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THE
ANNUAL REPORT
ON THE
Work of the Health Department,
OF THE
COUNTY BOROUGH OF WIGAN,

For the Year ending December 31st, 1914,

INCLUDING

The Report of the Tuberculosis Officer,


The Report of the Medical Inspection
of Children in the Elementary Schools,

AND

The Report of the Chief Sanitary Inspector.



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STROWGER & SON, PRINTERS, CLARENCE PRESS, WALLGATE.
1915.



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HEALTH COMMITTEE.

From November, 1914, to November, 1915.



CHAIRMAN :

ALDERMAN M. BENSON, M.D., J.P.

VICE-CHAIRMAN :

COUNCILLOR JOHN FANSON CARTWRIGHT.

THE MAYOR.

THE EX-MAYOR.

ALDERMAN J. O'DONAHUE.

COUNCILLOR H. BARTON.

„ J. CLOUGH.

„ J. COUNSELL.

„ H. FARR.

„ W. HIGHTON.

„ T. MASON.

„ A. E. MATHER.

„ F. REES, M.D.

„ T. TAYLOR.

„ E. YATES.

Committee meets on the 3rd Thursday in each month, at 3-30 p.m.

SANITARY WORKS COMMITTEE.

From November, 1914, to November, 1915.

CHAIRMAN :

COUNCILLOR F. REES.

VICE-CHAIRMAN :

COUNCILLOR A. GUEST.

THE MAYOR.

THE EX-MAYOR.

ALDERMAN W. H. ANGUS.

COUNCILLOR T. J. ARKWRIGHT.

„ W. ATHERTON.

„ W. BANKHEAD.

„ H. FARR.

„ C. W. HEALY.

„ T. MASON.

„ J. McCURDY.

„ J. MITCHINSON.

„ J. ROSCOE.

„ J. WALKDEN.

Committee meets on the 4th Monday in each month, at 3-45 p.m.

CONVERSION OF CLOSETS COMMITTEE.

From November, 1914, to November, 1915.



CHAIRMAN :

COUNCILLOR F. REES.

THE MAYOR.

THE EX-MAYOR.

ALDERMAN T. ASHTON.

„ M. BENSON.

„ J. CHEETHAM.

„ A. HIGHAM.

COUNCILLOR A. E. BAUCHER.

„ J. I'A. CARTWRIGHT.

„ J. CAVEY.

„ J. FAIRHURST.

„ A. GUEST.

„ E. YATES.

Committee meets on the 2nd Tuesday in each month, at 3 p.m.

SANATORIA SUB-COMMITTEE.

From November, 1914, to November, 1915.



CHAIRMAN :

COUNCILLOR H. BARTON.

THE MAYOR.

THE EX-MAYOR.

ALDERMAN M. BENSON, M.D., J.P.

„ J. O'DONAHUE, J.P.

COUNCILLOR J. FANSON CARTWRIGHT.

„ W. HIGHTON.

„ T. MASON.

„ A. E. MATHER.

„ T. TAYLOR.

„ E. YATES.

Committee meets the Wednesday before the 3rd Thursday in each month, at 11 a.m., at the Hospital.

**INSANITARY HOUSES and HOUSING
COMMITTEE.**

From November, 1914, to November, 1915.



CHAIRMAN :

COUNCILLOR E. YATES.

VICE-CHAIRMAN :

COUNCILLOR JOHN LOWE.

THE MAYOR.

THE EX-MAYOR.

ALDERMAN T. ASHTON.

COUNCILLOR A. E. BAUCHER.

„ CATTERALL.

„ G. ELLISON.

„ R. GORE.

„ J. GORMAN.

„ W. HIGHTON.

„ JAMES JOLLEY.

„ J. McCURDY.

„ A. RATHBONE.

„ F. REES.

Committee meets on the 2nd Monday in each month, at 4 p.m

**MEDICAL OFFICER OF HEALTH'S DEPARTMENT
1914.**

Medical Officer of Health,
Medical Superintendent of Sanatoria,
Superintendent School Medical Officer,
Administrative Tuberculosis Officer :

FRED E. WYNNE, B.A., M.B., Ch.B., D.P.H., &c.

Tuberculosis Officer :

GEORGE JESSEL, M.A., M.B., Ch.B., D.P.H., &c.

Assistant School Medical Officer and Assistant Tuberculosis Officer :

A. STALKER, M.B., Ch.B., D.P.H.

Chief Sanitary Inspector, &c. :

CHARLES H. FRANCE, Certif. Royal San. Inst., Assoc.
Royal San. Inst., Member San. Insp. Association.

Assistant Sanitary Inspectors :

FRED MARTLEW, Certif. Royal San. Inst., Certif. Meat Insp.,
Mem. San. Insp. Association.

FRED G. BISHOP.

JOHN ASHTON, Certif. Royal San. Inst.

Assistants :

ERNEST RICHARDSON.

JAMES RISLEY.

Lady Health Visitors :

Miss NORMAN, Certif. Royal San. Inst., Certif. C.M.B.

Miss CROMPTON, Certif. Royal San. Inst., Certif. C.M.B., Assoc.
Royal San. Inst., M.S.I. Assoc.

Tuberculosis Nurse :

Miss J. FOSTER, Certif. C.M.B.

Clerks :

ARTHUR BYERS.

THOMAS BROWN.

Disinfectors :

GEORGE CROSTON.

HENRY PARKINSON.

JOHN ARROWSMITH.

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 on account of the super-
“ vision 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 pro-
“ ceedings 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 ”

9TH BATT. THE BLACK WATCH,

CHISELDON CAMP, WILTS.,

March 3rd, 1915.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I regret that it is impossible for me to report personally on the work carried out by the Health Department during the 10½ months of 1914 during which I was responsible for it, but am confident that the review of this work will be ably and adequately presented to you by my deputy, Dr. Jessel. The more important features of the year's work appear to me to have been the marked reduction in the Infantile Mortality-rate as compared with that of 1913, the steady progress of improvement in housing conditions, the inauguration of a housing scheme, and a scheme for the conversion of privy middens and pail closets on a large scale, and the admirable work of the Tuberculosis Dispensary. I regret that it was not found possible to make further progress in the direction of the establishment of a municipal abattoir, but I am strongly of opinion that all municipal efforts for the improvement of the public health of Wigan should be secondary to the substitution of the water-carriage system for the conservancy system of disposal of excreta.

The reduction in the Infantile Mortality-rate must be attributed largely to the indefatigable work of your Lady Health Visitors ; and the Baby Clinic, for which Miss Norman has been mainly responsible, has proved a real boon to the mothers of the poorer classes, and has undoubtedly been the means of saving many infant lives which are now so doubly precious to the nation. Before leaving Wigan I was able to satisfy myself that the money spent on the injection of seawater plasma in certain selected cases of infantile Diarrhœa had been amply justified by the results obtained. The utmost credit is due to Mr. France (Chief Sanitary Inspector) and his staff for their regular and punctual discharge of all duties committed to them. The present Sanitary Staff is considerably less than it should be for your present population, and the adequate discharge of their duties has often thrown a strain upon individuals which has always been loyally and cheerfully accepted.

I have to thank my colleagues—the Town Clerk, Dr. Jessel, Dr. Alice Stalker, the Director of Education, the Borough Engineer and the Consulting Borough Engineer, the Borough Analyst, and other officials—for their unfailing assistance and co-operation in the various departments of our work. To yourselves, and to the Chairman and Members of the Housing Committee, my thanks are especially due for your continued confidence and help. I have again to thank the Mayor and Corporation for their kind permission for me to remain absent with the Colours, and trust that my work for the Army may justify their decision.

I am, Gentlemen,

Your obedient Servant,

FRED E. WYNNE,

B.A., M.B., D.P.H., &c.

Medical Officer of Health.

HEALTH OFFICE, WIGAN,

1st March, 1915.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

Owing to the absence of Dr. Wynne on military service, I have the honour to present the Annual Report on the work of the Health Department during the year 1914.

My responsibility for this work, apart from that connected with Tuberculosis, is limited to the last seven and a-half weeks of the year. I have, however, followed closely for some time the admirable work carried out under Dr. Wynne's direction, so that with the assistance of the staff of the department I am in a position to describe in some detail what has been done for the preservation of the public health.

It will be seen that much steady sanitary work has been accomplished, but an enormous amount yet remains to be done. In particular, renewed and persistent efforts are urgently needed in connection with :—

1. The removal of the insanitary conditions that exist in many parts of the Borough.
2. The speedy conversion of all privies, and all pail closets to the water-carriage system.
3. The detection of early cases of Tuberculosis, and the isolation of advanced infectious cases.
4. The prevention of the present unnecessary waste of infant life.

The preservation of the health of the people is now of even more importance than in times of peace. Every life is of value. It behoves us, therefore, to make it our especial care that the sanitary and social circumstances of the Borough are conducive to the health and welfare of the inhabitants, and thus indirectly of the nation, of which we form a part.

My best thanks are due to Mr. W. H. Tyrer (Town Clerk) for his unfailing kindness and valuable advice on many occasions.

I am indebted to Mr. C. H. France (Chief Sanitary Inspector) and the Staff of the Health Department for their loyal and willing co-operation ; also to Dr. Alice Stalker, Mr. A. T. Gooseman (Borough Engineer), and other Corporation Officials.

Finally, I wish to thank the Chairman and Members of the Committees, with which I am associated, for their confidence and support.

I remain,

Your obedient Servant,

GEORGE JESSEL,

M.A., M.B., Ch.B. (Oxon).

D.P.H. (Vict.).

Acting Medical Officer of Health.

PART I.
INTRODUCTION
AND
VITAL STATISTICS.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT
CHICAGO, ILL.
JANUARY 1900

TO

THE PRESIDENT OF THE UNIVERSITY

OF CHICAGO

General Considerations.

The County Borough of Wigan, including Pemberton, covers an area of 5,082 acres, and had a population at the 1911 census of 89,171. The estimated population on the 1st of July, 1914, was 92,868, on which figure the statistics in this report have been based. This population is essentially an industrial one, and is concentrated in densely populated areas in Wigan and Pemberton. A considerable portion of the area of the Borough is rural and agricultural, but the proportion of the population living under these conditions is inconsiderable. The presence of this agricultural community is none the less of great importance from the public health point of view, inasmuch as it supplies a large proportion of the milk consumed in the town; and the existence of farming operations in close proximity to densely populated areas is always fraught with a certain degree of danger.

The Borough area forms a considerable part of the Valley of the Douglas. This stream enters the Borough close to its most northern point, and practically traverses the old Borough from north to south, when it turns to the west and then bends northwards forming a loop. During its course through the Borough the stream falls considerably, the bench marks showing that its bed at entry is at a level of 150 feet above sea level, and near its exit 75 feet. It acts as a feeder to the Leeds and Liverpool canal—another waterway traversing the Borough, roughly, from east to west. The Douglas is already polluted on entering the Borough, and further sources of pollution within our area still persist. The periodical cleansing of its bed is a constant source of expenditure to the Sanitary Works Committee; and complaints of nuisance have in the past been dealt with by the application of large quantities of chloride of lime—an expenditure which it would be difficult to justify by results. Practically throughout its course the Borough rises steeply from the banks of the stream; the maximum elevation being 214 feet at Whelley, and 254 feet at the northern extremity of the Borough. The lowest level is in St. Andrew's Ward, near the Leeds and Liverpool canal, where the land is liable to floods.

Geologically, the whole of the Borough rests on the Lower Coal-measures or Gannister Beds, which are here very superficial, and in fact outcrop in several parts of the district. The sub-soil is mainly clay, which in places has a depth of nearly 20 feet ; but there is an important layer of sand covering a large part of the centre of the town, and extending northwards in the direction of Standish. In other parts of the Borough sand is found in "pockets." Much of the western portion of the Borough, beyond the Park, lies on a fairly extensive gravel bed.

Great alterations in the levels have taken place as a result of subsidence due to the colliery workings, and this is detrimental to the public welfare by causing accumulations of water in parts of the Borough and interfering seriously with the level of the sewers.

Water Supply.

The Borough is supplied with water from the Arley, Worthington, Adlington, and Whitley reservoirs, and a service reservoir having a total capacity of 255 million gallons. There is also a well at Wrightington which provides an occasional supply of water of very fine quality derived from the sandstone overlying the coal-measures.

The Pemberton water supply is stored in three service reservoirs at Orrell, and an underground reservoir near Bispham Hall, Billinge. These reservoirs are largely replenished by pumping from Nicholson's well, which supplies a large quantity of very pure water. An adjuvant supply was derived by pumping from the Bispham Hall Colliery, but this was recently found to be unsatisfactory, and has been diverted to compensation purposes.

In addition to these supplies, the Corporation takes annually about 182 million gallons of Thirlmere water from the Manchester Corporation.

The daily consumption of water amounts on an average to about 1,610,000 gallons. The gathering ground from which the greater part of this water is derived is mainly agricultural land, but careful precautions are taken to prevent organic pollution as far as possible,

and the system of filtration is adequate. Samples of water taken from various parts of the Borough are analysed every month, and the results on the whole are uniformly satisfactory. Particulars will be found in the Borough Analyst's report appended.

Milk Supply.

A considerable proportion of the milk supply is derived from cows kept on farms within the Borough.

A larger amount is imported, chiefly from Lancashire, Cheshire, and North Wales; though a certain amount comes from as far as the neighbourhood of Carlisle.

There are 44 registered cowsheds in the Borough, which are under constant inspection. Under the supervision of your Veterinary Officer, Mr. Woods, these have been, with very few exceptions, reconstructed and brought into conformity with the Cowsheds, Dairies and Milkshops Orders. Mr. Woods has effected a remarkable improvement by the exercise of constant pressure on the owners; and the conditions under which milk is produced now compares very favourably with those prevailing in other districts.

Samples of the milk are regularly taken and analysed under the Food and Drugs Acts, and particulars of the results will be found in the report of your Chief Sanitary Inspector.

Sewage Disposal—Removal of Nightsoil, &c.

The whole of the Borough, with the exception of the purely rural areas, is sewered and drained.

The sewage is conducted by a main outfall sewer, which runs in the valley of the River Douglas, to the Sewage Works and Farm at Hoscar Moss. It is then treated by the addition of sulphate of iron and lime and conducted to long precipitation tanks, the effluent from which is distributed for land filtration on the farm. The nature of the soil, however, has proved unsuitable for this purpose, and the final effluent has been continuously unsatisfactory.

The whole of this question has been carefully considered by the Committees concerned, and is the subject of an exhaustive report by Mr. Midgley Taylor, published in the minutes of the Sanitary Works Committee for the 17th September, 1912, to which the readers of this report are referred.

Much interest was recently aroused in the interesting experiments now being carried out at the Salford Sewage Works. The essential feature of the process is the blowing of a large volume of air into tanks composed of 75 per cent. crude sewage and 25 per cent. "activated" sludge, *i.e.*, sludge in which suitable bacteria are in considerable numbers and activity. The results so far obtained appear to be highly successful, and it is possible that this process may supersede older systems. After a full and careful investigation, and a further report by Mr. Midgley Taylor, it was decided to adhere to the scheme suggested by Mr. Taylor, and approved by the Local Government Board. It was felt that the need for action is urgent, and under these circumstances it would be safer to adopt a well-tried system.

It is to be hoped that the work, as now finally decided upon, may be completed at an early date.

It is, however, possible that it may be necessary to postpone the work owing to various circumstances arising out of the War.

There are still 1,622 privy middens in the Borough; all of which, with the exception of 8, are in Pemberton. There are 7,369 pail closets and 7,219 water closets in the Borough. The remarks made on this subject in the last Annual Report are still applicable, but as mentioned below, the Committee concerned are now committed to a scheme for the conversion, in as short a time as possible, of the conservancy system to the water-carriage system, which remains the most urgent sanitary need of the district.

The methods of disposal of nightsoil and refuse at the Miry Lane Depot necessarily continue in the old unsatisfactory condition, but improvement here is of course contingent on the conversion of the privy middens and pail closets.

Progress in the improvement of our deplorable housing conditions has been steady, though necessarily slow, as owing to the dearth of houses the Committee has been prevented from carrying out the demolition of many insanitary houses until the completion of the Municipal Housing Scheme. The work done in this connection is fully detailed below, and details of sanitary administration generally will be found in Part III. of this report.

Special Arrangements made in consequence of the War.

The following members of the staff of the Health Department were granted leave of absence in order to take up military duties :—

Dr. Wynne (Medical Officer of Health) (Lieutenant, R.A.M.C.), November 10th.

E. Richardson (now Sergeant-Major 5th Manchester Regiment), August 4th.

A. Byers (R.A.M.C.), November 1st.

The remaining members of the staff have endeavoured as far as possible to carry on the work of the department. A temporary boy clerk has also been appointed.

There is an important Recruiting Depot in the Borough, both for the New Armies and the Territorials, some thousands of men having already been enlisted. For the most part they have been speedily sent elsewhere for training. Close co-operation has existed with the Military Authorities, at the Drill Hall, and at Taylor's Mill (where sick horses were treated) and as occasion has required at Southport and Chester.

The arrangements made by the Health Department have included :—

1. The provision of extra closet accommodation (pails) at the Drill Hall and Taylor's Mill. These were regularly emptied.
2. Frequent and regular inspections of the sanitary arrangements at the Drill Hall, Taylor's Mill, and the various billets in the town.

3. Disinfection of bedding, clothing, etc., as required.
4. Provision for treatment of cases of infectious disease.
5. Cleansing of recruits occasionally.
6. Supervision of the conditions under which articles of food were supplied under contract to the War Office by firms in the Borough.

Effects of the War on the Economic Circumstances of Persons in the Borough.

I am indebted to Mr. W. H. Tyrer (Hon. Secretary to the Wigan Representative Committee) for the following tables (Table I. shows the amount paid to dependants of soldiers only, Table II. shows the amounts paid to persons who alleged they were in distress owing to unemployment caused by the war) :—

TABLE I.

Amounts Paid in Relief, 1914 (dep endants of soldiers only) :—

					£	s.	d.	Persons.
1st week	76	8	0	5,286 persons (including wives children, and other dependants).
2nd	„	...	...	...	75	17	0
3rd	„	...	...	...	158	0	6
4th	„	...	...	...	424	18	0
5th	„	...	...	...	193	12	0
6th	„	...	...	...	198	0	0
7th	„	...	...	...	203	7	0
8th	„	...	...	...	211	5	0
9th	„	...	...	...	222	14	6
10th	„	...	...	...	227	17	0
11th	„	...	...	...	228	19	6
12th	„	...	...	...	236	5	6
13th	„	...	...	...	230	1	0
14th	„	...	...	...	241	11	6
15th	„	...	...	...	238	9	6
16th	„	...	...	...	241	1	0
17th	„	...	...	...	231	16	0
18th	„	...	...	...	225	1	6
19th	„	...	...	...	208	15	6
Total	...				£4,074	0	0	

TABLE II.

Amounts Paid in Relief to persons who alleged they were in distress owing to unemployment caused by the war :—

	£	s.	d.	Cases.
1st week (ending 5th Sept.)	0	14	0	1,039 cases.
2nd „	36	3	0	
3rd „	83	14	6	
4th „	99	16	0	
5th „	131	1	6	
6th „	148	11	6	
7th „	144	9	0	
8th „	145	19	6	
9th „	149	12	6	
10th „	144	11	6	
11th „	114	9	6	
12th „	130	2	0	
13th „	121	11	6	
14th „	101	4	6	
15th „	99	9	6	
16th „	75	11	0	
17th „	69	4	0	
Total ...	£1,796	5	0	

TABLE III.

Through the courtesy of the Clerk to the Guardians, I am able to give some figures relating to Poor Law Relief for the old Borough, as requested by the Medical Officer to the Local Government Board.

POOR LAW RELIEF IN WIGAN, 1914
(*Not including Pemberton*).

Total Amount of Out-Relief £6,383 12s. 6d.

NUMBER OF PERSONS FOR EACH MONTH IN RECEIPT OF OUT-RELIEF.

<i>Month.</i>								<i>Men.</i>	<i>Women.</i>	<i>Children.</i>
January	...	...	...	...	...	...	...	144	457	536
February	...	...	...	...	...	...	...	149	468	576
March	...	...	...	...	...	...	...	142	466	571
April	...	...	...	...	...	...	...	140	469	577
May	...	...	...	...	...	...	...	145	476	598
June	...	...	...	...	...	...	...	154	482	594
July	...	...	...	...	...	...	...	145	482	588
August	...	...	...	...	...	...	...	157	511	655
September	...	...	...	...	...	...	...	160	504	651
October	...	...	...	...	...	...	...	154	488	635
November	...	...	...	...	...	...	...	153	492	657
December	...	...	...	...	...	...	...	155	486	621

Total Number of Cases admitted to—

Workhouse 805

Billinge Infirmary 502

Total Amount of Out-Relief for Pemberton... £1,591 9s. 3d.

NUMBER OF PERSONS RECEIVING OUT-RELIEF IN PEMBERTON.

<i>Men.</i>	<i>Women.</i>	<i>Children.</i>
40	145	148

TABLE IV.

Through the courtesy of the Manager of the Local Labour Exchange, I am able to give the following figures relative to unemployment.

Unemployment registered at Local Labour Exchange since the outbreak of the war. Figures for similar period of 1913 also given for comparison.

Unemployment books lodged and numbers on uninsured live register.

INSURED TRADES.					UNINSURED TRADES.					
<i>Unemployment Books Lodged.</i>					<i>Number on Live Register.</i>					
	1914.		1913.		1914.			1913.		
	No.	%	No.	%	M.	F.	Total	M.	F.	Total
17th July	162	3.4	48	1.2	27	59	86	89	46	135
14th August	169	3.5	74	1.8	44	102	146	72	47	119
11th September.	167	3.5	78	1.9	47	419	466	62	42	104
16th October	144	3.1	77	1.9	74	427	501	89	48	137
13th November.	121	2.7	101	2.5	49	370	419	75	56	131
11th December .	151	3.5	133	3.3	32	217	249	84	35	119

REPORT.

STATISTICAL SUMMARY FOR 1914.

	1914.	1913.
Population estimated July 1st	92,868	91,573
<i>Marriages</i> are not ascertained for the County Borough.		
„ Annual rate per 1,000 of population ditto.		
<i>Births</i> —Males ... ..1392 Total	2,710	2,544
Females ... ..1318		
Annual rate of births per 1,000 of population	29·18	27·78
Ditto for England and Wales	23·8	23·9
Illegitimate births 129, or 1·38 per 1,000 of population, a percentage of	4·76	4·00
<i>Deaths</i> —Males 881 Total	1,588	1,687
Females 707		
Recorded death-rate	17·09	18·42
Standardized death-rate	19·04	20·53
Ditto in England and Wales	13·7	13·4
Death-rate in 97 great towns	15·0	14·7
Excess of registered births over deaths	1,122	857
Total deaths from seven principal Zymotic Diseases	224	279
Annual rate of mortality from seven principal Zymotic Diseases	2·41	3·04
Total deaths from Diarrhœa	110	111
Annual rate of mortality from Diarrhœa... ..	1·18	1·21
Infantile-rate (deaths per 1,000 births)	139	179
Ditto for England and Wales	105	109
Ditto for 97 great towns	114	116
Deaths of infants under 1 day old, number ...	42	40
„ „ „ 1 year (legitimate) ...	339	420
„ „ „ 1 year (illegitimate)...	38	36

Acreage.—With an acreage of 5,082, and a population estimated at 92,868, we have 18·27 persons per acre.

Population.—The population estimated at the middle of the year (June 30th, 1914) is 92,868, 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 1914 is 2,710 (males 1,392, females 1,318), the rate per 1,000 of the population being 29·18. The birth-rate, compared with 1913 is 1·40 higher. The illegitimate births number 129, or 4·76 per cent.

The Mortality-rate.—The deaths for 1914 number 1,588 (males 881, females 707), being an excess of 174 males over females. The recorded rate per 1,000 of the population per annum is 17·09; in 1913, 18·42; thus on a population of 92,868 we have a decrease in deaths of 99 as compared with 1913. There is therefore a decrease in the death-rate of 1·33 per 1,000.

The death-rate for each quarter is as follows:—

1914.	All Causes.	Zymotics.
1st Quarter	18·21	·69
2nd Quarter	13·94	·86
3rd Quarter	16·75	4·13
4th Quarter	19·30	3·98

The Zymotic-rate, 2·41, shows a decrease of ·63 for 1914, in the previous year it was 3·04.

The Vital Statistics for England and Wales during 1914.

ENGLAND & WALES.

	1914.	1913.
Birth-rate per 1,000 living	23·8	23·9
Death-rate per 1,000 living	13·7	13·4
Infant Mortality per 1,000 births	105	109

TABLE I.

WEEKLY RETURN OF BIRTHS AND DEATHS FOR 1914.

1914 WEEK ENDING.	Deaths from all Causes.	Annual Rate per 1000.	Deaths from Zymotics	Zymotic Rate	Births	Annual Rate per 1000.
January 3.....	41	23.22	2	1.13	47	26.62
„ 10.....	38	21.52	2	1.13	64	36.24
„ 17.....	24	13.59	...	...	51	28.81
„ 24.....	28	15.84	1	.56	73	41.31
„ 31.....	34	19.23	...	...	61	34.50
February 7.....	26	14.70	...	...	52	29.41
„ 14.....	24	13.56	1	.56	58	32.79
„ 21.....	21	11.86	2	1.12	64	36.15
„ 28.....	36	20.33	2	1.12	55	13.07
March 7.....	30	16.94	3	1.69	42	23.72
„ 14.....	24	13.55	...	...	58	32.74
„ 21.....	29	16.37	1	.56	50	28.23
„ 28.....	23	12.41	2	1.12	45	25.39
April 4.....	26	14.67	2	1.12	38	21.44
„ 11.....	18	10.15	1	.56	41	23.13
„ 18.....	20	11.28	...	...	46	25.64
„ 25.....	21	11.83	...	...	63	35.51
May 2.....	18	10.14	1	.56	36	20.29
„ 9.....	15	8.45	...	...	75	42.25
„ 16.....	22	12.39	2	1.12	58	32.65
„ 23.....	26	14.63	1	.56	57	32.09
„ 30.....	28	15.75	3	1.68	53	29.82
June 6.....	21	11.81	4	2.25	45	25.32
„ 13.....	24	13.49	3	1.68	62	34.87
„ 20.....	23	12.93	1	.56	33	18.56
„ 27.....	20	11.24	2	1.12	57	32.04
July 4.....	23	12.92	...	...	41	23.04
„ 11.....	27	15.16	4	2.24	58	32.58
„ 18.....	18	10.11	4	2.24	42	23.59
„ 25.....	15	8.42	3	1.68	45	25.26
August 1.....	27	15.16	13	7.29	53	29.75
„ 8.....	16	8.97	2	1.12	55	30.86
„ 15.....	20	11.21	6	3.36	54	30.28
„ 22.....	30	16.82	7	3.92	55	30.84
„ 29.....	30	18.81	8	4.48	50	28.02
Sept'ber 5.....	26	14.57	10	5.60	51	28.58
„ 12.....	40	22.40	13	7.28	72	40.33
„ 19.....	39	21.84	13	7.28	50	28.01
„ 26.....	48	26.87	13	7.27	75	41.99
October 3.....	35	19.59	10	5.59	40	22.39
„ 10.....	30	16.79	6	3.35	52	29.11
„ 17.....	28	15.67	7	3.94	46	25.75
„ 24.....	20	11.19	5	2.79	58	32.45
„ 31.....	26	14.52	3	1.67	54	30.16
Nov'ber 7.....	30	16.77	10	5.59	55	30.76
„ 14.....	26	14.53	6	3.35	54	30.18
„ 21.....	32	17.88	56	2.79	28	15.65
„ 28.....	35	19.56	9	5.03	47	26.27
Dec'ber 5.....	35	19.56	6	3.35	36	20.12
„ 12.....	29	16.21	9	5.03	56	31.30
„ 19.....	47	26.27	8	4.47	46	25.71
„ 26.....	31	17.32	7	3.91	33	18.44
Transferable, 1914.....	166	...	1	...	20 more	...

TABLE II.

MONTHLY LIST OF DEATHS FROM ALL CAUSES AND ZYMOTIC DISEASES WITH RATES PER 1,000
PER ANNUM FOR 1913 AND 1914.

