[Report 1902] / Medical Officer of Health, Stockport County Borough.

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REPORT ON THE HEALTH

OF THE

County Borough of Stockport

FOR THE

YEAR 1902,

BY

Meredith Young, M.D.,

Mast. Surg., Bach. Med., D.P.H. (Lond.), D.S.Sc. (Vict.),

MEDICAL OFFICER OF HEALTH,

AND

MEDICAL SUPERINTENDENT OF THE CORPORATION ISOLATION HOSPITALS.

STOCKPORT:

NEW CHESHIRE COUNTY NEWS CO., LTD., PRINTERS, WELLINGTON STREET.

Year 1902.

EXTRACT FROM THE ORDER OF THE LOCAL GOVERNMENT BOARD, 23RD MARCH, 1891.

RELATING TO THE DUTIES OF MEDICAL OFFICERS OF HEALTH.

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(14) He shall also make an annual report to the Sanitary Authority, up to the end of December in each year, comprising a summary of the action taken, or which he has advised the Sanitary Authority to take, during the year for preventing the spread of disease, and an account of the sanitary state of his district generally at the end of the year. The report shall also contain an account of the inquiries which he has made as to conditions injurious to health existing in the district, and of the proceedings in which he has taken part or advised under any statute, so far as such proceedings relate to those conditions; and also an account of the supervision exercised by him, or on his advice, for sanitary purposes over places and houses that the Sanitary Authority have power to regulate, with the nature and results of any proceedings, which may have been so required and taken in respect of the same during the year. The report shall also record the action taken by him, or on his advice, during the year, in regard to offensive trades, to dairies, cow-sheds, and milk shops, and to factories and workshops. The report shall also contain tabular statements (on forms to be supplied by us, or to the like effect), of the sickness and mortality within the district, classified according to diseases, ages, and localities.

Provided that, if the Medical Officer of Health shall cease to hold office, before the thirty-first day of December, in any year, he shall make the like report for so much of the year as shall have expired when he ceases to hold office.

SANITARY COMMITTEE, 1902.

Chairman—Councillor Thomas Ellis.

Vice-Chairman—Councillor James Lomas.

The Mayor

(Councillor A. Johnson).

Aldermen J. G. Johnson and R. Redfern; Councillors T. Allcock, Barnett, Brelsford, Broadhurst, Healey, R. Johnson, Potter, R. H. Rogers, Smeeth, Stott, Whalley, and W. Wood.

Monday—Fixed Meetings.

January	6	March	17	June	23	September	1
,,	20	April	14	July	7	,,	15
February	3	,,	28	,,	21	,,	29
,,	17	May	12	August	4	October	13
March	3	June	9	,,	18	,,	27

November 24, December 8 and 22.

AT 4 O'CLOCK P.M.

HOSPITAL SUB-COMMITTEE.

Chairman—Councillor Ellis.

Aldermen J. G. Johnson and R. Redfern; Councillors T. Allcock, Barnett, James Lomas, Potter, R. H. Rogers, Smeeth, Whalley, and W. Wood.

Meetings—2-30 p.m., Fourth Monday in each Month.

SANITARY STAFF.

Food Inspector ... ... W. Butler.*
Factory and Workshop Inspector ... ... C. R. Billingham.
Drainage and Plumbing Inspector ... ... J. Ashton.*
Female Sanitary Inspector ... ... Miss E. M. Hitchmouth.*
Assistant Female Sanitary Inspector ... ... Mrs. M. E. Forster.*

DISTRICT INSPECTORS.

R. G. Child.*

W. Etchells.*

E. Kilner * followed by G. Pilkington.*

F. H. Williams.*

Ambulance Attendant... ... ... G. Webb.

Disinfector ... ... J. Rayner.

CLERKS.

H. Bailey.

G. W. Yates.

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* Those marked with an asterisk have obtained the Certificate of the Sanitary Institute.

Introduction.

To the Worshipful the Mayor and the Aldermen and Councillors of the County Borough of Stockport.

Mr. Mayor and Gentlemen,—

I have the honour to submit herewith my Third Annual Report on the health of the district governed by you, and in so doing I beg to call to your notice a few of the main features of the Report, statistical and otherwise.

It is with pleasure that I draw your attention to a further reduction in the general death-rate, which is 19·40, as against 19·63 for the previous year. Indeed going back through the history of Stockport for the past 20 years the death-rate of 1902 has only been bettered on one single occasion, viz., in 1894, when it stood at 19·00.

The birth-rate shows a slight but almost inappreciable decrease.

Coming to the other principal statistics one finds that the zymotic mortality is considerably reduced as compared with the previous year, or indeed any of the past six years, whilst the infant mortality is lower than it has ever been, and better still it exhibits a steady and gradual fall extending over some 12 years.

During the year a large number of infectious disease notifications have been received, and amongst these are to be included no less than 509 cases of scarlet fever. None of the other notifiable diseases have been particularly in evidence. This persistent prevalence of scarlet fever has demonstrated the urgent need for an extension of the accommodation provided in your Dialstone Lane Hospital. The number of cases of scarlet fever which have had to be isolated, albeit they were most carefully selected, has been such a large one that not since the commencement of the year have we been able to isolate any cases of typhoid fever. The matter, however, is one which your Sanitary Committee is fully alive to, and steps are being taken to push on with all speed a substantial extension of your hospital accommodation.

The routine work of the Department is briefly recorded in the report, and I am pleased to be able to lay such a good statement before your Council. The Sanitary and Hospital staffs have done their work in a loyal and thorough manner.

The Chairman of your Sanitary Committee (Councillor T. Ellis) has exhibited a keen and sustained personal interest in the work of the Department, and I am indebted to him, and indeed to the whole of the members of the Sanitary Committee, for the courteous consideration they have invariably given to any of my reports or recommendations. I desire also to record my gratitude to the medical profession in the town for opinions and for suggestions frequently of a most helpful nature, and I also owe a debt of thanks to my many brother officials for co-operation and assistance given at all times with the greatest readiness and courtesy.

Dr. Parkes wrote many years ago, "**Hygiene is the art of preserving health; it signifies perfect culture of mind and body, and aims at rendering growth more perfect, life more vigorous, and death more remote.**" The very fact of having such objects in view renders sanitary administrative work one full of the highest hopes and ambitions which can possibly fall to the lot of man, and though many long years have frequently to be waited before one can see any good results of work done there is nothing more certain than the fact that good sanitation will ultimately achieve what Dr. Parkes has claimed for it.

Your Sanitary Committee is to be congratuated on the fact that the results of past years' work are even now becoming apparent in a lower death-rate and a lesser prevalence of infectious disease.

I am, Mr. Mayor and Gentlemen,

Your obedient servant,

MEREDITH YOUNG,

Medical Officer of Health.

Public Heath Office,

Stockport, July 15th, 1903.

PART I.

STATISTICAL.

COUNTY BOROUGH OF STOCKPORT,

1902.

STATISTICAL MEMORANDA.

Estimated Population, Mid-Year, 1902	94,422
Area in Acres	5,485
Birth Rate per 1,000	27·59
General Death Rate per 1,000	19·40
Deaths of Infants under One year per 1,000 Births	183
Death Rate from Seven Principal Zymotic Diseases	1·96
Death Rate from Phthisis (Pulmonary Consumption)	1·62
Death Rate from all other Tubercular Diseases.	0·46

Topography.

THE rivers Goyt and Tame unite at Tiviot Dale to form the river Mersey, and the Borough is situated on both the Lancashire and Cheshire sides of this river.

GEOLOGY.—The solid rocks of the district are Permian Sandstone, Permian Marl, and Pebble Beds, with Coal Measures underlying glacial drift. The Heaton Norris portion of the Borough largely consists of sand and gravel overlying boulder clay, with pebble beds of the new red sandstone subjacent. Portwood, between the rivers Tame and Goyt, consists of a considerable depth of alluvium overlying the solid Permian Sandstone. The remainder of the district may perhaps be roughly divided into two halves by a line passing from the junction of Lancashire Hill and Sandy Lane to the junction of Cherry Tree Lane and Wellington Road South. The portion of the Borough lying to the east of this line has for solid rock mainly Permian Sandstone, whilst that lying to the west of it has Trias Sandstone for foundation. Forming as it were the boundary line between these two geological formations is a layer of Permian Marl, which extends in a strip on an average 1-6th of a mile in width between the two points named. Other strips of the same formation, though of slightly less width, run parallel with the above through various portions of the Borough (See Annual Report for 1900, page 7).

Area, Population, Inhabited Houses, &c.

The area of the Borough is 5,485 acres. Prior to extension the area was only 2,200 acres.

The population estimated at the census of 1901 was 92,832 persons, of which 43,268 were males, and 49,564 females.

The number of inhabited houses in the Borough at the census of 1901 was 21,063, there being at the same time 93 houses in course of construction, and 1,952 uninhabited.

The population at the various census enumerations from 1831 onwards is given in the following table :—

Year.	Inhabited Houses.	Total Population.	Population.		Increase per cent.	Decrease per cent.
			Total Increase during Decennium	Total Decrease.		
1831	...	43,000	...	...	...	...
1841	8,814	50,495	7,495	...	17.43	...
1851	10,568	53,835	3,340	...	6.61	...
1861	11,298	54,682	847	...	1.57	...
1871	...	53,001	...	1,681	...	3.07
1881	13,007	59,553	6,552	...	12.36	...
1891	15,573	70,263	10,710	...	17.93	...
1901	17,982	78,897	8,634	...	12.28	...

