

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

**Contributors**

Macclesfield (England). Borough Council.

**Publication/Creation**

1904

**Persistent URL**

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

**License and attribution**

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

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

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



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



MAC MOS

**Borough of Macclesfield.**



# REPORT

ON THE

**HEALTH OF MACCLESFIELD,**

**FOR THE YEAR 1904.**

BY

**J. HEDLEY MARSH,**

M.R.C.S., L.R.C.P. (London).

Fellow of the Royal Institute of Public Health, &c.,


**MEDICAL OFFICER OF HEALTH,**



MACCLESFIELD;

CLAYE, BROWN & CLAYE, PRINTERS, &c., "COURIER" WORKS.

1905.



Digitized by the Internet Archive  
in 2017 with funding from  
Wellcome Library

<https://archive.org/details/b29778852>

# ANNUAL REPORT

OF

# The Medical Officer of Health

For the Year ending December 31st, 1904.

---

TO THE MAYOR, ALDERMEN, AND COUNCILLORS  
OF THE BOROUGH OF MACCLESFIELD.

---

MR. MAYOR AND GENTLEMEN,

I have the honour to submit for your consideration my Sixth Annual Report on the Health and Sanitary Administration of the Borough of Macclesfield.

## THE SOIL OF THE BOROUGH.

The soil of the Borough is variable to the west and north-west, sand and gravel lying on boulder clay alternate, the sand predominating.

In the centre of the town there are two to five feet of coarse gravel on clay. On the easterly side there is brick clay on sand and gravel, and to the south boulder clay.

## THE ELEVATION OF THE TOWN.

The elevation of the town varies between 400 and 500 feet above sea level.

The River Bollin runs through the centre of the town, running east to west. Its principal tributaries within the Borough are the Dams Brook and the Day Brook, which drain the district on either side.

## POPULATION OF THE BOROUGH.

The 1901 Census gave the population as being 34,624 persons living in 8,634 houses, or an average of 4 persons to a house.



Through the kindness of Mr. T. L. Walker, Assistant Overseer, I have obtained a list of the present number of occupied dwelling houses, which is 8,595. Taking the average number of persons occupying each house as four, the present population will stand at the figure 34,380, or a decrease of 244 since 1901.

It may be safely inferred that our population is at best stationary, and there is strong evidence that it is declining.

This deplorable state of affairs can only be attributed to our persistent low birth rate, and to the excessive loss by emigration of young men in search of employment, which they are unable to find in the town.

This constitutes a serious drain upon one of the most valuable assets of the Borough, and can only be checked by the establishment of fresh industries in our midst, which will provide suitable employment at a remunerative wage for young men.

#### ACREAGE.

The area of the Borough in acres is 3,214. The density of population is about 10.8 persons to the acre. This figure seems low for an urban district, but is accounted for by the extension of the Borough into the surrounding country on all sides.

The densest district is the centre of the town bounded by Chestergate, Roe Street, Mill Street, and Bond Street. In this area the number of persons to the acre is about 180.

#### PRINCIPAL VITAL STATISTICS FOR 1904.

The outstanding figures relating to the year 1903 compared with the previous year are as follows:—

	Year 1904.	Year 1903.
Estimated population .....	34,624	34,624
Births—Males .....	381	
Females .....	403	
	784	870
Annual rate of Birth per 1,000 of population ...	22.6	25.1
Deaths .....	707	601
Annual rate of Mortality per 1,000 of population	20.1	17.3
Deaths under 1 year of age per 1,000 born .....	178	134
Excess of registered births over deaths .....	77	269

#### BIRTHS.

Number of Births registered during 1904 .....	784
"    "    "    "    "    1903 .....	870

Birth rate per 1,000 of population .....	22.6
"  "  for England and Wales, 1904 .....	27.9
"  "  "  Rural England and Wales, 1904 .....	26.8
"  "  "  76 Great Towns, 1904 .....	29.1
"  "  "  103 Smaller Towns, 1904 .....	27.5
"  "  "  the Borough for last year .....	25.1

The following Table shows the Birth rates since 1874:—

Years.	Birth-rate.	Years.	Birth-rate.	Years.	Birth-rate.
1874	33.5	1885	29.8	1896	26.8
1875	35.2	1886	28.9	1897	27.1
1876	35.2	1887	28.2	1898	26.4
1877	34.3	1888	25.8	1899	24.6
1878	31.9	1889	26.2	1900	23.6
1879	34.7	1890	27.0	1901	22.2
1880	31.4	1891	28.0	1902	21.4
1881	31.4	1892	27.4	1903	25.1
1882	32.1	1893	25.0	1904	22.6
1883	28.6	1894	28.2		
1884	31.4	1895	25.4		

This continuous decline in the birth rate, which has been going on steadily for the last twenty years, is not a purely local phenomenon, but is characteristic of the country generally.

It is most marked, however, in our own town, and is fraught with great social and economic dangers.

The result will be that an inferior population will predominate numerically, and when there is a special call for increase in the population the demand will not be responded to.

#### DISTRICT BIRTH RATE.

District.	Population.	1904.	1903.
West Macclesfield .....	16,500	23.0	24.1
East Macclesfield .....	12,440	22.8	28.6
Sutton .....	4,887	25.5	23.3

The population for West Macclesfield is approximately correct, a deduction having been made for the inmates of the Workhouse and Asylum.

## NUMBER OF BIRTHS DURING THE LAST 15 YEARS.

Year.	West Macclesfield.	East Macclesfield and Hurdsfield.	Sutton.
1890	462	374	177
1891	374	177	158
1892	437	408	144
1893	427	372	136
1894	471	380	166
1895	433	350	112
1896	441	374	149
1897	472	378	127
1898	422	383	148
1899	417	341	128
1900	429	305	119
1901	365	283	123
1902	350	300	92
1903	399	357	114
1904	380	284	120

## ILLEGITIMATE BIRTH RATE.

The illegitimate birth rate for the year is 1.7 per 1,000 of population, as compared with 1.5 last year.

The percentage of illegitimate birth to total number of children born during the year is 8.1, as compared with 6.3 last year.

Illegitimacy has thus increased, in spite of the low birth rate, and contrary to the general rule that the illegitimate birth rate rises and falls with the general birth rate.

## DISTRICT ILLEGITIMATE BIRTH RATE.

The percentage of illegitimate births to the total number of births registered has been as follows:—

	1904.	1903.
West Macclesfield .....	7.8	8
East Macclesfield .....	7.7	4
Sutton .....	7.5	5

West Macclesfield district contains the Workhouse, and so receives an undue proportion of these illegitimate births.

The Sutton rate is abnormally high.

The high death rate amongst these illegitimate children is to a considerable extent due to the fact that in many cases the burden of expense incidental to the birth of the child and to its subsequent maintenance is borne principally by the mother, with the result that the child is put out to nurse, and is thus deprived of maternal care. Our Legislature would do well to follow the example of New South Wales, where a law is enacted which provides that a mother may take legal action against the father of her prospective child before its birth, and also makes it possible for the Court to compel the payment of the expenses incidental to the child's birth, and for the maintenance of the mother for one month before confinement and for six months after, and also for the maintenance of the child.

### DEATHS.

	Per 1,000 Inhabitants.
Death rate for the Borough for 1904 .....	20.1
"    "    "    England and Wales for 1904 .....	16.2
"    "    "    Rural England and Wales for 1904 .....	15.3
"    "    "    76 Great Towns for 1904 .....	17.2
"    "    "    142 Smaller Towns for 1904 .....	15.6
"    "    "    the Borough for 1903 .....	17.3

The increase in the death rate is most unsatisfactory, particularly as it is due to the largely increased numbers of deaths in children under five years of age. Such mortality is largely preventable.

798 deaths have been registered in the Borough during the year: this number includes the deaths of 91 persons not belonging to the Borough who have died in one or other of our Public Institutions, viz.: 1 in the Smallpox Hospital, 15 in the Workhouse, 5 in the Infirmary, and 70 in the Asylum. Deducting these we have a total number of deaths of inhabitants of the Borough of 707, which corresponds to a death rate of 20.1 per 1,000 of population.

TABLE SHOWING DEATHS RATES SINCE 1874:

Years.	Death-rate.	Years.	Death-rate.	Years.	Death-rate.
1874	26.6	1885	20.4	1896	20.0
1875	25.0	1886	20.0	1897	20.3
1876	28.1	1887	23.8	1898	18.5
1877	20.2	1888	18.3	1899	20.4
1878	23.8	1889	21.0	1900	19.6
1879	23.2	1890	21.9	1901	18.5
1880	21.7	1891	20.8	1902	15.1
1881	23.6	1892	25.1	1903	17.3
1882	23.0	1893	20.6	1904	20.1
1883	23.6	1894	17.7		
1884	22.0	1895	22.5		

## PRINCIPAL DEATH RATES FOR LAST THREE YEARS.

	Per 1,000 of Population.		
	1904.	1903.	1902.
Zymotic (seven principal Zymotic Diseases).....	2.3	0.9	0.3
Phthisis .....	1.3	1.2	1.5
Other forms of Tuberculosis .....	0.8	0.5	0.5
Respiratory (Bronchitis, Pneumonia, etc.) .....	3.1	2.1	1.9
Infantile (per 1,000 births under 1 year of age)..	178	134	102
Cancer (Carcinoma and Sarcoma) .....	1.0	1.0	0.8

The Zymotic death rate is again trebled, due to the epidemic of measles and whooping cough. The Respiratory death rate is also largely increased, and corresponds with the increase in the Zymotic death rate.

The deaths from Tuberculosis are still far too many.

The Infantile mortality rate is extraordinarily high, and the methods now well recognised for dealing with the preventable loss of child life demand the serious consideration of the Sanitary Authority.

The increased number of deaths have been attributed to the following diseases, viz. :—

1. Measles shows an increase of 36 ; of these 4 occurred under one year of age, and 25 between the ages of one and five years. School attendance is mainly responsible for this loss of life.
2. Whooping Cough has an increase of 12.
3. Diarrhœa has an increase of 9, mainly in very young children.
4. Bronchitis and Pneumonia show a combined increased mortality of 32. These deaths largely represent the results of Measles and Whooping Cough. Broncho-pneumonia and Capillary Bronchitis being the usual fatal endings of those diseases.
5. Marasmus or Wasting shows an increase of 13. This also probably is associated with the epidemics of Measles and Whooping Cough, and represents to some extent the impaired vitality and diminished resistance which young life suffers from these "childish ailments."
6. Tuberculosis is also responsible for 18 more deaths than last year. This is another black spot on our Sanitary Administration, and will, I trust, receive attention at the hands of the Sanitary Authority.

We have thus six types of disease to which may clearly be assigned our increased death rate, and it is a well recognised fact that most, if not all, are largely preventable, and that it is the duty of the Sanitary Authority to deal very closely with this mortality

## CAUSES OF DEATHS IN MACCLESFIELD.

Table showing cause of death and the age period at which such deaths have occurred during the year ending December 31st, 1904:—

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Smallpox .....	...	...	...	...	3	...	3	
Membranous Croup ...	...	...	1	...	...	...	1	
Diphtheria .....	...	1	...	...	...	...	1	
Influenza .....	...	...	...	1	3	...	4	
Puerperal Fever .....	...	...	...	1	1	...	2	
Erysipelas .....	...	...	...	...	5	2	7	
Other Septic Diseases	...	1	...	...	2	...	3	
Measles .....	11	25	...	...	...	...	36	
Whooping Cough .....	6	7	...	...	...	...	13	
Diarrhœa .....	15	8	...	...	1	...	24	
Rheumatic Fever .....	...	...	2	...	2	...	4	
Bright's Disease .....	...	...	...	1	15	12	28	
Pulmonary Tubercu- losis .....	...	1	1	8	34	3	47	
Bronchitis .....	12	10	1	1	18	14	56	
Pneumonia .....	10	12	...	1	18	7	48	
Pleurisy .....	...	1	...	...	...	1	2	
Other Respiratory Diseases .....	...	...	...	1	2	1	4	
Alcoholism and Cir- rhosis of Liver .....	...	...	...	...	7	3	10	
Heart Disease .....	1	...	1	2	30	27	61	
Suicide .....	...	...	...	...	5	1	6	
Injuries .....	5	3	...	...	2	2	12	
Venereal Diseases.....	11	...	...	...	...	...	11	
Cancer .....	...	...	...	...	26	11	37	
Convulsions .....	15	1	1	...	3	1	21	
Apoplexy .....	...	...	...	...	13	23	36	
Insanity .....	...	...	...	...	3	1	4	
Other Brain Diseases	...	...	1	1	7	3	12	
Diseases & Accidents of Parturition.....	...	...	...	1	2	...	3	
Premature Birth .....	19	...	...	...	...	...	19	
Marasmus .....	18	4	...	...	...	...	22	
Atrophy (Senile) .....	...	...	...	...	1	91	92	
Tabes Mesenterica .....	6	...	...	1	1	...	8	
Tubercular Meningitis	1	1	1	...	...	...	3	
Tuberculosis .....	4	3	1	2	8	2	20	
All other diseases .....	6	5	...	5	21	8	45	
Total .....	140	83	11	26	234	213	707	

## CAUSES OF DEATHS IN MACCLESFIELD.

Table showing cause of death and the age period at which such deaths have occurred during the year ending December 31st, 1903 :—

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Smallpox .....	1	...	...	...	1	...	2	
Scarlatina .....	...	4	5	...	...	...	9	
Diphtheria .....	...	2	1	...	...	...	3	
Typhoid Fever .....	...	...	...	1	2	...	3	
Influenza .....	...	...	1	1	1	3	6	
Puerperal Fever .....	...	...	...	...	1	...	1	
Erysipelas .....	1	...	...	...	1	...	2	
Other Septic Diseases	2	...	1	...	2	2	7	
Whooping Cough .....	...	1	...	...	...	...	1	
Diarrhœa .....	11	3	...	...	...	1	15	
Enteritis .....	1	1	...	1	...	...	3	
Rheumatic Fever .....	...	...	1	...	1	...	2	
Bright's Disease .....	...	1	...	1	14	10	26	
Pulmonary Tubercu- losis .....	...	...	2	10	27	3	42	
Bronchitis .....	13	3	1	1	7	17	42	
Pneumonia .....	7	4	3	...	12	2	28	
Other Respiratory Diseases .....	...	1	...	...	1	2	4	
Alcoholism and Cir- rhosis of Liver .....	...	...	...	...	9	1	10	
Heart Disease .....	...	1	1	3	43	27	75	
Suicide .....	...	...	...	...	2	1	3	
Injuries .....	1	2	3	...	...	1	7	
Venereal Diseases.....	12	...	...	...	1	...	13	
Cancer .....	...	1	...	1	24	10	36	
Convulsions .....	17	3	...	...	1	...	21	
Apoplexy .....	...	...	...	...	14	17	31	
Insanity .....	...	...	...	...	10	3	13	
Other Brain Diseases	2	...	1	...	4	2	9	
Diseases & Accidents of Parturition .....	...	...	...	1	3	...	4	
Premature Birth .....	22	...	...	...	...	...	22	
Marasmus .....	9	...	...	...	...	...	9	
Atrophy (Senile) .....	...	...	...	...	3	94	97	
Tabes Mesenterica .....	3	...	1	1	1	...	6	
Tubercular Meningitis	1	4	...	...	...	...	5	
Tuberculosis .....	3	...	3	...	1	...	7	
All other diseases .....	11	1	...	3	15	7	37	
Totals .....	117	32	24	24	201	203	601	

## UNCERTIFIED DEATHS.

Three deaths have been returned to me as being not certified either by a medical man or the Coroner:—

- (1) In West Macclesfield, being a female, aged 70, the cause of death being assigned as "Heart Disease."
- (2) In East Macclesfield a female, aged 24 years, was said to have died of "probably heart failure following exophthalmic goitre."
- (3) In Sutton, a man, aged 70 years, was said to have died of "Heart failure."

Last year two deaths were returned as uncertified.

The law regulating the mode of effecting burial is singularly imperfect.

There is no obligation on the medical man, who gives the certificate of death, for which by the way he is *not* paid, to view the body after death. He gives his certificate, usually relying on the statement of the friends or relatives, that death has occurred.

Registrars are obliged by the "Regulations" (issued by the Registrar-General) to report to the Coroner every case of sudden, violent, or suspicious death, or where the cause is said to be unknown; but the Registrar alone decides whether any particular death is to be regarded as such.

## QUARTERLY DEATH RETURNS.

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
West Macclesfield .....	105	57	77	105
East Macclesfield .....	67	49	64	84
Sutton .....	24	20	17	37
<b>Total</b> .....	<b>196</b>	<b>126</b>	<b>158</b>	<b>126</b>
Death rate per 1,000 of population .....	22	14	18	14
Ditto, in 1903 .....	16	18	16	17
Ditto, in 1902.....	15	18	13	13

The increase during the third quarter is mainly attributable to the increased numbers of deaths from Diarrhœa and allied diseases.

## DEATHS OF PERSONS BELONGING TO WEST MACCLESFIELD.

DISEASES.	WEST MACCLESFIELD.								WORKHOUSE.								INFIRMARY.								ASYLUM.								TOTALS.	
	Under one year								Under 1 year								Under 1 year								Under 1 year								Total Asylum	Total West Macclesfield.
	1-5	5-15	15-25	25-65	over 65	Total			1-5	5-15	15-25	25-65	over 65	Total	1-5	5-15	15-25	25-65	over 65	Total	1-5	5-15	15-25	25-65	over 65	Total								
Smallpox																																		
Scarlatina																																		
Diphtheria																																		
Typhoid Fever																																		
Other Septic Diseases																																		
Diarrhoea		1				1																								1				
Rheumatic Fever		1				1																								1				
Bright's Disease				1		2	3						1	1											1	1		2		6				
Pulmonary Tuberculosis			3	1		4																								4				
Bronchitis	1	2		1	2	3	9						1	1															10					
Pneumonia	1				4	5						4	1	5					1		1								11					
Other Respiratory Diseases													1	1													1		3					
Alcoholism & Cirrhosis of Liver				2		2																								2				
Heart Disease		1		4	3	8						2	2					1		1									11					
Suicide																																		
Injuries																																		
Veneral Diseases																																		
Cancer				3	2	5						1		1																6				
Convulsions																																		
Apoplexy				2	7	9																								9				
Insanity																														1				
Other Brain Diseases																											1			1				
Diseases & Accidents of Parturition				1		1																								1				
Premature Birth		4				4																								4				
Marasmus		4				4																								4				
Atrophy (Senile)						19	19						6	6																25				
Tubercular Meningitis				1		1																								1				
Tuberculosis		2				2																								2				
All other diseases				4		4								1						1										5				
<b>TOTALS</b>	12	3	3	4	24	36	82					5	11	16			1		1	1	4	3				3	1	5	105					



## DEATHS OF PERSONS BELONGING TO WEST MACCLESFIELD.

Quarter ending June, 1904.	WEST MACCLESFIELD.								WORKHOUSE.								INFIRMARY.								ASYLUM.								TOTALS.	
	DISEASES.	Under one year		5-15	15-25	25-65	over 65	Total	Under one year		5-15	15-25	25-65	over 65	Total	Under one year		5-15	15-25	25-65	over 65	Total	Under one year		5-15	15-25	25-65	over 65	Total	Total Asylum	Total West Macclesfield.			
Smallpox																																		
Scarlatina																																		
Diphtheria																																		
Influenza					2		2																							2				
Other Septic Diseases			1				1																							1				
Diarrhoea		1					1																							1				
Rheumatic Fever												1		1																1				
Bright's Disease						1	1																							1				
Pulmonary Tuberculosis					4		4												1		1									6				
Bronchitis					1	2	3																							3				
Pneumonia					1		1																							1				
Other Respiratory Diseases																																		
Alcoholism & Cirrhosis of Liver					1		1																					1	1	2				
Heart Disease					2	1	3																					1	1	4				
Suicide					1		1																											
Injuries																																		
Veneral Diseases		1					1																							1				
Cancer					4		4					1	1																	6				
Convulsions		1					1																							1				
Apoplexy					2	1	3																							3				
Insanity																																		
Other Brain Diseases					1		1																				1	1		1				
Diseases & Accidents of Parturition																																		
Premature Birth																																		
Marasmus																																		
Atrophy (Senile)						13	13					2	2																	15				
Tabes Mesenterica		1					1																							1				
Tubercular Meningitis																																		
Tuberculosis					1		1																							1				
All other diseases		1			1		1	3																						3				
<b>TOTALS</b>		5	1	1	1	19	19	46				1	3	4	1												2	2	4	57				







## DEATHS OF PERSONS BELONGING TO WEST MACCLESFIELD.

DISEASES.	WEST MACCLESFIELD.										WORKHOUSE.										INFIRMARY.										ASYLUM.										TOTALS.	
	Under one year	1-5	5-15	15-25	25-65	over 65	Total	Under 1 year	1-5	5-15	15-25	25-65	over 65	Total	Under 1 year	1-5	5-15	15-25	25-65	over 65	Total	Under 1 year	1-5	5-15	15-25	25-65	over 65	Total	Total Asylum	Total West Macclesfield.												
Smallpox																																										
Puerperal Fever					1		1																								1											
Erysipelas					2		2																								2											
Other Septic Diseases					1		1																								1											
Measles	3	3					6																								6											
Whooping Cough	2	3					5																								5											
Diarrhoea	4	3					7																								7											
Rheumatic Fever			1				1																								1											
Bright's Disease					2		2																								2											
Pulmonary Tuberculosis					1	3	4						1	1																	5											
Bronchitis	1	1	1			1	4																								4											
Pneumonia	5	3			1		9						1	1																	10											
Other Respiratory Diseases						1	1																								1											
Alcoholism & Cirrhosis of Liver					1		1																								1											
Heart Disease	3				3		6																								6											
Suicide													1	1																	1											
Injuries	2						2																								2											
Veneral Diseases																																										
Cancer					3	1	4						1	1																	5											
Convulsions	2						2						1	1																	4											
Apoplexy					3	1	3						1	1																	5											
Insanity																																										
Other Brain Diseases					1		1					1	1	2																	3											
Diseases & Accidents of Parturition																																										
Premature Birth	2						2																								2											
Marasmus	2						2							1																	3											
Atrophy (Senile)						10	10						3	3																	13											
Tabes Mesenterica	1						1																								1											
Tubercular Meningitis		1					1																								1											
Tuberculosis					2	2	4	1				2		3																	7											
All other diseases	1	2			1	1	5																								5											
<b>TOTALS</b>	25	16	2	3	23	19	88	1	1	4	8	14	1	1	1						1					2	2			105												



## DEATHS IN EAST MACCLESFIELD.

Quarter ending March, 1904.

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Bright's Disease .....	...	...	...	...	...	3	...	3
Pulmonary Tuberculosis .....	...	...	...	1	6	...	...	7
Bronchitis .....	6	3	...	...	5	2	...	16
Pneumonia .....	1	2	...	...	2	...	...	5
Heart Disease .....	...	...	...	1	...	...	...	1
Injuries .....	1	...	...	...	...	...	...	1
Venereal Diseases .....	1	...	...	...	...	...	...	1
Cancer .....	...	...	...	...	...	1	...	1
Convulsions .....	5	...	...	...	...	...	...	5
Apoplexy .....	...	...	...	...	2	2	...	4
Other Brain Diseases .....	...	...	...	1	...	...	...	1
Premature Birth .....	1	...	...	...	...	...	...	1
Marasmus .....	1	...	...	...	...	...	...	1
Atrophy (Senile) .....	...	...	...	...	1	10	...	11
Tabes Mesenterica .....	...	...	...	...	1	...	...	1
All other diseases .....	...	1	...	3	3	1	...	8
Totals .....	16	6	...	6	20	19	...	67

## DEATHS IN EAST MACCLESFIELD.

Quarter ending June, 1904.

