derby . . . . .	22	"	Carlisle . . . . .	1
"	Gorton . . . . .	1	"	Stockport . . . .	7	"	London . . . . .	26
"	Manchester . . . .	6	"	Liverpool . . . .	1	April 30	Ilford . . . . .	1
"	Huddersfield . . .	1	"	St. Helens (Lanc.)	1	"	Southend . . . . .	1
"	Leeds . . . . .	2	"	Bury . . . . .	1	"	Newcastle . . . .	2
"	Dewsbury . . . . .	11	"	Gorton . . . . .	1	"	Loughborough..	1
"	Kingston . . . . .	13	"	Manchester . . . .	4	"	Nottingham . . .	4
"	Whitby . . . . .	3	"	Salford . . . . .	1	"	Derby . . . . .	5
"	Hebburn . . . . .	1	"	Ashton-u-Lyne .	3	"	Stockport . . . .	6
"	Jarrow . . . . .	1	"	Chadderton . . . .	2	"	Birkenhead . . . .	2
"	South Shields ..	1	"	Oldham . . . . .	2	"	Liverpool . . . .	3
"	Gateshead . . . . .	16	"	Preston . . . . .	1	"	Bury . . . . .	1
"	Newcastle . . . . .	17	"	Brighouse . . . .	2	"	Manchester . . . .	2
"	Tynemouth . . . .	3	"	Halifax . . . . .	3	"	Ashton-u-Lyne .	1
"	London . . . . .	37	"	Leeds . . . . .	4	"	Oldham . . . . .	1
April 9	Southampton ..	1	"	Dewsbury . . . .	12	"	Bradford . . . . .	1
"	Peterborough ..	2	"	Sheffield . . . . .	6	"	Leeds . . . . .	5
"	East Ham . . . . .	1	"	Kingston-on-Hull	6	"	Batley . . . . .	1
"	Leyton . . . . .	2	"	Middlesborough.	1	"	Dewsbury . . . .	22
"	West Ham . . . . .	8	"	Hebburn . . . . .	1	"	Wakefield . . . .	1
"	Tunstall . . . . .	1	"	South Shields ..	5	"	Barnsley . . . . .	2
"	Loughborough .	1	"	Gateshead . . . .	27	"	Sheffield . . . . .	2
"	Leicester . . . . .	35	"	N'castle-on-Tyne	11	"	Kingston-on-Hull	3
"	Nottingham . . .	5	"	Tynemouth . . . .	13	"	Whitby . . . . .	1
"	Derby . . . . .	17	"	Swansea . . . . .	1	"	Sunderland . . . .	3
"	Stockport . . . .	4	"	London . . . . .	37	"	Hebburn . . . . .	1
"	Birkenhead . . . .	1	April 23	Northampton ..	1	"	Jarrow . . . . .	1
"	Wallasey . . . . .	1	"	Leyton . . . . .	1	"	South Shields ..	10
"	Ashton-u-Lyne .	2	"	N'castle-on-Tyne	1	"	Gateshead . . . .	18
"	Stalybridge . . . .	1	"	Burton-on-Trent	3	"	N'castle-on-Tyne	13
"	Chadderton . . . .	1	"	Loughborough..	1	"	Tynemouth . . . .	5
"	Oldham . . . . .	1	"	Leicester . . . . .	19	"	Carlisle . . . . .	1
"	Huddersfield . . .	1	"	Nottingham . . .	5	"	London . . . . .	12
"	Brighouse . . . .	4	"	Derby . . . . .	9	May 7	Walthamstow ..	1
"	Halifax . . . . .	8	"	Stockport . . . .	3	"	N'castle-u-Lyme	4
"	Leeds . . . . .	3	"	Southport . . . .	1	"	Burton-on-Trent	1
"	Batley . . . . .	2	"	Warrington . . . .	1	"	Wolverhampton	1
"	Dewsbury . . . .	10	"	Bury . . . . .	1	"	Birmingham . . .	1
"	Kingston-on-Hull	4	"	Manchester . . . .	8	"	Loughborough .	1
"	Whitby . . . . .	3	"	Stalybridge . . . .	1	"	Leicester . . . . .	6
"	Jarrow . . . . .	1	"	Chadderton . . . .	2	"	Nottingham . . .	4
"	South Shields ..	1	"	Oldham . . . . .	1	"	Derby . . . . .	9
"	Gateshead . . . .	21	"	Blackpool . . . .	1	"	Chesterfield . . .	1
"	N'castle-on-Tyne	4	"	Brighouse . . . .	1	"	Stockport . . . .	3
"	Tynemouth . . . .	4	"	Halifax . . . . .	4	"	Southport . . . .	1
"	Cardiff . . . . .	1	"	Leeds . . . . .	2	"	Ashton-u-Lyne .	4
"	London . . . . .	25	"	Batley . . . . .	1	"	Oldham . . . . .	3
April 16	Tottenham . . . .	1	"	Dewsbury . . . .	11	"	Burnley . . . . .	4
"	Walthamstow ..	2	"	Sheffield . . . . .	6	"	Brighouse . . . .	3
"	West Ham . . . .	1	"	Kingston-on-Hull	3	"	Bradford . . . . .	2
"	Ilfracombe . . . .	2	"	South Shields ..	4	"	Dewsbury . . . .	10



## LIST OF TOWNS, &amp;c.—CONTINUED.

Week Ending.	TOWN.	Cases.	Week Ending.	TOWN.	Cases.	Week Ending.	TOWN.	Cases.
May 7	Barnsley .....	8	May 21	Chadderton ...	1	June 4	Liverpool .....	2
"	Sheffield .....	3	"	Oldham .....	1	"	Manchester ....	5
"	Rotherham ....	1	"	Brighouse ....	1	"	Ashton-u-Lyne .	2
"	Kingston-on-Hull	1	"	Halifax .....	3	"	Halifax .....	1
"	Sunderland ....	5	"	Bradford .....	7	"	Bradford .....	4
"	Hebburn .....	2	"	Leeds .....	2	"	Dewsbury .....	3
"	Jarrow .....	2	"	Batley .....	2	"	Barnsley .....	3
"	South Shields ..	11	"	Dewsbury .....	8	"	Sheffield .....	1
"	Gateshead ....	8	"	Wakefield .....	1	"	Kingston-on-Hull	4
"	N'castle-on-Tyne	3	"	Barnsley .....	8	"	Hebburn .....	1
"	Tynemouth ....	3	"	Sheffield .....	2	"	Felling .....	1
"	Carlisle .....	2	"	Kingston-on-Hull	3	"	Gateshead ....	2
"	London .....	15	"	Hebburn .....	1	"	N'castle-on-Tyne	5
May 14	Bristol .....	1	"	South Shields ..	8	"	Tynemouth ....	2
"	Burton-on-Trent	2	"	Gateshead ....	4	"	Wallsend .....	2
"	Birmingham ...	1	"	N'castle-on-Tyne	8	"	Cardiff .....	2
"	Leicester .....	21	"	Tynemouth ....	3	"	London .....	10
"	Grimsby .....	2	"	Cardiff .....	5	June 11	Worthing .....	1
"	Nottingham ...	12	"	London .....	16	"	Leyton .....	1
"	Derby .....	10	May 28	West Ham .....	2	"	Devonport ....	3
"	Stockport .....	4	"	Rowley Regis ..	1	"	Bristol .....	1
"	Liverpool .....	1	"	Coventry .....	1	"	Wolverhampton	7
"	Warrington ....	2	"	Nottingham ...	7	"	Coventry .....	2
"	Manchester ....	1	"	Derby .....	7	"	Leicester .....	8
"	Oldham .....	4	"	Stockport .....	3	"	Nottingham ...	3
"	Brighouse .....	2	"	Birkenhead ....	2	"	Derby .....	12
"	Halifax .....	5	"	Southport .....	1	"	Stockport .....	3
"	Bradford .....	3	"	Warrington ....	3	"	Bolton .....	3
"	Leeds .....	3	"	Manchester ....	3	"	Manchester ....	10
"	Batley .....	3	"	Brighouse .....	2	"	Salford .....	1
"	Dewsbury .....	7	"	Halifax .....	7	"	Stalybridge ....	1
"	Wakefield .....	1	"	Bradford .....	2	"	Huddersfield ...	1
"	Barnsley .....	5	"	Batley .....	1	"	Bradford .....	7
"	Sheffield .....	1	"	Dewsbury .....	1	"	Batley .....	1
"	Hebburn .....	1	"	Barnsley .....	5	"	Dewsbury .....	7
"	South Shields ..	12	"	Doncaster .....	1	"	Barnsley .....	4
"	Gateshead ....	4	"	Kingston-on-Hull	5	"	Sheffield .....	2
"	N'castle-on-Tyne	5	"	Jarrow .....	1	"	Kingston-on-Hull	1
"	Tynemouth ....	3	"	South Shields ..	7	"	Scarborough ...	1
"	Barry .....	1	"	Gateshead ....	9	"	Sunderland ....	2
"	London .....	23	"	N'castle-on-Tyne	2	"	Jarrow .....	1
May 21	Walthamstow ..	2	"	Tynemouth ....	1	"	Gateshead ....	4
"	Ilford .....	2	"	London .....	36	"	N'castle-on-Tyne	8
"	Bristol .....	5	June 4	Gravesend .....	8	"	Wallsend .....	2
"	Worcester .....	1	"	Bristol .....	2	"	Cardiff .....	1
"	Leicester .....	11	"	Bilston .....	1	June 18	Gravesend .....	1
"	Grimsby .....	1	"	Kidderminster..	1	"	Harrow-on-Hill .	1
"	Nottingham ...	3	"	Birmingham ...	2	"	Edmonton ....	1
"	Derby .....	4	"	Leicester .....	17	"	Walthamstow ..	22
"	Stockport .....	3	"	Nottingham ...	3	"	Bristol .....	5
"	Birkenhead ....	5	"	Derby .....	9	"	Leicester .....	9
"	Liverpool .....	1	"	Glossop .....	3	"	Nottingham ...	6
"	Manchester ....	3	"	Stockport .....	5	"	Derby .....	3
"	Ashton-u-Lyne .	1	"	Birkenhead ....	2	"	Stockport .....	3



## LIST OF TOWNS, &amp;c.—CONTINUED.

<i>Week Ending.</i>	<i>TOWN.</i>	<i>Cases.</i>	<i>Week Ending.</i>	<i>TOWN.</i>	<i>Cases.</i>	<i>Week Ending.</i>	<i>TOWN.</i>	<i>Cases.</i>
June 18	Macclesfield . . . .	1	July 2	Bristol . . . . .	7	July 16	Burslem . . . . .	1
"	Liverpool . . . . .	1	"	Burslem . . . . .	3	"	Cannock . . . . .	1
"	Bury . . . . .	1	"	Hanley . . . . .	1	"	Dudley . . . . .	1
"	Manchester . . . . .	2	"	Burton-on-Trent	1	"	King's Norton	
"	Salford . . . . .	3	"	Cannock . . . . .	1	"	and Norfolk ..	2
"	Oldham . . . . .	5	"	Wolverhampton	1	"	Lincoln . . . . .	8
"	Rochdale . . . . .	1	"	Dudley . . . . .	1	"	Nottingham . . .	2
"	Bradford . . . . .	8	"	King's Norton		"	Derby . . . . .	5
"	Leeds . . . . .	3	"	and Norfolk ..	1	"	Chesterfield . . .	1
"	Batley . . . . .	3	"	Nottingham . . .	4	"	Glossop . . . . .	3
"	Dewsbury . . . . .	3	"	Derby . . . . .	2	"	Hyde . . . . .	4
"	Goole . . . . .	6	"	Stockport . . . . .	11	"	Stockport . . . .	22
"	Kingston(on-Hull	1	"	Bury . . . . .	5	"	Warrington . . . .	1
"	Thornaby-on-Tees	1	"	Heywood . . . . .	2	"	Bury . . . . .	6
"	Hebburn . . . . .	1	"	Stretford . . . . .	1	"	Manchester . . . .	2
"	Jarrow . . . . .	1	"	Manchester . . . .	1	"	Moss Side . . . . .	1
"	South Shields ..	1	"	Salford . . . . .	1	"	Ashton-u-Lyne . .	2
"	Gateshead . . . . .	14	"	Stalybridge . . . .	3	"	Stalybridge . . . .	1
"	N'castle-on-Tyne	5	"	Oldham . . . . .	2	"	Oldham . . . . .	1
June 25	Gravesend . . . . .	1	"	Bradford . . . . .	2	"	Rochdale . . . . .	1
"	Walthamstow ..	6	"	Dewsbury . . . . .	3	"	Preston . . . . .	1
"	Bristol . . . . .	1	"	Goole . . . . .	1	"	Fleetwood . . . . .	1
"	Wolverhampton	3	"	Kingston-on-Hull	1	"	Keighley . . . . .	1
"	Handsworth		"	Hebburn . . . . .	1	"	Bradford . . . . .	1
"	(Staffs.) . . . . .	1	"	Felling . . . . .	2	"	Batley . . . . .	3
"	Dudley . . . . .	1	"	Gateshead . . . . .	6	"	Sunderland . . . .	2
"	Worcester . . . . .	3	"	N'castle-on-Tyne	8	"	Gateshead . . . . .	14
"	Birmingham . . . .	1	July 9	Edmonton . . . . .	1	"	N'castle-on-Tyne	10
"	Nuneaton and		"	Walthamstow ..	5	July 23	Worthing . . . . .	2
"	Chilvers . . . . .	1	"	West Ham . . . . .	1	"	Walthamstow ..	1
"	Leicester . . . . .	4	"	Devonport . . . . .	1	"	West Ham . . . . .	1
"	Lincoln . . . . .	1	"	Stafford . . . . .	1	"	Burton-on-Trent	1
"	Mansfield . . . . .	1	"	Burslem . . . . .	1	"	Cannock . . . . .	1
"	Nottingham . . . .	18	"	Dudley . . . . .	2	"	Leicester . . . . .	6
"	Derby . . . . .	3	"	Birmingham . . . .	1	"	Lincoln . . . . .	2
"	Hyde . . . . .	1	"	Leicester . . . . .	4	"	Nottingham . . . .	2
"	Stockport . . . . .	16	"	Lincoln . . . . .	1	"	Derby . . . . .	1
"	Manchester . . . . .	2	"	Nottingham . . . .	3	"	Hyde . . . . .	2
"	Salford . . . . .	7	"	Derby . . . . .	2	"	Stockport . . . . .	13
"	Ashton-u-Lyne . .	2	"	Stockport . . . . .	5	"	Macclesfield . . .	2
"	Stalybridge . . . .	2	"	Warrington . . . .	1	"	Liverpool . . . . .	5
"	Oldham . . . . .	2	"	Bolton . . . . .	1	"	Bury . . . . .	4
"	Halifax . . . . .	1	"	Salford . . . . .	2	"	Heywood . . . . .	1
"	Bradford . . . . .	5	"	Ashton-u-Lyne . .	2	"	Salford . . . . .	1
"	Batley . . . . .	3	"	Oldham . . . . .	1	"	Ashton-u-Lyne . .	1
"	Dewsbury . . . . .	1	"	Preston . . . . .	1	"	Chadderton . . . .	1
"	Barnsley . . . . .	3	"	Bradford . . . . .	3	"	Oldham . . . . .	3
"	Goole . . . . .	12	"	Dewsbury . . . . .	3	"	Bradford . . . . .	1
"	Jarrow . . . . .	2	"	Sheffield . . . . .	2	"	Leeds . . . . .	6
"	Felling . . . . .	1	"	Felling . . . . .	1	"	Batley . . . . .	1
"	Gateshead . . . . .	11	"	Gateshead . . . . .	16	"	Dewsbury . . . . .	15
"	N'castle-on-Tyne	12	"	N'castle-on-Tyne	23	"	Sheffield . . . . .	1
July 2	Tottenham . . . . .	1	July 16	Leyton . . . . .	1	"	South Shields ..	1
"	Walthamstow ..	8	"	Walthamstow ..	2	"	Gateshead . . . .	5
			"	Stafford . . . . .	1			



## LIST OF TOWNS, &amp;c.—CONTINUED.

Week Ending.	TOWN.	Cases.	Week Ending.	TOWN.	Cases.	Week Ending.	TOWN.	Cases.
July 23	N'castle-on-Tyne	9	Aug. 13	Walstanton United	1	Aug. 27	Glossop .....	1
July 30	Stafford .. .	1	"	Stoke-on-Trent .	1	"	Hyde .....	3
"	Tunstall .....	1	"	Cannock .....	8	"	Stockport .....	3
"	Cannock .....	1	"	Aston Manor ...	3	"	Macclesfield ...	2
"	Lincoln .....	3	"	Leicester .....	1	"	Gorton .....	1
"	Glossop .....	1	"	Ilkeston .....	1	"	Salford .....	1
"	Stockport .....	4	"	Derby .....	4	"	Ashton-u-Lyne .	2
"	Liverpool .....	1	"	Glossop .....	1	"	Oldham .....	1
"	Widnes .....	1	"	Hyde .....	1	"	Preston .....	1
"	Warrington ....	6	"	Stockport .....	5	"	Blackpool .....	1
"	Heywood .....	2	"	Macclesfield ....	7	"	Bradford .....	4
"	Gorton .....	1	"	Liverpool .....	1	"	Leeds .....	1
"	Manchester ....	4	"	Heywood .....	2	"	Batley .....	1
"	Salford .....	1	"	Gorton .....	1	"	Dewsbury .....	10
"	Ashton-u-Lyne .	2	"	Manchester ....	5	"	Scarborough ...	1
"	Oldham .....	1	"	Salford .....	2	"	Hebburn .....	2
"	Burnley .....	1	"	Ashton-u-Lyne .	3	"	Gateshead ....	3
"	Dewsbury .....	4	"	Oldham .....	1	"	N'castle-on-Tyne	7
"	York .....	2	"	Accrington ....	2	Sept. 3	Croydon .....	1
"	Middlesborough.	1	"	Bradford .....	3	"	Bristol .....	1
"	West Hartlepool	1	"	Leeds .....	2	"	Stafford .....	1
"	Sunderland ....	1	"	Dewsbury .....	11	"	Ilkeston .....	2
"	Felling .....	4	"	Stockton-on-Tees	1	"	Hyde .....	4
"	Gateshead ....	5	"	West Hartlepool	1	"	Stockport .....	3
"	N'castle-on-Tyne	4	"	South Shields ..	1	"	Bolton .....	1
Aug.	Burslem .....	1	"	Gateshead ....	4	"	Heywood .....	1
"	Tunstall .....	2	Aug. 20	Tunstall .....	2	"	Gorton .....	1
"	Cannock .....	4	"	Cannock .....	5	"	Manchester ....	2
"	Leicester .....	1	"	Lincoln .....	2	"	Stalybridge ....	1
"	Lincoln ...	2	"	Ilkeston .....	1	"	Oldham .....	19
"	Nottingham ....	2	"	Nottingham ...	2	"	Bradford .....	1
"	Derby .....	2	"	Derby .....	3	"	Batley .....	3
"	Hyde .....	1	"	Hyde .....	2	"	West Hartlepool	3
"	Stockport .....	2	"	Macclesfield ....	1	"	Felling .....	2
"	Macclesfield ....	8	"	Warrington ....	1	"	N'castle-on-Tyne	3
"	Birkenhead ....	1	"	Bolton .....	3	Sept. 10	Croydon .....	3
"	Liverpool .....	1	"	Gorton .....	1	"	Bristol .....	1
"	Widnes .....	1	"	Manchester ....	1	"	Rowley Regis ..	1
"	Warrington ....	2	"	Salford .....	2	"	Ilkeston .....	2
"	Bury .....	1	"	Preston .....	1	"	Nottingham ...	1
"	Heywood .....	1	"	Harrogate ....	1	"	Derby .....	3
"	Moss Side .....	1	"	Huddersfield ...	2	"	Hyde .....	13
"	Salford .....	1	"	Bradford .....	1	"	Stockport .....	1
"	Ashton-u-Lyne .	3	"	Dewsbury .....	13	"	Macclesfield ....	1
"	Oldham .....	1	"	West Hartlepool	1	"	Bury .....	1
"	Preston .....	4	"	Felling .....	1	"	Heywood .....	1
"	Huddersfield ...	1	"	Gateshead .....	4	"	Gorton .....	1
"	Bradford .....	1	Aug. 27	Tottenham ....	1	"	Manchester ....	8
"	Leeds .....	1	"	Northampton ..	3	"	Salford .....	6
"	Dewsbury .....	7	"	Cannock .....	5	"	Ashton-u-Lyne .	2
"	Felling .....	1	"	Bilston .....	1	"	Oldham .....	20
"	Gateshead .....	6	"	Ilkeston .....	3	"	Nelson .....	1
"	N'castle-on-Tyne	4	"	Nottingham ...	2	"	Blackburn .....	1
"	Wallsend .....	2	"	Derby .....	13	"	Preston .....	4