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		
	1913	1914	1913	1914	1913	1914	1913	1914	Infants under 1 year.	1913	1914
January	150	165	21.46	18.68	36	5	5.14	.56	33	34	54
February	171	107	24.45	15.11	46	5	6.57	.7	43	24	19
March	197	105	22.54	14.81	36	6	4.11	.84	70	28	29
April	128	85	18.28	11.98	18	3	2.56	.42	36	25	23
May	155	109	17.69	12.27	4	7	.45	.98	36	42	26
June	79	88	11.26	12.36	8	10	1.14	1.12	17	28	23
July	81	83	11.52	11.56	3	11	.42	1.54	18	20	24
August	149	123	16.95	13.79	38	36	4.51	4.03	50	37	22
September	145	153	20.60	21.42	47	49	6.67	6.85	56	21	27
October	113	139	16.04	15.55	22	31	3.12	3.46	38	22	23
November	98	123	11.11	17.18	14	30	1.58	4.19	32	20	28
December	87	142	12.32	19.84	6	30	.84	4.19	25	18	30
Transferable Deaths.	134	166	...	...	...	1	...	...	2	62	61
TOTALS	1687	1588	18.42	17.09	279	224	3.04	...	456	381	389

TABLE III.—Comparative Statistics of Wigan and Twenty-eight other Towns

Town.	Population	Birth-rate.	Death-rate.	Zymotic-rate.	Infantile death-rate per 1,000 births.	Pneumonia death-rate.	Other respiratory death-rate.	Phthisis death-rate.	Deaths from other forms of Tuberculous.
Accrington	45,775	19.31	13.98	1.09	117.64	...	2.40	.87	.48
Barrow-in-Furness	68,523	28.7	13.4	.94	104.6	1.19	1.42	.91	.56
Bath	70,292	15.3	11.25	.28	59	.65	1.24	.90	.30
Birkenhead	137,996	27.4	15.3	1.7	121	2.3	1.3	1.0	.3
Blackpool	66,364	14.47	13.76	.4	110	.78	1.22	1.04	.3
Bootle	73,230	31.7	17.0	2.31	123	2.12	1.69	1.17	.37
Bolton	185,247	22.1	14.6	1.66	118	.99	2.00	.90	.29
Bradford	291,482	19.6	15.4	1.22	124	1.05	1.55	1.16	...
Burnley	110,040	23.5	16.4	1.9	158	.9	2.88	1.02	.20
Burton-on-Trent	448,000	21.79	13.14	...	90	.79	1.18	1.10	.29
Carlisle	52,530	23.0	15.2	.9	122.4	1.0	.8	1.5	.6
Crewe	45,964	22.4	11.7	.069	89	.065	1.63	.73	.2
Dewsbury	54,082	23.9	15.9	1.2	113.7	...	2.7	1.13	.26
Halifax	102,000	17.5	14.7	.81	103	.96	2.2	1.2	.35
Huddersfield	112,265	18.08	14.40	.87	112	1.21	1.62	.77	.21
Kingston-upon-Hull	291,118	27.1	15.0	1.71	121	1.26	1.45	1.09	.45
Lancaster	38,593	20.49	12.64	.46	86	.80	1.01	1.39	.32
Leigh	45,500	26.70	14.39	1.69	115	1.23	1.89	.83	.35
Newport	89,404	25.44	14.02	1.40	122.2	1.19	1.22	1.15	.24
Rotherham	65,300	30.32	14.90	1.73	118	1.33	1.51	1.13	.43
South Shields	111,357	31.6	17.6	2.23	136	1.66	1.68	1.30	.57
Stalybridge	26,833	21.6	20.6	2.9	206	1.7	2.45	1.3	...
Stockport	126,040	21.64	15.10	1.19	124	1.42	1.59	1.15	.49
Stockton-on-Tees	59,311	30.5	17.7	1.9	121	1.7	1.6	1.3	.7
Stoke-on-Trent	241,430	31.6	17.5	2.63	144	1.69	1.99	1.27	.46
Tottenham	149,495	26.0	11.3	.96	89.5	1.02	.16	.90	.20
Wolverhampton	95,702	27.10	15.67	1.52	114	1.34	2.43	1.14	.34
York	83,802	22.7	13.8	1.33	118	1.61	...	.95	.42
WIGAN	92,868	29.18	17.9	2.41	139	2.21	1.91	.95	.31

DEATH-RATE FOR WIGAN DURING THE LAST TEN YEARS.

1905.....	18·07	} Average for 10 years, 17·32.
1906.....	17·61	
1907.....	18·03	
1908.....	16·97	
1909.....	18·28	
1910.....	14·55	
1911.....	18·27	
1912.....	15·92	
1913.....	18·42	
1914.....	17·09	

Infantile Mortality.—The number of deaths of children under one year is 377, or 139 per 1,000 births, and of children over one year and under five years 220, or 2·36 per 1,000 of the population.

These figures compare with 456 deaths under one year, a rate of 179 per 1,000 in 1913.

An analysis of these 377 deaths shows that they may be grouped under the following headings :—

1. Premature Birth, Congenital Debility, Malnutrition, and Congenital Malformations	... ..	140
2. Diarrhœa	... ..	70
3. Bronchitis	... ..	27
4. Pneumonia	... ..	53
5. Measles	... ..	13
6. Whooping Cough	... ..	3
7. Other causes	... ..	71

It is pleasing to record a decrease in the Infantile Mortality-rate from 179 per 1,000 in 1913 to 139 in 1914; the number of deaths in infants under one year being 79 fewer.

The decrease in England and Wales as a whole was from 109 to 105, and in the 97 great towns from 116 to 114.

An analysis of the causes of the decrease in Wigan shows that there were 30 fewer deaths in Group 1 as compared with 1913. This group is usually taken as an index of unsatisfactory ante-natal conditions; as only a small proportion of the married women are engaged in industrial employment, while the proportion of breast-fed infants is high, other factors must be sought. An important cause is doubtless to be found in the fact that the industrial conditions of Wigan, and other mining centres, re-act unfavourably upon the wives and mothers. Not only is extra labour needed to keep the house clean, but owing to husband and children working often on different "shifts"—sometimes by day, and by night—the wife's energies are unduly taxed in the preparation of meals, her rest is broken, and she is unable or too tired to get sufficient outdoor exercise. Other causes are doubtless ignorance, intemperance (which appears to be on the increase amongst women), and want of a proper sense of parental responsibility.

The deaths from Diarrhœa were 16 fewer than in 1913. Dr. Wynne treated several cases by injection of sea-water plasma with apparent success in many instances. Prevention is, however, better than cure. The existence of the Miry Lane Depot provides an ideal breeding ground for the enormous numbers of flies that infect Victoria Ward, thereby causing the highest death-rate in the old Borough.

In North, South, and Central Pemberton, which are almost entirely privy-midden Wards, the sanitary conditions are favourable for the growth of flies in large quantities. The conversion of these privies to water closets, now being begun, will be of enormous value.

On the other hand, the improvement in sanitary conditions is not sufficient by itself. It is the necessary preliminary to a series of well-directed efforts for the instruction and guidance of mothers. The work of the Lady Health Visitors is of the utmost value, and much of the improvement in the health of infants in the Borough must be ascribed to their efforts. These are described more fully elsewhere in this report, but an extension of the work is urgently called for by an increase in the present staff. There is a very large field of work in respect of the education of expectant mothers, as well as in connection with the provision of systematic advice, and treatment (if needed) for infants at the Baby Clinic under the direction of the Medical Officer of Health.

The very large number of deaths from Bronchitis and Pneumonia is greatly to be regretted. Ignorance on the part of mothers with regard to suitable clothing for the child, and the need for open windows is a powerful factor. The hot, stuffy, atmosphere, which so many infants have to endure, both at home and in crowded places of entertainment, is conducive to the onset of these diseases. Here again much is to be expected from the efforts of the Health Visitors to educate the mothers and the teaching of hygiene in the schools.

The following tables show the Infantile Deaths in the various Wards, and the Aggregate Infantile Death-rates in Wards for the Years 1911, 1912, 1913 and 1914; the Infantile Deaths and Aggregate Death-rate from Diarrhœa in Wards during the same four years; the Deaths and Death-rates from Atrophy, Debility, etc., in Wards; and the Deaths and Death-rates in Wards from Bronchitis and Pneumonia :—

INFANTILE DEATHS FOR 1911, 1912, 1913, & 1914.

Ward.	Deaths under Twelve Months.				Total.
	1911.	1912.	1913.	1914.	
No. 1.—St. George	25	24	38	39	126
No. 2.—Lindsay	28	14	19	18	79
No. 3.—St. Catharine	54	26	45	45	170
No. 4.—St. Patrick	51	51	50	41	193
No. 5.—St. Thomas	37	23	42	25	127
No. 6.—Poolstock.....	25	28	24	21	98
No. 7.—Victoria	48	27	39	37	151
No. 8.—St. Andrew	28	20	45	36	129
No. 9.—Swinley	16	13	14	9	52
No. 10.—All Saints'	9	11	8	5	33
No. 11.—West Pemberton	30	19	30	19	98
No. 12.—North Pemberton ...	50	30	51	31	162
No. 13.—Central Pemberton	25	11	18	14	68
No. 14.—South Pemberton.....	44	27	33	33	137
<i>Transferable</i> .....	...	...	...	4	4
Totals	470	324	456	377	1627

INFANTILE DEATH-RATES IN WARDS PER 1,000 BIRTHS

(CALCULATED ON NOTIFIED BIRTHS).

Ward.	1911.	1912.	1913.	1914.	Average 4 years, 1911-1914
No. 1.—St. George	200·0	214·2	275·3	234·9	231·1
No. 2.—Lindsay	207·4	117·6	128·3	133·3	146·6
No. 3.—St. Catharine	228·8	95·5	197·3	161·3	170·7
No. 4.—St. Patrick	150·4	168·8	157·2	130·1	151·6
No. 5.—St. Thomas	255·1	145·5	333·3	161·2	223·7
No. 6.—Poolstock.....	200·0	193·7	126·9	130·4	162·7
No. 7.—Victoria	333·3	128·5	217·8	220·2	224·9
No. 8.—St. Andrew	106·4	78·6	154·2	121·2	115·1
No. 9.—Swinley	179·7	141·3	103·7	72·2	124·2
No. 10.—All Saints'	113·9	110·0	44·4	84·7	88·2
No. 11.—West Pemberton	249·9	168·1	254·2	131·9	225·
No. 12.—North Pemberton	110·0	138·8	354·1	110·3	178·3
No. 13.—Central Pemberton	194·6	69·1	148·7	84·3	124·1
No. 14.—South Pemberton.....	257·3	134·3	239·3	179·3	202·5

INFANTILE DEATHS FROM DIARRHŒA.

Ward.	1911.	1912.	1913.	1914.	Total	Aggregate Rate per 1,000 Notified Births.
No. 1.—St. George	7	...	4	8	19	35.1
No. 2.—Lindsay	8	...	1	2	11	20.4
No. 3.—St. Catherine	15	5	6	7	33	32.5
No. 4.—St. Patrick	19	7	12	7	45	35.4
No. 5.—St. Thomas	8	3	9	6	26	44.5
No. 6.—Poolstock	9	...	4	4	17	27.5
No. 7.—Victoria	18	3	9	8	38	54.2
No. 8.—St. Andrew	7	...	5	3	15	13.3
No. 9.—Swinley	3	...	3	...	6	13.6
No. 10.—All Saints'	2	2	1	1	6	14.3
No. 11.—West Pemberton.....	16	5	7	7	35	70.4
No. 12.—North Pemberton....	16	5	14	8	43	48.9
No. 13.—Central Pemberton...	9	1	3	2	15	26.1
No. 14.—South Pemberton ...	18	3	8	7	36	51.2
Totals	155	34	86	70	345	34.8

GROUP OF "5."

Ward.	1911.	1912.	1913.	1914.	Total Deaths	Aggregate Rate per 1,000 Notified Births.	Total Notified Births.
No. 1.—St. George.	4	11	19	16	50	92.4	541
No. 2.—Lindsay	12	7	7	5	31	57.7	537
No. 3.—St. C'th'rine	13	10	18	16	57	56.2	1015
No. 4.—St. Patrick.	14	22	18	18	72	56.5	1274
No. 5.—St. Thomas	13	10	12	11	46	78.7	584
No. 6.—Poolstock...	9	17	12	9	47	76.0	618
No. 7.—Victoria	14	15	14	16	59	84.1	701
No. 8.—St. Andrew	8	10	12	9	39	34.6	1126
No. 9.—Swinley	3	5	8	3	19	43.1	440
No. 10.—All Saints' .	2	3	5	1	11	26.3	418
No. 11.—W. Pemb. .	3	5	7	2	17	34.2	497
No. 12.—N. Pemb. .	12	14	14	10	50	56.8	879
No. 13.—C. Pemb. .	7	5	8	8	28	48.9	574
No. 14.—S. Pemb. .	13	13	16	13	55	78.3	702
Transferable .....	...	...	...	3	...	...	...
Totals	127	147	170	140	584	58.9	9906

Group of "5," i.e., Infantile Deaths from Marasmus, Atrophy, Debility, Congenital Defects, Premature Birth, Injury at Birth, Want of Breast Milk.

INFANTILE MORTALITY FROM (1) BRONCHITIS, (2) PNEUMONIA, DURING 1911, 1912, 1913, AND 1914, IN EACH WARD;

ALSO AGGREGATE RATE FOR 1911, 1912, 1913, AND 1914, PER 1,000 BIRTHS NOTIFIED.

Ward.	DEATHS FROM BRONCHITIS.						DEATHS FROM PNEUMONIA.					
	1911.	1912.	1913.	1914.	Total.	Aggregate Rate.	1911.	1912.	1913.	1914.	Total.	Aggregate Rate.
No. 1.—St. George	2	1	3	1	7	12.9	4	2	6	6	18	33.2
No. 2.—Lindsay	1	...	2	1	4	7.4	4	4	2	4	14	26.0
No. 3.—St. Catherine.....	3	3	7	3	16	15.7	6	3	5	9	23	22.6
No. 4.—St. Patrick	1	7	4	5	17	13.2	5	3	9	5	20	15.7
No. 5.—St. Thomas	5	1	3	...	9	15.4	6	3	5	2	16	27.3
No. 6.—Poolstock	1	3	2	1	7	11.3	2	4	2	2	10	16.1
No. 7.—Victoria	1	1	4	1	7	9.9	6	1	6	6	19	27.1
No. 8.—St. Andrew	2	...	6	4	12	10.6	3	1	4	7	15	13.3
No. 9.—Swinley	1	1	...	...	2	4.5	2	1	1	...	4	9.0
No. 10.—All Saints' .....	...	...	...	1	1	2.3	1	...	...	...	1	2.3
No. 11.—West Pemberton	3	2	3	3	11	22.1	...	2	4	4	10	20.1
No. 12.—North Pemberton.....	4	3	...	2	9	12.3	5	3	9	3	20	22.7
No. 13.—Central Pemberton .....	...	1	...	...	1	1.7	3	1	3	2	9	15.6
No. 14.—South Pemberton	2	2	3	5	12	17.0	3	...	7	5	15	21.3
TOTALS	26	25	37	27	115	...	50	28	63	53	194	...

The following diagram illustrates the fluctuations in the Ordinary and Infantile Death-rates during the past 10 years.

Senile Mortality.—The number of deaths of persons of 60 years of age and over is 389, or 4·18 per 1,000 of population.

NO. OF DEATHS IN DIFFERENT WARDS IN WIGAN, 1914.

Ward.	Census Pop'l'tion	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Totals.	Rate.
1	4,905	25	14	33	33	105	21·40
2	5,295	24	19	17	21	81	15·29
3	7,586	43	25	22	34	124	16·34
4	9,795	38	27	55	44	164	16·74
5	4,382	24	13	24	35	96	21·90
6	5,413	19	15	18	14	66	12·19
7	4,836	30	22	28	35	115	23·78
8	12,378	37	32	27	46	142	11·47
9	7,384	26	21	20	28	95	12·86
10	3,536	15	14	10	14	53	14·98
11	4,188	17	18	25	23	83	19·81
12	7,379	28	31	38	26	123	16·66
13	5,962	23	20	22	26	91	15·26
14	6,113	28	11	20	25	84	13·74
Transferable Deaths	...	42	43	36	45	166	...
Total ...		419	325	395	449	1,588	17·09

STATEMENT OF DEATHS OF NON-RESIDENTS OCCURRING IN WIGAN.

Deaths from—		Years.	
Accidents	38	Under 1.....	7
Cancer.....	8	1 and under 5.....	14
Heart Affections.....	5	5 „ 15.....	7
Other Diseases	36	15 „ 25.....	15
Pneumonia	4	25 „ 35.....	11
Other Tubercular Diseases	2	35 „ 45.....	12
Enteric	2	45 „ 55.....	13
Phthisis	1	55 „ 60.....	6
Nephritis	1	60 „ 65.....	8
Appendicitis.....	5	Over 65.....	12
Other Diseases of Respiratory Organs	3		
	<u>105</u>		<u>105</u>

CENSUS, 1911.

<i>Wards.</i>	<i>Population.</i>
St. George's	4,905
Lindsay	5,295
St. Catharine's	7,586
St. Patrick's	9,795
St. Thomas	4,382
Poolstock.....	5,413
Victoria	4,836
St. Andrew's	12,378
Swinley	7,384
All Saints'	3,536
West Pemberton	4,188
North Pemberton	7,379
Central Pemberton	5,962
South Pemberton.....	6,113
<hr/>	
Total	89,152
<hr/>	

LOCAL GOVERNMENT BOARD RETURNS.

TABLE I.—VITAL STATISTICS OF WHOLE DISTRICT DURING 1914 AND PREVIOUS YEARS.
Name of District—Wigan County Borough.

Year.	Pop'n estimated of each year	Births			Total Deaths Registered in the District		Transferable Deaths		Nett Deaths belonging to the District				
		Un-corrected number	Nett		Number	Rate	of Non-residents registered in the District	of Residents not registered in the District	Under 1 year of age		At all ages		
			Number	Rate					Number	Rate per 1,000 nett births	Number	Rate	
													3	4	5	6	7	9	10	11	12	13
1	2	3	4	5	6	7							
1909...	93,263	2,861	2,861	30.67	1,836	19.68	131	...	486	169	1,705	18.28	
1910...	94,654	2,770	2,770	29.26	1,486	15.69	108	...	369	133	1,378	14.55	
1911...	89,631	2,433	2,425	27.05	1,593	17.77	96	135	470	193	1,638	18.27	
1912...	90,504	2,564	2,588	28.59	1,375	15.26	74	139	324	125	1,441	15.92	
1913...	91,573	2,529	2,544	27.78	1,636	17.86	83	134	456	179	1,687	18.42	
1914...	92,868	2,690	2,710	29.18	1,527	16.44	105	166	377	139	1,588	17.09	

Area of District in Acres (land and inland water), 5,082.

At Census, 1911: Total population at all ages, 89,152; Total families or separate occupiers, 16,979.

(Figures given in Census special volume for the County, also in Vols. I., VI., and VIII. of the reports of the Census of England and Wales.)

TABLE II.—CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR, 1914.

Name of District—Wigan County Borough.

Notifiable Disease.	Number of Cases Notified.						Total Cases notified in each locality (e.g., Parish or Ward) of the district														Total cases removed to hospital.	
	At all ages.	At Ages—Years.					1 St. George.	2 Lindsay.	3 St. Cath.	4 St. Patrick.	5 St. Thomas.	6 Poolestock.	7 Victoria.	8 St Andrew.	9 1/2 Winley.	10 All Saints.	11 W. Pemb.	12 N. Pemb.	13 C. Pemb.	14 S. Pemb.		
		Under 1	1 and 5 years	5 and 15 yrs.	15 yrs. 25 yrs.	25 yrs. 45 yrs.																45 yrs. 65 yrs.	65 and up rds.
Small-pox
Cholera
Diphtheria (including Mem- branous Croup)	43	2	13	19	4	5	...	...	3	3	1	1	3	7	6	3	3	3	2	4	2
Erysipelas.....	82	3	4	6	8	25	10	...	5	6	2	4	3	11	3	5	11	5	10	9	...	
Scarlet Fever	222	1	50	152	11	7	...	...	7	32	24	8	23	5	19	20	8	12	6	21	168
Typhus Fever	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Enteric Fever	67	...	2	19	15	27	4	...	...	7	4	1	...	7	6	...	2	5	22	...	55
Relapsing Fever (R).....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever (C).....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	5	...	...	...	1	4	...	...	1	...	...	...	...	1	1	...	...	1	1	...	...
Cerebro-spinal Meningitis	1	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Polio-myelitis .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ophthalmia Neonatorum.....	22	22	...	...	...	...	...	...	3	3	1	1	...	2	1	1	...	3	6	1	...
Pulmonary Tuberculosis	236	...	5	60	3	85	2	...	16	31	39	17	13	14	28	10	6	6	19	10	64	
Other forms of Tuberculosis	124	3	22	65	20	11	3	...	9	9	11	18	11	4	10	21	9	4	5	5	3	
TOTALS	803	31	96	322	113	164	65	12	40	44	92	98	41	46	42	95	50	29	42	64	290	

Isolation Hospital or Hospitals, Sanatoria, etc.—Wigan Sanatorium. Hospital, Pemberton, Wigan.
Bowdon Sanatorium.

TABLE III.—CAUSES OF, AND AGES AT, DEATH DURING THE YEAR 1914. Name of District—Wigan County Borough.

Causes of Death.	Nett Deaths at the Jubjoined Ages of "Residents" whether occurring within or without the District.								Total Deaths whether of "residents" or "non-residents" in institutions in the district	
All ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.		
1 All Causes—Certified	3	4	5	6	7	8	9	10	11	
Uncertified	377	146	74	73	51	229	338	300	191	
...	
1—Enteric Fever .....	...	...	...	1	4	9	3	...	...
2—Small-pox .....	...	...	...	...	...	...	...	...	...
3—Measles	13	36	20	8	...	...	...	...	...
4—Scarlet Fever .....	...	...	...	1	...	...	...	...	...
5—Whooping Cough	3	4	5	...	...	...	...	...	...
6—Diphtheria and Croup	1	3	1	1	...	...	...	...	...
7—Influenza .....	...	...	...	...	1	1	3	...	...
8—Erysipelas.....	1	...	...	...	...	...	2	...	...
9—Phthisis (Pul. Tuberculosis) ..	...	...	1	3	14	44	27	...	...
10—Tuberculous Meningitis	1	2	5	5	...	...	...	...	...
11—Other Tuberculous Diseases ..	5	4	1	1	1	3	2	10	...	
12—Cancer, malignant disease ..	...	1	...	...	...	11	38	...	...
13—Rheumatic Fever .....	...	...	...	...	2	1	3	...	...
14—Meningitis.....	11	4	1	6	1	3	...	...	...
15—Organic Heart Disease	1	...	1	7	4	26	41	24	...	
16—Bronchitis.....	27	4	...	...	3	16	56	63	...	
17—Pneumonia (all forms)	53	35	16	14	8	27	36	17	...	
18—Other Dis. of Respiratory Org.	2	...	...	2	...	2	2	1	...	
19—Diarrhoea and Enteritis	80	37	...	...	...	...	...	...	...
20—Appendicitis and Typhlitis ..	...	...	...	4	...	4	1	...	...

TABLE III (Continued).—CAUSES OF, AND AGES AT, DEATH DURING THE YEAR 1914. Name of District—Wigan County Borough

Cause of Death.	Nett Deaths at the Jubjoined Ages of "Residents" whether occurring within or without the District.								Total Deaths whether of "residents" or "non-residents" in institutions in the district	
	All ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	
1	2	3	4	5	6	7	8	9	10	11
21—Cirrhosis of Liver	8	...	...	...	...	...	4	3	1	...
21a—Alcoholism	1	...	...	...	...	...	1	...	...	...
22—Nephritis & Bright's Disease.	32	1	2	...	...	1	8	13	7	...
23—Puerperal Fever	3	...	...	...	...	1	2	...	-	...
24—Other Accidents & Diseases of Pregnancy and Parturition ...	4	...	...	...	...	...	4	...	...	...
25—Congenital Debility & Malformation, including Prem. Birth.	140	140	...	...	...	...	...	...	...	...
26—Violent Deaths, excluding Suic.	62	3	3	6	10	4	11	18	7	...
27—Suicide	16	...	...	...	...	3	6	6	1	...
28—Other Defined Diseases	340	21	8	17	10	4	41	78	161	...
29—Diseases ill-defined or unknown	36	14	3	...	...	...	5	6	8	...
TOTALS	1,588	377	146	74	73	51	229	338	300	191
Sub-entries (included in above figures—										
14—(a) Cerebro-spinal Meningitis	1	...	...	...	...	1	...	...	...	...

TABLE IV.—INFANT MORTALITY, 1914. NETT DEATHS FROM STATED CAUSES AT VARIOUS AGES
UNDER 1 YEAR OF AGE.
Name of District—Wigan County Borough.

Cause of Death.	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks	4 weeks & under 3 months	3 months & under 6 months	6 months & under 9 months	9 months & under 12 m'ths.	Total Deaths under 1 year
All Causes—Certified
Uncertified
Small-pox	1	...
Chicken-pox	6	13
Measles	1	...	...	...	...
Scarlet Fever	2	1	3
Whooping Cough	1	...	1
Diphtheria and Croup	1
Erysipelas.....	1	...	...	1	1
Tuberculous Meningitis	1	1
Abdominal Tuberculosis	1
Other Tuberculous Diseases	1	...	2	4
Meningitis (not Tuberculous)	1	...	...	1	...	6	4	1	11
Convulsions	1	...	1	1	4
Laryngitis.....	2	...	...	1	...	...	1
Bronchitis.....	...	1	...	...	3	9	8	3	4	27
Pneumonia (all forms)	2	...	2	10	18	7	16	53
Diarrhoea	2	...	...	2	14	25	20	9	70
Enteritis	3	...	3	1	3	1	2	10
Gastritis	2	...	2
Syphilis	1	...	...	1	...	...	1	1	3
Rickets
Suffocation, overlying
Injury at Birth
Atelectasis	2	...	...	...	2	...	...	...	...	2
Congenital Malformations	6	3	...	1	10	2	...	2	...	14
Premature Birth	34	6	6	...	46	3	...	...	...	51
Atrophy, Debility and Marasmus	12	4	3	4	23	15	19	13	5	75
Other Causes	8	...	2	1	11	11	3	3	1	29
TOTALS	62	18	16	8	104	68	87	67	51	377

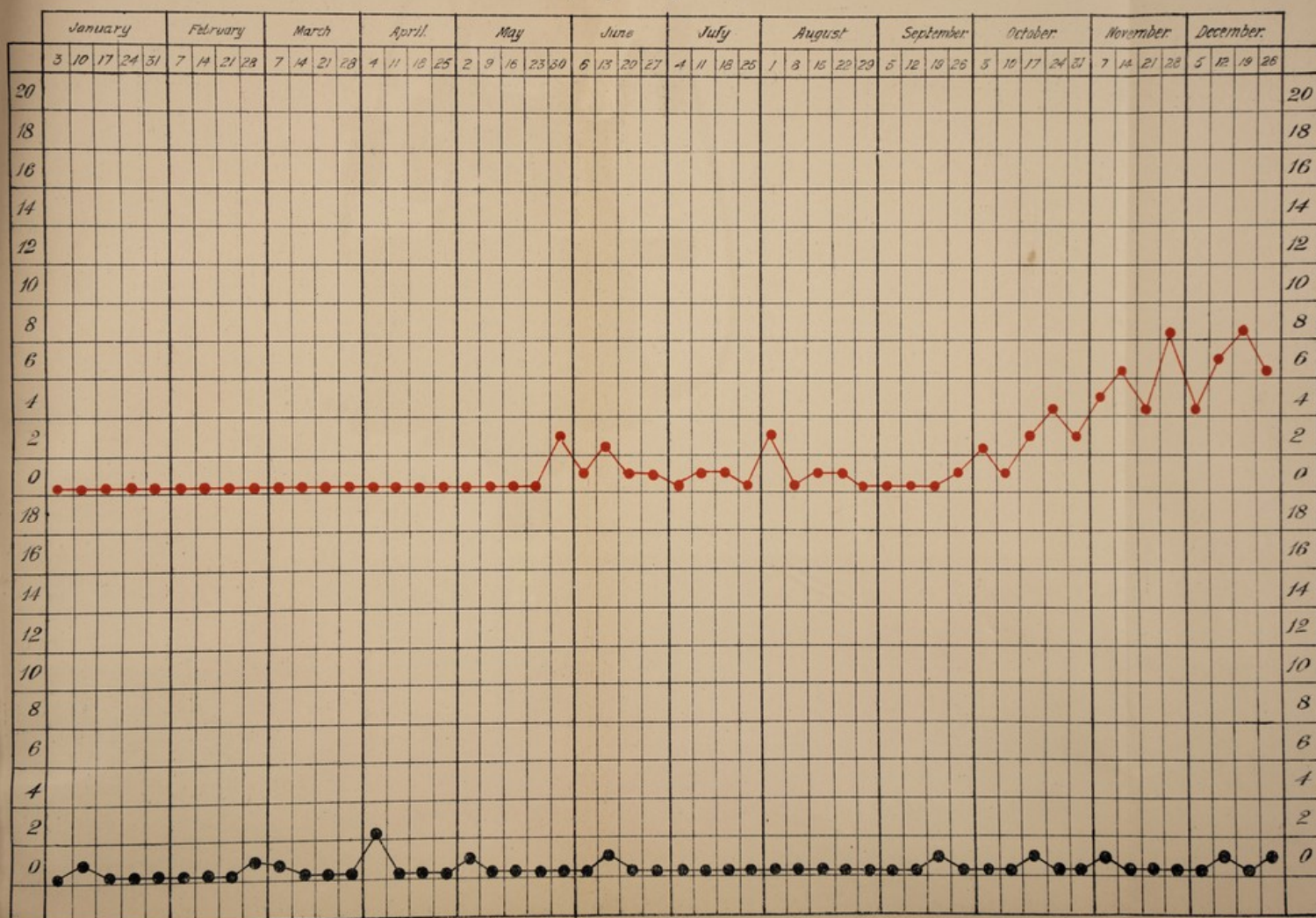
Nett Births in the year—Legitimate, 2,581; Illegitimate, 129.

