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ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE

BOROUGH OF CREWE.

BY

G. GRANVILLE BUCKLEY, M.D., D.P.H.,

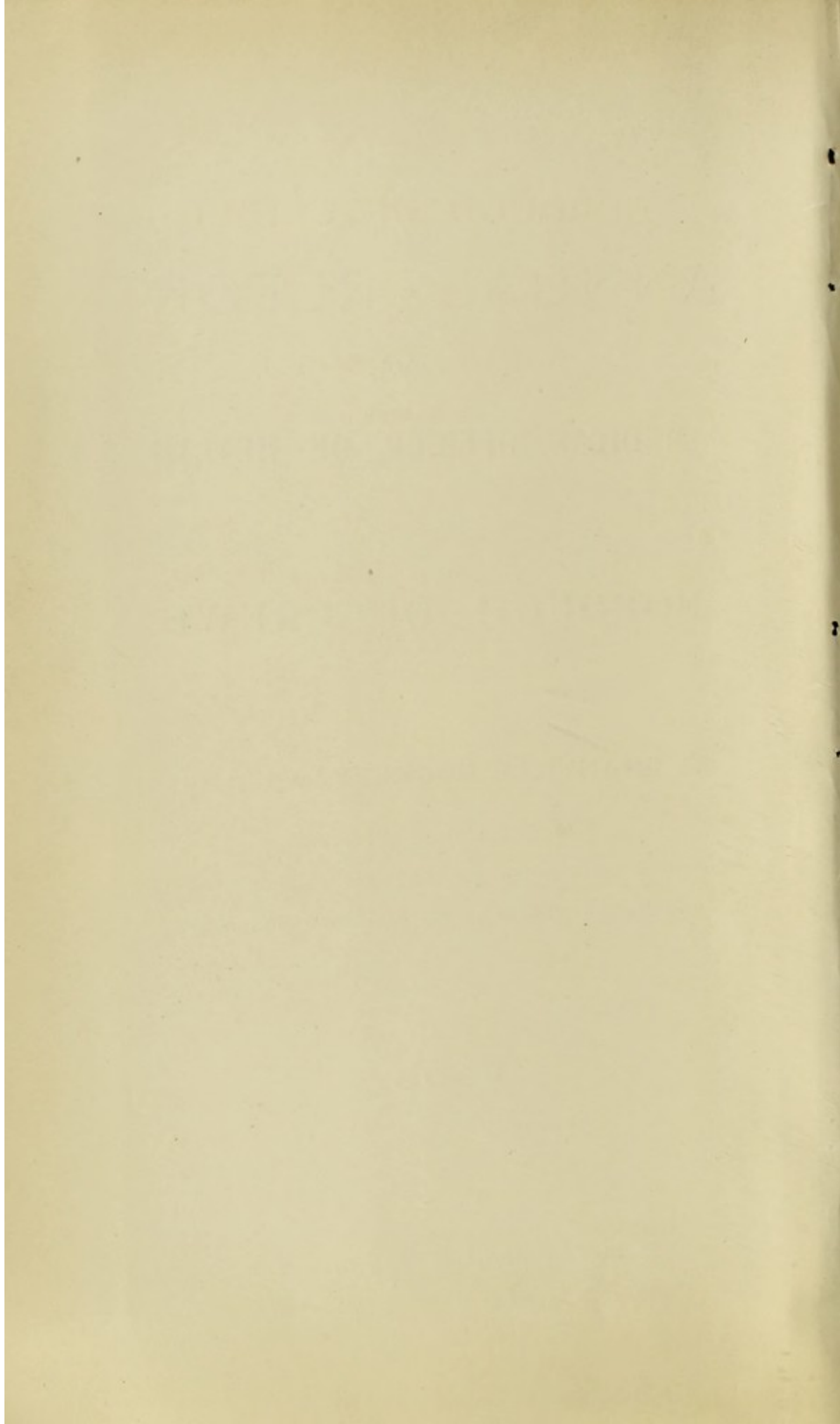
Medical Officer of Health,

Medical Superintendent of Borough Isolation Hospitals,
and Medical Officer to the Education Committee.

1909.

CREWE :

THE CREWE STATIONERY COMPANY, LIMITED.



BOROUGH OF CREWE.

HEALTH COMMITTEE.

1908—1909.

Chairman :

ALDERMAN H. HOPTROFF.

Members :

ALDERMAN A. H. BADGER.

„ J. KNOTT.

„ W. McNEILL.

COUNCILLOR G. BAILEY.

„ J. BOOTH.

„ D. FROGGATT.

„ J. R. GOULDEN.

„ A. JERVIS.

„ S. KAY.

„ W. BOWLER.

„ JOSEPH JONES.

„ W. MICKLEWRIGHT.

„ G. BOSLEY.

„ J. BRIGGS.

„ H. BULLOCK.

COUNCILLOR F. MANNING.

„ E. CHAPMAN.

„ EZRA NIXON.

„ A. LATHAM.

„ R. D. SHARPE.

„ J. SEED.

„ E. VAUGHAN.


„ T. SMITH.

„ JESSE WILLIAMS.

„ W. K. SPENCER.

„ J. T. WORTHINGTON.

(HIS WORSHIP THE MAYOR) C. R. WOOLDRIDGE.



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HEALTH DEPARTMENT,
MUNICIPAL OFFICES, CREWE,

April 20th, 1910

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I have the honour of submitting for your consideration my Annual Report on the Health of the Borough and the administration of the Health Department during the year 1909.

With regard to the Epidemic of Diphtheria which commenced in the Autumn, I hope to present a report on the subject later.

I must tender my thanks to the Members of the staff for their willing assistance.

I am, Gentlemen,

Your obedient Servant,

G. GRANVILLE BUCKLEY.

THE

PROCEEDINGS

OF THE

ANNUAL MEETING

OF THE

AMERICAN

ASSOCIATION

OF

PHYSIOLOGISTS

AND

PHYSICIANS

HELD AT

THE

WASHINGTON

Part i.

Statistical.

Statistical Summary, 1909.

Area of Borough	...	...	...	...	...	...	2,185 acres
Population at Census, 1901	...	...	...	...	...	...	42,074
Estimated population to middle of 1909	...	...	...	...	...	...	48,584
						1908	1909
Average number of persons per acre	...	...	...	...	...	22.1	22.2
Birth-rate per 1,000 living	...	...	...	...	...	24.6	23.05
Death-rate	...	...	...	...	...	11.06	11.9
Death-rate from Zymotic diseases	...	...	...	...	...	0.90	0.41
Phthisis Death-rate	...	...	...	...	...	0.4	0.6
Infant mortality, per 1,000 births	...	...	...	...	...	103	104
Total occupied houses	...	...	...	...	...	10,096	10,143
Plans of new buildings passed	...	...	...	...	...	60	51
Assessable Value (General District Rate)	...	...	...	...	...	£159,364	0 0
Rateable Value (Borough Rate)	...	...	...	...	...	£170,408	0 0
Amount raised by 1d. Rate	...	...	...	...	...	£660	0 0

Charter of Incorporation granted April 27th, 1877.

Commission of the Peace granted April 7th, 1881.

Adoptive Acts in force in Crewe.

Infectious Diseases (Prevention) Act, 1890, adopted January, 1891.

Public Health Act Amendment Act. 1890, adopted February, 1891.

Infectious Diseases (Notification) Act, 1889, adopted October, 1896.

Geology.

The soil upon which Crewe and the neighbouring villages are built consists wholly of drift deposit. The whole of the Borough is built upon a re-deposited boulder clay (red, blue and yellow brick clays), intersected here and there with irregular lines and pockets of sand and gravel, probably the remains of old river and brook courses.

This clay deposit and an underlying bed of stratified clay lie in a hollow of stratified drift sand, and attain a depth of from 12 to 100 feet.

The drift sand rises to the surface in a bay-like curve in the outlying villages of Wistaston, Shavington, Weston, Crewe Green, and Haslington.

The whole of these deposits appear to be laid in a deep hollow in the Keuper; a brook which passes through the centre of the Borough, appearing to have cut down to this formation.

Elevation.

The Borough is situated upon the Valley Brook, a tributary of the river Weaver. The mean elevation is about 170 feet above sea level, and varies from 113 feet at the lowest part of the Sewage Farm to 200 feet at Hightown.

HEIGHT ABOVE SEA LEVEL.

Sewage Farm (West of Queen's Park)	... ..	113 feet.
The Valley	... ..	145 „
Market Square (South-West corner)	... ..	184 „
Isolation Hospital	... ..	182 „
Nantwich Road (East end)	... ..	188 „
Hightown (St. Paul's Church—North side)	... ..	200 „

Area.

The Borough has a total area of 2,185 acres, comprising the Civil Parish of Monks Coppenhall and parts of the Civil Parishes of Church Coppenhall, Shavington-cum-Gresty, and Wistaston, the three last named parts being added on 24th March, 1894, by Order of the Local Government Board.

Density.

The average density of the Borough is equal to 22·2 persons to the acre.

Population.

The estimated population at the middle of 1909 was 48,584. This estimate is based upon the number of inhabited houses as ascertained from the rate-books, and the average number of persons per house at the last census. This method of estimating the population differs from that of the Registrar General, who assumes that the same annual rate of increase will be maintained from 1901 to the next census in 1911, as existed in the period 1891 to 1901. The population as estimated by this method was 50,196 at the middle of 1909.

Both methods are subject to error, which increases with the length of time from the last census. The first method is probably best suited for our purposes, although one factor (the average number of persons per house) varies from year to year. At the census of 1891 it was 5·011, and in 1901 it was 4·70. During times of depression in trade, when wages are low, the average house population increases (by two families occupying one house, etc.), and the number of inhabited houses is diminished, with the result that there is shown an apparent check on the increase of the population.

The distribution of the population in the four wards is shewn below :—

Ward.	Population at Census, 1901.	Estimated Population.		
		Males.	Females.	Total.
Central	9,349	5,475	5,323	10,798
West ...	9,464	5,705	5,223	10,928
North ...	10,160	5,990	5,740	11,730
South ...	13,101	7,761	7,367	15,128
Borough ...	42,074	24,931	23,653	48,584

Housing.

The Assistant Overseer (Mr. A. Maywhort) has kindly allowed me to extract from the rate books the following information with regard to the total number of houses, and the number of unoccupied houses, and their rateable values:—

Number of Houses on the Rate Book, Sept. 30th, 1909.

Houses rated under	£5 per annum	...	...	198
" " at £5 and under	£10	"	"	6,973
" " £10	£20	"	"	2,695
" " £20	£30	"	"	311
" " £30	£40	"	"	93
" " £40	£50	"	"	68
" " £50	£60	"	"	20
" " £60	£70	"	"	11
" " £70	£80	"	"	7
" " £80	£90	"	"	11
" " £90	£100	"	"	5
" " £100	£200	"	"	25
" " at £200 and above	"	"	"	8
Total				10,425

From this it will be seen that 94·6 per cent. of the houses are rated at less than £20, and 68·7 per cent. at less than £10 per annum.

Houses rated at £5 and under £10 shew an increase of 18

" " £10 " £20 " " 27

The number of houses at other valuations remains the same.

Empty Houses.

RATEABLE VALUE.	Under £5	£5 and under £10.	£10, and under £20.	£20, and under £30.	£30, and under £80.	£80, and over.	TOTAL
Central Ward	1	37	12	3	3	...	56
West Ward	2	105	11	4	...	...	122
North Ward	8	70	2	1	...	...	81
South Ward	2	9	9	3	...	...	23
Borough of Crewe	13	221	34	11	3	...	282
Empty Houses, per cent. of Houses on Rate Books in each group.	6·6	3·1	1·2	3·5	1·5	...	2·7

There are 2 fewer empty houses than in 1908.

The following figures denotes the percentage of empty houses to total houses on the rate books for the last fifteen years :—

1895	...	2.4	1902	...	3.0
1896	...	2.8	1903	...	2.6
1897	...	2.6	1904	...	4.2
1898	...	2.7	1905	...	4.4
1899	...	2.2	1906	...	4.2
1900	...	2.6	1907	...	3.1
1901	...	3.3	1908	...	2.7
		1909	...		2.7

New Houses.

In the columns shown below are given the number of plans passed every year since 1891, and the number of habitation certificates granted since 1897.

The number of plans passed and the number of habitation certificates granted are the lowest yet recorded.

Plans passed	1891	...	...	...	...	139
"	1892	...	...	...	...	169
"	1893	...	...	...	...	157
"	1894	...	...	...	...	238
"	1895	...	...	...	...	283
"	1896	...	...	...	...	317
"	1897	...	...	...	...	441
"	1898	...	...	...	...	308
"	1899	...	...	...	...	385
"	1900	...	...	...	...	201
"	1901	...	...	...	...	243
"	1902	...	...	...	...	400
"	1903	...	...	...	...	225
"	1904	...	...	...	...	157
"	1905	...	...	...	...	89
"	1906	...	...	...	...	100
"	1907	...	...	...	...	91
"	1908	...	...	...	...	60
"	1909	...	...	...	...	51

Habitation Certificates :—

"	"	1897 (11 months)	...	...	234
"	"	1898	...	...	327
"	"	1899	...	...	248
"	"	1900	...	...	230
"	"	1901	...	...	226
"	"	1902	...	...	257
"	"	1903	...	...	304
"	"	1904	...	...	181
"	"	1905	...	...	135
"	"	1906	...	...	106
"	"	1907	...	...	64
"	"	1908	...	...	58
"	"	1909	...	...	45

Marriages.

I regret that it has been impossible to obtain the figures relating to the number of marriages in the Borough during 1909.

Year.	No. of Marriages.	Marriage-rate.
1897	244	12·64
1898	272	13·76
1899	315	15·56
1900	304	14·68
1901	250	11·80
1902	310	14·32
1903	297	13·05
1904	242	10·50
1905	261	11·2
1906	285	12·0
1907	313	13·0
1908	232	9·4
1909	...	...

Births.

The total number of births registered within the Borough during 1909 was 1,120, of which number 566 were males and 554 females.

The birth-rate per 1,000 of the population was 23·05, being 1·6 per 1,000 lower than 1908.

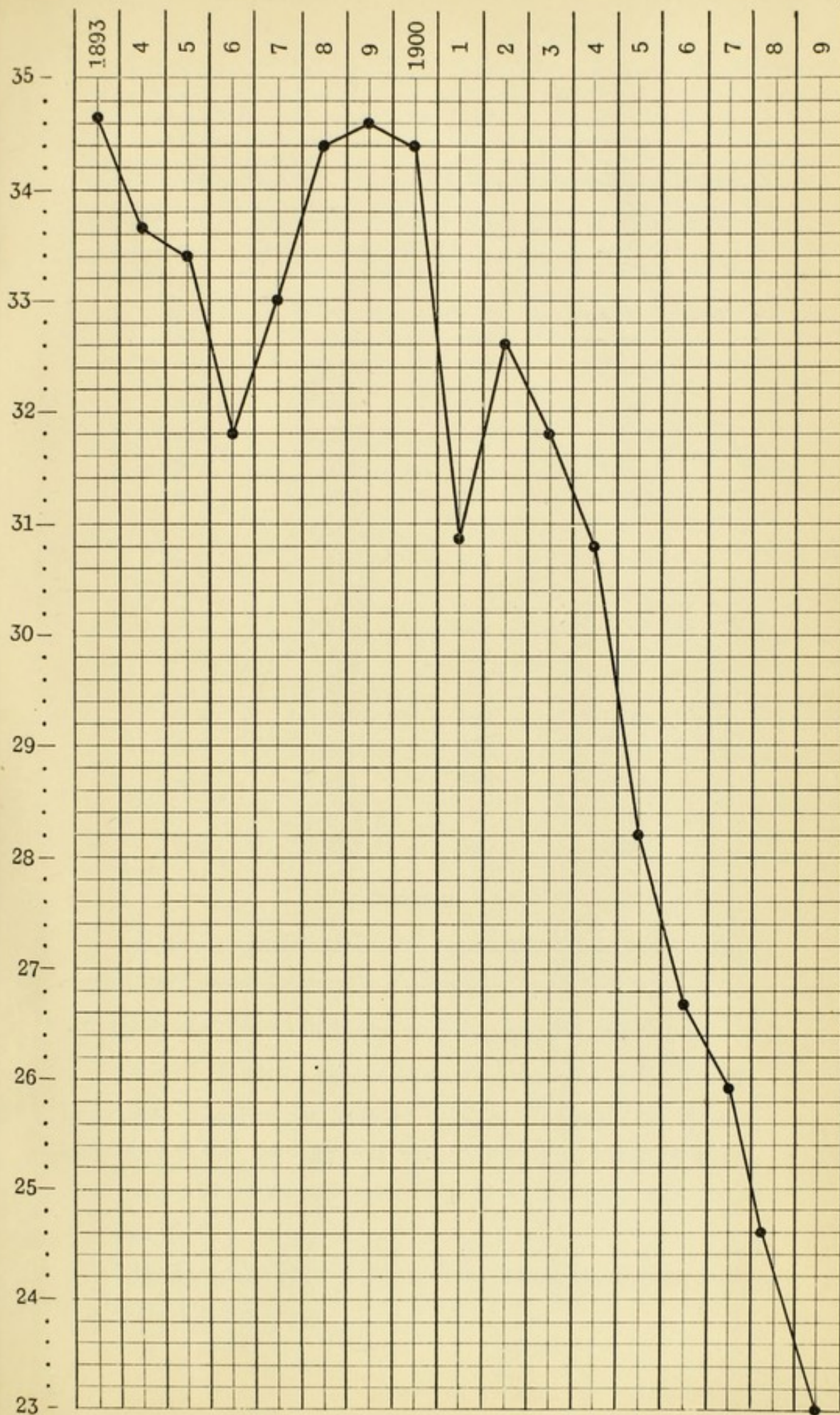
The Birth-rate for England and Wales in 1909 was 25·6 per 1,000 of the population, and is slightly lower than last year.