## LIST OF TOWNS, &amp;c.—CONTINUED.

Week Ending.	TOWN.	Cases.	Week Ending.	TOWN.	Cases.	Week Ending.	TOWN.	Cases.
Sept. 10	Blackpool	1	Octr. 1	Hyde	1	Octr. 15	Oldham	19
"	Brighouse	1	"	Stockport	1	"	Darwen	1
"	Bradford	1	"	Macclesfield	2	"	Preston	2
"	Leeds	1	"	Bury	1	"	Huddersfield	2
"	Batley	2	"	Swinton and		"	Brighouse	1
"	Dewsbury	41	"	Pendlebury	3	"	Halifax	1
"	Stockton-on-Tees	1	"	Manchester	6	"	Bradford	2
"	West Hartlepool	2	"	Salford	8	"	Leeds	3
"	Felling	1	"	Ashton-u-Lyne	2	"	Dewsbury	37
"	Gateshead	4	"	Oldham	17	"	Morley	1
"	N'castle-on-Tyne	8	"	Preston	3	"	Barnsley	4
Sept. 17	Bristol	1	"	Barrow-in-F'ness	1	"	Sunderland	1
"	Tunstall	1	"	Huddersfield	3	"	Hebburn	1
"	Ilkeston	3	"	Brighouse	2	"	Felling	1
"	Derby	2	"	Halifax	2	"	N'castle-on-Tyne	5
"	Stockport	1	"	Leeds	1	Octr. 22	Willesden	8
"	Wallasey	1	"	Batley	4	"	Burslem	1
"	Manchester	7	"	Dewsbury	30	"	Tipton	1
"	Salford	1	"	Wakefield	1	"	Nottingham	6
"	Ashton-u-Lyne	8	"	Hartlepool	1	"	Derby	1
"	Oldham	11	"	Gateshead	3	"	Hyde	3
"	Preston	1	"	N'castle-on-Tyne	3	"	Macclesfield	1
"	Brighouse	1	Octr. 8	Stafford	1	"	Manchester	3
"	Bradford	1	"	Dudley	1	"	Ashton-u-Lyne	1
"	Morley	1	"	Nottingham	1	"	Oldham	21
"	Gateshead	2	"	Derby	5	"	Rochdale	1
"	N'castle-on-Tyne	6	"	Hyde	3	"	Preston	2
Sept. 24	Enfield	1	"	Stockport	1	"	Huddersfield	2
"	Bristol	1	"	Macclesfield	2	"	Halifax	4
"	Stafford	1	"	Wallasey	1	"	Bradford	2
"	Lincoln	1	"	Bury	1	"	Leeds	1
"	Nottingham	4	"	Salford	3	"	Batley	7
"	Hyde	1	"	Ashton-u-Lyne	2	"	Dewsbury	32
"	Macclesfield	2	"	Chadderton	2	"	Morley	1
"	Manchester	2	"	Oldham	11	"	Wakefield	1
"	Salford	1	"	Brighouse	1	"	Barnsley	2
"	Ashton-u-Lyne	2	"	Bradford	2	"	York	2
"	Middleton	2	"	Leeds	4	"	Stockton-on-Tees	1
"	Oldham	12	"	Batley	5	"	Sunderland	2
"	Blackburn	1	"	Dewsbury	10	"	Hebburn	1
"	Preston	2	"	Morley	1	"	Felling	2
"	Blackpool	1	"	York	1	"	Gateshead	1
"	Bradford	1	"	Darlington	1	"	N'castle-on-Tyne	17
"	Batley	3	"	Gateshead	5	Octr. 29	Willesden	3
"	Dewsbury	35	"	N'castle-on-Tyne	8	"	Walthamstow	1
"	Morley	1	Octr. 15	Burslem	1	"	Nottingham	2
"	Wakefield	2	"	Ilkeston	1	"	Derby	2
"	Barnsley	2	"	Nottingham	2	"	Hyde	1
"	South Shields	1	"	Stockport	1	"	Stockport	2
"	Gateshead	7	"	Macclesfield	1	"	Manchester	2
"	N'castle-on-Tyne	7	"	Bury	2	"	Chadderton	3
"	Carlisle	1	"	Swinton and		"	Oldham	20
Octr. 1	Burslem	4	"	Pendlebury	4	"	Preston	2
"	Nottingham	3	"	Manchester	1	"	Halifax	1



## LIST OF TOWNS, &amp;c.—CONTINUED.

<i>Week Ending.</i>	<i>TOWN.</i>	<i>Cases.</i>	<i>Week Ending.</i>	<i>TOWN.</i>	<i>Cases.</i>	<i>Week Ending.</i>	<i>TOWN.</i>	<i>Cases.</i>
O t. 29	Bradford .....	2	Nov. 12	Barnsley .....	1	Dec. 3	Hanley .....	2
"	Leeds .....	3	"	Sunderland ....	2	"	Nottingham ...	1
"	Batley .....	8	"	South Shields ..	5	"	Birkenhead ....	1
"	Morley .....	1	"	Felling .....	6	"	Swinton and	
"	Wakefield .....	1	"	Gateshead .....	1	"	Pendlebury ..	7
"	Barnsley .....	2	"	N'castle-on-Tyne	6	"	Salford .....	3
"	Doncaster .....	2	"	Wallsend .....	1	"	Chadderton ....	1
"	Sunderland ....	1	Nov. 19	Bristol .....	1	"	Oldham .....	5
"	Felling .....	4	"	Hanley .....	1	"	Haslingden ....	1
"	Gateshead .....	3	"	Tipton .....	1	"	Preston .....	9
"	N'castle-on-Tyne	11	"	Glossop .....	1	"	Harrogate .....	2
"	Tredeggar .....	4	"	Manchester ....	5	"	Brighouse .....	1
Nov. 5	Willesden .....	1	"	Salford .....	2	"	Halifax .....	1
"	Bristol .....	7	"	Ashton-u-Lyne .	1	"	Bradford .....	6
"	Hanley .....	1	"	Chadderton ....	8	"	Shipley .....	7
"	Tipton .....	1	"	Oldham .....	8	"	Leeds .....	2
"	Nottingham ...	2	"	Preston .....	13	"	Batley .....	4
"	Derby .....	1	"	Blackpool .....	1	"	Dewsbury .....	5
"	Manchester ....	1	"	Huddersfield ...	2	"	Morley .....	1
"	Salford .....	1	"	Brighouse .....	1	"	Wakefield .....	1
"	Ashton-u-Lyne .	1	"	Halifax .....	2	"	Barnsley .....	4
"	Chadderton ....	3	"	Bradford .....	5	"	Middlesborough.	1
"	Oldham .....	6	"	Leeds .....	2	"	South Shields ..	5
"	Preston .....	6	"	Batley .....	6	"	Felling .....	4
"	Blackpool .....	1	"	Dewsbury .....	10	"	Gateshead .....	5
"	Huddersfield ...	3	"	Morley .....	3	"	N'castle-on-Tyne	11
"	Halifax .....	1	"	Barnsley .....	1	Dec. 10	Hanley .....	2
"	Bradford .....	1	"	South Shields ..	2	"	Nottingham ...	3
"	Leeds .....	1	"	Felling .....	2	"	Macclesfield ....	3
"	Batley .....	7	"	Gateshead .....	6	"	Salford .....	1
"	Dewsbury .....	24	"	N'castle-on-Tyne	6	"	Ashton-u-Lyne .	1
"	Morley .....	3	Nov. 26	Macclesfield ....	2	"	Chadderton ....	3
"	Barnsley .....	2	"	Birkenhead ....	1	"	Middleton .....	1
"	Doncaster .....	2	"	Swinton and		"	Oldham .....	9
"	Middlesborough.	1	"	Pendlebury ..	3	"	Accrington ....	1
"	Felling .....	5	"	Manchester ....	1	"	Preston .....	17
"	Gateshead .....	1	"	Salford .....	3	"	Harrogate .....	1
"	N'castle-on-Tyne	5	"	Chadderton ....	1	"	Keighley .....	1
Nov. 12	Ilkeston .....	1	"	Oldham .....	3	"	Halifax .....	6
"	Macclesfield ....	1	"	Preston .....	3	"	Shipley .....	4
"	Manchester ....	7	"	Brighouse .....	1	"	Batley .....	3
"	Salford .....	1	"	Halifax .....	1	"	Dewsbury .....	11
"	Ashton-u-Lyne .	1	"	Shipley .....	1	"	Morley .....	3
"	Chadderton ....	3	"	Leeds .....	1	"	Wakefield .....	5
"	Oldham .....	6	"	Batley .....	4	"	Barnsley .....	9
"	Bacup .....	4	"	Dewsbury .....	16	"	Hebburn .....	2
"	Preston .....	3	"	Morley .....	1	"	Jarrow .....	3
"	Huddersfield ...	3	"	Wakefield .....	7	"	South Shields ..	2
"	Halifax .....	3	"	Barnsley .....	4	"	Felling .....	2
"	Leeds .....	1	"	Jarrow .....	1	"	Gateshead .....	1
"	Batley .....	12	"	Felling .....	8	"	N'castle-on-Tyne	21
"	Dewsbury .....	24	"	Gateshead .....	5	Dec. 17	Hendon .....	2
"	Morley .....	3	"	N'castle-on-Tyne	4	"	Nottingham ...	4
"	Wakefield .....	2	"	Carlisle .....	1	"	Hyde .....	1



## LIST OF TOWNS, &amp;c.—CONTINUED.

<i>Week</i> <i>Ending.</i>	TOWN.	<i>Cases.</i>	<i>Week</i> <i>Ending.</i>	TOWN.	<i>Cases.</i>	<i>Week</i> <i>Ending.</i>	TOWN.	<i>Cases.</i>
Dec. 17	Macclesfield ...	1	Dec. 24	Nottingham ...	3	Dec. 31	Derby .....	2
"	Swinton and		"	Derby .....	2	"	Bolton .....	1
"	Pendlebury ..	1	"	Macclesfield ....	2	"	Swinton and	
"	Manchester ....	1	"	Bolton .....	1	"	Pendlebury ..	2
"	Salford .....	3	"	Ashton-u-Lyne .	3	"	Manchester ....	2
"	Chadderton ....	1	"	Chadderton ....	3	"	Ashton-u-Lyne .	2
"	Oldham .....	3	"	Oldham .....	15	"	Stalybridge ....	1
"	Darwen .....	1	"	Burnley .....	2	"	Oldham ... ..	4
"	Preston .....	12	"	Preston .....	4	"	Accrington ....	1
"	Huddersfield ...	1	"	Brighouse .....	2	"	Burnley .....	24
"	Brighouse .....	3	"	Halifax .....	2	"	Preston .....	7
"	Halifax .....	6	"	Bradford .....	3	"	Blackpool .....	1
"	Bradford .....	6	"	Leeds .....	4	"	Keighley .....	1
"	Shipley .....	4	"	Dewsbury .....	5	"	Huddersfield ...	1
"	Batley .....	2	"	Wakefield .....	6	"	Brighouse .....	3
"	Dewsbury .....	14	"	Barnsley .....	1	"	Halifax .....	4
"	Morley .....	1	"	Middlesborough ..	1	"	Leeds .....	1
"	Wakefield .....	3	"	Jarrow .....	7	"	Batley .....	1
"	Barnsley .....	3	"	South Shields ..	3	"	Dewsbury .....	5
"	Middleborough..	2	"	Felling .....	5	"	Barnsley .....	14
"	Jarrow .....	3	"	Gateshead .....	2	"	Kingston-on-Hull	1
"	South Shields ..	5	"	N'castle-on-Tyne	7	"	Hebburn .....	7
"	Gateshead .....	3	"	Tynemouth ....	1	"	Jarrow .....	4
"	N'castle-on-Tyne	19	"	Wallsend .....	5	"	South Sheilds ..	5
"	Tynemouth ....	1	Dec. 31	Grimsby .....	1	"	Felling .....	1
"	Wallsend .....	6	"	Mansfield .....	1	"	Gateshead .....	4
Dec. 24	Ilkeston .....	3	"	Nottingham ...	2	"	N'castle-on-Tyne	3

## SCARLET FEVER.

Number of Notifications .....	191
Number of Deaths .....	11
Death-rate per 1,000 of population .....	·17

The number of notifications of this disease is for 1904, 191, against 362 in 1903; and 11 deaths, against 26 in 1903.

	Notifications	Removed to Sanatorium.	Deaths.
January .....	25	13	6
February .....	8	5	—
March .....	9	4	—
April .....	7	5	—
May .....	11	8	—
June .....	19	11	—
July .....	25	22	1
August .....	8	6	—
September .....	11	7	—
October .....	23	18	—
November .....	27	21	1
December .....	18	10	3
Total .....	191	130	11

The percentage of removals to Sanatorium has been 68·06, against 56·63 in 1903, and 44·16 in 1902.

We have had 11 return cases during the year, and although such cases are to be deplored, they are unavoidable at times; the utmost care has been taken before discharging the convalescent patients, and we have a suspicion that the stoving of the houses and disinfection of the bedding and clothing was sometimes at fault.

We have also found that in some cases the clothing worn by the patient before removal has been kept in a drawer or cupboard until the patient's return from hospital, old clothes having been substituted whilst removal was effected; on return of the patient the previous clothing was unearthed and put on. A large percentage of removals has taken place during the year, and this has not caused a greater severity in the type of the disease nor a larger number of return cases; on the contrary we have had a decrease in the number of cases.



Of course we must remember that Scarlet Fever appears in epidemic waves, when the susceptible grow and increase in number, and from the chart appended for the various years it will be seen that this wave attains its maximum height every three or four years.

A good deal has been written the last few years about hospital isolation, and it has been asserted that the congregation of cases in a hospital ward (1) intensifies the disease, (2) gives rise to more cases outside when the patients are discharged, (3) and gives us a higher percentage death-rate. If these allegations were true the expense of isolation hospitals to local authorities would be money ill spent. But such is not the case. Scarlet Fever, I admit, is always endemic; we have not abolished it by hospital isolation, but why? We cannot perfect the sanitary arrangements of dwellings and their surroundings by removal to hospital. The focus of infection will take a long time to destroy, but the removal of a case to hospital where the patient is in a crowded and insufficiently ventilated house must have some influence in preventing the spread of disease. I look on the isolation of Scarlet Fever in hospital from two points, both of equal importance. These are:—

- (1) The prevention of the spread of the disease to the household and neighbours.
- (2) To diminish the death-rate from this disease and to prevent the permanent complications which arise.

I am confident, without going into statistics, that early removal from a house where insufficient isolation exists prevents spread in the household and to the neighbouring houses.

The death-rate is diminished and the complications are lessened by the treatment in a large airy ward, where the patient is properly fed, the throat well swabbed, the nose syringed, good food and nursing provided, such as cannot be obtained in any labouring man's or artizan's house.



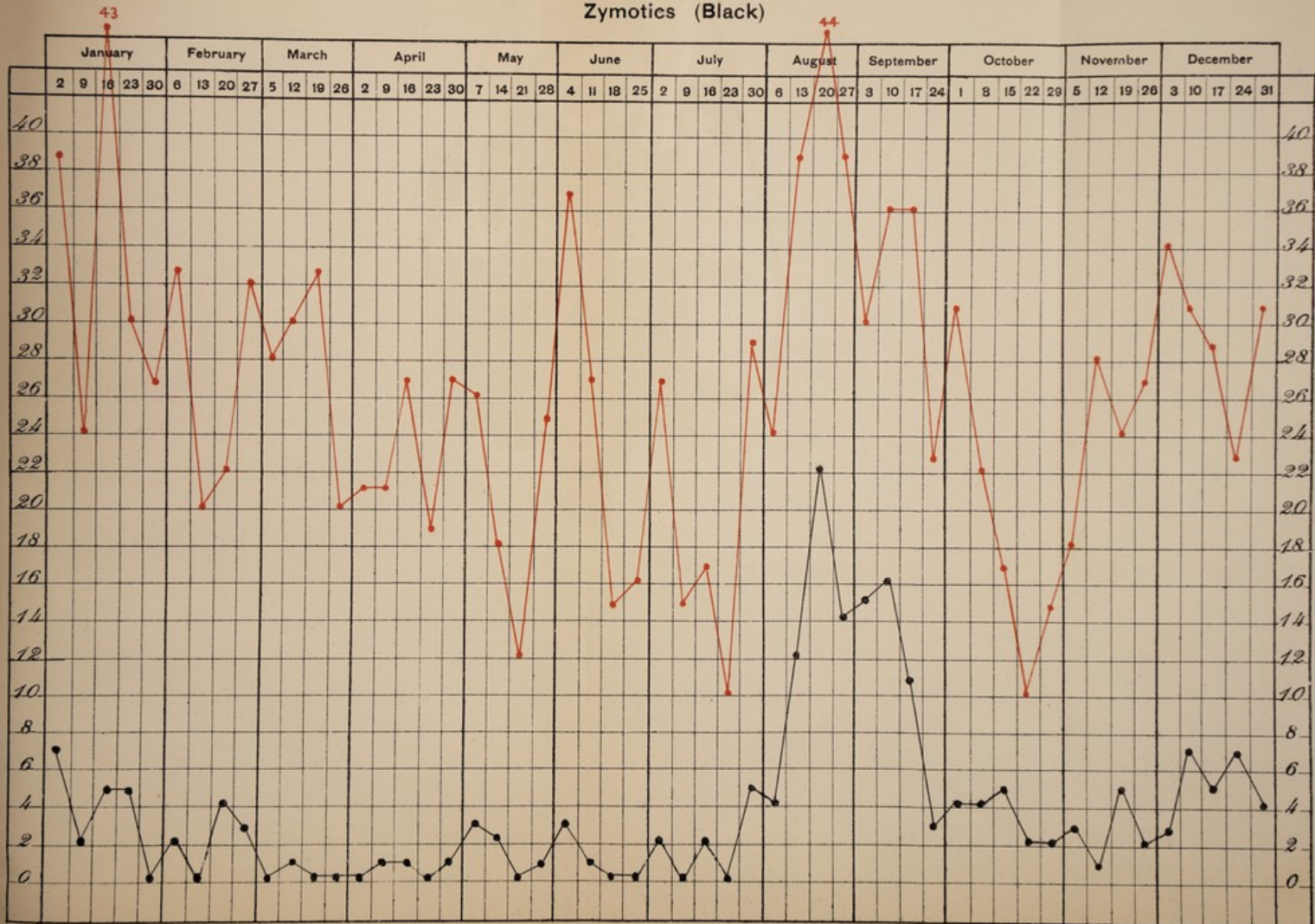
It may be a coincidence, but during 1904 we have had eleven deaths amongst those notified ; six occurred in hospital, and these were severe cases when sent in ; this equals six in 71·03 per cent. of cases removed, and the remaining five cases were in the remaining 28·97 left at home, so we may take it that the fatality amongst those cases left to be nursed in better houses, with parental care and nursing, gives us a death-rate of 9·43 per cent., against 4·06 in hospital.