Diseases.	Under 1 year.	1-5.	5-15.	15-25.	25-65.	Over 65.	Total.
Measles .....	1	...	...	...	...	...	1
Bright's Disease .....	...	...	...	...	2	2	4
Pulmonary Tubercu- losis .....	...	1	1	...	5	1	8
Bronchitis .....	...	...	...	...	2	2	4
Pneumonia .....	...	...	...	...	1	2	3
Heart Disease .....	...	...	...	...	7	3	10
Venereal Diseases .....	2	...	...	...	...	...	2
Cancer .....	...	...	...	...	1	...	1
Apoplexy .....	...	...	...	...	...	2	2
Premature Birth .....	2	...	...	...	...	...	2
Marasmus .....	1	...	...	...	...	...	1
Atrophy (Senile) .....	...	...	...	...	...	5	5
Tabes Mesenterica ...	1	...	...	...	...	...	1
Tuberculosis .....	...	1	...	...	1	1	3
All other diseases .....	...	...	...	1	1	...	2
<b>Totals.....</b>	<b>7</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>20</b>	<b>18</b>	<b>49</b>

## DEATHS IN EAST MACCLESFIELD.

Quarter ending September, 1904.

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Smallpox .....	...	...	...	...	1	...	1	
Diphtheria .....	...	1	...	...	...	...	1	
Measles .....	1	11	...	...	...	...	12	
Whooping Cough .....	...	1	...	...	...	...	1	
Diarrhœa .....	2	3	...	...	1	...	6	
Bright's Disease .....	...	...	...	...	1	1	2	
Pulmonary Tubercu- culosis .....	...	2	...	...	...	1	3	
Bronchitis .....	...	2	...	...	...	1	3	
Pneumonia .....	...	3	...	...	2	...	5	
Other Respiratory Diseases .....	...	...	...	1	2	...	3	
Heart Disease .....	...	...	...	...	1	...	1	
Suicide .....	...	...	...	...	2	...	2	
Injuries .....	...	1	...	...	...	1	2	
Cancer .....	...	...	...	...	2	...	2	
Convulsions .....	...	...	...	...	1	...	1	
Apoplexy .....	...	...	...	...	...	3	3	
Other Brain Diseases .....	...	...	1	...	2	1	4	
Premature Birth .....	3	...	...	...	...	...	3	
Marasmus .....	1	2	...	...	...	...	3	
Atrophy (Senile) .....	...	...	...	...	...	2	2	
Tabes Mesenterica .....	2	...	...	...	...	...	2	
Tuberculosis .....	1	...	...	...	...	...	1	
All other diseases .....	1	...	...	...	1	...	2	
<b>Totals</b> .....	<b>11</b>	<b>24</b>	<b>1</b>	<b>1</b>	<b>18</b>	<b>9</b>	<b>64</b>	

## DEATHS IN EAST MACCLESFIELD.

Quarter ending December, 1904.

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Smallpox .....	...	...	...	...	1	...	1	
Typhoid Fever .....	...	...	1	...	1	...	2	
Puerperal Fever .....	...	...	...	1	...	...	1	
Erysipelas .....	...	...	...	...	1	...	1	
Measles .....	2	5	...	...	...	...	7	
Whooping Cough .....	3	2	...	...	...	...	5	
Rheumatic Fever .....	...	...	...	...	1	...	1	
Bright's Disease .....	...	...	...	1	2	...	3	
Pulmonary Tubercu- losis .....	...	...	...	1	4	...	5	
Bronchitis .....	1	...	...	...	3	2	6	
Pneumonia .....	...	2	...	...	1	...	3	
Pleurisy .....	...	...	...	...	...	1	1	
Alcoholism and Cir- rhosis of Liver .....	...	...	...	...	1	1	2	
Heart Disease .....	...	...	...	1	1	3	5	
Injuries .....	2	...	...	...	...	1	3	
Venereal Diseases .....	1	...	...	...	...	...	1	
Cancer .....	...	...	...	...	4	2	6	
Convulsions .....	2	1	...	...	...	1	4	
Apoplexy .....	...	...	...	...	2	1	3	
Other Brain Diseases Diseases & Accidents	...	...	...	...	2	1	3	
of Parturition .....	...	...	...	1	...	...	1	
Premature Birth .....	3	...	...	...	...	...	3	
Marasmus .....	4	1	...	...	...	...	5	
Atrophy (Senile) .....	...	...	...	...	...	3	3	
Tabes Mesenterica .....	1	...	...	1	...	...	2	
Tuberculosis .....	...	2	...	...	...	1	3	
All other diseases .....	1	...	...	...	4	1	6	
Totals .....	20	13	1	6	27	17	84	

## DEATHS IN SUTTON.

Quarter ending March, 1904.

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Erysipelas .....	...	...	...	...	...	1	...	1
Other Septic Diseases .....	...	...	...	...	1	...	...	1
Bright's Disease .....	...	...	...	...	1	...	...	1
Bronchitis .....	1	...	...	...	1	...	...	2
Pneumonia .....	...	...	...	...	...	2	...	2
Heart Disease .....	...	...	...	...	...	2	...	2
Injuries .....	...	1	...	...	...	...	...	1
Cancer .....	...	...	...	...	1	...	...	1
Convulsions .....	1	...	...	...	...	...	...	1
Apoplexy .....	...	...	...	...	...	1	...	1
Premature Birth .....	3	...	...	...	...	...	...	3
Marasmus .....	1	...	...	...	...	...	...	1
Atrophy (Senile) .....	...	...	...	...	...	3	...	3
All other diseases .....	1	...	...	...	3	...	...	4
Total .....	7	1	...	...	7	9	...	24

## DEATHS IN SUTTON.

Quarter ending June, 1904.

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Erysipelas .....	...	...	...	...	1	...	...	1
Bright's Disease .....	...	...	...	...	1	...	...	1
Bronchitis .....	1	...	...	...	...	...	...	1
Pneumonia .....	2	...	...	...	1	1	...	4
Heart Disease .....	...	...	...	...	3	1	...	4
Suicide .....	...	...	...	...	1	...	...	1
Cancer .....	...	...	...	...	...	1	...	1
Other Brain Diseases .....	...	...	...	...	1	...	...	1
Marasmus .....	...	1	...	...	...	...	...	1
Atrophy (Senile) .....	...	...	...	...	...	3	...	3
Tuberculosis .....	...	...	...	...	2	...	...	2
Totals .....	3	1	...	...	10	6	...	20

## DEATHS IN SUTTON.

Quarter ending September, 1904.

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Smallpox .....	...	...	...	...	1	...	1	
Membranous Croup ...	...	...	1	...	...	...	1	
Measles .....	...	1	...	...	...	...	1	
Diarrhœa .....	1	...	...	...	...	...	1	
Heart Disease .....	...	...	...	...	2	...	2	
Cancer .....	...	...	...	...	3	1	4	
Apoplexy .....	...	...	...	...	...	2	2	
Marasmus .....	1	...	...	...	...	...	1	
Atrophy (Senile) .....	...	...	...	...	...	3	3	
All other diseases .....	...	...	...	...	...	1	1	
Totals .....	2	1	1	...	6	7	17	

## DEATHS IN SUTTON.

Quarter ending December, 1904

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Influenza .....	...	...	...	1	...	...	1	
Erysipelas .....	...	...	...	...	1	1	2	
Measles .....	...	2	...	...	...	...	2	
Whooping Cough .....	1	1	...	...	...	...	2	
Bright's Disease .....	...	...	...	...	1	...	1	
Pulmonary Tubercu- losis .....	...	...	...	...	1	...	1	
Bronchitis .....	...	2	...	...	1	...	3	
Pneumonia .....	1	1	...	...	...	...	2	
Pleurisy .....	...	1	...	...	...	...	1	
Heart Disease .....	...	...	...	...	1	5	6	
Injuries .....	...	1	...	...	...	...	1	
Venereal Diseases .....	2	...	...	...	...	...	2	
Convulsions .....	3	...	...	...	...	...	3	
Apoplexy .....	...	...	...	...	...	1	1	
Other Brain Diseases..	...	...	...	...	...	1	1	
Diseases & Accidents of Parturition .....	...	...	...	...	1	...	1	
Marasmus .....	1	...	...	...	...	...	1	
Atrophy (Senile) .....	...	...	...	...	...	4	4	
All other diseases .....	...	...	...	...	1	1	2	
Totals .....	8	8	...	1	7	13	37	

## DISTRICT MORTALITY.

In considering District Mortality we must bear in mind that many persons die in West Macclesfield from diseases contracted in either East Macclesfield or Sutton. This arises from the fact that all the Public Institutions for the reception of sick and infirm people are situated in West Macclesfield. With the valuable help of the Registrar of Deaths for West Macclesfield, I am enabled to properly distribute these deaths to the several districts to which they originally belonged, and thus prevent the death rate of West Macclesfield being unduly raised, to the advantage of the remaining districts.

## PRINCIPAL DISTRICT MORTALITY RATES.

Year 1904.

Macclesfield.	Death rate per 1,000 Inhabitants.	Zymotic death rate.	Respiratory death rate.	Phthisis death rate.	Deaths from other forms of Tuberculosis.	Infantile Mortality rate.
West .....	19.3	2.0	2.6	1.3	0.8	173
East .....	21.2	2.9	3.6	1.7	1.0	190
Sutton .....	20.0	1.6	3.0	0.2	0.4	166

Year 1903.

Macclesfield.	Death rate per 1,000 Inhabitants.	Zymotic death rate.	Respiratory death rate.	Phthisis death rate.	Deaths from other forms of Tuberculosis.	Infantile Mortality rate.
West .....	17.7	0.7	1.5	1.2	0.2	110
East .....	19.2	1.5	3.0	1.2	0.6	170
Sutton .....	11.0	0.2	1.2	1.0	1.0	114

Year 1902.

Macclesfield.	Death rate per 1,000 Inhabitants.	Zymotic death rate.	Respiratory death rate.	Phthisis death rate.	Deaths from other forms of Tuberculosis.	Infantile Mortality rate.
West .....	15.6	0.17	1.0	1.9	0.6	111
East .....	15.7	0.32	2.4	1.4	0.4	190
Sutton .....	12.0	0.81	1.4	0.4	0.1	65

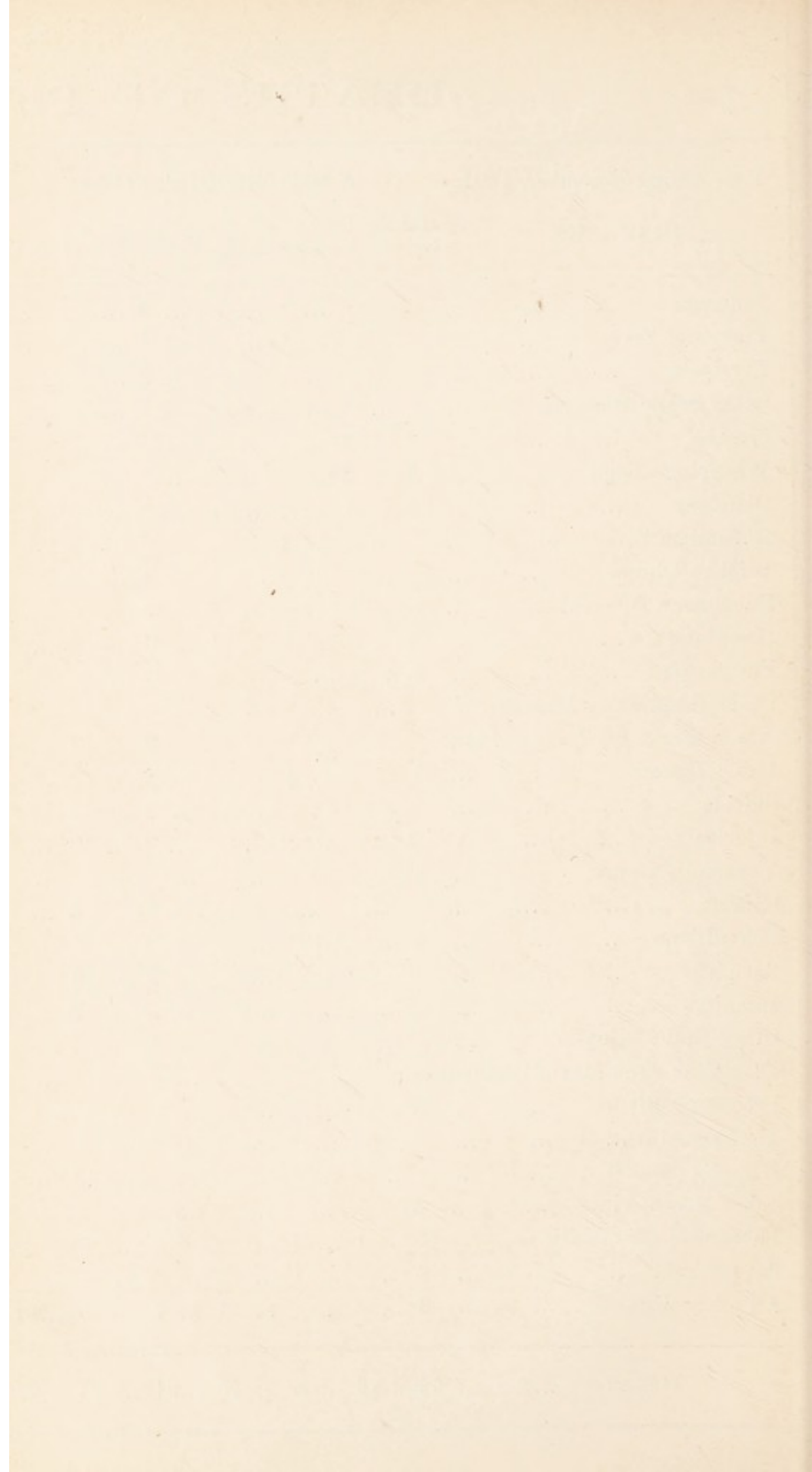
The whole of these figures are most unsatisfactory. The Zymotic death rate in East Macclesfield has actually reached the appalling figure of 2.9 per thousand of inhabitants, and the Infantile mortality rate for that unfortunate district has now reached 190 per thousand of children born, or one out of every five children born in East Macclesfield dies before it reaches one year of age.

Until the Sanitary Authority tackle this problem of infantile mortality seriously, I see no prospect of any great improvement. Again Phthisis, or Consumption, is claiming a large number of victims, and but little is done by the Sanitary Authority to check its ravages

The abolition of the privy-midden, and the further extension of our sewerage system, are urgently needed in this area, where also there is much disgracefully dilapidated property.

## DEATHS OF PERSONS BELONGING TO WEST MACCLESFIELD.

Year ending December, 1904.	WEST MACCLESFIELD.										WORKHOUSE.										INFIRMARY.										ASYLUM.										TOTALS.	
	DISEASES.	Under one year	1-5	5-15	15-25	25-65	over 65	Total	Under one year	1-5	5-15	15-25	25-65	over 65	Total	Under one year	1-5	5-15	15-25	25-65	over 65	Total	Under one year	1-5	5-15	15-25	25-65	over 65	Total	Total Asylum	Total West Macclesfield.											
Influenza	...	...	...	...	...	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3											
Puerperal Fever	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1											
Erysipelas	...	...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2											
Other Septic Diseases	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2											
Measles	...	...	7	6	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13											
Whooping Cough	...	...	2	3	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5											
Diarrhoea	...	...	12	5	...	...	17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17											
Rheumatic Fever	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3										
Bright's Disease	...	...	...	...	...	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	4	13											
Pulmonary Tuberculosis	...	...	...	...	6	13	19	...	...	...	...	1	2	3	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1	24												
Bronchitis	...	...	3	3	1	1	6	6	20	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21											
Pneumonia	...	...	6	4	...	...	6	...	...	...	...	...	4	2	6	...	...	...	1	...	...	...	...	...	...	...	1	...	1	24												
Other Respiratory Diseases	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1											
Alcoholism & Cirrhosis of Liver	...	...	...	...	6	1	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	8												
Heart Disease	...	...	1	...	1	...	12	8	22	...	...	...	2	3	5	...	...	...	1	1	2	...	...	...	...	...	1	1	1	30												
Suicide	...	...	...	...	...	2	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3											
Injuries	...	...	...	...	...	2	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4										
Veneral Diseases	...	...	...	...	...	4	...	4	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5											
Cancer	...	...	...	...	...	13	3	16	...	...	...	...	2	2	4	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	21											
Convulsions	...	...	4	...	...	...	4	...	1	...	...	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	7												
Apoplexy	...	...	...	...	...	9	10	19	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20											
Insanity	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	3	4											
Other Brain Diseases	...	...	...	...	...	1	1	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	4											
Diseases & Accidents of Parturition	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1											
Premature Birth	...	...	7	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7											
Marasmus	...	...	6	...	...	...	6	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	8											
Atrophy (Senile)	...	...	...	...	...	46	46	...	...	...	...	...	12	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	58											
Tabes Mesenterica	...	...	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2											
Tubercular Meningitis	...	1	1	1	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3											
Tuberculosis	...	2	...	1	2	3	8	1	...	...	...	2	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11											
All other diseases	...	3	3	...	1	7	3	17	...	...	...	1	1	2	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20											
<b>TOTALS</b>	...	62	26	6	10	91	84	279	2	1	...	15	26	44	2	1	...	1	3	2	9	...	...	...	10	3	13	...	...	345												



## CAUSES OF DEATHS IN EAST MACCLESFIELD

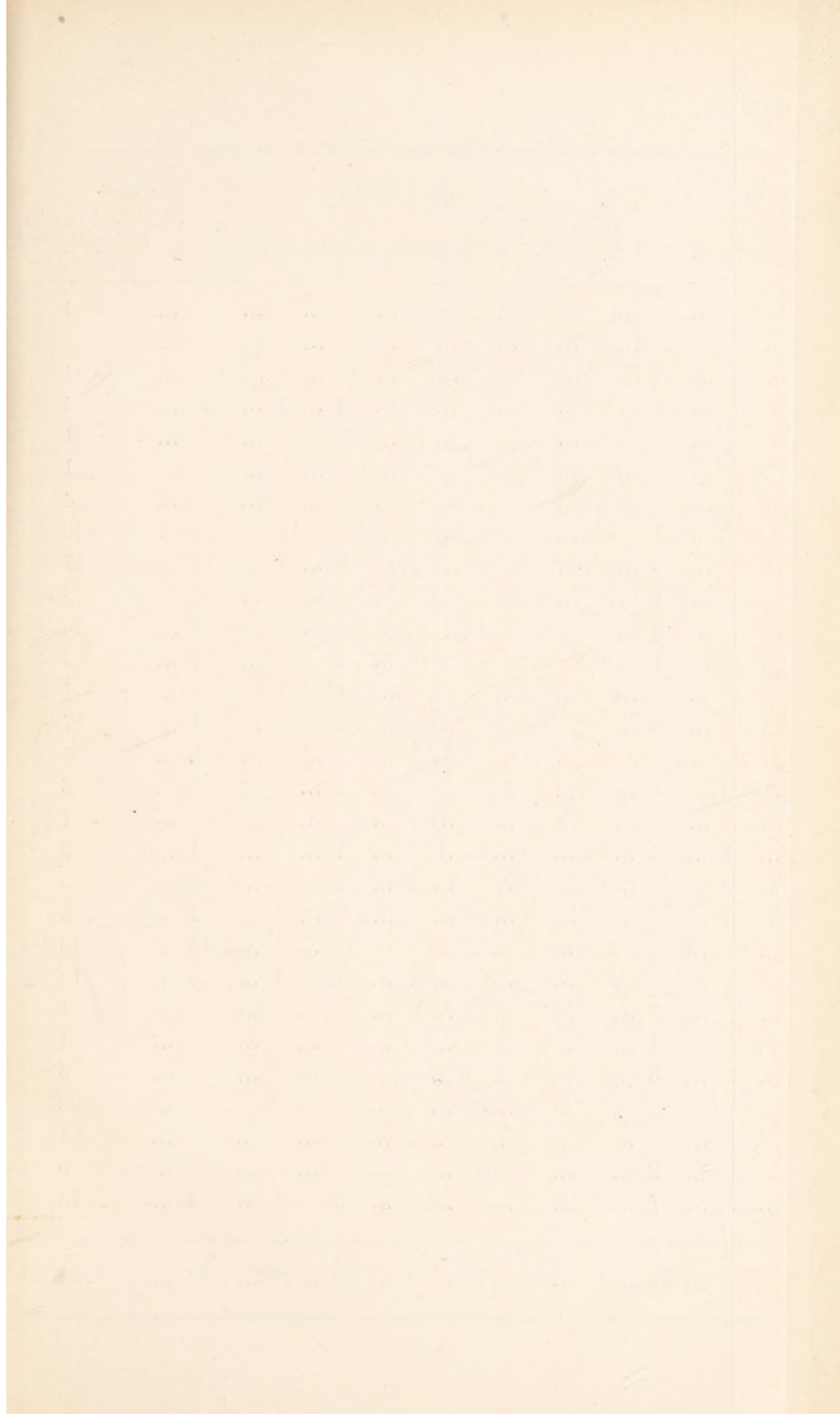
For the Year ending December, 1904.

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Smallpox .....	...	...	...	...	2	...	2	
Diphtheria .....	...	1	...	...	...	...	1	
Typhoid Fever .....	...	...	1	...	1	...	2	
Puerperal Fever .....	...	...	...	1	...	...	1	
Erysipelas .....	...	...	...	...	1	...	1	
Measles .....	4	16	...	...	...	...	20	
Whooping Cough .....	3	3	...	...	...	...	6	
Diarrhoea .....	2	3	...	...	1	...	6	
Rheumatic Fever .....	...	...	...	...	1	...	1	
Bright's Disease .....	...	...	...	1	5	6	12	
Pulmonary Tuberculosis .....	...	1	1	2	17	1	22	
Bronchitis .....	7	5	...	...	10	7	29	
Pneumonia .....	1	7	...	...	6	2	16	
Pleurisy .....	...	...	...	...	...	1	1	
Other Respiratory Diseases .....	...	...	...	1	2	...	3	
Alcoholism and Cirrhosis of Liver .....	...	...	...	...	1	1	2	
Heart Disease .....	...	...	...	2	9	6	17	
Suicide .....	...	...	...	...	2	...	2	
Veneral Diseases .....	4	...	...	...	...	...	4	
Cancer .....	...	...	...	...	7	3	10	
Convulsions .....	7	1	...	...	1	1	10	
Apoplexy .....	...	...	...	...	4	8	12	
Other Brain Diseases .....	...	...	1	1	3	1	6	
Diseases & Accidents of Parturition .....	...	...	...	1	...	...	1	
Premature Birth .....	9	...	...	...	...	...	9	
Marasmus .....	7	3	...	...	...	...	10	
Atrophy (Senile) .....	...	...	...	...	1	20	21	
Tabes Mesenterica .....	4	...	...	1	1	...	6	
Tuberculosis .....	1	3	...	...	1	2	7	
All other diseases .....	2	1	...	4	9	2	18	
Totals .....	54	45	3	14	85	63	264	

## CAUSES OF DEATHS IN SUTTON.

For the Year ending December, 1904.