Of the births registered 58 or 5·1 per cent. were illegitimate, as compared with 36 or 3·01 per cent. in 1908.

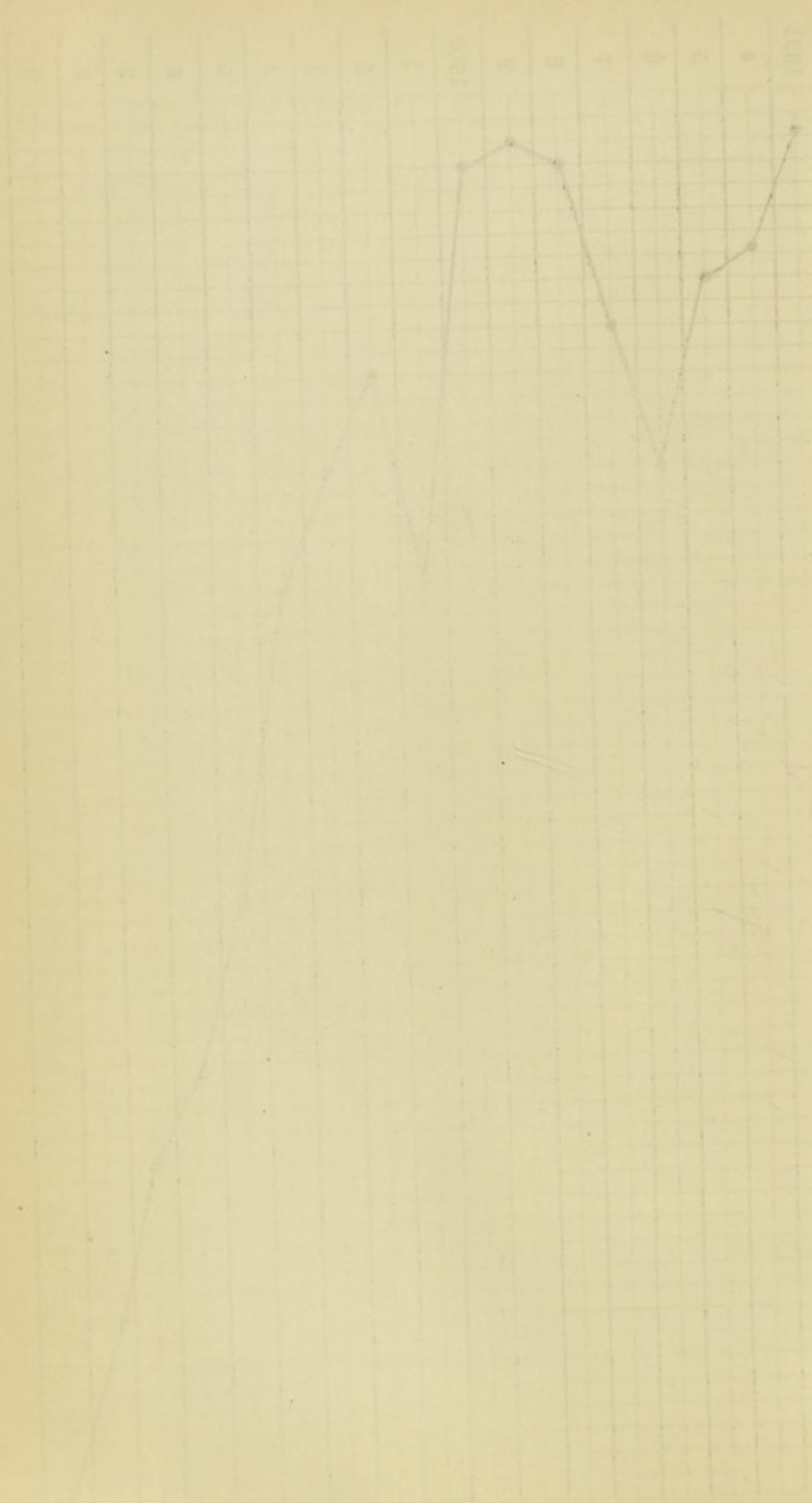
The following figures in parallel columns shew the birth-rate in the Borough of Crewe as compared with the rest of the country since 1893 :—

Year	Crewe.	England & Wales.
1893	35·2	30·7
1894	33·9	29·6
1895	33·6	30·3
1896	31·8	29·6
1897	33·1	29·6
1898	34·5	29·3
1899	34·6	29·1
1900	34·3	28·7
1901	30·9	28·5
1902	32·6	28·6
1903	31·9	28·4
1904	30·9	27·9
1905	28·2	27·2
1906	26·7	27·0
1907	26·1	26·3
1908	24·6	26·5
1909	23·05	25·6

From these figures it is seen that Crewe shares the steady diminution in the birth-rate with the rest of the country. The fall has been specially abrupt during the last two or three years, so that instead of being above that of the country generally the birth-rate of the Borough is now even lower than that of the country as a whole. The birth-rate is the lowest recorded in any year, and the number of the births registered is 73 lower than the preceding year.



*Birth Rates per 1000 persons living for
the Years 1893-1909.*



Ratio of the number of the population to the number of the population in 1900

The natural increase of the population, or the number by which the births exceed the deaths, shews a diminution owing to the even greater proportionate fall in the number of births.

Year.	Births.	Deaths.	Natural increase.
1893	1,228	694	534
1894	1,215	520	695
1895	1,237	608	629
1896	1,200	568	632
1897	1,278	627	651
1898	1,365	699	666
1899	1,400	695	705
1900	1,420	677	743
1901	1,311	710	601
1902	1,412	648	764
1903	1,454	651	803
1904	1,425	673	752
1905	1,318	629	689
1906	1,260	560	700
1907	1,251	536	715
1908	1,193	535	658
1909	1,120	582	538

Deaths.

The total number of deaths registered within the Borough during 1909 was 551, giving a *gross* death-rate of 11·3 per 1,000.

Of the 551 deaths 260 were of males, and 291 of females.

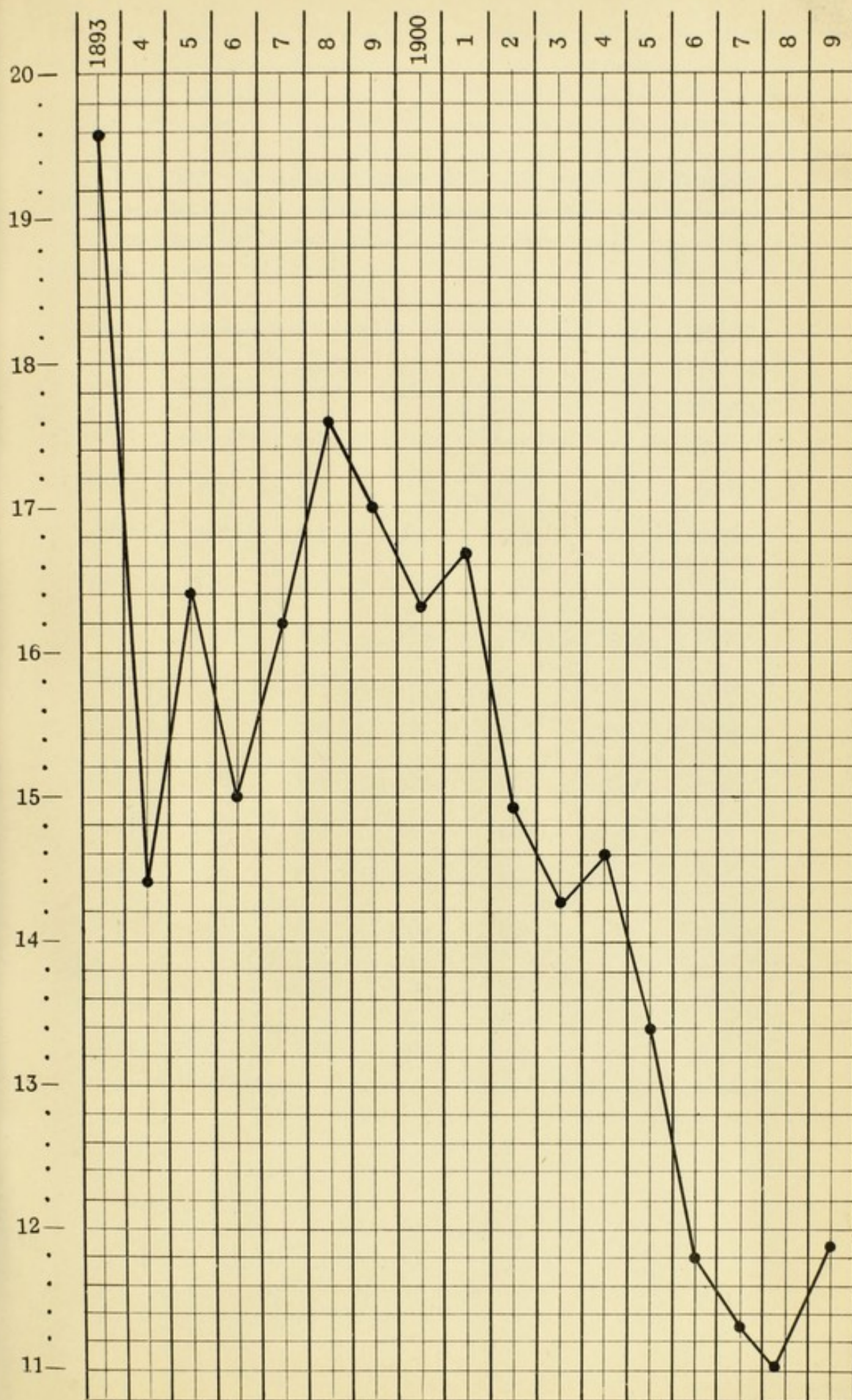
Seven of the deaths were of persons belonging to other districts, and must therefore be deducted; while 38 deaths of persons belonging to the Borough, but who died outside, must be added. This gives a correct number of 582 and a *corrected* death-rate of 11·9 per 1,000.

This represents a fall of 2·2 per 1,000 below the average death-rate of the last ten years.

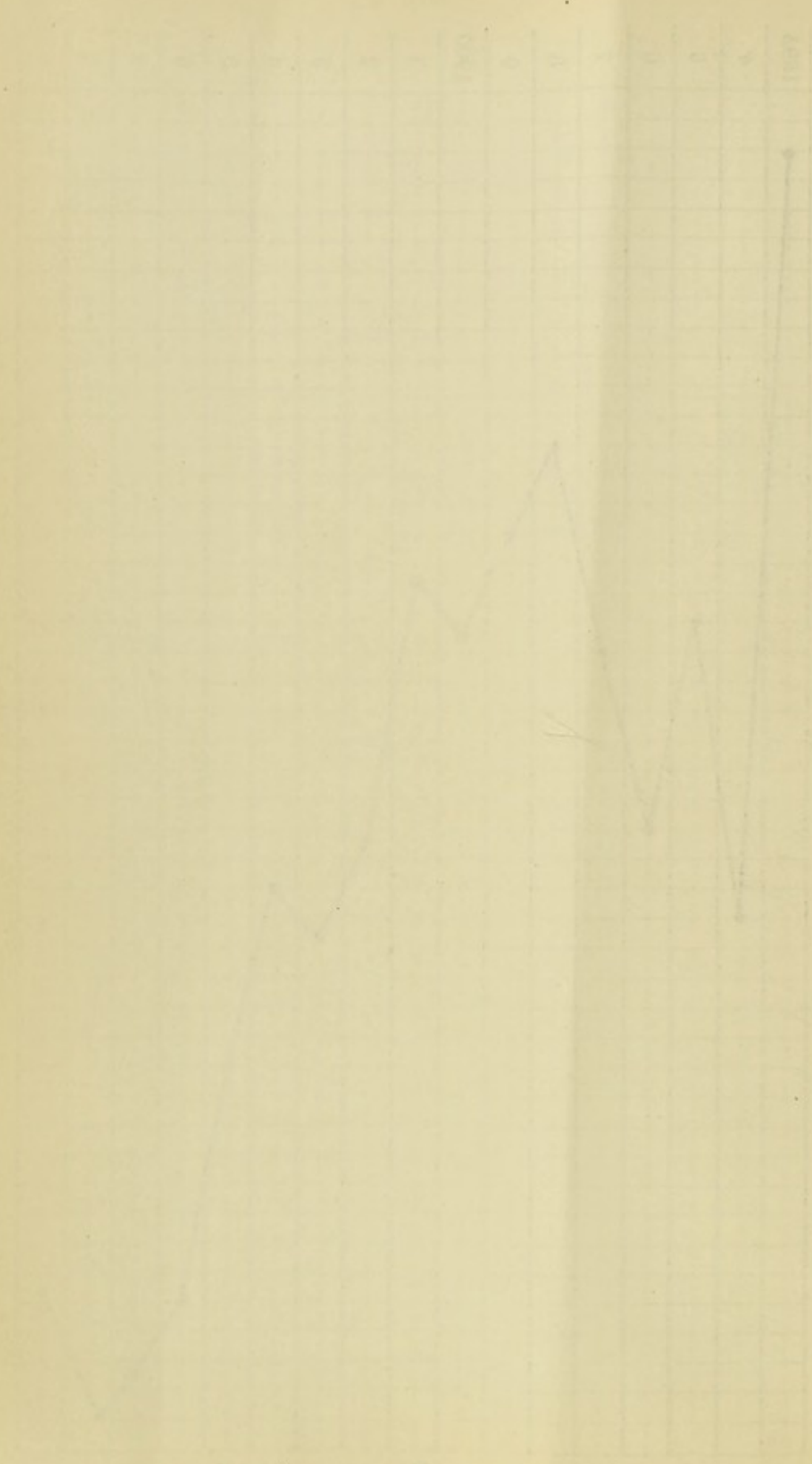
In England and Wales the death-rate in 1909 was 14·5 per 1,000. The rates in the 76 large towns and the 143 smaller towns, were respectively 15·6 and 14·5.

For the purpose of comparing the position of Crewe with that of other towns of about the same population the following table has been prepared. It is interesting to make such a comparison not only with working communities, but also with health resorts, and one or two of these are included in the table.