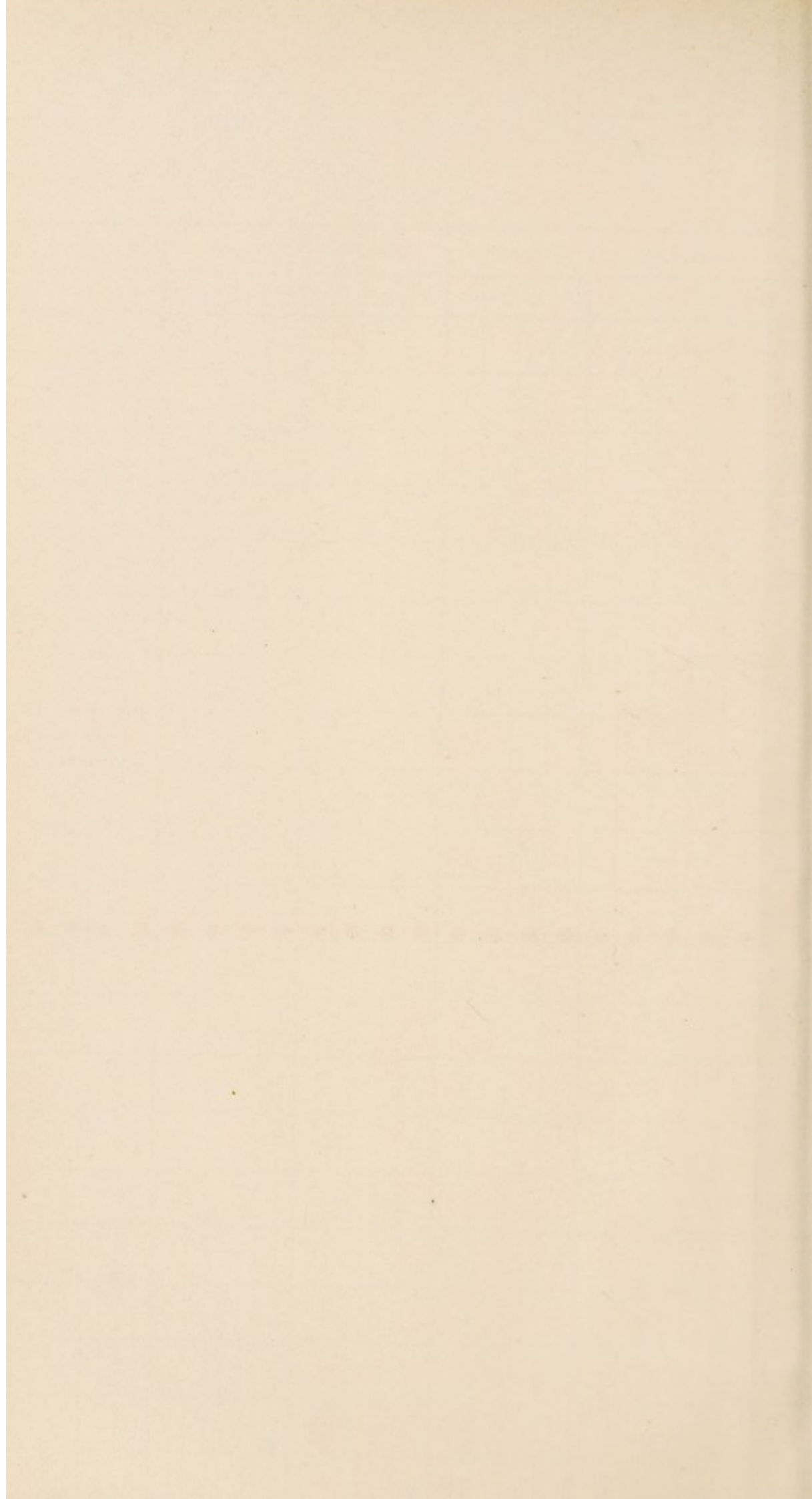
Nett Deaths in the year of—Legitimate Infants, 341; Illegitimate Infants, 36.

DEATH RETURNS CHART 1.
 _____: 1914. _____

Measles (Red.)

Whooping Cough (Black)





PART II.

The Zymotic Diseases.

Constitutional Diseases.

Local Diseases.

Inquests.

PART II

The Xanthine Oxidase

and its Role in the

Metabolism of

Uric Acid

CAUSES OF DEATH.

Zymotic Diseases

The Mortality from the seven principal Zymotic Diseases, namely, Small-pox, Scarlet Fever, Measles, Whooping Cough, Fever (Enteric and Typhus), Diphtheria, and Diarrhœa, gives us a rate of 2·41 per 1,000 of the population, against 3·04 in 1913.

The deaths numbered 224 as against 279 in 1913.

The Zymotic-rate, 2·41, is made up as follows:—

	DEATHS PER 1,000.	
	1914	1913
Small-pox .....	...	...
Scarlet Fever	·01	·01
Measles	·82	1·34
Whooping Cough	·12	·24
Typhus	·01	...
Enteric	·18	·14
Diphtheria	·06	·06
Diarrhœa	1·18	1·21

The Zymotic-rate during each of the four quarters was:—

	1914	1913
1st Quarter	·69	5·19
2nd "	·86	1·31
3rd "	4·13	3·84
4th "	3·98	1·83

TABLE OF ZYMOTIC DISEASES.

	Notified.	Died.	Case Mortality %.
Small-pox .....	...	...	...
Scarlet Fever	222	1	·45
Enteric Fever	67	17	25·37
Diphtheria	43	6	13·95
Measles .....	...	77	...
Whooping Cough .....	...	12	...
Diarrhœa .....	...	110	...
Typhus	1	1	100·00

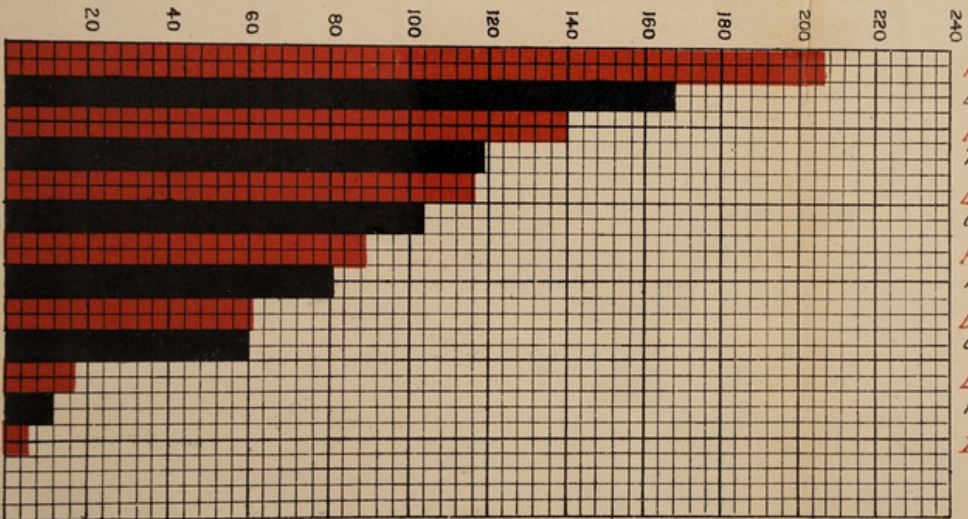
It will be seen from these tables that the decrease in the Zymotic death-rate is attributed to a marked drop in the mortality from Measles.

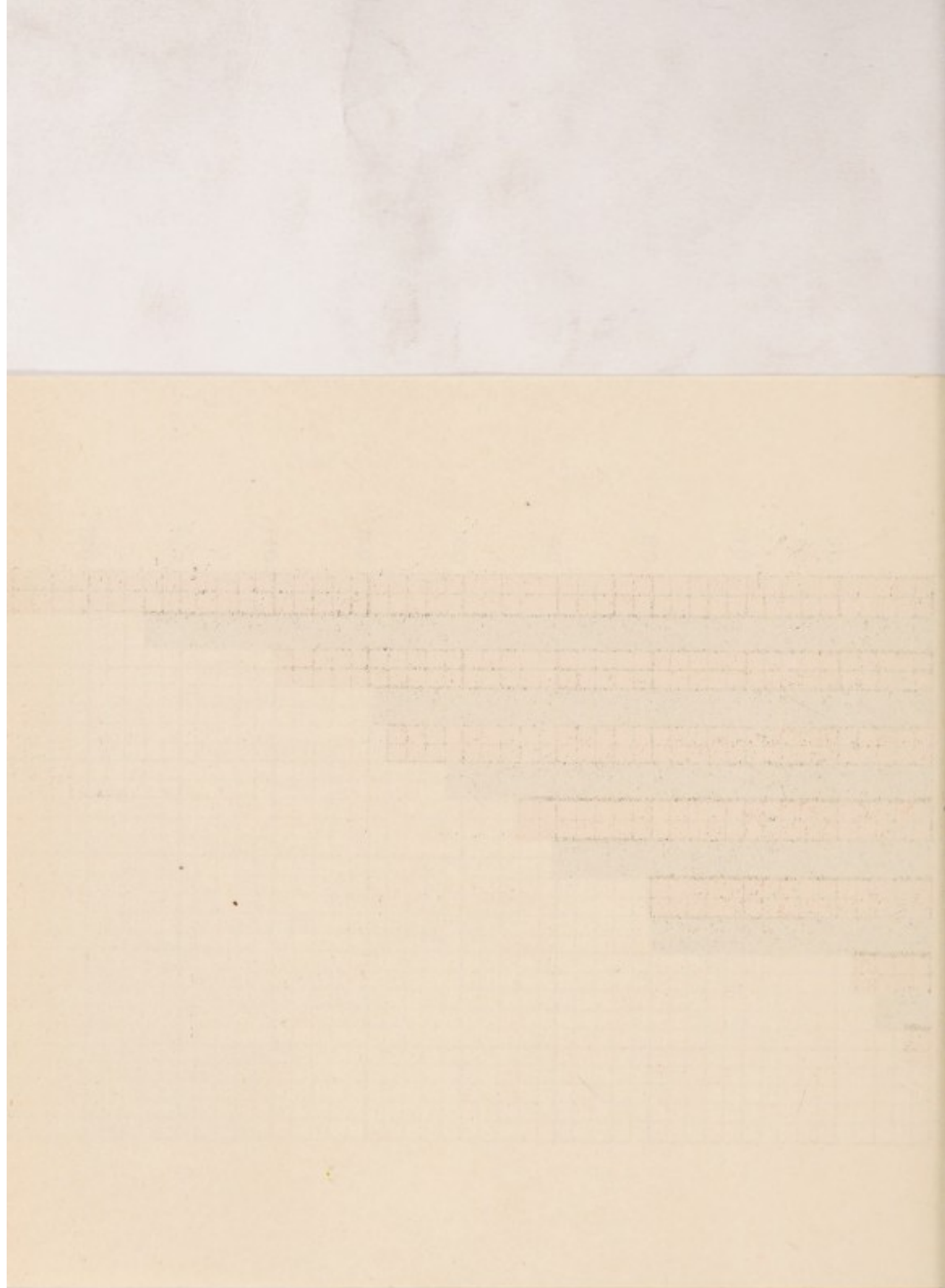
The Diarrhœa-rate was nearly the same as in the preceding year.

The increased Zymotic-rate during the third and fourth quarters was largely due to a recurrence of the Measles outbreak. Although there were 222 cases of Scarlet Fever notified during the year, this disease only accounted for one death.

On the other hand, although the notifications of Enteric Fever were 30 fewer than last year, the number of deaths was increased by four.

Diagram shewing Graphically the comparative responsibility of the more important causes of Death.





The following table shows comparatively the Sickness Rates per 1,000 of the population of the principal Zymotic Diseases in England and Wales, and in Wigan, during the year 1914:—

	England and Wales.	Wigan.
Tuberculosis (Pulmonary)	2.20	2.54
Do. (other forms)	0.66	1.33
Small-pox	0.00	0.00
Typhus Fever	0.00	0.01
Scarlet Fever	4.47	2.39
Diphtheria	1.61	0.46
Enteric Fever	0.24	0.72
Puerperal Fever	0.06	0.05
Erysipelas	0.73	0.88
Cerebro-Spinal Fever	0.01	0.01
Poliomyelitis	0.01	0.00

DEATH-RATES, 1914.

Disease.	No. of Deaths	Rate.
Enteric Fever	17	·18
Small-pox .....	...	...
Measles	77	·82
Scarlet Fever	1	·01
Whooping Cough	12	·12
Diphtheria and Croup	6	·06
Influenza	5	·05
Erysipelas	3	·03
Phthisis (Pulmonary Tuberculosis)	89	·95
Tuberculosis Meningitis.....	13	·13
Other Tubercular Diseases	17	·18
Cancer, Malignant Disease	60	·64
Rheumatic Fever	6	·06
Meningitis	26	·27
Organic Heart Disease	104	1·11
Bronchitis	169	1·81
Pneumonia (all forms).....	206	2·21
Other Diseases of Respiratory Organs	9	·09
Diarrhoea and Enteritis (under 2 years)	117	1·25
Appendicitis and Typhlitis	9	·09
Cirrhosis of Liver	8	·08
Alcoholism	1	·01
Nephritis and Bright's Disease	32	·34
Puerperal Fever	3	·03
Other Accidents and Diseases of Pregnancy and Parturition	4	·04
Congenital Debility and Malformation (including Premature Birth)	140	1·50
Violent Deaths (excluding Suicides)	62	·66
Suicide	16	·17
Other Defined Diseases	340	3·65
Diseases ill-defined or unknown	36	·38
Total.....	1,588	17·09

Number of Notifications compared with other years:—

Disease.	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
Small-pox ...	0	4	66	2	3	0	0	0	0	0	7	0	0	0
Typhus	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Scarlet.....	264	557	362	191	325	256	175	220	730	395	176	142	71	222
Enteric	71	76	51	56	133	138	107	103	93	128	151	73	97	67
Continued ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diphtheria ...	49	60	38	9	49	49	66	36	34	38	60	38	34	43
Puerperal ...	8	10	5	8	16	9	8	12	8	4	7	4	6	5
Cholera	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erysipelas...	65	65	51	47	92	86	77	71	75	70	84	47	56	82
Ophth. Neon. Acute	0	0	0	0	0	0	0	0	0	0	0	26	16	22
Poliomyelitis	0	0	0	0	0	0	0	0	0	0	0	6	0	0
Cerebro-spin. Meningitis...	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Pulmonary Tuberculosis	0	0	0	0	0	0	0	0	0	0	0	217	207	236
Other forms of Tuberculosis	0	0	0	0	0	0	0	0	0	0	0	0	61	124
Total ...	457	772	573	313	618	538	433	442	940	635	491	553	549	803

The steady decrease in the number of successful Vaccinations cannot but be viewed with misgivings. The medical testimony is overwhelmingly in favour of this simple and efficacious form of insurance against Small-pox. The disease is now present at Oldham, and it is to be feared that if it appears in Wigan, the presence of a large number of susceptible (*i.e.*, non-vaccinated) persons is likely to have serious consequences.

CITIES AND TOWNS IN WHICH SMALL-POX OCCURRED
DURING THE YEAR 1914.

London, Southampton, Liverpool, Salford, Oldham, Rochdale, Barrow-in-Furness, Huddersfield, Leeds, Dewsbury, Cardiff, Folkestone, Weymouth, Bacup, Colne, Batley, Harrogate, and Morley.

Scarlet Fever.

Number of Notifications..... 222

Number of Deaths..... 1

Death-rate per 1,000 of Population011

The number of Notifications of this Disease is, for 1914, 222, against 71 in 1913. One death occurred, giving a rate of .011 as against 1 death with a rate of .011 in 1913.

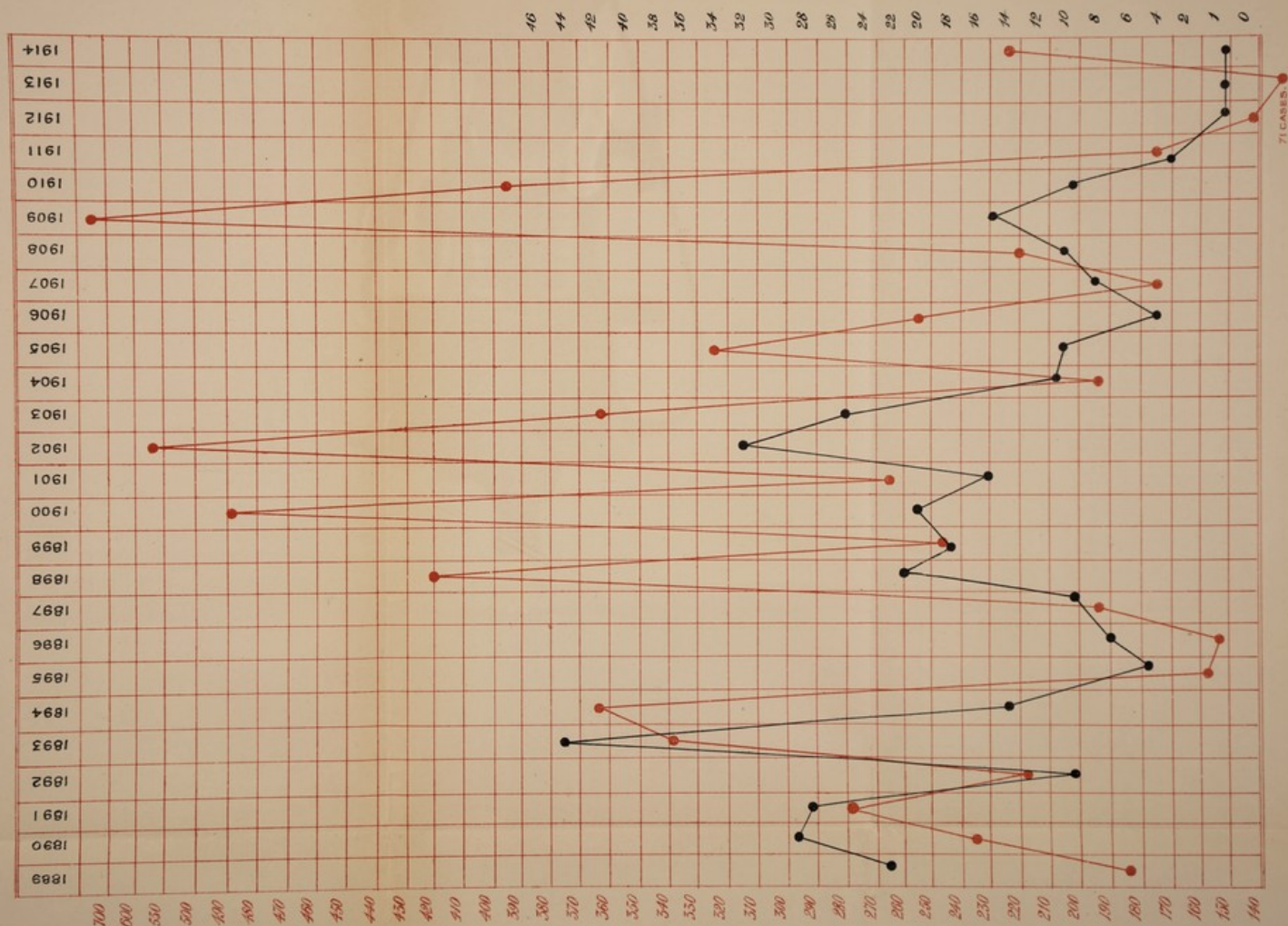
	Notifications.	Removed to Sanatorium.	Deaths.
January	9	8	...
February	11	9	...
March	5	3	...
April	7	7	...
May	13	12	...
June	10	8	...
July	14	10	...
August	32	29	...
September	29	23	...
October	45	29	...
November.....	22	14	1
December	25	16	...
Total	222	168	1

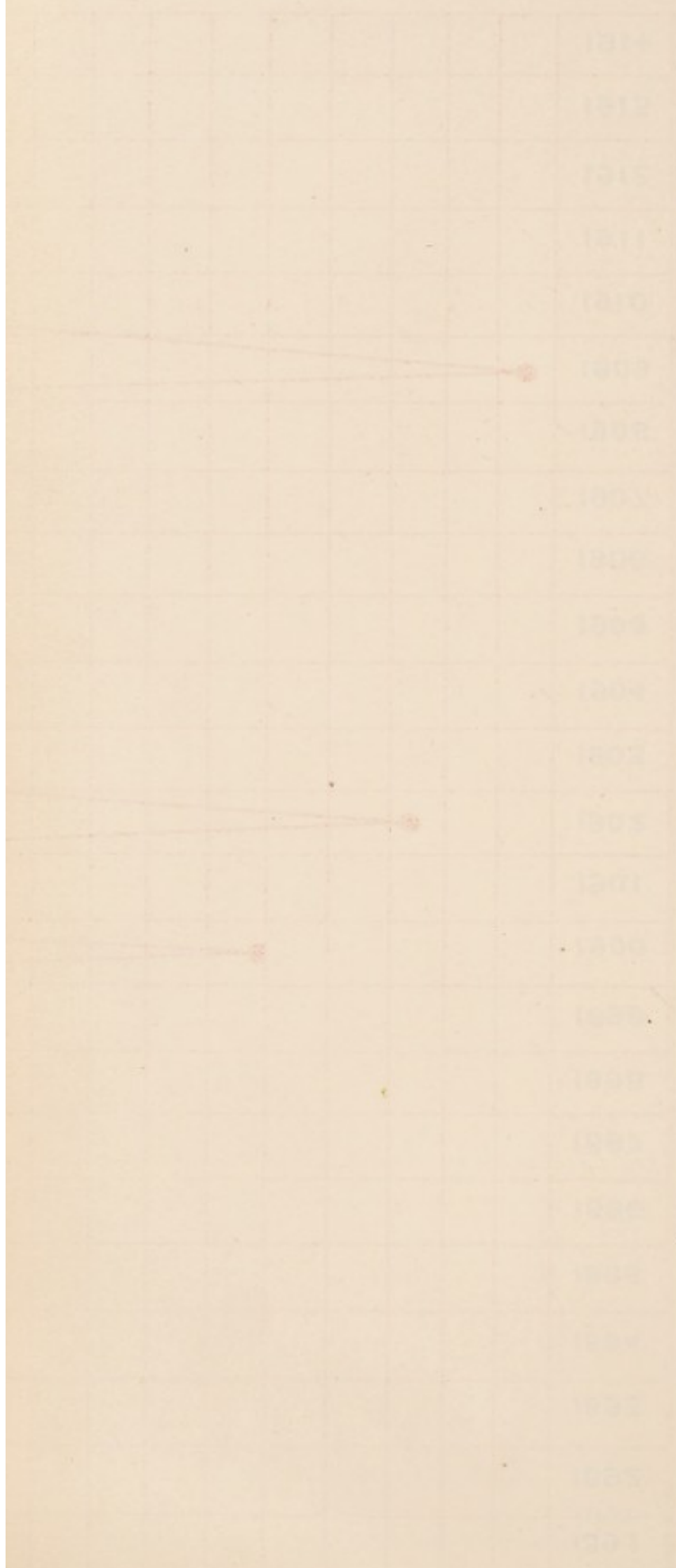
The percentage of removals to Sanatorium has been 75.65 against 70.42 in 1913, and 80.98 in 1912.

We had 1 death among those notified; this occurred in hospital; giving a fatality-rate of .58% of hospital-treated cases, as against 2.00% in 1913.

SCARLET FEVER

CHART Cases notified in red ● Deaths in Black ●





In four houses there were return cases during the year.

It is highly satisfactory to record the completion of the discharging ward at the far extremity of the Gee block.

It will be noted that the number of notifications increased from 71 in 1913 to 222. Dr. Wynne pointed out in last year's report that the recent comparative immunity of Wigan is not without its dangers, owing to the presence of a generation of children, who are almost virgin soil for infection.

The bulk of the notifications were received during the last five months of the year. Many of the cases were of a rather severe type, a fairly high percentage having inflammation of the kidneys. The extremely low death-rate is thus noteworthy.

Scarlet Fever—Return Cases, 1914.

1 (29, H—— Street).—First case notified and removed to Sanatorium on April 17th, 1914; returned home on May 8th. Second case commenced on May 11th, 1914; was notified and removed to Sanatorium on May 12th, 1914. Third case commenced on June 3rd, 1914; was notified and removed to Sanatorium on June 6th, 1914.

2 (7, S—— S—— Road).—First case notified and removed to Sanatorium on August 1st, 1914; returned home on September 15th, 1914. Second case commenced September 20th, 1914; was notified and removed to Sanatorium September 22nd, 1914. This case returned home on October 30th, 1914. A third case commenced on November 4th, 1914; was notified and removed to Sanatorium on November 6th, 1914.

3 (9, W—— Street).—Third case at this house was notified and removed to Sanatorium on September 5th, 1914; returned home on October 16th, 1914. Fourth case commenced on October 23rd, 1914; was notified and removed to Sanatorium on October 29th, 1914.

4 (232, P—— Lane, Pemberton).—Second case at the house was notified and removed to Sanatorium on October 8th, 1914; returned home on December 10th, 1914. Third case commenced on December 14th, 1914; was notified and removed to Sanatorium on December 17th, 1914.

BOROUGH OF WIGAN.

Notification of Disease adopted March, 1889. Hospital
Opened 1891.

Scarlet Fever.

Year.	Estim. Popula- tion.	Cases notifi'd.	Under five Years.	Deaths.	Cases in hospital	Attacks per 1,000.	Deaths per 1,000.	Rem'v'ls per cent. per annum.
1889	53916	182	76	23	15	3.37	.42	8.24
1890	54440	235	163	29	83	4.31	.42	35.31
1891	55084	278	198	28	150	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
1905	88306	325	131	11	207	3.68	.12	63.69
1906	89342	256	96	5	126	2.87	.055	49.21
1907	90765	175	70	9	93	1.92	.099	53.14
1908	92114	220	69	11	138	2.38	.11	62.72
1909	93263	730	207	16	331	7.82	.17	45.34
1910	94654	395	110	10	201	4.17	.10	50.88
1911	89631	176	53	4	123	1.96	.044	69.88
1912	90504	142	39	1	115	1.56	.011	80.98
1913	91573	71	18	1	50	.77	.011	70.42
1914	92868	222	51	1	168	2.39	.011	75.65

Measles.

The deaths numbered 77, or a rate of .82 per 1,000 of the population.