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Smallpox .....	...	...	...	...	1	...	1	
Membranous Croup...	...	...	1	...	...	...	1	
Influenza .....	...	...	...	1	...	...	1	
Erysipelas .....	...	...	...	...	2	2	4	
Other Septic Diseases	...	...	...	...	1	...	1	
Measles .....	...	3	...	...	...	...	3	
Whooping Cough .....	1	1	...	...	...	...	2	
Diarrhœa .....	1	...	...	...	...	...	1	
Bright's Disease .....	...	...	...	...	3	...	3	
Pulmonary Tubercu- losis .....	...	...	...	...	1	...	1	
Bronchitis .....	2	2	...	...	2	...	6	
Pneumonia .....	3	1	...	...	1	3	8	
Pleurisy .....	...	1	...	...	...	...	1	
Heart Disease .....	...	...	...	...	6	8	14	
Suicide .....	...	...	...	...	1	...	1	
Injuries .....	...	2	...	...	...	...	2	
Venereal Diseases .....	2	...	...	...	...	...	2	
Cancer .....	...	...	...	...	4	2	6	
Convulsions .....	4	...	...	...	...	...	4	
Apoplexy .....	...	...	...	...	...	4	4	
Other Brain Diseases	...	...	...	...	1	1	2	
Diseases & Accidents of Parturition .....	...	...	...	...	1	...	1	
Premature Birth .....	3	...	...	...	...	...	3	
Marasmus .....	3	1	...	...	...	...	4	
Atrophy (Senile) .....	...	...	...	...	...	13	13	
Tuberculosis .....	...	...	...	...	2	...	2	
All other Diseases .....	1	...	...	...	4	2	7	
Totals .....	20	11	1	1	30	35	98	



## DEATHS IN PUBLIC INSTITUTIONS.

Year ending Dec. 31st, 1904.	ISOLATION & SMALLPOX HOSPITALS.								WORKHOUSE.								INFIRMARY.								ASYLUM.								TOTALS.	
	Under one year								Under 1 year								Under 1 year								Under 1 year								Total Asylum	Total Deaths in Maclefield Institutions.
DISEASES.	1-5	5-15	15-25	25-65	over 65	Total	1-5	5-15	15-25	25-65	over 65	Total	1-5	5-15	15-25	25-65	over 65	Total	1-5	5-15	15-25	25-65	over 65	Total	Total Asylum	Total Deaths in Maclefield Institutions.								
Smallpox				3	1	4																						4						
Scarlatina																																		
Diphtheria		1				1																						1						
Typhoid Fever																												4						
Other Septic Diseases		1				1																						1						
Diarrhoea										1		1																1						
Rheumatic Fever										1		1																4						
Bright's Disease									2	2		4					1		1					13	10	23			28					
Pulmonary Tuberculosis									9	3		12					1	2	3					2	9	1	12			27				
Bronchitis										1		1					1		1										2					
Pneumonia									6	3		9					1		1					2		6	3	9			20			
Other Respiratory Diseases										1		1					1		1							1		3						
Alcoholism & Cirrhosis of Liver																												1						
Heart Disease									3	6		9					1	2	1	4					2	2	4			17				
Suicide																									1		1			1				
Injuries							1					1							1	2	2							6						
Veneral Diseases							1					1																1						
Cancer									3	4		7							1	1					1				9					
Convulsions									1	1	1	3													1	1	2			5				
Apoplexy									1	1	3	5														1	1			6				
Insanity																									12	1	13			13				
Other Brain Diseases									1	2	3	6													1	7	1	9			15			
Diseases & Accidents of Parturition									1			1																		1				
Premature Birth																			1									1						
Marasmus																			3									3						
Atrophy (Senile)											26	26																		26				
Tubercular Meningitis									1			1																		1				
Tuberculosis							1			2		3							1						2			5						
All other diseases									2	3		5							1		3	3			7			18						
<b>TOTALS</b>	2				1	6	3	1	1	3	33	56	97	5	4		7	12	4	32				5	60	22	87	222						

## DEATHS IN PUBLIC INSTITUTIONS.

We have four Public Institutions in our Borough, all situated in West Macclesfield, viz. :—

- (1) Parkside County Lunatic Asylum.
- (2) Macclesfield Workhouse.
- (3) The General Infirmary.
- (4) The Borough Isolation and Smallpox Hospitals.

During the year 222 deaths have occurred in one or other of these Institutions, as compared with 204 last year.

- 91 were of persons who did not belong to the Borough.  
 66 were inhabitants of West Macclesfield.  
 49 „ „ „ East Macclesfield.  
 17 „ „ „ Sutton.

Of the 66 deaths of inhabitants of West Macclesfield,

- 44 died in the Workhouse.  
 3 „ „ „ Asylum.  
 9 „ „ „ Infirmary.

Of the 49 deaths of inhabitants of East Macclesfield,

- 30 died in the Workhouse.  
 3 „ „ „ Asylum.  
 13 „ „ „ Infirmary.  
 3 „ „ „ Isolation Hospital.

Of the 17 deaths of persons belonging to Sutton,

- 10 died in the Workhouse.  
 1 „ „ „ Isolation Hospital.  
 3 „ „ „ Infirmary.  
 3 „ „ „ Asylum.

Of the 91 deaths of persons not belonging to the Borough,

- 15 died in the Workhouse.  
 70 „ „ „ Asylum.  
 5 „ „ „ Infirmary.  
 1 „ „ „ Isolation Hospital.

### INFANTILE MORTALITY.

Total number of deaths under 1 year of age in the Borough ...	140
Death rate per 1,000 children born during the same period .....	178
Ditto                      Ditto                      England and Wales, 1904 ...	146
Ditto                      Ditto                      76 Great Towns, 1904 .....	160
Ditto                      Ditto                      142 Smaller Towns, 1904 .....	154

I have once again to ask the serious consideration of all interested in the sanitary and general welfare of the town to this deplorable state of affairs

Year after year I have called pointed attention to this grave loss of child life, and yet once again I appeal to the Sanitary Authority to take more energetic measures with a view to lessening this death rate.

It is no exaggeration to say that 50 per cent. of these deaths are preventable.

### DISTRICT MORTALITY RATE.

	Per 1,000 Born.	
	1904.	1903.
West Macclesfield .....	173	110
East Macclesfield .....	190	170
Sutton .....	166	114

The death rate for all three Districts is excessive, but for East Macclesfield it is appallingly high. Year after year we find that this district continues to occupy this undesirable position. There must be some special cause or causes which are peculiarly injurious to child life at work in this area.

### PRINCIPAL CAUSES OF INFANTILE DEATHS.

	Deaths	
	1904.	1903.
Diarrhoea and allied diseases .....	15	12
Convulsions .....	15	17
Marasmus or Wasting .....	18	9
Tabes Mesenterica.....	6	3
	—	—
	54	41
	—	—

## ZYMOTIC DISEASES.

	Deaths.
Measles .....	11
Whooping Cough .....	6
	—
	17
	—

## LUNG DISEASES.

	Deaths.
Bronchitis .....	12
Pneumonia .....	10
	—
	22
	—

The association of digestive and respiratory diseases in young children is very close. Many of the children who survive attack of digestive disorder are left weakly and peculiarly liable to succumb to lung disease with the onset of the colder weather.

Again Measles and Whooping Cough are prone to be followed or associated with Bronchitis and Broncho-Pneumonia, particularly in the squalid, overcrowded, and neglected dwellings of the poorest class of people.

## QUARTERLY INFANTILE MORTALITY.

(1) Quarter ending March 31st .....	35 deaths.	Past year, 19.
(2) " " June 30th .....	15 "	" " 38.
(3) " " September 30th .....	37 "	" " 26.
(4) " " December 31st .....	53 "	" " 34.

I have again to repeat that the question of infant mortality is closely connected with the question of infant feeding. It is a fact full of instruction, that when during the suffering and starvation of the Siege of Paris the general mortality of the population was doubled, that of the infants was reduced by 40 per cent. simply from the mothers being compelled by circumstances to suckle their babies, and the same increase in the adult and reduction of the infant mortality was observed during the Lancashire cotton famine, when mothers were no longer at work in the mills.

I do not propose to go into the question fully of the causes and prevention of infantile mortality. This was considered very fully in last year's Report, and I beg to commend pages 30 to 35 of that Report to the careful consideration of the Sanitary Authority.

It is particularly to the Educational Authority that I again appeal. So far, nothing worthy the name has been done on lines previously suggested

I would, however, express my very high appreciation of the valuable work done by the Ladies' Public Health Society. The Society, which is supported by voluntary contributions, has taken in hand the question of reducing the death-rate amongst infants in this town, and a number of ladies have personally undertaken to visit and advice mothers on the care of their children.

During the year a well qualified lady Health Visitor—Miss Brett—has been appointed, and to her the district of East Macclesfield has been specially assigned. The result will, I believe, be most satisfactory and productive of good; not only are deaths averted, but in the majority of case it cannot be doubted but that a better system of infant feeding and management will result in the rearing of stronger infants. The National Society for the Prevention of Cruelty to Children has also continued its good work in our midst, and continues to impress on parents who are drunken or neglectful their responsibilities towards the helpless children they have brought into the world.

I again repeat what I said last year, that I wish to insist on the supreme importance of the education of the older school girls in the practice of house cleansing and the management and feeding of infants. Practical demonstrations should be given in the advanced classes in the Day Schools and in the Evening Continuation Schools.

Girls at present tend to seek industrial employment and avoid service. Industrial service does nothing to instruct them in the duties of house-keeping or the care and management of children. The only way to restore the natural order of things is by education. It is of prime importance that a woman should know how to fulfil her first and most important duty—the rearing of children.

In this connection the following table, taken from the last Census Report, showing the number of married women engaged in occupations, is of interest:—

	Females over 10 in occupation.		Proportion per cent. of married or widowed in occupation.
	Total.	Married or widowed.	
Crewe .....	2994	468	15.6
Dukinfield .....	3421	933	27.2
Congleton .....	2196	581	26.8
Stalybridge .....	6087	1777	29.1
Hyde .....	7005	2150	30.6
Macclesfield .....	8398	2629	31.3

**DISTRICT INFANTILE MORTALITY TABLE.**

Showing rate of mortality among infants under one year of age to 1,000 registered births apportioned to the different districts compared with the corresponding figures for the last fifteen years.

Districts.	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Average 10 years	1898	1899	1900	1901	1902	1903	1904
West Macclesfield	118	180	143	136	192	170	110	310	138	152	155	189	223	167	186	111	110	173
East Macclesfield	171	255	219	161	215	225	137	210	180	187	195	159	167	242	155	103	170	190
Hurdsfield .....	87	169	160	127	177	153	156	170		212	212	167	135	187	142	219	65	114
Sutton .....	148	212	124	108	235	191	126	212	148	175	172	174	196	190	180	102	134	178
The whole Borough	135	220	172	130	203	190	134	247	155	175	172	174	196	190	180	102	134	178
76 Great Towns ...	...	...	...	...	...	...	...	...	...	...	...	...	...	173	165	145	144	160
England .....	136	144	151	149	148	159	137	161	148	156	161	163	154	154	151	133	132	146

## INQUESTS.

50 Inquests have been held during the year:—

17	in	West	Macclesfield.
23	in	East	Macclesfield.
10	in	Sutton.	

## TUBERCULOSIS.

Number of deaths from Pulmonary Tuberculosis .....	47
"    "    "    "    other forms of Tuberculosis .....	31
	—
Total number of deaths from Tuberculosis .....	78
	—
"    "    "    "    "    "    "    1903 .....	60

The 31 deaths from Tuberculous disease other Pulmonary Tuberculosis, have been as follows:—

Tabes mesenterica .....	8
Tuberculous meningitis .....	3
All other forms of Tuberculosis .....	20
Death rate per 1,000 of population from all forms of Tuberculosis .....	2.2

Death rate per 1,000 of population from Phthisis 1.3

It is noteworthy that all these figures are higher than last year. I do not think, however, that they represent the whole of the deaths from Tuberculosis. I am convinced that many cases of Chronic Bronchitis (so called) are Tuberculous in origin.

## DISTRICT MORTALITY.

	West		East		Sutton.
	Macclesfield.		Macclesfield.		
Phthisis .....	24	...	22	...	3
Tabes mesenterica .....	2	...	6	...	0
Tuberculous meningitis.....	3	...	0	...	0
General Tuberculosis .....	11	...	7	...	2
	—		—		—
Totals .....	40	...	35	...	5

## VOLUNTARY NOTIFICATION OF PHTHISIS.

Notifications received, 48. (Males 21, Females 27.)

Three of the males had previously been notified.

Visits were made 29 cases.

Eight cases were not visited, by request of the doctors in attendance, who supplied full particulars of six of these cases.

7 cases were notified from Parkside Asylum.

2 " " " " the General Infirmary.

Visits were not made to any of these cases.

Evidence of direct infection was obtained in 22 cases.

15 cases had lived with or frequently visited consumptive relatives.

4 cases had worked with men who had died from consumption.

3 cases had lodged or slept with consumptives.

It is well nigh impossible to over-estimate the value of such work in obtaining a clear knowledge of the incidence and mode of spread of Tuberculosis. If we bear in mind the facts: (1) That the incubation period of Phthisis is on an average 12 to 18 months, and (2) that the average of length of life from the first manifestation of the disease to the death of the sufferer is three to four years, and nearer three than four, we see the difficulties which arise in taking steps to prevent infection spreading.

It is, I believe, mistaken sentiment to encourage a person freely expectorating tubercle bacilli to remain in the factory or workshop, even on the plea that he or she must earn a living therein. It is false economy both as regards the fellow workmates and as regards the sufferer himself. An open-air occupation of a light nature is the only rational form of occupation. He will by that means continue to earn a wage for a much longer period of time, whereas if he remain in a factory his life will be much shortened and his possible chance of recovery lost.

Again, on economic and humane grounds a man or woman should be removed from close contact in a hot, crowded factory or workshop with his workmates. It is neither fair nor just to recklessly expose others to the risk of becoming infected.

This serious problem will have to be faced by Sanitary Authorities sooner or later, and the question of founding open-air colonies in connection with Sanatoria seriously considered.

Probably several local districts might join together under the County Council for this purpose.

## SOURCES OF INFECTION.

The two most common sources of infection are:—

- (1) A consumptive relative.
- (2) A consumptive workmate.

There has now accumulated abundance of evidence that healthy persons do not contract consumption except upon intense exposure. Conditions of over-crowding, dark, dirty, damp houses, badly-paved back-yards, dusty occupations, excessive consumption of alcohol, all have their share in weakening the body and rendering it prone to take on tuberculosis.

## WHAT IS BEING DONE.

(1) A number of cards have been printed and distributed about the town warning persons against the danger of indiscriminate spitting.

(2) A Bye-law has been passed imposing a penalty on any person who shall spit on the floor, side or wall of any public carriage or of any public hall, public waiting-room, or place of public entertainment.

(3) The Ladies' Public Health Society have had a leaflet printed containing instructions for consumptives and for those in charge of them.

(4) The officials of the Health Office are always ready and willing to disinfect any house or clothing inhabited or used by a consumptive upon being requested to do so.

During the year 25 houses were visited and disinfection offered and advised after a death from phthisis. In eleven the relatives' consent was obtained and disinfection carried out. The other fourteen refused on one pretext or another, some on account of the mistaken idea it would be a reflection on their cleanliness if disinfection was carried out. In two instances disinfection was refused, as the people were thinking of removing. In one instance the bed, without being disinfected, had been sent to an upholsterer, to be unpicked and cleansed. In another case, where disinfection had been refused, an outbreak of infectious disease occurred shortly after, necessitating the house being disinfected throughout, when it was found in a filthy dirty condition. In the majority of cases a certain amount of precaution had been taken; the bed clothes, including the bed-tick in some cases had been washed, and the floor scoured with a solution of disinfectant.

This cannot by any means be considered a satisfactory return. Only eleven houses properly disinfected! It is very obvious that if we are to really deal with this very grave problem some much more stringent line of action will have to be taken than hitherto has been the case, otherwise payment for notification is a useless waste of public money.

Again it must be borne in mind that to properly combat the infectiousness of a consumptive patient involves combating that infectiousness during the whole period of infection. The most important preventive measure is thorough disinfection of the expectoration or other discharges from persons suffering from the various manifestations of the disease. The patient should be impressed with the fact that he is a possible source of infection to others, and that it is quite within his power to control the spread of the disease from himself by attention to a few simple details that will in no way interfere with his comfort. If he be suffering from Pulmonary Consumption, the expectoration should be spat into covered vessels containing a disinfectant fluid, or into handkerchiefs that are afterwards disinfected. There are various other details that require attention, such as the scalding of bedclothing soiled by tuberculous sputum; he should be provided with his own eating utensils, etc., to be used by him alone, and these should be scalded immediately after use. Scrupulous cleanliness is required in the living and bedroom; and under no circumstances should spitting be permitted.

“Dusting” should not be practised, but all cleansing should be effected by a cloth moistened with a disinfectant.

It seems clear that if compulsory disinfection is to be resorted to, the certificate of the attending medical practitioner will be required in order to clearly show that the particular case was of an infectious nature. In that case I should be prepared to counter-sign the certificate, and compulsory whitewashing and cleansing and purifying of the house could be effected, and probably in most cases it would not be difficult to persuade the occupier to allow disinfection of bedding, etc., and to carry out some disinfection of furniture.

The only suggestion that I can make, therefore, to effect any compulsory disinfection on the lines I have laid down is that all medical men practising in the town should be provided with a form of certificate, which they should be requested to fill in on the occasion of the termination of an illness or the removal of a patient who has been suffering from an infectious form of Tuberculosis.

In regard to the amount of work which would be involved by this procedure, I am unable to express any opinion. It would

depend so much on the extent to which practising medical men fall in with this proposal.

Again, in fighting this disease the most progressive of the local authorities throughout the country have already been bestirring themselves in the matter of Sanatoria for Consumptive patients. Full legal authority for the provision of such Hospitals appears to be provided by Section 131 of the Public Health Act, 1875, which reads:—"Any local authority may provide for the use of the inhabitants of their district Hospitals or temporary places for the reception of the sick, and for that purpose may—

"Themselves build such Hospital or places of reception; or

"Contract for the use of any such Hospital or part of a Hospital, or place of reception; or

"Enter into any agreement with any person having the management of any Hospital for the reception of the sick inhabitants of their district, on payment of such annual or other sum as may be agreed upon.

"Two or more local authorities may combine in providing a common Hospital."

It seems clear that this Section gives to your Authority power to provide Hospitals for patients suffering from Tuberculosis or any other kind of illness. The beneficial effects of open-air sanatoria for suitable cases of Consumption are now demonstrated beyond question. The equipment and maintenance of a separate sanatorium for this disease would involve considerable expense. Within limits, it is true that the larger the Hospital the more perfect it is possible to make the administration and the smaller the expense per patient. I am of opinion that the day has arrived when your Authority should seriously consider whether it is feasible to start such a sanatorium either by itself or in combination with other authorities. Those that are now available throughout the country are mostly private institutions, receiving private and paying patients. Very few exist where poor persons, who cannot afford a certain number of guineas per week for an extended period, are able to receive this treatment. It may very reasonably be contended that the needs of such people can be better and more economically met by the action of local authorities than by private philanthropic effort. The treatment itself may be regarded as an educational course in the possibility of living with impunity and with benefit in the open air for a few months; this lesson once acquired can be put into practice by the patient on his return home.

## EXAMINATION OF SPUTUM FOR TUBERCLE BACILLI.

Number of specimens sent to the Lister Institute during 1904... 12  
Tubercle bacilli were found in none.

Absence of the bacilli does not disprove the diagnosis of tuberculosis. Several specimens of sputum should be sent before a negative result is accepted. No information as to prognosis can be drawn from the numbers of bacilli present in the sputum.

## THE RELATIONSHIP OF BOVINE TO HUMAN TUBERCULOSIS.

Although this question has been much discussed, it can, I think, hardly claim to be of first importance. I have been unable to trace any clear cases of human tuberculosis to consumption of tuberculous milk or meat.

One point of practical importance is that all cow's milk should be boiled or sterilised before being used as human food, and that no tuberculous flesh meat should knowingly be eaten.

## THE ZYMOTIC DISEASES.

The seven principal Zymotic Diseases are:—

- (1) Smallpox.
- (2) Measles.
- (3) Scarlet Fever.
- (4) Whooping-cough.
- (5) Diphtheria.
- (6) Fevers—Typhoid and Typhus.
- (7) Zymotic Diarrhœa.

The total number of deaths from these diseases during the year has been 80, as compared with 33 last year.

Zymotic death rate per 1,000 of population .....	2.3
"    "    "    "    "    in England and Wales .....	1.9
"    "    "    "    "    "    76 Great Towns .....	2.4
"    "    "    "    "    "    142 Smaller Towns .....	2.0
"    "    "    "    "    "    the Borough in 1903 .....	0.9

The following table shows deaths attributed to these diseases during the year, compared with 1903:—

	1904.	1903.
Smallpox .....	3	2
Measles .....	36	0
Scarlet Fever .....	0	9
Diphtheria .....	2	3
Whooping-ough .....	13	1
Typhoid Fever .....	2	3
Zymotic Diarrhœa .....	24	15

The following table shows the Zymotic death rate from 1874 :—

Years.	Death rate from the Seven Zymotic Diseases	Years.	Death rate from the Seven Zymotic Diseases.
1874 .....	2.5	1890 .....	1.4
1875 .....	2.4	1891 .....	1.1
1876 .....	6.0	1892 .....	1.1
1877 .....	2.1	1893 .....	1.6
1878 .....	2.3	1894 .....	1.9
1879 .....	1.7	1895 .....	3.1
1880 .....	1.1	1896 .....	3.2
1881 .....	3.4	1897 .....	3.2
A1882 .....	3.0	1898 .....	1.8
1883 .....	2.3	1899 .....	2.6
1884 .....	2.2	1900 .....	1.8
1885 .....	0.8	1901 .....	1.6
1886 .....	1.9	c1902 .....	0.3
1887 .....	3.2	1903 .....	0.9
B1888 .....	1.4	1904 .....	2.3
1889 .....	3.0		

A—Compulsory Notification came into force.

B.—Isolation Hospital Opened.

C—Isolation Hospital Enlarged and Improved.

This tremendous increase in the Zymotic death rate is due to the epidemics of Measles and Whooping Cough which prevailed throughout the town, and also to the increased number of deaths from Diarrhœa.

In last year's Annual Report, page 48, I wrote as follows:—

“Two years ago we had a severe epidemic of measles, which caused 15 deaths, consequently the town was last year fairly free from the disease. We may, however, anticipate another outburst next year, when a fresh amount of susceptible material will have again accumulate in the form of young children.

“The notification of the first case of measles occurring in a family, would, I believe, be a valuable step towards impressing upon parents the gravity of the disease, and the necessity for taking precautions to prevent its spread. At present the general public do not realise that measles causes more deaths than scarlet fever, besides leaving behind in many cases serious illness such as tuberculous pneumonia.”

How truly the prophecy was fulfilled the death returns abundantly show.

We may now expect a cessation of measles in an epidemic form, and an increase in scarlet fever, either this year or next. However, I trust that with a certain amount of better isolation accommodation we may more effectually deal with this disease.

Whooping cough and zymotic diarrhoea are jointly responsible for 37 deaths, being an increase of 21 on last year's returns. Whooping cough epidemics take place in regularly recurring periods of every three or four years, but the continual presence of *diarrhoea* in epidemic form, such as occurred last year, is a serious reflection on the sanitary administration of the town. However, so long as the Health Authority contents itself with the privy-midden in its midst, so long must it also pay its annual tribute in the form of infant lives to this municipal Moloch. Surely it is of more importance to the town that such disgusting survivals of the middle ages as the privy-midden should be abolished than that we should have the electric light. Would it not seem an anachronism to have electric trams running past the doors of houses whose only means of disposing of all the domestic filth was to throw it into pits situated within a few yards of the back door, larder, bedroom windows, and children's playing ground.