	Population estimated to middle of 1909.	Birth-rate per 1,000.	Death-rate per 1,000.	Zymotic Death- rate.	Respiratory Death-rate.	Phthisis Death-rate.	Deaths from other forms of Tuberculosis.	Infant Deaths per 1,000 Births.
England and Wales. ...	35,756,611	25·6	14·5	1·12	...	...	...	109
Accrington ...	46,500	20·34	14·60	75	3·22	·73	·38	123
Acton ...	56,000	26·4	12·5	2·2	2·2	0·87	·32	106
Blackpool ...	61,450	16·69	12·67	0·96	2·12	0·75	0·33	103
Burton-on-Trent	53,500	22·6	12·3	0·45	1·79	1·21	0·46	100
Bootle ...	71,500	29·9	16·0	2·1	3·4	1·1	0·29	118
Cambridge ...	40,313	21·1	13·5	0·59	1·36	0·81	0·37	83
Colchester ...	41,835	23·85	12·3	0·28	1·96	0·90	0·50	89
Darwen ...	42,668	19·12	14·44	1·10	3·40	0·82	0·26	127
Eccles ...	41,500	23·9	13·6	0·67	2·6	1·1	0·36	110
Gloucester ...	53,926	22·53	13·9	0·83	2·63	1·0	0·26	97
Keighley ...	46,450	20·6	13·47	0·64	2·23	1·07	·49	108
Lancaster ...	44,270	21·86	13·07	1·12	2·66	0·88	·38	104
Rotherham ...	65,000	31·78	12·94	0·89	2·54	·69	·34	116
Stockton-on-Tees	53,660	26·48	14·03	1·24	2·12	0·83	1·13	121
Wakefield ...	43,936	22·0	13·7	0·38	2·66	1·22	0·60	106
Wimbledon ...	54,274	21·07	9·5	0·55	1·1	0·68	0·27	71
CREWE... ...	48,584	23·05	11·9	0·41	2·79	0·6	0·37	104



*Death Rates per 1000 persons living for
the Years 1893-1909.*



United States - 1900-1909
The above graph shows the trend of the United States population from 1900 to 1909.

The following Table indicates the actual number of **Deaths** in each Quarter, and the **Death-rate** of previous years. It shows that the mortality in each year is much below the average of the last ten.

YEAR.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Whole year.	Death-rate for whole year.
1899...	209	142	182	162	695	17·1
1900...	212	159	148	158	677	16·3
1901...	156	163	193	198	710	16·7
1902...	173	161	135	179	648	14·9
1903...	173	151	166	161	651	14·3
1904...	159	145	171	198	673	14·6
1905...	190	163	129	147	629	13·5
1906...	147	117	138	158	560	11·8
1907...	150	117	116	153	536	11·1
1908...	156	117	124	138	535	11·06
Mean— 10 years }	172	143	150	165	631	14·13
1909...	183	132	106	161	582	11·9

THE PRINCIPAL CAUSES OF DEATH.—These are shewn in the following summary, while the figures for 1908 are also given for comparison :—

	1908.	1909.
Diseases of the Respiratory Organs (excluding Consumption)	104	136
Tubercular Diseases (including Consumption)	42	49
Diseases of the Circulatory system... ..	62	70
Malignant Diseases (Cancer, etc.)	31	31
Diarrhoea and Enteritis	34	16
Premature Birth	18	18
Measles	7	1

MORTALITY AT VARIOUS AGES.—The number of deaths occurring at varying periods of life is shewn below, as well as the average mortality of each age period during the last ten years.

AGE GROUPS	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	Average for 10 yrs	1909
Under 1 year ...	231	196	238	186	211	228	173	149	136	124	187	117
1 and under 5 ...	87	68	81	81	72	89	92	66	54	58	74	51
5 „ 15 ...	30	34	36	28	22	29	22	29	25	14	26	18
15 „ 25 ...	27	27	29	21	28	27	28	11	23	24	24	17
25 „ 65 ...	184	232	192	198	189	179	177	173	172	194	189	192
65 and upwards ...	136	120	134	134	129	121	137	132	126	121	129	187
All Ages ...	695	677	710	648	651	673	629	560	536	535	631	582

WARD DISTRIBUTION OF MORTALITY.—The following table gives the number of deaths and the death-rate in each of the Wards. The total number of deaths does not agree with that in some of the other tables on account of the fact that the addresses of residents who died in the Workhouse could not be ascertained, and therefore could not be allocated to their proper Wards. The total number of deaths in the Workhouse last year was 33.

	Central Ward.	West Ward.	North Ward.	South Ward.
Under 1 year	22	33	31	28
1 and under 5	14	10	19	8
5 and under 15... ..	3	3	6	6
15 and under 25... ..	4	2	6	3
25 and under 65... ..	51	47	41	38
65 and upwards	45	31	41	57
All ages	139	126	144	140
Death-rate per 1,000 ...	12·8	11·5	12·2	9·2

Mortality in Relation to Season.

Month.	Total No. of deaths.	Death- rate.	Deaths under 1 year.	Infantile death rate.
January ...	53	13·09	21	225
February...	55	13·5	8	85
March ...	75	16·05	9	96
April ...	50	12·3	11	117
May ..	50	12·3	10	107
June ...	32	7·9	9	96
July ...	38	9·3	6	64
August ...	30	7·4	7	75
September	38	9·3	7	75
October ...	43	10·6	10	107
November	53	13·09	8	85
December	65	16·05	11	117
Whole year	582	11·9	117	104

INFANTILE MORTALITY.—The number of deaths registered of children under one year of age was 117, as compared with 124 in the preceding year. The proportion of deaths to every 1,000 children born during the year was 104, against 103 for 1908. The rate for England and Wales was 109 per 1,000 births, which is a decrease of 12 per 1,000 upon 1908. In the 76 large towns it was 118 per 1,000 births, and in the 143 smaller towns (of which Crewe is one), the rate was 111 per 1,000 births.

The Infantile Mortality rate of Crewe thus compares favourably with that of the 143 smaller towns. The deaths from Diarrhœal Diseases number less than half of those during 1908. The deaths from Tubercular Diseases show an increase, whilst those from other causes remain about the same as last year.

The Health Committee, in 1908 had under consideration the question of adopting the Notification of Births Act, 1907. Owing, however, to the fact that no provision existed for visiting any cases which might be notified, it was decided not to adopt the Act for the present. The Committee agreed to the suggestion that a supply of cards of instruction on Infant Feeding should be given to each Midwife in the Borough for distribution to her patients.

The chief causes of death among infants are stated below.

	1905.	1906.	1907.	1908.	1909.
Diarrhœal Diseases ...	22	35	14	23	11
Respiratory Diseases ...	30	23	28	25	26
Tubercular Diseases ..	19	9	12	3	7
Convulsions	5	7	6	8	5
Premature Birth ..	23	27	28	18	18
Debility and Wasting	29	20	21	20	20
Measles	7	0	0	3	1
Whooping Cough ...	14	5	7	2	2
Other Causes	24	23	20	22	27
TOTAL	173	149	136	124	117

Of the total deaths 21 (or 18 per cent.) occurred during the first month. Of these 6 were prematurely born; 3 died from debility and marasmus, 2 from gastritis and enteritis, 2 from pneumonia, 3 from bronchitis, 1 from want of attention, 1 from general tuberculosis and 2 were overlain.

The causes of, and ages at, death are set out in detail in Table V. at the end of the report.

Uncertified Deaths.

These are deaths the causes of which have not been certified by a medical practitioner or by the Coroner after inquest.

Year.	Uncertified deaths.		Percentage of total deaths.	
1893	...	8	...	1.1
1894	...	8	...	1.5
1895	...	6	...	0.98
1896	...	4	...	0.7
1897	...	3	...	0.4
1898	...	3	...	0.4
1899	...	8	...	1.1
1900	...	10	...	1.4
1901	...	11	...	1.5
1902	...	3	...	0.4
1903	...	6	...	0.9
1904	...	3	...	0.4
1905	...	3	...	0.4
1906	...	1	...	0.1
1907	...	2	...	0.3
1908	...	6	...	1.1
1909	...	0	...	—

Still-born Children.

The number of still-born children interred in the Cemetery and Coppenhall Churchyard during the year was 73 or 6.5 per cent. of the number of births; 33 were males and 32 females, and in 8 cases the sex was not stated.

Total number.				Percentage of total births.				Total number.				Percentage of total births.			
1890	...	36	...	3.9	1900	...	55	...	3.8						
1891	...	30	...	3.0	1901	...	63	...	4.8						
1892	...	51	...	4.8	1902	...	86	...	6.0						
1893	...	48	...	3.9	1903	...	64	...	4.4						
1894	...	37	...	3.0	1904	...	75	...	5.2						
1895	...	71	...	5.8	1905	...	69	...	5.2						
1896	...	65	...	5.4	1906	...	78	...	6.1						
1897	...	56	...	4.2	1907	...	72	...	5.7						
1898	...	56	...	4.1	1908	...	81	...	6.8						
1899	...	63	...	4.5	1909	...	73	...	6.5						

Coroner's Inquests.

INQUESTS were held by the Coroner as to the cause of death in 36 cases. These were eventually returned as due to Natural Causes in 15 cases, Accident or Negligence (such as falls, burns, overlying, improper feeding, etc.) in 17 cases, and Suicide in 4 cases.

The proportion of inquests per 1,000 deaths was 61.8 as compared with 65.4 in the year 1908.

The number of inquests held and the proportion per 1,000 deaths in each year is shewn below :—

Year.	Number of Inquests.		Proportion per 1,000 deaths.	
1893	...	27	...	38.9
1894	...	30	...	57.6
1895	...	42	...	69.07
1896	...	34	...	59.8
1897	...	41	...	66.4
1898	...	54	...	78.9
1899	...	37	...	53.2
1900	...	49	...	72.3
1901	...	42	...	59.1
1902	...	34	...	52.4
1903	...	44	...	69.1
1904	...	45	...	68.2
1905	...	36	...	54
1906	...	35	...	62.4
1907	...	36	...	67.1
1908	...	35	...	65.4
1909	...	36	...	61.8

Particulars of Deaths of Illegitimate Children during 1909.

During the year four deaths among illegitimate children occurred :

Age.	Sex.	Cause of death.
2 years	M.....	Convulsions.
5 days	F.....	Atelectasis.
2 months	M.....	Asphyxia through overlying.
10 minutes	M.....	Premature Birth.

The death-rate per 1,000 births of each class among legitimate and illegitimate children are shewn below.

	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Infantile death-rate of legitimate children ...	162	138	180	130	147	159	131	118	108	101	106
Infantile death-rate of illegitimate children ...	228	125	200	156	166	162	256	224	142	166	68

Vaccination.

I am obliged to the Registrar of the Sub-District of Crewe (Mr. T. W. Lovatt) for his kindness in supplying the following information.

YEAR.	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Births registered ...	1420	1311	1412	1454	1425	1318	1260	1251	1174	1120
Successfully vaccinated...	990	900	1016	1060	1050	1014	922	860	706	623
Certificates of insusceptibility ...	5	6	3	2	5	3	3	2	7	4
Certificates of exemption (Conscience Clause) ...	40	33	22	33	21	44	60	113	237	275
Had small-pox ...	...	...	...	...	...	...	...	...	...	...
Died unvaccinated ...	133	143	128	140	133	101	100	114	74	83
Postponed by medical certificate ...	43	24	33	43	35	30	53	28	30	15
Removal to other districts	59	49	51	56	50	49	55	75	76	70
In abeyance ...	150	156	159	120	142	77	69	59	63	50
Percentage successfully vaccinated ...	69	68	71	72	73	77	73	68	59	*
Percentage successfully vaccinated excluding those who died unvaccinated ...	76	77	79	75	80	83	80	75	64	*

* Figures not to hand.

Part ii.

Record of Disease.

—

Zymotic Diseases.

The principal diseases belonging to this group are small-pox, diphtheria, scarlet fever, enteric fever, typhus fever, measles, whooping-cough, and epidemic diarrhœa.

The mortality from the seven principal diseases in this group, known as the Zymotic death-rate, shews a decrease of 50 per cent. upon last year, and is considerably below the average of the last ten years.

The number of deaths from the principal zymotic diseases during 1909 was as follows:—

	Under 5 years.	Over 5 years.	Total.	Rate per 1,000.
Smallpox ... ..	...	...	...	...
Diphtheria and Membranous Croup	4	3	7	0·144
Scarlet Fever ... ..	...	...	...	...
Enteric Fever	0	2	2	0·041
Measles	1	0	1	0·020
Whooping Cough	3	1	4	0·082
Diarrhœa	5	1	6	0·123
Totals	13	7	20	0·41

The mortality from these diseases was in England and Wales 1·12; in the 76 large towns 1·42, in the 143 smaller towns 1·08, and in rural England and Wales 0·80.

The Zymotic Death-rates for several years are shewn in the following table:—

	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Small-pox ...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Membranous Croup }	0·34	0·09	0·37	0·64	0·39	0·06	0·08	0·084	0·125	0·165	0·144
Scarlet Fever ...	0·02	0·19	0·14	0·06	0·19	0·23	0·08	0·106	0·125	0·124	...
Enteric Fever ...	0·09	0·24	0·07	0·04	0·08	0·02	0·08	0·0	0·062	0·020	0·041
Measles ...	0·24	0·41	0·07	0·41	0·0	0·28	0·47	0·318	0·041	0·144	0·020
Whooping Cough ...	0·64	0·12	0·44	0·20	0·37	0·26	0·06	0·148	0·250	0·082	0·082
Diarrhœa ...	0·98	0·82	1·46	0·67	0·24	0·76	0·34	0·504	0·187	0·372	0·123
	2·31	1·87	2·55	2·02	1·27	1·61	1·11	1·16	0·79	0·90	0·41

The following gives the number of deaths from these diseases occurring in each of the Wards:—

	Central	West.	North.	South.
Smallpox ..	...	...	...	...
Diphtheria & Membranous Croup ...	...	2	5	...
Scarlet Fever ...	...	...	...	...
Enteric Fever ...	1	1	...	...
Measles ...	...	...	...	1
Whooping Cough ...	...	1	2	1
*Diarrhœa ...	...	...	3	2
Totals ...	1	4	10	4

* 1 in Nantwich Workhouse.

The diseases which are compulsorily notifiable under the Infectious Diseases (Notification) Act, 1889, are Small-pox, Cholera, Diphtheria, Membranous Croup, Erysipelas, Scarlatina or Scarlet Fever, and the fevers known as Typhus, Typhoid, Enteric, relapsing, continued, and puerperal. Notification has been in force in the Borough since October, 1896, when the Act of 1889 was "adopted." In 1900 Bubonic Plague was added to the list by order of the Local Government Board.

The number of notifications received each year from medical Practitioners is shewn below :—

1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
421	183	198	320	329	295	424	459	245	181	507	363	314

The number of notifications received each month during the year was as follows :—

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
14	9	21	15	17	21	26	34	41	40	40	36

The ages of those who suffered from these diseases were :—
Under 5 years of age, 56 cases, or 17·8 per cent. ; 5 years old and under 15, 187 cases, or 59·5 per cent. ; 15 years old and over, 71 cases, or 22·6 per cent. The number of cases notified in each ward was : In the Central Ward 76 cases, or 24·2 per cent. ; in the West Ward 66 cases, or 20·7 per cent. ; in the North Ward 87 cases, or 28·7 per cent. ; and in the South Ward 85 cases, or 27·0 per cent.

The amount paid to Medical Practitioners for notifications, and the cost of notifications per 1,000 of the population, has been as under :—

	Cost per 1,000 of the population.		
1896 (three months)...	£19	5	0
1897	£52	15	0
1898	£22	17	6
1899	£24	12	4
1900	£38	7	8
1901	£41	0	7
1902	£36	6	0
1903	£52	0	7
1904	£53	11	0
1905	£31	7	6
1906	£22	2	3
1907	£52	17	7
1908	£43	14	8
1909	£39	14	0

Disinfection.

During the year 331 houses were disinfected, the number of houses disinfected after the occurrence of notifiable infectious diseases being 292; after deaths from measles, 1; after deaths from Phthisis, 24; after deaths from Whooping Cough, 1; Influenza, 12; Diarrhoea, 1. In addition to the above, three schools were disinfected during the year.

The bedding and clothing from these houses, as well as fifty-three sets of bedding from the Cottage Hospital, were removed to the Isolation Hospital, and disinfected by passing through the Washington Lyon Disinfector.