Dr. Sergeant, in his report for 1903, says, p. liii. :—  
 “ In view of the heterodox opinions that have been expressed in two or three of the county districts relative to the value of hospital isolation in cases of Scarlet Fever, the above figures are very interesting as showing that of the cases (2,334) removed to hospital from 55 districts, with a population of 874,973, the mortality was equal to 2·6 per cent., as compared with a mortality of 3·8 per cent. among the 2,810 cases which were treated at home in these districts. The mean mortality for the whole of the Scarlet Fever cases was, in the hospital districts 3·3 per cent., as compared with 4·3 per cent. in the districts (60 in number, population 667,788) from which Scarlet Fever cases are not removed. The value of hospital isolation is largely influenced by the way it is carried out. If Scarlet Fever removals take place only spasmodically and the other precautionary measures, such as disinfection and quarantine of ‘contacts,’ are imperfectly adopted in a district, one can scarcely expect satisfactory results. The character of the population and housing accommodation also influence the value of hospital isolation, and must be taken into consideration when comparing one district with another. Further efficiency of the hospital system must be complete ; inefficiency in this respect shows the necessity of administrative improvement, but does not, to my mind, affect the principle involved.”

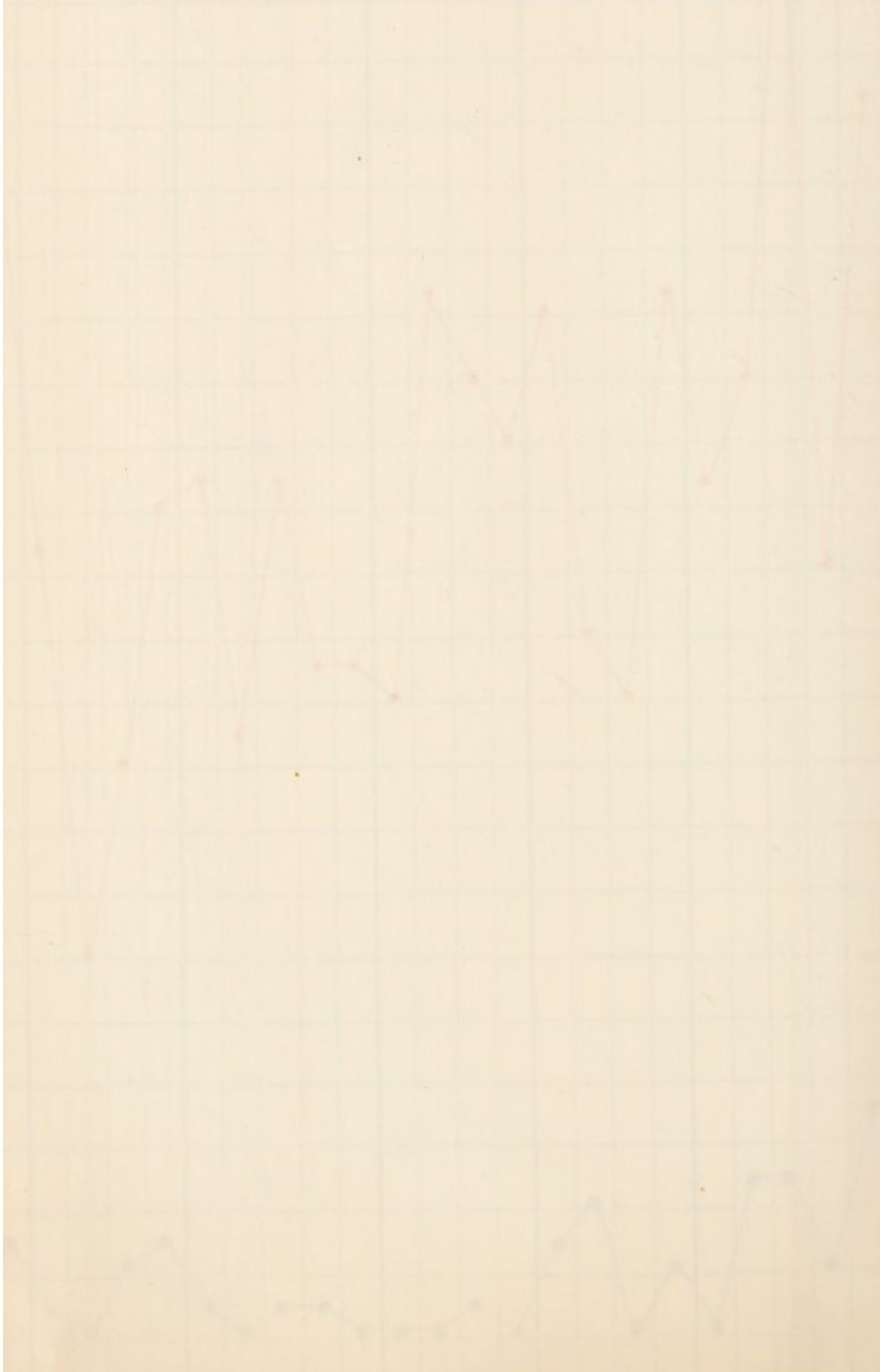


# DEATH RETURNS CHART 1. 1904.

All Cases (Red)  
Zymotics (Black)

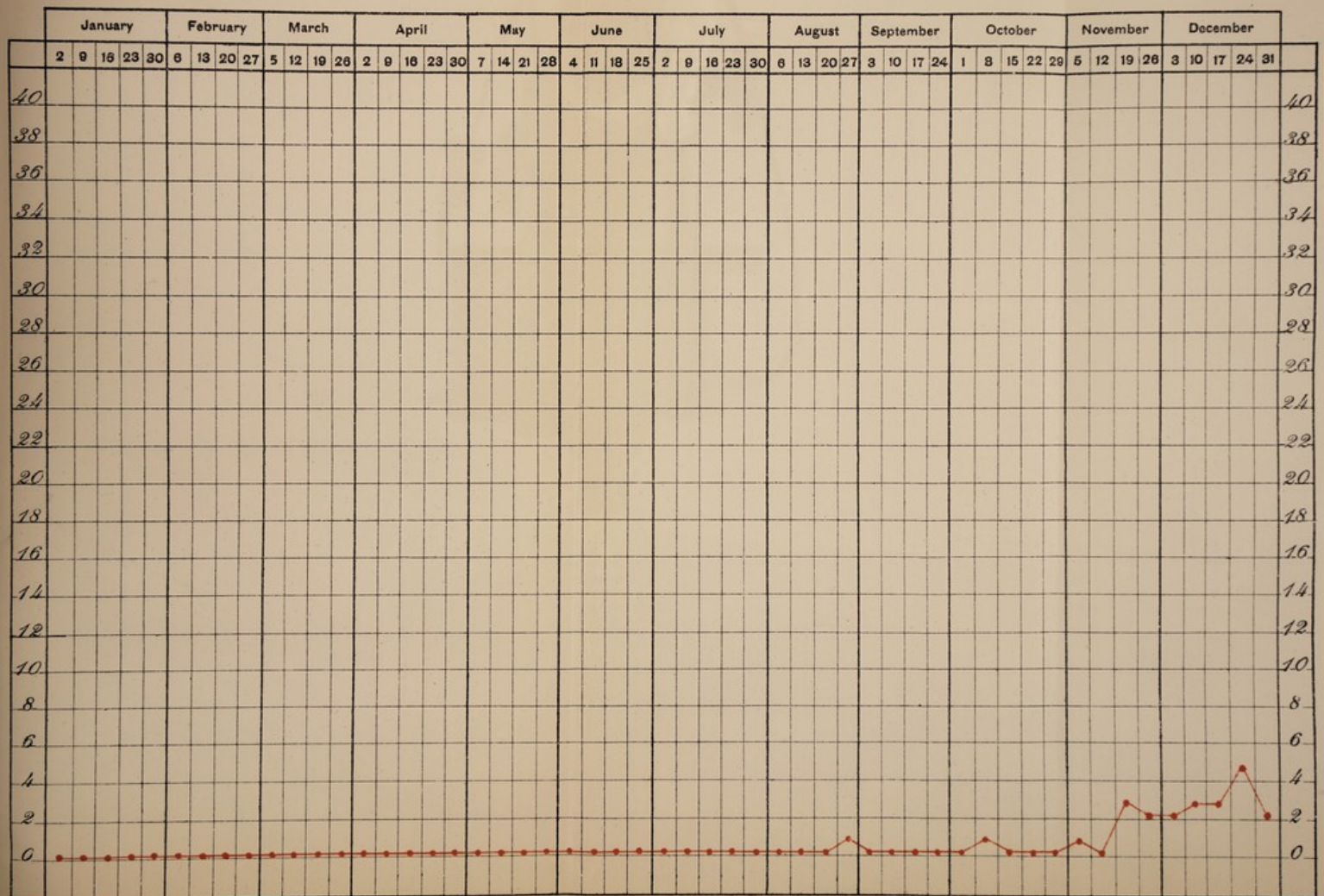


DATE	TIME	TEMP.	WIND	WAVE	SEA
1914	1012	24	10	10	10





## Measles (Red)

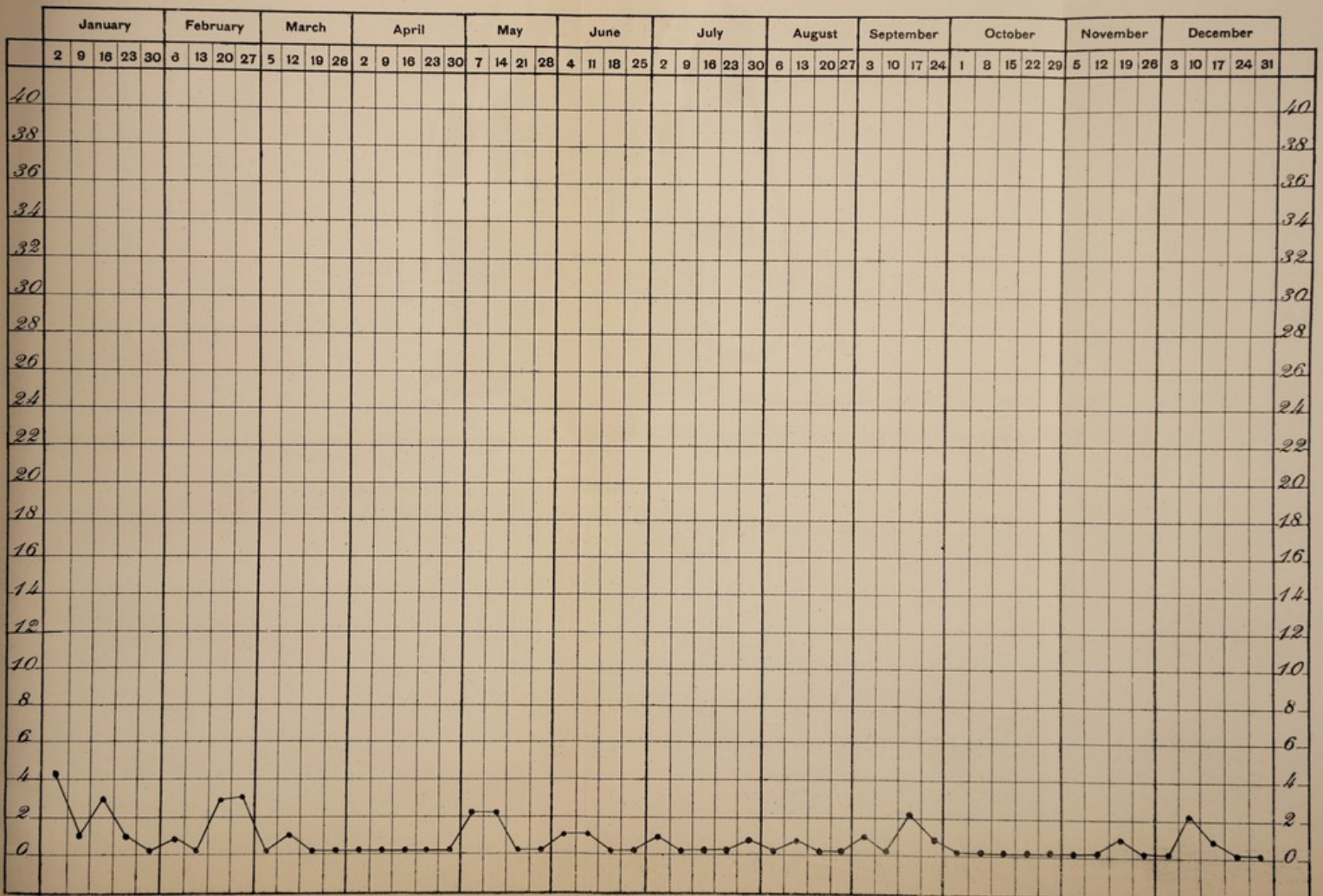






# DEATH RETURNS CHART III. 1904.

## Whooping Cough (Black)

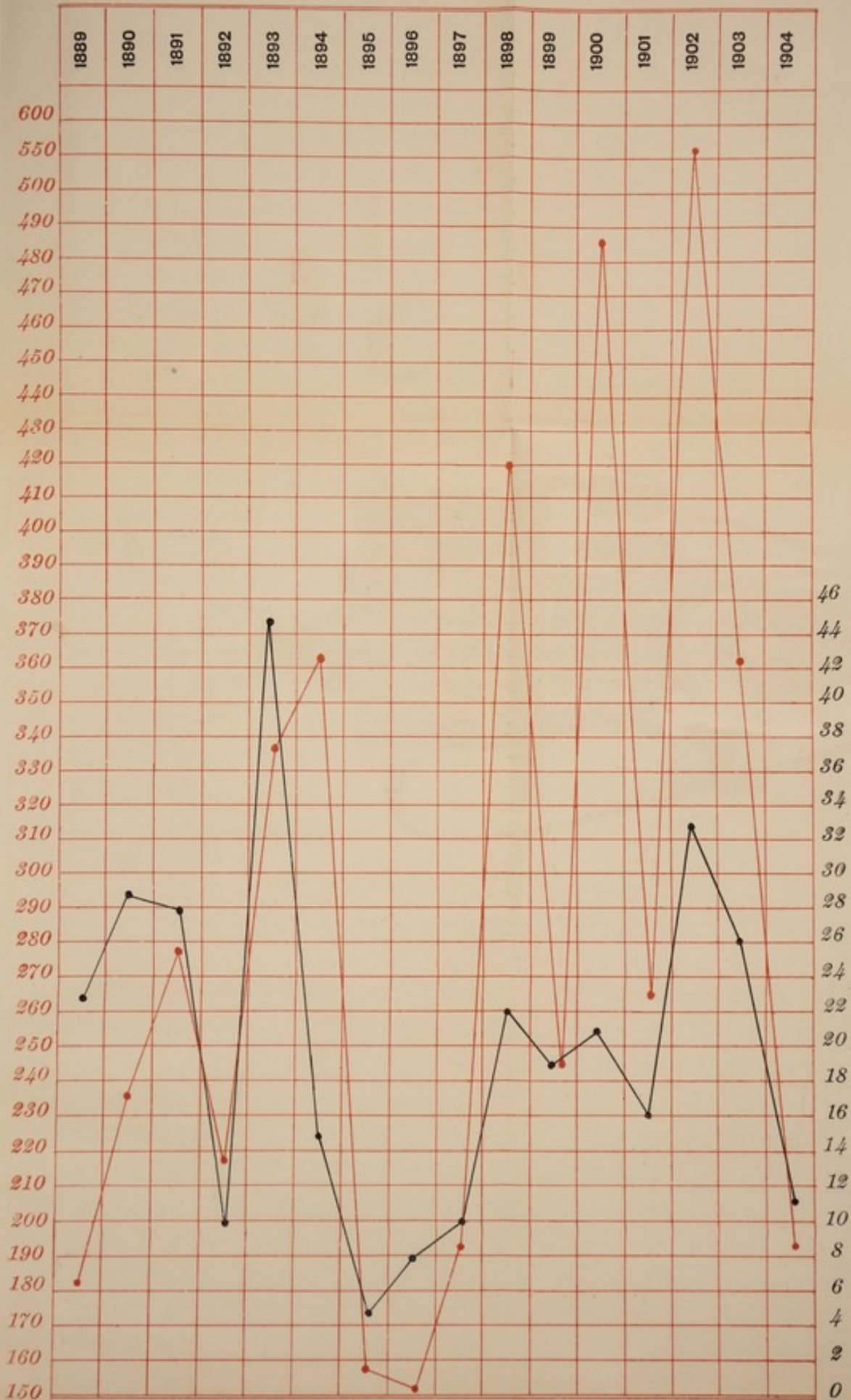


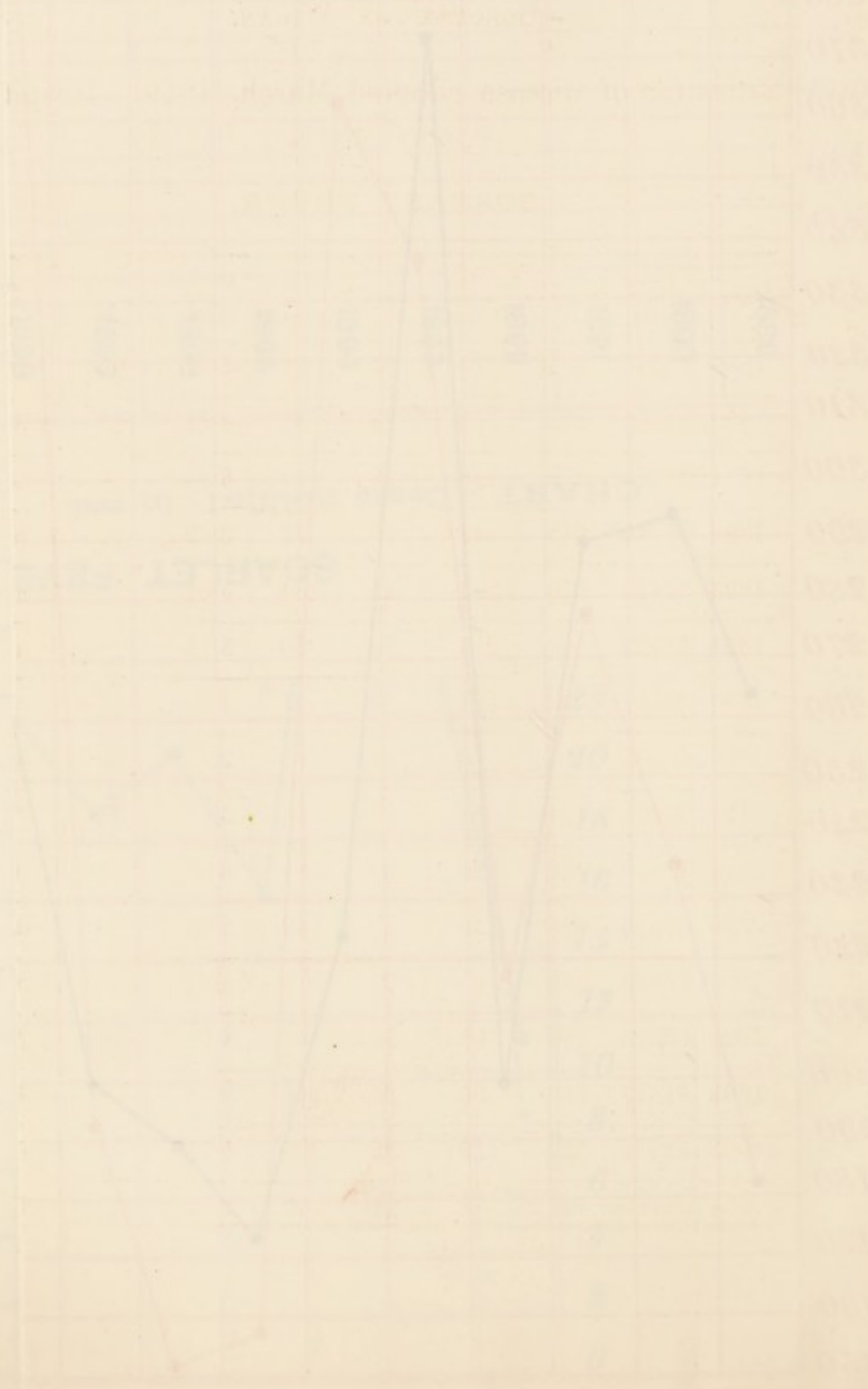




# SCARLET FEVER.

CHART :—Cases notified in red. • Deaths in black.●







## BOROUGH OF WIGAN.

Notification of disease adopted March, 1889. Hospital opened 1891.