## DISTRICT ZYMOTIC DEATH RATE.

	West Macclesfield.	East Macclesfield.	Sutton.
Smallpox .....	0	2	0
Measles .....	13	20	3
Scarlet Fever .....	0	0	0
Diphtheria .....	0	1	1
Whooping Cough .....	5	6	2
Enteric Fever .....	0	2	0
Diarrhœa .....	17	6	1
Totals .....	35	37	8
Zymotic death rate per 1,000 of population .....	2.0	2.0	1.6
Last year .....	0.7	1.5	0.2

West Macclesfield occupies a very bad position in this year's Zymotic death returns, and East Macclesfield *continues* to furnish an unsatisfactory figure. I do trust that this question will engage the serious attention of the Sanitary Authority during the ensuing year.

If we have a hot close summer, it is quite safe to prophesy a heavier mortality from the filth diseases!!!

## QUARTERLY ZYMOTIC DEATH RATE.

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
West Macclesfield ...	1	1	15	18
East Macclesfield ...	0	1	21	15
Sutton .....	0	0	4	4
Totals .....	1	2	40	37
Death rate per 1,000 of population .....	0.1	0.2	1.1	1.0
Last year .....	0.2	0.2	0.2	0.2

It will be noted that there is a most marked increase during the 3rd and 4th Quarters of the year. That is due to the fact that the epidemic of measles and diarrhœa coincided.

Diarrhœa is, unfortunately, always responsible for an increased number of deaths during the last two quarters of year, and last year it happened that measles and whooping cough were prevalent at the same period, and so the mortality was more than quadrupled.

### DIARRHŒA.

By this term is meant those acute specific attacks of illness of which the diarrhœa is the most prominent symptom, which occur so generally in persons of all ages, but more especially in infants and young children, towards the middle or close of a hot, dry summer. The chief incidence of this form of diarrhœa falls upon those who are at the two extremes of life, or who are enfeebled in health. It appears to be due to consumption of tainted food, or of impure water, or of breathing foul air.

The presence or absence of diarrhœa in a community as a cause of death is an excellent indication of the sanitary or insanitary condition of a district, and hence the diarrhœa death rate is a valuable indicator of the sanitary supervision exercised by the Health Authority.

Number of deaths from diarrhœa .....	24
"    "    "    "    "    "    last year .....	15

This is a most unsatisfactory return, and indicates the need for more active sanitary measures being taken in those districts where diarrhœa has most prevailed.

Of these 24 deaths, 15 occurred in children under one year of age, 8 between the ages 1 to 5 years, and one 25 to 65 years of age.

### DISTRICT MORTALITY RATE.

Quarter ending	March.	June.	Sept.	Dec.	Total.
West Macclesfield ...	1	1	8	7	17
East Macclesfield ....	0	0	6	0	6
Sutton .....	0	0	1	0	1
Totals .....	1	1	15	7	24
Last year .....	1	1	9	4	15

Over 75 per cent. of these infants were bottle-fed children.

When one considers the many contaminations to which milk is liable before it reaches the infants' stomach, and when in addition one thinks that during the warmer weather of the third quarter of the year all the possibilities of contamination are intensified a hundred-fold, it is easy to see why bottle-fed babies die so frequently during that particular portion of the year.

The diarrhoea death rate is always highest in the least sanitary part of a town. To avert this preventable excessive mortality, several lines of work are required.

We must try—

- (1) To keep the ground and houses clean, abolish the privy-midden, insist on back yards being rendered impervious to moisture and properly drained, see that the house possesses windows capable of being freely opened, and of admitting abundance of fresh air.
- (2) When the milk has been delivered, to keep it clean and fresh.
- (3) Instruct parents how to keep food fresh.
- (4) To get a clean milk supply.

These may seem difficult objects to attain, but in attaining them much indirect benefit will accrue, not only in the diminution of the number of deaths from diarrhoea, but in a general improvement of the physical, mental, and moral condition of the whole of the people.

The following are some of the chief points which require consideration in dealing with diarrhoea:—

1. The chief determining factors in the seasonal variations of diarrhoea in the same areas, and among persons of the same class, are temperatures of the air and of the soil, the one being a function of the other, but not necessarily acting in the same manner.

2. Flies may be the chief agency by which the disease is transmitted. Hence, in the diarrhoea season, all food should be protected from flies, especially milk, sugar, syrup, soups, meat, etc.; in fact, all sweet or moist foods.

3. Cleanliness, personal and otherwise, is clearly of great importance. Infants should have clean clothing, and not be allowed to rest on the floor.

4. If any person is suffering from diarrhoea, the excreta should be disinfected

5. Water-closets are required in place of middens and pails.

6. Mothers with infants require special instruction in the diarrhoea season, and an effort should be made to supply such instruction.

7. In warm weather the streets and passages should be watered with a view to cleanliness, and also to cooling of the air.

8. Special care must always be bestowed on milk and feeding utensils.

All milk should be kept covered over, and protected from flies dust.

When it arrives at the house, milk should be at once well boiled and poured into a clean jug, which should then be covered with a clean cloth, and placed in a large vessel of cold water to cool. When partially cooled it should be again placed in quite cold water, and kept there.

The long tube should never be used with a feeding bottle, and all utensils used must be kept scrupulously clean.

It is not, as yet, possible to simplify these precautions.

### MEASLES.

Number of deaths from measles ..... 36

    "    "    "    "    "    last year ..... 0

11 of these deaths occurred in children under 1 year of age.

25 "    "    "    "    "    between 1 and 5 years of age.

These figures, however, by no means represent the total mortality from this disease, many of the little sufferers succumbing to broncho-pneumonia or dying at a still later period from tuberculosis in one or other of its protean forms.

What amount of suffering and lingering sickness and permanent weakness or physical disability such a widespread epidemic leaves behind it is impossible to estimate. The after-math of sickness and weakness is no doubt much greater than the actual harvest of death.

#### DISTRICT QUARTERLY MORTALITY.

Quarter ending	March.	June.	Sept.	Dec.	Total.
West Macclesfield ...	0	0	7	6	13
East Macclesfield ...	0	1	12	7	20
Sutton .....	0	0	1	2	3
Totals .....	0	1	20	15	36

It is very noteworthy, that if a child can be shielded from the infection of measles during the first five years of its life, its risk of subsequently acquiring the disease, with all grave possibilities in the way of pulmonary complications, is enormously reduced, and it is well worth every effort being made to attain it.

One of the most important factors in aiding the spread of measles is the attendance of children at the public elementary schools during the early stages of the disease when at just that time it is most infectious.

The intensely severe infectivity of measles in its very earliest stages has fully convinced me that to wait till even 10 per cent. of the children in the Infant Department are affected before closing the department is futile. I advise that when a single case of measles is reported in a child attending an Infant School, the Infant Department should be immediately closed, and an attempt should be made to deal promptly and effectively with the earlier cases which arise. The total exclusion of children from school under 5 years of age, or the closure of the Infant Department promptly when one or two cases of measles occur would, I believe, save us such a severe epidemic as we have just experienced. Personally, I dread this disease in the Borough even more than scarlet fever.

I am fully convinced that an enormous amount of disease is produced and propagated by these infants' departments, where mere babies of three to five years old are collected together in a close,

fœtid atmosphere for several hours a day, where they really learn nothing. These children sit as close to each other as possible, and are exposed to the greatest risk of contracting zymotic diseases.

The Infant School system is not responsible for all the physical degeneracy that we see in our large towns. But it certainly plays its part, and is no small factor among other causative conditions. Can any one doubt that these little children would be more healthily and less dangerously occupied if playing in the open air, in the public pleasure grounds or open spaces, or even in their own homes, than huddled together in a dirty schoolroom? The question has been asked, who profits by this system? Most certainly the children do not; possibly the parents do, because they have more time for gossiping with their neighbours, and the children eat less than they do if playing in the open air all day. The profit, of course, really is to the educational authority; this is the secret of the situation and the system; the grant, and as large a grant as possible, must be secured at any cost, and so the attendance of these wretched infants is enforced as far as possible, regardless of the disease and death which it occasions.

I sincerely trust that an endeavour will be made to secure the permanent closure of the Infant Departments of all Elementary Schools within the Borough. A lowering of zymotic mortality would certainly soon be the result of this measure, and the educational loss would be *nil*.

Although notification of measles may effect some good in educating the ignorant and careless as to the necessity for properly isolating the little sufferers during their infectious stages, I do not hope for much real good therefrom.

It is from school teachers that we must expect the solution of this problem. By early notification from the teachers, and prompt closure of the Infant Departments, we may confidently hope to check the spread of measles during the early stages of an epidemic.

Sunday schools should comply with the requirements of Day schools, or otherwise the closure of Elementary Day schools will be rendered almost futile.

To summarise, the following steps should be taken to prevent this disease from spreading:—

1. Exclusion of children from infected houses.
2. Immediate sending home of scholars suspected to be beginning with measles.

3. The visitation of absentees.
4. The notification of infected householders to School Attendance Officers.
5. The early closure of schools during epidemic periods.
6. The prevention of wilful exposure of sufferers by including measles within the scope of the term "infectious disease."

### WHOOPIING COUGH.

Number of deaths .....	13
"    "    "    last year .....	1

6 of these deaths occurred in children under 1 year of age.

7 " " " " " " between 1 and 5 years of age.

Epidemics of measles and whooping cough are frequently associated or follow one another, the most serious complication is both diseases being broncho-pneumonia during the early stages, and during the period of convalescence, consumption or pulmonary tuberculosis. All the remarks I have made respecting measles might be applied with equal force to whooping cough.

### DISTRICT QUARTERLY DEATH RATE.

Quarter ending	March.	June.	Sept.	Dec.	Total.
West Macclesfield ...	0	0	0	5	5
East Macclesfield ...	0	0	1	5	6
Sutton .....	0	0	0	2	2
Totals .....	0	0	1	12	13

The measles epidemic preceded the whooping cough. In my Annual Report for 1903 (page 45) I gave a list of precautions to taken against this disease, as I had in view the possibility of an epidemic. Since that date the disease has assumed an epidemic form, with the grave results stated in the above figures.

I again urge that the educational authority are responsible for the checking of these epidemics at the onset. It is no use appealing to the Medical Officer of Health to close a school when the disease has practically emptied it already. From his point of view the epidemic is by that time past checking, and must be left to burn itself out. The quest of grants in no way concerns the Health Authority.

On June 16th, 1904, the following circular letter was forwarded to every head teacher in the Borough:—

Health Department,

Town Hall,

Macclesfield,

June 16th, 1904.

Dear Sir, or Madam,

#### Whooping Cough.

This disease is at present threatening to become epidemic. It is therefore very desirable that all children suspected of sickening with the disease should be excluded from school.

I beg to remind you that this disease is very infectious from its commencement, even before the characteristic crowing cough is fully developed, and when there may be nothing to indicate its onset except perhaps a feverish cold, with increased frequency of coughing.

At the present time any appearance of illness should be considered sufficient ground for sending a child home for a few days.

It is particularly in the Infant Department that cases are likely to occur.

In the interest of the public health I invite your co-operation in assisting to prevent the disease gaining a hold on the children of the town, and to assure you of my willingness to help you in the matter in any way I can.

Yours faithfully,

J. HEDLEY MARSH.

## INFLUENZA.

Under this head are included deaths which are due to true Epidemic Influenza as distinguished from deaths due to the ordinary Influenza, cold or catarrhal fever, which latter disease appears to bear the same relationship to true Epidemic Influenza (Influenza Vera) as cholera nostras does to Asiatic cholera

Number of deaths from Influenza .....	4
"    "    "    "    "    "    last year .....	6

1 death occurred between the ages 15 to 25 years.

3 deaths occurred between the ages 25 to 65 years.

I am of opinion that these figures do not represent all the deaths for which Influenza is responsible, many of the deaths in aged people being assigned by the certifying practitioner to heart disease and pneumonia.

In preventing the spread of this disease, which is extremely infectious, strict isolation of the sufferer is essential, and careful disinfection of the sputum and nasal discharges.

The figures clearly show how fatal the disease is in aged people, who should be most carefully protected from infection.

Dr. Vacher calls attention to the necessity which exists after the recovery of the patient for the disinfection of the rooms and clothing.

## CANCER.

The causes determining the prevalence of this disease are still wrapped in some obscurity, but the view that cancer is due to a parasite which possesses some degree of infectiveness is gaining ground.

Number of deaths from cancer during 1904.....	37
"    "    "    "    "    "    1903.....	36
"    "    "    "    "    "    1902.....	29

This increase, which has been steadily going on for some years, is probably not altogether a real increase, but is due to some extent to better diagnosis and certification of "causes of death." Still the increase appears to be to some extent real, and there is a marked predominance of cancer of the digestive organs.

## SCHOOL CLOSURE AND SCHOOL HYGIENE.

Number of Elementary Schools within the Borough .....	16
Average attendance at such schools during the last school year,	5276.9

Number on Registers, November 1st, 1904 :—

In Standards .....	4,270
„ Infant Classes .....	1,750

During the year the Medical Officer of Health was invited to meet a Committee of the Education Authority to confer on the measures which should be taken to prevent the spread of measles and whooping cough amongst the scholars, and it was decided that the head teachers should be asked to notify on forms specially provided the names and addresses of any scholars who appeared to be suffering from or threatened with attack by these diseases.

This was carried out to some extent, and if systematically and promptly done will place in the hands of the Medical Officer of Health most valuable information on which he can advise the Sanitary Authority to act. Failure to notify promptly and completely *all* suspected cases will render this valuable procedure useless.

I sincerely trust that head teachers will take the necessary trouble to ensure these returns arriving promptly.

## LIST OF SCHOOLS CLOSED DURING 1904.

The following Schools were closed on accounts of measles for the periods stated :—

Duke Street National School (Infants' Department) closed from 5th September until 26th September.

St. George's Branch School, London Road (Infants' Department), closed from 5th September until 26th September.

Lord Street School (Infants' Department) closed from 19th September until 10th October.

Centenary School (Infants' Department) closed from 23rd September until 14th October.

St. Alban's School (Infants' Department) closed from 14th October until 4th November.

Mill Street Wesleyan School closed from 24th November until 8th December.

Owing to the prevalence of whooping cough the Infants' Department of Christ Church School was closed from 21st November until 19th December.

The Infant Departments of all the Elementary Schools in the Borough, except Broken Cross, were closed from 28th November until 22nd December, the commencement of the Christmas holidays, to check the spread of measles and whooping cough.

In almost every case, it will be noted that it was the Infant Department which was closed, and this fact points strongly to the fatuous policy of sending young children to school. No child under five years of age should be allowed to attend our Public Elementary Schools. It is a useless waste of public money from an educational point of view, and involves reckless exposure of young children to dangerous infection.

Such premature school attendance tends to "force" functions of the brain which should only come into activity at a later age, and so favours mental deterioration. It also greatly increases the liability to near-sightedness and general ill-health. It is argued that apart from the excessive incidence of infectious diseases, the children of the poor are more favourably placed in a large warm schoolroom than in their homes. In naturally ventilated schools this is the exact opposite of the truth. Even in mechanically ventilated schools sixty to seventy infants cannot be collected in a classroom without some fouling of air. The atmosphere of even the bedrooms of the vast majority of the poor is less polluted than that of the vast majority of schools.

Early in September the following circular letter was sent to every head teacher:—

**Health Department,**  
Town Hall,  
Macclesfield.

Hints as to Infectious Diseases, for the use of  
School Teachers.

As infection is sometimes spread by means of children attending School while suffering from undetected Infectious disease, the following hints may be useful to the Teacher:—

1. Any Scholar having a Sore Throat should be sent home and regarded as infectious until the throat has been examined by a doctor.

If a scholar has enlarged Glands in the neck, and especially if he or she is very pale, the suspicion of diphtheria should be entertained. Many cases of slight Diphtheria escape detection.

2. Any scholar suffering from a severe cold, with sneezing, redness of the eyes and running at the nose, should be sent home. It may mean an Influenza Cold, or Measles, and both are infectious. This recommendation is particularly important when Measles is known to be prevalent.
3. A child with a violent cough, especially if it be severe enough to cause vomiting or nose bleeding, should be suspected of Whooping Cough and sent home, even if the characteristic "whoop" is not heard.
4. Slight cases of Scarlet Fever sometimes escape notice, and the patients are sent to school with the skin on the hands, etc., freely "peeling."
5. In any of the above instances, or in any other case of suspicion, the Medical Officer of Health, on receiving a confidential intimation, will be glad to advise and investigate.

N.B.—The admission to School of apparently healthy children from infected houses should be strictly forbidden, especially for Measles, Scarlet Fever, and Diphtheria.

J. HEDLEY MARSH,

Medical Officer of Health.

September, 1904.

#### THE NOTIFIABLE INFECTIOUS DISEASES.

#### THE INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

The Act requires that cases of smallpox, cholera, diphtheria, membranous croup, erysipelas, scarlet fever or scarlatina, typhoid or enteric fever, typhus fever, relapsing, continued and puerperal fever shall be notified to the Medical Officer of Health:

(1) By the head of the household to which the patient belongs, or in default any person in charge of or in attendance on the sufferer.

(2) Every medical practitioner attending on or called into visit the patient shall forthwith, on becoming aware that such patient is suffering from an infectious disease to which this Act applies, send a certificate to the Medical Officer of Health.

### NOTIFICATIONS IN MACCLESFIELD.

Year ending December, 1904.

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Smallpox .....	1 ...	1 ...	3 ...	9 ...	35 ...	0 ...	49	
Scarlatina .....	1 ...	17 ...	34 ...	3 ...	1 ...	0 ...	56	
Diphtheria .....	0 ...	1 ...	2 ...	3 ...	1 ...	0 ...	7	
Membranous Croup ...	0 ...	1 ...	0 ...	0 ...	0 ...	0 ...	1	
Typhoid Fever .....	0 ...	0 ...	3 ...	1 ...	8 ...	0 ...	12	
Puerperal Fever .....	0 ...	0 ...	0 ...	1 ...	3 ...	0 ...	4	
Erysipelas .....	2 ...	0 ...	9 ...	5 ...	29 ...	2 ...	47	
Totals .....	4 ...	20 ...	51 ...	22 ...	77 ...	2 ...	176	

### NOTIFICATIONS IN MACCLESFIELD.

Year ending December 31st, 1903.

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Smallpox .....	...	...	...	4 ...	15 ...	1 ...	20	
Scarlatina .....	...	37 ...	88 ...	14 ...	2 ...	...	141	
Diphtheria .....	...	4 ...	9 ...	1 ...	6 ...	...	20	
Typhoid Fever .....	...	1 ...	3 ...	4 ...	13 ...	...	21	
Puerperal Fever .....	...	...	...	1 ...	3 ...	...	4	
Erysipelas .....	1 ...	...	4 ...	2 ...	19 ...	2 ...	28	
Chicken-pox .....	2 ...	14 ...	32 ...	...	...	...	48	
Totals .....	3 ...	56 ...	136 ...	26 ...	58 ...	3 ...	282	

Smallpox and erysipelas show marked increase on last year's returns. Puerperal fever is stationary, and all the other diseases show a marked decline.

## NOTIFICATION BY MEDICAL CERTIFICATES SINCE 1886.

	Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Typhoid Fever.	Continued Fever.	Puerperal Fever.	Totals.
1886	—	42	2	—	2	19	1	—	66
1887	—	649	8	—	—	44	8	2	711
1888	9	208	2	—	1	19	10	2	153
1889	—	144	—	—	—	17	12	—	173
1890	—	98	—	—	—	7	2	2	109
1891	—	38	2	—	—	14	1	1	56
1892	1	51	2	—	—	14	3	—	71
1893	6	250	5	—	—	13	2	—	277
1894	4	42	5	1	—	17	2	6	80
1895	—	31	117	2	—	29	—	1	178
1896	—	28	227	—	—	22	—	2	280
1897	—	62	36	1	—	36	—	1	135
1898	—	287	20	—	—	46	—	—	353
1899	—	303	14	—	—	35	—	1	351
1900	1	50	16	—	—	62	—	1	156
1901	1	28	24	—	—	20	—	1	73
1902	—	125	12	2	—	26	—	5	196
1903	20	141	20	—	—	21	—	4	282
1904	49	56	7	1	—	12	—	4	176

## QUARTERLY NOTIFICATIONS.

## NOTIFICATIONS.

For Quarter ending March 31st, 1904.

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Smallpox .....	0	0	0	0	0	0	0	0
Scarlatina .....	1	1	6	0	0	0	0	8
Diphtheria .....	0	0	2	0	0	0	0	2
Typhoid Fever .....	0	0	1	0	0	0	0	1
Erysipelas .....	0	0	0	0	1	0	0	1
Puerperal Fever .....	0	0	0	0	1	0	0	1
Total .....	1	1	9	0	2	0	0	13

## NOTIFICATIONS.

For Quarter ending June 30th, 1904.

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Smallpox .....	0	0	0	0	1	0	0	1
Scarlatina .....	0	4	4	1	1	0	0	10
Diphtheria .....	0	1	0	0	0	0	0	1
Typhoid Fever .....	0	0	0	0	2	0	0	2
Erysipelas .....	0	0	0	0	6	0	0	6
Total .....	0	5	4	1	10	0	0	20

## NOTIFICATIONS.

For Quarter ending September 30th, 1904.

Diseases.	Under					Over		Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Smallpox .....	1	1	3	7	23	0	0	35
Scarlatina .....	0	3	10	1	0	0	0	14
Diphtheria .....	0	0	0	1	1	0	0	2
Typhoid Fever .....	0	0	0	1	2	0	0	3
Erysipelas .....	1	0	0	0	5	1	0	7
Membranous Croup ...	0	0	1	0	0	0	0	1
Total .....	2	4	14	10	31	1	0	62

## NOTIFICATIONS.

For Quarter ending December 31st, 1904.

Diseases.	Under		Over					Total.
	1 year.	1-5.	5-15.	15-25.	25-65.	65.		
Smallpox .....	0 ...	0 ...	0 ...	2 ...	11 ...	0 ...	13	
Scarlatina .....	0 ...	9 ...	14 ...	1 ...	0 ...	0 ...	24	
Diphtheria .....	0 ...	0 ...	0 ...	2 ...	0 ...	0 ...	2	
Typhoid Fever .....	0 ...	0 ...	2 ...	0 ...	4 ...	0 ...	6	
Puerperal Fever .....	0 ...	0 ...	0 ...	1 ...	2 ...	0 ...	3	
Erysipelas .....	1 ...	0 ...	9 ...	5 ...	17 ...	1 ...	33	
Total .....	1 ...	9 ...	25 ...	9 ...	23 ...	1 ...	81	

## DISTRICT NOTIFICATIONS.

	West		East		Sutton.
	Macclesfield.		Macclesfield.		
Smallpox .....	16	...	21	...	12
Diphtheria .....	4	...	1	...	2
Membranous Croup .....	0	...	0	...	1
Erysipelas .....	19	...	15	...	13
Scarlet Fever .....	28	...	20	...	8
Enteric Fever .....	7	...	5	...	0
Puerperal Fever .....	2	...	1	...	1
Totals .....	76	...	63	...	37
Notification rate per 1,000 of population .....	4.3	...	5.0	...	7.0
Last year .....	8.1	...	8.9	...	7.6

The rate in Sutton is exceptionally high, and is due to the outbreak of smallpox in that neighbourhood. Erysipelas and erysipelatosus diseases were unusual prevalent during the latter half of the year.

With the gradual disappearance of the privy-midden we may hope for a corresponding decrease in enterical fever, and when compulsory re-vaccination at twelve years of age becomes law, smallpox will similarly become an almost unknown disease.