(Old Borough.)

Sex and Age Distribution of Population.

The summary of the census results published on the 10th of August, 1902, whilst it gives the census population of the old Borough at various age periods, fails to give the figures for the extended Borough. The Annual Report for the year 1901, pp. 13 to 15, gives the figures for the old Borough.

The census return issued in 1902 gives the total number of tenements in the County Borough of Stockport as 18,090, the tenements of less than five rooms numbering 10,902. Of the tenements containing less than five rooms

75	contain	one room	only,
1,619	,,	two rooms	,,
431	,,	three ,,	,,
8,777	,,	four ,,	,,

The one-roomed tenements are occupied as follows :—

By one person	36
By two persons	29
By three persons	6
By four persons	4

The tenements containing two rooms are occupied as follows :—

By one person	342
By two persons	496
By three persons	331
By four persons	243
By five persons	117
By six persons	50
By seven persons	28
By eight persons	7
By nine persons	4
By ten persons	1

The tenements containing three rooms are occupied as follows :—

By one person	37
By two persons	106
By three persons	93
By four persons	63
By five persons	47
By six persons	41
By seven persons	24
By eight persons	14
By nine persons	5
By ten persons	1

The tenements containing four rooms are occupied as follows :—

By one person	315
By two persons	1,621
By three persons	1,903
By four persons	1,584
By five persons	1,264
By six persons	957
By seven persons	570
By eight persons	315
By nine persons	142
By ten persons	78
By eleven persons	17
By twelve or more persons	11

These figures demonstrate conclusively that there is a fair amount of overcrowding of these small dwellings.

Confusion sometimes arises as to the precise difference between a house and a tenement, and I therefore give here the census definition of the two classes of building :—

> "*House*"—*All the space within the external and party walls of a building is to be considered a separate* house *by however many families living in distinct tenements or apartments it may be occupied.*
>
> "*Tenement*"—*By a tenement is to be understood any house or part of a house separately occupied either by the owner or by the tenant.*

The following information taken from the Housing Handook by Councillor W. Thompson, Richmond (Surrey), has an important bearing on the housing of the working classes. It is stated to have been obtained by enquiries directed to "active and experienced housing reformers."

Number of Rooms and Weekly Rent.

Poorest class	2 for 2s.
Unskilled labourers	4 for 2s. 6d. to 3s. 6d.
Ordinary artisans	5 for 4s. 6d. to 5s. 6d.
Better paid artisans	6 for 5s. 6d. to 7s. 6d.
Class of house most required	5 for 6s. 6d.
Cost per room of building existing houses	£25-£40.

Occupations of Adult Males and Females.

In the census return issued on August 10th, 1902, table 35, a condensed list is given showing the occupation of the males and females, aged 10 years

and upwards, at five different groups of ages at the census, 1901. From this table one learns that in the old Borough there were 36,741 males and 42,156 females, at all ages. These are further divided as follows :—

Males under 10 years of age	8,332
Females under 10 years of age	8,620
Males 10 years old and upwards	28,409
Females 10 years old and upwards	33,536

The total number of males aged 10 years and upwards who were retired or unoccupied is given as 3,817, whilst the number of those engaged in occupations is 24,592. The total number of females aged 10 years and upwards was 33,536, and of these 15,364 were unmarried, and 18,172 were married or widowed. In the retired or unoccupied class of females aged 10 years and upwards, there were 18,774, and of these 4,907 were unmarried, and 13,867 were married or widowed. Of the females aged 10 years and upwards engaged in occupations there were in all 14,762, and of this number 10,457 were unmarried, and 4,305 were married or widowed.

The following is a short summary of the occupations of males and females aged 10 years and upwards :—

Total Males.	Occupations of Males and Females aged 10 and upwards.	Total Females. Unmarried.	Total Females. Married or Widowed.
28409	Total occupied and unoccupied.	15364	18172
3817	Retired or Unoccupied (Order XXIII.)	4907	13867
24592	Engaged in Occupations (Orders I.—XXII.)	10457	4305
	I. General or Local Government of the Country.		
127	1. National Government	6	4
150	2. Local Government.....	35	9
	II. Defence of the Country.		
33	1. Army (at home).....	...	...
1	2. Navy and Marines (ashore and in port).....	...	...
	III. Professional Occupations and their Subordinate Services.		
	1. Clerical—		
53	Clergymen, Priests, Ministers	...	...
24	Monks, Nuns, Scripture Readers; Church, Cemetery Officers, &c.	7	1

Total Males.	Occupations of Males and Females aged 10 and upwards	Total Females. Unmarried.	Total Females. Married or Widowed.
	2. Legal—		
23	Barristers, Solicitors	...	...
63	Law Clerks	1	...
	3. Medical—		
37	Physicians, Surgeons, General Practitioners	2	...
...	Midwives	1	11
...	Sick Nurses, Invalid Attendants	50	31
33	Others	5	3
81	4. Teaching	304	5
17	5. Literary and Scientific	1	...
23	6. Engineers and Surveyors	...	...
135	7 and 8. Art, Music, Drama, etc.	32	14
	IV. Domestic Officers or Services.		
	1. Domestic Indoor Service—		
5	In Hotels, Lodging and Eating Houses	17	...
14	Other Domestic Indoor Servants	1132	169
153	2. Domestic Outdoor Service	...	...
	3. Other Service—		
...	Charwomen	73	305
7	Laundry and Washing Service	80	168
119	Others	47	38
	V. Commercial Occupations.		
376	1. Merchants, Agents, and Accountants	5	...
738	2. Commercial or Business Clerks	56	1
256	3 and 4. Dealers in Money ; Insurance	6	2
	VI. Conveyance of Men, Goods, and Messages.		
1454	1. On Railways	10	4
	2. On Roads—		
176	Coachmen, Grooms (not domestic) ; Cabmen	...	...
943	Carmen, Carriers, Carters, Wagoners (not Farm)	...	3
51	Others	...	1
17	3. On Seas, Rivers, and Canals	..	...
...	4. In Docks, Harbours, etc.	...	...
	5. In Storage, Porterage, and Messages—		
392	Messengers, Porters, Watchmen (not Railway or Government)	8	...
147	Others	15	...

Total Males.	Occupations of Males and Females aged 10 and upwards.	Total Females. Unmarried.	Total Females. Married or Widowed.
	VII. Agriculture.		
	1. On Farms, Woods, and Gardens—		
15	Farmers, Graziers	...	...
2	Farmers', Graziers'—Sons, Daughters, or other Relatives assisting in the work of the Farm...	3	...
4	Farm Bailiffs, Foremen	...	...
...	Shepherds	...	...
12	Agricultural Labourers, Farm Servants—Distinguished as in charge of Cattle	2	...
32	Agricultural Labourers, Farm Servants—distinguished as in charge of Horses	...	...
124	Agricultural Labourers, Farm Servants—not otherwise distinguished.	...	...
154	Gardeners (not dom.); Nurserymen, Seedsmen, Florists	5	1
2	Others	...	...
	VIII. Fishing.		
...	1. In Fishing	...	...
	IX. In and About and Dealing in the Products of Mines and Quarries.		
	1 and 2. Mines and Quarries—		
88	Coal and Shale Mine Workers	...	...
16	Other Workers	...	..
102	Dealers	..	4
	X. Metals, Machines, Implements, and Conveyances.		
8	1 and 2. Iron, Steel, etc., Manufacture	..	...
	3. Engineering and Machine Making—		
258	Ironfounders	...	...
175	Blacksmiths, Strikers	...	...
286	Erectors, Fitters, Turners	...	...
588	Others	3	2
36	4. Tools	...	...
143	5, 6, 7. Types, etc.; Arms; Miscellaneous Metal Trades	3	2
...	8. Ships and Boats	...	...
177	9. Vehicles	1	1
74	10. Dealers	5	...

Total Males.	Occupations of Males and Females aged 10 and upwards.	Total Females. Unmarried.	Total Females. Married or Widowed.
	XI. Precious Metals, Jewels, Watches, Instruments, and Games.		
	1-5. Precious Metals, Jewellery; Watches, Instruments; Games.		
227	Electrical Apparatus-makers	1	...
102	Others	10	5
	XII. Building and Works of Construction.		
	1. House Building, etc—		
555	Carpenters, Joiners	...	1
627	Bricklayers, Bricklayers' Labourers	...	...
167	Masons, Masons' Labourers	...	...
415	Painters, Decorators, Glaziers	..	...
165	Plumbers	...	...
330	Others	...	...
406	2. Other Works of Construction and Roads	...	...
	XIII. Wood, Furniture, Fittings, and Decorations.		
	1 and 2. Furniture, Fittings, etc.; Wood and Bark—		
151	Cabinet Makers; French Polishers; Upholsterers	17	8
72	Other Workers in Furniture, Fittings, etc.	10	1
211	Workers in Wood and Bark	3	...
72	Dealers	6	7
	XIV. Brick, Cement, Pottery, and Glass.		
	1. Brick, Cement, Pottery, and Glass—		
163	Brick, Tile, Terra Cotta Makers	...	1
20	Others	5	2
	XV. Chemicals, Oil, Grease, Soap, Resin, etc.		
	1 and 3. Colouring Matter; Drugs Chemicals, etc.—		
74	Chemists, Druggists	17	...
22	Others	5	...
...	2. Explosives and Matches	...	...
	4. Oil, Grease, Soap, Resin, etc.—		
26	Workers	4	2
12	Dealers	1	1