	Deaths in 1914.	Deaths in 1913.
January .....	...	31
February .....	...	40
March .....	...	32
April .....	...	13
May	4	3
June.....	4	2
July	5	...
August	2	1
September	3	1
October	11	...
November	26	...
December.....	22	...
Total.....	77	123

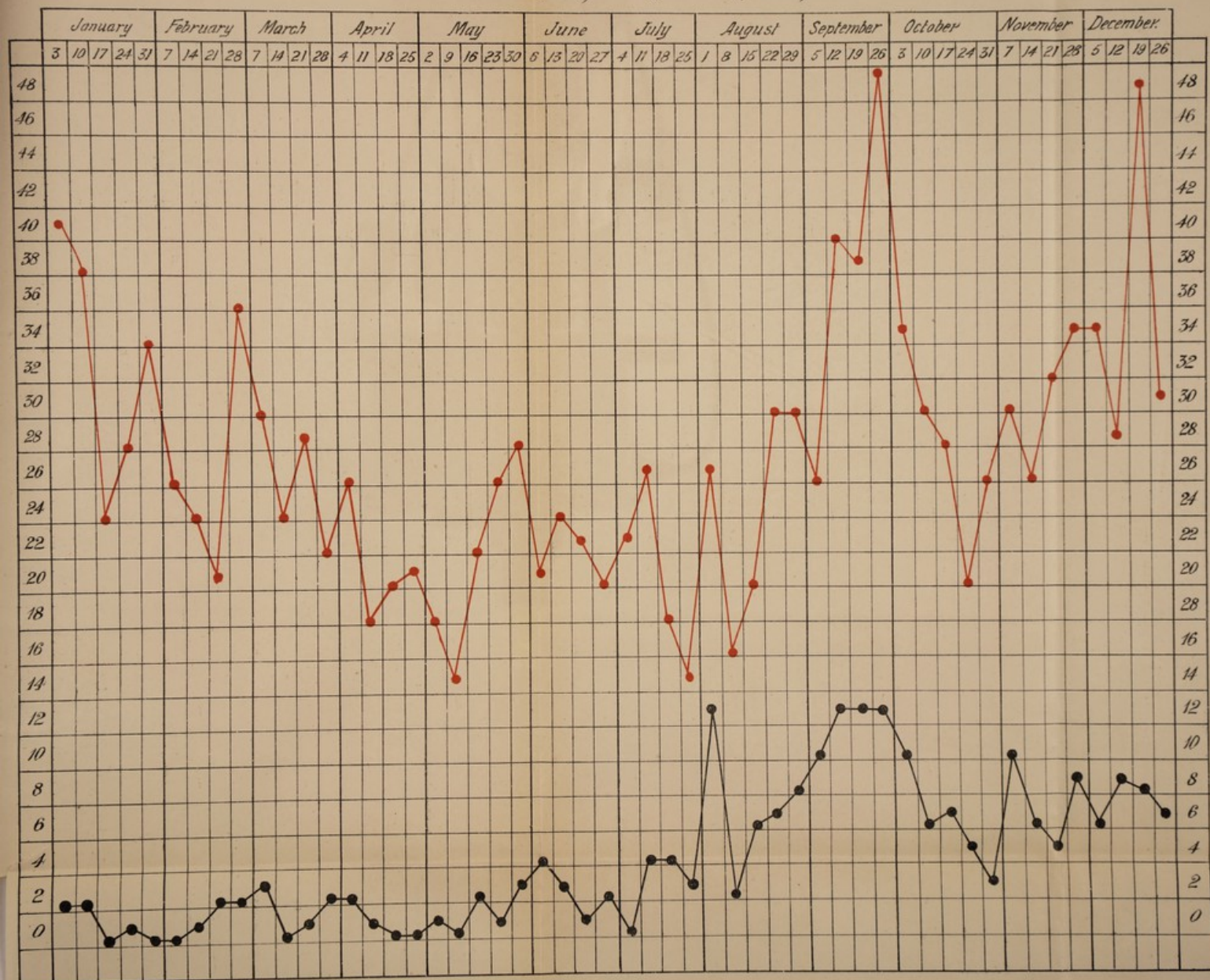
The last quarter of the year was notable for the serious outbreak of Measles, which accounted for 59 deaths, chiefly from the complications Bronchitis and Broncho-Pneumonia. Careful enquiries were made, and it was found that the outbreak had apparently appeared simultaneously in many parts of the Borough, and that it was not localised.

Throughout the period I was in constant touch with the School Medical Officer as to the desirability of School Closure. We decided to recommend the Local Education Authority to close all the elementary schools in the Borough twelve days before the ordinary date for the beginning of the Christmas holidays, and this was done—the whole of the schools being closed from December 11th, 1914, to January 11th, 1915. All the schools were disinfected during the period of closure. The Sunday schools were also closed for a like period. While the schools were open, lists of absentees suffering from infectious diseases were received daily at the Health Office from the Director of Education through the School Medical Officer, and the houses were forthwith visited by a Lady Health Visitor. A fresh supply of leaflets being required, the following brief dogmatic one was prepared and distributed to every house in the Borough.

DEATH RETURNS CHART 1.

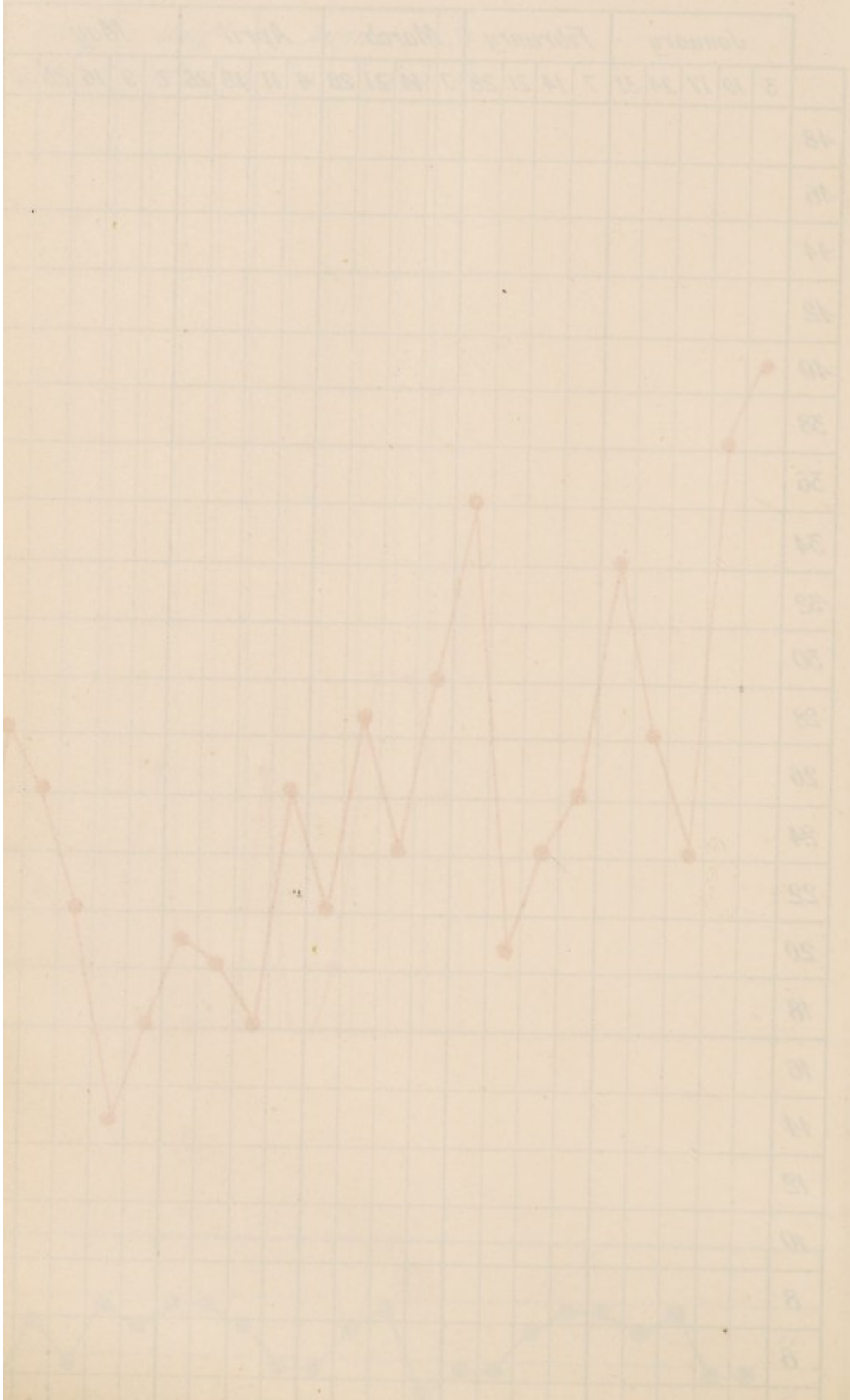
1914.

All Causes (Red) Zymotics (Black.)



TRAFFIC DEATH

(Scale) 1000 All Causes



COUNTY BOROUGH OF WIGAN.

PREVENTION OF MEASLES.

AS MEASLES IS NOW PREVALENT IN THE BOROUGH, THE ATTENTION OF PARENTS IS DIRECTED TO THE FOLLOWING POINTS :

- 1.—MEASLES is often a SERIOUS disease. It causes more deaths than all the common Fevers of Childhood. The DANGEROUS AGE is between six months and five years.
- 2.—MEASLES is extremely INFECTIOUS, especially before the blotchy red rash appears.
- 3.—KEEP the Sick Child AWAYS FROM OTHER CHILDREN, and if possible in a separate room ; also out of Shops, Trams, Entertainments, Schools, &c.
- 4.—LOOK OUT for the common EARLY SYMPTOMS, viz. : Sneezing, Running from the Nose and Eyes, &c., which are LIKE those of a FEVERISH COLD. When they appear,
- 5.—SEND at once for your DOCTOR.
- 6.—PREVENT DANGEROUS COMPLICATIONS, especially Bronchitis and Pneumonia. The sick child needs :—
 - i. Warm fresh air ; no draughts ;
 - ii. Warm coverings ;
 - iii. Nourishing food.
- 7.—DISINFECTANTS can be obtained free of cost from the Health Office, King Street West.

GEORGE JESSEL,

HEALTH OFFICE,

KING STREET WEST,

December, 1914.

Acting Medical Officer of Health.

The administrative control of Measles in an industrial town like Wigan is extraordinarily difficult owing to the following unfavourable circumstances :—

1. The gross ignorance of the public as to the seriousness of Measles, and their refusal to take elementary precautions in spite of repeated warnings.
2. The facilities for the aggregation of children in public thoroughfares, places of amusement, shops, trams, &c.
3. The impossibility of isolating infected children in the homes owing to the insufficient accommodation therein.
4. The large number of common back-yards.

In view of the above facts, school closure does not produce the results that might be expected.

The most hopeful procedure appears to be :—

- (1) *To secure prompt information as to first cases in households.*

The Health Committee has now decided to adopt the suggestion of the Local Government Board to make compulsorily notifiable first cases in households by medical practitioners, and all cases by parents and guardians.

- (2) *To institute a vigorous campaign for the education of parents.*

On receipt of information as to cases, the house is forthwith visited by a Lady Health Visitor.

Our present staff is unfortunately far too small for a town of the size of Wigan, and should be increased without delay.

Whooping Cough.

The number of deaths from Whooping Cough is 12, against 22 in 1913, and 29 in 1912. The number is shown in the following table :—

	Deaths in 1914.	Deaths in 1913.
January	1	4
February	1	5
March	3	4
April	1	4
May .....	...	...
June	1	2
July .....	...	1
August .....	...	...
September	1	...
October	1	1
November	1	1
December.....	2	...
Total.....	12	22

The deaths were less in 1914 by 10. It is a very dangerous disease owing to the lung affections which supervene, and is highly infectious, but it is difficult to persuade mothers of its seriousness.

Typhus Fever.

A young man was admitted to Whelley Sanatorium on August 17th, and was diagnosed by Dr. Wynne as suffering from Typhus Fever. He died on August 19th. Every precaution was taken, both at the Sanatorium and at the home ; contacts being kept under close observation. No other cases occurred.

One case of Typhus Fever occurred in Wigan during the year 1913.

The other cases notified in England and Wales during the year were as follows:— Two in Newcastle-on-Tyne and one each in London and Manchester.

Enteric Fever.

Number of Notifications.....	67
Number of Deaths.....	17
Mortality per 1,000 of Population	18
Removed to Sanatorium	55

We have for 1914, 67 notifications, against 97 in 1913, and 73 in 1912. A few of the cases removed to the Sanatorium turned out to be cases of other febrile diseases.

The number of deaths was 17, or 25·37 per cent. of the cases notified, against a rate of 13·40 per cent. in 1913, and 16·43 per cent. in 1912.

	Removed to Sanatorium.
January	8
February	5
March.....	8
April.....	7
May	3
June	—
July	2
August	3
September	8
October	5
November	1
December	5
	<hr/> 55

We had 25 specimens of blood examined at the Thompson-Yates Laboratory, Liverpool, with the following result :—Positive reaction, 8 ; Negative reaction, 13 ; Indefinite reaction, 4.

The fatality-rate is higher. We have 17 deaths in 67 cases, a rate of 25·37 per cent.

I here give the weekly number of Notifications for the year :—

WEEKLY NOTIFICATIONS FOR 1914.

January	10.....	1	July	25.....	2
"	17.....	3	August	1.....	1
"	24.....	2	"	22.....	2
"	31.....	3	September	5.....	1
February	7.....	2	"	12.....	3
"	14.....	1	"	19.....	1
"	28.....	2	"	26.....	6
March	7.....	2	October	3.....	3
"	14.....	3	"	10.....	1
"	21.....	4	"	17.....	1
April	4.....	3	"	31.....	2
"	18.....	2	November	28.....	1
"	25.....	1	December	5.....	2
May	2.....	2	"	12.....	1
"	9.....	1	"	19.....	3
"	16.....	1	"	26.....	2
"	23.....	2			

ENTERIC FEVER.

	Notification.		Deaths.	
	1914.	1913.	1914.	1913.
January	9	3	3	1
February	5	7	1	1
March	10	1	2	...
April	7	6	1	1
May	4	8	1	...
June .....	...	8	...	2
July	3	4	1	1
August	3	3	...	...
September	12	7	2	...
October	5	18	3	1
November	1	12	...	2
December	8	20	2	3
	...	...	1 Transferable	
Total	67	97	17	13

INCIDENCE OF ENTERIC FEVER FOR NINETEEN YEARS.

Year.	Notified Cases.	Deaths from Enteric.	Enteric Fever Rate per 1,000.
1896	101	14	.23
1897	63	10	.16
1898	92	17	.27
1899	174	25	.40
1900	104	19	.29
1901	71	12	.19
1902	76	14	.22
1903	51	11	.17
1904	56	16	.24
1905	133	36	.40
1906	138	27	.30
1907	107	22	.24
1908	103	26	.28
1909	93	18	.19
1910	128	26	.27
1911	151	29	.32
1912	73	12	.13
1913	97	13	.14
1914	67	17	.18

AGE INCIDENCE.
YEARS.

1—4	5—9	10—14	15—19	20—24	25—29	30 and over
2	6	13	9	6	8	23

Total Cases, 67.

The age incidence shows the greatest number of cases has occurred in persons over 30 years, and the next larger in cases from 10-14.

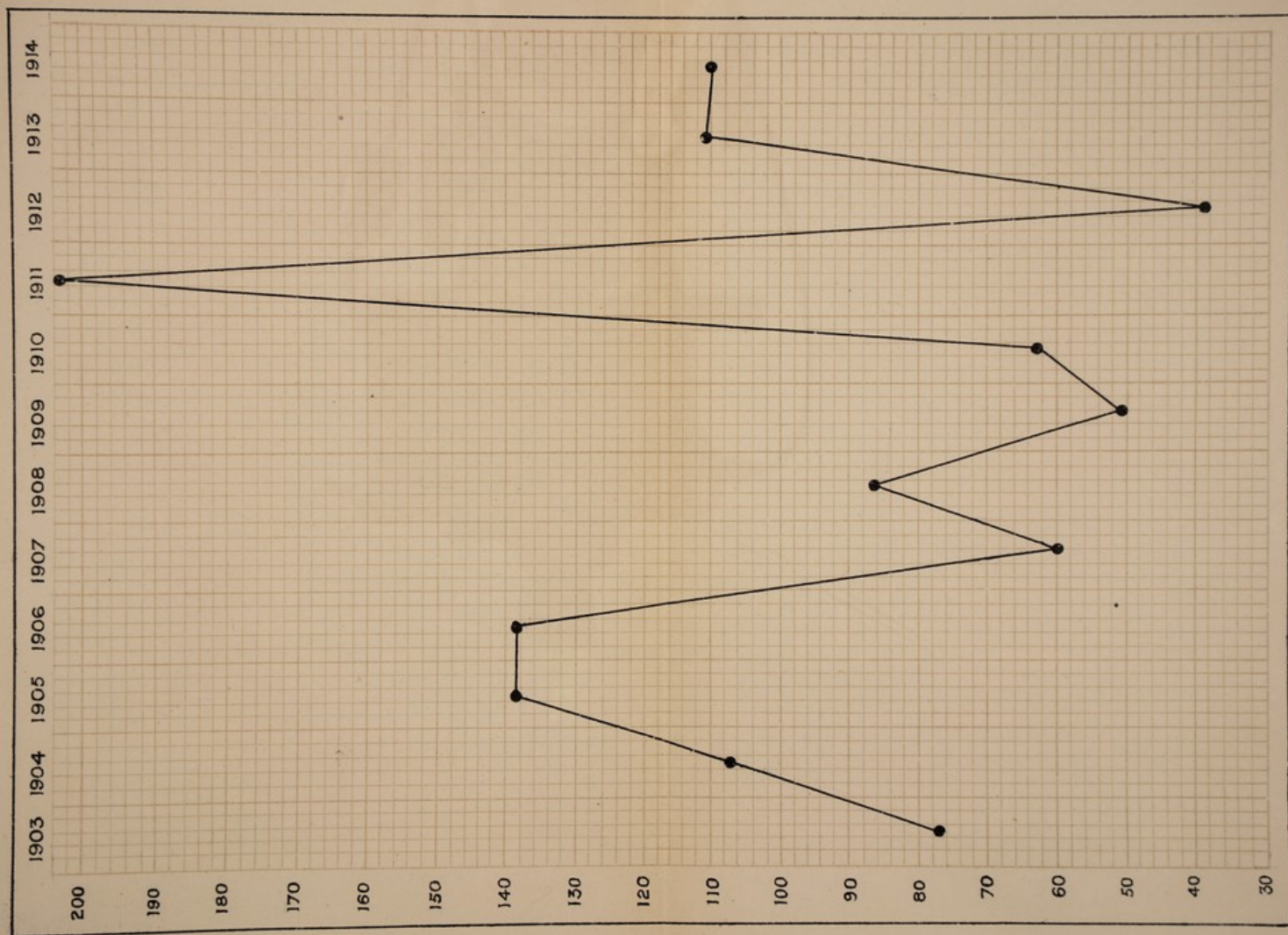
AGE INCIDENCE, 1914.

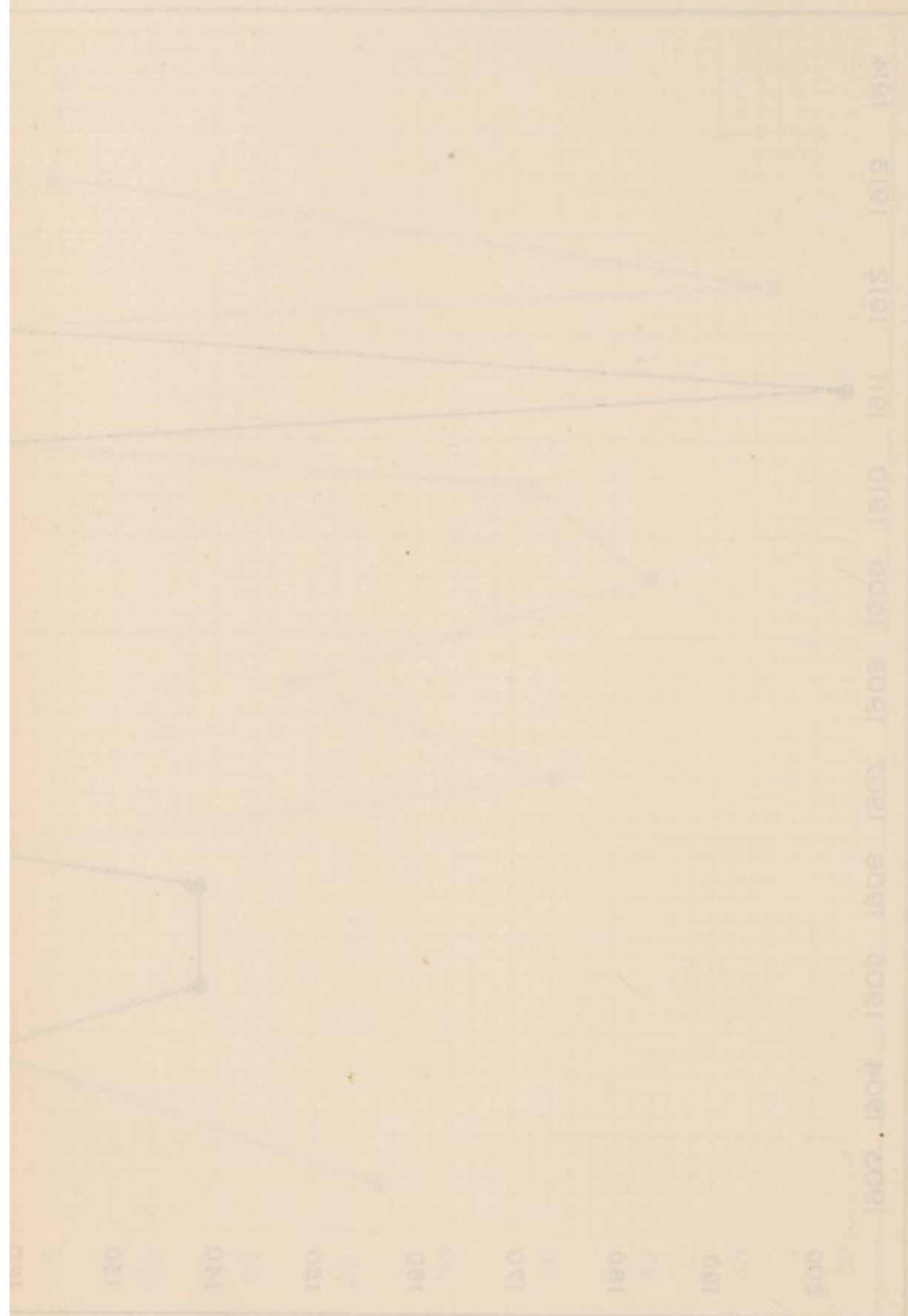
Month.	Deaths.	0-1 Year.	1-5 Years.	Over 5 Yrs.
January	1	...	...	1
February	3	2	1	...
March	1	1	...	...
April .....	...	...	...	...
May	2	1	1	...
June	2	1	1	...
July	18	13	4	1
August	25	19	4	2
September	47	27	20	...
October	9	6	3	...
November	2	...	2	...
December .....	...	...	...	...
Totals	110	70	36	4

In spite of the unfavourable climatic conditions, the number of deaths from this disease was practically the same as in the previous year. As has been pointed out in previous Annual Reports, the prevalence and deadliness of Diarrhœa form an accurate index of the sanitary conditions in various parts of the Borough. In spite of all our efforts for the enlightenment of mothers, and the introduction of improved methods of treatment, this disease will continue to exact its toll of deaths until the water-carriage system exists through the Borough, and the conditions under which ashes and refuse are stored are improved.

Diphtheria.

Number of Notifications.....	43
Number of Deaths, including Croup	6
Mortality per 1,000 of Population	·06





We have had an increase in the number of cases notified, namely, 43 against 34 in 1913, and the mortality is .06 per 1,000 of population, against .06 in 1913. The following table shows the number of cases notified, and the number of deaths :—

1914.	Notified.	Deaths.
January	3	...
February	4	1
March	8	1
April .....	...	...
May	8	1
June	3	1
July	4	...
August	4	...
September .....	...	...
October	1	...
November	5	1
December.....	3	1
Totals	43	6

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

Number of Swabs	29
No Diphtheria Bacilli present in	19
Diphtheria Bacilli present in	8
Mixed Growth	1
No Growth	1

DIPHTHERIA CASES, 1914.

Cases in houses—Sanitary Defects	1
„ „ No Defects	41
Cases in Public Institutions	1

Cerebro-Spinal Meningitis

Careful watch was made for the advent of this disease. A highly suspicious case was reported to me on December 16th. A young man, age 18, took ill on December 9th, and on being removed to the Infirmary, died within 12 hours of sickening.

Careful enquiries, and observations were made on receipt of the report, but no other sickness occurred in the family.

No other cases occurred during 1914.

Erysipelas.

Number of Cases Notified	...	...	...	...	82
„ Deaths...	...	...	...	...	3
Mortality per 1,000 of Population	...	...	...	...	·03

We have a larger number of notifications than in 1913, and we have 3 deaths.

Cases in houses with Insanitary Surroundings	...	6
„ Defects	...	1
„ No Defects	...	75

Puerperal Fever.

Number of Cases Notified	...	...	...	...	5
„ Deaths	...	...	...	...	3
Mortality per 1,000 of Population	...	...	...	...	·03

We have a decrease in the number of cases notified. None of the cases appear to have been communicated, and everything was done to prevent communication of the disease to others.

WHELLEY SANATORIUM.

The arrangements made in the Nursing Department have been satisfactory, and the accommodation sufficient.

STAFF IN 1914.

Master.	2 Ward Maids.
Housekeeper.	1 Housemaid-Waitress.
5 Nurses.	1 Kitchenmaid.
5 Probationers.	1 Scullery Maid.
1 Laundress.	1 Porter and Gardener.
2 Assistant Laundresses.	1 Assistant Gardener.

The Master (Mr. Michael Moore) died this March, after 40 years' faithful service. Under existing circumstances the appointment of a new Master is undesirable. The Housekeeper is acting as Matron-Housekeeper temporarily.

	Notifications.	Removed to Sanatorium.	Died in Sanatorium.
Small-pox .....	...	...	...
Typhus	1	1	1
Scarlet Fever	222	172 4*	1
Enteric	67	68 13*	12 2*
Diphtheria	43	2	1
Puerperal Fever	5	...	...
Cholera .....	...	...	...
Membranous Croup.....	...	...	...
Erysipelas.....	82	...	...
Ophthalmia Neonatorum.....	22	...	...
Acute Poliomyelitis .....	...	...	...
Cerebro-Spinal Meningitis	1	...	...
Pulmonary Tuberculosis	236	64	...
Other Tuberculosis	124	...	...
Others .....	...	...	...
Totals	803	307	15

*Cases from Outside Districts inclusive.

In the Whelley Sanatorium on December 31st, 1914, there were 30 patients, namely, Scarlet Fever 23, Enteric Fever 7.

Wigan Sanatorium.	Small-pox.	Scarlet.	Enteric.	Others.	Total.
In-patients, Jan. 1, 1914....	...	3	9	...	12
Admitted in 1914.....	...	172	68	3	243
Discharged „	151	58	1	210
Died „	1	12	2	15
In-patients, Jan. 1, 1915....	...	23	7	...	30

The number of deaths in the Whelley Sanatorium was 15; 1 died from Scarlet Fever, and 12 from Enteric, and 2 from other diseases, as against 1 death from Scarlet and 13 from Enteric Fever in 1913.

During the year there were 210 patients discharged, and 15 died (Whelley), and 46 patients discharged (Pemberton); making a total of 271.

**PEMBERTON HOSPITAL—Admission, Discharges,
&c., of Cases of Phthisis.**

In on January 1st, 1914.....	2
Admitted, 1914.....	46
Discharged, 1914.....	36
Died, 1914.....	—
In on January 1st, 1915.....	12

Of the 36 patients discharged from Pemberton Hospital during the year, 21 were males and 11 females; 27 were insured persons and 9 non-insured; 4 were children under 16 years. All were cases of Pulmonary Tuberculosis; 1 case was complicated with Tuberculosis of the knee joint.

The average length of stay of the patients was 54·7 days.

In the following table the progress of the 46 patients admitted to the institution is shown as ascertained to date (April, 1915):—

Disease. Quiescent. Arrested ? Working.	Improved. Not Working. Regularly.	Disease. Stationary.	Worse.	Dead.
10	15	7	4	10

These results must be considered very satisfactory, when it is remembered that the cases admitted to this institution are not usually suitable for treatment at a curative sanatorium.

During the year extensions and improvements were carried out, necessitating a restriction on the number of patients admitted. The accommodation has now been increased to 18 beds, and these are being kept full. It is also proposed to erect immediately two sleeping shelters to accommodate 4 more patients, bringing up the total number of beds to twenty-two.

The increased accommodation necessitated a more or less complete re-organisation of previously existing arrangements. The staff and general equipment were found to be inadequate. It was decided in December to appoint two nurses, and these have taken up their duties. Various other improvements have also been effected, or are in progress. The waste land in front of the building is being suitably dealt with.

It is hoped in the near future to enlarge the present lodge, so as to provide adequate accommodation for the staff. This at present consists of

Housekeeper.	1 Assistant Nurse.
2 Maids.	1 Porter-Gardener.
1 Laundress.	1 Assistant Gardener.
Charge Nurse.	