## SCARLET FEVER.

Year.	Estim. Population.	Cases Notified.	Under Five Years.	Deaths.	Cases in Hospital.	Attacks per 1,000.	Deaths per 1,000.	Removals Per cent per Annum.
1889	53916	182	76	23	15	3.37	.42	8.24
1890	54440	235	163	29	83	4.31	.42	32.31
1891	55084	278	198	28	151	6.86	.50	39.68
1892	56040	218	117	10	79	3.89	.17	36.69
1893	57483	336	211	45	183	5.84	.78	54.49
1894	58529	361	215	15	200	6.16	.25	55.40
1895	59469	157	84	5	92	2.64	.08	58.59
1896	60235	151	83	8	43	2.50	.13	28.47
1897	61202	191	84	10	95	3.12	.16	49.74
1898	61697	420	220	22	189	6.80	.35	45.00
1899	62630	245	129	19	142	3.91	.30	57.95
1900	63440	485	159	21	211	7.63	.33	42.59
1901	60923	264	92	16	155	4.00	.26	58.70
1902	61827	557	190	33	246	9.00	.53	44.16
1903	62689	362	119	26	205	5.77	.41	56.63
1904	64249	191	88	11	130	2.97	.17	68.06





## MEASLES.

The total number of cases notified for 1904 was 831 against 1,456 cases in 1903. Of these 531 were notified by medical men, and 300, the remainder, discovered by the inspectors when inquiring into the notified cases.

The deaths numbered 23, or a rate of .35 per 1,000 of the population, or a percentage mortality of 2.76, against 7.14 in my last report, and 6.87 per cent. in 1902. This shows that in epidemic cycles the percentage of deaths varies according to the period of the year.

The following is a list of voluntary notifications and other cases discovered in consequence :—

### VOLUNTARY NOTIFICATIONS OF MEASLES IN 1904.

	Notifications.	Deaths.
January .....	1	—
February .....	4	—
March .....	20	—
April .....	20	—
May .....	25	—
June .....	68	—
July .....	24	—
August .....	14	1
September .....	3	—
October .....	94	1
November .....	308	7
December .....	250	14
Total .....	831	23

### AGE INCIDENCE.

1904.	Under 1 year.	1-5 years	5-15 years.	15-25 years.	25-65 years.	Total.
January .....	—	1	—	—	—	1
February .....	1	2	1	—	—	4
March .....	3	16	1	—	—	20
April .....	—	11	8	1	—	20
May .....	4	12	9	—	—	25
June .....	2	30	35	1	—	68
July .....	2	16	6	—	—	24
August .....	1	6	7	—	—	14
September .....	1	1	1	—	—	3
October .....	1	53	40	—	—	94
November .....	13	204	91	—	—	308
December .....	18	173	58	—	1	250
Total .....	46	525	257	2	1	831



Measles though never absent from the Borough since the outbreak last year became epidemic in October and spread rapidly in November and December.

In June we had a sudden increase and it became necessary to close the Infant's Department of the National and Blue Coat Schools for 25 days from June 7th, also St. Thomas's Clayton Street Schools on June 14th for 18 days, then the notifications dropped from 68 in June to 24 in July.

School closure has beneficial results, if resorted to early, but if it is postponed till every department of the School is affected, the beneficial effects are less apparent. Managers and Head Teachers are not sufficiently imbued with the great infectiousness of this disease, or we should be made acquainted much earlier than is the case when children are absent from school.

It was only necessary to close the Infants' Department of the National Blue Coat Schools, and of St. Thomas's Clayton Street Schools, in June, but in November it became necessary to close every department of these Schools owing to the disease having spread beyond the Infants' Department before we were acquainted with the number of absentees.

Measles spreads so rapidly amongst young children that are susceptible, that prompt action is required, if an epidemic is to be cut short.

Marked examples of preventing its spread were apparent by closing the Schools early. As for example, the Presbyterian Schools, Infants' Department only closed. St. George's Schools closed early, and very few cases were notified afterwards in St. George's Ward. The epidemic was at once cut short at Newtown by the closure of St. Mark's Schools, but in Poolstock and Victoria Wards the closure was delayed too long to have the desired effect. The closure of St. Joseph's and St. Thomas's, Caroline Street, also proved beneficial in preventing the epidemic spreading in St. Thomas's Ward. Three per cent. of absentees from Measles in the Infant Department should be sufficient to enforce closure.



The death-rate from Measles was  $\cdot 35$ , and in the age incidences of cases you will perceive that between the ages of 1 and 5 years we have the greatest number of cases, greater than the cases from all other ages together. As the present age allowed for infants to attend school is from 3 to 5, it shows how necessary it is that teachers should be on the alert for infectious disease in this department. I hope the time will come when no child will be compelled to attend school until it has arrived at the age of 6 years. Surely schools with children under 5 years in a department must make this department little more than a nursery.

On May 19th, 1904, the Sanitary Committee agreed to voluntary notification of the first case of Measles in a house for a further period of 3 years. This I am persuaded is beneficial, and enables us to know in what districts fresh cases arise.

Standish has Measles in its list of notifiable diseases.

The Medical Officer of Health of Aspull reports that "it is a difficult matter to limit the spread of Measles owing to the fact that it is not notifiable, and that it is looked upon by parents as inevitable and concomitant of childhood." Dr. Marsh (Atherton) recommends "the compulsory notification of the first case occurring in a house," and the Medical Officers of Health of Eccles (B) and Heywood (B), suggest that some arrangement as to notification should be made with the School authorities; while Dr. Watkins (Newton-in-Makerfield), and Dr. Barr (Rishton), recommend their authorities to include Measles among the ordinary notifiable diseases. Opinions differ widely as to the value of notification of measles, and while it has been discontinued after trial in certain districts it is still in operation in Blackpool (B), Southport (B), Standish-with-Langtree, Thornton, and Lunesdale (R).

Report of County Medical Officer (Dr. Sergeant) for 1903, p. xxx.



## WHOOPING COUGH.

The number of deaths from Whooping Cough is 34, against 28 in 1903, and 37 in 1902. The number is shown in the following table:—

	Deaths in 1904.	Deaths in 1903.
January .....	10	3
February .....	6	2
March .....	1	4
April .....	1	...
May .....	4	2
June .....	2	...
July .....	1	1
August .....	2	2
September .....	3	2
October .....	...	3
November .....	1	2
December .....	3	7
Total .....	34	28

The deaths were more in 1904 by 6, nevertheless it is a very dangerous disease owing to the lung affections which supervene.

## TYPHUS FEVER.

I am pleased to say we have had no notifications of this disease during the past year.

## ENTERIC FEVER.

Number of notifications .....	56
Number of deaths .....	16
Mortality per 1,000 of population .....	24
Removed to the Sanatorium.....	39

We have for 1904 56 notifications, against 51 in 1903, and 76 in 1902. A few of the cases removed to the Sanatorium turned out to be cases of other febrile diseases.

The number of deaths were 16, or 28·57 per cent. of the cases notified, against a rate of 21·56 per cent. in 1903, and 18·42 per cent. in 1902.



The percentage of deaths was greater, on account of the severe type of the disease, and probably also for the want of early removal in some of the cases.

The cases were notified as follows :—

	Notifications.	Removed to Sanatorium.	Deaths, 1904.
January .....	1	...	...
February .....	1	1	1
March .....	3	2	...
April.....	2	4	2
May .....	2	3	2
June .....	4	2	2
July .....	5	1	...
August .....	3	3	1
September .....	6	3	...
October ...	12	6	5
November .....	8	10	1
December ...	9	8	2
Total.....	56	43	16

In the Thompson Yates Laboratory, Liverpool, we have had five specimens of blood examined, with the following results :—

Positive reaction .....	3
Negative .....	2

The disease was not at any time epidemic ; generally, however, some sanitary defect was found to exist, excepting where we had reason to suspect that the disease was imported.

The age incidence for 1904 was as follows :—

1— 4 .....	2
5— 9 .....	9
10—14 .....	5
15—19 .....	13
20—24 .....	3
25—29 .....	7
Over 30.....	17
	—
	56

The following is a list of the streets in which Enteric Fever occurred :—

	Cases.		Cases.
Anderton Street .....	8	Penson Street .....	2
Brookhouse Street .....	1	Poolstock .....	2
„ Terrace .....	1	Pool Street.....	1
Caroline Street .....	1	Queen's Hotel Yard, Wall-	
Chapel Street .....	2	gate .....	2
Clayton Street.....	1	Rylands Street.....	2
Commercial Yard, Market Place	1	Schofield's Place, Foundry	
Coronation Street .....	1	Street .....	1
Cudworth Street .....	1	Scholefield Lane .....	1
Diggla Street .....	1	Scholes .....	2
Fowden Street.....	1	Seed Street .....	1
Gt. George Street .....	1	Sharp Street.....	1
Hallgate .....	1	St. Patrick Street .....	1
Hardybutts .....	1	Swinley Lane .....	2
Infirmery .....	3	Taylor Street .....	1
Kearsley Street .....	1	Turner Street .....	1
Leader Street .....	1	Vauxhall Road .....	1
Linney Street .....	1	Vaughan Street .....	1
Mort Street .....	1	Walmer Street.....	1
Park View .....	2	Withnall Street .....	1
		Woodhouse Lane .....	1
	31		25
Total cases ...		56.	

On September 5th I made a report on the Enteric Fever deaths, at the request of the Local Government Board, on the deaths occurring between April 24th and June 26th inclusive. (See Appendix I.) I include in that report the cases occurring in March also.

### DIARRHŒA.

Number of deaths ..... 108

Mortality of population ..... 1·68

We have an increase in the number of deaths from Diarrhœa. In 1903 we had 78 deaths, or 1·24 to 1,000 of the population; against 108, or 1·68 in 1904.

	Deaths.	0-1 Year.	1-5 Years.	Over 5 Years.
January .....	1	1	...	...
February .....	...	...	...	...
March .....	...	...	...	...
April .....	1	...	...	1
May .....	1	1	...	...
June .....	...	...	...	...
July .....	6	3	2	1
August.....	61	45	13	3
September .....	30	23	7	...
October .....	7	3	3	1
November .....	1	1	...	...
December .....	...	...	...	...
Total .....	108	77	25	6



It will be seen that August and September give us the greatest number of deaths, and, as in previous years, these are in children under the age of one year.

### DIPHTHERIA.

Number of Notifications .....	9
Number of deaths, including Croup .....	4
Mortality per 1,000 of population.....	·062

We have had a decrease in the number of cases notified, namely, 9, against 38 in 1903, and the mortality against these cases is also decreased ·062 per 1,000 of population, against ·2. The following table shows the number of cases notified and the number of deaths :—

	Notified.	Deaths.
January .....	—	1
February .....	1	—
March.....	2	—
April .....	—	—
May.....	—	—
June .....	—	—
July .....	—	—
August .....	1	—
September.....	1	—
October .....	1	—
November .....	1	1
December .....	2	2
Total .....	9	4

The following is the result of the examinations bacteriologically made at the Thompson Yates Laboratory :

Number of cases, 4.

Streptococci present, 1 ; Bacillus absent, 2.

Staphylococci, 1.

### ERYSIPELAS.

Number notified .....	47
Number of deaths .....	1
Mortality per 1,000 of population .....	·015

We have a decrease in the number of deaths from Erysipelas, 1 against 2, showing a decrease in the mortality rate.



List of houses in which Erysipelas has occurred during the year :—

Address.	Cause.	Condition of Yard and other Remarks.
8, St. Patrick Street .....	Cold .....	
58, Prescott Street .....	Cold .....	Yard flagged.
1, Caunce Street .....	Not known	Yard flagged.
42, Lord Street .....	Cold .....	Yard unpaved.
2, Drake Street .....	Cold .....	Yard flagged.
Infirmary .....	Not known	
210, Darlington Street East.....	Commenced	with Rheumatism—probably cold. Yard flagged.
1, Miry Lane .....	Cold .....	Yard flagged.
26, Leader Street.....	Bad foot...	Yard flagged
Infirmary .....	Not known	
90, Warrington Lane .....	Cold .....	Yard flagged.
113, Gt. George Street .....	Accident..	Yard flagged.
12, Caunce Street .....	Accident..	Yard flagged,
15, Brook Street .....	Cold .....	Yard part flagged.
62, Northumberland Street .....	Accident	Yard unpaved.
5, Wright Street .....	Cold .....	Yard flagged.
163, Gidlow Lane.....	Cold .....	Yard flagged.
Infirmary .....	Not known	
4, Low's Square .....	Wrong address,	
1, Tichborne Street.....	Cold .....	Yard flagged.
23, Wellington Street.....	Cold .....	Yard part flagged.
9, Baker Street .....	Cold .....	Yard paved.
14, Henry Street .....	Accident..	Yard flagged, sanitary defects.
46, McCormick Street .....	Cold .....	Yard flagged and unpaved street.
46       "       " .....	Accident...	Yard flagged and unpaved street.
46, Poolstock Street .....	Cold .....	Yard flagged.
36, Barnsley Street.....	Bed sore..	Yard flagged, W. W. C. drainage good.
13, Delph Street .....	Cold .....	Yard flagged.
82, Miry Lane .....	Cold .....	Yard unpaved.
4, Taylor Street .....	Cold .....	Yard flagged.
9, Vine Grove .....	Cold .....	Yard flagged.
62, Hey Street .....	Accident..	Yard flagged, gable end unpaved.
29, Darlington Street.....	Cold .....	Yard flagged.
67, Miry Lane .....	Sore ear...	Yard unpaved, defective walls, pail C.
10, Freckleton Street .....	Cold ...	Yard flagged, untrapped drains, pail C.
10, Carlton Street .....	Cold .....	Yard flagged.
27, York Street .....	Cold .....	Yard flagged and tiled, pail C.
2, Albion Yard.....	Accident..	Yard paved and pail C.
29, Longshoot .....	Accident ..	Street unpaved, pail C.
138, Gidlow Lane.....	Cold .....	Yard flagged, defective roof, water C.
Trencherfield Mill Yard .....	Accident..	Yard unpaved, pail C.
1, William Street.....	Cold .....	Yard flagged, drains trapped, water C.



## ERYSIPELAS CONTINUED—

Address.	Cause.	Condition of Yard and other Remarks.
3, Heardman Avenue .....	Cold .....	Yard flagged, drains trapped, water C., unpaved street.
3, Drake Street .....	Accident...	Yard flagged, and open, defective wall, defective drainage.
21, Caunce Street .....	Cold .....	Flagged yard, drains trapped, pail C.
7, Latham's Yard .....	Accident...	Yard paved.
Infirmary .....	Not known	

**PUERPERAL FEVER.**

Number of cases notified.....	8
Number of deaths .....	4
Mortality per 1,000 of population .....	·062

We have an increase in the number of cases notified, and an increase in the death-rate. None of the cases appear to have been communicated, and everything was done to prevent communication with others.

In future, owing to the Midwives Act being in operation, it will be necessary to have a special report on each case.

**SANATORIUM.**

The wards have been less crowded than in the previous years owing to a less number of cases, and also to the increased accommodation.

The arrangements made in the nursing department have been satisfactory.

The Decker Hospital has been sufficient for the Small Pox cases, and the improvements made, on its removal from the old site, have been of great advantage. The number of cases of Small Pox therein treated was two, with one death.

The number of infectious cases notified compulsorily is as follows :—

	Notifica- tions.	Removed to Sanatorium.	Died in Sanatorium.
Small Pox .....	2	2	1
Typhus.....	...	...	...
Scarlet Fever .....	191	135	6
Enteric.....	56	43	11
Diphtheria .....	9	...	...
Puerperal Fever.....	8	...	...
Cholera .....	...	...	...
Membranous Croup .....	...	...	...
Erysipelas .....	47	...	...
Other .....	...	10	3
Total.....	313	190	21

In the Sanatorium on December 31st, 1904, there were 33 patients, namely, Scarlet Fever 22, Enteric Fever 11.

	Smallpox.	Scarlet.	Enteric.	Others.	Total.
In-Patients Jan. 1st, 1904.	...	23	2	1	26
Admitted in 1904 .....	2	135	43	10	190
Discharged „ .....	1	130	23	8	162
Died „ .....	1	6	11	3	21
In-Patients Jan. 1st, 1905	...	22	11	...	33

The number of deaths in the Sanatorium was 21; 6 died from Scarlet Fever and 11 from Enteric, 1 from Small Pox, and 3 others.

During the year there were 162 patients discharged, and 21 died, making a total of 183.

The number of days they were in was 6,610, or 36·1 days for each patient, against 37·1 days average for 1903.

The cost of maintenance was as follows :—

1904.	Food.	Stimulants.
	£ s. d.	£ s. d.
January.....	27 1 1	10 4 8
February .....	32 13 0	5 7 4
March .....	20 15 7	3 13 1
April .....	10 18 3	7 14 11
May .....	14 13 0	3 7 9
June .....	18 12 7	4 14 0
July .....	14 2 0	2 13 7
August .....	14 1 0	4 14 5
September .....	33 3 6	4 0 7
October .....	18 19 10	12 2 0
November .....	28 12 7	9 3 5
December .....	23 19 9	9 2 8
Total.....	257 12 2	76 18 5



Cost per patient, 1904 .....	£1	7	1	.....	£0	8	1
" 1903 .....	£1	12	0	.....	£0	4	7
" 1902 .....	£1	13	0	.....	£0	4	9
" 1901 .....	£1	9	10 $\frac{1}{4}$	.....	£0	4	10 $\frac{1}{4}$
" 1900 .....	£1	12	6 $\frac{3}{4}$	.....	£0	4	3 $\frac{1}{2}$
" 1899 .....	£1	12	4 $\frac{1}{2}$	.....	£0	5	1 $\frac{1}{4}$
" 1898 .....	£1	8	6 $\frac{1}{4}$	.....	£0	3	11 $\frac{1}{2}$

The total cost of the Sanatorium is as follows :—

	£	s.	d.	Average Cost per Patient. £ s. d.
Master, Matron, and Nurses.....	916	9	9	4 16 5
Porter, Repairs, &c.....	898	12	3	4 14 7
Patients' Keep .....	257	12	2	1 6 0 $\frac{3}{4}$
Stimulants .....	76	18	5	0 8 0 $\frac{3}{4}$
Medical Superintendent .....	150	0	0	0 15 9 $\frac{1}{2}$
Clerk .....	10	0	0	0 1 0 $\frac{1}{2}$
Ditto 1904.....	2299	12	7	12 1 11 $\frac{1}{2}$
" 1903.....	2352	10	11	7 7 5 $\frac{1}{2}$
" 1902.....	2101	5	11	6 19 0 $\frac{3}{4}$
" 1901.....	1992	9	6	9 6 5 $\frac{3}{4}$
" 1900.....	2038	14	11	7 5 6
" 1899.....	1914	12	4	7 4 6 $\frac{3}{4}$
" 1898.....	1851	3	11	7 16 2 $\frac{1}{2}$
" 1897.....	1384	4	7	10 12 3 $\frac{1}{2}$
" 1896.....	1653	10	11	11 6 6 $\frac{3}{4}$

The Administrative Department cost :—

1904.	Wages.	Board.	Total.
	£ s. d.	£ s. d.	£ s. d.
January .....	37 10 0	39 9 0	76 19 0
February .....	38 18 4	44 15 8	83 14 0
March .....	39 15 9	41 1 6	80 17 3
April.....	39 1 8	36 4 0	75 5 8
May .....	37 13 4	37 16 6	75 9 10
June .....	37 15 6	38 2 3	75 17 9
July .....	37 16 3	31 17 4	69 13 7
August.....	37 11 8	32 19 0	70 10 8
September .....	37 18 4	39 9 0	77 7 4
October .....	37 7 8	39 4 0	76 11 8
November .....	37 16 8	39 9 0	77 5 8
December.....	37 18 4	39 9 0	77 7 4
Total.....£	457 3 6	459 16 3	916 19 9

### SANATORIUM STAFF.

Master	2 Ward Maids.
House Keeper.	1 Housemaid-Waitress.
6 Nurses.	1 Kitchenmaid.
3 Probationers.	1 Scullery Maid.
1 Laundress.	1 Porter and Gardener.
2 Assistant Laundresses.	1 Assistant Gardener.