Total Males.	Occupations of Males and Females aged 10 and upwards.	Total Females. Unmarried.	Total Females. Married or Widowed.
	XVI. Skins, Leather, Hair, and Feathers		
187	1 and 2. Skins and Leather ; Saddlery and Harness	26	18
37	3. Hair and Feathers	11	7
20	4. Dealers in Skins, Leather, Hair, and Feathers	1	1
	XVII. Paper, Prints, Books, and Stationery.		
	1 and 2. Paper and Stationery ; Prints and Books—		
19	Paper Box, Bag-makers ; Stationery Manufacture.	81	14
278	Printers, Lithographers	24	1
23	Bookbinders	27	...
109	Others	26	14
	XVIII. Textile Fabrics.		
	1. Cotton and Flax—		
356	Cotton—Card and Blowing Room Processes	835	388
2064	,, Spinning Processes	1125	591
206	,, Winding, Warping, etc., Processes	1383	434
170	,, Weaving Processes	691	516
635	,, Workers in other Processes, or undefined	237	102
13	Fustian Manufacture ; Flax, Linen Manufacture	62	16
37	2. Wool and Worsted	26	10
	3. Silk—		
1	Silk Spinning Processes	2	1
14	,, Weaving Processes	18	13
1	,, Workers in other Processes or undefined	3	...
114	4. Hemp and other Fibrous Materials	93	17
384	5. Mixed or Unspecified Materials	560	182
551	6. Bleaching, Printing, Dyeing, etc.	95	20
239	7. Dealers (Drapers and others)	107	58
	XIX. Dress.		
	1. Dress—		
304	Tailors	197	74
3	Milliners, Dressmakers	516	131
7	Shirt Makers, Seamstresses	47	41
281	Boot, Shoe, Slipper, Pattern, Clog-makers	3	1
2750	Other Workers (a)	1341	292
102	Dealers	67	27

Total Males.	Occupations of Males and Females aged 10 and upwards.	Total Females. Unmarried.	Total Females. Married or Widowed.
	XX. Food, Tobacco, Drink, and Lodging.		
	1. Food—		
382	Workers (b)	359	48
1231	Dealers	218	278
	2. Tobacco—		
61	Tobacco Manufacture	96	5
36	Tobacconists	7	12
76	3. Makers of Spirituous Drinks	...	1
	4. Board, Lodging, etc.—		
51	Coffee, Eating, Lodging, Board-house Keepers	7	29
194	Inn, Hotel keepers ; Publicans, etc.	3	38
106	Cellarmen ; Barmen ; Others in Inn, Hotel, etc. Service	84	3
9	Wine and Spirit Merchants, Agents	...	1
	XXI. Gas, Water, and Electricity Supply and Sanitary Service.		
225	1. Gas, Water, Electricity	...	...
61	2. Sanitary Service	...	...
	XXII. Other, General, and Undefined Workers and Dealers.		
	1-4. About Animals ; Sundry Industries ; General Makers and Dealers ; General Labourers, etc.		
102	General Shopkeepers, Dealers, Pawnbrokers	44	30
167	Costermongers, Hawkers, Street Sellers	18	64
827	General Labourers	...	...
260	Engine Drivers, Stokers, Firemen (not Railway, Marine, or Agricultural)	...	...
138	Others	23	20
	XXIII. Without Specified Occupations, or Unoccupied.		
577	Retired from Business (not Army, Navy, Church, Medicine) ; Pensioners	69	189
166	Living on own Means	212	414
3074	Others aged 10 years and upwards (including Students)	4626	13264

(a) The figures include 2,642 male and 1,621 females "Hat, cap makers (not straw.")

(b) The figures include 84 male and 332 female "Jam, preserve, sweetmakers."

The principal occupations are thus seen to be, as every resident in the town knows, cotton and hat making. The cotton operatives at the census numbered 3,431 males and 6,362 females, 4,331 of the latter being unmarried and 2,031 married or widowed. For the first time the number of operatives engaged in the different processes of carding, spinning, winding and warping, and weaving, is given. In course of time this information cannot fail to be of the utmost use for the purpose of statistical inquiries into the influence on health and longevity of this large industry.

The hat and cap makers number 2,642 males and 1,621 females : it is to be regretted that these were not classified according to the particular processes on which the operatives were engaged.

The next largest class is that in which only males are employed, viz., house building, &c. : here we have 2,665 males and curiously enough one solitary female, who is entered as a " carpenter or joiner."

In sanitary work it is stated that 61 males are employed : this cannot possibly include all the scavenging and cleansing staff, who at the time of the census numbered 154, whilst the figure is too large to be taken as meaning official sanitary inspectors and their subordinates and fellow-workmen, whilst the two female sanitary inspectors are not included in this group at all.

The work of census-taking should, in my opinion, be open to local control or suggestion : the results would then, I feel confident, be open to fewer sources of error, and would be of greater value, inasmuch as a better particularisation would be obtained.

CENSUS FIGURES FOR THE EXTENDED BOROUGH.

	Area in Statute Acres.	1901.—Houses.				Population.			
		Inhabited.	Uninhabited.		Building.	1891.	1901.		
			In Occupation	Not in Occupation		Persons.	Persons.	Males.	Females.
STOCKPORT (C.B.)	5,492	21,063	1,055	897	93	80,778	92,832	43,268	49,564
Wards :—									
1. Lancashire Hill		1,203	16	37	5		5,150	2,378	2,772
2. Heaton Lane		1,413	127	92	...		6,184	2,873	3,311
3. Old Road.....		1,408	56	42	4		5,814	2,640	3,174
4. Portwood.....		1,602	44	96	7		6,932	3,259	3,673
5. St. Mary's		769	363	69	2		3,745	1,902	1,843
6. Vernon.....		1,402	22	70	5		5,821	2,652	3,169
7. Spring Bank		1,142	92	48	...		4,997	2,324	2,673
8. Hollywood		1,766	55	49	2		7,884	3,668	4,216
9. Edgeley		1,517	23	31	5		6,759	3,116	3,643
10. Shaw Heath		1,589	50	52	5		7,344	3,464	3,880
11. St. Thomas'		1,287	56	78	...		5,587	2,599	2,988
12. Hempshaw Lane		1,080	33	49	7		4,960	2,410	2,550
13. Cale Green		1,551	22	24	18		6,590	2,955	3,635
14. Heaviley		1,442	35	60	18		6,397	2,847	3,550
15. Reddish North		1,100	33	32	10		4,977	2,397	2,580
16. Reddish South		792	28	68	5		3,691	1,784	1,907

Growth of Stockport.

Year.	Inhabited Houses.	Houses Vacant.	Houses Building.	Population	Mortali'y	Zymotic Mortality.	Deaths under one year per 1000 births.	Birth Rate.
1841	8814	†1157	..	†50495	...	...	...	...
1851	10568	...	...	†53835	...	...	...	...
1861	11298	..	...	†54682	...	...	...	...
1871	...	...	...	†53001	..	...	...	...
1881	13007	†1558	74	†59553	24·7	...	...	...
1891	15573	†1216	100	†70263	26·9	3·5	223	33·3
1892	..	...	...	71000	22·74	2·06	199	32·64
1893	16269	*870	170	71930	24·25	4·9	222	32·54
1894	16397	*804	150	72770	19·00	1·6	192	31·68
1895	16859	*876	100	73620	25·40	4 5	231	33·36
1896	17190	*890	120	74480	21·30	3·08	189	32·06
1897	17693	*613	197	75350	22·89	5·09	214	32·82
1898	17888	*561	...	76220	21·60	4·2	231	31·23
1899	18148	*600	197	77100	21·67	4·5	221	30·28
1900	18320	*697	220	78000	22·64	2·29	203	29·44
1901	†17982	*753 †	†71	†78897	19·63	3·04	197	27·70
1902	...	...	...	94422	19·40	1·95	183	27·59

† Census Return.

* Not including lock-up shops, factories, and warehouses unoccupied at night, which number 900 to 1000 at the present time.

According to the **1891** census the total tenements in Stockport were 18,090. These tenements contained the following number of rooms :—

One room only	75	tenements.
Two rooms	1,619	,,
Three rooms	431	,,
Four rooms	8,777	,,
Total tenements with less than 5 rooms	10,902	

Marriages.

The number of Marriages solemnised during 1902 was 808, or 121 more than in 1901, the marriage rate per 1,000 persons living being 17·2.

Year.	Number of Marriages.	Rate per 1000 Living.	Rate for England and Wales.
1893.	486	13·5	14·7
1894.	615	16·9	15·1
1895.	680	18·4	15·0
1896.	585	15·7	15·8
1897.	689	18 2	16·0
1898.	706	18·5	16·3
1899.	754	19·8	16·5
1900.	753	19·3	16·0
1901.	687	17·4	15·9
1902.	808	17·2	...

Births.