The following quantities of disinfectants were used during the year:—

Izal	...	...	...	...	...	20 gallons.
Carbolic Powder	...	...	...	...	...	2 tons.
Izal Powder	...	...	...	...	...	$\frac{1}{2}$ ton.
Formalin Tablets	...	...	...	...	...	50 lbs.
Formalin	...	...	...	...	...	2 gallons.

The number of persons supplied with disinfectants on application at the Sanitary Office was 1,048.

Bacteriological Examinations.

The number of specimens received from Medical Practitioners in the Borough for examination during the year was 109, of which 36 proved positive and 73 negative.

Specimen.	Number received.	Result.	
		Positive.	Negative.
Typhoid Fever—Blood	14	3	11
Diphtheria—Swab	55	15	40
Phthisis—Sputum	39	18	21
Others	1	...	1
Totals	109	36	73

Small-pox.

There were no cases notified during the year. The last occasion upon which this disease appeared in the Borough was 1903.

The number of deaths from Small-pox which have occurred in the Borough during each year since 1874 is as follows:

1874	...	4 deaths.	1882	...	0 deaths.
1875	...	1 „	1883	...	1 „
1876-1879		0 „	1884	...	1 „
*1880	...		1885-1909		0 „
1881	...	0 „			

*No Record.

Diphtheria.

Cases notified	...	...	...	...	...	...	121
Deaths	...	...	...	...	...	...	7
Fatality per cent....	...	...	...	...	...	...	5.7
Cases removed to Hospital...	...	...	...	...	...	...	98

Cases and deaths in previous years since 1897:

	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
Cases	...	66	40	46	36	112	136	150	53	47	32	37
Deaths	...	11	3	14	4	16	28	18	3	4	4	6
Fatality %	...	16.6	7.5	30.4	11.1	14.2	20.5	12.0	5.6	8.5	12.5	16.2

The number of cases notified was 82 more than in 1908, and is 55 over the average yearly number reported since notification began. The number of deaths was 7, one less than in 1908, and the fatality is consequently lower. The average annual number of deaths since 1874 has been 4.

The number of cases notified each month was:

Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	6	2	1	6	5	1	6	16	29	24	21

From the South Ward 18 cases were notified, 24 from the Central Ward, 42 from the North Ward, and 37 from the West Ward.

Of the persons affected and not attending school 19 were under and 26 over school age. A number of these contracted the disease from other members of the family who were attending school.

The number of families affected was 105, and in 13 of these two or more cases occurred.

92 families had 1 case each.

10	"	"	2 cases	"
3	"	"	3	" "

Of the total number of persons affected 53 were males and 68 females.

The ages of those attacked were :

Under 5 years	19 cases.
5-10	58 "
10-15	21 "
15-20	10 "
20 & over	13 "

Ninety-eight cases were removed to Hospital, of whom five died ; twenty-three were treated at home, of whom two died.

Of the 98 cases removed to the Hospital

4 were admitted on the 1st day of the disease.

23	"	"	"	"	2nd	"	"	"	"
29	"	"	"	"	3rd	"	"	"	"
16	"	"	"	"	4th	"	"	"	"
11	"	"	"	"	5th	"	"	"	"
9	"	"	"	"	6th	"	"	"	"
2	"	"	"	"	7th	"	"	"	"
2	"	"	"	"	8th	"	"	"	"
2	"	"	"	"	9th	"	"	"	"

The majority of the cases were detained in hospital for about four weeks, but owing to the persistence of infection in many of them they were detained beyond that period—in one case for 58 days. Of the 98 cases admitted to hospital 5 had a fatal termination—a case mortality of 5.4 per cent. These were all children under 6 years of age, and were admitted to hospital on the 3rd, 4th, or 5th day of the disease, and died 6½ hours, 9½ hours, 10 hours, 1 day, and 2 days respectively after admission.

In addition to the usual measures for dealing with Diphtheria, hospital isolation, disinfection, bacteriological diagnosis etc., the Health Committee have, since 1900, provided Antitoxin, first at cost price and since 1901 free of cost, but it is intended that the free supply of Antitoxin be only taken advantage of in the case of people too poor to pay for it. During the year 276 vials, each containing 2000 units, were used in this way.

The number of deaths from Diphtheria each year since 1874 is given below :—

1874... 0 deaths	1886... 5 deaths	1898... 3 deaths
1875... 7 „	1887...16 „	1899...14 „
1876... 7 „	1888...14 „	1900... 4 „
1877... 2 „	1889 .. 8 „	1901...16 „
*1878... „	1890... 4 „	1902...28 „
1879... 2 „	1891... 3 „	1903...18 „
*1880... „	1892... 9 „	1904... 3 „
1881... 1 „	1893...19 „	1905... 4 „
1882... 4 „	1894 .. 2 „	1906 .. 4 „
1883... 6 „	1895... 2 „	1907... 6 „
1884... 4 „	1896...10 „	1908... 8 „
1885... 4 „	1897...11 „	
1909	...	7 deaths.

* No record.

Scarlet Fever.

Cases notified	...	...	...	...	...	...	149
Deaths	...	...	...	...	...	...	0
Cases removed to Hospital	...	...	...	...	...	...	137

Cases and deaths in previous years since 1898 :

Year.	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
Cases	57	50	211	160	96	212	351	147	120	442	296
Deaths	3	1	8	6	3	9	11	4	5	6	6
Fatality per cent.	5.2	2.0	3.7	3.7	3.1	4.2	3.1	3.7	4.1	1.3	2.2

The number of cases notified is below the yearly average. The greatest number notified in any one month was 26 in August.

Monthly Notifications of Scarlet Fever, 1899-1909.

		1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	Monthly Average 1899 to 1908	1909
January	...	5	5	25	13	29	16	24	7	11	95	22	7
February	...	1	—	13	14	20	14	26	8	20	53	16	1
March...	...	2	1	12	3	12	24	16	12	15	21	11	13
April ...	...	—	7	11	2	4	30	11	7	17	22	10	10
May ...	...	2	4	14	3	11	42	16	14	28	24	14	10
June ...	...	2	3	7	12	15	23	16	9	21	20	12	13
July ...	...	2	19	4	1	8	19	7	1	21	18	9	21
August	...	5	17	6	5	19	42	4	6	16	15	12	26
September	...	1	21	13	9	21	37	10	6	38	7	15	18
October	...	6	54	13	12	22	46	5	16	93	7	25	8
November	...	17	34	19	11	31	19	9	23	83	10	24	10
December	...	7	46	23	11	20	39	3	11	74	4	22	9

In the Central Ward 37 cases were notified ; in the West Ward 16 ; in the North Ward 36 ; and in the South Ward 60 cases.

No deaths have occurred from Scarlet Fever during the year. Only twice previously has this been the case, viz : in 1884 and 1890.

Of the total number of cases 74 were males and 75 females. The ages of those attacked were :—

Under 5 years	...	...	...	...	35 cases.
5—10	"	...	...	...	79 "
10—15	"	...	...	...	25 "
15—20	"	...	...	...	4 "
20 and over	...	...	...	...	6 "

The number of families affected was 123, and in 20 of these two or more cases occurred.

103 families had 1 case each.

16	"	"	2 cases	"
2	"	"	3 "	"
2	"	"	4 "	"

The number of cases occurring in each Ward, and from month to month during the year, is shewn below :—

		Central.	West.	North.	South.	Totals.
January	...	4	...	...	3	7
February	...	1	...	...	...	1
March	...	3	3	5	2	13
April	...	3	1	3	3	10
May	...	3	1	2	4	10
June	...	5	...	6	5	16
July	...	5	1	...	15	21
August	...	4	2	8	12	26
September	...	6	4	1	7	18
October	...	...	1	4	3	8
November	...	3	1	3	3	10
December	...	...	1	5	3	9
		37	15	37	60	149

The following is a list of cases discharged from hospital during 1909, which on returning home were followed by one or more subsequent cases in the same house.

Name.	Age	Date of Admission.	Date of Discharge.	Next Case.
H. C.	6	April 14th	June 18th	July 9th
C. L.	4½	May 31st	July 16th	„ 24th
C. R. H.	10	June 10th	„ 27th	August 16th
T. W.	6	„ 18th	August 10th	„ 17th

It will be seen that the interval between the return of the discharged patient to his home and the admission of the next case into hospital varies from 7 to 21 days.

Every effort is made to ensure efficient disinfection before dismissal from the hospital. The skin and hair of each patient receive most careful treatment, ears, nose and mouth are douched with an antiseptic lotion, and a disinfectant bath is given before dismissal.

Before dismissal of each case the parents receive a printed warning to the effect that, while every precaution has been taken, freedom from infection cannot be guaranteed. Instructions are also given to keep the discharged case apart from other children for a fortnight at least, or at least not to sleep in the same bed as other children, and for kissing to be prohibited.

Probably the most common cause of "return" cases of Scarlet Fever is the nasal discharge which frequently develops some time after the child's return home from hospital. A few cases may also be due to the bringing out of toys or clothes which were put away and not allowed to be disinfected on the child's removal to hospital.

The number of deaths from Scarlet Fever in each year since 1874 is as follows:—

1874... 9 deaths	1884... 0 deaths	1894... 8 deaths.
1875...43 „	1885...13 „	1895...22 „
1876... 4 „	1886... 9 „	1896...18 „
1877...22 „	1887... 7 „	1897... 7 „
1878...many„	1888... 8 „	1898... 3 „
1879...77 „	1889...16 „	1899... 1 „
*1880...	1890... 0 „	1900 .. 8 „
1881...28 „	1891... 2 „	1901... 6 „
1882... 7 „	1892... 3 „	1902... 3 „
1883... 7 „	1893...19 „	1903... 9 „
1904 ... ..	...	11 deaths.
1905 ... ..	...	4 „
1906 ... ..	...	5 „
1907 ... ..	...	6 „
1908 ... ..	...	6 „
1909 ... ..	...	0 „

* No record.

Enteric Fever.

Cases notified	10
Number of deaths	2
Fatality per cent.	20

Cases and deaths in previous years since 1898:—

Year.	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
Cases	32	30	22	15	17	11	2	10	3	5	4
Deaths	7	4	10	3	2	4	1	4	0	3	1
Fatality per cent.	21·8	13·3	45·4	20·0	11·7	36·4	50	40	0	60	25

Of the 10 cases 8 were removed to the Isolation Hospital and one died; two were nursed at home and one died. The ages of the fatal cases were 17 and 5 years respectively.

Five of the notified cases occurred in families living a few doors from one another. These families were three in number—two cases occurring in each of two families, and one in the third. The last mentioned case gave a negative result with Widal's test on three separate occasions.

All the above mentioned families were supplied with milk from the same farm. The matter was investigated but no connection with this source could be made out. No cases of suspicious illness had occurred on the farm, nor were any insanitary conditions found, the farm being unusually well kept.

The number of deaths from Enteric Fever in each year since 1874 is as follows:—

1874... 4 deaths	1884...13 deaths	1894... 5 deaths.
1875...15 "	1885... 4 "	1895... 6 "
1876... 8 "	1886... 7 "	1896... 9 "
1877...12 "	1887...11 "	1897... 4 "
*1878...	1888... 6 "	1898... 7 "
1879... 6 "	1889... 0 "	†1899... 4 "
*1880...	1890...11 "	1900...10 "
1881... 9 "	1891... 4 "	1901... 3 "
1882...10 "	1892... 3 "	1902... 2 "
1883... 4 "	1893... 9 "	1903... 4 "
1904 ... ..	...	1 death.
1905 ... ..	...	4 deaths.
1906 ... ..	...	0 "
1907 ... ..	...	3 "
1908 ... ..	...	1 "
1909 ... ..	...	2 "

* No record. † Death also occurred in a non-resident.

The average annual number of deaths from Enteric Fever for 33 years since 1874 is six.

Diarrhœa.

Number of deaths	...	...	...	14
Death-rate per 1,000	...	..	...	0.28

The diseases grouped under this heading include all the forms of diarrhœa, known variously as epidemic and zymotic enteritis; epidemic and summer diarrhœa; dysentery and dysenteric diarrhœa, cholera (not Asiatic) and cholera nostras; and in addition as regards deaths under one year of age, enteritis (non tuberculous); muco-enteritis, gastro-enteritis, and gastritis and gastro-intestinal catarrh.

The designation recommended by the Royal College of Physicians in the fourth edition of "The Nomenclature of Disease," for the specific infectious disease commonly known as epidemic diarrhœa, is Infective Enteritis. It is to be hoped that this name will now be used generally by medical men, as the many names used in the past have led to much confusion and difficulty in classifying the disease.

The number of deaths registered from these causes was 14, as compared with 27 in 1908. The average number of deaths each year since 1874 is 26.

Diarrhœa only becomes epidemic in long periods of warm weather accompanied by deficient rainfall. The disease does not usually become common until the temperature 4 feet below the surface of the ground reaches 56° F. This usually happens about August or September—the third quarter of the year. Cold and wet seasons do not favour its development. There is an enormous difference between the percentages of cases in breast-fed and artificially-fed infants. This is probably explained by the readiness with which putrefactive changes occur in milk during the summer months.

Unfortunately, many mothers still use feeding-bottles with long india-rubber tubes. It is impossible to keep the latter clean, and, consequently, they become very foul inside after a little use. If for any reason a child must be artificially fed, it is advisable to use one of the boat-shaped bottles without a tube.

The seasonal incidence is shewn in the following table:—

		1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
<hr/>												
January	...	...	1	...	2	1	3	...	...	...	1	1
February	...	...	1	1	1	1	...	...	...	3	3	1
March	...	...	...	...	1	2	...	...	1	2	2	...
<hr/>												
1st Quarter	...	1	2	1	4	4	3	...	1	5	6	2
<hr/>												
April	...	...	1	...	3	...	2	1	1	...	1	...
May	...	...	1	1	1	...	2	3	...	1	...	...
June	...	...	3	1	3	2	3	1	1	1	2	1
<hr/>												
2nd Quarter	...	5	2	4	5	3	5	5	2	1	3	1
<hr/>												
July	...	...	4	7	8	2	3	2	3	...	...	...
August	...	...	26	9	26	2	7	18	4	6	5	3
September	...	...	17	12	10	6	11	10	6	22	8	1
<hr/>												
3rd Quarter	...	47	28	44	10	21	30	13	28	7	13	4
<hr/>												
October	...	...	1	4	4	2	4	5	2	2	2	5
November	...	...	2	2	...	2	...	...	1	...	1	2
December	...	...	1	...	5	4	1	...	1	1	2	...
<hr/>												
4th Quarter	...	4	6	13	10	5	5	5	4	3	5	7

The number of deaths in each Ward was:—0 in the Central, 3 in the West, 5 in the North, and 5 in the South. One occurred in Nantwich Workhouse.

The ages at death are shewn below, and it will be seen that the disease is one which is specially fatal to infants and young children :—

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Under 3 months ...	9	9	7	10	9	4	8	4	8	6
3 and under 6 months ...	8	22	5	15	11	6	15	5	9	
6 and under 12 months ...	11	17	10	7	19	9	7	5	6	2
1 year and under 2 years ...	5	7	4	1	3	2	1	1	2	2
2 „ 3 „ ...	1	...	1	...	...	1	2	...	...	...
3 „ 4 „ ...	...	1	...	...	...	...	...	...	1	...
4 „ 5 „ ...	1	...	...	...	...	...	...	...	...	.
5 years and over ...	3	6	2	...	1	1	2	1	1	1

The number of deaths occurring from Diarrhœa each year since 1874 is as follows :—

1874 ... 21 deaths	1886 ... 39 deaths	†1897 ... 61 deaths.
1875 ... 19 „	1887 ... 14 „	1898 ... 47 „
1876 ... 21 „	1888 ... 7 „	‡1899 ... 41 „
1877 ... 5 „	1889 ... 14 „	†1900 ... 35 „
1878 ... 41 „	1890 ... 15 „	1901 ... 62 „
1879 ... 2 „	1891 ... 11 „	1902 ... 29 „
*1880 ... „	1892 ... 24 „	1903 ... 11 „
1881 ... 0 „	1893 ... 93 „	1904 ... 34 „
1882 ... 16 „	1894 ... 13 „	1905 ... 16 „
1883 ... 10 „	1895 ... 49 „	1906 ... 35 „
1884 ... 32 „	1896 ... 22 „	1907 ... 16 „
1885 ... 6 „	„	1908 ... 27 „
	1909 ...	14 deaths.