## VACCINATION RETURNS FOR 1904.

Number vaccinated in West Macclesfield .....	350
"                    "          "          East Macclesfield .....	278
Postponed owing to health .....	21
Insusceptible .....	3
Left district .....	9
Exempted .....	8

I would again repeat what I said last year, and which extended experience does but more strongly confirm, that the essential protective against epidemic smallpox and the logical complement to infantile vaccination is obligatory re-vaccination of all children at 12 years of age.

The experience of Germany shows that where re-vaccination is successfully performed at the age of 12, smallpox is unable to take on an epidemic form.

There is very much less objection to re-vaccination at school age than at later periods of life, since it does not entail an important interruption of work.

If re-vaccination at 12 years of age is made obligatory, all the difficulties about smallpox hospitals, vaccination of contacts, isolation of families, and so on, will practically disappear.

## SMALLPOX.

Number of cases notified during the year .....	49
"          "          deaths during the year .....	3

16 cases occurred in West Macclesfeld.
21 "          "          "          East Macclesfeld.
12 "          "          "          Sutton.

1 case occurred during the 2nd Quarter of the year.
15 cases "          "          "          3rd "          "          "          "
13 "          "          "          "          4th "          "          "          "

All the deaths were persons over 25 years of age.

1 case occurred under 1 year of age.
1 "          "          between 1 year and 5 years of age.
3 cases "          "          5 years and 15 years of age.
9 "          "          "          15 "          "          25 "          "          "
35 "          "          "          25 "          "          65 "          "          "

The case under one year of age was not vaccinated till five days after exposure to infection, or too late for vaccination to cut short the disease.

The patient between one and five years of age was said to have been vaccinated, but no scars were visible on admission to hospital.

Another patient, aged 8, who had a very confluent attack, had not been vaccinated at all. Another case notified as smallpox proved to be a case of vericella, and one aged 10 years had extremely mild attack of smallpox.

This outbreak of smallpox commenced on June 24th, in a woman named Clara Ashness, living in Lunt Hill. She had been lodging the previous fortnight in a common lodging-house at Stockport, where smallpox was epidemic. The attack, unfortunately, was not severe, but permitted her to ramble about, and she infected her sister, Louisa Ashness, and a boy living next door, named Sheridan. From thence it spread to the father and mother of the Ash woman, who live in the Watercotes, a dirty, crowded neighbourhood, where the disease spread from house to house up and down the dirty, squalid street like wildfire. As most of the inhabitants of this quarter were staunch anti-vaccinators, it was practically impossible to prevent an extension of the malady in such quarters and under such circumstances.

The inevitable result was that the infection began to manifest itself outside the Watercotes area amongst a better class of people, who had in various ways been brought into contact with persons suffering from the disease, and on August 17 a woman was notified as suffering from smallpox in Union Street, West Macclesfield.

On August 30th the disease had spread to Allen Street, East Macclesfield, and shortly after a barber in Chester Road, West Macclesfield, was attacked with confluent smallpox. By this time it was almost impossible to trace the source of infection.

During the earlier stages of the epidemic it was comparatively easy to follow the spread of the disease from case to case, and house to house, but later, as the sources of infection multiplied, and as, I believe, some cases escaped official recognition altogether, it became almost impossible to say how the disease originated. I am, however, fully convinced that there was much wilful concealment of the truth and much deliberate misrepresentation as to the sources of infection amongst some of the sufferers and their friends and relatives.

I am convinced that one of the chief influences at work in spreading the disease was overlooked or missed cases. The attack as a rule was so mild that no medical advice was sought, or, as happened in one or two instances, the disease was not recognised as smallpox until the infection had spread. In fact, it is hardly too much to say that if there had been no case of smallpox overlooked there would naturally have been no smallpox epidemic in Macclesfield.

A consideration of the preceding table will show that smallpox was most active during three periods. The first period begins with the week ending July 16th and ends with week ending August 20th. This represents the Watercotes outbreak. The next period is during the week ending September 3rd, and represents Allen Street outbreak. The disease was continuously handed on by a few mild, straggling cases, misdiagnosed or diagnosed late on in the disease, when others had been infected, till the end of November and December, when a smaller outbreak occurred. This again was due to a mis-diagnosed case, and as a result some dozen people contracted smallpox.

The procedure adopted in dealing with this epidemic has been as follows:—

(1) Immediate removal of the patient to hospital. In almost every case your Medical Officers of Health has seen the patient before admission into the wards.

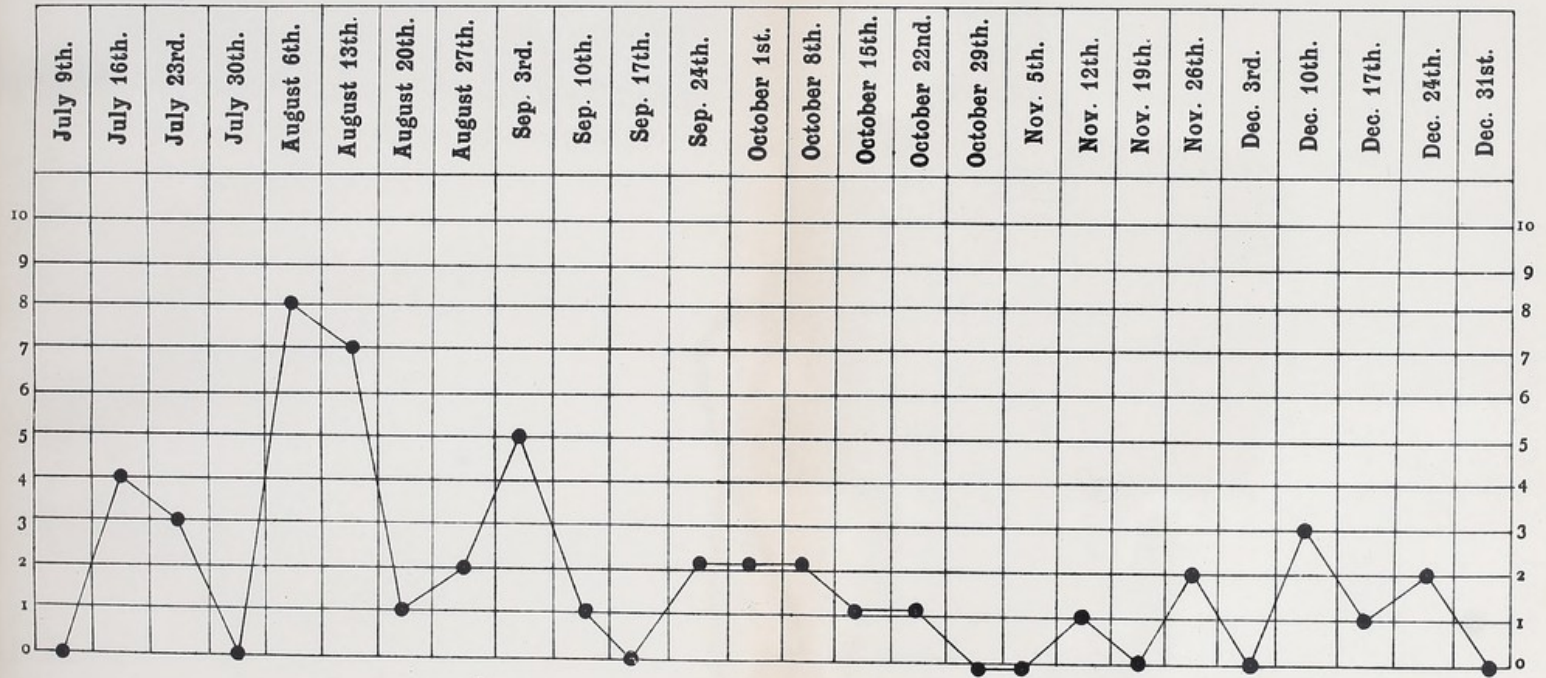
(2) Visitation of the house infected and neighbourhood by the Medical Officer of Health and Sanitary Inspectors, and as full and complete a list as possible of contacts having been obtained, it was at once forwarded to the Public Vaccinator, so that re-vaccination might be offered to those who had been exposed to infection.

(3) Cleansing and disinfection of the premises, and of the bedding and clothing of contacts, etc.

(4) Bills and placards were extensively circulated, urging vaccination on unprotected people, and instructing persons on the signs and symptoms of smallpox, and urging the importance of seeking medical advice as soon as the disease was suspected.

I would repeat and strongly emphasise that it is a matter of supreme importance in the prevention of the spread of smallpox that the cases should be promptly removed to an Isolation Hospital, and all contacts re-vaccinated. If any considerable delay occurs in carrying out either of these measures, and I regret to say that such has

Chart showing the notifications of Smallpox received during the weeks ending July 9th, to Dec. 31st, 1904.





been the case, then the measures which are subsequently taken to prevent the propagation of the disease are rendered futile.

One person was prosecuted for exposing himself in a public place whilst wearing the clothing in which he had assisted at the nursing of another patient. The proceedings were taken under the provisions of the Infectious Diseases Prevention Act.

One of the most notorious of the overlooked cases was that of a man named S. (No. 91). He had the disease in a mild form, and did not consult a medical man until the pustules were beginning to dry up. He infected his wife (case No. 102), and whilst the rash was out he visited on several occasions a club, and there infected three other men, Nos. 103, 108, and 110, who had all been in his company whilst in an infectious condition. It was principally through this one case (No. 91) that the disease was not stamped out before the end of September.

Again, in the case of patient No. 108, who died of severe confluent smallpox three days after admission to hospital, the medical man in attendance delayed notifying until the pustules were fully developed, although he had been in daily attendance for some five or six days previously.

Again in the case of patient No. 155, although he was known to have been in contact a fortnight before being taken ill with back-ache, etc., yet the medical man in attendance again delayed notifying until the rash had been out three days, and during these three days he was visited by various people, two of whom subsequently developed the disease, and from these a fresh focus of infection was started, which carried on the mischief for months.

It is difficult to find words to suitably describe such culpable delay. The Medical Officer of Health is always willing to assist any medical practitioner in arriving at a diagnosis.

I must once again express my very high appreciation of the valuable services rendered by all my colleagues at the Health Office and at the Hospitals.

Smallpox epidemics are exceptional, and demand from all concerned unremitting care and attention.

The Sanitary Inspectors, the Disinfecter man, all worked with the greatest possible vigour and zeal, and of the Matron at the Hospital I feel I cannot speak too highly. She conducted the nursing and catering arrangements at a time of stress and strain

with most praiseworthy efficiency and skill. I sincerely trust we may all be spared for some years such another trying and worrying experience.

### OBSERVATION WARD AND CONTACT SHELTER.

I must again call attention to the need for a proper Observation Ward, where doubtful cases can be kept for a few days until a decided opinion can be given. During the year two cottages have been purchased on a plot of land adjoining the present Smallpox Hospital in Moss Lane, and it is proposed to fit up one as an Observation Ward, and to use the other as a Contact Shelter. I trust some proper place will speedily be provided. It is really imperative that something should be done in so important a matter.

### SCARLET FEVER.

Number of cases notified .....	56
"    "    "    "    "    last year .....	141
"    "    deaths from scarlet fever .....	0
"    "    "    "    "    "    "    last year ...	9
"    "    cases removed to hospital .....	29
Percentage of cases notified removed to hospital ...	51

Districts from which such cases were removed:—

West Macclesfield .....	28
East Macclesfield .....	7
Sutton .....	8

8 cases were notified during the 1st Quarter.

10	"	"	"	"	"	2nd	"
14	"	"	"	"	"	3rd	"
24	"	"	"	"	"	4th	"

The cases occurred in the following districts:—

West Macclesfield .....	28
East Macclesfield .....	20
Sutton .....	8

52 of the cases occurred in children under 15 years of age.

The following table shows the notifications and deaths from scarlet fever from 1899:—

Year.	Number Notified.	Number Died.	Number removed to Hospital.	Fatality per cent.			
1899 .....	303	...	9	...	46	...	2.9
1900 .....	50	...	1	...	19	...	2.0
1901 .....	28	...	0	...	16	...	0
1902 .....	125	...	1	...	96	...	0.8
1903 .....	141	...	9	...	101	...	6.3
1904 .....	46	...	0	...	29	...	0
Totals .....	403	...	20	...	307	...	4.9

### SANITATION OF SCARLET FEVER HOUSES.

17 cases occurred in houses with clean water-closets.

(12 of these cases occurred in five houses.)

4 cases occurred in houses with waste water-closets.

34 " " " " " privy-middens.

Of these 34 :

15 were offensive.

4 " wet and offensive.

2 " defective and offensive.

3 " offensive and close to house.

The drains were defective in four cases.

In three instances two cases were reported from the same house, and in two instances three cases from the same house.

I have not been able to discover any "return cases," although they have been most carefully looked for. We, however, protect ourselves by giving to the child's parents or guardians a signed notice that the Corporation will not be liable for future infection after the child's discharge from hospital.

In attempting to deal with scarlet fever we have always to take into consideration that there is a proportion of overlooked, mis-diagnosed, and concealed cases, so that it is doubtful whether we can ever hope for more than a reduction of the incidence and fatality of the disease.

The fortnightly "spot maps" submitted to the Health Committee do not show any special grouping of cases around schools, and although it cannot but happen that some amount of infection is spread by schools, I do not think that for the year now under consideration this factor is of much value. Consequently, although the total amount of scarlet fever amongst school children has been considerable, it has not been thought necessary to close any schools on that account.

The severity of scarlet fever is dependent to no small extent upon the condition of nutrition of the children attacked, and also a chief cause in the great reduction in mortality from this disease is, undoubtedly, the milder character of the disease.

So far as public health work is concerned, the important feature to note is that scarlet fever is a disease capable of assuming a more malignant aspect than it now presents, and of causing a high mortality. We are thus restrained from claiming the improvement in its mortality as our handiwork, but we are also constrained to watch it with close attention. Like measles, it is liable to leave formidable sequelae behind it of a permanent character. The most important of these are ear disease, with consequent deafness and liability to fatal brain disease, and heart disease. Still, it can hardly be maintained that in the aggregate the consequent diseases are so fatal as those following on measles.

Untraced cases of scarlet fever have been shown to have a closer connection with defective closets than the other common zymotic diseases except, perhaps, enteric. The urine in scarlet fever probably contains the specific organism from a comparatively early period, and the processes of cleansing privy closets as well as their frequent defects offer special facilities for the spread of scarlet fever by these means, especially in confined back areas.

It would appear from observation that the micro-organism of enteric fever can multiply in the soil under favourable conditions, and scarlet fever has this in common with enteric, that the infection apparently multiplies in milk. It is very unlikely that, while the bacillus of enteric fever can grow freely on potatoes, in broth, in milk, and in organic liquids generally, the external life of the scarlatinal infection is confined to milk.

Have we, perchance, in the improvements which have taken place in the disposal of excreta, a clue to the great reduction in the fatality of scarlet fever? It is quite possible that this factor has had a considerable share in the result.

## DIPHThERIA AND MEMBRANOUS CROUP.

Number of cases notified .....	8
"    "    "    "    last year .....	20
"    "    deaths (1 due to membranous croup)	2
"    "    "    last year .....	3
"    "    removed to hospital .....	3

1 case was removed to hospital from West Macclesfield.

2 cases were " " " " Sutton.

4 cases occurred in West Macclesfield (2 of these were notified from the Infirmary).

1 case occurred in East Macclesfield.

3 cases " " Sutton.

## SANITARY CONDITION OF THE HOUSES.

2 cases occurred in houses with clean water-closets.

3 " " " " " privy-middens.

(All of which were offensive.)

The drains were defective in two blocks of property where cases occurred.

It cannot be too often impressed on the public mind that the local (throat) symptoms of diphtheria are comparative unimportant, and that it is to the general symptoms caused by the poison (toxin) that diphtheria owes the greater part of its high mortality.

Diphtheria anti-toxin neutralises this poison (much in the same way as alkali neutralises an acid), and prevents it from harming the vital structures; but it does not repair the harm that the toxin has done. Therefore, one of the most essential requirements in connection with diphtheria is the early injection of anti-toxin. A supply of anti-toxin is always kept on hand at our Isolation Hospital.

There is no doubt that a large number of the notified cases are not true diphtheria, but cases of follicular tonsillitis, ordinary quinsy, or other form of septic sore throat. Bacteriological examination should be made in all cases to verify the diagnosis, but the position of the Medical Officer of Health in this matter is at present rather a difficult one.

The Sanitary Authority have realised that it is their duty and privilege to provide for the bacteriological investigation of supposed diphtheria free of charge to doctor and patient, and supplies outfits to be used for taking the material and transmitting it to the laboratory (the Lister Institute of Preventive Medicine).

The term membranous croup should be omitted from the last of notifiable diseases; probably all cases of membranous croup are really diphtheria, and it would be well that they should be called by that name; it is impossible clinically to distinguish between membranous croup and diphtheria.

#### DIPHTHERIA AND MEMBRANOUS CROUP SINCE 1899.

Year.	Number Notified.	Number Died.	No. removed to Hospital.	Fatality per cent.	
1899 .....	14	...	0	...	0
1900 .....	16	...	5	...	31
1901 .....	24	...	3	...	12
1902 .....	14	...	1	...	7
1903 .....	20	...	3	...	15
1904 .....	7	...	2	...	28
	—	—	—	—	—
Totals .....	95	...	14	...	14
	—	—	—	—	—

The fatality rate is probably even higher than the figures seem to indicate, as many of the cases notified diphtheria or membranous croup were other diseases.

The freer and earlier use of anti-toxin will materially reduce this mortality.

In conclusion, I would call attention to the necessity for administering anti-toxin to those who are exposed to infection from diphtheria. In most cases 2,000 units will serve to render a person immune for a few weeks.

#### BACTERIOLOGICAL EXAMINATIONS.

40 specimens were sent to the Lister Institute during the year.

In 39 specimens the bacillus diphtheria was not found.

„ 1 specimen „ „ „ „ found.

„ 6 cases a second specimen was sent for examination.

„ 1 case three specimens were sent, all of which gave a negative result.

A negative result may mean :—

- (1) That the patient is not suffering from diphtheria.
- (2) That an antiseptic was used too soon before taking the swab.
- (3) That the diseased portion of the throat was not touched.

We may exclude errors in the laboratory.

Three consecutive failures to find the diphtheria bacillus are required before any importance attaches to the result.

Every sore throat should be regarded as possible diphtheria until it is proved to be not so. As regards the pseudo-diphtheria bacillus of Hoffman, it is safest to regard any patient who presents these bacilli as infectious, but he should not be sent into a diphtheria ward unless protected by a full dose of diphtheria antitoxin.

#### ENTERIC OR TYPHOID FEVER.

Number of cases notified .....	12
"    "    "    "    last year .....	21
"    "    deaths from enteric fever .....	2
"    "    "    "    "    "    last year ...	3

None of the cases were removed to hospital.

#### FATALITY.

Fatality rate per cent. notified .....	76
"    "    "    "    "    last year .....	14
"    "    "    "    "    in 1902 .....	11

#### ENTERIC FEVER SINCE 1899.

Year.	Number Notified.	Number Died.	No. removed to Hospital.	Fatality per cent.
1899 .....	35	4	7	—
1900 .....	62	10	13	—
1901 .....	33	2	11	—
1902 .....	26	3	4	11
1903 .....	21	3	0	14
1904 .....	12	2	0	16
Totals .....	189	24	35	12

It would seem as if there was some close connection between the gradual diminution in the number of cases of enteric and the clearing out of the privy-midden system which has slowly been going on during the last few years. The following table bears this contention out:—

Year.	Number of Cases of Typhoid Fever.	Number of Privy-middens.
1899 .....	35 .....	3,942
1900 .....	62 .....	3,862
1901 .....	33 .....	3,825
1902 .....	26 .....	3,705
1903 .....	21 .....	3,569
1904 .....	12 .....	3,387

I am strongly of opinion that this decline in enteric fever has some amount of causal relation to the diminution in the number of privy-middens.

6 cases were notified from Parkside Asylum during the year. Careful investigation, including bacteriological examinations of the water supplies, have been made, and much difficulty has been found in accounting for these small outbreaks, proceeding on the hypothesis that the presence of the bacillus typhosus from a previous case is necessary to causation.

There is, however, in all large Asylums a certain amount of "Asylum dysentery" constantly present, and it is possible to conjecture that under certain conditions the bacillus coli, or other closely allied organism, may give rise to a disease clinically indistinguishable from enteric fever.

I am fully convinced that the disease is most frequently conveyed to those in personal contact with the patient by their own hands. The most rigid cleanliness of the hands should be observed by those in attendance upon enteric patients; the hands should be immediately washed and disinfected after touching any part of the sufferer's body or his bed clothing, and on no account should the attendant's hands touch his face until they have been washed or dipped in disinfectant solution; the slightest carelessness in attention to these little details may be the cause of an enteric attack.

On receiving a notification of a case of enteric fever a pail and an abundant supply of disinfectants is at once sent to the house, with instructions that all excreta from the patient are to be put in the pail, which is frequently removed and thoroughly cleansed.

But all these precautions are wasted if there is delay in notifying. The midden is infected. In such cases I require the nightsoil foreman to order the careful emptying and scraping of the midden and the thorough saturation of its walls and floors with Chlorinated lime-wash. In some cases where the midden is old and dilapidated, and resembles a huge cavern with many recesses, it seems almost impossible to adequately cleanse and disinfect such a place.

Of the 6 cases of enteric fever which occurred in the town :

- 1 only occurred in a house with a clean water-closet.
- 5 occurred in houses with privy-middens.

The one outstanding fact in most of these cases is the presence near the dwelling of an accumulation of putrefying human excreta contained in a pit called an ashpit. The ashpits! harbour and breed flies to which may reasonably be assigned an important part in the spread of infection.

#### WIDAL REACTION.

20 specimens were sent to the Lister Institute for examination when enteric fever was suspected.

- In 3 a distinct typhoid reaction was obtained.
- „ 1 „ marked „ „ „ „
- „ 2 „ feeble „ „ „ „
- „ 1 „ very feeble and doubtful reaction was obtained.

In this last case a second specimen was sent after a few days, and gave a distinct reaction. Although this reaction is a general one, given by most if not all bacterial diseases, yet it differs in one most important respect, that whereas this agglutinative phenomenon in many diseases is a reaction of immunity (i.e., does not occur till late in or after the disease) in typhoid fever, it is a reaction of infection, and occurs so early as to be of great value in diagnosis, and thus shortens the period before notification, which is the most dangerous delay from a public health point of view. If the practitioner declines to avail himself of this test, and awaits developments, and no precautions are taken in dealing with the patient's stools and urine, then certainly infection will spread which might and should have been avoided.

#### ERYSIPELAS.

Number of deaths .....	7
„ „ notifications .....	47

19	cases	occurred	in	West	Macclesfield.
15	„	„	„	East	Macclesfield.
13	„	„	„	Sutton.	

Of the seven deaths :

2	occurred	in	West	Macclesfield	between	the	ages	of	25	to	65	years.			
1	„	„	East	„	„	„	„	„	„	„	„	„			
4	„	„	Sutton,	2	between	25	&	65,	and	2	over	65	years	of	age.

It is questionable whether much advantage results to the community from the notification of erysipelas. A large number of the notified cases in the district are inflamed wounds, or cases of facial erysipelas, a few are really cases of infective osteo-myelitis, other are lymphangitis and adenitis, due to infection of minute wounds, others again are cases of phlebitis. I know of no preventive methods which the Medical Officer of Health can make use of, unless it be disinfection, which in the majority of these cases is quite unnecessary; the sole advantage of the notification of erysipelas appears to be the case when there is a parturient woman, or one near the time of her confinement, in the house; the Medical Officer of Health may in that case by his aid be able to prevent the spread of infection. There is in most towns no available accommodation in the isolation hospital for these cases, which are usually surgical; the general hospitals refuse to receive genuine cases of erysipelas, and in this they are no doubt right; the Union Infirmary will not have them; it would appear therefore that they must be treated in their own homes.