The births registered during the year have numbered 2,606, viz., 1,302 of males, and 1,304 of females, equal to a birth-rate of 27·59 per thousand per annum. The birth-rate for England and Wales during 1902 was 28·6, that of the 76 great towns being 30·0, and of the 103 smaller towns 27·3. In the following table I submit a statement of the birth-rate of Stockport for the last 20 years, from which it will be seen that there has been a decline, more particularly during the later years. It is curious to know that there has been, to put it in its worst, a steady maintenance of the marriage rate, so that the reduction in the birth-rate has almost certainly not been caused by a diminution in the number of marriages, but by a diminution in the number of children to each marriage. There can be no question, repugnant as the idea is, that the diminution in the birth-rate is due in the main to the deliberate avoidance of child-bearing. It is now the exception, rather than the rule, to find at any rate in middle-class circles more than two or three children in a family. The effect

of this on the national prosperity is bound in the long run to be a very serious one. Continued over a long period in France it has certainly resulted in national deterioration. It is to the women of England that one must look for the remedy of this evil which is as discreditable to their sex as it is to the nation as a whole.

Table showing birth-rate in Stockport for past twenty years :—

1883	34·9	1893	32·54
1884	35·4	1894	31 68
1885	33·6	1895	33·36
1886	35·5	1896	32·06
1887	35·3	1897	32·82
1888	33·4	1898	31·23
1889	34 1	1899	30·28
1890	32·8	1900	29·44
1891	33·3	1901	27·70
1892	32·64	1902	27·59

There can be no question here of the serious drop in the birth-rate, more particularly in quite recent years, and to those who look ahead the question has a most serious aspect. The fact is that the population-capital is being augmented by contributions not so much from the upper or middle classes, but mainly from the lower classes. What the ultimate effect on this town, and on the nation as a whole, will be, it is not difficult to prophesy, and it is needless to say that, if continued, it bodes little good for either.

Deaths.

The deaths registered during the year have numbered in the gross 1,856. However, of this number 59 were those of persons not normally resident in the Borough. On the credit side, however, one has to include deaths of 35 persons who, though normal residents in the Borough, happened to die outside the Borough in institutions, etc. The net number of deaths to be written down in the statistics of the Borough is, therefore 1832, viz , 963 of males and 869 of females, equal to an annual death-rate of 19·402 per thousand of the estimated population, as compared with 19.63 in 1901, and 22·64 in 1900. The death-rate in England and Wales as a whole during 1902 was 16·3, that of the 76 great towns being 17.4, and that of the 103 smaller towns 15·3. I submit herewith a statement of the death-rates in the Borough for the past 20 years.

Table showing death-rate in Stockport for past twenty years :—

1883	26 4	1893	24·25
1884	24·9	1894	19·00
1885	26.9	1895	25·40
1886	26·4	1896	21·30

1887	26·9	1897	22·89
1888	25·03	1898	21 60
1889	23 5	1899	21·67
1890	26·5	1900	22·64
1891	26·9	1901	19·63
1892	22·74	1902	19·40

Comparing the earlier years with the later ones it is pleasing to be able to draw attention to a great saving of life—equal to approximately 7 per 1,000 on an average population of, say 60,000, or about 400 human lives per annum. The death-rate recorded for 1902 is also the lowest for the past twenty years, except that for 1894, which is admitted on all hands to be an exceptional rate, and probably also an accidental one.

The deaths which occured within the district of persons not belonging thereto may be thus tabulated :—

Where from.	DIED.			Where from.	DIED.		
	Work-house.	In-firmary.	Else-where.		Work-house.	In-firmary.	Else-where.
Hyde	18	1	...	Heaton Mersey	1	1	...
Marple	5	1	...	Winsford	1	...	...
Bredbury ...	3	...	...	Salford	1	...	...
Manchester ...	3	...	1	Bramhall	1	...	...
Ashton	2	...	...	Woodley	1	...	...
Gatley	2	1	...	Altrincham ...	1	...	...
Bosden	2	...	...	Gee Cross.....	...	1	...
Wilmslow ...	1	3	...	New Mills.....	...	1	...
Cheadle	2	...	...	Styal	...	1	...
Cheadle Hulme	1	...	...	Gorton	...	...	1
Denton	1	...	...	Dukinfield ...	...	...	1

Totals :—In Workhouse, 46 ; in Infirmary, 10 ; elsewhere, 3.

The deaths in the Public Institutions of persons belonging to Stockport exhibit the following Ward distribution :—

Where from.	Died in			Where from.	Died in		
	Work-house.	In-firmary.	Isolation Hospit'ls		Work-house.	In-firmary.	Isolation Hospit'ls
Lancashire Hill	8	1	..	Edgeley	2	4	3
Heaton Lane ..	18	2	...	Shaw Heath ...	22	2	3
Old Road	15	3	1	St. Thomas ...	28	1	1
Portwood	19	7	...	Hempshaw Lane	10	2	3
St. Mary's.....	16	4	1	Cale Green	6	2	1
Vernon	8	3	...	Heaviley	3	3	1
Spring Bank...	21	4	1	Reddish North..	2	...	...
Hollywood ...	21	6	1	Reddish South.	6	...	...

Totals :—In Workhouse, 205; in Infirmary, 44 ; in Isolation Hospitals, 16.

Herein are set out the principal causes of death in the Borough for the past ten years :—

Cause of Death.	Number of Deaths.									
	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893
Seven Chief Zymotics ...	185	240	179	354	327	386	231	336	132	366
Smallpox ...	7	...	...	...	...	...	...	...	2	2
Scarlet Fever	23	25	5	10	11	19	19	6	6	11
Diphtheria ...	11	17	15	5	3	4	14	27	16	32
"Fevers"—Typhoid and Continued	13	14	17	9	21	20	22	20	8	49
Measles	36	51	24	93	55	73	17	84	1	37
Whooping Cough	33	13	41	31	18	38	34	32	3	33
Diarrhœa ...	62	120	77	206	219	232	125	167	96	202
Influenza	9	12	23	36	10	19	9	16	8	3
Lung Diseases (including Phthisis)	529	437	539	488	492	522	542	629	457	526
Heart Disease ...	167	126	126	119	123	123	126	140	112	112
Injury	63	21	39	50	49	46	28	32	33	49

An alteration has been made in the classification of deaths from epidemic or zymotic diarrhœa and kindred diseases, which affects the figures of this year and that immediately preceding, so that it would be perhaps unfair to draw conclusions from them.

In the accompanying diagram the deaths from various diseases and groups are plotted out to scale with a view to showing at a glance their relative magnitude. The actual number of deaths is as below :—

	No. of Deaths.
Lung Diseases (excluding Consumption)	376
Preventible Diseases (excluding Tubercular Diseases)	218
Phthisis and other Tubercular Diseases	197
Diseases of Circulatory System (Heart, &c.).....	199
,, Nervous System	135
,, Digestive System.....	115
Debility and Wasting, etc., in Infants	108
Old Age	108
Cancer	69
Accidents	63
Suicides	14
All other diseases	230

Stockport = = 1902.

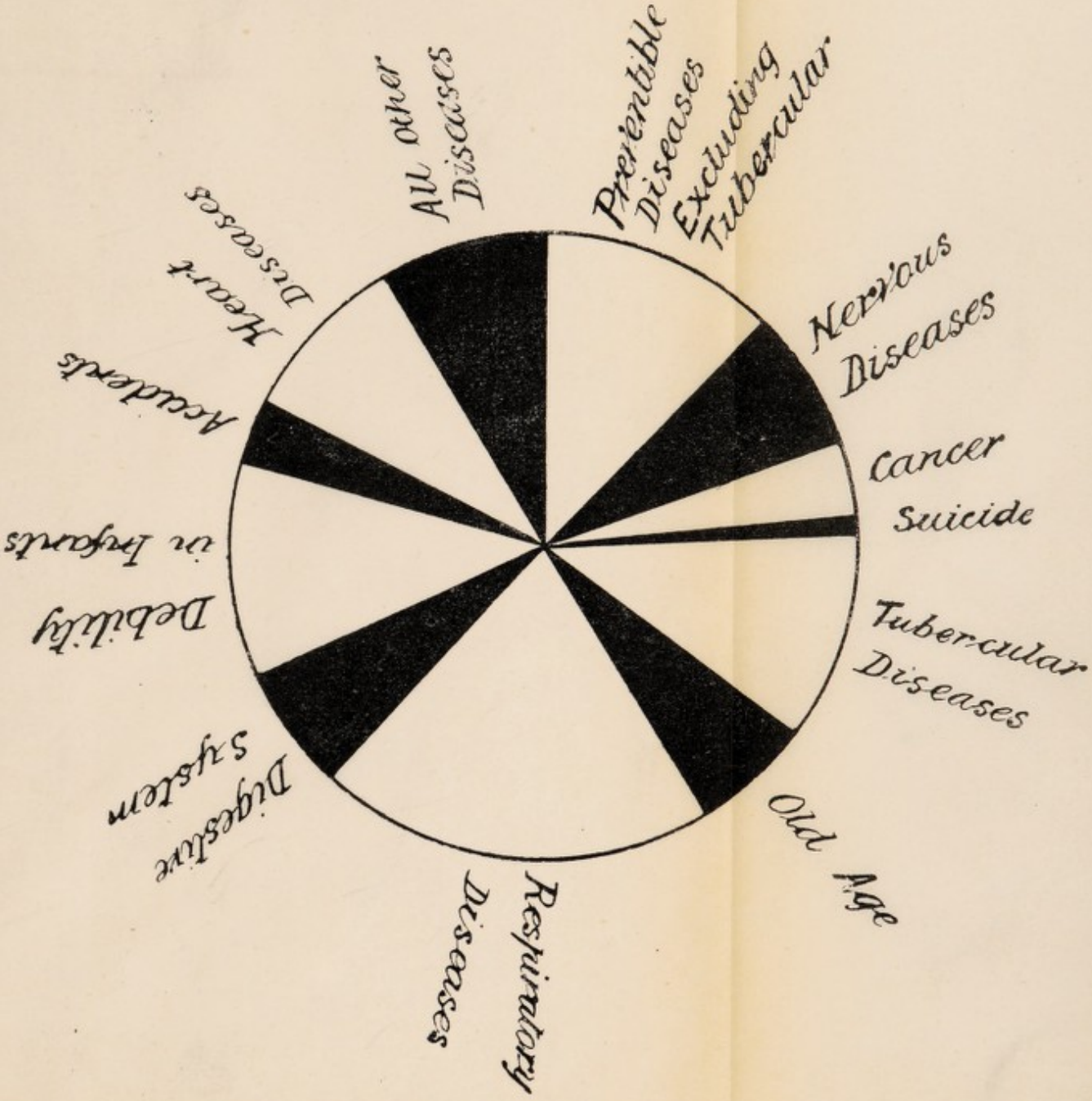


Diagram Shewing Chief Causes of Death.