* No record. † One case of Dysentery included in each year.

‡ One death of a non-resident included.

Measles.

Number of deaths	...	...	...	...	...	1
Death-rate per 1,000	...	...	...	...	...	0.02

The number of deaths registered is six less than in the preceding year. The average annual number of deaths since 1874 is eleven.

Measles has not attained epidemic proportions at any time during the year and no school has required closure.

The number of deaths from Measles in the Borough each year since 1874 is as follows :—

1874 ... 21 deaths	1886 ... 0 deaths	†1897 ... 1 death
1875 ... 11 „	1887 ... 32 „	1898 ... 35 deaths.
1876 ... 2 „	1888 ... 7 „	1899 ... 10 „
1877 ... 0 „	1889 ... 8 „	1900 ... 17 „
†1878 ... 30 „	1890 ... 14 „	‡1901 ... 3 „
1879 ... 1 „	1891 ... 1 „	1902 ... 18 „
*1880 ... „	1892 ... 5 „	1903 ... 0 „
1881 ... 9 „	1893 ... 34 „	1904 ... 13 „
1882 ... 1 „	1894 ... 0 „	1905 ... 22 „
1883 ... 18 „	1895 ... 7 „	1906 ... 15 „
1884 ... 1 death	1896 ... 9 „	1907 ... 2 „
1885 ... 31 deaths		1908 ... 7 „
	1909 ...	1 death.

* No record. † The second half of the year only.

‡ One also occurred in a non-resident.

Whooping Cough.

Number of deaths	...	...	...	...	...	4
Death-rate per 1,000	...	...	...	...	...	0.08

The number of deaths registered is the same as the preceding year. The average annual number of deaths since 1874 is eleven.

The number of deaths from Whooping Cough each year since 1874 is as follows:—

1874 ...	1 death	1886 ...	8 deaths	1898 ...	9 deaths
1875 ...	9 deaths	1887 ...	4 „	1899 ...	26 „
1876 ...	2 „	1888 ...	4 „	1900 ...	5 „
1877 ...	9 „	1889 ...	17 „	1901 ...	19 „
*1878 ...	— „	*1890 ...	— „	1902 ...	9 „
1879 ...	9 „	1891 ...	13 „	1903 ...	17 „
*1880 ...	— „	1892 ...	23 „	1904 ...	12 „
1881 ...	4 „	1893 ...	14 „	1905 ...	28 „
1882 ...	9 „	1894 ...	19 „	1906 ...	7 „
1883 ...	4 „	1895 ...	7 „	1907 ...	12 „
1884 ...	14 „	1896 ...	8 „	1908 ...	4 „
1885 ...	11 „	1897 ...	26 „		
		1909 ...	4 deaths.		

* No record.

Erysipelas.

Cases notified	...	...	...	...	...	...	29
Number of deaths	...	...	...	...	...	...	0
Fatality per cent.	...	...	...	...	...	...	0

Cases and Deaths in the previous years since 1898:—

Year...	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
Cases	49	62	44	40	40	40	52	31	21	23	19
Deaths	3	2	0	3	4	7	5	1	2	1	2
Fatality per cent. }	6	3	0	7.5	10	17	9.6	3.2	9.5	4.3	10.5

The parts affected were:—The face, 14 cases; other parts, 15 cases.

Puerperal Fever.

Cases notified	...	...	...	...	...	5
Number of deaths	...	...	...	...	...	0

Cases and Deaths in the previous years since 1898:—

Year.	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
Cases	4	10	7	1	4	6	1	10	5	0	5
Deaths	2	7	5	0	2	2	3	5	1	0	0
Fatality per cent. }	50	70	71	0	50	33	?	50	20	0	0

Five cases of this disease were notified during 1909 and four of them occurred in the practices of registered midwives.

Two cases occurred in the practice of one mid-wife. Unfortunately the conditions under which some of the midwives—especially the older ones—conduct their practices leave much to be desired. Gradual improvement is, however, being effected.

Tuberculous Phthisis.

Number of deaths	...	...	...	...	...	31
Death-rate per 1,000	...	...	...	...	...	0.6

The number of deaths is 9 more than the preceding year, and is one more than the average yearly number of deaths since 1874.

Sixteen of the deaths were of males and 15 of females.

Ages at death from Phthisis :—

Years	...	1	—5	—10	—20	—30	—40	—50	—50 upwards
Deaths	...	0	0	0	5	9	4	5	8

In the Central Ward there were 9, in the West Ward 6, in the North Ward 8, and in the South Ward 3 deaths. Five deaths of Crewe residents occurred in the Workhouse.

The occupations were :—

Labourers	...	4	School Mistress	...	1
Tailoress	...	2	Draper's Assistant	...	1
Clothier's Manager	...	1	House Painter	...	1
Upholsterer	...	1	Dressmaker	...	1
Domestic Servant	...	1	Boilermaker	...	1
Machinist	...	1	Carter	...	1
Fitters	...	3			

In the remainder the designation under this heading is that of Wife, Son or Daughter.

In 1906 the Health Committee applied to the Local Government Board to have Consumption made a compulsorily notifiable disease, but were unsuccessful. It was therefore decided to ask the medical men of the town to notify cases voluntarily and to

admit suitable cases into an empty ward at the Isolation Hospital. Early in 1909 an open revolving shelter to hold two beds was erected in the Hospital grounds and this is now used instead of an empty ward. The object aimed at is a two-fold one:—1. to improve the health of the patient, and 2, to educate him in the methods calculated to prevent the spread of infection. He is taught the value of fresh air, how to dispose of his spuntum, etc.

Seven cases have been admitted to the shelter during 1909, and, with the exception of one patient who only remained three days on account of the inclement weather, remained for periods varying from 4 to 12 weeks.

The following are a few particulars of these cases :

1 M. Aged 29. French polisher. Admitted Jan. 25th, discharged Feb. 21st. Weight on admission $120\frac{1}{2}$ lbs., ditto on discharge $125\frac{1}{4}$ lbs. Condition much improved.

2. M. Aged 17. Teacher. Admitted April 21st, discharged July 13th. Weight on admission $109\frac{1}{4}$ lbs., ditto on discharge $126\frac{1}{4}$ lbs. Great improvement.

3. M. Aged 32. Labourer. Admitted June 7th, discharged August 3rd. Weight on admission $154\frac{3}{4}$ lbs., ditto on discharge 155 lbs. Slight improvement.

4. M. Aged 22. Admitted August 4th, left August 7th.

5. M. Aged 26. Soldier. Admitted August 30th, discharged October 1st. Weight on admission 101 lbs., ditto on discharge 105 lbs. This was an advanced case in which the larynx was also affected. Very little change in condition.

6. M. Aged 35. Fireman. Admitted Sept. 29th, discharged Oct. 26th. Weight on admission $151\frac{1}{2}$ lbs., ditto on discharge 161 lbs. Much improved.

7. M. Aged 22. Coachbuilder. Admitted Nov. 15th, discharged Dec. 20th. Weight on admission 136 lbs., ditto on discharge 147 lbs. Much improved.

Enquiries into the after history of these cases elicited the fact that one (No. 5) had since died, a second was well but was not working, while the remainder were following their regular employment.

On January 1st 1909 the Public Health (Tuberculosis Regulations) 1908 came into force. This provides for the notification by poor law medical officers of cases of Phthisis occurring in their practices. Eleven such cases have been notified during the year. They have been visited periodically and suitable advice given. Any insanitary conditions have been noted and dealt with and disinfection of the premises carried out where necessary.

The number of deaths from Phthisis occurring in the Borough each year since 1874 is as follows:—

1874 .. 31 deaths	1885 ... 33 deaths	1896 ... 33 deaths	}
1875 ... 30 "	1886 ... 34 "	1897 ... 29 "	}
1876 ... 17 "	1887 ... 39 "	1898 ... 24 "	}
1877 ... 19 "	1888 ... 22 }	1899 ... 29 "	}
*1878 ... "	1889 ... 38 }	1900 ... 42 "	}
1879 ... 28 "	1890 ... 36 }	1901 ... 38 "	}
*1880 ... "	1891 ... 23 }	1902 ... 22 "	}
1881 ... 26 "	1892 ... 24 }	1903 ... 36 "	}
1882 ... 28 "	1893 ... 31 }	1904 ... 29 "	}
1883 ... 45 "	1894 ... 34 }	1905 ... 24 "	}
1884 ... 25 "	1895 ... 42 }	1906 ... 39 "	}
		1907 ... 27 "	}
		1908 ... 22 "	}
1909	31 deaths.		

* No record.

Other Tubercular Diseases.

Number of deaths	18
Death-rate per 1,000	0·37

The number of deaths registered from these diseases is 2 less than in 1907. The record for previous years is shewn below :—

	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Tubercular Meningitis	13	6	9	23	7	10	12	12	9	5	3	6
Tubercular Peritonitis and Tabes Mesenterica	23	15	12	18	13	18	20	16	5	14	6	7
Other forms	5	6	18	7	14	7	13	16	13	7	11	5
	41	27	39	48	34	35	45	44	27	26	20	18

Females contributed 7 deaths and males 11—these were chiefly children, there being only three deaths over 10 years of age.

Ages at death :

Years ...	1—5—10—20—30—40—50—50 upwards.
Deaths ...	7 7 1 — — 1 1 1

Influenza.

Number of deaths	19
Mortality per 1,000 of population	0·39

The number of deaths registered from this cause was eighteen more than in 1908.

Cancer and other Malignant Diseases.

From this cause 41 deaths were registered. The number of deaths each year since 1898 is as follows :—

Years	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Deaths	21	25	19	32	35	24	25	29	28	40	31	41

Death-rate per 1,000 during the last twelve years :

Years	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Deaths	0·53	0·61	0·45	0·75	0·80	0·52	0·52	0·60	0·59	0·83	0·64	0·84

Ages at death :

Years	...	15—25—35—45—55—65—65 upwards
Deaths	...	1 — — 6 5 13 16

Twenty-two of the deaths were of females, and 19 of males. Thirty-nine were registered as Carcinoma and two as Sarcoma. The parts affected and deaths from each were :—Tongue 1, Stomach 3, Intestine 7, Liver 5, Neck 3, Breast 6, Uterus 3, Larynx 2, various 11.

Diseases of the Respiratory System.

The deaths recorded from the three most important members of this group of diseases are given in the following table.

	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Bronchitis ...	64	71	54	56	47	41	57	38	27	44	46	58
Pneumonia...	57	55	43	70	40	38	42	25	14	26	35	34
Broncho-Pneumonia					25	25	23	31	26	28	17	30
Others ...	4	19	6	3	9	10	14	14	9	12	6	14
Totals	125	136	103	129	121	114	136	108	76	110	104	136

The following table shews the age distribution of the deaths :—

	0-1	1-5	5-10	10-20	20-30	30-40	40-50	50-60	60 and upwards
Bronchitis ...	12	7	...	...	...	2	1	1	35
Pneumonia...	5	3	2	1	3	5	4	2	9
Broncho-Pneumonia	9	10	1	...	...	2	2	...	6
Others ...	...	...	1	...	...	...	2	3	8
Totals...	26	20	4	1	3	9	9	6	58

Deaths from Violence.

Death was registered as due to violence in 21 cases, 17 of which resulted from accident and 4 from suicide. The average number registered yearly from this cause has, during the last ten years been 19. The figures for former years are given below.

			1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Accident	...	...	16	27	13	19	14	16	9	9	16	15	17
Suicide	...	...	1	1	6	2	4	5	3	4	5	5	4
Homicide	...	...	...	1	...	...	...	...	...	...	...	...	...
Totals	...	...	17	29	19	21	18	21	12	13	21	20	21

Gains and Losses during 1909.

In the following tables of gains and losses, the death-rate per 1,000 from each cause is compared with the average death-rate of the preceding decennium. The death of one person in a population of 48,584 corresponds to a rate of 0.020 per 1,000. Hence the reduction or increase of the annual death-rate by this amount means the saving or loss of one life, and similarly a fall or rise in the rate of 0.100 means the saving or loss of five lives, and so on. The difference between the death-rate from all causes in 1909 and the decennium, 1899—1908 is 2.2 per 1,000. This represents the net gain and is equivalent to the saving of 110 lives.

GAINS.

Name of Disease.	Average Rate during ten years 1899—1908	Rate during 1909	Gains per 1,000	Probable number of lives saved during 1909	Lives Lost or Gained during 1908
Diarrhœa ...	0.53	0.12	0.41	20	17 gained
Erysipelas ...	0.05	...	0.05	2	1 gained
Diphtheria ...	0.23	0.14	0.09	4	3 gained
Typhoid Fever ...	0.07	0.04	0.03	1	3 gained
Whooping Cough ...	0.25	0.08	0.17	8	9 gained
Old Age ...	0.81	0.61	0.20	10	4 gained
Premature Birth ...	0.56	0.37	0.19	9	10 gained
Nervous Disease ...	1.40	1.23	0.17	8	5 gained
Digestive Diseases ...	0.99	0.67	0.32	16	13 gained
Tubercular Diseases (excluding Tabes Mesenterica) ...	0.49	0.22	0.27	13	11 gained
Tabes Mesenterica ...	0.27	0.14	0.13	6	9 gained
Ill-Defined...	0.93	0.63	0.30	15	28 gained
Measles ...	0.23	0.02	0.21	10	8 gained
Phthisis ...	0.68	0.63	0.05	2	12 gained
Scarlet Fever ...	0.12	...	0.12	6	...

LOSSES.

Name of Disease.	Average Rate during ten years 1899—1908	Rate during 1909	Losses per 1,000	Probable number of lives lost during 1909	Lives Lost or Gained during 1908
Cancer ...	0.63	0.84	0.21	10	1 lost
Respiratory Diseases	2.49	2.79	0.30	15	22 gained
Influenza ...	0.19	0.39	0.20	10	9 gained
Violence ...	0.41	0.43	0.02	1	1 gained
Heart Diseases ...	1.21	1.37	0.16	8	...
Urinary Diseases ...	0.26	0.34	0.08	4	1 gained

TABLE I

TABLE I			
Summary of the results of the experiments on the effect of the concentration of the solution on the rate of the reaction			
Concentration of the solution (M)	Rate of the reaction (M/min)	Time (min)	Temperature (°C)
0.1	0.001	10	25
0.2	0.002	10	25
0.3	0.003	10	25
0.4	0.004	10	25
0.5	0.005	10	25
0.6	0.006	10	25
0.7	0.007	10	25
0.8	0.008	10	25
0.9	0.009	10	25
1.0	0.010	10	25
1.1	0.011	10	25
1.2	0.012	10	25
1.3	0.013	10	25
1.4	0.014	10	25
1.5	0.015	10	25
1.6	0.016	10	25
1.7	0.017	10	25
1.8	0.018	10	25
1.9	0.019	10	25
2.0	0.020	10	25
2.1	0.021	10	25
2.2	0.022	10	25
2.3	0.023	10	25
2.4	0.024	10	25
2.5	0.025	10	25
2.6	0.026	10	25
2.7	0.027	10	25
2.8	0.028	10	25
2.9	0.029	10	25
3.0	0.030	10	25
3.1	0.031	10	25
3.2	0.032	10	25
3.3	0.033	10	25
3.4	0.034	10	25
3.5	0.035	10	25
3.6	0.036	10	25
3.7	0.037	10	25
3.8	0.038	10	25
3.9	0.039	10	25
4.0	0.040	10	25
4.1	0.041	10	25
4.2	0.042	10	25
4.3	0.043	10	25
4.4	0.044	10	25
4.5	0.045	10	25
4.6	0.046	10	25
4.7	0.047	10	25
4.8	0.048	10	25
4.9	0.049	10	25
5.0	0.050	10	25
5.1	0.051	10	25
5.2	0.052	10	25
5.3	0.053	10	25
5.4	0.054	10	25
5.5	0.055	10	25
5.6	0.056	10	25
5.7	0.057	10	25
5.8	0.058	10	25
5.9	0.059	10	25
6.0	0.060	10	25
6.1	0.061	10	25
6.2	0.062	10	25
6.3	0.063	10	25
6.4	0.064	10	25
6.5	0.065	10	25
6.6	0.066	10	25
6.7	0.067	10	25
6.8	0.068	10	25
6.9	0.069	10	25
7.0	0.070	10	25
7.1	0.071	10	25
7.2	0.072	10	25
7.3	0.073	10	25
7.4	0.074	10	25
7.5	0.075	10	25
7.6	0.076	10	25
7.7	0.077	10	25
7.8	0.078	10	25
7.9	0.079	10	25
8.0	0.080	10	25
8.1	0.081	10	25
8.2	0.082	10	25
8.3	0.083	10	25
8.4	0.084	10	25
8.5	0.085	10	25
8.6	0.086	10	25
8.7	0.087	10	25
8.8	0.088	10	25
8.9	0.089	10	25
9.0	0.090	10	25
9.1	0.091	10	25
9.2	0.092	10	25
9.3	0.093	10	25
9.4	0.094	10	25
9.5	0.095	10	25
9.6	0.096	10	25
9.7	0.097	10	25
9.8	0.098	10	25
9.9	0.099	10	25
10.0	0.100	10	25

Part iii.