Of these, the housekeeper, her husband (the porter-gardener), and the two maids sleep in the lodge; the two nurses are provided with satisfactory accommodation in an approved dwelling-house, close to the Hospital; the laundress sleeps at her own house.

There is no doubt that the Hospital is serving a very useful purpose, viz., the instruction and improvement of moderately advanced and chronic cases. With suitable rest, open air, and good food the majority of the patients admitted improve considerably, gaining weight and strength. In the course of my duties as Tuberculosis Officer to the Lancashire County Council, as well as to the Corporation, I have observed a very large number of cases, and I am satisfied that the cases treated at Pemberton Hospital progress quite as favourably as similar cases elsewhere.

One of the principal objects of such institutions as this should be to provide a thorough and practical training in the essentials of home treatment, and this is being done. Patients are taught the use of the thermometer, and learn to record (under supervision) their own temperatures. They use paper handkerchiefs (cut in four) and paper bags for the disposal of their sputum, as is taught at the Dispensary.

In cases where the disease has been detected sufficiently early, or is of a fairly chronic type, the patients continue to improve at home in a large number of instances, after a short course of treatment in the Hospital.

It will be noted that no cases died in the institution. Hopeless cases were allowed to return shortly before the inevitable end. The problem of the advanced case will be dealt with in another part of this report.

At one time patients were treated with Tuberculin. More recently this has been discontinued, and the results of treatment appear to be just as favourable.

CONSTITUTIONAL DISEASES.

TUBERCULOUS DISEASES.

The number of deaths from Phthisis is 89, against 81 in 1913, and 98 in 1912. The number of deaths from other Tubercular affections is 30, against 59 in 1913, and 61 in 1912.

The rates are as follows :—

Phthisis Pulmonalis.....	·95 per 1,000 of population.
Other Tubercular Diseases	·32 ,,

If taken together as Tuberculous affections we have 119 deaths, or a rate of 1·27 per 1,000 of population.

PULMONARY PHTHISIS AND TUBERCULOUS DISEASES.

The deaths occurred in the following Wards :—

St. George Ward	6
Lindsay Ward	5
St. Catharine Ward	7
St. Patrick Ward	16
St. Thomas Ward	8
Poolstock Ward	4
Victoria Ward	5
St. Andrew Ward	14
Swinley Ward.....	7
All Saints' Ward	6
West Pemberton Ward.....	6
North Pemberton Ward	7
Central Pemberton Ward	8
South Pemberton Ward	7
<i>Transferable Deaths</i>	13

**DEATHS AND RATES FROM PHTHISIS FOR
PAST YEARS.**

Year.	No. of Deaths.	Rate per 1,000.
1896.....	66	1·09
1897.....	69	1·14
1898.....	59	·93
1899.....	59	·94
1900.....	69	1·09
1901.....	73	1·18
1902.....	53	·89
1903.....	74	1·1
1904.....	70	1·08
1905.....	92	1·04
1906.....	108	1·20
1907.....	84	·92
1908.....	75	·81
1909.....	68	·72
1910.....	66	·69
1911.....	68	·75
1912.....	98	1·07
1913.....	81	·88
1914.....	89	·95

The number of cases of Pulmonary Tuberculosis notified during the year is 212, which is equal to a rate of 2·28 per 1,000 of population as compared with a rate of 2·64 in England and Wales generally.

As the above table shows, the number of deaths while less than that of 1912 is in excess of the number in any year since 1906, but as pointed out in previous Annual Reports the increased attention given to this disease, and especially the fact that it is now notifiable, has led to its more frequent mention as the cause of death.

The following table shows the comparative figures for 1912, 1913 and 1914:—

	No. of Notifications.	Deaths.	Fatality-rate per cent.	Death-rate per 1,000,
1912	217	98	45·16	1·07
1913	207	81	39·13	·88
1914	212	89	41·98	·95

During the year all cases notified have been visited and instructed, and paper handkerchiefs and bags have been distributed. This work is now carried out through the staff of the Tuberculosis Dispensary.

Much attention has been paid to the various problems of Tuberculosis, and the efforts now being made through the Dispensary will doubtless bear fruit, but time and patience are necessary.

The number of notifications of Phthisis last year represents the number of cases diagnosed as such during the year. In 1912, and to a less extent in 1913, the cases notified under the Tuberculosis Regulations had in many instances been recognised as Phthisis for some time previously.

Apart from the desirability of earlier notification the outstanding problem in the Borough is that of the advanced cases.

It is well nigh useless to lessen the amount of Tuberculosis, so long as the advanced infectious cases are allowed to spread the disease broadcast.

It is to be hoped that provision will be made for the isolation of such cases in the Borough at an early date.

Full information as to the work of the Dispensary—the centre of the anti-Tuberculosis campaign—will be found in my report as Tuberculosis Officer.

The attention of the Health Committee has been drawn to the serious menace to the public health that results from the practice of indiscriminate spitting, owing to the fact that the spread of Consumption, and other diseases, is thereby facilitated.

The Council has accordingly invited the Local Government Board to sanction a bye-law prohibiting spitting in public carriages, halls, waiting rooms, or places of public entertainment. By this means it is hoped still further to limit this objectionable practice, which is already prohibited on the Corporation tram cars.

COUNTY BOROUGH OF WIGAN.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1911 & 1912.

SUMMARY OF NOTIFICATIONS DURING 1914.

Age Periods.	Number of Notifications on Form A.												Total Notifications (i.e. including cases previously notified by other doctors)	Number of Notifications on Form B.				Number of Notifications on Form C.	
	Primary Notifications.													Primary Notifications.		Total Notifications (i.e. including cases previously notified by other doctors)			
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 & up- wds.	Tot.		un- der 5	5 to 10		10 to 15		Tot.
Pul. Males	0	4	10	9	6	14	26	29	15	7	1	121	128	0	9	4	13	22	14
„ Females .	0	1	9	8	18	15	22	8	7	2	1	91	96	0	6	5	11	3	6
Non-pul. Males	3	19	18	11	6	0	1	0	3	0	0	62	62	0	1	2	3	0	0
„ Females	0	3	15	12	9	5	5	5	0	0	0	57	57	0	0	6	6	0	0

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(Signature) GEORGE JESSEL, M.A., M.B.,

ACTING MEDICAL OFFICER OF HEALTH.

February 17th, 1914.

Rheumatism.

Rheumatism caused 6 deaths, against 4 deaths in 1913, and 7 in 1914.

Diseases of Respiratory Organs.

Respiratory Diseases, such as Pneumonia (all forms), Bronchitis and other diseases, caused 384 deaths, against 427 in 1913. Pneumonia caused 206 against 212; and Bronchitis and other diseases caused 178 against 215.

Inquests and Uncertificated Deaths.

The number of Inquests for 1914 is 156, against 127 for 1913, and 136 for 1912, and the following verdicts have been recorded:—

1. Natural Causes	58
2. Accidents—burnt	9
„ scalded	5
„ colliery	22
„ vehicle or car	4
„ drowned.....	11
„ falls	6
„ railway.....	3
„ mill	1
„ fall downstairs	4
„ others	16
3. Suicides—drowned	2
„ poison	5
„ gas	2
„ hanging	2
„ others	2
4. Others	4
	<hr/>
	156
	<hr/>

We have no uncertified death in 1914, against 1 in 1913, and none in 1912.

REPORT of the TUBERCULOSIS OFFICER.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I have pleasure in presenting my Annual Report dealing with the work done, for the Corporation, at the Joint Tuberculosis Dispensary during the past year. In my last report, I sketched briefly the general principles on which the work was being started. I am now able to point to some measure of achievement. Progress must of necessity be slow, as there are so many underlying factors, which promote the occurrence and spread of Tuberculosis. Amongst others may be mentioned insanitary houses, defective working conditions, insufficient or improper food and intemperance. All these need to be dealt with as far as possible at one and the same time if real progress is to be made. The detection and treatment of the disease must be accompanied by a constant effort to grapple with the predisposing causes.

GENERAL CONSIDERATIONS.

The Wigan Tuberculosis Dispensary was established jointly by the Borough of Wigan and Lancashire County Council. Considered as a complete unit, it not only serves the Borough of Wigan but is also an important administrative centre for the Boroughs of Leigh and Chorley, and the townships adjacent thereto. The total staff consists of myself, one whole time and one part time assistant, five nurses, two clerks, and an attendant who cleans the premises.

By the terms of my appointment, I devote two-fifths of my time to the service of the Corporation. For Borough purposes I have the assistance of the Assistant School Medical Officer (Dr. Alice Stalker) as Assistant Tuberculosis Officer, and a whole time nurse while one of the clerks and the attendant are paid jointly by the Corporation and the County Council.

The Dispensary is open for Borough patients on Tuesdays and Fridays. I am in attendance on both days, and Dr. Stalker attends on Friday mornings.

One of the most gratifying features of the year's working has been the active support and harmonious co-operation of the local medical practitioners. They have throughout taken much interest in the efforts of the Dispensary, realising that it is in no sense in competition with them, but on the contrary a place to which they may turn for assistance.

The examination of each patient is treated as a consultation, and in order to avoid unnecessary waiting and delay, patients are seen as far as possible by appointment. The attendance of the doctor is invited, and if unable to be present he receives forthwith a letter giving particulars as to diagnosis and treatment advised.

The work of the Dispensary is concerned with the uninsured as well as the insured population. Insured Consumptives receive Sanatorium Benefit under the provisions of the National Insurance Act.

SANATORIUM BENEFIT.

Very few insured patients make application for Sanatorium Benefit on their own accord. These cases that have been notified to the Medical Officer of Health as suffering from Tuberculosis are visited by the Dispensary Nurse, who assists them to fill up the necessary application form. Others are found to be suffering from Tuberculosis when referred to the Dispensary by the panel doctors for diagnosis, or when examined as "contacts."

The following tabular statement shows the recommendations as to treatment made with regard to applications for Sanatorium Benefit last year :—

APPLICATIONS FOR SANATORIUM BENEFIT, 1914, WITH TUBERCULOSIS OFFICER'S RECOMMENDATIONS.

	Males.	Females.	Total.
Number of Applicants	58	28	86
Bowdon Sanatorium.....	13	11	24
Pemberton Hospital	29	9	38
Special Nourishment	18	7	25
Domiciliary Treatment only	10	4	14
Died before Examination	3	1	4
Not Phthisis	2	3	5
Declined Treatment	1	...	1

The Corporation has provided three beds at Bowdon Sanatorium and eight beds at Pemberton Hospital for insured persons. In the following table is shown the number of insured persons actually treated in these institutions during 1914 :—

	Males.	Females.	Total.
Bowdon Sanatorium.....	11	5	16
Pemberton Hospital	23	11	34

The number admitted to Pemberton Hospital would have been much greater but for the building operations, which necessitated the closing of the institution for several weeks.

Patients recommended for treatment at Bowdon Sanatorium are also eligible for treatment at Pemberton Hospital while waiting for a vacancy to occur. Those recommended for treatment at Pemberton Hospital are not suitable for treatment at Bowdon.

Special Nourishment is not recommended by itself, but as an adjunct to other forms of treatment.

DOMICILIARY TREATMENT.

Fourteen cases were recommended for domiciliary treatment only, being cases unsuitable for institutional treatment.

All cases perforce receive domiciliary treatment during the greater part of their illness. The panel doctor is immediately responsible for this, and may prescribe such drugs on the tariff as he thinks fit. By the terms of the Local Government Board's Order of July, 1912, the Tuberculosis Officer is entrusted with the general supervision of these cases. The Dispensary Nurse accordingly visits all cases at least once a month, and frequently oftener, in order to assist the panel doctor and to instruct the patient in the proper carrying out of the treatment. Reports on the prescribed form are also asked for and received by me from the panel doctors with regard to each patient at intervals not exceeding two months. There is thus an exchange of views from time to time, and I am kept in constant touch with each patient's progress and changing needs,

DISPENSARY SUPERVISION.

Though no specific recommendations were made under this heading, as a matter of fact all cases receive this. It is the outstanding feature of the work done at the Wigan Dispensary.

It will be noted that in 1914, 14 patients were recommended for domiciliary treatment only. These were persons confined to bed with no hope of recovery. All cases not prevented by their physical condition are expected to attend at the Dispensary not only at the first examination, but from time to time subsequently. They receive written notice to attend for re-examination as a rule about every six weeks. This, however, is not all. They are encouraged to attend every fortnight in order that their weight may be recorded on a card which they keep in a special envelope. Along with the weight card is another on which they record their temperatures, night and morning. Thermometers are supplied free of charge, and they are taught to use them by the Dispensary Nurse. She supervises the records at each visit to the Dispensary as well as at her visits to the patients' homes. The result of this experiment has so far been encouraging. A large number of patients are now keeping temperature records with a fair degree of accuracy, and in any case the disciplinary effect is good.

At each visit to the Dispensary patients are given a supply of sputum papers and paper bags for the soiled papers.

Thus every effort is made to assist and encourage the patients in the faithful carrying out of the routine details of home treatment. It is now recognised that a patient of average intelligence in an average working-class home may improve considerably under proper domiciliary treatment, especially if a short preliminary period of education is received at a sanatorium. The failure of domiciliary treatment in the past has been due in many instances to a want of proper appreciation on the part of all concerned as to its aims and scope.

TUBERCULIN.

This has been seldom used, as the advantages do not appear at all commensurate with the risks, when given to patients not resident in institutions. So-called suitable cases appear to progress as favourably under ordinary hygienic treatment.

In the following table will be found statistics with regard to the Dispensary Attendances of Insured Persons :—

DISPENSARY ATTENDANCES, 1914—INSURED PATIENTS ONLY.

New cases examined	121
Applicants for Sanatorium Benefit.....	80
Patients examined on Discharge from a Sanatorium.....	38
Patients receiving Tuberculin	2
Patients attending during Domiciliary Treatment, <i>i.e.</i> , Dispensary Supervision	103
Total Attendance of Patients	540

UNINSURED PERSONS.

The same facilities are provided for uninsured persons as for the insured. The Corporation has one bed at Bowdon Sanatorium and ten beds at Pemberton Hospital.

The following table gives some particulars with regard to recommendations and admissions during 1914 :—

INSTITUTIONAL TREATMENT, 1914—UNINSURED PERSONS ONLY.

	Persons recommended in 1914.	Admitted during 1914.
Bowdon Sanatorium	3	2
Pemberton Hospital	25	12

Patients receiving treatment at home, come under the following heads :—

- i. Private patients of doctors.
- ii. Poor Law cases.
- iii. Persons attending out-patient department of
Royal Albert Edward Infirmary.

There are at present ample facilities for the supply of drugs outside the Dispensary. The efforts of the latter are thus mainly in the direction of supervision and education. Thermometers, recording cards, sputum papers and bags are provided, as in the case of insured persons.

Particulars as to the Attendance at the Dispensary of Uninsured Persons will be found in the following table:—

DISPENSARY ATTENDANCES, 1914—UNINSURED PERSONS ONLY.

New cases examined	61
Examined on Discharge from a Sanatorium	7
Patients attending during Domiciliary Treatment, <i>i.e.</i> , Dispensary Supervision	75
Total Attendances of Patients	148

Having now given general particulars as to the efforts of the Dispensary for insured and uninsured persons, I now proceed to give further information upon various branches of the work.

DIAGNOSIS.

One hundred and thirty-nine cases were referred to me by doctors in the Borough last year. Of these, 91 were found to be suffering from Tuberculosis, and arrangements were made for their treatment; 48 were found to be suffering from other diseases and were referred back, or to other institutions.

Doctors are encouraged to communicate with the Dispensary in doubtful cases, and are asked to send a letter of card with the patients they send. Sterilised vials are available for the collection of samples of sputum, and I am hopeful that this branch of the work will increase as the facilities become more widely known.

In the following table will be found particulars of Sputum Examinations in doubtful cases:—

SPUTUM EXAMINATIONS, 1914.

Positive	36
Negative	101
Total	<u>137</u>

EXAMINATION OF "CONTACTS."

During the past year 274 "contacts" were examined. Child "contacts" are examined systematically by the Assistant Tuberculosis Officer, who is also Assistant School Medical Officer, and no difficulty is experienced in getting them to attend the Dispensary.

The case is otherwise with adults. Many profess that they cannot find time ; others consider examination unnecessary or are unwilling to be examined for fear lest they maybe found to be suffering from the disease.

In the following table particulars as to the Examination of " Contacts " :—

TABLE SHOWING PARTICULARS AS TO EXAMINATION OF
" CONTACTS," 1914.

Year, 1914.		Children under 12.	Adults.	Total.
Number	Examined	237	37	274
"	found Tuberculous	21	6	27
"	not Tuberculous	212	30	242
"	of " Suspects "	4	1	5

AFTER-CARE.

The importance of after care is fully realised in Wigan, in fact the Borough may fairly claim to be ahead of most towns in this respect. A Care Committee was formed in February last. At a preliminary public meeting held in the Old Council Chamber, under the chairmanship of the Mayor (Alderman J. T. Grimshaw), the objects of the committee were fully explained to a large audience representative of all the public interests in the town. The committee formed is such as to command the confidence of all political and religious bodies, and is concerned with the uninsured as well as the insured.

Substantial grants of money have been made to the committee by the responsible trustees of certain public charities. In addition, numerous gifts of money, clothing, etc., have been received from individuals. The committee meets monthly, when as general administrator and adviser I bring forward cases which appear to me to require assistance. The assistance consists usually of milk and clothing ; occasionally eggs or groceries are also provided. Special efforts have been directed towards cases sleeping with another and

too poor to afford the purchase of a separate bed. Nine bedsteads with bedding have been purchased by the Care Committee and are lent to suitable cases. After use they are disinfected before being used again.

Cases fit for work are referred to the Labour Exchange for suitable employment.

The following table gives some particulars as to the work of the committee from its formation to the end of the year :—

CARE COMMITTEE, 1914.

Cases Referred to the Committee	50
Persons granted milk	42
„ clothing	40
„ loan of bedstead (and bedding).....	16
„ bedding only	12
„ cream or eggs	11
Bedsteads in use	9

In addition to the above, certain members of the committee have undertaken regularly to visit the homes of one or more patients.

THE WORK OF THE TUBERCULOSIS NURSE.

The Nurse has done much good work during the year. In addition to attendance at the Dispensary on two days a week she has been responsible for all persons known to be suffering from Tuberculosis. It has also been necessary for her to attend at Pemberton Hospital for a short period each day, but with the appointment of two special nurses for that institution she will have more time for visiting patients. The Nurse visits all cases notified under the Tuberculosis Regulations, 1912. It is her duty not merely to collect information but especially to give advice and, if required, active assistance in improving the home conditions. At her first visit particulars are obtained and sanitary defects noted.

Insured persons are assisted in filling up the forms of application for Sanatorium Benefit. The names of uninsured persons, if apparently suitable for institutional treatment, are specially brought to my notice in order that I may communicate with the practitioner in attendance.

Special efforts are made to enable patients suffering from Consumption to sleep in a separate bed and bedroom ; this is impossible in many cases without overcrowding other rooms. In some instances by a re-arrangement of occupants it is possible to make satisfactory provision. For example, a more or less disused front parlour may be cleared of its contents, or certain members of the family may sleep at a relative's house. In very bad cases the loan of a separate bed and bedding is obtained from the Care Committee.

The following table is instructive as contrasting with the conditions existing at Nurse's last visit in 1914 with those found at her first visit to the same case :—

TABLE SHOWING EFFECT OF NURSE'S VISITS TO PHTHISIS CASES.

Conditions as found on first visit.		Conditions as found on last visit in 1914.
94	Cases had separate bed and room	107
4	" " 1 other in room....	2
10	" " 2 others in room...	1
2	" " 3 " " ...	—
110	Total	110

Conditions as found on first visit.		Conditions as found on last visit in 1914.
89	Cases had no separate bed, with	
	1 other sleeping in same bed.....	2
18	" 2 others sleeping in same bed.....	—
22	" 3 others sleeping in same bed.....	—
7	" 4 others sleeping in same bed.....	—
1	" 5 others sleeping in same bed.....	—
—	Separate bed, but not separate room.....	135
137	Total	137

In suitable cases patients are taught to record their temperatures ; cards and thermometers being provided from the Dispensary. Each case is periodically re-visited according to the needs of the patient, but at least once a month,

The following table summarises the Nurse's visits :—

VISITS OF BOROUGH NURSE, 1914.

New cases visited	247
Total number of Cases Visited	396
„ Visits Paid	2,108

The cases under supervision on December 31st, 1914, may be classified as follows :—

CASES UNDER OBSERVATION, DECEMBER 31ST, 1914.

	Males.	Females.	Total.
Pulmonary	126	130	256
Non-Pulmonary.....	80	60	140
Total	206	190	396

INFORMATION AND EDUCATION.

It was laid down in the report of the Inter-Departmental Committee that the Dispensary should serve as an educational centre.

Every person notified as suffering from Tuberculosis receives from the Nurse at her first visit a brief dogmatic leaflet giving suitable information.

There is an excellent set of lantern slides at the Dispensary, and during the past year I have given over a dozen lectures and addresses in and around Wigan on the " Prevention of Consumption " to large and appreciative audiences.

As an appendix will be found a summary of the most important figures given above, together with particulars of the record card and leaflet given to patients.

In conclusion, I wish to thank the Committee for their constant encouragement and for their generous provision for the efficient carrying on of the work of the Dispensary.

My best thanks are due to the Medical Officer of Health (Dr. Wynne), and to the Town Clerk for much valued advice.

I wish also to express my appreciation of the valuable help I have received from Dr. Stalker (as Assistant Tuberculosis Officer), Nurse Foster, and the other members of the staff.

I am,
Mr. Chairman and Gentlemen,
Your obedient Servant,

GEORGE JESSEL,
M.A., M.B., B.Ch. (Oxon),
D.P.H. (Vict.),
Tuberculosis Officer.

TUBERCULOSIS DISPENSARY,
RODNEY STREET, WIGAN,
30th January, 1915.

Appendix referred to above:—

WIGAN TUBERCULOSIS DISPENSARY, 1914.

	Insured.	Uninsured.	Total.
1. Dispensary Attendances—			
New cases.....	121	61	182
Patients examined on discharge from sanatorium	38	7	45
Patients attending during domiciliary treatment for dispensary supervision	103	75	178
Number of attendances of patients.....	540	148	688
" " " contacts " .	...	...	274
Total attendances .....	...	...	962
2. Tuberculosis Officer's Visits	6	2	8
3. Number of Doctors' Requests .....	...	...	139
4. Committee Meetings Attended .....	...	...	33
5. Lectures and Addresses in the Borough.....	...	...	5
6. Sputum Examinations .....	...	...	137
7. Total Number of Nurse's Visits .....	...	...	2,108

ADVICE TO CONSUMPTIVES.

(A.) TO ASSIST YOUR OWN CURE.

- 1.—BE PATIENT and obey your Doctor's instructions. Consumption is a slow disease, and takes time to cure.
- 2.—Let FRESH AIR be your watchword. Keep the windows and doors of your living and sleeping rooms widely opened. Do not sit close to the fire; if you feel the cold, put on extra clothing.
- 3.—DUSTY ROOMS are always harmful. Remove useless articles of furniture, curtains, ornaments, &c. A *Damp Cloth* should be used for cleansing, instead of the ordinary broom and duster.
- 4.—PLENTY OF NOURISHING AND EASILY DIGESTED FOOD is necessary. MILK is especially valuable, and three pints of milk should be taken daily, together with plenty of butter, margarine, dripping, &c.
- 5.—REST for at least three-quarters of an hour before and after meals.
- 6.—LEARN TO TAKE YOUR OWN TEMPERATURE night and morning, and notice whether you get at all feverish. Whenever your temperature is over 99° stay quietly in bed until it is normal again.

(B.) TO AVOID GIVING THE DISEASE TO OTHERS.

- 1.—The SPUTUM or "SPIT" is especially dangerous as it often contains the living germ of the disease. BE CAREFUL not to spit just anywhere. Spit only into pieces of newspaper or paper handkerchiefs, and burn these as soon as convenient.
- 2.—KISSING should be avoided. Use your own plate, cup, &c. These articles should be boiled before being washed with the household crockery, or else washed separately.
- 3.—SLEEP in a SEPARATE BED in a room by yourself. The disease may be conveyed to a healthy person through sleeping with a consumptive, *e.g.*, a wife sleeping with a consumptive husband.

GEORGE JESSEL,

County and Borough Tuberculosis Officer.

TUBERCULOSIS DISPENSARY,
WIGAN, January, 1914.

COUNTY BOROUGH OF WICAN.

NAME..... Age.....
 ADDRESS
 Change (if any)
 Occupation M.S.W.Ch.
 Employer
 Approved Society
 Places of Residence (last 5 years).....

 Work Places (last 5 years).....

 Wages..... Work Regular.....
 Family History

HOME CONDITIONS.

No. of Rooms..... Windows Open, Shut.....
 No. of Adults..... No. of Children
 Separate Bedroom..... Separate Bed
 Sanitation Cleanliness
 Total Income (including Sickness Benefit).....
 Remarks

TUBERCULOSIS CASE RECORD. No.

Likely Sources of Infection.....

 HABITS.
 Food..... Alcohol
 Spitting
 Additional Information

 Visited by H.V.

 Removed to other District.....

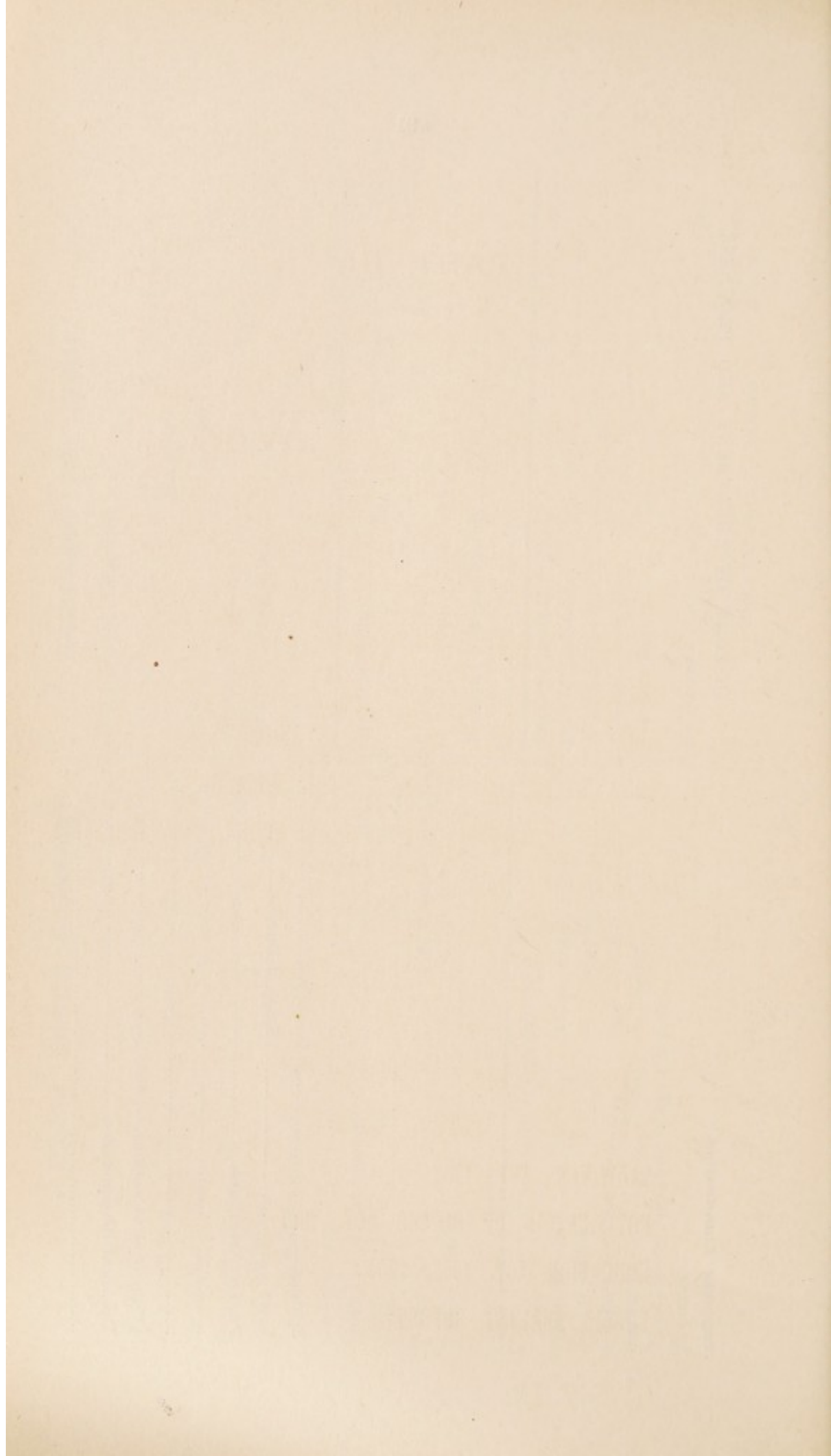
 Removal Notified to.....
 Date of Notification.....Dr.....
 Examined by T.M.O.....
 Duration of Illness.....
 Previous History

 Symptoms— Loss of Appetite Loss of Flesh
 Cough Feverish
 Expectoration Haemorrhage
 Night Sweats Debility
 Anæmia

HISTORY OF TREATMENT AND PROGRESS.