Stockport

Diagram Shewing Chief Cau

Table I.—LOCAL GOVERNMENT BOARD RETURN.

Vital Statistics of Whole District during 1902 and previous years.—Name of District, STOCKPORT.

Year.	Population estimated to Middle of each Year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Res'd'nts registered in Public Institutions beyond the District.	Nett Deaths at all Ages belonging to the District.	
				Under 1 Year of Age.		At all Ages.						
		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
1892	71,100	2321	32·64	463	199	1686	23 71	242	69	...	1617	22·74
1893	71,930	2341	32·54	522	222	1810	25·16	233	65	...	1745	24·25
1894	72,770	2306	31·68	442	192	1434	19·70	228	51	...	1383	19·00
1895	73,620	2456	33·36	568	231	1941	26·36	289	71	...	1870	25·40
1896	74,480	2388	32·06	452	189	1648	22·12	245	61	...	1587	21·30
1897	75,350	2473	32·82	531	214	1780	23·62	241	55	...	1725	22·89
1898	76,220	2381	31·23	551	231	1699	22·29	226	52	...	1647	21·60
1899	77,100	2335	30·28	518	221	1738	22·54	278	67	...	1671	21·67
1900	78,000	2297	29 44	467	203	1823	23·37	280	64	7	1766	22·64
1901	78,897	2186	27·70	431	197	1617	20·49	293	72	4	1549	19·63
Averages for years 1892-1901	74,946	2348	31·37	494	209	1717	22·93	255	62	...	1656	22·11
1902	94,422	2606	27·59	477	183	1856	19·65	266	59	35	1832	19·40

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

In Table 1—Local Government Board return—the principal vital statistics of Stockport are given for the 10 years 1892 to 1901 inclusive, and for the year 1902. A glance at that table reveals, in the first place, the fact alluded to previously, that the birth-rate is seriously below the average of the 10 years, just named. The nett death-rate however, affords reason for satisfaction, inasmuch as it is not only below that for 1901, which in itself was one of the lowest on record, but it is the lowest recorded death rate with the exception of the year 1894, when the rate was the exceptionally low one of 19·00.

The infant mortality has exhibited since 1898 a steady decline, and it is pleasing to record that during 1902 it fell very much lower than it had done in 1901. The average infant mortality for the 10 years 1892 to 1901 was 209 per 1,000 births registered ; in 1902 it reached the low figure of 183.

Uncertified Deaths and Inquests.

There were 146 deaths registered during the year in which the cause of death was not certified by a medical practitioner. In 139 of these cases an inquest was held, and the verdicts found may be summarised as follows :—

1.	Natural Causes...	64
2.	Accidental Causes	61
3.	Suicide	14

An inquest was held on the bodies of 76 out of every 1,000 residents who died within the Borough.

May I be allowed once more to draw attention to a matter which, in my opinion, is of urgent public importance, viz., the need for a **public mortuary** in the town. At the present time a dead body is found in the river or on the road, etc., it is removed to the nearest public-house and kept there for a day or two until the inquest can be held. The use of public-houses for this purpose is a danger not only to the public-house keeper, but also to those of the public who are in the habit of using the public-house. Apart from the mischief which the ordinary emanations from a dead body may give rise to, there is always the possibility that the dead body so housed might be the subject of some dangerous infectious disease. It is to be hoped that the Council will not wait until some serious public scandal arises before taking this question into their earnest consideration. Power is given under Section 141 of the Public Health Act, 1875, to any local authority to provide and fit up a proper place for the reception of dead bodies before interment, and power is also given to any local authority to make bye-laws with respect to the management and to charge for the use of the same.

The following is a summary of the verdicts returned by the Coroner's jury in those cases on which an inquest was held. I would in particular call attention to two of these which from the point of view of common sense, let alone medical knowledge, strike one as being somewhat ludicrous—"consumption of bowels caused by an accidental fall"—"pneumonia from shock owing to a fall."

SUMMARY OF THE VITAL AND MORTAL STATISTICS OF THE BOROUGH AND EACH OF ITS WARDS FOR THE YEAR 1902.

WARD.	Acreage.	Estimated Population.	Persons per acre.	No. of Births registered.	Birth rate.	Nett deaths *	Nett Death rate.	No. of de'ths under 1 year of age *	Infant mortality rate per 1000 births.	No. of de'ths from 7 principal Zymotic diseases† *	Zymotic Death rate per 1000.	Zymotic death rate per 1000 (excluding Diarrhœa)	No. of de'ths from Diarrhœa. *	Death rate from Diarrhœa per 1000.	No. of de'ths from P'thisis. *	Death rate from Phthisis per 1000.	No. of de'ths from other Tub'rcular diseases *	Death rate from other Tubercular diseases per 1000.	No. of de'ths from other Lung Diseases. *	Death rate from Other Lung Diseases per 1000.
				M. F.																
LANCASHIRE HILL ...	145	5,084	35·06	72 77 — 149	29·307	99	19·47	29	194·6	8	1·57	0·98	3	0·59	9	1 77	2	0·39	19	3·73
HEATON LANE	234	6,309	26·96	80 109 — 189	29·95	158	25·04	41	216·9	23	3·64	1·902	11	1·74	12	1·90	2	0·31	28	4·43
OLD ROAD	114	5,966	52·33	86 92 — 178	29·83	126	21·11	29	162·9	9	1·51	1·005	3	0·50	14	2·34	5	0 83	26	4·35
PORTWOOD	324	7,200	22·22	116 96 — 212	29·44	157	21·805	56	264·1	7	0·97	0·41	4	0·55	13	1·80	2	0·27	33	4·58
ST. MARY'S	91	3,745	41·15	50 57 — 107	28·57	89	23.76	20	186·9	8	2·13	1·602	2	0·53	8	2·13	3	0 801	19	5·07
VERNON	427	5,933	13·89	96 79 — 175	29·49	116	19·55	33	188·5	8	1·34	1 01	2	0·33	8	1·34	2	0·33	24	4·04
SPRING BANK	81	4,997	61·69	67 79 — 146	29·21	139	27·81	38	260·2	17	3·40	1·60	9	1·80	9	1 80	5	1·00	29	5·803
HOLLYWOOD... .. .	346	8,199	23·69	123 133 — 256	31·22	150	18·41	32	125·0	19	2·31	1·707	5	0·61	14	1 71	4	0·48	32	3 81
EDGELEY	331	6,891	20·82	77 80 — 157	22·78	96	13 93	16	101·9	7	1·01	0·87	1	0 14	12	1·74	2	0·29	23	3·33
SHAW HEATH	392	7,511	19·16	99 93 — 192	25·56	152	20·23	34	170·7	15	1·99	1·19	6	0·79	16	2·13	5	0·66	34	4·52
ST. THOMAS'	53	5,598	105·62	58 77 — 135	24·11	131	23·40	30	222·2	14	2·50	1·42	6	1·07	10	1·78	...	...	29	5·18
HEMPSHAW LANE ..	146	5,072	34·74	80 68 — 148	29·179	99	19·51	29	195·9	16	3·15	2 16	5	0·98	6	1·18	1	0·19	21	4·14
CALE GREEN	145	6,618	45·64	73 66 — 139	21·00	92	13·90	24	172·6	8	1·21	1·21	...	...	7	1·05	5	0·75	22	3·32
HEAVILEY	1115	6,531	5·85	79 75 — 154	23·579	89	13·62	15	97·4	10	1·53	1·07	3	0 45	8	1·23	1	0 15	15	2·29
REDDISH NORTH... ...	786	5,037	6 41	89 76 — 165	32·75	84	16 67	30	180·1	12	2·38	1·98	2	0·39	3	0·59	4	0·79	10	1·98
REDDISH SOUTH... ...	755	3,731	4 94	57 47 — 104	27·87	55	14·74	21	201·9	4	1·07	1·07	...	...	4	1·07	1	0 268	12	3·216
STOCKPORT BOROUGH	5485	§ 94,422	17·21	1302 1304 — 2606	27·59	M 963 F 869 1832	19·402	477	183·03	185	1·959	1·302	62	0·65	153	1·62	44	0·46	376	3·98

* Deaths of Stockport residents in the Union Workhouse, Infirmary, and Isolation Hospital are here referred to the Wards in which they lived. Deaths within the Borough of Non-residents from out-townships are excluded. (See following table.)