#### PUERPERAL FEVER.

Number of deaths .....	2
„ „ notifications .....	4

Of the two deaths, one occurred in West Macclesfield and one in East Macclesfield.

The greater control which will in the future be exercised over midwives to ensure cleanliness, etc., cannot fail to reduce the number of cases and mortality from this preventable disease. Dr. Vacher, in his Annual Report for 1903, says:—"The truth is that puerperal fever is very irregularly notified, and the cause of this is not far to seek. It is of more frequent occurrence among those who, from poverty or other causes, are without skilled attendance and nursing. Thus, numbers of cases are never seen by a Medical Practitioner, and in many instances the first intimation the Medical

Officer of Health has of a case is after the death of a patient. Rarely indeed is it practicably to send a case of puerperal fever to hospital (not one was sent in 1903), but possibly something more might be done in impressing upon the poor the necessity of infinite cleanliness in the treatment and environment of lying-in women."

In Macclesfield, on receiving a notification of puerperal fever the Medical Officer of Health at once enquires into the case, and writes the midwife, requesting her to discontinue practice till she has submitted herself and her appliances to cleansing and disinfection. This is done at the Isolation Hospital.

No difficulty has been found in getting infected midwives to submit to this process.

Probably an increased amount of infection will be discovered now that a certified midwife will be required to notify to the local supervising authority any case upon which she is attending where after delivery the temperature rises to 100.4 degs. F., with quickening of the pulse for more than 24 hours.

### MIDWIVES' ACT, 1902.

1. After the 1st April, 1905, no woman may call herself a midwife unless certified as the Act provides.

2. After the 1st April, 1910, no woman may practise (i.e., habitually and for gain attend women in childbirth otherwise than under the direction of a qualified medical practitioner) unless certified as the Act provides.

3. Any woman who before the 31st March, 1905, claims to be certified under the Act may be so certified if

(a) She holds a Certificate in Midwifery from the Royal College of Physicians of Ireland, or from the Obstetrical Society of London, or the Coombe Lying-in Hospital and Guinness's Dispensary, or the Rotunda Hospital for the Relief of the Poor Lying-in Women of Dublin.

Or

(b) She holds such other Certificate in Midwifery as the Central Midwives Board may approve.

Or

- (c) She satisfies the Central Midwives Board that she has been in bona fide practise as a midwife for at least one year prior to the 31st July, 1902, and that she bears a good character.

4. A woman not included within one of these three classes will be required to pass the examination of the Central Midwives Board before obtaining a Certificate.

5. Applications to be certified must be made to the Central Midwives Board in accordance with the rules and regulations to be prescribed by the Board, and such fees will be payable for the examination and the Certificate as the Privy Council may sanction.

6. The names of all certified midwives will be entered on the Midwives Roll.

7. Every certified midwife must before commencing to practise, or holding herself out as practising, give notice in writing, on the prescribed form, to the local supervising authority, and must give a similar notice in the month of January in every year during which she continues to practise.

8. No certified midwife may employ an uncertified substitute.

9. A midwife may be suspended from practise in order to prevent the spread of infectious disease, or may be removed from the roll for disobeying the rules and regulations of the Central Midwives Board, or for other misconduct.

10. Penalties are prescribed for any infringement of the foregoing provisions (1) (2) and (7); also for obtaining a certificate by false representation, or for wilful falsification of the Midwives Roll.

11. An appeal lies to the High Court of Justice from any decision of the Central Midwives Board removing a midwife's name from the Roll, and to the Court of Quarter Sessions for any Summary Conviction for an offence under the Act.

The following is a list of the members resident within the Borough whom I believe the certified under the Act:—

- (1) Mrs. Broome, 21, Roe Street.
- (2) Mrs. Bunting, 68, Black Lane.
- (3) Mrs. Bailey, 62, Waterloo Street East.

- (4) Mrs. Brierley, 14, Lowe Street.
- (5) Mrs. Guerin, 34, Barton Street.
- (6) Mrs. Hackney, 5, St. George's Street.
- (7) Mrs. Harrison, 25, Prestbury Road.
- (8) Mrs. Hibbert, 71, Mill Lane.
- (9) Mrs. Johnson, 1, Langford Street.
- (10) Mrs. Sherriff, 176, Newton Street.

At a meeting of the Midwives Act 1902 Committee of the County Council, held at Crewe on April 21st, 1904, the Committee received in Conference representatives of the Municipal Boroughs, and Urban and Rural Districts in the Administrative County, and discussed with the Representatives the best means to be adopted in working the Act, i.e., whether by the County Council delegating its powers to the Borough and District Councils, or by the County Council administering the Act with the co-operation of the Borough and District Councils, and with the assistance of the Medical Officers of Health. There was a general concensus of opinion that the latter course was the preferable one, and accordingly the following resolution was passed (nem. con.) by the Representatives present:—

That the Representatives of the Muncipal, Urban, and Rural District Councils present at this Conference, are prepared to recommend their respective Councils to assist the County Council in carrying out the Midwives Act, 1902, within their respective jurisdictions, by permitting their respective Medical Officers of Health to perform the following duties, viz.:—

- (a) Inspection of Midwives' case books.
- (b) Inspection of bags of appliances.
- (c) Inspection of places of residence.
- (d) Investigation of mode of practice.
- (s) Such other analogous duties as the County Medical Officer of Health may prescribe, and on such terms as may be agreed upon between the County Council and each District Medical Officer of Health.

On April 1st, 1905, your Medical Officer of Health received a circular from the Medical Officer of the County Council asking him to make these inspections and investigations, acting on behalf of the County Council and as assistant to the County Medical Officer, and to report to him thereon.

The duties of your Medical Officer as set forth in the circular above referred to are as follows:—

1. To exercise general supervision over all Midwives residing within their areas, and over the practice of Midwives, when within their areas, who reside elsewhere.

2. To make a preliminary investigation as regards charges of malpractice, negligence, or misconduct, on the part of any Midwife residing or practising within their areas, and to report the result of such preliminary investigation to the County Medical Officer.

3. To suspend any Midwife from practice, in accordance with the rules under the Midwives Act, if such suspension appears necessary, in order to prevent the spread of infection.

4. To report at once to the County Medical Officer the name of any Midwife practising in their areas who, to their knowledge, is convicted of an offence.

5. To report to the County Medical Officer the death of any Midwife, or any change in the name or address of any Midwife residing in their areas, as soon as they are aware of the same.

6. To furnish a list (if this has not been already furnished) to the County Medical Officer of all persons at present using the title of Midwife, within their areas.

7. To inspect from time to time the case books, bags of appliances, and places of residence of Midwives residing within their areas.

8. To investigate the mode of practice of all Midwives practising within their areas.

9. To report forthwith to the County Medical Officer any suspension of a Midwife from practice, and the reasons for such suspension.

10. To communicate with the County Medical Officer any matter of doubt or difficulty, arising in connection with the Midwives Act, or the Rules framed thereunder.

## THE ISOLATION AND SMALLPOX HOSPITALS.

### THE VALUE OF AN ISOLATION HOSPITAL.

The value of these hospitals lies not primarily in the work they accomplish, but in the prevention of the spread of disease. When an infectious disease becomes seriously epidemic, it shows

that the hospital has failed to carry out its prime object—the checking of its spread in the early stage.

### THE VALUE OF EARLY REMOVAL TO HOSPITAL.

An Isolation Hospital can only justify its existence when there is early notification from the practitioners of the presence of infectious disease, and prompt removal to hospital.

### CASES ADMITTED INTO THE ISOLATION AND SMALL-POX HOSPITALS IN 1904.

Smallpox (3 from Bollington) .....	52
Scarlet Fever .....	29
Diphtheria .....	3
Parent admitted with child .....	1
Doubtful case .....	1
	—
	86
	—

#### DEATHS.

Smallpox (1 from Bollington) .....	4
Septic complication of Scarlet Fever .....	1
Diphtheria .....	1
	—
	6
	—

#### REMAINING IN HOSPITAL ON JANUARY 1ST, 1905.

Smallpox .....	5
Scarlet Fever .....	7
	—
	12
	—

All these cases have been attended and prescribed for by your Medical Officer of Health. The smallpox attendance has been exceptionally heavy and unpleasant, and has necessitated many hundreds of journeys to the Hospital.

#### NUMBER OF DAYS OF PATIENTS IN HOSPITAL.

	Days.
In Isolation Hospital .....	1,275
„ Smallpox Hospital .....	1,113
	—
Total number of days of patients in hospitals	2,388
	—

12 Nurses at different periods of time were employed at both Hospitals:—

	Days.
At Scarlet Fever and Diphtheria .....	206
„ Smallpox Hospital .....	428
	634

	Days.
11 Maids were employed at different times at one or other Hospitals .....	627
At Smallpox Hospital .....	201
	828

Matron ..... 334 days.

Adding these totals together we get the following:—

	Days in Hospital
Patients .....	2,388
Nurses .....	634
Matron .....	334
	4,184

That is to say, 4,184 meals had to be prepared at least three times a day during the year, and in many cases, when the patients were ill and convalescing, special and frequent meals were necessary.

#### COST OF FEEDING PATIENTS, NURSES, MAIDS, Etc.

The total cost of food at both Hospitals,  
excluding soda water and stimulants... £227 10 10

This sum includes the cost of butcher's meat, groceries, fish, fowl, potatoes and vegetables, milk and eggs, bread, bacon, etc.

Cost per inmate of both Hospitals per day ... 1s. 1d.  
or about 4d. per meal on the average.

Cost of Stimulants:—

Smallpox Hospital .....	£4 13 6
Scarlet Fever, etc. ....	0 9 0
	£5 2 6

Cost of drugs and appliances:—

Smallpox Hospital .....	£25	8	1
Scarlet Fever, etc. ....	18	15	0
	<hr/>		
	£44	3	1
	<hr/>		

Considering the amount of work done and the number of people fed, I do not think that the most rigorous economist could charge us with being an expensive hospital.

### COST OF MEDICAL ATTENDANCE.

Your Medical Officer receives £20 per annum for attendance on these patients, 82 in all, deducting Bollington cases. Of these 82, 49 were case of smallpox. This works out to about four shillings and ten pence a case, and as to most of these, several dozens of visits have had to be made it comes to a few pence per patient a visit.

### COST OF NURSING.

Year after year I continue to point out that it is false economy to restrict the number of our permanent staff to two nurses, the Matron and an assistant Nurse.

Your Matron cannot devote her whole time when on duty to nursing. She has many important calls to attend to in connection with the general administration of the hospitals, and so it comes about that if we have a case in hospital of a severe character, which requires the unremitting attention of a day and night Nurse, we have to engage one from a nursing institution.

I once more repeat, in the interest of economy, what I said in my Annual Report for 1902, and repeated on pages 80 and 81 of my Annual Report for 1903:—

“ Our present arrangement of engaging Nurses from private Nursing Homes as we require them is proving very expensive, and it would be much more economical, and very materially conduce to the better working of the Institution if we had two Assistant Nurses, and to take charge at night and one to help the Matron during the day, and to be on duty during her occasional necessary absences from the Hospital. We cannot engage fever Nurses under 2 guineas a week, whilst Assistant Nurses might readily be obtained at £30 to £35 per annum. The cost of the nursing of smallpox cases is even greater; trained nurses, and no others, should be trusted with serious

cases of sickness, require 3 guineas a week. This after six or eight weeks becomes a serious item, and is nearly equal to a year's salary for an Assistant Nurse attached to your Hospital."

During the year Nurse Dixon resigned, and Nurse Green has been appointed in her place.

I again repeat that two Nurses are quite insufficient to nurse more than four or five cases of one variety in infectious disease. The same Nurse cannot attend on two varieties of infectious disease without acting as a medium for conveying infection, and therefore, unless you have a minimum two Assistant Nurses, you will have to resort to the old expensive and unsatisfactory expedient of hiring Nurses as you require them. I trust this matter will receive your serious consideration.

Your Hospital at present holds 26 beds and 6 cots, and there can be isolated three varieties of infectious disease. In addition you have twelve beds—six male and six female—in the Smallpox Hospital, which gives a total of 37 beds and 6 cots.

#### NATURE OF THE CASES TREATED.

SCARLET FEVER:—29 cases. 1 death from Septicæmia.

##### Complications:—

- 8 had ear discharge.
- 4 „ nasal discharge.
- 4 „ enlarged glands of neck.
- 1 „ septic pneumonia.
- 1 „ albuminuria.
- 1 „ scarlatinal rheumatism.
- 1 „ hip joint disease.
- 1 „ appendicitis.
- 3 „ whooping cough.
- 1 „ pericarditis.
- 1 „ post-scarlatinal diphtheria.

DIPHThERIA:—3 cases. 1 death.

##### Complications:—

- 1 had nasal discharge.
- 1 „ septic pneumonia.

The broad lines of treatment adopted in scarlet fever has been:—

(1) Free nasal and pharyngeal douching with a mild alkaline antiseptic every four hours.

(2) Cold sponging with plenty of water when temperature reached 102.5 degs. F.

(3) In septic and toxic cases the free use of anti-streptococcus serum (polyvalent) of Borroughs, Wellcomes and Co.

(4) Where the throat was very dirty and septic, pure IZAL was used to swab it out.

(5) The use of rubber gloves by the nurses whilst they are engaged in the swabbing or douching processes.

The risk of conveying infection during the process of treatment is this greatly lessened, as the gloved hands can be cleansed in a stream of running water before the nurse proceeds to another patient. It is important to recognise that it is seldom that the throats of any two cases of scarlet fever contain the same varieties of bacteria, and that in consequence any one case may be clinically infectious to another, though they are ostensibly both suffering from the same disease.

#### THE SMALLPOX HOSPITAL.

Number of cases admitted during 1904 ..... 52  
(3 cases from Bollington.)

Number of deaths ..... 4  
(1 from Bollington.)

#### CONDITION AS TO VACCINATION, &c.

No.	Sex.	Age.	Vaccinal Condition.	Remarks.
(23)	F.	70.	Infantile vaccination only. Three good marks.	Severe confluent. Died. (From Bollington.)
(24)	M.	40.	Infantile vaccination only. Four marks, each $\frac{1}{4}$ sq. inch, foveated. Re-vaccination before admission in four places, all took.	Not variola. Temp. normal on admission. (From Bollington.)

No.	Sex.	Age.	Vaccinal Condition.	Remarks.
(25)	F.	27.	Infantile vaccination only. Two marks. Re-vaccinated July 8th, 1904. No marks of vaccination.	Sickened with smallpox July 9th. Mild, very discrete. A "too late case" (From Bollington.)
(26)	F.	22.	Says she has never been vaccinated.	Confluent.
(27)	F.	22.	Infantile vaccination only. Three marks on left arm, one about 1 sq. inch, two about $\frac{1}{2}$ sq. inch.	Mild, discrete. Started the present epidemic by rambling about the town with rash out.
(28)	M.	8.	Never been vaccinated.	Infected from previous case. An intensely severe confluent attack. Left much scarring.
(29)	F.	19.	Infantile vaccination only. Three marks on left arm, each about $\frac{1}{8}$ sq. inch. Two foveated.	Very discrete. Infected from Nos. 26 and 27.
(30)	F.	29.	Infantile vaccination only. Two marks, each about $\frac{1}{2}$ sq. inch, foveated.	Discrete. Infected from Case No. 27.
(31)	M.	60.	Infantile vaccination only. Faintly marked, one scare about 1 sq. inch. Not foveated.	Discrete. Infected from Case No. 27.
(32)	F.	56.	States she was vaccinated in infancy. No marks visible.	Confluent.
(33)	M.	3 mos.	Vaccinated in four places on fifth day after exposure to infection.	Severe conu-ent. A "too late case."
(34)	F.	50.	Infantile vaccination only. One mark on left arm about $\frac{1}{4}$ sq. inch.	Confluent.

No.	Sex.	Age.	Vaccinal Condition.	Remarks.
(35)	F.	18.	Infantile vaccination only. Two marks, each about $\frac{1}{2}$ sq. inch.	Very mild, discrete.
(36)	M.	22.	Infantile vaccination only. Three marks, each about $\frac{1}{2}$ sq. inch.	Mild, discrete. He was removed from his work in a large weaving shed with the papules fully developed.
(37)	M.	45.	No marks visible. States he never was vaccinated.	Very severe confluent. Acute delirium. Heart failure. Death.
(38)	F.	46.	Said to have been vaccinated in infancy. No marks visible.	Very severe confluent
(39)	M.	32.	Infantile vaccination only. Two scars on left arm, each about $\frac{1}{8}$ sq. inch.	Severe confluent.
(40)	M.	26.	No marks visible. Said never to have been vaccinated.	Very severe confluent. Much scarring left.
(41)	F.	46.	Infantile vaccination only. One mark on left arm, about $\frac{1}{4}$ sq. inch.	Discrete.
(42)	M.	9.	Vaccination unsuccessfully attempted in infancy. No scars visible.	Very severe confluent. Much scarring.
(43)	M.	27.	Infantile vaccination only. Three scars on left arm, each about $\frac{1}{4}$ square inch.	Admitted with discrete pustules.
(44)	M.	27.	Infantile vaccination only. Three good foveated marks, each about $\frac{1}{2}$ sq. inch.	Discrete.
(45)	M.	43.	Infantile vaccination only. One mark, 1 sq. inch.	Discrete.
(46)	M.	65.	Infantile vaccination only. One mark on left arm, about $\frac{1}{2}$ sq. inch.	Semi-confluent.

No.	Sex.	Age.	Vaccinal Condition.	Remarks.
(47)	F.	4.	Infantile vaccination. Four marks.	Varicella. Re-vaccination in four places on admission all took.
(48)	F.	62.	Infantile vaccination only. Two marks on right arm, each about $\frac{1}{2}$ sq. inch.	Confluent.
(49)	M.	36.	Infantile vaccination only. Three marks, $\frac{1}{4}$ sq. inch each, two foveated.	Semi-confluent.
(50)	F.	50.	Infantile vaccination only. Two marks on left arm, each about $\frac{1}{4}$ sq. inch.	Semi-confluent.
(51)	F.	17.	Infantile vaccination only. Four good marks on right arm, each $\frac{1}{4}$ sq. inch, and foveated.	Discrete.
(52)	F.	49.	Infantile vaccination only. Three marks, each sq. inch.	Discrete.
(53)	M.	45.	Infantile vaccination only. Four marks on right arm, three about $\frac{1}{4}$ sq. inch, 1 about $\frac{1}{8}$ sq. inch.	Severe confluent. Death.
(54)	M.	39.	Infantile vaccination only. Four marks on right arm, each about $\frac{1}{4}$ sq. inch., foveated.	Confluent.
(55)	M.	10.	Infantile vaccination only. Three marks, each about $\frac{1}{8}$ sq. inch.	Very discrete.
(56)	F.	28.	Said to have been vaccinated in infancy. No marks visible.	Semi-confluent.
(57)	M.	28.	Infantile vaccination only. Three marks, each $\frac{1}{2}$ sq. inch.	Discrete.
(58)	M.	43.	Infantile vaccination only. One mark about $\frac{1}{2}$ sq. inch.	Semi-confluent. Patient had been at a club with rash out on him.
(59)	M.	20.	Infantile vaccination only. Four marks, each about $\frac{1}{4}$ sq. inch. Re-vaccinated Sept. 19th in four places; one took slightly.	Rash appeared on Sept. 21st. A very mild case, only five aborted papules on face. A "too late" case.

No.	Sex.	Age.	Vaccinal Condition.	Remarks.
(60)	F.	41.	Infantile vaccination only. Two marks, each about $\frac{1}{2}$ sq. inch. Re-vaccinated on admission in four places. All took.	Not variola.
(61)	F.	38.	Infantile vaccination. Four marks. Re-vaccinated Sept. 23rd.	Wife of No. 58. Very mild case, only five papules all over body. A "too late case."
(62)	M.	28.	Infantile vaccination only. Three marks, each $\frac{1}{4}$ sq. inch.	Infected from No. 58. Discrete.
(63)	M.	60.	Said to have been vaccinated in infancy. No marks visible.	Severe confluent. Infected from No. 58. Death.
(64)	M.	40.	Infantile vaccination only. One mark, about $\frac{1}{4}$ sq. inch.	Infected from No. 62. Severe confluent. Much scarring.
(65)	M.	50.	Infantile vaccination only. One mark about $\frac{1}{2}$ sq. inch.	Infected from Club cases. Semi-confluent.
(66)	M.	35.	Infantile vaccination only. Two marks, one $\frac{1}{8}$ sq. inch, one 1-16 sq. inch.	Semi-confluent.
(67)	F.	53.	Infantile vaccination only. One mark, $\frac{1}{2}$ sq. inch.	Semi-confluent. Rash pustular on admission. Had been "nursed" at home.
(68)	M.	25.	Infantile vaccination only. One mark, $\frac{1}{4}$ sq. inch.	Rash appeared 3 days before admission. Infected from No 67. Had been "nursed" at home. Not notified till practitioner in attendance had been written to by M.O.H.

No.	Sex.	Age.	Vaccinal Condition.	Remarks.
(69)	F.	17.	Infantile vaccination only. Re-vaccinated on admission in four places. All took.	Varicella.
(70)	F.	43.	Infantile vaccination only. One mark $\frac{1}{8}$ sq. inch.	Semi-confluent.
(71)	M.	43.	Infantile vaccination only. Re-vaccinated Dec. 11th.	Rash appeared Dec. 12. Husband of No. 70. Discrete. A "too late" case.
(72)	M.	37.	Infantile vaccination only. Three marks, each 1 sq. inch, foveated.	Was visited by No. 68 whilst rash out on him.
(73)	F.	24.	Infantile vaccination only. Two marks, each $\frac{1}{2}$ sq. inch.	Nursed patient No. 68. Was offered but refused re-vaccination 3 weeks before admission.
(74)	M.	19.	Infantile vaccination only. Three marks, two about $\frac{1}{2}$ sq. inch, one about $\frac{1}{4}$ sq. inch.	Was courting a young woman certified to be suffering a fortnight ago from "chicken-pox."
(75)	F.	72.	Said to have been vaccinated in infancy. No marks visible.	The young woman said to have chicken-pox lodged with her. Severe confluent. Death.

N.B.—This young woman, said to have "chicken-pox," had previously lodged with some persons who a few weeks before the "chicken-pox" developed, had spots on their faces leaving several "pits" behind. No doctor had been in attendance.

No.	Sex.	Age.	Vaccinal Condition.	Remarks.
(76)	F.	34.	Infantile vaccination only. Five marks, each $\frac{1}{2}$ sq. inch.	Discrete. Sister to the young woman said to have had chicken-pox.
(77)	F.	26.	Infantile vaccination only. Two marks, each $\frac{1}{2}$ sq. inch.	Discrete. Wife of a coal dealer. Knows the people referred to in note under 75, who were also small coal dealers.
(78)	M.	39.	Infantile vaccination only. One mark, about $\frac{1}{2}$ sq. inch. Not foveated.	Discrete.

#### FATAL CASES.

Of the four fatal cases, two had never been vaccinated at all, and the other two had been vaccinated in infancy only.

#### CASES NOT SMALLPOX.

Four cases of chicken-pox were considered by the medical practitioners in attendance to be smallpox.

#### IMMUNITY OF STAFF.

Six nurses and five maids were at one or other time in close attendance on these patients, and not one of these developed smallpox, as they had all to submit to or produce evidence of efficient vaccination within the last five years.