General Sanitation.

Hospital Accommodation.

The accommodation provided for the isolation of Infectious Diseases (apart from Small-pox) consisted originally of two ward pavilions and an observation block, containing in all 28 beds. This has been in use since October 16th, 1897, and was erected at a cost of £9,500 (including the cost of the site). Owing to the rapid increase in the population, and the increasing number of patients treated, it was found necessary to enlarge the Hospital by the addition of a two ward pavilion for Diphtheria, together with extra housing accommodation for the nursing staff. The additions were commenced at the beginning of 1903, and were ready for occupation on the 30th March, 1904. The plans for the extension were prepared by George Bolshaw, Esq., of Southport, who was the architect for the original Hospital, and the work was carried out by Messrs. Garner and Son, of Crewe. The total cost of the pavilion and addition to the house was £3,066.

The Small-pox Hospital is situated upon the Corporation Farm, on the North side of Pym's Lane, off Minshull New Road. As it originally existed, excluding the part occupied by the caretaker and his family, there were two bedrooms available for patients, with suitable accommodation for a nurse. During 1903 further accommodation was provided by fitting up a small galvanised iron pavilion alongside the farm house. The Hospital has been unoccupied during the year, but has been kept ready for any emergency.

The full staff consists of the Matron, 8 nurses (2 charge, 4 assistant, and 2 probationer nurses), and 6 maids (cook, housemaid, scullery maid, 2 ward maids, and laundry maid). There is a non-resident ambulance attendant, who also acts as disinfecter for the Health Department, and a gardener. Occasional extra assistance has to be obtained in the laundry and grounds.

The following statement shews the number of cases dealt with during 1909 :—

	In Hospital December 31st, 1908	Admitted	Discharged	Died	In Hospital December 31st, 1909
Scarlet Fever ...	14	137	142	—	9
Diphtheria ...	1	98	79	5	15
Enteric Fever ...	—	8	7	1	—
Puerperal Fever...	—	4	4	—	—
Phthisis ...	—	*6	*6	—	—
Erysipelas ...	—	1	1	—	—
Totals ...	15	254	239	6	24

* One patient suffering from Phthisis who only remained in the hospital for three days is not included in the above total.

In addition to the disinfection of bedding and clothing taken from infected houses or from Hospital wards, it will be seen (page 29) that a considerable amount of work has been done for the Cottage Hospital in disinfecting bedding which has become infected with septic discharges.

The following shews the annual number of patients admitted to the Hospital since its opening, and the percentage of cases of Scarlet Fever removed to Hospital out of the total number of cases of that disease notified :—

	Total Number of Cases admitted	Percentage of Scarlet Fever cases removed.
1897 (from October) ...	26	—
1898 ...	68	64%
1899 ...	73	76%
1900 ...	158	65%
1901 ...	129	69%
1902 ...	102	74·5%
1903 ...	169	76%
1904 ...	298	81%
1905 ...	160	81%
1906 ...	141	92%
1907 ...	420	93·8%
1908 ...	285	90·8%
1909 ...	254	91·9%

For the following statement of expenditure for the year ending 31st December, 1909, I am indebted to the kindness of the Borough Treasurer:—

Expenditure.

	£	s.	d.	£	s.	d.
Salaries of Matron, Nurses, etc.				311	0	9
Porters' Wages (proportion)				86	12	10
Nurses' Uniform				20	17	0
Maintenance of Patients and Staff:—						
Groceries	183	8	0			
Butchers' Meat	95	19	7			
Fish, Ice, etc.	13	12	8			
Vegetables	9	9	3			
Milk	89	18	0			
Bread	51	15	4			
Stimulants	6	11	0			
				450	13	10
Druggists' Sundries and Antitoxin				72	5	2
Drapery, Crockery, Hardware, Cleaning Materials, etc.				90	19	0
Repairs to Vans, Laundry Fittings, Disinfectors, Electric Light Fittings, etc.				36	6	1
Maintenance of buildings, Painting, etc.				40	8	7
Gas				28	7	11
Electricity				81	19	9
Water				44	1	3
Rates and Taxes				60	15	2
Insurance				10	8	7
Telephone Charges				11	0	0
Fuel				162	5	4
Cultivation of Grounds				59	8	8
Horse Hire for Ambulance, etc.				91	2	0
Rent of Small-pox Hospital				20	0	0
Interest on cost of Electric Main				13	11	9
Printing, Stationery, Advertising, and Postages				13	12	2
Shelters for Phthysical Patients				49	9	8
Minimax Fire Extinguishers				24	15	0
Asphalting walks				4	1	10
Furniture and Repairs				8	16	4
Sundries				6	0	3
				£1,798	18	11

Income.

	£	s.	d.
Removal and Maintenance of Patients	41	17	0
Rent of Land	1	10	0
Contribution from Cheshire County Council under Isolation Hospital Acts	261	1	1
	<u>£304</u>	<u>8</u>	<u>1</u>

The cost of maintenance per case ; the average daily number of patients, and their average residence, etc., since the opening of the Hospital are shewn in the following table :—

YEAR.	PATIENTS.			Total Expenditure.	Average cost per patient.			Daily cost per head for provisions.	Provisions.		
	Total treated.	Average daily number.	Average residence in days.								
				£ s. d.	£ s. d.		s. d.		£ s. d.		
1898	68	9.1	48.0	1020 2 0	15 0 0		2 4		378 19 6		
1899	73	9.6	48.0	1083 7 1	14 16 9		1 11½		347 4 9		
1900	158	20.3	47.0	1161 11 8	7 7 0		1 1½		417 19 0		
1901	129	17.0	48.0	1367 0 10	10 12 0		1 5½		452 18 0		
1902	102	11.7	42.0	1173 5 9	11 10 0		1 5½		314 10 7		
1903	169	22.4	48.5	1404 6 7	8 6 2		0 11½		398 19 7		
1904	298	34.2	42.0	1642 14 3	5 10 3		0 10¾		561 2 4		
1905	160	16.7	38.5	1592 0 3	9 19 0		1 7¼		488 19 2		
1906	141	16.0	41.6	1408 12 9	9 19 9		1 3½		384 15 8		
1907	420	38.8	32.7	1893 9 1	4 10 1		0 10¾		601 8 3		
1908	285	31.3	41.1	2182 12 9	7 13 1		1 1¾		661 16 7		
1909	254	25.6	36.8	1779 18 11	7 0 1		0 11¾		450 13 10		

N.B.—The above calculations of cost do not include repayment of principal, nor payment of interest on capital. The rent of the Smallpox Hospital is also deducted.

The Average Length of Stay in Hospital.

Scarlet Fever Patients,	44·08
Diphtheria and Membraneous Croup Patients, excluding cases which died	29·04
Diphtheria and Membraneous Croup Patients, including cases which died	27·4
Enteric Fever Patients, excluding cases which died ...	41·6
Enteric Fever Patients, including cases which died ...	40·8
Puerperal Fever	18·5

Playgrounds and Open Spaces.

These owned by the Corporation are:—

The Queen's Park—Area, a little over 35 acres; situate in the South Ward, at the extreme South West Boundary of the town.

South Ward Playground, area 11,501 square yards. West Ward Playground, area 8,356 square yards. North Ward Playground, area 16,429 square yards.

Inspections and General Work.

The premises which have been kept under regular supervision include 15 private slaughter-houses, 45 cowsheds, 73 dairies and milkshops, 9 common lodging-houses, 1 house let in lodgings, 282 factories and workshops, and also premises which are specially liable to create nuisances, viz.: pig-styes, stables, marine stores, fried fish shops, etc.

Reconstruction of Privies, &c.

The following figures give the approximate numbers of the different forms of closets, etc., existing in the town at the end of 1909:—

Water-closets	6,726
Waste Water-closets	1,016
Pail Closets	3,141
Fixed Receptacles	2
Covered Privy Middens	522
Uncovered Ashpits	45
Covered Ashpits	2,522
Dustbins	7,124
Baths	1,798

The number of privy middens, etc., converted into water-closets is 202. It was not necessary to take proceedings in any instance.

The following shews the number and nature of the re-constructions effected during the year:—

	Dust-bins-	Covered Ashpits	Privy Pails	Water Closets	Waste Water Closets
159 Mixens were converted into ...	51	108	19	140	—
31 Privy Pails were converted into	—	—	—	31	—
12 Ashpits were converted into ...	12	—	—	—	—

The total number of re-constructions was therefore 202, these being converted into 171 clean water-closets, and 19 privy pails, with 63 dustbins and 108 covered ashpits.

Offensive Trades.

There are now two gut-scraping businesses carried on in the Borough. One of these was established in 1905, in Richmond Road, and the premises are of modern construction. Both businesses from a sanitary point of view are well regulated and have been conducted so as to be free from nuisance.

Cowsheds.

There are 45 Cowsheds in the Borough. These are frequently inspected and suggestions for improvements are made. The standard of cleanliness in some of them is not very high. It is hoped to obtain an improvement in this respect in the near future.

Dairies and Milkshops.

There are 73 premises on the Register where a retail trade in milk is carried on, but there is reason to believe that this does not represent the total number of milk shops.

The large number of these shops renders it difficult to keep them under proper supervision and many of them are unsuited for their purpose owing to the lack of proper storing room for the milk. Thus, in most cases, the milk is kept in an earthenware or tin vessel on the counter or a shelf in the shop. There has also, on several occasions during the year, been reason to complain of the want of cleanliness both of the vessels in which the milk is stored and of the premises.

The following additional regulation prescribing precautions to be taken by purveyors of milk and persons selling milk by retail in the Borough, against infection or contamination, came into force on August 1st, 1906 :—

“Every purveyor of milk or person selling milk by retail
“shall cause every vessel containing milk for sale to be
“kept properly covered, or to be otherwise sufficiently
“protected from contamination by dust or flies.”

Unfortunately some of the retailers of milk do not realise the importance of this matter and have provided either an unsuitable cover or none at all.

In 55 instances the milk was kept in the shop, in four instances in the kitchen, in two the scullery, in one the cellar, in two in a shed in the back yard, in one in a tin vessel in the back yard, in one in a specially built dairy, and the remainder in miscellaneous places (hall etc.).

In 46 cases the receptacles were covered at the time of the visit and in 27 they were uncovered, while 8 retailers had not provided any covers at all.

The materials of which the covers consisted were as follows :

Muslin	...	...	14	...	Paper	...	...	...	3
Linen	...	...	14	...	Tea tray	...	...	...	1
Perforated Zinc	...	...	4	...	Piece of curtain	...	...	...	1
Wood	...	...	10	...	Tin with wire gauze centre	...	...	...	2
Tin	...	...	16	...	None	...	...	...	8

Probably the best cover is very fine wire gauze stretched on a wire frame.

Common Lodging Houses.

There are 9 houses in the Borough now registered as common lodging-houses. Every effort is made to see to these being kept in a sanitary condition, and the houses are fairly well conducted. Their defective structural character makes it difficult for the keepers to maintain them in a thoroughly satisfactory state.

Houses Let in Lodgings.

There is one house on the register, and this has been kept in a satisfactory condition.

Slaughter Houses and Meat Inspection.

There are 15 slaughter-houses in the Borough. They are kept in a fairly satisfactory condition. In many instances, however the offal is not removed frequently enough. The premises are visited periodically by the Inspector and the Medical Officer, and the Butchers themselves, as members of the Butchers' Vigilance Association, report to the medical officer any carcasses that are suspected to be diseased.

During the year four carcasses have been submitted for examination. All were found to be slightly affected with tuberculosis and the affected portions were destroyed. The value of the beasts varied from £11 5s. 0d. to £16 12s. 6d.

Attention should be directed to the "blowing" of carcasses for sale. This practice is quite unnecessary and should be discontinued, or at least should be done by mechanical means. It is possible for a healthy carcass to be infected in the process of "blowing" if the butcher happens to be suffering from such a disease as Consumption.

Ice Cream Premises.

A constant supervision has been maintained over the premises where ice cream is made and sold. The premises were at all times found in a cleanly condition.

Factories and Workshops.

There are 76 factories and 206 workshops in the Borough. The latter include a great many places, such as dressmakers' establishments, where the business is a small one, and is carried on in a room of the dwelling-house set apart for the purpose. It sometimes happens that in such small workshops the business is carried on somewhat intermittently, and changes of address are frequent. This makes it difficult to keep an absolutely correct register, but so far as possible all changes have been followed up.

The following table of workshops shews the number in each Ward, and the nature of the trades carried on :—

Trade.				Central	West	North	South	Borough
Bakers and Confectioners	...			15	7	7	8	37
Dressmakers and Milliners	...			17	8	3	12	40
Tailors	...	...	...	7	1	1	3	12
Watchmakers and Jewellers	...			6	1	—	1	8
Tinsmiths	...	...	...	3	—	1	1	5
Cabinet Makers and Joiners	...			4	5	3	4	16
Bootmakers	...	...	...	9	6	8	10	33
Herb Beer Manufacturers & Bottlers				1	1	—	—	2
Saddlers	...	...	...	3	—	—	2	5
Cycle Repairers	...			5	2	—	4	11
Ice Cream Manufacturers	...			2	1	—	1	4
Wheelwright	...	...	...	2	—	—	2	4
Shirtmakers	...	...	...	1	—	1	—	2
Hosiers	...	...	...	1	—	—	—	1
Stonemason	...	...	...	1	—	1	1	3
Picture Framers	...			2	—	1	—	3
Rag Stores	...	...	...	1	—	2	—	3
Blacksmiths	...	...	...	3	1	2	1	7
Laundry	...	...	...	1	—	—	—	1
Artificial Teeth Manufacturers	...			4	—	—	1	5
Scales Manufacturer	...			1	—	—	1	2
Gut Scraper	...	...	...	—	1	1	—	2
Totals	...	...	...	89	34	31	52	206

GENERAL SANITATION.—The condition of the workshops generally has been very satisfactory, although there were a few exceptions with regard to cleanliness. Ten notices relating to limewashing were sent out and complied with.

BAKEHOUSES.—There are now no underground bakehouses in the Borough. The sanitary condition of all the premises was very satisfactory.

HOMEWORK.—List of homeworkers have been received from the following:—

S. & J. Watts and Co., Clothing Factory	...	4	outworkers.
Compton & Sons,' Clothing Factory	...	14	„
C. Taylor, Shirtmaker	...	4	„
A. Boden, Tailor	...	5	„

The annual statistical return to the Secretary of State, which follows, gives a summary of the work done during the year.

1.—Inspection.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF NUISANCES.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions
Factories ... (Including Factory Laundries)	152	5	...
Workshops ... (Including Workshop Laundries)	440	11	...
Workplaces ... other than outworkers' premises included in part III.	...	...	...
TOTAL ...	592	16	...

2.—Defects Found.