Physical Examination.

Sputum.....	Complications
Urine.....	Stage of Disease.....
Previous Treatment.....	
.....	
.....	
Prognosis as to working capacity.....	
Treatment Recommended	
.....	
	<i>Tuberculosis Officer.</i>



PART III.**General Sanitary Work.**

FACTORY AND WORKSHOP ACT, 1901

SHOP HOURS ACT, 1892 TO 1905

SHOPS ACT, 1912

SHOP HOURS ACT, 1904, CLOSING ORDER

MEAT INSPECTION AND SLAUGHTER HOUSES

DAIRIES, COWSHEDS & MILKSHOPS ORDER, 1885 & 1886

RAINFALL

BLACK SMOKE NUISANCE

PROPERTY UNFIT FOR HUMAN HABITATION

UNPAVED YARDS AND PASSAGES

BOROUGH SURVEYOR'S DEPARTMENT

LADY HEALTH VISITORS' REPORT

MIDWIVES' ACT, 1902

NOTIFICATION OF BIRTHS ACT, 1907

EDUCATION ACT, 1902, 1904

PUBLIC ANALYST REPORT

FACTORY AND WORKSHOP ACT, 1901

The workshops have been regularly and systematically visited by your Inspectors ; and also the factories, on receipt of report from H.M. Inspectors. The bakehouses have been regularly visited and any nuisances arising have been promptly dealt with. The regulations as to limewashing, cleanliness, &c., have been enforced. The underground bakehouses have been kept in a sanitary condition.

I.—INSPECTION.

Premises.	No. of Inspections.	No. of written Notices.
Factories (including Factory Laundries)	93	15
Workshops (including Workshop Laundries)	562	27
Workplaces .....	...	...
TOTAL	655	42

2.—DEFECTS FOUND.

Particulars.	No. of defects found.	No. of defects remedied.
<i>Nuisances under Public Health Acts :—</i>		
Want of Cleanliness	8	8
Want of Ventilation	4	4
Overcrowding .....	...	...
Want of Drainage of Floors.....	1	1
Other Nuisances	7	6
Sanitary } insufficient	2	2
Accommo- } unsuitable or defective	26	19
dation } not separate for sexes	3	2
<i>Offences under the Factory and Workshop Act :—</i>		
Illegal occupation of underground bakehouse	1	1
Breach of special sanitary requirements for bakehouses	69	66
Other offences	6	5
TOTAL	127	114

3.—HOME WORK.

	OUTWORKERS' LISTS, SECTION 107.						
Nature of Work.	Lists received from Employers.						Notices served on occupiers as to keeping or sending lists. (8)
	Sending twice in the year.			Sending once in the year.			
	Outworkers.			Outworkers.			
	Lists. (2)	Con-tractors (3)	Work-men (4)	Lists. (5)	Con-tractors (6)	Work-men (7)	
WEARING APPAREL							
(1) Making, &c.	52	10	147	4	6	5	25
(2) Cleaning, &c. ....	...	...	...	...	...	...	...

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.	Number.
Workshops.....	379
Bakehouses	137
Domestic Workshops (not Outworkers)	21
Total Number of Workshops on Register	537

5.—OTHER MATTERS.

Class.	Number.
<i>Matters Notified to H.M. Inspector of Factories :—</i>	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)...	14
Notified by H.M. Inspector	26
Report (of action taken) sent to H.M. Inspector	55
Other	1
<i>Underground Bakehouses (s. 101) :—</i>	
Certificates granted during the year.....	...
In use at the end of the year	6

TRADES FOR WHICH REGISTERED WORKSHOPS ARE
USED.

Dressmaking	56	Coopers	3
Boot Repairing	44	Joiners	5
Clogging.....	37	Cycle Repairer.....	5
Tailoring	46	Tripe Dresser	2
Millinery	44	Marine Store Dealers	5
Clothing	28	Coffin Maker	2
Saddlers	7	Soap Boilers.....	1
Jewellers	6	Ginger Beer Works.....	2
Plumbers	13	Clay Pipe Maker	1
Painters	11	Hard Confectionery	2
Shoeing Smiths	7	Mantle Making	3
General Smiths.....	3	Bottler	3
Wheelwrights	6	Rope Walker	1
Cabinet Makers	5	Coach Builders	2
Ice Cream Makers	2	Tin-plate Workers	5
Scale Repairers	2	Tarpaulin Sheet	
Laundries	2	Manufacturers	1
Knitting	4	Carvers	1
Picture Framers	4	Enamelling	1
Wreathes	2	Watch Repairers	2
Electrical Works	1	Piano Repairer	1
		Upholsterer	1
			—
		Total	379
			—

NUMBER OF WORKSHOPS ON REGISTER.

1914	1913	Decrease.
<u>379</u>	<u>405</u>	26

NUMBER OF DOMESTIC WORKSHOPS ON REGISTER.

1914	1913	Decrease.
<u>21</u>	<u>32</u>	11

FACTORY AND WORKSHOP ACT, 1901.

Notices received from H.M. Inspector.....	26
Section 5—Sanitary defects	23
Complied with	12
In hand	11
Section 14—Means of escape in case of fire	3
Complied with	3

NUMBER OF BAKEHOUSES ON REGISTER.

1914	1913	Decrease.
137	145	8

Nine are certified underground bakehouses, and are as follows :

22, Earl Street.	36, Wigan Lane.
32, Market Street.	108, Wallgate (<i>not in use</i>).
58, Market Street.	12, Wallgate (<i>not in use</i>).
10, Standishgate.	Woodcock Street (<i>not being</i>
34, Wigan Lane.	used as bakehouse).

OUTWORKERS' LISTS (SECTION 107).

No. of Visits to Outworkers' Premises	59
„ Nuisances arising	0

SHOP HOURS ACT, 1892-1905

SHOP ACT, 1912.

The work done under this Act is given fully in the Chief Sanitary Inspector's report. The infringements were complied with upon warning from the Inspectors.

INFRINGEMENTS.

Want of Abstract	3
„ Notice	140
„ Form	27
	<hr/>
	170
	<hr/>

No. of Observations (day)	1039
„ „ (night)	16

SHOP HOURS' ACT, 1904 (CLOSING ORDER).

(HAIRDRESSERS AND BARBERS.)

The work done under this Order is given in your Inspector's report.

No. of Infringements	18
„ Visits (day)	656
„ „ (night)	580
„ Letters sent out	4

SLAUGHTER-HOUSES & MEAT INSPECTION

There are 26 registered slaughter-houses in the Borough, all of which are registered under the 'Towns' Improvement Clauses Act. With very few exceptions these slaughter-houses are unsatisfactory, and in default under the Bye-laws. They are generally in close proximity to dwellings, but unfortunately cannot be closed on this account. Many of them are ill-paved, improperly drained, and insufficiently lit. The middens in connection with the slaughter-house constitute a serious nuisance, and as breeding-places for flies constitute a real danger to health.

It is the intention of the Health Committee to enforce more strictly the provisions of the Public Health Acts, and the Local Bye-laws, that deal with the removal of manure, as it is obvious that these breeding-places for flies cannot be allowed to remain unchecked.

Attention is also about to be paid to the destruction of the flies, both as regards adult and immature forms, in such manure as is sent to the Miry Lane Depot. The method it is hoped to adopt is by the use of Borax, as described in a recent bulletin of the United States Board of Agriculture. If the results prove successful, the general adoption of this method in the Borough will be recommended.

The fact that the work of slaughtering is distributed among 26 slaughter-houses in different parts of the Borough renders the work of meat inspection difficult. It is to be hoped that in the near future the provision of the Municipal Abattoir already decided upon by the Council may be accomplished. At present, however, no definite steps have been taken for various reasons, but a Sub-Committee has lately been appointed to endeavour to find a suitable site.

Cases of Tubercular or other disease in meat are reported to the Health Department by the butchers, and are then examined by an Inspector, who refers doubtful cases to your Medical Officer. This dependance on the butchers and their assistants is obviously unsatisfactory for many reasons, but has been necessary for years owing to the staff of the Inspectors being insufficient.

Independently, the slaughter-houses are regularly visited by the Inspectors, but it is uncommon for cases of diseased or otherwise unwholesome meat, which had not previously been reported, to be discovered by them.

The Council has now decided to appoint a whole-time Veterinary Surgeon to be responsible for the meat inspection of the Borough as well as the other veterinary work of the Corporation. It is intended for patriotic reasons to defer making this appointment until the conclusion of the war.

Particulars of meat and other foodstuffs surrendered and destroyed will be found in your Chief Sanitary Inspector's report.

FOOD POISONING.

An outbreak of illness resembling food poisoning, limited to five persons partaking of a common meal in the same house, occurred on November 11th. Four were adults and one a girl of thirteen. They all began to feel ill soon after the meal, and suffered from abdominal pain, vomiting, purging, and collapse in various degrees. One man especially was very ill. The only article of food eaten by all the persons, which appeared likely to have caused the illness, was a certain portion of tinned tongue. This was purchased from a shop in the Borough. A new tin was said to have been opened by the assistant, and the top jelly cut off before the portion of tongue was served. Another customer, and assistants in the shop, who partook of other portions of the same tongue, were not affected.

Portions of the tongue obtained from the house where the illness occurred, and of one patient's vomit, were sent to the Bacteriological Laboratories, Liverpool University.

A full report was received from Professor Beattie.

No bacteria were found in the portion of tongue sent. A bacillus was isolated in pure culture from the vomit, but when tested against the blood of the patient gave no re-action. Professor Beattie's conclusion was that the tongue was not the cause of the food poisoning.

It is, however, quite possible that although the top jelly was said to have been removed from the tongue, some portion may have been included with the portion sold, giving rise to the symptoms of poisoning. The superficial jelly of tinned meats has been proved on many occasions to have been the cause of similar attacks of illness.

DAIRIES, COWSHEDS & MILKSHOPS ORDER 1885 and 1886

The milk supply continues to be satisfactory on the whole. The improved condition of the cowsheds has already been referred to in Part I. of this report. There remains now only three or four which require structural alterations. Unfortunately full advantage is not always taken of these improvements by the tenants, and in many cases the condition of the cows leaves much to be desired ; while the precautions taken by milkers and others handling the milk are insufficient.

The following is the report of Mr. Woods, your Veterinary Inspector :—

GENTLEMEN,

In my report for the year 1913, I gave some account of the working of the Tuberculosis Order for 1913, and pointed out wherein it was not so successful as could be wished. Upon the outbreak of the War in August, the Tuberculosis Order was suspended, and is not yet re-enacted, though it is expected to be in operation again at the end of this year. It is to be hoped that before it is made an Order, the opportunity will be taken to consult those who have had practical experience of its working with the view of making it more satisfactory.

The Order has two apparent objects :—1st : To encourage farmers to clear out the dangerous animals from their dairy stock by means of notification, slaughter, and compensation, and thus to reduce Tuberculosis amongst cattle in the country. 2nd : To protect the public from the dangers attached to the consumption of tuberculous milk.

The Government estimated the compensation payable by them at £60,000, being one-half of the amount estimated as being required for compensation; the other half being payable by the Local Authorities.

About 500 animals per month were slaughtered under the Act, and yet the total compensation actually paid by the Government was little over £5,000.

The farmers contended that although they were put to considerable inconvenience and had themselves to pay the expense of disinfection, yet they received a less amount under the Act than they could have obtained without it, and in numerous cases the salvage actually came to more than the compensation.

At a meeting of the President of the Board of Agriculture and the Farmers' Associations, the former admitted the imperfections of the Act, and promised to amend it. He did so to the extent of abolishing what was known as the double valuation, and he also altered the words "Tuberculosis with emaciation" to "emaciation due to Tuberculosis." The former I do not think will be of any advantage to the farmer, the latter is merely an improvement from an administrative point of view.

I have had 5 cases in the Borough during the months when the Order was in operation, and in no single one would the owner consent to his case being dealt with under the Act. He preferred to deal with it himself. The same occurred in the county district, of which I am also Inspector. If the Government can be prevailed upon so to alter the Act as to make the compensation come up to their estimate, I feel confident that the goodwill of owners of cattle will be secured, and thus a long step be taken towards the eradication of Tuberculosis from the byres.

The routine inspections of the cowsheds and cattle have gone on as usual; and the Medical Officer has accompanied me once to every cowshed in the Borough. He was good enough to express his satisfaction with the general condition of all he saw.

Yours obediently,

(Signed) WM. WOODS.

RAINFALL, 1914

AT WORTHINGTON.

Month.	Rainfall in inches and Tenths.	No. of days on which rain fell, being .01 of an inch or more.
January	2.36	15
February	2.17	16
March	4.00	26
April	1.09	10
May	2.06	17
June	1.19	14
July	5.03	20
August	2.55	14
September	4.61	13
October	2.83	17
November	4.81	21
December.....	6.30	25
TOTAL	39.00	208

The mean average rainfall for the past 57 years, 37.32 inches.

RAINFALL, 1914

AT BISPHAM.

Month.	Rainfall in inches and Tenths.	No. of days on which rain fell, being .01 of an inch or more.
January	2.06	14
February	2.41	18
March	4.25	25
April	1.16	11
May	1.86	14
June	1.36	15
July	5.01	18
August	2.36	14
September	3.81	13
October	2.68	13
November	3.85	18
December.....	6.02	23
TOTAL	36.83	196

Average consumption per head per day, Wigan and Pemberton, (estimated population, 93,408) was 16.98 gallons.

BLACK SMOKE NUISANCE

This continues to be very bad. Owners of factories have been warned in a number of cases, but further proceedings were not taken as it was understood that experiments were being made with a view to remedying the nuisance. None of these, however, appear to have been successful, and it will be necessary to take more drastic action in the immediate future. The nuisance was increased for a time during and after the coal strike owing to the burning of inferior classes of fuel. A special Sub-Committee has now been appointed to deal with this matter.

HOUSING

The housing conditions in many parts of the Borough are still profoundly unsatisfactory, but the work of regular inspection and condemnation of property, followed by the carrying out of improvements, or demolition, has been steadily persevered with.

The Housing and Insanitary Houses Committee met monthly.

The following table shows the number of houses under consideration at the beginning of the year, the number reported to the Committee during the year, and the result of the decisions of the Committee, and the work carried out under their instructions:—

No. of houses in respect of which Closing Orders made in 1913 were still operative on January 1st, 1914.....	79
No. of Demolition Orders made in 1913, and not complied with on January 1st, 1914	Nil
No. of houses inspected during 1914	162
No. of houses reported as unfit for human habitation in 1914...	162
No. of Closing Orders made during 1914	83
No. of Closing Orders not made during 1914.....	17
No. of Preliminary Notices served	62
No. of Closing Orders determined during 1914	49
No. of Demolition Orders made during 1914	15
No. of houses demolished in compliance with Demolition Orders during 1914.....	Nil
No. of houses demolished without a Demolition Order during 1914	2

No. of houses made habitable after Demolition Orders during 1914	Nil
No. of houses in respect of which Demolition Orders remained operative on December 31st, 1914	30
No. of houses in respect of which Closing Orders remained operative on December 31st, 1914	188
The number of houses made habitable during the year is.....	46
The number of back-to-back houses converted into single houses is	10

The houses reported on and dealt with were situated as follows :

2, 4, 6, 8, 10, 12, James Street.
 1, 2, 3, 4, 5, 6, Wood's Yard, James Street.
 5, 6, 7, Red Lion Place.
 1, 3, James Street.
 1, 2, Barnes' Yard, James Street.
 10, Red Lion Court, Caroline Street.
 3, 5, Queen's Hotel Yard, Wallgate.
 1, 2, 3, 4, France's Yard, Great George Street.
 86, 88, 90, 92, Great George Street.
 14, 16, 18, Soho Street, Pemberton.
 2, 4, 6, 8, 10, Wenlock Street, Pemberton.
 1, 2, Hardy's Yard, Longshoot.
 4, 6, Longshoot.
 3, 4, 5, 6, 7, 8, 9, 10, Stanley Square.
 71, 73, 75, 77, 79, Platt Lane.
 33, 35, 37, 39, 41, 41a, 43, 45, Coop Street.
 6, 8, 10, 12, 14, 16, Morris Row.
 18, 19, Acton's Yard, Marsh Lane.
 20, 21, 22, 23, 24, 25, Back Water Street.
 13, 16a, Marsh Lane.
 1, Schofield's Yard, Foundry Street.
 1, Schofield's Place, Foundry Street.
 3, 4, Foundry Street.
 2, 4, 6, 8, School Street.
 1, 2, 3, 4, Wolfendale's Yard, School Lane.
 47, School Lane.
 3, and back 3, Bradford Place.

- 1, 2, 3, 4, Marsh's Buildings, Bradford Street.
 41, 41a, 43, 43a, 45, 45a, 51, 51a, James Street.
 23, Cross Street.
 1, 2, 3, 4, 5, Fairhurst's Yard, Barton Street, Pemberton.
 2, 15, 17, 19, Moss Terrace, Pemberton.
 10, Charnock's Yard, Barton Street, Pemberton.
 1, 2, 3, Riley's Yard, Queen Street.
 53, 55, Queen Street.
 49, 51, 53, 57, 59, 61, 63a, 63, 65, 67, 69, Marsh Green,
 Pemberton.
 71, 73, 75, 77, 79, 81, 83, Marsh Green, Pemberton.
 66, 68, 70, 72, 74, 76, 78, 80, Marsh Green, Pemberton.
 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, Little Lane,
 Pemberton.
 2, 3, Taylor's Yard, Little Lane, Pemberton.

The principal defects dealt with and remedied were as follows :

The paving and draining of the yards, repairing of closets and ashpits, substitution of water closets for pails and privy middens, cleaning and re-decorating interiors, provision of adequate light and ventilation, provision of slopstones, drainage and water supply, repairs to roofs, spouting, and brickwork, and conversion of back-to-back into through houses.

The number of new houses erected during the year is 58.

In my last Annual Report I pointed out a decrease in housing accommodation ; 46 new houses were erected and 50 houses demolished—a net loss of 4. The increase of the population was 1069.

During the year under review there has been an actual increase in housing accommodation, inasmuch as 2 houses have been demolished and 10 back-to-back houses have been converted into through houses—a loss of 7 houses altogether. As against this, the number of new houses erected is 58. When in conjunction with these figures it is borne in mind that much of the existing property is already overcrowded, the urgency of the early completion of a Municipal Housing Scheme will be evident. This fact has been thoroughly appreciated by the Committee, and a scheme of re-housing the people has been approved by the Council, but it is not likely to be carried into effect until the conclusion of the War.

It would have been possible during the year to inspect and report on a larger number of houses, but under the circumstances explained above, our attention was mainly directed to houses which were capable of being rendered sanitary, and the number of these reported necessarily depended on the rate at which it was possible to get the work carried out by the owners.

The following table shows the number of houses reported to the Committee, the number of Closing Orders made, and the number of houses demolished in each year since the passing of the Housing and Town Planning Act, 1909:—

	1909	1910	1911	1912	1913	1914
Houses reported	8	32	42	281	97	162
Closing Orders	5	14	13	245	83	83
Houses demolished	5	13	—	14	23	2

The Committee has been especially concerned during the latter months of the year in dealing with the outstanding Closing and Demolition Orders, as it is obvious that, when after due deliberation they have been made, they cannot be allowed to remain disregarded.

Housing reform in Wigan is extraordinarily difficult, but there is little doubt that much might be accomplished in a few years by a systematic policy of steady and persistent effort towards the attainment of a minimum standard of decency. Continuity of policy is essential, and though zeal must be tempered with discretion, the work must be carried on without fear or favour.

UNPAVED YARDS and PASSAGES, &c.

The following have been dealt with during the year, for unpaved yards and passages:—

- 17, 19, 21, and 23, Silver Street.
- 4, 5, 6, and 7, Silver Street.

The following have been dealt with, for defective surface of yards and passages:—

- 47, Anderton Street.
- 26 and 28, Wellington Street.
- 7, 9, 11, 13, and 15, Silver Street.

1, 2 and 3, Silver Terrace.
 8 and 10, Yates Street.
 12, 14 and 16, Oxford Street.
 16, Woods Street.
 2, 4, 6, 8, and 10, Woods Street.
 49, 51, 53, 55, 57 and 59, Fleet Street.
 2 and 4, Low Street.
 32, Melbourne Street.
 58, School Street.
 Atherton's Yard, Great George Street.
 58, 60 and 62, Lower Morris Street.
 42, School Street.
 8, Caroline Street.
 39a, Corporation Street.
 12, Whiteside Avenue.

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, 1914.....	20,396	11	2
Pails excreta removed in 1914	6,676	15	2
Midden and Ashpit refuse removed in 1914.....	10,917	8	0
Number of Pail Closets in Borough	7,369		
Number of Pails collected in 1914.....	417,560		
Cost (including washing and distribution)	£2,161	7	1
Cost of Collecting Ashes during 1914.....	£2,773	4	5
Cost of Collecting Midden and Ashpit Refuse during 1914...	£1,277	4	8
Number of privy middens in Borough	1,622		
„ „ emptied, 1914....	16,602		
„ new houses erected in 1914.....	58		
„ Water Closets in Borough to April 30th, 1914	7,219		

MIDDENS, ASHPITS AND CESSPOOLS.

Year.	ABOLISHED.			RE-CONSTRUCTED.		
	Middens.	Ashpits.	Cesspools.	Middens.	Ashpits.	Cesspools.
1904	1	...	...	3	...	...
1905	7	...	...	5	...	...
1906	6	...	...	2	...	...
1907	4	...	...	3	...	...
1908	6	...	1	3	...	...
1909	5	1	...	15	3	...
1910	1	...	...	2	...	...
1911	11	...	...	32	3	...
1912	7	...	...	16	3	...
1913	9	1	...	7	1	...
1914	14	3	...	...	5	...
TOTAL ...	71	5	1	88	15	...

Middens159 demolished or re-constructed.

Ashpits 20 "

Cesspools 1 "

MIDDENS OR PAIL CLOSETS CONVERTED INTO WATER
CLOSETS IN EACH OF ABOVE YEARS.

1904	8
1905	28
1906	23
1907	26
1908	21
1909	60
1910	5
1911	86
1912	44
1913	47
1914	62

TOTAL 410

CONVERSION OF CLOSETS

Special attention has been directed to this most important matter during the year by a new and influential Committee consisting of the Chairman and Vice-Chairman of the Health, Sewage Disposal, Sanitary Works, Water, and Finance Committees.

This "Conversion of Closets" Committee issued in March a report to the Council containing recommendations as to procedure based on the scientific and legal aspects of the matter.

In order to facilitate the progress of conversions, it was decided to encourage owners of property by making contributions towards the cost of conversion in approved cases. For this purpose a loan of £2,000 was sanctioned by the Local Government Board in December. It was decided to proceed systematically, and to begin with the closets in North Pemberton Ward. The Committee has, however, also dealt with properties referred from the Housing and Insanitary Houses Committee as well as with houses with regard to which application for assistance in conversion was made spontaneously by owners. The Housing Committee has referred the question of closet conversion in the houses with which it deals to the Conversions Committee—a convenient arrangement.

In a great many instances the closet accommodation has been found to be grossly inadequate. It is of course desirable on the grounds of health, cleanliness, and decency that, wherever possible, each house should have a separate closet. In order to decide the question of sufficiency in cases where the accommodation appeared to the Health Officials to be inadequate, joint meetings of the Health and Conversions Committee have been held.

It is expected that the work will proceed steadily and smoothly, unless interfered with in some way by the War.

Lady Health Visitors' Report.

During the year 1914 we have paid 8,801 visits, the particulars of which are as follows:—

1. Visits to Midwives	211
2. Infectious Disease.....	67
3. Infantile Mortality	287
4. Deaths from Zymotic Enteritis.....	109
5. Visits and Re-visits <i>re</i> Notification of Births.....	7,845
6. Special Cases	282

MIDWIVES ACT, 1902.

Fifty-six midwives were registered as practicing within the Borough, all of whom have been visited from time to time at their homes; their bags and appliances were examined.

During the year 5 cases of Puerperal Sepsis have been notified. Each case has been visited immediately after notification and precautions were taken regarding the disinfection of the midwives' clothing, etc.

No medical aid was obtained for rise of temperature and rapid pulse in one of the cases. The midwife was reported to the Central Midwives' Board, with the result that her name has since been removed from the roll of midwives. Three of the five cases proved fatal.

Twenty-two cases of Ophthalmia Neonatorum have been notified during the year. In no case has the baby's eyes been permanently injured. Careful instruction being given to the mother as to the correct way to carry out the doctor's treatment.

Records of sending for medical help.....	409
Notification of death of mother or child...	1
Still-birth notifications	56

1. Complications of pregnancy :—

Sickness	2
Abortion	2
Miscarriage	2
Prematurity	38
Eclampsia	6

2. Abnormal presentations :—

Funis presentation.....	1
Face „	5
Footling „	4
Breech „	10
Brow „	1
Transverse „	1
Persistent Occipito Posterior	3
Mal-presentation	5
Placenta prævia	2

2. Complications of labour :—

Delayed labour.....	75
Contracted pelvis	11
Obstructed labour	3
Uterine inertia	10
Hydramnios	1
Abnormal labour	7
Prolapsed funis	1
Ante-partem accidental Hæmorrhage	1
Retained membranes	1
Adherent placenta	16
Post-partem hæmorrhage	9
Cord broken	1
Ruptured perenium	35

4. Complications of puerperium and other illness, etc., of patient :—

Rise of temperature and rapid pulse	25
Inflammation of breast.....	3
Patient ill (undefined).....	9
Swollen neck.....	1

5. Illness and abnormalities of child :—

Malformation	4
Diarrhœa	1
Convulsions	5
Baby ill (undefined)	10
Phimosis	5
Tongue-tie	4
Dangerous feebleness	14
Baby's eyes.....	32
Death of baby	3

There has been on the whole little trouble during 1914 in regard to the carrying out of the rules of the Central Midwives' Board. With very few exceptions (these being in the old type of midwife) all the registered midwives resident in the Borough are capable of taking and recording pulse and temperature.

One very serious breach of the rules was reported in May to the Central Midwives' Board, with the result that the midwife in question was struck off the roll. Another serious case has already been previously mentioned.

LIST OF BREACH OF RULES OF CENTRAL
MIDWIVES' BOARD DURING 1914.

No medical aid obtained for raised temperature and rapid pulse	5
" " inflamed eyes	14
" " dangerous feebleness	4
" " Icterus Neonatorum	3
" " injury during birth	1
" " abnormalty of child	2
" " convulsions in child	1
" " abdominal pain and tenderness	1

No medical aid obtained for Suppressed Lochia	I
" " Phelgmasia Alba-doleus	I
" " dangerous varicose veins	3
" " ruptured perinæum	I
" " patient a cripple and feeble-minded	I
" " footling presentation	I
" " sickness of baby	I
" " inflamed womb during pregnancy...	I
" " illness of patient.....	2
" " painful breast	I
" " abnormal retention of urine in child	2
Want of cleanliness on part of midwife	I
No boracic-acid in bag	I
No antiseptic in bag	I
Not attending daily during puerperium	I
Not wearing a washing dress	I
Cutting a baby's tongue.....	2
Not taking or recording pulse and temperature	I

INFANTILE MORTALITY.

Measles	13
Whooping Cough	3
Diphtheria and Croup.....	I
Erysipelas	I
Tuberculous Meningitis.....	I
Other Tubercular Diseases	5
Meningitis (not Tuberculous).....	II
Convulsions	4
Bronchitis	27
Pneumonia (all forms)	53
Diarrhœa	70
Enteritis	10
Gastritis.....	2
Congenital malformations	14
Premature birth	51
Atrophy, Debility, Marasmus	75
Other causes	36

In connection with our visits the following sanitary defects were discovered and reported to the Chief Sanitary Inspector:—

Houses with no through ventilation	28
Defective house walls and ceilings	13
Filthy houses	15
Defective closets and ash-houses	9
Overcrowding	4
Defective and damp floors	3
„ and choked drains	14
„ roof.....	1
„ stable	1
„ surface of yard	1
„ door	1
„ spouts	1
„ slopstone	1

Deaths occurring in back-to-back houses with no through ventilation	5
Deaths occurring in houses with privy middens	80
„ „ pails and tubs	188
„ „ water closets and tubs	61

METHOD OF FEEDING.