#### VALUE OF VACCINATION GENERALLY.

Four cases of chicken-pox were admitted into the smallpox wards. They were previously protected by vaccination, and not one developed smallpox. A very large amount of re-vaccination was done amongst the neighbours, friends, and relatives, etc., of persons

who were suffering from smallpox, and not one of these re-vaccinated persons contracted the disease afterwards. Surely only those most ignorant, fatuous, or wilfully blind could fail to recognise the protective value of this procedure. Precisely the same phenomenon was observed in the great epidemic in Glasgow of 1901 and 1902, for in that city of 400,000 recently vaccinated people not one took smallpox. As Dr. McVail powerfully puts it:—

“As in Egypt long ago the angel of Death passed by the houses of the Israelites whose lintels and door posts were sprinkled with blood, so in Glasgow, smallpox passed by those who had recently submitted to what anti-vaccinators sneer at as the rite of vaccination. Wealth or poverty, cleanliness or dirt, drunkenness or total abstinence, youth or age, made no difference to the recently re vaccinated, so far as smallpox was concerned. They remained immune right from the beginning to the end. The people lived together in these great tenements, subject to the same sanitary or insanitary water supply, drainage, and refuse removal, their children attending the same schools, and themselves engaged in the same occupations. They differed only in this one respect—that some had submitted to re-vaccination and others had refused. Smallpox left the former class absolutely unscathed, and found all its victims amongst the latter.”

I ask, in the presence of such facts, is it possible for any sane man to argue that vaccination does nothing to prevent smallpox?

### THE DISINFECTOR.

The following shows the work done by the Thresh current steam disinfector:—

Number of beds disinfected by steam .....	324
„ „ pillows disinfected by steam .....	509
„ „ carpets disinfected by steam .....	337
„ „ counterpanes disinfected by steam ...	418
„ „ articles of clothing disinfected by steam .....	9932

Total number of articles passed through the disinfector .....	11,520
--	--------

It speaks volumes for the efficiency of the process that in not a single case was there any suggestion that infection had subsequently arisen from any of these articles after disinfection, notwithstanding that much of the bedding was black, rotten dirty, and

verminous, and soaked with excrement and discharges from virulent cases of smallpox. Had we not had this disinfectant it would have cost the Borough hundreds of pounds in compensation for the articles which could only have been disinfected by burning.

### THE AMBULANCE.

We have gone through this epidemic using an old family 'bus for the removal of patients, and at intervals borrowing a machine from the Workhouse which resembles a cross between a coffin cart and a "Black Maria." In these choice vehicles we have carted the unfortunate sufferers to our hospitals, however ill. In the interests of common decency, humanity, and for the credit of the Borough, a modern, up-to-date Ambulance is needed.

The strongest objections to the removal of patients to hospital have arisen in consequence of the miserable contrivances in which we have had to remove them.

### WATER SUPPLY.

The water supply has been abundant and unrestricted during the whole year. Samples have been taken and submitted to chemical and bacteriological analysis. It must always be borne in mind when considering the relative values of these analyses that the chemical analysis gives no indication of specific pollution, and that only the bacteriological examination actually shows the number of organisms and their kind present in the waters. The waters submitted for examination were from three sources:—

(1) Town's water, collected from a tap at the Town Hall, and being the water as supplied to the town generally.

(2) Hollins Road water. This is water which has undergone a certain amount of purification by sedimentation in the Langley reservoirs, but has not, unlike the town's supply, passed through the filter beds. Only a few houses receive this water.

(3) Hurdsfield water is a private supply, which is distributed up Hurdsfield Road and to some houses in Commercial Road.

### BACTERIOLOGICAL EXAMINATION.

#### LISTER INSTITUTE OF PREVENTIVE MEDICINE.

Chairman of Council, Lord Lister, P.C., O.M., F.R.S.; Hon. Treasurer, Sir Henry E. Roscoe, F.R.S.; Director, Professor C. J. Martin, F.R.S.

Report on examination of three water samples received from Macclesfield U.D.C. on May 11th, 1904:—

No. 1.—Town's water.

Total number of organisms growing on agar at 20° C.—count on 6th day... 60 per c.c.  
Organisms of an intestinal type were found in ..... 140 c.c.'s.  
but not in 50 c.c.'s or less.

No. 2.—Hollins Mount water.

Total number of organisms growing on agar at 20° C.—count on 6th day ... 300 per c.c.  
Organisms of an intestinal type were found in ..... 25 c.c.  
but not in 10 c.c. or less.

No. 3.—Hurdsfield water.

Total number of organisms growing on agar at 20° C.—count on 6th day ... 200 per c.c.  
Organisms of an intestinal type were found in ..... 10 c.c.  
but not in 1 c.c. or less.

The Town's water shews great improvement when compared with the results obtained previously, but the water from Hollins Mount and Hurdsfield seem to be in the same condition as they were when the last examination was made.

ALFRED MACCONKEY.

#### CHEMICAL ANALYSES.

Samples taken April 27th, 1904.

No. 1.—Town's water.

Chlorine combined .....	1.34	in 100,000 parts of water.
Ureal Ammonia .....	0.028	„ „ „ „ „
Albuminoid „ .....	0.002	„ „ „ „ „
Nitrogen as Nitrates, etc.	0.0367	„ „ „ „ „
Oxygen absorbed from permanganate of potash in 4 hours .....	0.142	„ „ „ „ „

Hardness .....	7.2	degrees.
Total solids .....	8.7	„
Mineral solids .....	5.9	„
Volatile solids .....	2.8	„

## No. 2.—Hurdsfield water.

Chlorine combined .....	1.5	in 100,000 parts of water.
Ureal Ammonia .....	0.002	„ „ „ „ „
Albuminoid „ .....	0.002	„ „ „ „ „
Nitrogen as Nitrates, etc..	0.0640	„ „ „ „ „
Oxygen absorbed from permanganate of potash in 4 hours .....	0.112	„ „ „ „ „
Hardness .....	11.7	degrees.
Total solids .....	17.0	„
Mineral salts .....	14.3	„
Volatile salts .....	2.7	„

## No. 3.—Hollins mount water.

Chlorine combined .....	1.2	in 100,000 parts of water.
Ureal Ammonia .....	0.0020	„ „ „ „ „
Albuminoid „ .....	0.0120	„ „ „ „ „
Nitrogen as Nitrates, etc..	0.0498	„ „ „ „ „
Oxygen absorbed from permanganate of potash in 4 hours .....	0.114	„ „ „ „ „
Hardness .....	7.0	degrees.
Total solids .....	8.6	„
Mineral solids .....	5.7	„
Volatile solids .....	2.9	„

The Borough Analyst, commenting on these results, says:—

“These three waters are free from odour or taste. They are neutral. No poisonous metals were present. Samples No. 1 and 3 (Hurdsfield and Town's water) contain a slight sediment.

“I am of opinion that these waters are of excellent quality, and well suited for all purposes.”

## PURIFICATION OF WATER.

During the year some attention has been given to the use of copper salts in purifying water from low forms of vegetable life, an article having appeared thereon in a popular monthly magazine.

This question was the subject of a paper by Dr. Hewlett, Professor of Bacteriology at King's College, London, delivered before the Sanitary Congress last year. The paper was entitled, "The Use of Copper Salts for the Purification of Water."

I append the following extracts from Professor Hewlett's paper:—

"The announcement has been made by George Moore, of the scientific staff of the United States Government, that it is possible to make use of copper salts, preferably copper sulphate, for the purification of water-supplies from algal growths and also from bacterial contamination, such as by the typhoid bacillus, and this without the slightest danger to the human organism from the copper. Dr. Moore's investigations, if they should be confirmed, will be of the greatest practical value, not only to the hygienist, but also to the engineer.

"As is well known, the growth of certain fungi, algæ or allied forms, has sometimes proved very troublesome in water-supplies. Thus at Liverpool a growth of a fungoid organism of the cladothrix, leptothrix, and crenothrix group in the conduits conducting the Lake Vyrnwy water occasioned a diminution in the supply, as reported by Boyce, who also mentions that at Lille and Berlin deposits of 'Crenothrix, polyspora' occasioned much trouble. In the United States algæ seem to be the more troublesome forms; they not only, by their growth, mechanically block the conduits, etc., but in the hot weather die and decompose, and give rise to foul odour, discolouration, and offensive taste. Thus from Massachusetts it is reported: 'The odour was so bad that it would be almost impossible to take it as far as the mouth to taste it. Horses refused it at the street watering-troughs, and dogs fled from it'; and again, from Kentucky: 'The odour was so strong that we had to discontinue sprinkling the streets and lawns'; and from Montana: 'We have spent 1,000,000 dollars during the last five years in trying to keep our reservoir clean, but nevertheless the water is so bad that we have had to shut off the supply from June to December each year.'

"Fresh-water algæ are very numerous, but only about a dozen species are troublesome in water-supplies. One of the worst pests is 'uroglæna,' a tiny organism containing minute oil sacs; another is 'anabæna.' If the water is quiescent, the 'uroglæna' is not offensive, but if the water is agitated, the cells are broken, the oil is liberated, and foul smell begins.

“ But of all the substances tested, copper sulphate proved to be the most efficient, acting in dilutions of from 1 in 10,000,000 to 1 in 50,000,000, and this suggested trying this agent on the large scale to see whether it would be effectual, and also what might be its action on the higher forms of vegetable life. The first trial was on some watercress beds in Virginia which were becoming overgrown with algæ. Copper sulphate in the proportion of 1 in 50,000,000 was added to the water of the beds, with the result that the algæ was all killed, and the bed completely freed from it, while the watercress was uninjured.

“ Copper salts are, as is well known, markedly poisonous, and the important question arises as to whether copper sulphate in the proportion named (1 in 100,000) would be deleterious. In the first place, a solution of such a strength is quite tasteless and colourless; secondly, in water which has had copper sulphate added to it, and has been allowed to stand, no trace of copper can be detected (500 c.c. of the treated water was tested for the presence of copper). The copper is quickly preripitated as a hydrate and carbonate, and perhaps also in an organic combination, so that after sedimentation the whole of the copper is removed from the water.

“ Goldfish and minnows are not affected by solutions of copper of a strength of 1 in 200,000, and, in general, animal life seems to be less susceptible to the injurious effects of copper than plant life.

“ There can be no question, however, that the whole matter requires reinvestigation.”

## SCAVENGING AND NIGHTSOIL REMOVAL.

The following Table gives the nightsoil return for the last 17 years:—

Year.	Number of Loads.	Expenditure.		
		£	s.	d.
1888 .....	10,338 .....	821	18	7
1889 .....	10,295 .....	933	16	4
1890 .....	8,523 .....	847	13	9
1891 .....	10,187 .....	1,328	9	10
1892 .....	9,957 .....	1,521	8	6
1893 .....	10,975 .....	1,837	1	9
1894 .....	12,703 .....	1,714	15	8
1895 .....	12,289 .....	1,652	16	8
1896 .....	12,407 .....	1,807	12	6
1897 .....	13,283 .....	2,006	2	3
1898 .....	13,619 .....	2,104	2	4
1899 .....	13,040 .....	2,169	16	10
1900 .....	12,057 .....	2,093	10	0
1901 .....	11,215 .....	2,425	14	2
1902 .....	12,532 .....	2,334	10	9
1903 .....	11,912 .....	2,260	10	5
1904 .....	10,371 .....	1,999	6	4

The expenditure includes the cost of the Danes Moss Farm.

Numerous and repeated complaints having been received during the year about the unsatisfactory way in which the privy-middens were emptied, the Sewage and Nightsoil Sub-Committee (Mr. Cross, chairman) resolved to offer the work for tender, and at a meeting of this Committee held on August 26th, four sealed tenders for emptying and cleansing the privies and ashpits within the Borough, and six sealed tenders for carting the nightsoil and refuse to the Tip, were opened in the presence of the Committee, and numbered consecutively, when it was resolved that the tender of Mr. Peter Hodson to empty and cleanse the privies and ashpits within the Borough for three years from the 1st October next, for the sum of £500 per annum, also his tender for carting nightsoil, offal, and other refuse from within the Borough for three years from the 1st October next, for the sum of £676 per annum, be accepted, on condition that he enters a written agreement to be prepared by the Town Clerk and provides bondsmen for the amount of surety re-

quired, and on September 1st the Health Committee resolved that the minutes of the Sewage and Nightsoil Sub-Committee of the 26th ult. be approved and adopted.

I must admit that from a sanitary point of view the system of cleansing a town by contract is most unsatisfactory; the objections are many, and should, I think, have weighed with the Sanitary Authority. They were admirably set forth in a report presented to the Chairman and members of the Health Committee, dated July 1th, 1904, by Mr. Inspector Jenkins, who had had a long and extensive experience of the many difficulties in the way of getting the town properly and efficiently cleansed by contract.

### THE PRIVY-MIDDENS.

During the year 182 privy-middens have been converted into water-closets, as compared with 136 last year.

It is now proved beyond all question that the privy-midden system in a town is one of the gravest sanitary defects from which it can suffer, and the following table shows how large a proportion of these foul, stinking abominations still linger in our midst:—

Year.	No. of Privy Closets	No. of Waste-water Closets.	No. of Clean-water Closets.
1897 .....	4,319	260	674
1898 .....	4,157	301	710
1899 .....	3,942	309	815
1900 .....	3,862	309	940
1901 .....	3,825	309	1,038
1902 .....	3,705	309	1,205
1903 .....	3,569	309	1,378
1904 .....	3,387	309	1,628

During the year an effort was made to oppose the policy of substituting water-closets for privy-middens, and strong opposition was brought to bear in a case which was taken before the magistrates, the opposers being principally interested property owners and their tenants. Several persons were produced as witnesses for the defence who swore that a large privy-midden which severed a common lodging-house and some other dwelling-houses situated in a confined back-yard, was not a nuisance. However, the magistrates

found that it was a nuisance, and ordered it to be removed and water-closets substituted. This has been done, greatly to the improvement of the neighbourhood and to the satisfaction of the people who actually opposed the charge.

Since this case was decided there has been much less opposition from property owners.

Privy-middens in towns are always bad, but when formed by the walls of kitchens and sculleries, or directly beneath the windows of bedrooms, sculleries, and kitchens, they most injuriously affect the health of a district. All persons subjected to such influences suffer from a general condition of lowered health, and become a ready prey to any disease going.

The effect on young children is most serious, and privy-midden towns always present a much higher rate of infantile mortality than towns where the water carriage system is in vogue.

The periodical cleansing of these foul abominations is necessarily attended by a great exaggeration of the nuisance which is ever present.

In towns the expense of scavenging is directly proportional to the frequency of removal, so that there is always an inducement to the Sanitary Authority to economise at the risk of the health of the inhabitants. Again, the practice of draining privies and middens into the sewers is most objectionable, and should not be permitted, the drains rapidly become choked with a sediment of fine ash and organic filth which putrefies and offensive gases are given off which create an abominable nuisance. An examination in Manchester of certain sewers with which drains from privy-middens were connected led to the discovery that they were to a great extent blocked with a mass consisting of "small coals, ashes, bits of broken pot, and faecal matter, cemented by the latter into a strong mortar."

## SEWERING

The following is a list of the streets sewered during the year 1904:—

- (1) Chester Road, from Pinfold Street to Anderson Street.
- (2) Half Street, from Pitt Street to High Street.
- (3) Bridge Street, from Mill Lane to Lowe Street.
- (4) Clowes Street, from Main Sewer to William Street.
- (5) William Street (short length).
- (6) Black Lane (re-laid short length).

## SEWAGE DISPOSAL WORKS.

During the year an inquiry was held by an Inspector appointed by the Local Government Board into an application by the Town Council for powers to borrow the sum of £14,000 for alterations and extensions to be carried out at the Sewage Disposal Works at Butley, and the sanction of the Local Government Board having been obtained, the Health Committee passed a resolution asking the Finance Committee to raise the sum of £14,000.

The tender for the construction of the works, as outlined in my last Annual Report, pages 94 and 95, was let to Mr. James Owens, of Wolverhampton, to carry out the work in accordance with the specifications prepared by the Engineer, Mr. R. E. W. Berrington, for the sum of £9,849, and the work was commenced during the month of August.

## HOUSING OF THE WORKING CLASSES ACT, 1890.

At a meeting of the Town Council held on July 6th, the Medical Officer of Health made the following representation in writing to the Council, viz. :—

Macclesfield,

June 22nd, 1904.

## Housing of the Working Classes Act, 1890.

To the Corporation of the Borough of Macclesfield,

I, the undersigned, being the Medical Officer of Health in and for the Borough of Macclesfield, do hereby certify that the Buildings below described are in a state so dangerous or injurious as to be unfit for human habitation :—

Nos. 1, 2, 3, 4, 5, and 6, Court 1, Princess Street.

Nos. 3, 4, and 5, Court 3, King Street. No. 4 is at present used for storing.

Nos. 5, 6, and 7, Court 4, King Street.

J. HEDLEY MARSH,

Medical Officer of Health.

The same having been considered, it was moved by Mr. Councillor Oldfield, seconded by Mr. Councillor Bailey, "That the representation be referred to the Health Committee for consideration."

It was moved as an amendment by Mr. Alderman Thorp, seconded by Mr. Alderman Brocklehurst, "That the proceedings prescribed by Section 32 of the Housing of the Working Classes Act be forthwith taken against the owners or occupiers of all the said dwelling houses represented to be in a state so dangerous or injurious to health as to be unfit for human habitation, and that the Health Committee be appointed to regulate and manage such proceedings."

The Mayor thereupon put the amendment to the meeting, and upon a show of hands declared it lost.

The Mayor then put the motion to the meeting, and upon a show of hands declared it carried.

At a meeting of the Health Committee held on July 7th the Town Clerk submitted the Report made by the Medical Officer of Health to the Council under the Housing of the Working Classes Act, 1890, certifying that the building described below are in a state so dangerous or injurious to health as to be unfit for human habitation, viz. :—

Nos. 1, 2, 3, 4, 5, and 6, Court 1, Princess Street.

Nos. 3, 4, and 5, Court 3, King Street (No. 4 is at present used for storing).

Nos. 5, 6, and 7, Court 4, King Street.

and reported the resolution of the Council with reference to the same; and the matter having been discussed, it was resolved that the whole of the Committee be called together at an early date to inspect the property.

At a meeting of the Health Committee, held on July 21st, the Committee having visited and inspected the following buildings certified by the Medical Officer of Health as to be unfit for human habitation, viz. :—

Nos. 1, 2, 3, 4, 5, and 6, Court 1, Princess Street.

Nos. 3, 4, and 5, Court 3, King Street.

Nos. 5, 6, and 7, Court 4, King Street.

it was resolved "That notice be given to the owners in the form prescribed by the Housing of the Working Classes Act, 1890, and that the time, within which such buildings are to be rendered fit for human habitation, be two months.

The whole of these houses have subsequently been closed for human habitation.

## COMMON LODGING-HOUSES.

A Common Lodging-house is a house in which persons of the poorest class are received for short periods, and although strangers to one another, are allowed to inhabit one common room.

Number of nightly lodgers accommodated at the Common Lodging-houses during the year...	34,413
Number last year .....	31,406
Number of visits paid to Lodging-houses by Sanitary Inspectors during the year .....	399

No steps have yet been taken to provide a Municipal Common Lodging-house, although one is much needed on all grounds. Three years ago some efforts were made to find a suitable site, but after a few feebly spasmodic attempts the matter was allowed to drop, and nothing further has since been done.

## FACTORY AND WORKSHOPS ACT, 1901.

Section 132 of this Act is as follows:—

“The Medical Officer of Health of every District Council shall, in his annual report to them, report specifically on the administration of this Act in workshops and workplaces, and he shall send a copy of his annual report or so much of it as deals with this subject to the Secretary of State.”

A statistical summary is appended showing the amount of work done in the carrying out of this Act.

I do not, however, consider that the provisions of the Act are as fully carried out as they should be, and this defect may be due to the fact that the local authority, viz., the Town Council, have not yet by resolution definitely deputed anyone to carry out the sanitary provisions of the Act. 172 visits have been paid to the factories and workshops by the Sanitary Inspectors during the year, and I repeat what I said last year, that this cannot be considered sufficient sanitary supervision; possibly the extra pressure of work due to the outbreak of smallpox accounts for the comparative fewness of these visits. It is most important in the interests of the working classes that the provisions of this Act should be efficiently carried out. As much of the work in workshops and factories is in the hands of women, it is most important that the sanitary surroundings should receive special consideration. The health and well-being of the next generation is immediately dependent on the

good physique of the present race of young women and girls, and this requires that they should work in healthy surroundings and be fed on nutritious food. You cannot expect grapes from thorns nor figs from thistles, and a strong, vigorous race of men and women cannot be reared from women whose life is spent in a close, vitiated atmosphere, and whose staple article of diet are strong tea, bread and butter, potatoes, and sweet stuff.

### LIST OF OUTWORKERS.

The attention of all persons employing out-workers should be called to Section 107 of the Factory and Workshop Act, 1901 :

The occupier of every factory and workshop and every place from which work is given out, and every contractor employed by any such occupier in the business of the factory, workshop or place, must keep in the prescribed form and manner with the prescribed particulars lists showing the names and addresses of all persons directly employed by him either as workmen or contractors, in the business of the factory, workshop, or place outside the factory, workshop, or place, and the places where they are employed. Copies of such lists must be sent on or before the 1st February and the 1st August in each year to the District Council of the district in which the factory, workshop, or place is situate.

The classes of work to which the above provisions apply are the following:—

The making, cleaning, washing, altering, ornamenting, finishing, and repairing of wearing apparel and any work incidental thereto.

The making, ornamenting, mending, and finishing of lace, and of lace curtains and nets.

Cabinet and furniture making and upholstery work.

The making of electro plate.

The making of files.

Fur pulling.

The prescribed forms of lists may be obtained either directly or through any bookseller, from

EYRE AND SPOTTISWOODE,

East Harding Street,

London, E.C.

It is very probable that the number of firms employing outworkers engaged in the occupations which it is necessary twice a year to forward the names and addresses of those outworkers, is considerably in excess of those who actually sent in those lists during the year.

I, therefore, again suggest that in order to direct attention to the requirement of the Act an advertisement should be inserted in the local papers.

## FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, AND HOMEWORK.

### 1.—INSPECTION.

(Including Inspections made by Sanitary Inspectors or  
Inspectors of Nuisances.)