Particulars.	Number of Defects.			Number of Prosecutions
	Found	Remedied	Referred to H.M. Inspect'r	
<i>Nuisances under the Public Health Acts:—*</i>				
Want of cleanliness	11	11	...	...
Want of Ventilation ... ..	...	...	...	...
Overcrowding ... ..	...	...	...	...
Want of drainage of floors... ..	...	...	...	...
Other nuisances ... ..	...	...	...	...
Sanitary { insufficient	2	2	...	...
accommodation { unsuitable or defective	3	3	...	...
{ not separate for sexes ... ..	...	...	...	...
<i>Offences under the Factory & Workshop Act:</i>				
Illegal occupation of underground bake-house (S. 101) ... ..	...	...	...	...
Breach of special sanitary requirements for bakehouses (SS. 97 to 100) ... ..	...	...	...	...
Other offences:— (Excluding offences relating to out-work which are included in Part III.)	...	...	...	...
Total	16	16	...	...

* Including those specified in Sections 2, 3, 7, and 8, of the Factory Act as remedied under the Public Health Acts.

3.—Home Work.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.											OUTWORKERS IN UNWHOLESOME PREMISES, SEC. 108.			OUTWORK IN INFECTED PREMISES SECTIONS 109, 110.									
	Lists received from Employers.				Addresses of Outworkers.				Prosecutions.			Inspection of Outworkers' Premises.			Instances.			Orders made (S. 110).			Prosecutions (Sections 109, 110).			
	Twice in the year.		Once in the year.		Received from other Councils.		Forwarded to other Councils.		Failing to keep or permit inspection of Lists.		Failing to send Lists.													
	Outworkers.		Outworkers.		Lists.		Contractors.		Workmen.															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18						
Wearing Apparel :—																								
(1) making ...	8	...	54	...	...	...	...	4	...	...	54	...	...	...	...	...	...	
(2) cleaning and washing...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	8	...	54	...	...	...	...	4	...	...	54	...	...	...	...	...	...	

4.—Registered Workshops.

Workshops on the Register (S. 131) at the end of the year.					Number.
Bakers and Confectioners	....	...	...	...	37
Dressmakers and Milliners	...	...	...	...	40
Tailors ...	...	...	...	...	12
Watchmakers and Jewellers	...	...	...	...	8
Tinsmiths	...	...	...	...	5
Cabinetmakers and Joiners	...	...	...	...	16
Bootmakers and Repairers	...	...	...	...	33
Herb Beer Manufacturers and Bottlers	...	...	...	...	2
Saddlers	...	...	...	...	5
Cycle Repairers	...	...	...	...	11
Ice Cream Manufacturers	...	...	...	...	4
Wheelwrights	...	...	...	...	4
Shirtmakers	...	...	...	...	2
Hosiers ...	...	...	...	...	1
Stonemasons	...	...	...	...	3
Picture Framers	...	...	...	...	3
Rag Stores	...	...	...	...	3
Blacksmiths	...	...	...	...	7
Others ...	...	...	...	...	10
Total number of workshops on Register					206

5.—Other Matters.

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act S. 133)	5
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (S. 5)	Notified by H.M. Inspector Reports (of action taken) sent to H.M. Inspector
Other ...	...
Underground Bakehouses (S. 101) :—	
Certificates granted during the year	...
In use at the end of the year	...

The following table shews the number of Factories in the Borough.

Industry	Central	West	North	South	Borough
Loco. Engine Works ...	—	1	—	*	1
Electric Lighting ...	3	—	—	—	3
Clothing Factories ...	1	1	3	2	7
Cabinet Maker and Joiner ...	3	—	—	—	3
Cycle Works ...	1	—	—	—	1
Bottling & Herb Beer Manufactory	2	—	—	2	4
Brewery ...	1	—	—	—	1
Aerated Water Manufactory ...	2	—	1	—	3
Letterpress Printing ...	4	1	1	1	7
Laundry ...	—	—	2	—	2
Sausage Maker ...	4	2	1	1	8
Machine Smith ...	1	—	—	—	1
Wheelwright, Woodturner ...	3	—	1	—	4
Builder ...	2	1	—	2	5
Blindmaker ...	1	—	—	—	1
Ironfounder ...	1	—	—	—	1
Baker ...	2	—	1	—	3
Bootmaker ...	2	—	—	3	5
Brick Works ...	—	2	4	—	6
Fustian Cutting ...	1	1	—	—	2
Cattle Medicine ...	—	—	—	1	1
Firewood... ...	—	1	—	1	2
Saw Mill... ...	1	1	—	—	2
Chaffcutting ...	—	2	—	—	2
Picture Framer ...	1	—	—	—	1
Totals ...	36	13	14	13	76

* These works are also partly in the South Ward.

Sale of Food and Drugs Acts.

These Acts are administered by the County Council, to whose Chief Inspector, Mr. Laird, I am indebted for the following particulars of samples purchased in the Borough of Crewe, under the Sale of Food and Drugs Acts, during the year ending December 31st, 1909.

Name of Sample.			No. of Samples.	No. of Samples. certified as Adulterated.
Butter ...	...	...	33	—
Cheese ...	...	...	5	—
Coffee ...	...	...	3	—
Cream ...	...	...	1	—
Milk ...	...	...	49	1
Ginger, ground	...	...	1	—
Pepper	...	...	3	—
Rum ...	...	...	1	—
Whiskey	...	...	7	—
Totals	...	...	103	1

The sample of milk reported against was certified as having been deprived of 16 per cent. of its cream. The seller was prosecuted and a fine of 1/- together with 18/- costs, was imposed.

Work done by Sanitary Inspector's Department.

The Sanitary Inspector reports that the following matters have received his attention during the year :—

	1908	1909
Defective house drainage	162	198
„ Manure receptacles	6	4
„ Ashpits	98	106
„ Privy middens	305	184
„ Pail privies	237	280
„ Fixed receptacles	0	0
„ Cesspool privies	0	4
„ Water-closets	77	106
„ Paving of yards and passages ...	72	92
„ Urinals	5	4
„ Eaves and rain-water spouting ...	51	54
„ Ventilating shafts (drains)	13	7
„ Channel shoots... ..	41	49
„ Sink pipes	23	13
Nuisances from offensive accumulations ...	19	20
„ „ keeping of animals	7	4
„ „ stagnant water in cellars ...	7	0
„ „ offensive pools, ditches, etc. ...	5	6
„ „ smoke	2	0
House drains tested	94	155
Visits to cowsheds	88	100
„ Common lodging-houses	111	203
„ slaughter-houses	237	294
„ Infectious disease cases	363	316
Notices for renewal of defective privies and ashpails	425	503

					1908	1909
Licenses issued in respect to removal of Swine...					4053	4228
Ditto	ditto		Sheep...		518	60
Post Cards issued in respect of removal of Swine—						
County	...	...	...	...	3238	3444
Statutory notices served	..	...	...	...	237	173
Persons supplied with disinfectants on application						
to office	...	...	...	...	1024	1048
Dogs destroyed	...	...	...	...	56	56
Cats	„	...	...	...	3	1
Visits to Ice Cream Shops		...	...	...	15	16
„ „ Bakehouses	...	...	...	...	70	75
„ „ Fried Fish Shops		...	...	...	58	84
„ „ Pigstyes	...	...	...	...	70	80
„ „ Offensive trades	..	...	...	...	27	51

Scavenging.

In the accompanying Tables the work done during the year and the cost of both team and manual labour are given in detail, and for comparison the work for each year since 1899 is also shewn.

TABLE shewing total cost, number of loads, etc., for day and night work.

MONTH, 1909	DAY WORK.					NIGHT WORK.			
	Wages £ s. d.	Horse Hire £ s. d.	Paper Wagon Hire £ s. d.	Total £ s. d.	Average cost per Working Day £ s. d.	Wages £ s. d.	Horse Hire £ s. d.	Total £ s. d.	Average Cost per Working Night £ s. d.
January ...	111 14 10	44 2 0	0 6 0	156 2 10	6 0 1½	66 1 4	17 10 0	83 11 4	3 6 10½
February ...	104 18 8	42 0 0	0 6 0	147 4 8	6 2 8½	61 14 2	17 10 0	79 4 2	3 3 4½
March ...	118 10 9	47 5 0	0 6 0	166 1 9	6 3 0½	71 12 0	18 18 0	90 10 0	3 7 0½
April ...	113 16 8	45 10 0	0 6 0	159 12 8	6 2 9½	69 6 9	18 4 0	87 10 9	3 7 4
May ...	113 12 1	45 10 0	0 6 0	159 8 1	6 2 7½	68 7 0	18 4 0	86 11 0	3 6 7
June ...	114 2 8	45 6 6	0 6 0	159 15 2	6 2 10½	62 7 4	18 4 0	80 11 4	3 13 3
July ...	120 2 7	47 5 0	0 6 0	167 13 7	6 4 2½	62 14 0	18 18 0	81 12 0	3 14 2
August ...	116 6 6	45 10 0	0 6 0	162 2 6	6 4 8½	61 14 10	18 4 0	79 18 10	3 12 8
September ...	115 13 3	45 10 0	0 6 0	161 9 3	6 4 2½	62 17 10	18 4 0	81 1 10	3 13 8½
October ...	115 4 8	45 10 0	0 6 0	161 0 8	6 3 10½	60 6 4	18 4 0	78 10 4	3 14 9½
November ...	115 3 7	45 10 0	0 6 0	160 19 7	6 3 10	62 6 6	18 4 0	80 10 6	3 13 2½
December ...	119 5 8	47 5 0	0 6 0	166 16 8	6 3 7	65 17 6	18 18 0	84 15 6	3 13 8½
	1378 11 11	546 3 6	3 12 0	1928 7 5	6 3 2½	775 5 7	219 2 0	994 7 7	3 10 6½

MONTH	No. of Loads Removed.		Average Cost per Load.	
	Day Work	Night Work	Day	Night
January ...	889	288	s. d. 3 6	s. d. 5 9½
February ...	871	281	3 4½	5 7½
March ...	965	310	3 5½	5 10
April ...	906	285	3 6½	6 1½
May ...	928	295	3 5	5 10½
June ...	925	269	3 5½	6 0
July ...	925	258	3 7½	6 4
August ...	948	269	3 5	5 11½
September ...	944	270	3 5	6 0
October ...	903	261	3 6½	6 0½
November ...	920	271	3 6	5 11½
December ...	935	283	3 6½	6 0
	11,059	3,340	3 5½	5 11½

TABLE shewing number of privies and dustbins emptied and cost per load, etc.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Privies and Ashpits emptied ...	33,455	25,171	20,617	25,485	28,371	29,381	20,136	21,166	23,820	26,011
Privy Pails emptied...	129,086	129,656	132,432	145,038	154,570	156,003	157,305	157,373	157,079	157,420
Dustbins...	93,180	104,260	112,510	138,585	176,956	183,414	184,163	194,919	199,477	212,159
Paper Bags ...	—	—	—	11,160	11,388	13,405	17,675	16,844	18,578	20,688
Number of Loads removed—										
Day Work ...	9,099	8,803	9 851	10,225	10,325	9,825	8,970	10,073	10,408	11,059
Night Work ...	4,958	4,940	4,880	5,130	5,290	4,879	4,456	4,070	3,775	3,340
	14,057	13,743	14,731	15,355	15,618	14,704	13,426	14,143	14,183	14,399
Cost of removal—	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Total cost ...	2812 1 2	2827 8 11	2984 9 3	3007 9 9	3068 16 7	2923 9 6	2850 18 3	2931 12 4	2904 8 11	2922 15 0
Cost per load ...	0 4 0	0 4 1½	0 4 0½	0 3 11	0 3 11	0 3 11½	0 4 2¾	0 4 1½	0 4 1½	0 4 0½
Cost of Day Work per load ...	0 3 1½	0 3 2½	0 3 0½	0 3 3¾	0 3 3	0 3 3½	0 3 6½	0 3 6¾	0 3 4¾	0 3 5¾
Cost of Night Work per load ...	0 5 6¾	0 5 8¾	0 6 1½	0 5 1	0 5 3	0 5 4½	0 5 8	0 5 10½	0 5 9¾	0 5 11½

Water Supply.

The Water Supply is owned by the London and North Western Railway Company, and is obtained from artesian wells at Whitmore, Staffordshire. The quality of the water for drinking purposes is excellent, although somewhat hard for domestic and laundry use. The supply has never failed even after the most prolonged drought.

The total quantity of water given below is the amount actually paid for to the Railway Company, plus $20\frac{1}{2}$ million gallons, the estimated amount supplied directly by the Company to their own property.

Year	Quantity consumed during the year in gallons	No. of Inhabited Houses.	Population estimated to middle of year	Consumption per house per annum in gallons	Consumption per head of Population per day in gallons
1893	116,348,000	7,125	34,866	16,329	9·14
1894	134,269,300	7,190	35,796	18,674	9·47
1895	139,736,000	7,404	36,726	18,873	10·42
1896	148,833,000	7,638	37,656	19,485	10·79
1897	149,088,000	7,945	38,586	18,765	10·58
1898	160,555,000	8,182	39,516	19,622	11·13
1899	175,551,000	8,582	40,446	20,455	11·88
1900	185,026,000	8,808	41,376	21,006	12·24
1901	220,604,500	8,771	42,307	25,151	14·28
1902	228,111,000	9,208	43,237	24,773	14·45
1903	243,332,390	9,500	45,505	25,613	14·6
1904	233,434,413	9,617	46,065	24,273	13·8
1905	201,038,120	9,724	46,578	20,674	11·8
1906	198,421,000	9,844	47,142	20,156	11·5
1907	213,841,000	10,001	47,904	21,381	12·2
1908	197,435,470	10,096	48,359	19,555	11·2
1909	176,599,067	10,143	48,584	17,414	9·9

Sewage Disposal.

The bulk of the sewage is being disposed of on the Corporation Farm, and a small proportion by the double contact method. Toward the end of 1907 a new circular continuous filter was constructed on the site of one of the secondary contact beds. The samples taken immediately after it had started work were naturally not satisfactory, but after several months' working an effluent well within the requirements of the County Council has been produced.

Back Passages.

The paving of the following back passages has been completed during the year:—

1. South side of Bedford Street.
2. Market Street to Market Terrace.
3. West Street to Grosvenor Street.
4. West Street to rear of Goddard Street.
5. Hall-o'-Shaw to Vincent Street.
6. Between Hall-o'-Shaw Street and Vincent Street.
7. Rear of Nos. 3 to 15, Hall-o'-Shaw Street.
8. Richmond Road to Queen Street.
9. Between Richmond Road and Queen Street.
10. North side of Nile Street.
11. South side of Stalbridge Road.
12. Between Westminster Street and Nelson Street.
13. East side of Walthall Street from Hammond Street to Alton Street east.
14. In rear of Nos. 156a to 316, West Street.

Prosecutions. &c.

The following is a summary of the proceedings taken during the year to enforce Statutory Notices issued for the abatement of various nuisances, or for infringement of bye-laws:—

No.	Nature of Offence.	Result of Proceedings.
1.	Breach of Common Lodging-House Bye-law No. 6.	Case dismissed.
2.	Ditto No. 5.	Defendant fined 2/6 and 10/- costs.
3.	Ditto No. 8.	Withdrawn on Defendant paying costs 7/-.
4.	Ditto No. 10.	Ditto.
5.	Carrying on offensive trade without authority in writing from Local Authority.	Defendant fined 10/- and 8/6 costs.
6.	Failure to cleanse dirty house under Sec. 46 of the P.H.A. 1875.	Defendant had the house cleaned before date of hearing and paid the costs 3/6. Case withdrawn.

Sewers and Sewer Ventilation.

New sewers were laid in the following streets :—

Fletcher Street.

Elizabeth Street.

Market Street (continuation to Cemetery)

Sewer ventilating shafts erected during 1909.

1. By St. Barnabas Schools.
2. Minshull New Road.
3. Beech Grove.
4. Nelson Street.
5. Sydney.

Unwholesome and Dirty Houses.

Notices were issued for the cleansing and limewashing of 92 houses. In 16 instances a second notice had to be issued before the work was carried out.

Contagious Diseases of Animals.