† The "Seven Principal Zymotic Diseases" are Smallpox, Measles, Scarlet Fever, Diphtheria and Membranous Croup, Whooping Cough, Fever (typhus, typhoid, and continued), and Diarrhœa.

§ Regi-trar General's estimate.

1. Natural Causes.

"Natural Causes"	9
Senile decay	3
Convulsions	12
Heart failure (syncope)	11
Heart disease	3
Cerebral hæmorrhage	1
Apoplexy	4
Epilepsy	1
Inanition	5
Phthisis	1
Found dead	2
Erysipelas	1
Bronchitis	2
Pneumonia	1
Exhaustion	1
Exposure to wet and cold	1
Effusion of blood on brain	1
Spasm of the larynx	1
Inflammation of bowels	1
Consumption of bowels	1
Paralysis through a fall	1
"Consumption of bowels caused by an accidental fall"	1

2. Accidental.

Falls from a height	2
Fractures	13
Injuries on railway	2
Injuries to head and neck	3
Injuries, shock to system	2
Injuries to brain	1
Injuries falling in fly wheel pit	1
Run over by milk van	1
Crushed by cog wheels	1
Burns	18
Suffocation in bed	6
Drowning	6
Alcoholism	1
Overdose of laudanum	1
Exhaustion through a fall	1
"Pneumonia from shock owing to a fall"	1
"Pneumonia induced by fracture of ribs through a fall"	1

3. Suicide.

By hanging and strangulation	6
By drowning	1
By cut or stab	2
By poison	4
By railway	1

Mortality in the Different Wards.

1. The **Nett General Death-rate** has been considerably higher in Spring Bank Ward than in any other portion of the Borough, in which it was 27·81 per thousand: whilst Heaton Lane Ward comes next with a rate of 25·04, and St. Mary's and St. Thomas' next again with rates respectively of 23·76 and 23·40. The lowest rate recorded was in Heaviley Ward, where it stood at the low figure of 13·62. As usual Cale Green Ward proved a close runner up with a rate of 13·90. Edgeley Ward came very near to a second place with a rate of 13·93. Reddish South Ward showed a rate which can only be regarded as exceptionally low for this particular portion of the Borough, viz., 14·74. In the following wards the general death-rate was above that of the town generally:—

Lancashire Hill	19·47
Hempshaw Lane	19·51
Vernon	19·55
Shaw Heath	20·23
Old Road	21·11
Portwood	21·805
St. Thomas	23·40
St. Mary's	23·76
Heaton Lane	25·04
Spring Bank	27·81

Thus in 10 out of the 16 wards in the Borough the general death-rate has been higher than that of the Borough as a whole.

In the following wards the general death-rate has been lower than that of the Borough as a whole :—

Hollywood	18·41
Reddish (North)	16 67
Reddish (South)	14·74
Edgeley	13·93
Cale Green	13·90
Heaviley	13·62

2. The **Zymotic Death-rate**, that is the death-rate from the seven principal preventible diseases, has been 1·959 for the Borough as a whole, but when one comes to inquire into this particular rate as it affects different localities in the town some interesting figures are brought to light. The highest zymotic death-rate was that recorded in Heaton Lane Ward, where it was nearly twice as great as that for the Borough as a whole, viz., 3·64 per thousand. In Spring Bank and Hempshaw Lane Wards it also reached a high figure, viz., 3 40 and 3·15 respectively. The wards showing the lowest zymotic death-rate are the following :—

Portwood	0 97
Edgeley	1.01
Reddish (South)	1·07
Cale Green	1·21
Vernon	1·34
Old Road	1·51
Heaviley	1·53
Lancashire Hill	1·57

3. The **Death-rate from Diarrhœal Diseases** is usually closely associated with that from the seven principal zymotic diseases and, therefore, one naturally expects this rate to follow closely the distribution of the one alluded to in the last paragraph. For the Borough as a whole the death-rate from diarrhœal diseases was 0·65 per thousand, a rate which is considerably less than half that recorded for the year 1901, when it was 1·52. Edgeley Ward has the honour of having the lowest diarrhœal death-rate, viz., 0·14, there being only a single death from diarrhœa in that ward during 1902. This fact is somewhat surprising, for Edgeley Ward is a part where a number of newly-married couples reside, where the birth-rate in consequence is a fairly high one, and where one would expect infantile diarrhœa to be somewhat prevalent. The following low rates are also worthy of mention :—

Vernon Ward	0·33
Reddish (North)	0·39
Heaviley Ward	0·45
Old Road Ward	0·50
St. Mary's Ward	0·53
Portwood Ward	0·55
Lancashire Hill Ward	0·59

In Cale Green and Reddish South Wards no single death from diarrhœa was recorded.

4. **Phthisis or Consumption of the Lungs** caused 153 deaths in the whole Borough, equivalent to a rate of 1·62 per thousand per annum. The highest death-rates from phthisis were recorded in the following wards :—

Old Road	2·34
St. Mary's and Shaw Heath	2·13
Heaton Lane	1·90
Spring Bank and Portwood	1·80
St. Thomas'	1·78
Lancashire Hill	1·77
Edgeley	1·74
Hollywood	1·71

The lowest rate recorded was in Reddish North Ward, where it was only 0·59, whilst the following wards were close together for a good place :—

Cale Green	1·05
Reddish (South)	1 07
Hempshaw Lane	1·18
Heaviley	1·23

5. **Infant Mortality.** There are one or two somewhat striking differences to be recorded here as regards the variation of this rate in different parts of the Borough. The rate for the Borough as a whole is 183. In Portwood and Spring Bank Wards, however, the rate stands at the high figures of 264 and 260 per thousand births, or in other words more than a quarter of the children born in these two wards failed to survive the first year of life. Somewhat excessive rates also ruled in

St. Thomas'	Ward,	where	it	was	222
Heaton Lane	,,	,,	,,	,,	217
Reddish (South)	,,	,,	,,	,,	202
Hempshaw Lane	,,	,,	,,	,,	196
Lancashire Hill	,,	,,	,,	,,	195
Vernon	,,	,,	,,	,,	188
St. Mary's	,,	,,	,,	,,	187

The two lowest rates were those recorded in Heaviley Ward (97), and Edgeley Ward (102).

6. **Density.** The average density of the extended Borough is 17·21 persons per acre, taking the acreage at 5,485, and the estimated population at 94,422. The density varies enormously in different parts of the Borough as may be seen from the following statement :—In St. Thomas' Ward the number of persons per acre is 105·62, or six times the density of the Borough as a whole. The next most densely populated ward in the Borough is Spring Bank, where the number of persons per acre is 61·69 ; Old Road Ward coming next with a density of 52·33 persons per acre, Cale Green with a density of 45·64, and St. Mary's with a density of 41·15. As compared with these extreme figures we have the following very sparsely popu'ated wards, viz :—

Reddish (South)	4·94	persons per acre.
Heaviley...	5·85	,, ,, ,,
Reddish (North)	6·41	,, ,, ,,

The density of a locality is a condition which influences the death-rate, more particularly from zymotic diseases, tubercular diseases, and the like, though not to the same extent as was at one time thought. One can easily understand, therefore, that with such a wide variation in the density of the different wards there is bound to be considerable difference between the rates recorded in one part as compared with those recorded in another.

In Table 2 (Local Government Board return) the vital statistics of the different wards for the past 8 years are set out in detail.

Infectious Disease (Notification) Act.