Premises.	No. of Inspections.	No. of Written Notices.	No. of Prosecutions.
Factories (including factory laundries) .....	15	2	1
Workshops (including workshop laundries)	157	—	—
Workplaces .....	No record kept.	—	—
Homeworkers' Premises..	—	—	—
Total .....	172	2	1

## 2.—DEFECTS FOUND.

Particulars.	Number of Defects.						
	Found.	Remedied.	Referred to H.M. Inspector.	No. of Prosecutions.			
Nuisances under the Public Health Acts:—*							
Want of cleanliness .....	2	2	—	—	—	—	—
Want of Ventilation .....	—	—	—	—	—	—	—
Overcrowding .....	—	—	—	—	—	—	—
Want of drainage of floors .....	—	—	—	—	—	—	—
Other nuisances .....	—	—	—	—	—	—	—
Sanitary accommodations:							
Insufficient .....	1	1	—	—	—	—	—
Unsuitable or defective .....	3	2	—	—	—	—	1
		1 in hand					
Not separate for sexes..	1	In hand	—	—	—	—	—
Offences under the Factory and Workshop Act:—							
Illegal occupation of underground bakehouse (S. 101) .....	—	—	—	—	—	—	—
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)... ..	—	—	—	—	—	—	—
Failure as regard lists of outworkers (S. 107) ... ..	—	—	—	—	—	—	—
Giving out work to be done in premises which are—							
Unwholesome (S. 103)..	—	—	—	—	—	—	—
Infected (S. 110) .....	—	—	—	—	—	—	—
Allowing wearing apparel to be made in premises infected by scarlet fever or smallpox (S. 109)....	—	—	—	—	—	—	—
Other offences .....	—	—	—	—	—	—	—
Total .....	7	5	—	—	—	—	1
		2 in hand					

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

## 3.—OTHER MATTERS.

Class.	Number.	
Matters notified to H.M. Inspectors of Factories :—		
Failure to affix Abstract of the Factory and Workshop Act (S. 133) .....	—	
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5)—		
Notified by H.M. Inspector .....	7	
Reports (of action taken) sent to H.M. Inspectors...	7	
Other .....	—	
Underground Bakehouses (S. 101) :—		
In use during 1903 .....	4	
Certificates granted—		
In 1903 .....	—	
In 1904 .....	3	
Homework :—		
Lists of Outworkers (S. 107) :—	Number of	
Lists received .....	5	73
Addresses of outworkers		
Forwarded to other Authorities .....	—	
Received from other Authorities .....	2	
	Wearing	
	Apparel. Other.	
Homework in unwholesome or infected premises :—		
Notices prohibiting homework in unwholesome premises (S. 108) .....	—	—
Cases of infectious disease notified in homeworkers' premises .....	—	—
Orders prohibiting homework in infected premises (S. 110) .....	—	—

## Workshops on the Register (S. 131 at the end of 1904 :

Breadmakers .....	20
Dressmakers .....	20
Milliners .....	16
Confectioners .....	10
Tailors .....	9
Silk-weavers .....	7
Clogmakers .....	6
Tin-plate Workers .....	6
Cabinet-makers .....	5
Card-cutters .....	4
Brushmakers .....	3
Bootmakers .....	4
Stonemasons .....	3
Saddlers .....	3
Bottlers .....	2
Boxmakers .....	2
Carriage Builders .....	2
Joiners .....	2
Knitters .....	2
Skipmakers .....	2
Wheelwrights .....	2
Builder .....	1
Copper-smith .....	1
Cycle repairs .....	1
Marine Store Dealer .....	1
Paper Stock .....	1
Rope-maker .....	1
Total number of workshops on Register .....	136

## UN SOUND MEAT.

On several occasions your Medical Officer of Health and Sanitary Inspector have been voluntary invited to inspect samples of meat which the butchers thought suspicious or actually diseased.

163 lbs. of fish and 50 lbs. of mutton were found to be unfit for food.

The Health Committee have passed a resolution authorising their officials to take proceedings under Section 117 of the Public Health Act of 1875, or the Macclesfield Corporation Act of 1882, relating to unsound meat and other articles, where in their opinion there is a "prima facie" case to be dealt with, without previously reporting the matter to the Health Committee.

A similar resolution had previously been passed relating to the Sale of Food and Drugs Acts, etc.

## LIST OF SLAUGHTER-HOUSES.

1. Albert Kirk, Churchside (York Hotel Yard).
2. James Sheldon, Chestergate.
3. William Genders, Chestergate.
4. Co-operative Society, Chestergate.
5. Thomas Warrington, Chestergate.
6. William Simpson, Chestergate.
7. William Orme, Pinfold Street.
8. Charles Twemlow, King Edward Street.
9. William Steeples, Hurdsfield Road.
10. Wilson's successor, Hurdsfield Road.
11. Peter Burgess, Hurdsfield Road.
12. William Hodgson, Stanley Street.
13. Charles Goodwin, Derby Street.
14. Charles Taylor, Mill Street.
15. William Pickstone, Roe Street.
16. John Harrison, Bridge Street, Macclesfield.
17. Durham Wragg, Old Mill Lane.
18. Boden Steele, Old Mill Lane.
19. Goodwin, Ryle Street.
20. Thomas Etchells, Old Park Lane.
21. George Burgess, Buxton Road.  
     John Hampson, Hurdsfield Road (not used at present).  
     Isaac Anderton, Broken Cross (not used at present).

It is impossible to exercise proper supervision over so many slaughter-houses.

Half of them ought to be closed, and it would certainly be advantageous in the interests of all persons, both the consumer of meat and the butcher, if a municipal abattoir were established.

## DAIRIES, COWSHEDS, AND MILKSHOPS.

Additional measures are still required to ensure the cleanliness of our milk supply. Many of the places in which milk is prepared and vended need improvement, and many of the cowsheds are in an unsatisfactory condition.

The way in which milk is vended about the town is in many cases most unsatisfactory. Every vendor of milk should wear a clean linen overall and clean linen sleeves whilst selling milk, and not dip an arm clad in a dirty old coat into the milk can, as is so frequently done.

The cleansing of the cows' udders before milking is a most important piece of ordinary cleanliness often, neglected, and the need for daily grooming of the cows is most important.

The requisites for a proper supply of good, clean milk are:—

Keeping good, healthy cows, and feeding well.

Keeping the cows and premises clean.

Thorough cleanliness of hands and udder at milking time.

Efficient and quick cooling of milk after milking.

I sincerely trust that these matters will receive more attention at the hands of the Sanitary Authority than they have done in the past.

#### NEW DWELLING HOUSES.

The following is a list of plans of dwelling houses deposited from January 1st to December 31st, 1904:—

Reg. No.	Name of Owner.	Locality.	No. of Houses.	When passed.
708	S. Brough	Bond Street	2	Feb. 4th.
710	Gorton & Wilson	Chester Rd.	4	Mar. 10th.
714	Gorton & Wilson	Chester Rd.	1	Mar. 10th.
715	Mrs. J. B. Cooke	Buxton Rd.	6	April 14th.
716	A. & E. Allen	Pownall St.	1	April 14th.
718	Jas. Kershaw	Victoria Rd.	Farm-house.	April 28th.
719	Jos. Bagnall	Buxton Rd.	3	April 28th.
721	Shaw & Osborne	Bond St.	2	May 4th.
722	T. Gifford	Brock St.	2	May 19th.
723	S. Brough	Bond St.	4	May 19th.
724	Kitchen & Dakin	Barracks Lane	2	May 19th.
725	S. Bull	Bond St.	2	May 19th.
726	N. Thompstone	Chestergate	2	May 25th.
731	Wm. Heath	Mill Lane	1	June 9th.
734	S. Brough	Bond St.	2	July 14th.
739	Fred Duffield	Buxton Rd.	2	Aug. 25th.
743	S. Brough	Bond St.	2	Sept. 29th.
746	S. Bull	Bond St.	2	Oct. 20th.
749	Mrs. Lawton	Beech Lane	1	Dec. 1st.

Total, 42 houses and 1 Farm house.

I repeat what I said last year, viz., that more attention should be paid to the Bye-law which requires that every person who erects a new domestic building shall cause the whole ground surface or site of such building to be properly asphalted or covered with a layer of good cement concrete, rammed solid at least six inches thick. The importance of this Bye-law is not realised. Residence on a damp subsoil favours the onset of phthisis, and all complaints known as rheumatic.

I append a most interesting and valuable Report from the Chief Sanitary Inspector, and

I have the honour to remain,

Gentlemen,

Your obedient Servant,

J. HEDLEY MARSH,

Medical Officer of Health.

## INSPECTOR OF NUISANCES ANNUAL REPORT.

MR. CHAIRMAN AND GENTLEMEN,

I most respectfully beg to submit my Annual Report on the work done in my Department during the Year ending Dec. 31st 1904.

## NUISANCES.

No fewer than 710 nuisances of various natures have been satisfactorily abated, whilst 693 fresh nuisances have been entered on the books, which remain to be followed up; 260 of these have come to our knowledge through complaints, whilst the remaining 433 have been found out by your Inspectors. To achieve the above result it was necessary to send 698 letters or preliminary notices; 60 statutory notices, and to summons four persons before the magistrates.

There have been 182 privies converted into water closets, and the ashpits in connection therewith converted into dry ashplaces and provided with galvanized pails for containing the ashes, etc.; 68 new water-closets have been built, and 56 privies repaired; 163 house drains have been cleaned and repaired; 126 have been tested with the smoke test; and 8 slop-pipes have been more effectually disconnected.

The occupants of 61 dirty houses have been made to cleanse both their houses, furniture, bedding, etc., and the occupants of three overcrowded dwellings have been caused to seek more commodious quarters. More time than usual has been devoted to this kind of nuisance, no less than 351 inspections having been made.

Improvements have been made in three cases of smoke nuisance, and other offenders have been written to.

Three marine store keepers have been caused to remove their offensive accumulations at least once a week during the hot months of the year. I think it would be better if this business was only allowed in places well away from dwelling-houses and workshops.

The fishmongers and greengrocers have been cautioned against putting offal in ashpits; also against throwing diseased fruit on the street floors, where children can pick it up and eat it.

231 other nuisances (such as accumulations of manure, animals and poultry kept in improper places, etc.) have been removed.

The river sides were placarded cautioning persons against throwing refuse into the river.

Nine instances of waste of water was brought to the notice of the Water Mains Inspector.

Owing to the presence of smallpox in the town during the greater part of the year, we have been unable to devote much time to sanitary survey, consequently only 148 houses have been inspected and the sanitary defects in connection therewith taken note of.

In conjunction with the Borough Engineer, I made an inspection and detailed report on the drainage and general sanitary condition of all the properties in the Hurdsfield District.

#### WORK IN CONNECTION WITH INFECTIOUS DISEASE.

As I have just mentioned, owing to the continuance of smallpox the work of disinfecting has been unusually heavy this year. There has been 138 houses thoroughly disinfected, and 11,520 articles of bedding, carpets, curtains, clothing, etc., removed and disinfected by steam at the Steam Disinfector; 86 cases have been removed to hospital, and 118 contacts have been removed to the Contact Shelter, whilst the said contacts have been bathed and their clothing properly disinfected.

The work of disinfecting has very materially increased this last year or two, owing, first, to the more efficient and detailed mode of disinfecting, as we now not only remove all articles likely to retain infection to the steam disinfector, but we both spray all the walls, floors, cellars, and closets with a strong solution of formaldehyde, and afterwards fumigate the living and sleeping rooms that have been occupied, with formalin gas. Secondly, during this year, on the advice of the Medical Officer of Health, we have extended this work to all houses where death has occurred from consumption and cancer.

I should like to mention here the unavoidable delay and unknown inconvenience experienced by your Inspectors in dealing with cases for want of a proper Ambulance and bedding-van, especially the latter; in fact, the make-shift vehicle we have now to use will not admit of a full-sized bed or mattress being put into it.

#### FOOD INSPECTION.

163lbs. of fish and 50 lbs. of mutton submitted for inspection and found to be unfit for human food, was destroyed. About 2580

lbs. of beef, 112 lbs. of veal, and 25 lbs. of lamb submitted to inspection was found to be fit for food and passed. One person was prosecuted and fined £5 and costs for attempting to prepare for human food the belly and feet of a cow which was unfit.

#### COMMON LODGING-HOUSES.

The Common Lodging-houses, eight in number, have accommodated 34,413 nightly lodgers. The houses have received 462 periodical visits from your Inspectors, and with few exceptions have been fairly well conducted.

One of the worst houses as regards repair and structural arrangements has been considerably improved by its owner. I am sorry, however, to think that the movement to provide better accommodation by the Corporation seems to have entirely dropped.

#### FACTORY AND WORKSHOPS ACTS.

Seven complaints have been received from the Factory Inspector, all of which have either been rectified or are in hand. I have inspected 66 workshops, five the occupiers of which have been caused to whitewash.

#### DAIRIES, COWSHEDS, AND MILKSHOPS ORDER.

There are 71 places registered under the above order, all of which have been visited with a view to seeing that the necessary whitewashing and cleansing was carried out.

#### SLAUGHTER-HOUSES.

The slaughter-houses and tripe-dressing places, 27 in number, have received regular inspection. One tripe-dressing place has undergone thorough repair. Two defective slaughter-house roofs have been repaired and one floor relaid. Three slaughter-houses middens have been repaired and made less. Two persons have been cautioned against slaughtering animals in unregistered premises.

#### BAKEHOUSES.

The bakehouses have received the usual attention, although the only improvements I can mention is the alteration of two iron traps for two glazed earthenware gully traps, and the improvement of one floor.

## FOOD AND DRUGS ACTS.

Owing to the pressure of the Board of Agriculture, a somewhat larger number of samples have been taken for analysis this year than hitherto, viz., 100; these are made up as follows:—Milk 30, butter 24, cheese 14, coffee 11, bi-carbonate of soda 3, pepper 3, port wine 2, turpentine 1. One sample of milk was adulterated with 5 per cent. of added water. The seller was summoned, but the case, on hearing, was dismissed. Two samples of coffee, both obtained from the same shop, were adulterated with 30 per cent. of chicory. One summons was taken out against the vendor, who was fined 1s. and costs.

### THE CANAL BOATS ACTS, 1877 AND 1884.

To the Urban District Council of the Borough of Macclesfield.  
GENTLEMEN,

I beg respectfully to submit to you my annual report on the work done within your Authority under the above mentioned Acts during the year ending 31st December, 1904, as required by Section 3 of the Canal Boats Act of 1884.

I have inspected 72 Boats, which is the largest number inspected in one year in this Local Authority since the Act came in force. Sixty of these were complying with the Regulations of the Local Government Board in a satisfactory manner, whilst on the remaining twelve there were 13 infringements found to exist, viz.:— 2 absence of Certificate of Registration; 1 Certificate not identifying owner with the Boat; 2 markings obliterated; 1 painting of cabin defective; 2 dilapidated cabins, and 4 had not proper water vessels. Notice Forms were sent in each case, all of which have been complied with. I had occasion to write two letters, and frequently to speak respecting the temporary stopping up of the ventilators.

The 72 Boats were registered to accommodate 217 adults and one child, whilst there were only 164 adults and one child occupying. No child of school years was found travelling with the Boats.

No case of infectious disease has been met with during the year.

I received a visit from His Majesty's Inspector, Owen Llewellyn, Esq., on the 25th of October, who examined the work of the year.

I remain, Gentlemen,

Your obedient Servant,

WILLIAM JENKINS.

## SUMMARY.

Number of Complaints received at Office .....	260
„ „ Nuisances entered on the Books .....	693
„ „ Nuisances removed .....	710
„ „ Preliminary Notices and Letters .....	698
„ „ Statutory Notices served .....	60
„ „ Magistrates' Orders obtained .....	3
„ „ Persons summoned before the Justices for offences under the Public Health Act .....	6
„ „ Privies and Ashpits repaired and improved .....	56
„ „ Privies converted into Water-closets .....	182
„ „ New Closets built:—	
On W.C. system .....	68
On Waste-water system .....	0
On Privy system .....	0
„ „ House Drains repairs and cleansed .....	153
„ „ Slopstone Pipes disconnected from the sewer .....	8
„ „ House Drains tested with smoke apparatus .....	126
„ „ Other Nuisances (not specified above) abated ...	231
„ „ Visits paid to Common Lodging-houses .....	462
„ „ Nightly lodgers accommodated at the Common Lodging-houses during the year .....	34,413
„ „ Visits paid to Factories and Workshops .....	66
„ „ „ „ „ Dairies, Cowsheds, and Milkshops...	141
„ „ „ „ „ Registered Slaughter-houses .....	361
„ „ „ „ „ Bakehouses .....	106
„ „ „ „ „ Tripe-dressing place .....	85
„ „ „ „ „ Dirty and Overcrowded Houses ...	351
„ „ Houses inspected in Sanitary Survey .....	148

The distribution of Limewash, Brushes, and Disinfectants to the poor has been as follows:—

Limewash .....	1,268
Brushes lent for applying same .....	632
Disinfectants .....	8,954

Number of Houses specially inspected on account of Infectious Diseases .....	187
„ „ Visits paid to same .....	639
„ „ Notices send to schools and parents re the Isolation of children where infectious disease exists .....	276
„ „ Pails containing Typhoid excrement, removed, disinfected and buried .....	79
„ „ Supplies of Disinfectants specially on account of Infectious Disease .....	390
„ „ Houses fumigated after Infectious Disease .....	112
„ „ „ „ „ „ deaths from Phthisis.....	11
„ „ „ „ „ „ „ „ „ Cancer .....	5
„ „ Cases removed to Isolation Hospital (including 1 parent and 3 Bollington cases) .....	86
„ „ Contacts removed to Temporary Shelter .....	118
„ „ Beds disinfected by steam .....	324
„ „ Pillows disinfected by steam .....	509
„ „ Blankets and Counterpanes disinfected by steam...	418
„ „ Carpets disinfected by steam .....	337
„ „ Articles of Clothing disinfected by steam .....	9,932
„ „ Canal Boats inspected .....	72

Number of Samples taken under the Sale of Food and Drugs Act, etc., submitted to the Borough Analyst, viz.:—30 Milk, 24 Butter, 14 Cheese, 12 Coffee, 11 Lard, 3, Bi-carbonate of soda, 3 White Pepper, 2 Port Wine, 1 Turpentine.

Number of Persons proceeded against for offences under the Sale of Food and Drugs Act .....

0

The outbreaks of contagious diseases amongst animals with the Borough have been as follows:—One outbreak of Swine Fever, affecting eight animals, which were slaughtered by the Veterinary Inspector of the Board of Agriculture.

Number of persons proceeded against for offences under the Contagious Diseases Animals Acts .....

0

Diseased, unsound, or unwholesome food seized, and destroyed by Magistrates' Order:—Paunch and four feet of a cow. Owner prosecuted.

Food submitted for inspection and destroyed:—163 lbs. of Fish and 50 lbs. of Mutton.

Food submitted for inspection and passed as fit for food: 2,580 lbs. of Beef, 112 lbs. of Veal, and 25lbs. of Lamb.

Number of Licenses certified for the removal of Swine .....	327
„ „ Notices issued for the detention of Swine .....	1

I remain, Gentlemen,

Your obedient Sérvant,

WILLIAM JENKINS.



**TABLE I.**  
Name of District Macclesfield, For Whole District.

Year.	Population estimated to Middle of each Year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES, TOTAL.		Deaths in Public Institutions	Deaths of Non-registered residents in District.	Deaths of Residents registered beyond District.	DEATHS AT ALL AGES, NETT.	
		Number.	Rate*	Number.	Rate per 1000 Births registered.	Number.	Rate*				Number.	Rate*
1	2	3	4	5	6	7	8	9	10	11	12	13
1891	36009	1009	28.1	130	130	816	22.6	135	67		749	20.8
1892	36009	989	27.4	201	203	986	27.3	156	81		905	25.1
1893	36009	931	25.9	177	190	845	23.4	191	101		744	20.6
1894	36009	1017	28.2	136	134	732	20.3	160	89		643	17.7
1895	36009	917	25.4	199	217	908	25.2	182	95		813	22.5
1896	36009	964	26.8	150	55	732	20.3	150	67		665	18.4
1897	36009	977	27.1	171	175	825	22.9	179	93	2	734	20.3
1898	36009	953	26.1	166	174	787	21.0	151	88	1	670	18.6
1899	36009	886	24.6	174	196	810	22.5	188	73		737	20.4
1900	36009	853	23.6	163	190	772	21.4	180	66	3	709	19.7
Averages for years 1900-1901	36009		26.6		174		22.9	163	82			
1901	34635	771	22.2	139	180	720	20.8	176	77	3	643	18.5
1902	34635	842	21.4	76	102	597	17.2	175	72	2	525	15.1
1903	34624	870	25.1	117	134	675	19.4	204	74	2	601	17.3
1904	34624	784	22.6	140	178	798	23.0	222	91		707	20.0

\* Rates calculated per 1,000 of estimated population.



TABLE II.  
Name of District Macclesfield.

Names of Localities.	West Macclesfield.				East Macclesfield including Hurdfield since 1896.				Hurdfield.				Sutton.			
	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year
Year.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1891	17854	447	398	61	9813	293	204	49	3282	111	44	3	5060	158	103	17
1892	17854	437	472	84	9813	298	213	64	3282	110	74	19	5060	144	146	34
1893	17854	427	415	74	9813	257	185	68	3282	111	57	17	5060	136	87	18
1894	17854	471	332	49	9813	284	160	49	3282	90	53	15	5060	166	98	20
1895	17854	433	421	98	9813	276	213	17	3282	74	67	15	5060	154	112	29
1896	17854	441	352	61	13095	375	242	67					5051	149	71	22
1897	17854	472	382	61	13095	378	261	71					5051	127	91	27
1898	17854	422	369	85	13095	383	225	61					5051	148	76	20
1899	17854	417	422	90	13095	341	213	57					5051	128	102	23
1900	17854	429	398	72	13095	305	224	68					5051	119	99	23
Averages of Years 1891 to 1902.	17854	442	387	75		495	251	68						146	99	23
1901	17297	365	326	68	12450	283	214	44					4888	123	103	27
1902	17297	350	270	39	12450	300	196	31					4888	92	59	6
1903	17297	399	307	44	12440	357	240	61					4887	144	54	12
1904	17297	380	345	65	12440	284	264	54					4887	120	98	20

NOTES.—(a) The separate localities adopted for this table should be areas of which the populations are obtainable from the census returns, such as wards, parishes, or groups of parishes, or registration sub-districts. Block 1 may, if desired, be used for the whole district; and blocks 2, 3, etc., for the several localities. In small districts without recognised divisions of known population this Table need not be filled up.

(b) Deaths of residents occurring in public institutions beyond the district are to be included in sub-columns C of this table, and those of non-residents registered in public institutions in the district excluded. (See note on Table I. as to meaning of terms “resident” and “non-resident.”)

(c) Deaths of residents occurring in public institutions, whether within or without the district, are to be allotted to the respective localities according to the addresses of the deceased.

(d) Care should be taken that the gross totals of the several columns in this Table respectively equal the corresponding totals for the whole districts in Tables I. and IV.; thus, the totals of sub-column A, B, and C should agree with the figures for the year in the columns 2, 3, and 12, respectively, of Table I.; the gross total of the sub-columns C should agree with the total of column 2 in Table IV., and the gross total of sub-columns D with the figure in column 5 of Table I., and the total of column 3 in Table IV.

TABLE III.  
Cases of Infectious Disease notified during the year 1904.

Notifiable Diseases.	Cases Notified in Whole District.							Total Notified in each Locality.			No. of Cases removed to hospital from each locality		
	At all Ages.	At Ages†—Years.						West Macclesfield	East Macclesfield	Sutton.	West Macclesfield	East Macclesfield	Sutton
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards						
Smallpox	49	1	3	9	35	0	16	21	12	16	21	12	
Diphtheria	7	1	2	3	1	..	4	1	2	1	..	2	
Membranous Croup	1	1	..	..	..	..	..	..	1	..	..	..	
Erysipelas	47	2	9	5	29	2	19	15	13	..	..	..	
Scarlet Fever	56	1	34	3	1	..	28	20	8	..	7	8	
Enteric Fever	12	..	3	1	8	..	7	5	..	..	..	..	
Puerperal Fever	4	..	..	1	3	..	2	1	1	..	..	..	
Pulmonary Tuberculosis (Voluntary).	48	1	5	7	34	1	33	10	5	..	..	..	
Totals	224	4	21	29	111	3	109	73	42	31	28	22	

NOTES.—The localities adopted for this table should be the same as those in Tables II. and IV.

State in space below the name of the isolation hospital, if any, to which residents in the district, suffering from infectious disease, are usually sent. Mark (H) the locality in which it is situated or if not within the district, state where it is situated, and in what district. Mark the locality in which a workhouse is situated.

\* This space may be used for the record of other disease the notification (compulsory or voluntary) of which is in force in the district.

† These age columns for notifications should be filled up in all cases where the Medical Officer of Health, by inquiry or otherwise, has obtained the necessary information.

Isolation Hospitals for Scarletina, Diphtheria, &c., and a separate building for Small-pox, situated in West Macclesfield.