The Sanitary Inspector acts also as Inspector under the Contagious Diseases (Animals) Act and the Swine Fever Order. Every Monday he is in attendance at the Cattle Market to receive declarations regarding swine brought for sale and to give orders for removal of swine from the market.

The number of licences issued by him for the removal of swine was 4,228, as against 4,053 for 1908.

Several blood specimens from animals which had died suddenly were examined by the Medical Officer for the Veterinary Surgeon.

Poor Law Relief Statistics.

I am indebted to Mr. C. E. Speakman, Clerk to the Poor Law Guardians, for the following information. The figures in each case are for the half-year ending Michaelmas.

	1904	1905	1906	1907	1908	1909
1. In Workhouse...						
Able-bodied ...	83	176	60	14	191	45
Not able-bodied	75	169	296	367	202	324
Insane ...	5	15	15	16	17	20
Children ...	72	119	139	116	151	141
Total ...	235	479	510	513	561	530
2. Vagrants relieved in Workhouse...	4601	2862	2786	2616	3604	3751
3. Out-door Poor relieved ...	1001	994	1114	1077	1066	1059
Ditto Vagrants	660	7	45	45	131	164
4. Cost of out-door relief ...	£2229 11 6	£2260	£2355 12 7	£2153 14 10	£2230 1 3	£2291 16

METEOROLOGY.—Mr. M. Morgan, the Curator of Queen's Park, has kindly furnished the figures for the following table.

1908	Total Rainfall in inches	No. of Rainy Days	PREVAILING WIND IN DAYS.								MEAN TEMPERATURE.			
			N.	S.	E.	W.	N.W.	N.E.	S.W.	S.E.	Max'm in Shade	Min'm in Shade	One foot deep	Four foot deep
January ...	1.05	7	—	7	—	3	6	—	8	7	40	28	38	42
February	0.15	2	1	—	—	3	10	2	1	11	42	26	36	39
March ...	1.80	12	3	4	3	—	6	5	2	8	45	28	37	40
April ...	1.30	7	—	5	2	5	3	1	6	8	58	65	44	43
May ...	0.55	6	1	3	4	5	4	1	5	8	64	35	50	47
June ...	2.90	11	4	1	2	3	9	7	3	1	62	39	54	51
July ...	3.10	11	—	3	1	8	8	—	10	1	64	47	58	55
August ...	1.68	7	2	2	—	8	13	1	4	1	72	46	60	50
September	2.11	9	3	1	8	2	9	2	2	3	81	41	54	55
October ...	3.45	15	3	7	1	1	4	1	5	9	56	38	51	53
November	0.45	7	5	3	—	2	12	5	3	—	44	29	42	47
December	3.16	12	1	6	4	5	5	3	4	3	40	29	38	42
Total ...	21.70	106	23	42	25	45	89	28	53	60	—	—	—	—

As compared with 1908 there were 0.88 inches less of rainfall and 12 less rainy days. The heaviest rainfall occurred in July, October and December, during which months 9.71 inches fell, as compared with 6.00 in 1908. February was an unusually dry month.

LOCAL GOVERNMENT BOARD RETURN.

TABLE I.—Vital Statistics of whole district during 1909 and previous years.

YEAR.	Population estimated to Middle of each Year.	Births.		Total Deaths Registered in the District.			Deaths of Non-Residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Net Deaths at all Ages belonging to the District.			
		Number.	Rate.*	At all Ages.		Number.			Rate.*			
				Under 1 Year of Age.	Rate per 1,000 Births registered.					Number.	Rate.*	
1	2	3	4	5	6	7	8	9	10	11	12	13
1899	40446	1400	34.6	231	165	667	16.4	16	4	32	695	17.1
1900	41376	1420	34.3	196	138	653	15.7	19	7	31	677	16.3
1901	42307	1311	30.9	234	178	685	16.1	26	2	27	710	16.7
1902	43237	1412	32.6	186	131	613	14.1	24	2	37	648	14.9
1903	45505	1454	31.9	210	145	636	14.3	36	6	21	651	14.3
1904	46065	1425	30.9	226	159	659	14.3	20	5	19	673	14.6
1905	46578	1318	28.2	171	129	602	12.9	36	7	34	629	13.5
1906	47142	1260	26.7	149	118	525	11.1	22	6	41	560	11.8
1907	47904	1251	26.1	136	108	518	10.8	32	7	25	536	11.1
1908	48359	1193	24.6	124	103	514	10.6	24	6	27	535	11.0
Averages for years 1899-1908.	44891	1344	30.0	186	137	607	13.6	25	5	29	631	14.1
1909	48584	1120	23.05	117	104	551	11.3	30	7	38	582	11.9

* Rates in Columns 4, 8, and 13 calculated per 1000 of estimated population.

Area of District in acres (exclusive of area covered by water) ... 2185	Total Population at all ages ... 42074	} At Census of 1901
Number of Inhabited Houses ...	8771	
Average number of persons per House ...	4.79	

LOCAL GOVERNMENT BOARD RETURN.

TABLE II.—Vital Statistics of separate localities in 1909 and previous years.

Names of Localities.	1. BOROUGH.				2. CENTRAL WARD.			3. WEST WARD.			4. NORTH WARD.			5. SOUTH WARD.		
	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Deaths at all Ages.	Deaths under 1 year.
1899	40446	1400	695	231	8986	193	60	9104	164	57	9767	155	54	12587	162	60
1900	41376	1420	677	196	9183	174	50	9311	162	52	9993	152	44	12879	167	50
1901	42307	1311	710	238	9400	165	43	9518	171	65	10217	168	64	13172	188	62
1902	43237	1412	648	186	9607	138	30	9725	166	48	10441	157	62	13464	158	44
1903	45505	1454	651	211	10111	160	50	10236	148	52	10989	128	46	14168	194	62
1904	46065	1425	673	228	10235	120	37	10363	157	57	11123	168	61	14344	209	73
1905	46578	1318	629	173	10350	126	23	10478	134	41	11246	146	55	14504	189	52
1906	47142	1260	560	149	10476	117	34	10603	158	37	11383	114	35	14680	136	41
1907	47904	1251	536	136	10645	135	28	10775	127	40	11567	119	34	14917	134	33
1908	48359	1193	535	124	10747	106	23	10878	140	44	11676	112	18	15058	153	36
Averages of years 1899 to 1908	44891	1344	631	186	9974	143	37	10699	152	49	10840	141	47	13977	169	51
1909	48584	1120	*582	+117	10798	139	22	10928	126	33	11730	144	31	15128	140	28

* 33 of these deaths could not be obtained and are therefore omitted from the wards.
+ 3 in Nantwich Workhouse.

LOCAL GOVERNMENT BOARD RETURN.

TABLE III.—Cases of Infectious Disease notified during the year 1909.

NOTIFIABLE DISEASE.	Cases Notified in whole District.						Total Cases Notified in each Locality.					No. of Cases removed to Hospital from each Locality.				
	At all Ages.	At Ages—Years.					1	2	3	4	Central Ward	1	2	North Ward (H)	South Ward	Total cases removed to Hospital.
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65										
Diphtheria (including Membranous Croup)...	121	2	17	80	14	8	24	37	42	18	Central Ward	20	27	35	16	98
Erysipelas ...	29	1	2	...	4	19	8	12	3	6	...	...	1	...	...	1
Scarlet Fever ...	149	2	32	105	6	4	37	16	36	60	...	35	14	34	54	137
Enteric Fever ...	10	...	...	2	1	7	3	1	6	...	...	3	...	5	...	8
Puerperal Fever ...	5	...	...	...	3	2	4	...	...	1	...	4	...	...	...	4
Phthisis ...	17	...	...	2	5	10	4	6	5	2	...	2	1	1	2	6
Totals ...	331	5	51	189	33	50	80	72	92	87	...	64	43	75	72	254

Crewe Isolation Hospital is situate in the North Ward marked (H).

Total available beds 56.

Number of diseases that can be concurrently treated 5.

LOCAL GOVERNMENT BOARD.

TABLE IV.—Causes of, and Ages at, Death during 1909.

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Deaths in or belonging to Localities at all Ages.					Total Deaths in Public Institutions in the District
	All Ages.	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards.	Central Ward	West Ward	North Ward	South Ward	Address could not be obtained	
Measles ...	1	1	...	...	...	...	...	...	...	...	1	...	...
Whooping Cough ...	4	2	1	1	...	...	...	...	1	2	1	...	...
Diphtheria (including Membranous Croup)...	7	2	2	3	...	...	...	...	...	5	...	...	5
Enteric Fever ...	2	...	...	...	1	1	...	1	1	...	...	...	...
Epidemic Influenza ...	19	...	1	...	...	9	9	4	2	7	6	...	2
Diarrhoea ...	14	11	2	...	...	...	1	...	3	5	5	1	...
Enteritis...	2	...	...	1	...	...	1	...	...	...	2	...	...
Puerperal Fever ...	1	...	...	...	...	1	...	1	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis)	31	...	...	1	9	21	...	9	6	8	3	5	...
Other Tuberculous Diseases ...	18	7	7	1	...	3	...	3	4	4	4	3	...
Cancer, Malignant Disease ...	41	...	...	1	...	24	16	9	10	9	12	1	...
Bronchitis ...	58	12	7	...	...	7	32	13	13	15	12	5	...
Pneumonia ...	64	14	13	3	1	19	14	20	14	15	13	2	4
Pleurisy ...	4	...	...	...	...	1	3	1	1	...	1	1	...
Other Diseases of Respiratory Organs	10	...	...	1	...	6	3	1	3	1	5	...	...
Alcoholism, Cirrhosis of Liver ...	10	...	...	...	...	9	1	3	1	3	2	1	...
Veneral Diseases ...	2	2	...	...	...	...	...	...	...	...	...	1	...
Premature Birth ...	18	18	...	...	...	...	...	3	6	4	5	...	...
Diseases and Accidents of Parturition	6	...	...	...	3	3	...	1	1	1	3	...	...
Heart Diseases ...	67	...	1	3	...	26	37	20	7	14	19	7	4
Accidents ...	17	4	2	...	...	7	4	5	5	6	1	...	3
Suicides ...	4	...	...	...	...	4	...	...	1	2	1	...	...
All other Causes ...	182	44	15	3	3	51	66	45	45	42	44	6	11
All Causes ...	582	117	51	18	17	192	187	139	126	144	140	33	30

LOCAL GOVERNMENT BOARD RETURN.

TABLE V.—Infantile Mortality during the year 1909.

CAUSE OF DEATH.																	Total Deaths under One Year.
All Causes { Certified Uncertified	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	117
	22	5	11	2	40	12	7	8	6	6	8	6	4	7	4	9	
Measles	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Diphtheria (including Membranous Croup)	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Diarrhoea, all forms	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	6
Enteritis, Muco-enteritis, Gastro-enteritis	...	...	...	...	...	2	1	1	...	...	1	...	...	...	1	...	2
Gastritis, Gastro-intestinal Catarrh...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	18
Premature Birth	13	2	2	...	...	1	...	...	...	1	...	...	1	1	1	...	10
Congenital Defects	5	1	2	...	...	1	2	1	1	3	3	2	1	1	1	...	20
Atrophy, Debility, Marasmus	...	...	3	...	...	...	1	...	...	...	...	...	...	1	1	...	1
Tuberculous Meningitis	...	...	...	...	...	...	1	...	...	...	2	...	...	1	...	...	5
Tuberculous Peritonitis: Tabes Mesenterica	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	2
Syphilis	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	1
Meningitis (not Tuberculous)	...	...	...	...	...	1	1	...	2	...	...	...	...	...	...	1	5
Convulsions	...	...	...	...	...	2	1	2	...	...	1	2	...	1	...	2	12
Bronchitis	...	...	1	...	...	1	...	4	1	2	1	...	...	1	...	3	14
Pneumonia	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	4
Suffocation, overlying	2	...	...	...	...	1	1	...	...	...	...	1	...	1	...	...	8
Other causes	2	...	2	1	...	...	...	...	...	...	...	1	...	...	...	...	...
All Causes	22	5	11	2	40	12	7	8	6	6	8	6	4	7	4	9	117

Births in the { Legitimate, 1062.
year { Illegitimate, 58.

Deaths from all causes at all ages, 582.
Population estimated to middle of 1909, 48,584.

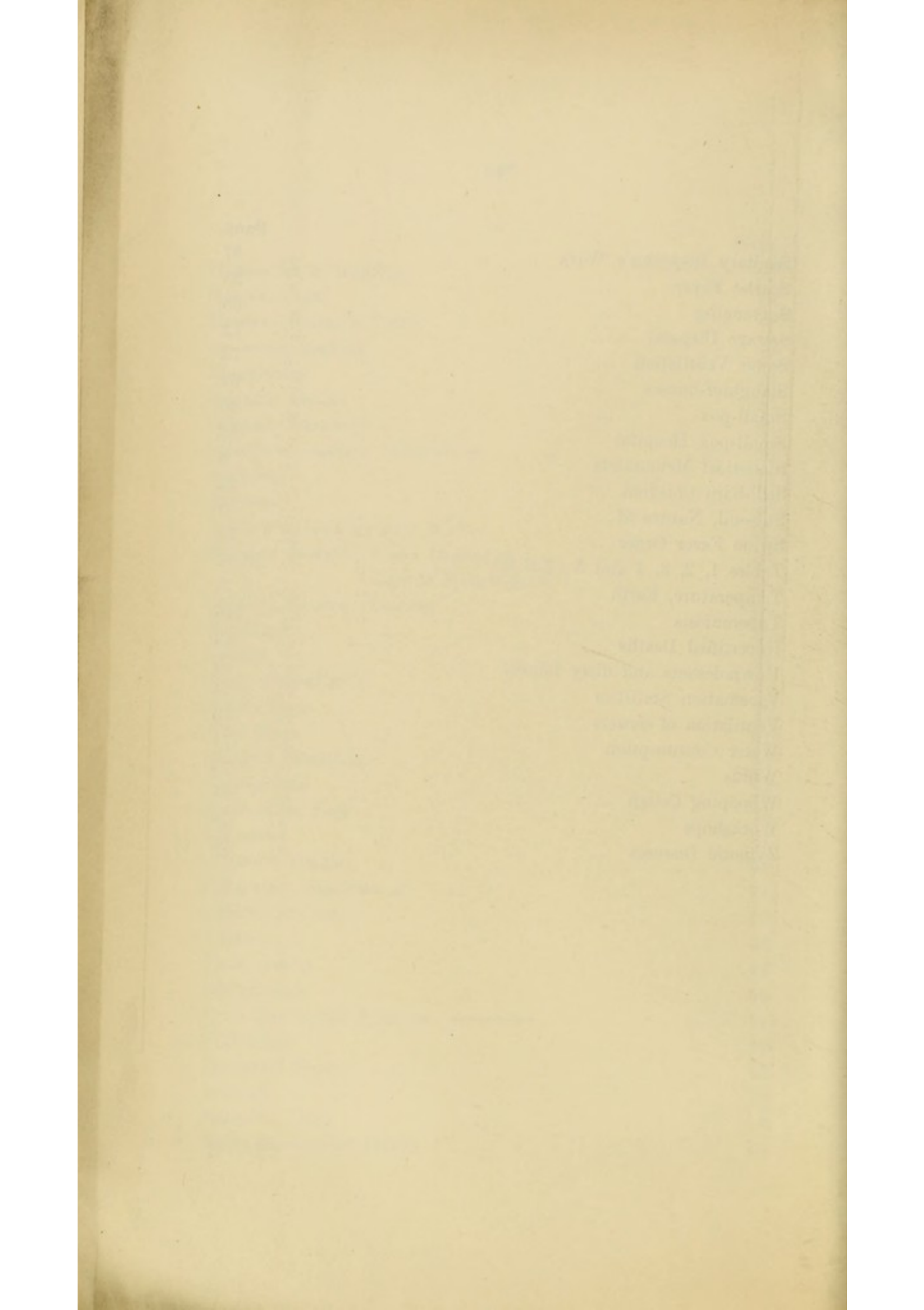
Deaths in the { Legitimate Infants, 113.
year of { Illegitimate Infants, 4.

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Classification of Deaths in the Borough of Croydon during 1980