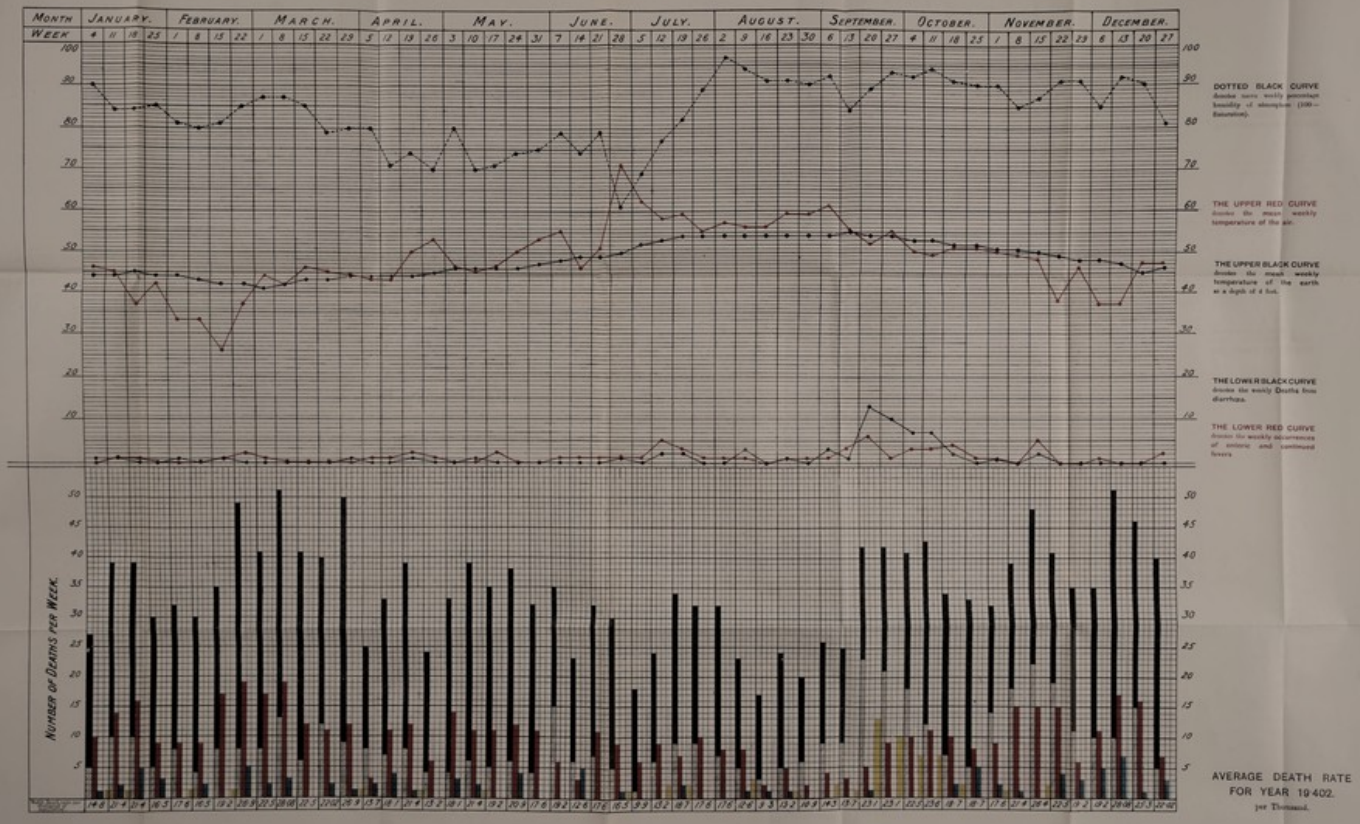
No less than 710 notifications have been received under the provisions of the above Act from medical practitioners. With the exception of February, March, and May the number of notifications received has varied very little throughout the whole year. An epidemic of scarlet fever was carried over from last year's adverse balance, and up to the time of writing this report (June, 1903) this outbreak still continues with but little abatement. No less than 509 notifications were those relating to scarlet fever ; 63 cases of typhoid fever were notified, but not a single case of continued fever ; indeed the term, "continued fever," seems to be passing entirely out of use except amongst the very old practitioners, it being recognised now that practically all such cases are really of the nature of typhoid fever. The term, "membranous croup," is also apparently falling into disuse, and diphtheria is taking its place as being probably the more correct designation of the disease.

Of the cases notified the following were removed to the Isolation Hospitals :—

Smallpox	56
Scarlet fever	268
Typhoid fever	16
Diphtheria	2

In the accompanying tables a more detailed statement is given as to the ward incidence, etc., of the cases notified.

County Borough of Stockport, 1902.



DOTTED BLACK CURVE denotes mean weekly percentage humidity of atmosphere (100 = Saturation).

THE UPPER RED CURVE denotes the mean weekly temperature of the air.

THE UPPER BLACK CURVE denotes the mean weekly temperature of the earth at a depth of 4 feet.

THE LOWER BLACK CURVE denotes the weekly Deaths from diarrhœa.

THE LOWER RED CURVE denotes the weekly occurrences of enteric and continued fevers.

AVERAGE DEATH RATE FOR YEAR 19·402. per Thousand.

Black Columns = Total deaths from all causes.
Shaded portion = Deaths of children under 1 year.

WEEKLY RECORD OF DEATHS.

Red Columns = Deaths from Respiratory Diseases.

Yellow Columns = Deaths from Diarrhœa.

Blue Columns = Deaths from Zymotic Diseases (excluding diarrhœa).

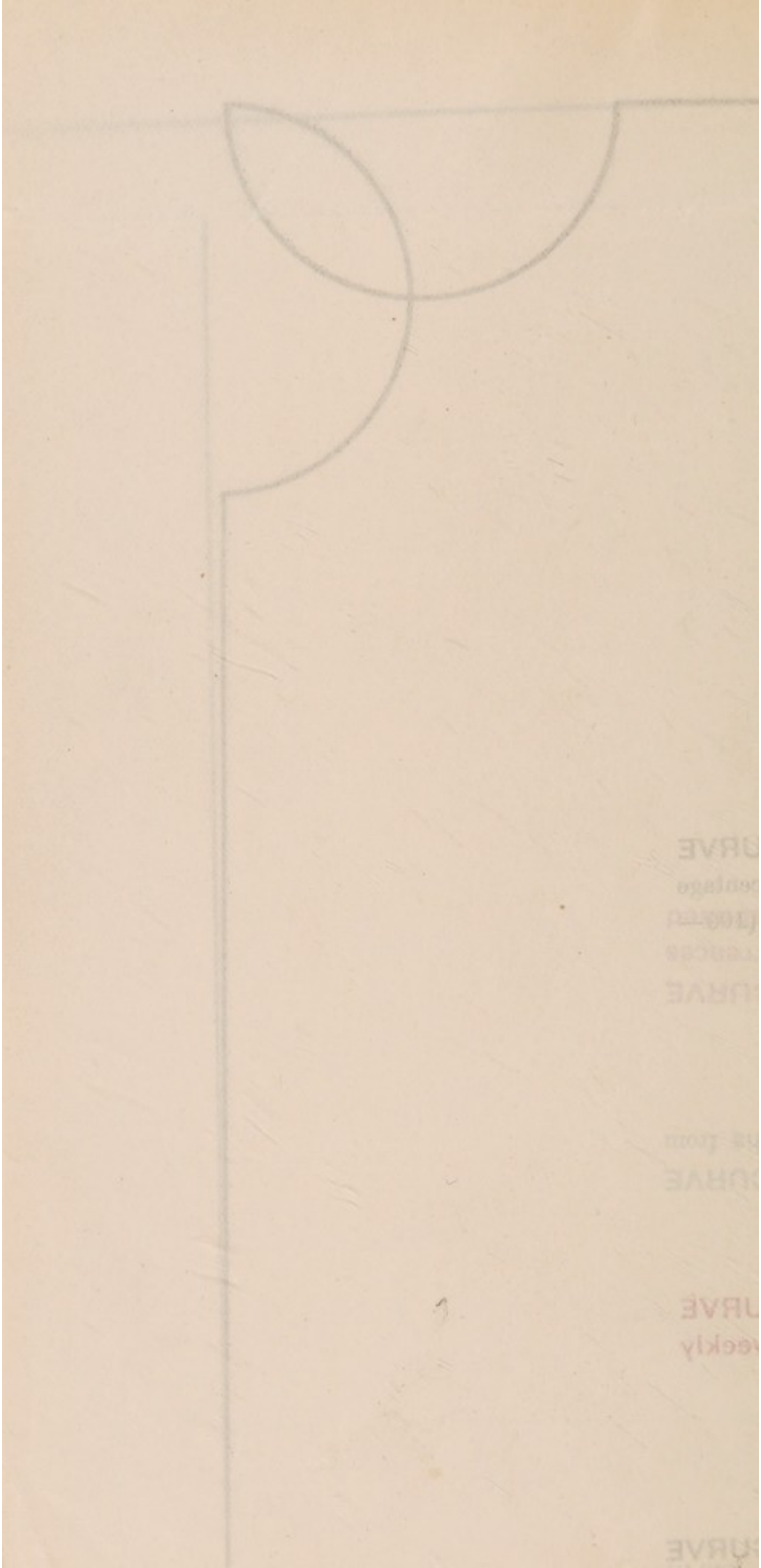


TABLE II.——LOCAL GOVERNMENT BOARD RETURN.——NAME OF DISTRICT **STOCKPORT.**

NAMES OF LOCALITIES.	1.—LANCASHIRE HILL.				2.—HEATON LANE.				3.—OLD ROAD.				4.—PORTWOOD.			
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.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1895 ...	4665	173	103	35	5695	165	165	58	5568	209	159	52	6091	260	184	60
1896 ...	4718	164	85	21	5762	186	138	35	5631	205	120	35	6163	249	183	68
1897 ...	4772	162	90	31	5829	190	142	45	5697	205	118	38	6236	226	168	62
1898 ...	4827	162	104	28	5896	180	173	56	5762	195	128	49	6309	205	191	69
1899 ...	4882	153	105	31	5964	198	132	40	5828	189	120	33	6381	212	135	49
1900 ...	4940	147	84	24	6033	152	144	32	5897	193	105	35	6455	190	168	53
1901 ...	4998	167	93	30	6102	150	144	42	5966	163	106	27	6528	191	144	49
Averages of years 1895 to 1901.	4828·9	161·1	94·9	28·6	5897·3	174·4	148·3	44	5764·1	194·1	122·3	38·4	6309	219	167·6	58·6
1902 ...	5084	149	99	29	6309	189	158	41	5966	178	126	29	7200	212	157	56

NAMES OF LOCALITIES.	5.—ST. MARY'S.				6.—VERNON.				7.—SPRING BANK.				8.—HOLLYWOOD.			
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.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1895 ...	3495	123	138	29	5401	149	117	50	4663	161	155	43	6282	205	141	45
1896 ...	3535	144	126	31	5470	186	117	31	4718	169	129	43	6356	194	125	35
1897 ...	3577	125	136	31	5536	202	122	49	4773	163	146	41	6430	236	134	35
1898 ...	3618	122	107	31	5602	158	107	46	4827	188	120	36	6504	250	122	41
1899 ...	3659	128	122	35	5669	177	110	43	4883	144	136	36	6579	245	175	66
1900 ...	3702	114	123	23	5735	187	133	42	4940	162	151	41	6655	225	143	33
1901 ...	3745	89	89	15	5801	175	116	36	4997	129	117	36	6731	209	140	42
Averages of years 1895 to 1901.	3618·7	120·7	120·1	27·9	5602	176·3	117·4	42·4	4828·7	155·1	136·3	39·4	6505·3	219·1	140	42·4
1902 ...	3745	107	89	20	5933	175	116	33	4997	146	139	38	8199	256	150	32

Deaths of residents occurring beyond the district are included in sub-columns *c* of this table, and those of non-residents registered in the district excluded. (See note on Table I. as to meaning of terms "resident" and "non-resident.")