106 entirely breast-fed.
46 partly breast-fed.
46 condensed milk.
52 cow's milk.
12 dried preparations.
50 miscellaneous.
—
332
—
41 children died under 1 day old.
4 transferable deaths.
—

Total ...377

Of the artificially-fed babies dying of Zymotic Enteritis:—

3	were fed from glass-tube bottles.
5	„ indiarubber-tube bottles.
52	„ boat-shaped bottles.

<i>Case.</i>	<i>Age.</i>	<i>Remarks in some Typical Cases.</i>
1	1 month.	Consumption in father's family; baby a twin. Mother died. Puerperal Sepsis five days after birth. Other twin has also had Diarrhœa and recovered.
2	?	Zymotic Enteritis. Infection brought to baby through dirt of neighbour; the yard of the two houses being common.
3	6 months.	Illegitimate. The mother was given salts and drugs at the beginning of the pregnancy by the grandmother of the child.
4	4 months.	Premature birth. Mother said she had a thick white discharge during pregnancy; had to consult a doctor for persistent vomiting.
5	?	Mother suspected of taking drugs during pregnancy.
6	4 hours.	Premature birth. Mother suffering from ulcerated womb for 11 years; rupture, yellow discharge all her life.
7	7 months.	Baby under supervision of Clinic for three months. Very wasted on first attendance; weighing 7½lbs. at five months. Gained 15ozs. in a month, and was very much improved when Diarrhœa began. Cured of two attacks by use of sea-water plasma and peptonised milk. Succumbed to third attack. Circumstances of family very poor.
8	9 months.	Zymotic Enteritis. Child across the street had Diarrhœa, and had been in contact with baby.
9	?	Baby illegitimate; Syphilitic. Only taken care of by constant visiting.

- 10 3 months. Marasmus. Baby gained weight steadily until 14 days before death. Died in convulsions; no real wasting at all. Brought regularly to Clinic to be weighed.
- 11 7 weeks. Natural causes. Inquest. Illegitimate. Delicate from birth. Coroner very severe with mother; apparently great carelessness.
- 12 9 months. Mother has only been able to suckle one child. The breast milk in other cases going directly after the lying-in period. Baby had one injection of sea-water plasma. Abdomen became very black four days before death.

NOTIFICATION OF BIRTHS' ACT.

In connection with the visiting and re-visiting involved by this Act, two Baby Clinics have been opened during 1914; one at the Health Office, and the second at Pemberton.

The objects of the Clinic are:—

1. To educate each mother as to the proper method of feeding and clothing her little ones.
2. To foster and encourage cleanliness, and intelligent observation. To impress on the parents both the value of fresh air and the fact that in the first twelve months of life the foundations of perfect health, or *its reverse*, are laid.

The opening of the Wigan Clinic last April was purely tentative, there being many obstacles to overcome. Some people are very tenacious of the beliefs of their grandmothers and are superstitious, especially in regard to the weighing of babies. However, even from the beginning ten mothers brought their little ones, and by the end of April it was evident that the Clinic had gained a firm footing.

At first the mothers, who attended, were those who being very proud of their baby wanted to prove beyond dispute by means of the weight card that the child was much larger than their neighbours' babies; and also a few of those who when re-visited were found to be wasting. Gradually, however, the news that there was a Baby

Clinic spread from one to another, with the result that by the end of 1914 397 mothers had voluntarily brought their babies for advice on all the various troubles with which the little ones have to contend.

In the early days of the Clinic the majority of the children attending were breast-fed, but as the year drew on, this aspect of things quite changed, the attendance of artificially-fed babies ever increasing. At the time of writing these are very much in the majority. The attendances at the Wigan Clinic have steadily increased; it was found after August that it was quite impossible to deal adequately with the children during one afternoon weekly, and a second was set aside. This step has been more than justified by the large numbers that have regularly attended in spite of the cold, wet weather. The attendances during the last three months numbering about 500; and the total for the year was 1,300. Only 7 of these have died; one was certified as dying of Marasmus. The deaths in the other six cases being due to unpreventable causes.

In each case in which the baby is definitely ill, the mother has always been advised to take the child to her own doctor for treatment. Several of the doctors now send their little patients to the Clinic in order to be weighed. We are thus able to act in co-operation with them by helping the mother to carry out the treatment advised.

We have no machinery for providing milk, etc., for necessitous cases. With very few exceptions the mothers are quite prepared, and willing to spend the necessary amount on infant food. Wasting or other forms of ill-health of the children is not due to insufficient nourishment but almost entirely to parental ignorance, over-reliance on neighbourly advice, over-feeding, and lack of fresh air for both mother and child. This last cause is a severe handicap to child welfare; only too often the walk to and from the Clinic is the only occasion on which the mother is able to get out, owing to the character of her husband's and elder children's work, which necessitates her being up both night and day in order to prepare the necessary meals. She is obliged to rest when she can, with the result that her housework is always behind, and there is very little chance for her to take the baby out. This factor making for ill-health, both of mother and child, is one of the most serious economic effects of the life of the working classes in colliery districts. The infantile mortality during 1914 has decreased from 179 to 139 per 1,000 births.

A Corporation Baby Show was held in October. It was highly successful, and undoubtedly encouraged the mothers to take greater care of their children. Out of the 1,450 babies entered for the competition, many of them as early as March, only 8 have died up to the time of the show.

PARTICULARS OF TYPICAL CASES ATTENDING THE CLINIC.

1. Baby (premature birth) brought in at two months of age in state of collapse. Fontanelle very depressed, and gaping. The baby weighed 4lbs. 9ozs. It had been fed on brandy only for first three weeks of life; and last three weeks had vomited all food.

Treatment advised.—Food changed, regular feeding; occasional enemas given at Clinic. In less than two months the baby had gained over 3lbs. Sleeps and takes food well; good colour. Fontanelle no longer depressed, and thriving generally.

2. Baby six weeks of age; weighed 6lbs. 2ozs. on first attendance. Health at birth, weighing 9lbs. Had vomited persistently for a month; very emaciated. Fontanelle gaping, and child blue and nearly pulseless.

Treatment.—Rubbed twice daily with oil; food changed and regular feeding given. Attended weekly for three weeks, neither gaining or losing, but appearance steadily improving. Then took a start until at last weight when nine months of age reached 15lbs. 8ozs. Cut four teeth without trouble. This child has since had Whooping Cough and made a complete recovery.

3. Baby two and a-half months of age; weighed 8lbs. 4ozs. on first attendance. The child had suffered from acute indigestion from birth. The skin was yellow and flabby. Fontanelle depressed and gaping.

Treatment.—Cow's milk and water given with citrate of soda. After three months symptoms of over-acidity appeared. This was met by the use of equal parts of citrate of soda and potassium citrate for the next month when pure milk was able to be digested perfectly. The child thrived well until about ten months of age when Measles, complicated with Pneumonia, developed. The attack was exceedingly severe, but he made a splendid recovery, and cut his first tooth at eleven months, at which age he weighed 19lbs. 10ozs. He lost 1lb. during his illness. This child was a winner of a first prize at the Corporation Baby Show.

J. NORMAN.

B. CROMPTON.

DIRECTIONS FOR BOTTLE-FEEDING OF INFANTS

I.—THE BOTTLE.

This should be of the boat-shaped type, or made with a glass tube *inside*, which does away with the necessity of holding the bottle.

Rubber-tubed bottles *should never be used on any account.*

The bottle and teat should be carefully scalded before and after use, and kept in water to which a little soda has been added.

Any food left in the bottle should be thrown away; never added to the next feed.

II.—THE FOOD.

The food should be freshly prepared and boiled immediately before use. It should then be cooled to blood-heat, by standing in water, or holding the bottle under the tap.

Do NOT prepare and boil a whole day's supply at one time.

The baby should have at least six hours at night without food.

All milk used should be kept in vessels carefully covered so as to exclude dust and flies.

In the absence of lids the best covering is butter muslin.

The milk should be kept in the coolest part of the house, and all vessels used should be kept perfectly clean, washed with hot water and soda, and frequently scalded with boiling water.

The food should be prepared according to the directions given in the following table:—

	<i>Tablespoonful.</i>	<i>Tablespoonful.</i>	<i>Teaspoonful.</i>	<i>Teaspoonful.</i>		
1st month ...	Milk 1	Water 2	Cream $\frac{1}{2}$	Sugar $\frac{1}{2}$	Every 2	hours.
2nd month ...	Milk 2	Water 3	Cream 1	Sugar 1	Every 2½	hours.
3rd month ...	Milk 3	Water 3	Cream 1	Sugar 1	Every 3	hours.
4th month ...	Milk 4	Water 3	Cream 1	Sugar 1½	Every 3	hours.
5th month ...	Milk 5	Water 3	Cream 1	Sugar 2	Every 3	hours.
6th month ...	Milk 6	Water 3	Cream 1	Sugar 2	Every 3	hours.

NOTE.—It is not necessary to add the cream to every feed, but when possible it should be given at least 3 times a day. When cream cannot be obtained the best substitute is Olive Oil, which is cheap, nutritious, and wholesome.

SPECIAL PRECAUTIONS FOR THE PREVENTION OF DIARRHŒA.

Hot weather in summer is always accompanied by an outbreak of Diarrhœa among infants which is responsible for enormous loss of life. This can be prevented by CLEANLINESS and ATTENTION TO FEEDING.

Breast-fed children should not be weaned during the summer months.

The directions given above for the Feeding of Infants should be strictly adhered to.

Windows should be kept open as much as possible. Bedroom windows should be kept WIDE OPEN at night.

Muslin blinds should be provided to exclude flies and dust from the rooms as far as possible.

All Food, Bread, Meat, Butter, Sugar, and Milk should be kept carefully covered and protected from dust and flies.

Back-yards should be kept as clean as possible and frequently sprinkled with water to prevent dust.

Ash-tubs and bins should be kept carefully covered.

Ashpit doors should be carefully closed.

Vegetable refuse should be burnt on the kitchen fire, not thrown in the ashpit or ash-tub.

Gullies (grids) should be cleaned out and swilled with water. If this is done there is no need to put disinfectants in them.

If the baby sickens stop all food and SEND FOR THE DOCTOR at once.

Regard the case as infectious, and do not allow other babies to be brought into the same room.

Place all soiled linen in disinfectant and wash immediately. If possible when the baby sickens send word to the Health Office, King Street West, when the Health Visitor will call and render assistance.

FRED E. WYNNE,

Medical Officer of Health.

MIDWIVES ACT, 1902

During the year 56 women were registered as practising within the Borough. They have been visited at their own houses by the Health Visitors.

During the year there were 5 cases of Puerperal Fever notified and 3 deaths, against 6 cases and no deaths in 1913. In all cases a midwife had been in attendance; in each case she was suspended from carrying out her midwifery duties.

Caution has been given for negligence in carrying out the rules of the Midwives' Board.

* Notifications sent in, as required by the rules of the Central Midwives' Board :—

	1914	1913	1912	1911	1910	1909	1908	1907	1906	1905
Records of Sending for Medical Help	409	463	297	199	80	60	42	16	13	9
Notification of Death of Mother or Child	1	8	12	8	...	2	4	2	4	...
Notifications of Still-births	56	55	29	32	25	34	26	18	15	5

COUNTY BOROUGH OF WIGAN.

Midwives on register, year ending 31st December, 1914:—

<i>Name.</i>	<i>Registered No.</i>
Ashton, Ellen	3,740
Archer, Annie M.	4,143
Arkwright, Sarah	73,410
Bayliss, Charlotte	40,212
Baxter, Mary E.	661
Bentham, Elizabeth	6,722
Bentham, Ellen	19,486
Bolton, Elizabeth	26,027
Booth, Maria	3,263
Cox, Jane	933
Cowley, Elizabeth	3,780
Cunliffe, Mary	19,073
Daniels, Ellen	9,585
Davies, Agnes.....	39,614
Dutton, Harriet	10,507
Ellis, J.	32,972
Finch, Eliza	3,760
Finch, Alice	4,360
Fraser, Susannah	26,727
Green, Sarah.....	13,239
Grundy, Maria	3,643
Hanna, M. C.	32,247
Hall, Ann J.	10,630
Howarth, Mary E.....	28,695
Holland, Annie A.	28,685
Hogg, M.	36,116
Jones, Sarah	38,275
Layland, Alice	5,276

<i>Name.</i>	<i>Registered No.</i>
Mann, M. A.	33,103
McAllister, Isabel.....	23,614
McCann, Margaret	2,532
McGrath, Isabella	40,483
McDonald, Mary	41,209
Patrick, Ann.....	6,335
Priest, Catherine	17,057
Perry, Nancy	17,052
Quarmby, Helena M.	30,811
Scott, Jane I.	26,920
Hedford, M. J.	33,242
Topping, S. E.	30,896
Worthington, Elizabeth	4,367
Walsh, Alice	4,346
Winstanley, Ann	3,574
Howarth, <i>nee</i> Wilkinson, Mary J. G.....	28,969
Wilkinson, Maria	38,488

Residing outside but practising in Wigan :—

Allen, M. J.	38,764
Berry, S.	11,980
Davies, Mary A.	2,780
Dod, Evelina	16,737
Ellison, Mrs.	3,196
Green, Elizabeth	1,911
Green, Jane	7,669
Hall, Mrs.	2,813
Hodgkinson, Elsie Lilian	33,758
Horne, J.....	5,473
Knowles, Fanny.....	2,328
Moss, Margaret.....	4,398
Ramsdale, A.	3,219
Rudd, Ann	2,771
Trow, Mary Ann	21,067

NOTIFICATION OF BIRTHS ACT, 1907

This Act has been adopted and has now been in operation since the 6th of June, 1910. Subjoined are the Infantile Death-rates for 1913 and 1914:—

INFANTILE DEATH-RATES, 1913.

Month.	Deaths, all Causes.	Births.	Rate per 1,000 Births.	Diarrhoea Deaths.	Rate per 1,000 Births.
January	33	195	169	...	...
February	43	197	218	...	...
March	70	242	289	...	...
April	36	202	178	...	...
May	36	254	141	...	...
June	17	186	91	1	5
July	18	208	86	1	4
August	50	241	207	42	174
September	56	206	271	42	203
October	38	200	190	20	100
November.....	32	219	146	4	18
December	25	179	139	1	5
Transferable	2	15	...	...	...
	456	2,544	179	111	43

Rate per 1,000 Births for 12 months, 179.

Average for the last 10 years (1904-1913), 162.

INFANTILE DEATH-RATES, 1914.

Month.	Deaths, all Causes.	Births.	Rate per 1,000 Births.	Diarrhoea Deaths.	Rate per 1,000 Births.
January	36	296	121	1	3
February	33	229	144	3	13
March	19	195	97	1	5
April	21	188	111	...	...
May	21	279	75	2	7
June	23	197	116	2	10
July	22	186	118	18	96
August	45	267	168	25	93
September	57	248	229	47	189
October	38	250	152	9	36
November.....	26	184	141	...	10
December	32	171	187	...	...
Transferable	4	20	...	...	...
	377	2,710	139	110	40

Rate per 1,000 Births for 12 months, 139.

Average for the last 10 years (1905-1914), 157.

EDUCATION ACT, 1902 and 1904

The report on the work done under these Acts is given in the School Medical Officer's report.

Annual Report of the Public Analyst, 1914.

June, 1915.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I have the honour to briefly summarise the work of the Analytical Department of the Corporation for the year ending December 31st, 1914.

As in former years, the question of food adulteration calls for no special comment, the percentage of adulteration being much the same as in other towns in the United Kingdom.

The quality of the water supply has varied very little from that of past years, only slight fluctuations being noticed from month to month.

The accompanying report records the more important elements in the examination of foods, drugs, etc., submitted for analysis.

I have pleasure in acknowledging the valuable co-operation of your Medical Officer of Health (Dr. F. E. Wynne), and his efficient staff, particularly Chief Inspector C. H. France.

I am, Gentlemen.

Your obedient Servant,

S. ERNEST MELLING.

WORK CARRIED OUT UNDER THE SALE OF FOOD AND DRUGS ACT.

During the year ending December 31st, 1914, I have analysed 194 samples, consisting of 133 milks, 12 sugars, 6 each of butter and whisky, 5 each of preserved cream and pills, 4 each of lard, coffee and rum, 3 each of paregoric, sweet spirit of nitre, 2 each of brandy, margarine, and 1 each of milk of sulphur, Gregory powder, liquorice powder, potted shrimps, and lobster and fish paste.

Of these, 8 samples were returned as adulterated, viz.:—5 milks and 1 each of butter, potted shrimps and lobster and fish paste. In each case the adulterated milks showed deficiency in fat, the amounts being set forth in the following table:—

2 were deficient in fat to the extent of 16·6 per cent.					
1 was	"	"	"	15·0	"
2 were	"	"	"	13·3	"

The number of milks analysed last year was 126, of which 12 were adulterated; this amounts to nearly 1 sample out of 10. This year however the ratio has been nearly trebled, and is now practically 1 in 27.

As in past years a rigid examination of the milks has been made for preservatives, but with entirely negative results.

The sample of butter was returned as adulterated with at least 85 per cent. of foreign fat; it is the first butter to be reported against since 1909.

Boron preservative was found to be present to the extent of 50 grains per pound in the potted shrimps, and to the extent of 55 grains in the lobster and fish paste. These quantities are in my opinion excessive, when studied from a health point of view.

During the year, 5 samples of pills (female) were examined specially for lead. They were suspected to contain diachylon; examination of the pills however negatived the presence of lead; the pills were compounded of well known vegetable aperient medicines.

The drugs were of the requisite standard of purity, and conformed in all respects with the requirements of the British Pharmacopœia.

The remaining samples were of normal composition, and genuine, and need no special reference.

FERTILIZERS AND FEEDING STUFFS ACTS.

Under the above Acts 20 samples were submitted for analysis, comprising 18 samples of feeding stuffs, 1 cattle powder, and 1 fertilizer. From the following table it will be noticed that three samples were reported as unsatisfactory :—

Bran	...	4	4	satisfactory	
Indian Meal	...	2	2	"	
Barley	"	1	1	"	
Bibby	"	3	3	"	
Bean	"	4	3	"	1 unsatisfactory
Other Meals	...	4	3	"	1 "
Cattle Powder	...	1	1	"	
Fertilizer...	...	1	—		1 "
		—	—		—
Total	...	20	17	satisfactory	3 unsatisfactory
		—	—		—

WATER SUPPLY.

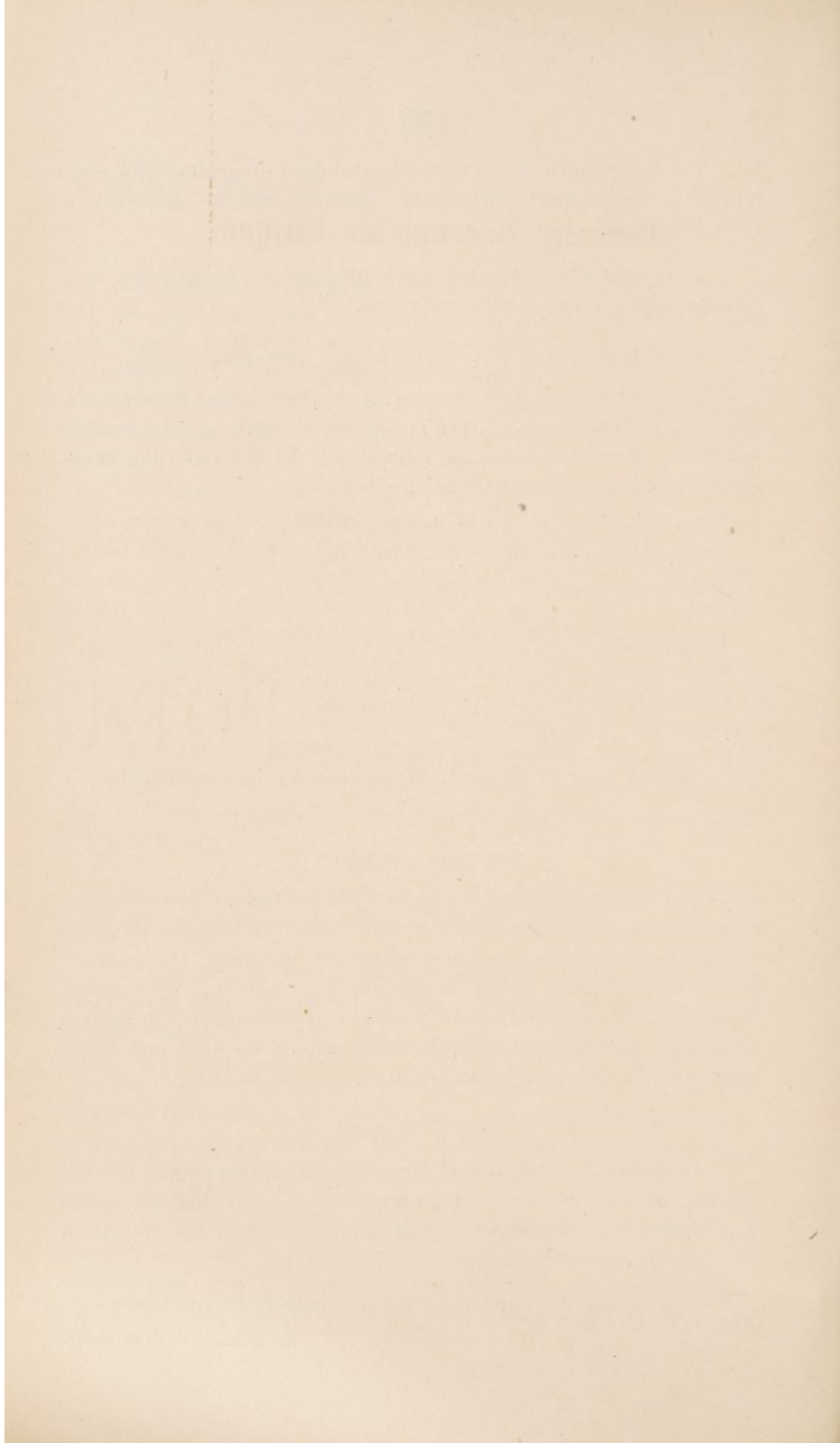
The results of chemical analysis of the Town's water supply vary very little from those of previous years. The figure recorded under Albuminoid Ammonia has been very constant, the average of twelve analyses being 0.11 part per million. Occasional bacteriological examinations of the water, substantiate the figures obtained upon chemical analysis, the reactions for Coli and allied organisms in each case being negative.

GAS TESTS.

Periodical examination of the Corporation Gas supply showed the illuminating power to be fairly uniform; the highest result was recorded in December (18.24 sperm candles), the lowest in April (18.06 sperm candles).

The average for the twelve months is 18.13 sperm candles.

S. ERNEST MELLING.



County Borough of Wigan.



ANNUAL REPORT

OF THE

Chief Sanitary Inspector.

1914.

Annual Report of the
Board of Directors



ANNUAL REPORT

For the Year Ending December 31, 1900

Presented to the
Stockholders at the
Annual Meeting held at
the City of New York,
on January 10, 1901

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ANNUAL REPORT OF THE CHIEF SANITARY INSPECTOR,
1914.

HEALTH DEPARTMENT,
KING STREET WEST, April, 1915.

To the Chairman and Members of the Health Committee.

SIR AND GENTLEMEN,

I have great pleasure in submitting for your perusal my Third Annual Report of the work carried out by the Staff of the Department during the year 1914.

The onerous duties of the staff—though increasing yearly—have been carried out with such tact as to cause very little friction. A survey of the work under the different headings show this to be the case, and that the efforts of the staff have been exerted to the uttermost, this especially being the case in the latter part of the year. I wish particularly to direct your attention to the military work that has been undertaken, and also the great efforts that are being put forward under the Housing and Town Planning, &c., Act. The Housing Committee have been fully alive to the improvement necessary for the better housing of the people. Such activity ought to increase and your Council should have pressure brought to bear upon them for the wherewithal to carry out this and other health work. Further important work, is the conversion of the privy middens, chiefly in the Pemberton part of the Borough, and the pail system in the old Borough. The Committee that has been formed to carry out this work has commenced its duties, and active signs of progress are showing. Beyond these important sanitary reforms there is the progressive work of the department, and I must point out the urgent need of an increased staff. The carrying out of the sanitary reforms in the Borough require a fully adequate staff. It is a serious menace to the Public Health that in a town of the size and population of Wigan you have the small staff. The Local Government Board have suggested one inspector to every 10,000 of the population as being

adequate to carry out the important duties, and on such basis your County Borough is entitled to six additional inspectors. I need say no more, but ask for your serious deliberations upon the matter. The lives of the people are at a premium. Serious work is before your Committee; the house-to-house inspection of the whole Borough must be soon commenced. The following are some of the chief Sanitary Reforms that are required:—

Provision of sufficient and suitable houses for the working classes.

The conversion of privy middens and pail closets to the water-carriage system.

The paving of all back-yards.

The abolition of common back-yards and the substitution of private yards to each house.

Conversions have been carried out in the following properties (from privies and pails to water closets):—

Eckersley's Mills	Tube closets to water closets.			
Works, Cross Street	1 pail closet to 1 water closet.			
Stores, Orchard Street	1 water closet fixed.			
47, Queen Street	1 pail closet to 1 water closet.			
Workshop, Wiend	1 „ „ 1 „ „			
1-5, Preston's Yard, P.	6 privies „ 6 „			
Albert Street and Scot Lane, P. ...				
1, 3, 4, 5, 6, Clayton's Yard, P.	4 „ „ 5 „			
3, 4, 5, 6, 7, Engine Fold, P.	2 „ „ 3 „			
6, 7, 8, 14, Rigby's Yard	2 pail closets „ 2 „			
Rigby's Yard	3 „ „ 3 „			
2, 3, 4, 5, off Fleet Street, P.	2 privies „ 3 „			
28, Fleet Street, P.	1 privy „ 1 „			
12, 14, 18, 20, Pitt Street	2 pail closets „ 2 „			
22, 24, Pitt Street	1 „ „ 2 „			
5, Red Lion Place	1 „ „ 1 „			
35, Queen's Hotel Yard	2 „ „ 2 „			
Dog and Partridge Hotel	1 „ „ 1 „			
1, Sharp Street	2 „ „ 2 „			
1, 3, 5, School Street	2 „ „ 4 „			
1, Foundry Street				

In conclusion, Gentlemen, I have to tender you my sincere thanks for the courteous help and consideration extended to me and my staff.

To the Medical Officer of Health I tender my thanks for his ever-ready help. To the inspectors and rest of the staff I have nothing but praise, and appreciate sincerely their work under the abnormal conditions that have existed and the tact exercised in discharging their strenuous duties.

I am, Gentlemen,

Your obedient Servant,

CHARLES H. FRANCE,

C.R.S.I., M.S.I.A.,

Chief Sanitary Inspector, &c.

MILITARY SERVICES.

On the outbreak of war, August 4th, 1914, the Commanding Officer of the Local Battalion of Territorials immediately called upon my services for co-operation, upon the sanitary administration, and this requisition was closely followed by the Medical Officer of the Battalion getting in close touch with your Medical Officer of Health. This is a point I am greatly pleased with, that Wigan was one of the first Military Authorities to co-operate with the Civic Authorities. The Medical Officer and myself personally supervised all sanitary arrangements, which included sufficient conveniences being temporarily erected, the collection and disposal of refuse, the inspection of the billets, which included, besides the Drill Hall, the following schools: Wesleyan, St. John's, St. Paul's, St. Mary's, and St. George's Old Club. The water supply, drainage, ventilation, and cleanliness of these billets coming under our strict supervision. I personally visited daily these billets from August 5th to September 5th; in my absence my chief assistant carried out the daily routine. At different times the whole of these billets were sprayed. After the departure of the Battalion from the town the whole of the school billets were disinfected; the period being August 19th to 22nd. The Drill Hall still continued to be under supervision, and is so at the time of writing this report. From September 9th, 1914, to January 15th, 1915, 458 blankets and 8 quilts were removed from the Drill Hall for disinfection by steam. On February 20th, 1915, the reserves of the Battalion were reported to be billeted about the town; these billets were at once inspected by my inspectors, under my supervision, and strict watch was kept upon any outbreak of infectious disease. To the end of the year, I am pleased to say, no case of infectious disease had occurred. These billets are still under supervision.