TABLE OF ADMISSIONS AND DISCHARGES FOR 1904.

1904.	Admitted.					Discharged.						Died.						
	Small-pox.	Scarlet Fever.	Enteric.	Typhus.	Others.	Total.	Small-pox.	Scarlet Fever.	Enteric.	Typhus.	Others.	Total.	Small-pox.	Scarlet Fever.	Enteric.	Typhus.	Others.	Total.
January .....	1	13	0	0	0	14	0	12	1	0	0	13	0	3	0	0	0	3
February ...	1	5	1	0	1	8	1	11	1	0	2	15	1	0	0	0	0	1
March.....	0	4	2	0	0	6	0	16	0	0	0	16	0	0	0	0	0	0
April .....	0	5	4	0	1	10	0	1	2	0	1	4	0	0	2	0	0	2
May.....	0	8	3	0	1	12	0	5	3	0	0	8	0	0	2	0	0	2
June .....	0	11	2	0	3	16	0	5	1	0	1	7	0	0	1	0	2	3
July .....	0	22	1	0	2	25	0	6	1	0	1	8	0	1	0	0	0	1
August .....	0	6	3	0	0	9	0	23	0	0	2	25	0	0	1	0	0	1
September...	0	7	3	0	1	11	0	10	1	0	0	11	0	0	0	0	1	1
October .....	0	18	6	0	1	25	0	7	5	0	0	12	0	0	3	0	0	3
November ...	0	22	10	0	0	32	0	14	0	0	1	15	0	0	1	0	0	1
December ...	0	14	8	0	0	22	0	20	8	0	0	28	0	2	1	0	0	3
Total .....	2	135	43	0	10	190	1	130	23	0	8	162	1	6	11	0	3	21



## CONSTITUTIONAL DISEASES.

### TUBERCULAR DISEASES.

Under the heading of Tubercular Diseases we include deaths from Consumptive Diseases, such as Phthisis, Pulmonalis, Tabes Mesenterica, Tubercular Meningitis, Wasting Diseases of Infants (Marasmus), and other Tubercular affections.

The number of deaths from Phthisis is 70, against 74 in 1903, and 55 in 1902. The number of deaths from other Tubercular affections is 26, against 19 in 1903, and 13 in 1902.

From Wasting Diseases of Infants we have 59 deaths, against 53 in 1903.

The rates are as follows :—

Phthisis Pulmonalis.....	1·08	per 1,000 of population.
Other Tubercular Diseases...	·40	„
Wasting Diseases of Infants. .	·91	„

If taken together as Tubercular affections we have 155 deaths, or a rate of 2·41 per 1,000 of the population.

### PHTHISIS AND TUBERCULAR DISEASES, BUT NOT INCLUDING MARASMUS.

The deaths occurred in the following wards :—

St. George Ward .....	11
Lindsay Ward .....	6
St. Catharine Ward .....	11
St. Patrick Ward .....	11
St. Thomas Ward .....	11
Poolstock Ward .....	6
Victoria Ward .....	9
St. Andrew Ward .....	13
Swinley Ward.....	6
All Saints Ward.....	5
In Union Workhouse, but belonging to Wigan .....	7

## RHEUMATISM.

Rheumatism caused 12 deaths, against 7 deaths in 1903, and 7 in 1902, and we have 63 deaths from heart affections, against 60 in 1903, and 53 in 1902.

## LOCAL DISEASES.

Respiratory Diseases, such as Pneumonia and Bronchitis, caused 305 deaths, against 331 in 1903. Pneumonia caused 167, against 190; and Bronchitis caused 138, against 141.

## INQUESTS AND UNCERTIFIED DEATHS.

The number of Inquests for 1904 is 115, against 106 for 1903, and 95 in 1902, and the following verdicts have been recorded :—

I.	Natural Cause.....	29
II.	Accidents, burned.....	13
	"    poisoned .....	1
	"    scalded.....	4
	"    colliery.....	14
	"    fall downstairs .....	5
	"    drowned .....	9
	"    found dead .....	1
	"    falls .....	11
	"    railway .....	6
	"    suffocation .....	2
	"    choked.....	1
	"    others .....	13
III.	Suicides, poison .....	1
	"    hanging .....	2
	"    railway .....	1
	"    drowning.....	1
IV.	Murder, cut throat .....	1
		<hr/>
		115
		<hr/>

There were 7 deaths uncertified in 1904, against 10 in 1903, and 17 in 1902. They were as follows :—

Diarrhoea .....	1
Premature Birth .....	3
Pneumonia .....	1
Convulsions .....	1
Cancer .....	1
	<hr/>
	7



## **PART III.**

---

# **GENERAL SANITARY WORK.**

---

**BAKEHOUSES.**

**FACTORY AND WORKSHOPS ACTS, 1892, 1895, 1898, AND 1901.**

**MEAT INSPECTION AND SLAUGHTER-HOUSES.**

**DAIRIES AND COWSHEDS AND MILKSHOPS ORDER, 1885 AND 1886.**

**WATER SUPPLY AND RAINFALL.**

**BLACK SMOKE NUISANCE.**

**PROPERTY UNFIT FOR HUMAN HABITATION.**

**UNPAVED YARDS AND PASSAGES.**

**BOROUGH SURVEYOR'S DEPARTMENT.**

**ANKYLOSTOMIASIS.**

**INSPECTION OF SCHOOLS.**

**APPENDICES.**

## BAKEHOUSES.

GIVEN IN

## GENERAL SANITARY WORK.

## BAKEHOUSES.

FACILITY AND WORKING PARTS, 1901, 1902, AND 1903.

NEW YORK, 1904.

BUREAU OF SANITATION AND WATER SUPPLY, 1904.

WATER SUPPLY AND SANITATION.

BLACK SMOKE BUREAU.

PROPERTY AND THE NUMBER OF BUILDINGS.

BUREAU OF SANITATION AND WATER SUPPLY.

BUREAU OF SANITATION AND WATER SUPPLY.

BUREAU OF SANITATION AND WATER SUPPLY.

BUREAU OF SANITATION AND WATER SUPPLY.

BUREAU OF SANITATION AND WATER SUPPLY.



## BAKEHOUSES.

The Bakehouses have been regularly visited by Mr. Bishop, the Inspector, and I have paid a few indiscriminate visits during the year.

I give here Mr. Bishop's report :—

### 1.—INSPECTION.

#### FACTORIES, WORKSHOPS, LAUNDRIES, WORK-PLACES, AND HOMEWORK.

	No. of Inspections.	Written Notice.	No. of Prosecutions.
Factories (including Factory Laundries) .....	44	—	—
Workshops (including Workshops, Laundries) .....	1194	13	—
Workplaces .....	—	—	—
Homeworkers' Premises .....	142	—	—
Total .....	1380	13	—

### 2.—DEFECTS FOUND.

#### NUISANCES UNDER PUBLIC HEALTH ACT.

	No. of Defects Found.	Remedied.	Referred H.M.I.	No. of Prosecutions.
Want of Cleanliness .....	145	140	—	—
Want of Ventilation .....	17	17	—	—
Overcrowding.....	2	2	—	—
Want of Drainage of Floors .....	5	5	—	—
Other Nuisances . .....	39	34	—	—
Sanitary Accommodation { Insufficient .....	1	—	—	—
Defective .....	7	7	—	—
Not Separate for Sexes....	2	2	—	—

OFFENCE UNDER FACTORY AND  
WORKSHOPS ACT.

	No. of Defects Found.	Remedied.	Referred H.M.I.	No. of Prosecutions.
Illegal Occupation of Under-ground Bakehouses.....	1	1	—	—
Breach of Special Sanitary Requirements for Bakehouses	3	3	—	—
Failure as regards lists of Outworkers .....	—	—	—	—
Giving out Work to be done in Premises which are Unwholesome and Infected .....	—	—	—	—
Allowing Wearing Apparel to be made in Premises Infected by Scarlet Fever or Small Pox.....	—	—	—	—

### 3.—OTHER MATTERS.

MATTERS NOTIFIED TO H.M. INSPECTOR OF  
 FACTORIES

		No.
Failure to Affix Abstract of the Factory and Workshop Act.....		13
Action taken in matters referred by	<div style="display: inline-block; vertical-align: middle; font-size: 3em; line-height: 1;">{</div> <div style="display: inline-block; vertical-align: middle;">                     Notified by H.M.                      Inspector .....                      Reports (of Action taken)                      sent to H.M. Inspectors...                 </div>	
H.M. Inspectors as remediable under		6
the Public Health Acts, but not under		
the Factory Acts .....		6
Other .....		—

UNDERGROUND BAKEHOUSES (Sec. 101).

In use during the year 1903 .....	19
Certificates granted in 1903 .....	7
In use at the end of 1904 .....	7

## HOMEWORK.

		No.
Lists of Outworkers (Sec. 107)	Lists.	Outworkers.
Lists Received.....	51	128
Addresses of Outworkers	<div> <div>Forwarded to other Authorities .....</div> <div>Received from other Authorities .....</div> </div>	<div> <div>14</div> <div>—</div> </div>
	1	—



## HOMEWORK IN UNWHOLESOME OR INFECTED PREMISES.

	Wearing Apparel.	Other.
Notices Prohibiting Homework in Unwholesome Premises .....	—	—
Cases of Infectious Diseases Notified in Homeworkers' Premises .....	—	—
Orders Prohibiting Homework in Infected Premises .....	—	—
	<hr/>	
Workshops on the Register (S. 131) at the end of 1904	No. 371	
Important Classes of Workshops, Bakehouses, may be enumerated here .....	103	
	<hr/>	
Total Number of Workshops on the Register.....	474	

## FACTORY AND WORKSHOPS ACT, 1905 AND 1901, AND SHOP HOURS ACT, 1892 AND 1899.

I have visited several of these workshops during the year in conjunction with Mr. Bishop (the inspector). The suggestions I had to make have been readily complied with, but much requires to be done to render these workplaces fit for the workers to be employed therein, and kept up to the requirements of the Factory and Workshops Acts.

### SHOP HOURS ACT, 1892-1899.

#### INSPECTOR BISHOP'S REPORT.

Three hundred and seven shops have been visited during the year. Sixty six young persons were employed contrary to the provisions of the Act by not exhibiting the Abstracts; copies of the Act were at once obtained. Sixty two shops were domestic and did not come under the Act.

I received one complaint in reference to the hours worked. I visited the shop, and after careful observations found there was no cause for the complaint, the hours being under the limit.



Observations have been frequently taken, and I found at three the hours were being exceeded. On visiting the same I found one was domestic, at two it was arranged to give the young persons a half holiday during the week which brought the hours under the limit.

#### SEATS FOR SHOP ASSISTANTS ACT, 1899.

This Act has been carried out, and seats for female assistants are provided.

### MEAT INSPECTION AND SLAUGHTER-HOUSES.

The Slaughter Houses have been regularly and irregularly visited by the Inspectors; I have paid frequent visits also. I have also inspected meat in many of the shops.

In October a large seizure of "slink" meat was made in a shop in Scholes, this was bad and was condemned by a Magistrate. A summons was taken out against the owner, but he failed to appear, a warrant was granted by the Magistrates but the defendant absconded.

The meat in this case was killed and dressed outside the town in an unregistered slaughter-house; it was then carted into Wigan and exposed for sale.

The inspection of meat can never be efficient till we have a Municipal Abattoir, where the beasts can be seen both before and after being killed.

There is no improvement in the existing private slaughter-houses, with the exception of one which has been rebuilt; this one, however, is mostly used for killing pigs.

The number of animals slaughtered in the borough were in June approximately as follows:—

Beasts .....	77
Sheep .....	292
Lambs .....	23
Calves .....	31
Pigs .....	121

---

544

---



## **DAIRIES & COWSHEDS & MILKSHOPS ORDER, 1885 & 1886.**

Much still requires to be done in the improvement of the cowsheds, but Mr. Woods, F.R.C.V.S., who is the Veterinary Inspector, is doing what he can to get all those who have neglected to carry out the alterations in compliance to the Bye-Laws to do so.

Subjoined here is Mr. Woods report for the year:—

Report of the Veterinary Inspector under the Dairies,  
Cowsheds, and Milkshops Order.

Gentlemen,

In submitting my Annual Report on the inspection of Cowsheds and milch cattle in the Borough, I have not of course to report the same amount of progress in making the alterations to those remaining Cowsheds which do not conform to the Dairies and Cowsheds order, because those willing to be persuaded have all endeavoured to bring their buildings within the very reasonable requirements of the Corporation. I have given the Town Clerk a list and particulars with regard to the remaining ones, and I believe he is prepared to take almost immediate action. The periodical inspections of the cattle with special reference to the udders is now the most important part of my work, and I have met with no opposition from owners to any examination I have wished to make. The inclusion of Pemberton within the Borough will add a large number of Cowsheds requiring drastic alterations owing to Pemberton not having adopted the provisions of the Dairies, Cowsheds, and Milkshops Order. Many of the cowsheds conform only to the old fashioned idea, that if the weather was kept out and the cattle kept in, anything more was superfluous.

A good deal of patience has been exhibited in dealing with the Cowsheds of Wigan with ultimately very satisfactory results, and I propose, unless otherwise instructed, to use the same method in Pemberton, namely:—To persuade the willing ones to make the necessary alterations, and afterwards to use the alterations made as a lever to persuade the unwilling ones.



I again wish to place on record my indebtedness to the Medical Officer of Health for his courtesy on all occasions on which I have consulted him.

Yours obediently,

WM. WOODS, F.R.C.V.S.

### **WATER SUPPLY.**

During the past year it was necessary owing to the long dry season to curtail the daily supply of water for some weeks. I hope, however, that the time will soon arrive when a necessity like this will not occur. The water has, however, been good in quality as will be seen by Mr. Orsman's monthly report:

Mr. Orsman's monthly reports from his analyses are as follows:—

1904.

*January.*—Hardness before boiling, 9 degrees, after 7 degrees. The above sample is good and shows very little change from the previous 2 months.

*February.*—Hardness before boiling, 9·5 degrees, after 7 degrees. The above sample was quite clear and did not deposit any sediment on standing. The hardness remains about the same.

*March.*—Hardness before boiling, 9·8 degrees, after 7 degrees. The water is clear and bright, and does not give any deposit on standing. The hardness is about the same as last month.

*April.*—Hardness before boiling, 10·5 degrees, after 7·5 degrees. The water is slightly higher in hardness and chlorides this month owing probably to the dry weather. The water is clear and in good condition.

*May.*—Hardness before boiling, 10·6 degrees, after 6·6 degrees. The above sample of water is somewhat purer than the sample taken last month, the albuminoid and hardness being slightly lower.



*June.*—Hardness before boiling, 10 degrees, after 6.5 degrees. There is only a slight change in the water since last month, which remains very good.

*July.*—Hardness before boiling, 10.5 degrees, after 7 degrees. The above water is slightly harder than last month, but the albuminoids have not risen at all and are below the average figure. The water is bright and clear.

*August.*—Hardness before boiling, 10 degrees, after 7 degrees. The water remains bright and clear on standing, and shows little change since the sample taken last month.

*September.*—Hardness before boiling, 12 degrees, after 8 degrees. The above water shows greater hardness and slightly higher albuminoids than the sample taken last month.

*October.*—Hardness before boiling, 9.4 degrees, after 5.5 degrees. The water notwithstanding the shortage in supply has not deteriorated in any way; in fact, the quality is slightly better than last month.

*November.*—Hardness before boiling, 10 degrees, after 6 degrees. The water is slightly harder this month, but the change is very slight.

*December.*—Hardness before boiling, 10.5 degrees, after 6.5 degrees. The water is slightly harder this month, otherwise there is no change.

Through the kindness of Mr. Alderman Richards, J.P., I am enabled to give a short history of our present waterworks and water supply, also an account of the filtration methods employed. For a pure supply of wholesome water it is necessary that every precaution should be taken, and the "gathering" ground kept as free from pollution as possible. Purity whenever attainable ought to be at the source, and as far as practicable the necessity for purification, before distribution, should be diminished as much as possible.

County Borough of Wigan.

#### WATERWORKS UNDERTAKING.

A few facts relating to the above undertaking and to the supply of water to the Borough generally, compiled



and prepared by Alderman Robert Richards, J.P., Chairman of the Wigan Corporation Water Committee, for the use of Dr. William Berry, F.R.C.S.I., Medical Officer of Health for the above Borough.

So far as is known the Old Waterworks Company obtained their Parliamentary powers, about the second or third year of the reign of George the Third, using what was then known as Leigh's Fish Pond, and now known as the Whitley Reservoir, for storage purposes, and laying large drain pipes, without flanges, through the Whitley Fields, across where the London and North Western Railway line now runs, and thence through the fields behind the Boar's Head Inn, and thence in a zig-zag direction to Barley Brook, some distance below the present Prospect Colliery in Standish. This water only supplied a very small portion of the town, but in the very early part of the "Forties" it was found necessary to enlarge the supply as the town was growing, so the Coppull Lane reservoir was constructed, about the year 1843 to 1846. About this time Parliament began turning its attention to the sanitary condition of our cities and towns, which was then in a deplorable condition, Wigan being at that time one of the worst. This led to the passing of Lord Morpeth's Health of Towns Bill in 1848, followed soon after by what was known as the Public Health Act which Wigan adopted, and has probably carried out more faithfully than most other towns. One of the principal objects of this Act was to increase the Water Supply, and to obtain it from more pure and healthy sources, it therefore became necessary to the Wigan Corporation to buy up the Old Company about the year 1851, or thereabouts, and which was done at the cost of somewhere about £25,000 to £30,000.

The reconstruction of the Whitley Reservoir then took place (the late Mr. J. L. Hunter having become the Borough Engineer) and by putting that part of the pipe line feeding the Whitley Reservoir under pressure largely increased the supply into the Whitley Reservoir. This was done to keep up the supply until such time that a very much larger scheme could be carried out, namely, our present Waterworks at Worthington which was



undertaken on the advice of Robert Rawlinson, Esq., the eminent Civil Engineer, in a report as to the proposed water supply and its source for the Borough of Wigan, October 11th, 1852, and who, having surveyed the whole of the district around Wigan, and having the different samples analysed by Dr. Lyon Playfair, recommended the water of the Seven Stars Brook, the source of our present supply, as the best water in regard to quantity and quality. The Wigan Corporation at once made application for Parliamentary Powers to carry out Mr. Rawlinson's recommendation by what is known as the Wigan Waterworks Act, 1853. This gathering ground was all that was left to Wigan, for Liverpool had already secured the Rivington area, and Bolton had secured the Belmont area. However, the Act was obtained, and the construction of the Arley Reservoir was commenced and what the Wigan Corporation thought finished, but unfortunately as fast as the water came in it ran away into mine workings, at the bottom of Adlington Park. This was a great blow to the Wigan Corporation at the time, but not to be daunted the Corporation altered their plans, and by building a large embankment with puddled trench 60 feet deep, across the top end of the Arley Reservoir, constructing the present goit, or cutting and catching the water of the brook about a mile higher up, proved successful, and the Arley Reservoir being much deeper held more water than was originally intended. Of course this alteration cost a very much larger sum than was first intended, but has proved up to now to have been money well spent for the health and comfort of the people of Wigan, and seemed to answer the needs of the town, up to that time of what is known as the "Cotton Famine," when large numbers of the working people were thrown out of employment, and the Government of that day requested local authorities to find work for the unemployed by constructing works of public utility, and lending money and giving borrowing powers for that purpose. This was taken as a favourable opportunity for constructing the Worthington Reservoir, and three sums of ten thousand pounds borrowed under the Public Works Manufacturing Districts Act was obtained, and the construction of the Worthington Reservoir was carried out, the work being engineered



and superintended by the then Borough Surveyor, Mr. John Law Hunter ; and in my opinion it is a monument to his engineering skill and ability. I am pleased to state also that the three sums before named have been paid off six or eight years ago, I believe somewhere about the year 1895, and the reservoirs, which are a splendid work of their kind, have practically kept the town supplied, along with the small additional supply from Thirlmere up to now, that is, the year 1904. After the Worthington Reservoir was finished and got into working order, about the year 1866, little notice seems to have been taken of the water supply generally, except the closing of the wells in the different parts of the town, and the works appear to have been somewhat neglected, and I have been informed that for two years at a time scarcely one member of the Council has been seen about the works or the gathering ground. This neglect brought about the usual consequences, and the water became very impure and naturally injurious to health of the inhabitants, and the Water Committee became alive to the fact that something must be done to improve the quality of the water. The Committee began by inspecting the gathering ground, and to their surprise found all the ditches, or water courses feeding the Hicbibi Brook were choked with filthy mud and water, and also farmyard and shippon refuse. To remedy this state of things was a big undertaking, but the Water Committee took the work in hand, and after obtaining the consent of the land owners commenced by first placing tanks with chain pumps in the different farm-yards, bordering on the brook or thereto, afterwards cleaning out some miles of ditches of the filthy refuse contained in them, this for a time made matters worse owing to the disturbance and the removal of the refuse contained in them, and it was then found necessary to empty the Worthington Reservoir and make considerable alterations in the bottom, also to place more valves or outlets in the wells, so as to be able to use the top water first, it was also found necessary to double the filtration space by making new filter beds, of the most modern type, so as to reduce the speed at which the water was passed through them from ten gallons per square foot per hour to about two to two and a half gallons per square foot per hour. It



was also found necessary to build a large additional clean water tank, at the base of the embankment of the Worthington Reservoir, to receive the water after filtration, and thus enable the filter beds to work both night and day.

It was also found absolutely necessary to construct three long settling tanks in the conduit to catch the sediment before it entered the reservoirs, every one of these additions and alterations have been thoroughly successful, and has been money well and truly spent, and had the effect of restoring the water to as pure a condition as most towns can boast of.

There has also been many improvements besides, and obtaining much larger quantities of water, from the same district; also the well sunk at Wrightington which yields a large quantity from its natural overflow, and is capable in time of need, and by pumping to give 150,000 gallons per day. This well gives out the very best water for the domestic purposes it has been sunk, and the work carried out without adding any additional debt to capital or loan account.

There have been many improvements, troubles, and difficulties which the Water Committee of the last 16 years have had to contend with, but under the able and patient management of Mr. Thomas L. Hughes they have all been overcome.

We now come to the obtaining of an additional water supply from Thirlmere aqueduct, in the township of Anderton, belonging to the Manchester Corporation. This water is one of the very best and purest in the whole country for domestic purposes, and under certain conditions it is obligatory on the Manchester Corporation to supply the Borough of Wigan from this source. We have therefore put down a pipe line twelve inches in diameter, costing twelve thousand pounds, [capable of discharging into our service reservoir at the top end of Wigan Lane, 1,500,000 gallons in 24 hours. At the present time (January, 1905) we are only receiving from the Manchester Corporation 200,000 gallons per day, but shortly, say August, 1905, we shall if all goes well be



receiving 500,000 gallons per day. How long this extra supply will last I am not prepared to say, but if the Wigan Corporation can obtain its water at 5d. per 1,000 gallons or under, it would in my opinion, be folly to look out for fresh gathering grounds elsewhere, for the geographical position of Wigan almost precludes us from doing so, but I do think, taking all the circumstances of Wigan into consideration, that Parliament, if appealed to, would compel both Manchester and Liverpool to supply Wigan when it became necessary, although it may be many years before this would be absolutely required.

I will now give you a few particulars so far as regards our own works.

Area of Watershed ... ..	2,200 acres.
Total number of acres of land for	
Waterworks purposes ... ..	73 acres.
Surface of water in Reservoirs ... ..	37½ acres.
Number of Reservoirs, namely :—	
Worthington, Arley, and Adlington ... ..	3.
Speed of filtration ... 2 to 2½ gallons per sq. ft. per hour.	
Total capacity of Reservoirs ... ..	240 million gallons.
Capacity of Service Reservoir (this reservoir	
is, in my opinion, much too small) ... ..	1 million gallons.
Capacity of clean water tanks ... ..	650,000 gallons.
Height to which the water is pumped into	
the service Reservoir ... ..	95 feet.

The tower is filled by gravitation from the Thirlmere Source, and is forty (40) feet above the service reservoir.

Consumption per head of the population is twenty (20) gallons per day, a very low consumption as compared with all the surrounding towns in the county.

Total amount borrowed on capital account	
at March 31st, 1904 ... ..	£238,299 13s. 9d.
Amount owing at March 31st, 1904 ... ..	£164,088 0s. 0d.

Our three reservoirs may be considered capable of supplying (1200) twelve hundred thousand gallons per day, in addition to the compensation water, we have to send down the River Douglas.

We have also the Old Whitley Reservoir of unfiltered water, which is of very great use to the town, such as watering the streets, supplying the railways, gas works, and many other purposes, and, in my opinion, ought to be highly prized for its usefulness.



I may add, that in my opinion, another service reservoir is very much needed to hold (say) from twenty to forty million gallons of the Thirlmere Water, and the daily takings to pass constantly through it, so that we might not only be prepared to fall back upon it in dry seasons, but to be prepared for any breakdown in the Thirlmere aqueduct, which we know does happen from time to time in every pipe line, and so that we should not be subject to putting the inhabitants of the town, every two or three years, on intermittent supply, which is always a disagreeable and inconvenient proceeding.

I find the city of Manchester is making a reservoir for that purpose, to hold no less than three hundred million gallons.

The city of Liverpool has also provided herself with reservoirs at Prescot, for the same purpose, and even such a small place as Standish is proposing to do the same thing.

It is all very well to build town halls and other luxuries and accessories, but we must remember that a supply of pure water, for the people, is a vital necessity, and the first principle in every well managed municipality.

With regard to the Pemberton Water Works which have now been taken over by the County Borough of Wigan, by virtue of the amalgamation scheme, I am not in a position to say much, for I am not yet acquainted with their working or capacity, but I may say with truth, that the Pemberton portion of the Borough will before long require all the water they possess for their own purposes and probably much more.

I have now given nearly all the particulars I am in possession of concerning the Wigan Corporation Water Works, but if there is anything more, that can be thought of, I shall consider it a pleasure to endeavour to give the information. I need not say anything about the quality of the Wigan water, because the monthly analysis of Mr. Orsman gives all the requisite particulars.

ROBERT RICHARDS,

Chairman,

Wigan Corporation Water Committee.

January, 1905.



## RAINFALL.

Month.	Rainfall in Inches and Tenths.	No. of days on which rain fell, being .01 of an inch or more.
January .....	3.08	21
February .....	3.85	21
March.....	1.89	15
April... ..	1.81	21
May .....	2.25	17
June .....	1.83	11
July.....	1.11	15
August .....	4.36	20
September .....	2.08	8
October .....	2.47	11
November .....	2.35	18
December .....	3.12	19
Total.....	30.20	197

The mean annual fall for the previous ten years is 34.01 inches.

The mean annual fall for the past 47 years is 37.47 inches.

## BLACK SMOKE NUISANCE.

Numerous observations have been taken during the year. Many cautions have been given and notices served and warnings given but no prosecutions taken. The time limit in Wigan is a liberal one, and one which the manufacturers can enforce, although some improvement has taken place, the existing condition of affairs is very undesirable.

Many people think and say that black smoke means money, and they would like to see more of it, but when we consider manufacturers can do the same kind of work, in fact are compelled to do so in other towns, this disposes of the argument, we have also against this same argument the injury which is produced by inhaling the fine particles of carbon which are poured into the atmosphere, giving rise to injurious effects to people who are liable to Bronchial affections. How much of the Chronic Bronchitis, which troubles the aged poor of this town, is caused by this air pollution, it is difficult to say, but it is common sense to know that such a contaminated atmosphere is injurious. Some very interesting



observations were made in the report of Dr. Wm. Butler, the Medical Officer of Health for Willesden, for last year, in reference to the smoke and dust nuisances. The report is so striking that I copy the following from a review of his report in the *Lancet* of July 23rd, last:—

#### WILLESDEN URBAN DISTRICT COUNCIL.

Dr. William Butler, the medical officer of health of Willesden, has made some interesting observations upon the smoke and dust nuisances in this district. Allegations were made as to the dust which was stated to come from the Metropolitan Electric Supply Works, and with the view of throwing light upon this question Dr. Butler procured 12 boxes, each of the superficial area of one square yard and of a depth of six inches. The bottoms of the boxes were covered with glazed American cloth to facilitate the removal of accumulations. These boxes were placed in the back gardens at 12 different sites, and in such a position that whatever was deposited in them from the atmosphere would be retained. This dust was collected every 24 hours and placed in labelled pill-boxes, and upon examination it was found to consist of black carbonaceous particles distributed among a much finer black powder. These particles consisted of "miniature cinders," or the incomplete combustion of fine coal. Extraneous particles were, so far as practicable, separated and the coal dust was weighed, and it was found that substantial deposits were only to be found in those places which lay from the chimney in the direction of the prevailing wind, and the nearer the chimney was approached the larger was the quantity of dust collected. From these and other facts Dr. Butler arrives at the conclusion that a very serious nuisance exists in the neighbourhood of the works above referred to, and on proceedings being taken a penalty of £5 was imposed with 20 guineas cost, and an order was made to abate the nuisance and prevent its recurrence. In connection with this subject of smoke production and prevention it is instructive to refer to the current annual report of Mr. Peter Fyfe, the sanitary inspector of Glasgow, who furnishes some interesting charts illustrating the manner in which smoke may be enormously reduced by the employment of mechanical stokers, by better manual



stoking, and by increasing the height of the chimney or the size of the boiler. Mr. Fyfe adds that in the case of ten chimneys which formerly gave from 30 to 60 minutes of black smoke in an hour, the period of the emission of such smoke has been reduced almost to *nil*. Some highly instructive observations have also been made by Mr. Fyfe with respect to the amount of dust which is sent forth into the atmosphere by the Glasgow chimneys. Dust gauges were placed on the roofs of buildings in several parts of the city, and after 79 days' exposure they were collected and their contents were weighed and examined by the chemist to the corporation. These researches showed that on an average 36.44 hundredweights of solid matter fall upon each acre of the city per annum. But in his last annual report Mr. Fyfe noted that nearly 39,000,000 cubic feet of black smoke issued daily from the chimneys of two of the large steel works in the city, and with the view of determining how much solid matter is contained in black smoke he made careful experiments in the flues of the chimneys at the sewage purification works. The average of the tests made was 281 pounds per million cubic feet of smoke discharged, and it therefore appears that the steelworks above referred to send out into the atmosphere of Glasgow nearly 98 hundredweight of solid matter every 24 hours. It was further determined that light brown smoke contains only one-tenth part of the solid matter of that emitted by "black" smoke, or, put in another fashion, one minute's issue of black smoke is at least equal to ten minutes' issue of light brown smoke. We think that all will agree with Mr. Fyfe in the hope that a statutory limit to the emission of black smoke will soon be fixed.

### **PROPERTY UNFIT FOR HUMAN HABITATION.**

Owing to insufficient accommodation for displaced tenants no steps were taken under the Housing of the Working Classes Act, 1890.

### **UNPAVED YARDS AND PASSAGES.**

The work of remedying defects in unpaved yards is proceeding very slowly, but some progress has been made and we are getting conversions of pail closets into water closets.



The following is a list of unpaved yards and passages that have been dealt with during 1904:—

---

1-23, Hardy Street	2-24, Kimberley Street
2-20, Stratford Street	1-23, Kimberley Street
38-100, Barnsley Street	31-81, Hodges Street
15-41, Turner Street	6-38, Vaughan Street
52-58, Market Street	54a-58a, Market Street
4, Greenough's Row	68-76, Frog Lane
79-81, Linney Street	30-32, Wellington Street
2, Roscoe Street	1-2, Knowles Terrace
20-24, Douglas Street	26-32, Foy Street
157-173, Hardybutts	2-8, Anderton Street
14-16, Gee Street	6-16, Ashton Street
2-4, Ashton Street	5-7, Church Terrace
64, Millgate	2-6-10, Harrison's Square
8-20, Lea Street	42, Lower Morris Street
2-16, Gaskell Street	4-10, Northumberland Street
1-9, Bedford Street	2-12, Neville Street

---

The following have also been dealt with for defective surface of yards, etc. :—

---

Bd. 44, Standishgate	19, Powell Street
1, Hilton Street	118, Swinley Road
5, 10, Worsley Terrace	1, 19, Greenough's Row
10, Moss Street	Bd. 114, 116, Hardybutts
2, 8, Ratcliffe Street	149, Great George Street
1, 3, 5, Scott Street	117, 119, Great George Street
60, Frog Lane	17, Douglas Street
25, Millgate	4, 6, 8, Kirkless Street
30, Darlington Street	1, McEwen's Yard
18, Scholes	27, School Lane
36	40, York Street
76, School Street	2, 10, Harrison's Square
34, Market Street	17, 19, Dobb's Fold
37, Herbert Street	1, 13, Fletcher Street
79, 83, Scholes	26-34, York Street
85, 91, Lime Street	Yates Street
44, Lyon Street	4, 6, Taylor Street
107, Caroline Street	36, Lower Morris Street
55, 57, Standishgate	55
12, 36, Upper Morris Street	55a
Monument Cottage, Wigan Lane	

---

## **BOROUGH SURVEYOR'S DEPARTMENT.**

The Borough Surveyor has kindly supplied me with the following particulars.—



	T.	C.	Q.
House refuse collected in Borough from January 1st to December 31st, 1904 ... ..	18,140	9	0
Pail excreta removed ... ..	7,661	11	0
Nightsoil removed ... ..	370	1	2
Number of Pail Closets in Borough 7,920			
"    Pails collected in 1904 457,847			
Cost (including washing and distribution) ... ..	£2,128	18	7
Cost of collecting ashes during 1904 ... ..	£2,026	6	4
Number of privy middens in Borough ... 15			
"    "    emptied in 1904... 441			
"    New houses erected in 1904 ... 282			
"    Slop Closets put in in 1904 ... Nil			
"    Water Closets in Borough 3,628			

### ANKYLOSTOMIASIS.

Although we have little to do with the carrying out of sanitary measures in Coal Mines, the Inspectors under the Mines Regulation Acts being more responsible than the Medical Officer of Health, yet he is not so much concerned with the prevention of disease. Possibly the time will come when the Medical Officer of Health will have the same supervision over collieries as he has over Factories and Workshops at the present time. Knowing as we do that in the working places of colliers the most careful and efficient sanitary arrangements are not in existence, it is perhaps as well to call attention in this report to the disease called Ankylostomiasis, which is a worm or parasitic disease, and has in this country been found amongst the lead miners of Cornwall. For the purpose of calling attention to the matter, I insert here extracts from the report of a conference on the subject held at a Conference invited by the Right Hon. A. Akers-Douglas, M.P., His Majesty's Principal Secretary of State for the Home Department, at the Home Office, on Thursday, the 12th November, 1903.

Mr. Cunynghame referred shortly to the subject of the meeting, and invited consideration, in the first instance, to the nature of the disease, and mentioned the following characteristics :—There are four states in which the parasite exists. The egg, the imperfect larva, the larva, and the worm. The egg is always laid in the human body, but never hatched there. To hatch it requires heat, moisture, and oxygen, which it only can get after it has left the body. It hatches in about a week,



becoming then an imperfect larva. In this state, if swallowed by a man, it will not turn into a worm, but four or five days after it has been hatched, it becomes a perfect larva, and in this state it can endure cold and even poisons, provided it has air and moisture. It will live as a larva six months or more, but would not turn into a worm unless swallowed. As soon as it is swallowed it develops into a perfect worm (male or female). The female then lays an enormous quantity of eggs in the human body, which are expelled in the fæces, and so the cycle goes on. From this it follows that since the worm is never bred in the body, it can never multiply there. Every worm in a man must have been swallowed.

From these facts it follows :—

- (1) That if a man who has the worm can only be prevented from swallowing mature larvæ, he can get no more worms into him, and those that are there will gradually die.
- (2) That if the eggs and larvæ in a mine could only be killed effectively, the disease, even if it existed, would be arrested.
- (3) Since it is very difficult to kill the eggs and larvæ with disinfecting poisons, the best effective way of dealing with them is to bury or destroy them as soon as possible, or to bring the fæcal matter at once to the surface, where the cold night air will kill the eggs before they are hatched (but not necessarily the mature larvæ, if they get time to hatch in the warm mine).
- (4) Since the worm lives for three years or more in the body, a man who has worm disease may long continue to infect other people, even though he is himself receiving no new worms. Hence the disease, even with perfect sanitary arrangements, would be very slow in dying out if it appeared. Therefore it is very desirable that men who have it should be treated.
- (5) The treatment is very simple. Thymol seems the best remedy, but the dose must be rather large and ought to be given by a doctor only, as for some people it might be dangerous.



- (6) But generally speaking it is as easy for worms to be got rid of from men, as it is in the very ordinary cure of worms in dogs, and the disease, though a very nasty one, is not one which need create a panic.
- (7) A sharp look-out should be kept for the disease, for it is far easier to stamp out in its initial stages than when it has made headway.

Mr. Pickard, on behalf of the Miners' Federation, handed in the following suggestions:—

- (1) That closets and urinals be placed on or near the pit bank.
- (2) That closets and urinals be placed in the return airway at or near the pit porch or pit bottom.
- (3) That closets and urinals be placed at or near the main pass-byes in the return airways.
- (4) That pure water be placed in tanks at the main pass-byes.
- (5) That medical officers shall at stated intervals examine those places.
- (6) That, if necessary, the said medical officers shall examine the workmen whenever there is any doubt as to the disease existing at or in any colliery or part thereof.
- (7) That any person coming into this country from countries affected by the worm disease, before being allowed to enter our mines, be medically examined and unless free from the disease, they may be placed in quarantine until the medical officer certifies them to be free from the disease.

I am indebted to Mr. Charles Gidlow Jackson, C.A., for the report from which I have made the above extracts.

It is well that Colliery Surgeons should know something of the history, symptoms, and treatment of the disease, and for this reason I have thought it desirable to incorporate this with my annual report.