On September 19th, the Veterinary Officer of the troops stationed at Winstanley Park, situate just on our boundary, called at the Health Offices, and interviewed the Medical Officer of Health and myself respecting an outbreak of Ring-worm amongst the horses stationed at the park, and arrangements were then made for the disinfection of the horse cloths, and any other articles likely to be infected. I made satisfactory arrangements for the articles to be delivered at the Miry Lane depot in certain quantities; this was done

and the arrangements worked smoothly. From the period September 21st, 1914, to November 24th, 1914, 944 horse cloths, 47 blankets, 46 numnals, and 13 other articles were disinfected; the men who were exposed to infection proceeded regularly to the Union Work-house, Wigan, and there had their kits disinfected.

On January 9th, 1915, I received a further list of billets where men were stationed, and these were at once visited and any sanitary regulations dealt with. The horses of the regiment were stabled in an old weaving shed at Taylor Bros. mill, and the stables of Middleton & Wood, cab proprietors, of this town. Arrangements were made for the observance of requisite sanitary regulations; the premises were in use practically as a veterinary hospital for animals affected with Ring-worm. The billets used by these men, after their departure, were occupied by men of the local Battalion Reserve.

Beyond these military stations, certain food premises were and are still under observation, with reference to their sanitary condition. These firms are under contract for supplies to the War Office and Contractors. I am pleased to say that no cause for taking any drastic action against these firms arose. Every facility was given for their rigid supervision.

A large clothing firm in the Borough was under contract for supplies to the War Office, and the premises, and every out-worker's premises, were visited and strictly inspected. Owing to about 5 cases of Scarlet Fever amongst certain of their employees, it was necessary under the instructions of the War Department that the whole of the premises and clothing should be satisfactorily disinfected. This was carried out on February 27th; over 1,000 tins of disinfectors being used.

Beyond these chief items, the efforts of my staff were engaged upon other matters indirectly connected with the War Service, and have carried out the duties satisfactorily.

Your Chief Sanitary Inspector is the Honorary Sanitary Officer to the British Red Cross Society (East Lancashire Branch), Wigan and District Division. The sanitary arrangements are strictly inspected. Disinfectants are supplied to these hospitals, which for Wigan are "Woodlands" Hospital I., II., III.

OUTBREAK OF SUPPOSED FOOD POISONING.

As will be seen by the Medical Officer's report, the staff were engaged in investigating two outbreaks. The one is dealt with in his report, the other was in connection with suspicious cases of Acute Gastro-Enteritis having arisen in Withnall and Brinscall—out-districts of Chorley Borough—on July 12th and following days; the food under suspicion being milk from a certain farm. The investigations of the County Medical Officer and his staff revealed the fact that certain portions of the milk had come into Wigan. Prompt steps were taken to corroborate such information; the dairy in the Borough, and all customers supplied on certain days from such dairy, being visited (26 houses in all). No case of sickness had occurred in your Borough from such supplies. Dr. Hancock, of the Local Government Board, came over on the Sunday, and in company with him I visited the dairy and rendered every assistance to him in his investigations.

THE FOLLOWING IS A SUMMARY OF THE VISITS PAID DURING THE YEAR.

No. of Houses and premises inspected <i>re</i> Nuisances and complaints	1,573
„ Re-visits <i>re</i> Nuisances	2,521
„ Miscellaneous Visits	1,612
„ Visits to premises <i>re</i> Testing Drainage	74
„ „ Housing and Town Planning Act	321
„ Re-visits to premises <i>re</i> Housing and Town Planning Act	600
„ Visits to Infectious Disease Cases	684
„ „ <i>re</i> Limewashing, &c., after Infectious Disease	242
„ „ to Slaughter-houses	1,453
„ „ to Offensive Trade Premises	125
„ „ to Markets	321
„ „ to Butchers' and other Food Shops	422
„ „ to Cowsheds, Dairies and Milkshops	5
„ „ to Houses Let-in-Lodgings (day)	384
„ „ to Common Lodging Houses (day)	1,988
„ „ „ (night)	21

Soil pipes or connections defective.....	2
Defective or choked water closets	24
Defective or choked sink waste pipes	1
Defective ventilating shafts	1
Defective water supply to closets.....	2
Defective condition of closets (roof, walls, door, seat or floor)	90
Want of doors to closets	23
Want of doors to Ashhouse	20
Defective condition of Ashhouses (roof, walls, door or floor)...	38
Defective or choked waste water closets.....	26
Want of Ashtub covers	28
Want of ashtubs	5
Foul and defective privies and ashpits	45
Defective W.C. cisterns	8
Insufficient closet accommodation to houses or workshops...	31
Insufficient ventilation to closets, to factories and workshops	9
Defective spouts (eave or down)	113
Bath and lavatory waste pipes defective	2
Insufficient means of escape in case of fire to factories or work- shops	1
Want of spouting to premises	4
Defective roofs	68
Defective flagging or paving (yards and passages)	69
Houses overcrowded or keeping of lodgers	34
Houses and premises filthy	4
Houses with filthy closets	4
Houses with filthy yards and entries.....	5
Houses with damp or defective walls	96
Houses with defective floors	42
Workshops requiring limewashing	2
Foul closets.....	1
Want of middensteads	8
Defective middensteads	3
Accumulations of manure	15
Accumulations of water	3
Accumulations of rubbish	19
Keeping of animals	16
Smoke nuisances	15
Miscellaneous	89

COMMON LODGING-HOUSES.

The houses on the register have been given the necessary attention. The enforcement of the provisions of the bye-laws has been strictly carried out. No case of infectious disease has occurred and the closest supervision has been exercised when cases of Small-pox have been notified in the Lancashire towns. The number of visits has been slightly less than the previous year; this is accounted for by the reduction of regular staff owing to the outbreak of war. Great credit is due to my assistant who carries on this inspection.

The houses still compare favourably with any such houses of other towns.

No. of Common lodging-houses in the Borough	21
„ Lodgers allowed nightly	949
„ Visits by day	1,988
„ „ night	21
„ Lodgers reported as being received (per returns)	204,077
„ Letters sent out	—

<i>No. on Register.</i>	<i>House.</i>
1	.....2 and 4, John Street.
2	....." Brown Cow," Queen Street.
3	.....23, 25, Hardybutts.
4	.....46, Queen Street.
5	.....1, 3, 5, Union Street.
6	.....16, Hardybutts.
7	.....87, 89, 91, Millgate.
8	.....1, Hardybutts.
9	.....14, Scholes.
10	....." The Mint," Scholes.
11	.....17, Warrington Lane.
12	.....7, Wiend.
13	.....1, Swift's Yard, Millgate.
14	.....7, Hardybutts.
15	.....32, Hardybutts.
17	.....3, Hardybutts.
24	.....28, Wiend.
34	.....27, Hallgate.
36	.....1, 3, 5, 7, 9, Scholes.
37	.....7, 9, Union Street.
38	.....36, 38, Hardybutts.

HOUSES LET-IN-LODGINGS.

The work of inspection of these houses has been carefully carried out by my assistant, and the bye-laws strictly enforced. This assistant has been absent on military service since the outbreak of war. The visits are very slightly less than the previous year. In no case has it been necessary to resort to legal proceedings. Verbal warnings have been sufficient in cases where the bye-laws have been contravened.

The number of registered houses is increased by one.

No. of Houses on register	19
„ Visits (day)	384
„ Letters sent out	2

SLAUGHTER-HOUSES.

The slaughter-houses and shops where food is prepared for consumption have been regularly visited. Every attention has been given to the slaughter-houses to enforce compliance with the bye-laws, and there has been no cause to take any legal proceedings with reference to the same.

The butchers, on the whole, work amicably with the Department, and offer every assistance when so required. The number of beasts that have required our judgment is given below. In each case where the beast has been passed, portions of the offal have been surrendered and destroyed. In those condemned, the offal was accounted for in each case. The Fish Markets have been regularly visited and any unsound food has been promptly dealt with.

Noting the amount of food and fish refuse destroyed, I think the provision of appliances to make the resultant product of some marketable value is worth the consideration of your Committee.

OFFENSIVE TRADE PREMISES.

Bye-laws have been before your Committee and confirmed by the Council for the better regulation of these places. The places have been constantly inspected, and any cause for complaints immediately remedied. The bye-laws have been confirmed by the Local Government Board, and came into operation this year (1915).

SLAUGHTER-HOUSES & MARKETS, &c.

No. of Slaughter-houses in Borough	26
„ Offensive Trade Premises in Borough.....	7
„ Knackers Yards in Borough (licensed)	2
„ Visits to Slaughter-houses	1,453
„ „ Offensive Trade Premises	125
„ „ Markets.....	321
„ „ Butchers' and other Food Shops	422
„ Letters sent out	9
„ Certificates issued (condemned food)	97

506 beasts passed.

20 beasts part passed.

18 beasts condemned.

20 beasts part condemned.

Several portions of animals which were killed outside and brought in the Borough, were also condemned.

FOOD CONDEMNED, 1914.

January.	2 Beasts (Tuberculosis); 1 flank portion of a beast (Tuberculosis); 5 dozen frozen sheep kidneys; 41 rabbits; 1 box of fish.
February.	1 Forequarter and flank portion of a beast (injuries); 1 flank portion of a beast (Tuberculosis); 1 calf (Tuberculosis); 37 rabbits.
March.	2 Beasts (Tuberculosis); 2 forequarters of a beast (Tuberculosis); 1 pig (Tuberculosis); 108 frozen meat.
April.	1 Beast (Tuberculosis); 2 flank portions of beasts (Tuberculosis); 1 flank portion and neck (congestion); 474lbs. of frozen meat; 151lbs. of beef and mutton (seized); 1 sheep (Inflammation); 93 rabbits; 9 boxes of tomatoes.
May.	2 Beasts (Tuberculosis); 1 flank portion of a beast (Tuberculosis); 1 flank portion of a beast (Abscesses); 2 boxes of frozen kidneys; 193 rabbits; 3 boxes of fish.

- June. 1 Flank portion of a beast (Tuberculosis); 44½lbs. of beef; 22 boxes of fish.
- July. 1 Fore- and 2 hindquarters of a beast (Tuberculosis); 2 forequarters and 2 hindquarters of a beast (Fly-blown); 9 rabbits; 182 boxes of fish; 7 crates of bananas; 9 baskets of apricots; 13 baskets of tomatoes.
- August. 2 Beasts (Tuberculosis); 2 hindquarters of a beast (Emaciation); 1 calf (Tuberculosis); 106 rabbits; 1 chicken; 30 boxes of fish; 18 crates and 6 bunches of bananas; 70 baskets of plums; 10 cases of cucumbers.
- September. 1 Beast (Tuberculosis); 4 legs of mutton; 119 rabbits; 1 hare; 20 crates of bananas.
- October. 1 Forequarter and 1 hindquarter of a beast (Tuberculosis); 1 forequarter of a beast (Tuberculosis); 1 flank portion of a beast (injuries); 43 rabbits; 2 turkeys; 4 brace of pheasants; 9 boxes and 2 cwts. of fish.
- November. 2 Forequarters and 2 hindquarters of a beast (Tuberculosis); 2 forequarters and 2 hindquarters of a beast (Tuberculosis); 2 forequarters of a beast (Tuberculosis); 1 cwt. of beef; 28 rabbits; 3 boxes of kippers.
- December. 2 Beasts (Tuberculosis); 1 beast (Peritonitis); 1 forequarter of a beast (Tuberculosis); 1 forequarter and 1 hindquarter of a beast (Tuberculosis); 1 flank portion of a beast (Tuberculosis); 1 pig (Inflammation); portions of 2 pigs (Inflammation); 2 turkeys; 1 wagon load of cabbages.

SUMMARY.

15 Beasts.	2 boxes of frozen kidneys.
1 Sheep.	104 boxes of wet fish.
2 Calves.	146 boxes of dry fish.
2 Pigs.	3 kits of dry fish.

8 Forequarters of beef.	669 Rabbits.
6 Hindquarters of beef.	9 boxes of tomatoes.
1 Bullock.	92 baskets of fruit.
613½lbs. of mutton.	25 crates of fruit.
28lbs. of mutton.	6 bunches of fruit.
4 Legs of mutton.	17 cases of bananas.
1 Side of beef.	3 crates of bananas.
In 10 cases, portions of flank beef.	10 cases of vegetables.
In 2 cases, portions of pig.	1 wagon load of cabbages.
In 2 cases, portions of hindquarters of beef.	4 Turkeys.
4 Livers.	1 Chicken.
60 Kidneys.	1 hare.
	4 brace of pheasants.

The following statement shows the quantities of unwholesome food destroyed at the Miry Lane Depot during the year:—

	T.	C.	Q.
Fish	5	6	2
Beef	14	7	3
Pork		4	3
	19	19	0

In addition to the above, the following was destroyed:—

	T.	C.	Q.
Shellfish	13	6	0
Other refuse	228	10	0
	241	16	0

CANAL BOATS ACTS, 1877 & 1884.

The canal has been visited regularly during the year, and the boats thereon have been thoroughly examined. The number of inspections have been slightly less this year.

In one or two instances verbal warnings to the Canal Company have been sufficient to have slight infringements rectified.

The number of occupants and the sexes on the boats inspected were as follows:—Men, 217; Women, 32; Children, 7.

A census was taken at the end of the year of the boats that have been registered at Wigan—as to how many were still in use or otherwise. The result of the enquiries is given below :—

No. of Boats that have been registered at Wigan	291
„ „ still in use or available	47
„ „ not in use	189
„ „ that cannot be traced	35
„ „ re-registered with other authorities	20
„ „ „ at Wigan	6
„ Applications for registration and re-registration during the year	3
„ Applications granted	3
„ Boats re-registered	—
„ Inspections	102
„ Notices issued	10
„ „ complied with	7
„ Contravention of regulations	13
„ Letters sent out	54
„ Certificates renewed	1

Copy of Annual Report to the Local Government Board as to the execution of the Canal Boats Acts during 1914 :—

1. INSPECTION OF BOATS.

The inspection is undertaken by the Chief Sanitary Inspector (Mr. Charles H. France, Health Office, Wigan). Remuneration reckoned in salary.

2. NUMBER OF BOATS INSPECTED.

101. Condition of boats and occupants, good.

3. INFRINGEMENTS OF THE ACTS AND REGULATIONS.

Certificates require renewing	5
„ not produced	3
„ did not identify boat	1
Decks require caulking	1

4. LEGAL PROCEEDINGS.

None taken.

5. STEPS TAKEN TO SECURE COMPLIANCE WITH ACTS AND REGULATIONS.

Notices and letters issued in each case.

6. CASES OF INFECTIOUS DISEASE.

None.

7. DETENTION OF BOATS FOR CLEANSING AND DISINFECTION.

None.

8. TOTAL NUMBER OF BOATS ON REGISTER.

Total registered	291
(a) In use or available	47
(b) Cannot be traced	35
(c) Not in use	189
Re-registered	20

9. NUMBER OF BOATS REGISTERED IN 1913.

2. No structural alterations.

No. of certificates renewed by this Authority..... 1

(Signed) CHARLES H. FRANCE,

Chief Sanitary Inspector.

SMOKE NUISANCES.

During the past year the following observations have been taken of the mill chimneys in the Borough, and attention has been paid to complaints of smoke nuisances from other workplaces and dwellings. In one case a letter was sent calling attention to the time limit being exceeded, and this warning has been sufficient to cause no further action being taken. Verbal warnings are also given.

With the exercise of a little care on every person's part, many of the complaints would be unnecessary.

No. of Smoke observations	11
„ Letters sent out	1

INFECTIOUS DISEASES.

The number of infectious diseases notified during the year have been greater than the previous year, necessitating heavier work upon the staff. As will be seen in my report under the heading of "Military Services" the efforts of the disinfecting staff have been largely increased owing to the extra disinfection, and the pressure of work has required day and night work. The disinfecting station has

successfully coped with the extra work, and for such services praise must be given to Mr. Knowles and his staff for their loyal co-operation.

Every case of infectious disease was visited and re-visited, and the inspection of the sanitary arrangements of each house carefully made. Disinfection and limewashing, etc., of the premises followed.

The number of premises and articles disinfected is very largely increased. Sulphur and Formalin were the disinfectors used in the houses, and steam disinfection at the Miry Lane Depot.

Appended is a summary of the work done.

INFECTIOUS DISEASES (PREVENTION) ACT.

No. of Houses disinfected	439
„ Rooms disinfected	637
„ Beds disinfected	430
„ Mattresses disinfected	291
„ Sheets and Quilts disinfected	1,112
„ Other articles disinfected	4,342
„ Schools disinfected	14
No. of Premises cleansed and limewashed after infectious disease	183
„ Visits to Houses <i>re</i> limewashing and cleansing, &c....	242
„ „ <i>re</i> infectious disease	684
„ Letters sent out <i>re</i> infectious disease	10
„ „ <i>re</i> limewashing.....	27

SALE OF FOOD AND DRUGS ACTS; MARGARINE ACTS; PUBLIC HEALTH (MILK & CREAM) REGULATIONS, 1912.

The work carried out under these Acts has been much the same as in the previous year. The number procured is increased by 2, but the adulterated samples are less, 8 as compared with 12 the previous year. The adulteration was as follows:—5 new milk, 1 butter, 1 potted shrimps, 1 lobster and fish paste. Samples were taken from shops, railway stations, and milk carts. Two of the adulterated milk samples were procured at the railway station, the rest were from purveyors from carts. There has been no cause to take action for any preservative being found in milk. As will be seen by the Public Analyst's report every sample was tested for preservatives.

Twenty-five informal samples have been taken against 7 in 1913. All samples were submitted for analysis.

In each case of adulteration of milk, further samples were obtained from the farmer, and also the farms visited and all milking appliances, etc., carefully inspected.

In 9 cases letters were written to vendors owing to samples being "toned."

Under the Milk and Cream Regulations, 5 samples were procured informally.

PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912.

Report for the year ended 31st December, 1914:—

1. MILK AND CREAM NOT SOLD AS PRESERVED CREAM.

	New Milk.	Cream.
No. of samples examined for the presence of a preservative	133	...
No. in which a preservative was reported to be present .....	...	...

2. CREAM SOLD AS PRESERVED CREAM.

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct:

(i.) Correct statements made	5
(ii.) Statements incorrect	—
Total	5

(b) Determination made of milk fat in cream sold as preserved cream:

(i.) Above 35 per cent.	5
(ii.) Below 35 per cent.	—
Total	5

(c) No instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article v. (1) and the proviso (2) of the Regulations have not been observed, have occurred.

3. THICKENING SUBSTANCES.

No evidence of their addition to cream or to preserved cream has been found.

	Samples.	Genuine.	Adulterated.	Not Formal.
Milk	133	128	5	6
Butter	6	5	1	4
Coffee	4	4	...	...
Margarine	2	2	...	...
Lard	4	4	...	...
Sugar.....	12	12	...	...
Paregoric	3	3	...	3
Whiskey	6	6	...	...
Lobster and fish paste	1	...	1	1
Potted shrimps	1	...	1	1
Rum	4	4	...	...
Brandy	2	2	...	...
Sweet spirit of nitre	3	3	...	...
Gregory powder ...	1	1	...	...
Comp. liq. powder	1	1	...	...
Milk of sulphur ...	1	1	...	...
Preserved cream ...	5	5	...	5
Pills	5	5	...	5
Total ...	194	186	8	25

No. of Sample.	Formal or Informal.	Article.	Extent of Adulteration.	Result.
16	Formal.	New Milk.	Deficient in milk fat to the extent of 13.3%.	Pay costs.
17	Formal.	New Milk.	Deficient in milk fat to the extent of 15%.	Case dismissed. Had warrant from farmer, which was produced.
47	Formal.	New Milk.	Deficient in milk fat to the extent of 16.6%.	Pay costs.
75	Informal.	Butter.	For giving false warrants No. 47. Adulterated with 90% of fat foreign to butter fat.	Test sample taken afterwards, which was certified "genuine."
87	Informal.	Potted Shrimps.	Excessive proportion (50 grains per pound) of Boron preservative.	No action taken.
88	Informal.	Lobster and Fish Paste.	Contained excessive proportion (55 grains per pound) of Boron preservative.	No action taken.
104	Formal.	New Milk.	Deficient in milk fat to the extent of 13.3%.	Dismissed (retailer).
115	Formal.	New Milk.	Deficient in milk fat to the extent of 16.6%.	Pay costs (farmer). In connection with No. 104.

Offences other than adulteration :—

Obstructing Inspector	Nil.
Attempting to bribe Inspector	„
Refusing to serve Inspector.....	„
No name on milk can	„
Condensed, separated or skimmed milks unlabelled.....	„
Breaches of the Margarine Act, 1887	„
„ Butter and Margarine Act, 1907.....	„

MARGARINE & MARGARINE CHEESE.

Under the above 14 persons are registered as “ Wholesale Dealers ” for 17 premises.

FERTILIZERS & FEEDING STUFFS ACT, 1906.

During the year 20 informal samples have been taken ; 17 samples were reported satisfactory and 3 as unsatisfactory—in these cases satisfactory explanations were given. The unsatisfactory samples were bean meal 1, “ Uveco ” 1, fertilizer 1.

SAMPLES.

Indian meal	2
Cooked “ Uveco ”	1
Shirds.....	1
Barley meal	1
Bran	4
Bibby's meal	3
Bean meal	4
Cotton seed meal	2
Cattle powder	1
Fertilizer	1

FACTORY AND WORKSHOP ACT.

The full particulars of work under this heading are dealt with]
in Part III. of the Medical Officer's report.

Much attention has been given to the different factories and workshops in the Borough, and any infringements of the Acts have been dealt with.

The sanitary conveniences have been re-constructed at Eckersley's Mills, Swan Meadow, from the tube and pail closets to the pedestals on the water-carriage system ; and the means of escape in case of fire in these mills have been put in good order.

During the year the following factories were granted certificates as being provided with sufficient means of escape in case of fire :—

- 3, Western Mill, Swan Meadow Road.
- Reeling and Winding Room, Pottery Road.
- Hosiery Factory, Dorning Street.

No. of Workshops on register	379
„ Bakehouses on register	137
„ Domestic Workshops	21
„ Visits to Outworkers' Premises	59
„ „ Factories.....	93
„ „ Workshops	562
„ Letters sent out	86
„ Defects dealt with	127
„ Underground Bakehouses	6

SHOPS ACTS.

The provisions of these Acts have been carried out very carefully by the Department. The attention given is in advance of last year ; and this is all the more praiseworthy considering the extra duties of the staff in the abnormal times that have occurred in the latter part of the year.

I had, during the year, cause to summon one person under the Acts for a contravention. As I stated in my last report, it would be more beneficial generally if the different trades applied to the Council for Orders to be made regulating the closing times for their trades.

It would soothe the friction that arises consequent upon the different days of closing, and also the times at night, and be a great benefit to the shop workers.

The report of offences are given herewith :—

No. of Shops on register	2,250
„ Visits to Shops (day)	1,064
„ „ (night)	85

No. of Visits to Shops <i>re</i> Closing Order Barbers and Hair-	
dressers (day)	656
„ „ „ <i>re</i> Closing Order Barbers and Hair-	
dressers (night)	580
„ Letters sent out <i>re</i> infringements	14
„ Observations (day)	1,039
„ „ (night)	16

SHOPS ACT, 1912 & 1913.

Report of Offences, 1913.	DISTRICTS.			Total.
	Insp. B.	Insp. M.	Insp. A.	
Cautioned for not exhibiting Closing Notice	89	45	6	140
„ not having Form (assistants' half-holiday)	25	2	—	27
„ having no Abstract	3	—	—	3
„ assistants not having half-holiday ..	19	7	—	26
„ intervals for meals	5	—	—	5
„ selling on closing days	3	5	1	9
„ not closing at 1 p.m. on half-holiday ..	6	28	2	36
„ employing young persons after working under Factory & Workshops Act	2	—	—	2
„ offence—Barbers and Hairdressers' Closing Order	11	5	2	18

DAIRIES, COWSHEDS & MILKSHOPS ORDER.

No. of Cowsheds on register	44
„ Dairies on register	6
„ Milkshops on register	148
„ Visits Paid	5

It will be seen from the report that the attention paid under the heading relative to Dairies and Milkshops is not one which your Chief Sanitary Inspector desires. The heavy work entailed by other duties being the chief cause. The carrying out of the suggestions in the introduction of my report will be of great material advantage.

DISEASES OF ANIMALS ACTS.

The provision of these Acts so far as relate to this Department have been given the attention required.

AMERICAN GOOSEBERRY MILDEW (FRUIT) ORDER,
1912.

The Markets have been regularly visited and the fruit shops supervised during the season of this fruit. Strict attention was given owing to some case of mildew having occurred in neighbouring towns. I received a visit from the Inspector of the Board of Agriculture upon this matter and rendered him every assistance.

RAG FLOCK ACT, 1912.

Your staff are fully alive to the provisions of the Act. No samples have been obtainable in the Borough. The tradesmen are kept fully informed of the measures of the Act.

HOUSING AND TOWN PLANNING ACT, 1909.

The full report of work done during the year under this heading is dealt with in the report of your Medical Officer of Health.

The Committee have dealt energetically with this work and the outstanding properties upon the books are being gradually worked off.

The Committee are fully alive to the seriousness of the Housing conditions of the Borough, and realize the arduous work done by the Department.

The number of visits paid by your Inspectors are as follows :—

Visits to Premises *re* Housing and Town Planning Act 321

Re-visits to	600
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Beyond the work of inspection of the houses reported to the Insanitary Houses and Housing Committee, house-to-house inspection of the following has been carried out, and nuisance notices served for any defects :—

7, 9, 11, 13, 15, 17, 19, 21, 23, Silver Street.

1, 2, 3, 4, 5, 6, 7, Silver Terrace.

100, Great George Street.

1, Fairhurst's Yard.

93, 95, 97, 99, 101, Platt Lane.

1, 2, 3, 4, 5, 6, 14, 15, 16, 17, 26, 27, 28, 29, 30, 31, Marsh
Lane.

2, 4, 6, 8, 10, Water Street.

47, 49, James Street.

19, 21, Cross Street.

130a, Chapel Lane.

3, 11, 13, 15, 17, 19, 21, Bradford Street.

1, 2, 3, 4, James Street.

12, 14, 16, 18, 20, Green Street.

1, 2, 3, 4, 5, 7, 8, 9, Bradford Place.

PROSECUTIONS, 1914.

Case 1. April 2nd.—Public Health Acts. Having in possession, etc., 11 rabbits which were unfit, etc., for the food of man. *Pay costs.*

„ 2. „ 27th.—Food and Drugs Acts. Selling to the prejudice of the purchaser 1 pint of new milk which was not of the nature, etc., demanded. *Pay costs.*

„ 3. May 21st.—Shops Acts, 1912. Failing to exhibit the notice required by Section 10. *Pay costs.*

„ 4. „ 21st.—Public Health Acts. Having in possession, etc., 28 pieces of mutton, 26 pieces of beef (weighing 76lbs. in all), which were unfit, etc., for the food of man. *£5 and costs.*

„ 5. „ 21st.—Public Health Acts. Having deposited for the purposes of sale, etc., 17 pieces of mutton, 1 piece of beef, and 13 rabbits (weighing 75lbs. in all), which were unfit for the food of man. *Pay costs.*

„ 6. June 18th.—Public Health Acts. Having in possession, etc., 2 forequarters, 2 hindquarters of beef, $\frac{1}{2}$ liver, 1 tongue, part of skirt, 1 heart, 1 tail, which were diseased, unsound, etc., and unfit for the food of man. *10/- and costs.*

- „ 7. „ 18th.—Second charge. Public Health Acts. The beef belonging to defendant. Case withdrawn on securing conviction in Case 6.
- „ 8. „ 18th.—Public Health Acts. Having in possession meat as described (Case 6), which then belonged to him, which was diseased, unsound, and unfit for the food of man. This case withdrawn.
- „ 9. „ 18th.—Summary Jurisdiction Act, 1848, Section 5. For aiding and abetting defendant of Case 6 in committing an offence. £20 *and costs*. Cases 8 and 9 were adjourned for a week.
- „ 10. July 23rd.—Food and Drugs Acts. Selling to the prejudice of the purchaser 1 pint of new milk which was not of the nature, etc., demanded (purveyor). Case withdrawn—warranty produced—and Bench agreeing with Solicitor to proceed against the person issuing warranty.
- „ 11. „ 23rd.—Food and Drugs Acts. For giving false warranty (farmer). *Pay costs*.
- „ 12. Aug. 13th.—Food and Drugs Acts. Selling to the prejudice of the purchaser 1 pint of new milk which was not of the nature, etc., demanded (purveyor). Dismissed.
- „ 13. „ 13th.—As above (farmer). *Pay costs*.