## THE INSPECTION OF SCHOOLS.

Since the schools now are by the Education Act of 1902 placed under the supervision of the Municipal or Local Authorities, it is desirable that the Education Committee should in conjunction with Health Committees look after the health of the children whilst engaged in school work, and should, as a necessary preliminary, see that the schools under their control are sanitary in every respect.

With regard to the spread of infectious diseases, especially Measles and Whooping Cough, schools have much to answer for, and it is desirable that the managers and teachers should render every assistance to the health department, not only to prevent the spread of disease and avoid death, but also to keep up the average attendance. At present such help as might be rendered is not forthcoming.

The next thing should be perfect cleanliness in school, not only to teach the young this essential of hygiene, but as a good example to those growing up.

I deemed it desirable to write the following letter to the Education Committee on June 10th, and my suggestions were agreed to.

CORPORATION OF WIGAN,

OFFICER OF HEALTH'S DEPARTMENT,

JUNE 10TH, 1904.

[COPY].

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

GENTLEMEN,

I wish to call your attention to the necessity for a regular and systematic cleansing (mopping) of the classroom floors and passages in the elementary schools of the town.

During the hot and dry season this is more especially necessary from a health point of view.



I would suggest that all class-rooms should be mopped every month where practicable, and certainly not less often than once in two months, by doing a given number each week.

Carbolacene, or King Carbol, could be added to the water as well as the soap which is employed, these preparations being good disinfectants, as well as efficient cleansers of wood, would answer two purposes, namely—cleansing and disinfecting.

By this method of cleansing being carried out there is less risk of infectious disease spreading from one scholar to another in the school.

I remain, Gentlemen,  
Yours faithfully,  
(Signed) WM. BERRY,  
Medical Officer of Health.

P.S.—It is unnecessary for me to state that the simple sprinkling of the floor with a disinfectant powder or fluid cannot take the place of thorough cleansing.

Mr. Horne, the Secretary of the Education Committee, sent out the following letter to the Managers :—

[COPY].

EDUCATION OFFICES, KING STREET,  
WIGAN, 20TH, JUNE, 1904.

DEAR SIR,

Dr. Berry, the Medical Officer of Health, has drawn the attention of the Committee to the necessity for the regular and systematic cleansing (mopping) and disinfecting of the class and schoolroom floors and passages in the Elementary Schools of the town, and the Committee have decided to adopt his suggestions, which are contained in the copy of his letter forwarded herewith.

I shall be glad if you will kindly bring this matter before your Managers with a view to the necessary instructions being given to the caretaker,



The disinfectants should be provided out of the moneys allowed to the Managers for heating, lighting, and cleansing purposes.

Yours faithfully,

(Signed) JOHN W. HORNE,  
Secretary.

I believe, however, very little has been done as yet in the matter by those responsible.

If the schools are to be supervised from a sanitary point of view by the Health Department, this is one of the first essentials to be attended to, as well as ventilation and proper air space for each child.

Whilst on this subject I should like to subjoin the following letter copied from the *British Medical Journal*, November 19th, 1904.

Extract from the *British Medical Journal*, November 19th, 1904.

#### MEDICAL INSPECTION OF SCHOOLS.

SIR,—With reference to the article in the *British Medical Journal* of November 5th on the above subject, let me, as an example of its importance, and showing how much behind American methods we are in this, as in other matters pertaining to school children, instance the case of Goole, of which I am medical officer of health.

In a paper published in *Public Health* for September, 1904, I gave particulars of an epidemic of diphtheria occurring amongst school children, and endeavoured to show that the principal cause of the spread of the disease was school attendance.

We are in the unfortunate position of having another epidemic raging in the town, which has already caused considerably more deaths than all the scheduled infectious diseases for the whole year. As measles is not a notifiable disease, and, with the abandonment of Article 101 of the Code, the first intimation we received of the presence of measles is from the death returns. This, of course, is too late for the adoption of preventive measures.



When I received the weekly return of deaths for October 1st, I noticed one death from measles and immediately instituted enquiries, and found that the disease was practically epidemic all over the town, having begun in the children attending one particular school, but by the time it had come to our knowledge the disease had extended to all other schools in the town, as the following particulars show. Under the present Education Act the difficulty is to get any particulars at all.

Old Goole school—10 boys, 19 girls, and 76 infants absent on account of measles, out of an average attendance of 538.

Boothferry Road school—2 boys and 4 infants absent out of an average attendance of 923.

Alex Street, 26 boys, 25 girls, and 45 infants out of an average attendance of 1,043.

The percentage attendances at the different schools for the past week have been: Old Goole, 75; Boothferry Road, 64; Alex Street, 76; National, 67.

These figures explain themselves, the principal cause of absence being measles. What is the remedy? First, notification.

Very few sanitary authorities will adopt this procedure on account of the cost. Secondly, appointment of medical inspector of schools. "Compulsory education brings every child to the school benches, and it is the duty of the State to do everything possible to protect the health of the children, and in particular to prevent schools acting as centres of infection." I reported to my council on the matter, and it may be interesting to know that they passed a resolution, as the sanitary authority of the district, asking the education authority to appoint a medical inspector of schools in the area.

I am, etc.,

Goole, Nov 14th.

A. M. ERSKINE.



## APPENDIX I.

MEDICAL OFFICER OF HEALTH'S REPORT ON  
ENTERIC FEVER DEATHS.

Wigan, Sept. 5th, 1904.

To the Chairman and Members of the Sanitary Committee.  
Gentlemen,

The Local Government Board desire a report on the 6 deaths occurring between April 4th and June 26th, inclusive. I beg to submit to you the following report:—

The number of cases of Enteric Fever notified were as follows:—

March	3	
April	2	
May	2	Total 11
June	4	

The number removed to Sanatorium 9. Number of deaths in Sanatorium 4. This is a mortality greater than usual, and can only be accounted for by the severity of the disease and the delay in notification, the cases being almost in *extremis*. To individualise the deaths we have:—

*Case 1.* A.B., aged 34 years, origin of the disease could not be traced. The yard was small and there was a choked drain. W.C. system of refuse removal, probably the disease was contracted out of the town.

*Case 2.* B.C., aged 16 years, origin not discovered. Yard flagged, patient when removed was very ill, lived 10 days after removal to Sanatorium.

*Case 3.* C.D., aged 34 years, very ill when removed, lived only two days in Sanatorium. No apparent nuisance. Yard well paved and drainage all right. House built on filled up ground. Source of disease undiscovered.

*Case 4.* D.E., aged 11 years. Case not notified and on enquiry found he had suffered for six weeks. Cause of death was certified (1) Enteric Fever. (2) Peritonitis. This was probably one of Tubercular Peritonitis and not Enteric. Yard flagged. Drainage trapped.



*Case 5.* F.G., aged 20 years. Ailing for three weeks before removal, but only a few days in bed before the notification was received, in *extremis* when admitted to Sanatorium. The cause of death was Pneumonia, and whilst she was under observation no sign of Enteric Fever was present. She lived one day in Sanatorium.

*Case 6.* H.J., aged 16 years. Was ill at home about 14 days before his case was notified; he had obscure symptoms and much delirium. Origin of disease could not be traced. Drainage was all right, but yard unpaved, and there was overcrowding in the house.

Of the six cases two certainly may be removed from the category of Enteric Fever.

*Remarks.* There has been no prevalence of fever in the town this year. The number of notifications of Enteric since January 1st to June 30th is 13, and the number removed to Sanatorium 10, and the number of deaths 7.

The water supply is pure and ample, you have a report on its condition monthly, and you are also making arrangements for a bacteriological report periodically. The drainage is good, and the pail system of removal is in vogue at five out of six houses. Minor nuisances were found and remedied. The measures adopted to prevent the spread of the disease were the usual methods. (1) Removal to Sanatorium when practicable. (2) Visits by Inspector and instructions to those responsible. (3) A liberal supply of disinfectants. (4) Nuisances when found abated. (5) Disinfection of premises and clothing.

As a matter of fact there was no second case in any of the houses, and no spreading to any one in the neighbourhood.

I am Gentlemen,

Your obedient Servant,

WM. BERRY,

Medical Officer of Health.



# COUNTY BOROUGH OF WIGAN.



## ANNUAL REPORT

OF THE

*Chief Sanitary Inspector,*

1904.

WIGAN:

THOS. WALL AND SONS LTD., PRINTERS, "OBSERVER" OFFICE.  
1905.

## TABLE OF CONTENTS.

Summary of Nuisances dealt with	..	..	..	..	96
Common Lodging-Houses..	..	..	..	..	97
Slaughter-Houses, &c.	..	..	..	..	98
Fellmongers	..	..	..	..	100
Gut Scrapers	..	..	..	..	100
Tripe Dressers	..	..	..	..	100
Food Condemned	..	..	..	..	100
Canal Boats	..	..	..	..	101
Smoke Nuisances	..	..	..	..	101
Infectious Diseases..	..	..	..	..	102
Food and Drugs and Margarine Acts	..	..	..	..	102
Shop Hours Acts	..	..	..	..	103
Factory and Workshops Acts	..	..	..	..	104



# Annual Report of the Chief Sanitary Inspector.

HEALTH DEPARTMENT,  
14, RODNEY STREET,  
WIGAN,  
FEBRUARY, 1905.

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

SIR AND GENTLEMEN,

I have the honour to submit to you my Fourteenth Annual Report of the work done by the staff of this Department during the year ending the 31st December, 1904.

As you are aware the work of the Health Department increases year by year, and the one we have just finished shows a greater amount of work than in previous years, this will be easily seen from the statistics appended.

Consequent on the large number of cases of Measles we have had to deal with during the past year an Inspector (Mr. Martlew) has had to devote himself entirely to that work, this of course throws a greater amount of work on the rest of the staff.

The following is a summary of the work done and a description of the nuisances dealt with :—

Houses and Premises inspected and Visited (re	
Nuisances and Complaints	9,104
Nuisances Discovered...	2,144
„ Abated	1,621
Notices Issued (Preliminary)	796
„ (Formal)	703
Letters Written re Nuisances	133
Re-inspections made (about)...	6,000
Other Visits made	640
Nuisances remaining on books December 31st, 1904	772

## DESCRIPTION OF NUISANCES DEALT WITH.

Defective Drainage ... ..	59
Choked Drainage ... ..	137
Defective Gullies ... ..	34
Foul Gullies ... ..	30
Gullies requiring Grids ... ..	12
Defective Slopstones ... ..	13
Want of " ... ..	63
Defective or Choked Sink Waste Pipes ... ..	34
Sink Pipes connected to Drains ... ..	55
Bath and Lavatory Waste Pipes connected to Soil Pipes ... ..	8
Bath and Lavatory Waste Pipes connected to Down Spouts ... ..	5
Bath and Lavatory Waste Pipes connected to Drains ... ..	9
" " Defective ... ..	1
Soil Pipes or Connections Defective... ..	17
" insufficiently ventilated, or unventilated or defective ventilators ... ..	10
Defective or choked Water Closets ... ..	26
" Closet Roof and Walls ... ..	45
" " Door (or want of)... ..	22
" " Seat ... ..	4
" " Floor ... ..	26
" and choked Waste Water Closets ... ..	24
" Ash House Roof . . . . .	19
" " Door (or want of) ... ..	25
" " Floor ... ..	13
Want of Ashtub Covers ... ..	12
" Ashtubs ... ..	53
Foul and Defective Privies and Ashpits ... ..	9
Water Closets without proper water supply ... ..	3
Defective Water Closet Cisterns ... ..	16
Down Spouts connected to Drains ... ..	4
Insufficient Closet Accommodation to Houses or Workshops ... ..	22
Defective or Foul Urinals ... ..	2
" Spouts (Eave or Downspouts) ... ..	112
Want of Spouting to Premises ... ..	4
Defective Roof .. . . .	82
" Yard Surface round Gulley ... ..	44
" Flagging or Paving ... ..	143
Unpaved Yards or Passages... ..	232
Houses without proper Drainage ... ..	26
" Overcrowded and keeping of Lodgers ... ..	49
" and Premises Filthy... ..	14
" requiring Limewashing (Walls and Ceilings) ... ..	107
" with Filthy Closets ... ..	12
" " Yards and Entries ... ..	9
" with Damp or Defective Walls ... ..	89
" without proper and through Ventilation (back to back houses) ... ..	78



Houses with Foul Closets (Pan and others)	...	6
Workshops requiring Limewashing	... ..	4
Bakehouses	... ..	3
Defective Middensteads	... ..	7
Want of	... ..	7
Accumulation of Manure	... ..	26
"    Water	... ..	5
"    Rubbish	... ..	12
Keeping of Animals	... ..	72
Smoke Nuisances	... ..	5
Slaughter-houses requiring Limewashing	... ..	1
Miscellaneous...	... ..	183

### COMMON LODGING HOUSES.

The above houses in the Borough have been regularly visited both by day and night by Inspector Bishop and myself, and have generally been found in a satisfactory condition, there have been times when it has been found necessary to administer a caution to some of the keepers on account of some irregularity, but it has never been necessary to take legal action; in fact the keepers, I can safely say, do their utmost to assist us by seeing their premises are kept according to the requirements of the Bye-laws.

In my previous reports I have drawn attention to the class of house we have in the town used as Common Lodging Houses, and can only reiterate my previous statement that considering the fact that the houses have (in the majority of instances) been adapted as lodging houses they will bear favourable comparison with those of other towns. I am pleased to say that during the past year we have been entirely free from any case of Infectious Disease in these houses.

During the time that the Fairs were on extra vigilance was displayed, and the houses were visited every night and all new arrivals were thoroughly examined to see that there were no signs of sickness on them.

### COMMON LODGING HOUSES.

No. of Common Lodging Houses registered in the		
Borough	... ..	19
"    Lodgers allowed nightly	... ..	795
"    Visits by Day	... ..	2,078
"    "    Night	... ..	109
"    Lodgers reported as being received (per returns)	... ..	205,210
"    Visits to Houses let in Lodgings	... ..	55



## COMMON LODGING HOUSES.

No. on Register.						Registered for.
1	2 and 4, John Street	...	...	...	...	12
2	"Brown Cow," Queen Street	...	...	...	...	24
4	46, Queen Street	...	...	...	...	23
5	1, 3, and 5, Union Street	...	...	...	...	48
6	16 Hardybutts	...	...	...	...	8
7	87, 89, and 91, Millgate	...	...	...	...	60
8	1, Hardybutts	...	...	...	...	100
10	31, Scholes	...	...	...	...	15
12	7, Wiend	...	...	...	...	28
13	1, Swift's Yard, Millgate	...	...	...	...	38
14	7, Hardybutts	...	...	...	...	12
15	32, "	...	...	...	...	29
24	28, Wiend...	...	...	...	...	41
34	87, Hallgate	...	...	...	...	85
35	19, Warrington Lane	...	...	...	...	33
36	1, 3, 5, 7, and 9, Scholes...	...	...	...	...	82
37	7 and 9, Union Street	...	...	...	...	52
38	36 and 38, Hardybutts	...	...	...	...	88
39	21, Hardybutts	...	...	...	...	17

## SLAUGHTER HOUSES AND MARKETS.

The above have been regularly visited by the staff on the usual killing days, and I have also made surprise visits at night-time and I am pleased to be able to report that in nearly all instances the occupiers have been found trying to co-operate with this department by keeping their premises as they are required to do by the bye-laws. In some instances their attention has had to be called to the fact that the offal, &c., has not been removed as often as it should be, but in no instance has a second caution been necessary.

I am glad to see that the erection of a Public Abattoir is within measurable distance of being an accomplished fact, and as soon as this is done there will be a better chance of us having complete supervision of the meat sold in the Borough.

The butchers, as a body, we find only too willing to acquaint us when they have any doubt about their beasts when killed, and we are only too willing to oblige them and give our opinion as to whether the carcass is fit for food. There are some, I'm afraid, who do not do this always.



You will see from appended list the number of cases we have been called in to see the animals after they have been killed, this shews a large increase over the number seen last year and is due, no doubt, to a better understanding between the trade and the staff, and also to a severe warning note being sounded by the Medical Officer of Health at the annual dinner of the Butchers' Guardians Association.

One prosecution has been necessary during the year in the case of a butcher who resided just over our boundary and who was in the habit of purchasing diseased and other poor beasts, and killing and dressing them in the neighbouring district and selling it in town. I had had him under observation for some little time and at last managed to catch him, when the summons came on for hearing he had decamped, and a warrant was issued for his arrest.

The wholesale Markets are regularly visited, and always been found in a satisfactory condition.

#### SLAUGHTER HOUSES AND MARKETS, &c.

No. of Slaughter Houses	...	...	...	...	19
„ Visits to Slaughter Houses and Offensive Trade Premises	...	...	...	...	379
„ Visits to Markets	...	...	...	...	269
„ Offensive Trade Premises	...	...	...	...	5
„ Letters sent out <i>re</i> Slaughter Houses	...	...	...	...	29

#### SLAUGHTER HOUSES.

1	Behind 8, Darlington Street...	...	F. Knorzer
2	Behind 60, Darlington Street	...	J. H. Green
6	Upper Morris Street ...	...	W. Walsh
7	Rigby's Buildings, Scholes	...	H. Smith
8	Behind 124, Scholes	...	J. Watts
11	Wiend ...	...	H. Sawbridge
12	Water Street ...	...	J. H. & W. Cordeaux
14	Behind 75, Wigan Lane	...	J. Jackson
18	Bottom Croft ...	...	W. R. Dunbar
19	Shaw's Yard, Hallgate	...	J. Smirk
24	Clayton Street	...	C. Sawbridge
28	Hilton's Yard, Scholes	...	J. Hilton
29	Mill Yard, Scholes	...	E. Hamill
30	Behind 53, Birkett Bank	...	B. Turner
32	Altham's Yard, Standishgate	...	R. V. Swarbrick
36	Silver Street ...	...	E. McEvoy

39	Behind 133, Standishgate	...	...	J. Hill
41	122, Scholes	...	...	J. Lowe
42	Shaw's Yard, Hallgate	...	...	H. Hurst

## FELLMONGERS.

Millgate	...	...	...	Bolton Hide Co.
Church Street	...	...	...	J. Smith

## GUT SCRAPERS.

Shaw's Yard, Hallgate	...	...	J. Eckmann
Robin Hood Yard, Hallgate	...	...	F. Pietsch

## TRIPE DRESSER.

Watmough's Yard, Scholes	...	...	P. Gallagher
--------------------------	-----	-----	--------------

Number of Beasts that have been inspected *by request*  
during 1904 :—

No. of Beasts passed	...	...	...	...	113
„ condemned	...	...	...	...	7
					<hr/> 120 <hr/>

## FOOD CONDEMNED, 1904.

Month.	Fish.	Rabbits.	Beasts.	Other.
January .....	...	...	7½ Calves	...
February ...	...	...	1 Pig	1 Box of Pig's Feet
March .....	...	...	...	...
April .....	1 Salmon	...	1 Calf	1 Bag Cockles
May .....	25 Boxes	...	...	...
June .....	16 Boxes	...	4 Fore Qtrs. 4 Hind Qtrs. 1 Sheep 1 Lamb	...
July .....	13 Boxes 1 Kit	...	...	14 Ducks
August .....	...	24	...	...
September ...	12 Boxes	...	...	7 Baskets of Mushrooms
October .....	5 Boxes	510	6 cwts. Beef	...
November ...	1 Box 1 Barrel	...	1 Beast	...
December ...	1 Box	44	...	...

The following Statement shows the quantities of unwholesome Food, destroyed at the Miry Lane Depot during the year :—



					Tons.	Cwts.	Qrs.
Beef	...	...	...	...	4	2	2
Pork	...	...	...	...	0	12	3
Flat Fish	...	...	...	...	17	2	3
Total...					21	18	0

In addition to the above the following was destroyed :—

					Tons.	Cwts.	Qrs.
Shell and Refuse	...	...	...	...	30	8	0
Other Refuse	...	...	...	...	331	6	0
Total...					361	14	0

### CANAL BOATS ACTS 1877 TO 1884.

The length of canal in the Borough has been frequently visited during the year, and the boats plying on the same have been inspected and generally found in a clean state. There has been a decided falling off in the number of children found on board and when these have been found it has nearly always been during the holiday season, or they have been children in arms or too young for school. Some few contraventions of the Acts and Regulations have been come across and notices have been served on the owners ; these have been complied with.

H. M. Inspector made his annual inspection in the month of January, and, after having carefully gone over the work done, expressed himself highly pleased with the way the work was carried out in the Borough.

No. of Boats Registered at Wigan	...	...	...	124
„ Applications for Registration during 1904	...	...	...	1
„ „ Granted	...	...	...	1
„ Inspections	...	...	...	230
„ Notices issued	...	...	...	14
„ „ Complied with	...	...	...	9
„ Contraventions of Regulations	...	...	...	25
„ Boats Re-registered	...	...	...	0
„ Letters sent out	...	...	...	29

### SMOKE NUISANCES.

During the past year there has been an improvement in the discharges of smoke from the different factories in the town, this has been a source of satisfaction, and shows that with more careful attention being given by the



stokers the nuisance can be greatly diminished. On several occasions when taking observations I have felt it incumbent on me to go and give the fireman a caution, and if this has not had the desired effect a letter has been sent, generally with beneficial results.

No. of Smoke Observations Taken	...	...	...	25
„ Notices Issued	...	...	...	5
„ „ Complied With...	...	...	...	5
„ Letters Sent Out...	...	...	...	6

### INFECTIOUS DISEASES.

Appended is a list showing the work done in connection with Infectious Diseases. Inspector Martlew has had to devote his entire time to this work, and the number of visits he has had to make show the amount of work there is in connection with this branch.

Consequent on the number of houses and rooms to be disinfected we have had extra help from the workmen of the Engineers' Department.

### INFECTIOUS DISEASES (PREVENTION) ACT.

No. of Houses Disinfected	...	...	...	774
„ Rooms	„	...	...	1,041
„ Beds	„	...	...	769
„ Mattresses	„	...	...	385
„ Sheets and Quilts Disinfected	...	...	...	2,483
„ Other Articles	...	...	...	5,480
No. of Premises Cleansed and Limewashed after Infectious Disease	...	...	...	330
No. of Visits to Houses <i>re</i> Cleansing and Limewashing after Infectious Disease	...	...	...	414
No. of Visits to Houses <i>re</i> Infectious Disease	...	...	...	2,043
„ Letters sent out <i>re</i> Limewashing	...	...	...	55
„ Letters sent out <i>re</i> Infectious Disease	...	...	...	22

### SALE OF FOOD AND DRUGS ACTS, 1877 TO 1899.

#### MARGARINE ACTS, 1887 TO 1899.

The requirements of the Acts relating to the sale of the above have been well looked after, and a strict eye kept on the class of dealers who strive to swindle the general public by palming off Margarine for Butter.



With respect to these dealers I may say a great deal of trouble is caused throughout the country inasmuch as if a sample is purchased and turns out wrong and a summons is issued it cannot be made returnable under fourteen days, this gives these people time to clear out and they do this in every instance. The names given are nearly always fictitious and they are enabled to move from town to town and carry on their nefarious practices with impunity. I am pleased to see that some Magistrates are dealing very severely with this class of offenders in the County, and great credit is deserved by our own Police Force who have been able to greatly assist in this work. Imprisonment is the only way which will act as a deterrent to these people because they are able to pay fines over and over again on account of the enormous profit made by their sales.

No. of Samples obtained for Analysis				...	...	203
" Genuine				...	...	188
" Adulterated				...	...	15
				Samples.	Adulterated.	Not Formal Samples.
Milk	...	...	...	59	0	2
Butter	...	..	...	62	1	16
Margarine	...	...	...	8	0	1
Jam	...	...	...	18	10	6
Potted Beef	...	...	...	1	1	1
Spirit of Sweet Nitre	...	...	...	6	0	0
Milk of Sulphur...	...	...	...	6	2	0
Brandy	...	...	...	22	0	10
Cheese	...	...	...	11	0	0
Scotch Whiskey...	...	...	...	10	1	0
				203	15	36
Prosecutions				...	1	
Convictions				...	1	
Action taken				...	1	

Adulteration slight and insufficient for Prosecution	...	7
Samples not taken as Samples for Analysis	...	4
No Action taken, Persons warned	...	3

### SHOP HOURS ACTS, 1892-1899.

The above Acts have been carried out by Inspector Bishop in a very satisfactory manner during the year, and all the workrooms on the Register have been measured up and the information forwarded to the Inspector.



I have made frequent inspections myself at the different factories and also in company with Mr. Tinker (H.M. Inspector of Factories for this district).

No. of Visits to Shops (day)	...	...	...	...	312
„ Night Observations	...	...	...	...	18
„ Day	„	...	...	...	2

### FACTORIES AND WORKSHOPS ACTS.

No. of Visits to Workshops (day)	...	...	989
„ „ „ (night)	...	...	13
„ Night Observations	...	...	1
„ Letters sent out	...	...	48

### BAKEHOUSES.

No. of Visits to Bakehouses	...	...	41
-----------------------------	-----	-----	----

### DAIRIES, COWSHEDS, AND MILKSHOPS ORDER, 1885-6.

The Dairies and Milkshops have been visited and generally found cleanly.

No. of Visits...	...	...	...	...	22
------------------	-----	-----	-----	-----	----

### PROSECUTIONS, 1904.

May 5th—For failing to abate nuisance. Adjourned 14 days.

May 19th—Adjourned case. Order made to abate nuisances within 21 days.

May 12th—For selling to the prejudice of the purchaser, butter not of the nature, &c., demanded, and for selling Margarine in wrapper, not properly marked. Case dismissed on payment of costs.

October 31st—For exposing for sale 28 pieces of beef (6 cwts.) which were diseased, unsound, and unfit for the food of man.

Non-appearance of defendant. Warrant issued for arrest.

In conclusion, Gentlemen, I thank you all for the kind support given to the department during the past year, and must also thank each member of the staff for their cordial zeal and hearty co-operation in carrying on the work.

I remain, Gentlemen,

Your obedient Servant,

JOHN SUMNER,

Assoc. Royal Sanitary Inst.,

Chief Sanitary Inspector.



COUNTY BOROUGH OF WIGAN.



# REPORT

ON THE

# MILK AND MEAT SUPPLY

OF THE

# BOROUGH.

---

December, 1904.

WIGAN:

THOMAS WALL AND SONS LIMITED, PRINTERS, "OBSERVER" OFFICE.

REPORT ON THE MILK AND MEAT SUPPLY OF  
THE BOROUGH.

---

OFFICER OF HEALTH'S DEPARTMENT,

WIGAN,

15th DECEMBER, 1904.

MR. CHAIRMAN,

On your request I have pleasure in submitting the following report on the Milk and Meat supply to the town, and also what is being done by the Health Committee to safeguard the purity and soundness of both.

MILK.

Milk is one of the most important of our foods, being the staple food for infants, young children, and sick persons, and it is necessary that every precaution should be exercised as to its purity and wholesomeness.

With a view to securing these ends the Town Council, on the 1st day of August, 1900, approved of the following regulations with respect to Dairies, Cowsheds, and Milkshops:—

These regulations provide:—

1. For the inspection of cattle in dairies.
  2. For prescribing and regulating the lighting, ventilation, cleansing, drainage, and water supply of cowsheds and dairies in the occupation of persons following the trade of cowkeepers or dairymen.
  3. For securing the cleanliness of milk stores, milk-shops, and of milk vessels used for containing milk for sale by persons following the trade of cow-keepers or dairymen.
  4. For prescribing precautions to be taken by purveyors of milk, and persons selling milk by retail, against infection or contamination.
- These regulations came into force on the 1st day of October, 1900.

Mr. Woods, V.S., was appointed to inspect dairies and cowsheds, and he has regularly done so with much improvement to the majority of existing cowsheds, but there are some cowsheds in existence to which nothing has as yet been done; proceedings will, however, be taken to enforce the regulations. Circumstances over which Mr. Woods or myself had no control have prevented action being taken before this. I have visited some of the cowsheds, and can testify to the improvement that has been made.



With regard to the milk shops, numbering 120, these have been frequently visited and samples of milk taken; samples have also been frequently taken from the kits as the milk is being delivered. During the present year to December 1st, 54 samples have been taken and reported pure by the Borough Analyst.

Then in the Wigan Corporation Act of 1902, we have further powers, namely :—

## PART VI.

### SANITARY MATTERS.

*Section 37.*—(1) Applies to people suffering from infectious diseases not being allowed to milk within the borough any animal or pick fruit, or engage in any occupation connected with the food intended for the use of man.

(2) Applies the same without the borough.

(3) The penalty.

*Section 42.*—Power to stop milk supply within the borough on account of the spread of infectious disease, or the probability of such milk causing tuberculosis.

## PART VII.

### MILK SUPPLY (TUBERCULOSIS).<sup>1</sup>

*Section 49.*—Penalty for selling milk from a cow with a tuberculosis udder within the borough.

*Section 50.*—Penalty for allowing a cow with tuberculosis of udder to be kept with others.

*Section 51.*—Dairyman to give notice to Medical Officer of Health if he suspects tuberculosis of udder.

*Section 52.* (1) Power to take samples of milk. <sup>2</sup>

(2) Powers *outside* the borough by getting an order from a justice having jurisdiction in the place.

*Section 53.*—(1) Power to enter the dairy with a veterinary surgeon to inspect cows therein.

(2) Power of Corporation to summon persons before them to show cause why order should not be made requiring them not to supply milk from a dairy until the order is withdrawn.



- (3) The same powers outside borough on a justice's order, &c., &c.

*Section 54.*—Public notice to be given by advertisement in local newspapers, &c.

With regard to a pure milk supply it is essential that the persons who handle the cows and carry out the milking process should be scrupulously clean, and that the udders and teats should be carefully washed before each milking. A cow should be groomed as carefully, and even more so than a horse, but we have no powers by which we can enforce these measures. The powers we have and can enforce are those in respect of the air space, ventilation, and cleanliness.

It must be apparent to everyone that a *clean* supply is equally as important as a *pure* one, and it is to my regret that I confess that the surroundings are in many instances very far short of what they ought to be. If the Committee instruct me, I will assist the Veterinary Inspector to enforce rigidly these regulations, although hitherto I have deemed it better to work surely and slowly and avoid friction, and only take action against those who obstinately refuse to comply with any regulations excepting their own.

With regard to *Tuberculous Milk*, I think I may fairly say that if there is any being sold in the town it is brought from outside the town, and before being asked for this report I intended to have samples taken and examined bacteriologically, and with the permission of your Committee this shall be done at once.

I can say, however, that **we** have no increase in Tuberculosis during the last few years either amongst children or adults.

#### OBSERVATIONS.

If the regulations in force were stringently carried out both in reference to the dairies and the cowsheds and the milk shops, we should have almost a perfect, clean milk supply, but it is not prudent to do this at once, on account of the difficulties in many of the old dairies and cowsheds. The dairies would have to be almost entirely re-built, and large alterations made to the cowsheds. The milk shops in some of the smaller streets would have to be abolished. One other plan would be the *municipalisation* of the whole milk supply of the town, which could probably be affected by private arrangement, namely, by taking all the milk from the dealers and cowkeepers, making it a condition that the cows shall be properly fed, and every cow regularly tested with tuberculin by a veterinary surgeon, also that the employes should be examined periodically to see if they are free from disease, or whether they have been exposed to infection. Then all the cows should be groomed and kept clean, the teats and udder washed before each milking. All the milk should be filtered through sterilised gravel and fine muslin. No chemical preservatives would be added, and the milk could be delivered in clean, bright cans, sealed, or in sealed glass bottles,



and the vans should be specially made and closed, and should only allow the taps of the kits to protrude. In summer ice should surround the cans and kits.

This plan of municipalisation is effected in New York, but there you have a large city which is able to accomplish more than a small town, and it must be remembered that even in this plan private dealers would be allowed to compete, unless we had a local Act to municipalise the entire milk and prevent private persons selling other milk than that belonging to the authority; furthermore, the milk supplied to the authorities could be largely adulterated with water unless each supply was analysed. This plan has been tried in Manchester by a company—The Manchester Pure Milk Supply Company, Limited, but even in a city like Manchester it has not met with the success it deserves.

With regard to a *Municipal Infants' Milk Depot*, I have carefully watched the results obtained in other towns. St. Helens was the first in this part of the country to give this plan a trial. St. Helens is a town more adapted for the method of feeding children than our own, owing to a greater number of mothers going to work when they have suckling babies. So far as I can find, the infantile mortality is no less than ours, and I have reason to think the St. Helens authorities are not satisfied that they have got good value for the money spent. Liverpool is a large city, and no doubt it is a benefit to a portion of the inhabitants who live usually from hand to mouth, but it is worked at a loss. Manchester, Salford, Newcastle, and other large towns have not as yet tried it; Glasgow is about to try it, Bradford, Ashton-under-Lyne, Dukinfield, and Battersea have tried it. All these towns are entirely different to our own. In Battersea where the system seems to be lauded the Medical Officer of Health states that "It is not claimed that the Council's milk is anything but a poor substitute for human milk." He also states that "An unusual proportion of the children are illegitimate, and the mortality amongst such children is always higher than legitimate children. Battersea contains more houses registered under the "Infant Life Protection Act" than any other borough in London, and a large number of these "nurse children" are fed on the Council's milk.

Norwich, after an enquiry into all the advantages, decided not to start such a supply. The Norwich Council called a meeting of the medical profession, and the majority of the profession gave an opinion against sterilised milk, but brought forward a proposition that the Council should establish a milk clearing house, and that the Corporation should make itself responsible for the milk being of a definite quality in regard to the wholesale supply.

If the Health Committee deem it desirable to even establish a *Municipal Infants' Milk Depot*, I shall do all I can to assist, but at the same time must remind the Committee that it can only be worked at a loss, that it only caters, so far as a pure milk supply is concerned, for a small portion of the community, namely, infants and young children; that we cannot compel parents who bring up their children artificially to obtain this milk, and it is not the only means by which infantile mortality can be reduced.



## MEAT.

With regard to inspection of meat, we cannot do more than is being done by our present staff of Inspectors. An inspector cannot be present at the killing of every animal. Many of the butchers send for us when they find tuberculosis in the carcase, and are willing to surrender it when we condemn it. Since January 1st this year,  $12\frac{1}{2}$  carcasses have been surrendered and destroyed. We have no power over the living animals and we have no power over outside slaughter-house or meat brought dressed into the town, unless it is visibly unfit for food. It is not the "Slink" meat that is brought into the town; *slink* meat is decomposing meat, or the animal has died from some disease, but the meat which is most dangerous is the Tuberculous meat, and we prevent this being sold as far as we can. We must remember that the most of this meat is second and third-rate meat, but not *slink*, and is sold in the poor neighbourhoods at a low price. This sale we control as well as we can, and this is difficult under the circumstances, as it is not easy to be certain of tuberculosis after the animal has been dressed and cut up. The only remedy for further protection is the establishment of *Public Abattoir* and the abolition of the present insanitary slaughter-houses. I have previously pointed out in a report on these that 7 out of 20 are only suitable for killing purposes, the rest being insanitary and unsuitable.

Since this report, made in 1901, one slaughter-house for pigs has been re-built and made sanitary.

The meat condemned this year (11 months) amounts to 9,016 lb.

The advantages of a *Municipal Abattoir* are apparent. All the insanitary slaughter-houses would be abolished, and it is in these that the poor, aged, and lean beasts are killed. We should be able to see the animals alive, and see the carcase dressed, and no butcher would dare to bring in sick animals for the purpose of killing them, "to save them dying." Meat would then be dressed under the most cleanly and sanitary surroundings.

The slaughter-houses which would still remain would gradually lessen in number when the advantages of the *Public Abattoir* became known and appreciated; such a condition holds in St. Helens, and now they have very few private slaughter-houses.

With regard to the *slink meat* which is brought into the town, we should know what shops were supplied from outside, and this would enable us to give them special attention. There are few slaughter-houses in districts adjoining the borough, and *slink* is mostly dressed in the shippon or out-house of the farmer, so that it would be much easier to prevent its admission, and I am not quite sure whether we should not be able to compel the butcher to bring his meat into the *abattoir* for inspection. There are many other reasons for the establishment of a *Municipal Slaughter-house*, and I must refer you to my previous report on the subject,

I am, Sir,

Your obedient Servant,

WM. BERRY,

Medical Officer of Health.



NOTICE ADVERTISED IN "WIGAN OBSERVER," NOVEMBER 22, 1902.

---

COUNTY BOROUGH OF WIGAN.

---

WIGAN CORPORATION ACT, 1902.

---

PART VII.

---

MILK SUPPLY (TUBERCULOSIS).

---

NOTICE IS HEREBY GIVEN that the provisions of Part VII. of the Wigan Corporation Act, 1902, will come into operation on the 1st day of January, 1903.

The effect of the said provisions is as follows:—

Section 49. Every person who sells or suffers to be sold or used for human consumption within the borough the milk of any cow which is suffering from tuberculosis of the udder shall be liable to a penalty not exceeding £10.

Section 50. For knowingly failing to isolate cows suffering from tuberculosis of the udder a penalty of £5 is imposed.

Section 51. Dairymen must give notice to the Medical Officer of any cow affected with or suspected of tuberculosis of the udder. Penalty for failing to give notice 40s.

Section 52. Empowers the Medical Officer or any person authorised by him to take within the borough samples of milk produced or sold or intended for sale. Also to take samples outside the borough upon the order of a magistrate having jurisdiction in the place where the sample is taken.

Section 53. Empowers the Medical Officer or any person authorised by him, if accompanied by a qualified veterinary surgeon, to enter dairies situate within the borough and inspect the cows therein, and if he suspects any cow is suffering from tuberculosis of the udder, he may require the cow to be milked in his presence, and may take samples of the milk in the manner prescribed.



If the Medical Officer is of opinion that tuberculosis is caused or likely to be caused to any person from the consumption of milk supplied from any such dairy, the Corporation may require the dairyman to appear before them and show cause why an order should not be made requiring him not to supply milk within the borough. The same powers are conferred with respect to dairies situate outside the borough, provided an order of a justice having jurisdiction for the place where the dairy is situate is obtained, authorising entry and inspection.

Dairymen failing to give every reasonable assistance to or obstructing the Medical Officer in carrying out the purposes of this Section, are subject to a penalty of £5.

If the dairyman fails to show cause why such an order may not be made as aforesaid, the Corporation may make the said order, and shall serve the notices prescribed by the Act. The order of the Corporation shall be withdrawn when they are satisfied of the safety of such withdrawal. If any person supplies milk in contravention of such order he shall be liable to a penalty of £5, and a further penalty of 40s. per day for every day the offence continues.

A dairyman shall not be liable to an action for breach of contract if the breach be due to an order under this section. A dairyman may appeal against an order under this section either to a Petty Sessional Court having jurisdiction within the borough, or at his option, if the dairy is situate outside the borough, to the Board of Agriculture, who shall appoint an officer to hear such appeal. The Board of Agriculture may require a dairyman appealing to give security for costs. If an order is made without due cause the Corporation may be required to pay full compensation for any damage sustained by reason of such order. The Court or the Board may determine and state whether any such order has been made or not withdrawn without due cause, or whether the dairyman has been in default. Disputes under this section not determined by the Court or the Board of Agriculture shall be determined by arbitration as provided in section 308 of the Public Health Act, 1875.

Dated this 14th day of November, 1902.

HAROLD JEVONS,

Town Clerk.