Deaths of residents occurring in public institutions are allotted to the respective localities, according to addresses of the deceased.

NOTE.—The populations throughout this table have been revised so as to bring them as far as possible into agreement with the recent Census enumeration.

Bank.			8.—Hollywood.			
Population estimated to middle of each year.	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.
a.	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*
556	155	43	6282	205	141	45
563	129	43	6356	194	125	35
569	146	41	6430	236	134	35
576	120	36	6504	220	122	41
582	136	36	6579	245	175	66
589	151	41	6655	225	143	33
596	117	36	6731	209	140	42
576	136·3	39·4	6505·3	219·1	140	42·4
596	139	38	8199	256	150	32

lum erms "resident" and "non-resident.")

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TABLE II.——LOCAL GOVERNMENT BOARD RETURN.——NAME OF DISTRICT **STOCKPORT.**

Names of Localities.	9.—Edgeley.				10.—Shaw Heath.				11.—St. Thomas's.			
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.
	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1895 ...	5974	277	117	35	5554	125	163	35	5215	180	178	46
1896 ...	6043	195	104	33	5618	156	98	22	5275	196	158	42
1897 ...	6114	189	96	22	5684	190	147	49	5336	211	173	44
1898 ..	6185	202	97	34	5750	177	117	37	5397	189	147	50
1899 ...	6257	169	119	33	5817	158	122	44	5458	180	137	32
1900 ...	6329	221	94	31	5884	149	149	31	5523	155	158	41
1901 ...	6401	180	107	27	5951	159	115	33	5587	173	139	37
Averages of years 1895 to 1901.	6186·1	204·7	104·9	30·7	5751·1	159·1	130·1	35·9	5398·7	183·4	154·3	41·7
1902 ...	6891	157	96	16	7511	192	152	34	5598	135	131	30

Names of Localities.	12.—Hempshaw Lane.				13.—Cale Green.				14.—Heaviley.			
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.
	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1895 ...	4630	165	110	45	6150	140	72	16	4237	124	73	19
1896 ...	4683	134	78	29	6221	118	67	14	4287	92	64	13
1897 ...	4736	134	110	44	6294	118	73	18	4336	122	70	22
1898 ..	4790	137	84	31	6368	138	77	19	4385	108	73	24
1899 ...	4845	155	107	40	6442	124	89	17	4435	103	62	19
1900 ...	4903	132	119	39	6516	146	104	15	4488	124	91	27
1901 ...	4960	148	100	27	6590	120	79	13	4540	133	60	17
Averages of years 1895 to 1901.	4792·6	143·6	101·1	36·4	6368·7	129·1	80·1	16	4386·9	115·1	70·4	20·1
1902 ...	5072	148	99	29	6618	139	92	24	6581	154	89	15

Names of Localities.	15.—Reddish North.				16.—Reddish South.				Whole Borough.			
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.
	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1895 ...	...	...	...	...	...	...	...	...	73620	2456	1870	568
1896 ...	...	...	...	...	...	...	...	...	74480	2388	1587	452
1897 ...	...	...	...	...	...	...	...	...	75350	2473	1725	531
1898 ..	...	...	...	...	...	...	...	...	76220	2381	1647	551
1899 ...	...	...	...	...	...	...	...	...	77100	2335	1671	518
1900 ...	...	...	...	...	...	...	...	...	78000	2297	1766	467
1901 ...	...	...	...	...	...	...	...	...	78897	2186	1549	481
Averages of years 1895 to 1901.	...	...	...	...	...	...	...	...	76238·1	2359·4	1687·9	502·6
1902 ...	5087	165	84	30	3731	104	55	21	94442	2606	1832	477

Deaths of residents occurring beyond the district are included in sub-columns c of this table, and those of non-residents registered in the district excluded. (See note on Table I. as to meaning of terms "resident" and "non-resident.")

Deaths of residents occurring in public institutions are allotted to the respective localities, according to addresses of the deceased.

Note.—The populations throughout this table have been revised so as to bring them as far as possible into agreement with the recent Census enumeration.

16.—Reddish South.				Whole Borough.			
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.
	b.	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*
	...	...	...	73620	2456	1870	568
	...	...	...	74480	2388	1587	452
	...	...	...	75350	2473	1725	531
	...	...	...	76220	2381	1647	551
	...	...	...	77100	2335	1671	518
	...	...	...	78000	2297	1766	467
	...	...	...	78897	2186	1549	431
	...	...	...	76238·1	2359·4	1687·9	502·6
31	104	55	21	94442	2606	1832	477

of terms "resident" and "non-resident.")

INFECTIOUS DISEASE NOTIFICATION ACT.
CASES REPORTED DURING 1902.

Month.	Small-pox.	Scarlet Fever	Diphtheria	Membranous Croup	Typhoid Fever	Puerperal Fever	Erysipelas	Totals
January	...	53	2	...	2	1	3	61
February	...	14	4	1	4	1	6	30
March ...	...	12	1	...	1	...	3	17
April	...	34	1	...	4	...	4	43
May	...	17	1	...	2	2	7	29
June	...	52	2	1	4	1	2	62
July	...	35	2	1	11	...	3	52
August	...	37	2	...	3	...	1	43
September	...	55	2	...	13	1	5	76
October ...	1	69	2	...	10		4	86
November	4	68	3	1	5	...	6	87
December	51	63	3	...	4	...	3	124
Totals	56	509	25	4	63	6	47	710

Vaccination.

In the accompanying table will be found the complete returns relating to primary vaccination of infants, during the decennium 1892 to 1901, in the three registration districts of Stockport, which include, in addition to the Borough, portions of Heaton Norris and Brinnington outside the Borough boundaries. During the last four years it is pleasing to be able to report that there has been a steadily maintained increase in the number of certificates of successful primary vaccination at all ages. The numbers being :—

1,970 for 1899,
2,062 ,, 1900,
2,217 ,, 1901,
and 2,368 ,, 1902.

Since the last Vaccination Act came into force, that is, since 1897, 256 certificates of conscientious objection have been received by the Vaccination Authorities.

Year ending 31st Dec'mb'r	No. of Births registerd	Successfully Vaccinated.	Insu'ceptible of Vaccination.	Had Smallp'x	Number in respect of whom Certificates of Conscientious Objection have been received.	Dead Unvaccinated.	Postponement by Medical Certificate.	Removal to districts the Vaccination Officer of which has been duly apprised.	Removal to places unknown or which cannot be reached and cases not having been f'nd	Unaccounted for.	No. of Certificates of successful Primary Vaccination at all ages received during each of the calendar years			
											1899.	1900.	1901.	1902.
1892	2644	1935	3	...	...	362	81	26	169	68	...	...	...	...
1893	2682	1901	14	..	...	397	33	33	144	160	...	...	...	...
1894	2690	1890	15	...	...	403	64	25	166	127	...	...	...	...
1895	2858	1843	13	..	...	449	46	12	237	258	...	...	...	...
1896	2747	1927	24	..	...	446	60	14	187	89	...	...	...	...
1897	2861	2029	9	.	39	446	32	22	151	133	...	...	...	...
1898	2750	1935	9	...	58	481	38	13	149	67	...	...	...	...
1899	2725	1926	18	..	52	439	60	8	151	71	...	...	...	...
1900	2719	2062	16	...	55	417	51	14	87	17	...	...	...	...
1901	2566	2031	4	...	52	363	*29	8	65	14	...	...	...	...
Totals.	27242	19479	125	...	256	4203	494	175	1506	1004	1970	2062	2217	2368

I am indebted to the courtesy of C. F. Johnson, Esq., solicitor, Clerk to the Guardians, for these figures.

* 8 of these cases will never be fit to be vaccinated.

TABLE III.

LOCAL GOVERNMENT BOARD RETURN. STOCKPORT DISTRICT.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1902.

Notifiable Disease.	Cases Notified in Whole District. At all Ages.	At Ages—Years. Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.
Small-pox...	56	...	...	3	4	49	...
Cholera ...	...	...	...	...	...	...	...
Diphtheria ...	25	2	4	11	2	6	...
Membranous croup	4	...	2	2	...	...	...
Erysipelas ...	47	2	...	1	4	38	2
Scarlet fever ...	509	7	147	312	28	15	...
Typhus fever ...	...	...	...	...	...	...	...
Enteric fever ...	63	...	2	15	18	27	1
Relapsing fever ...	...	...	...	...	...	...	...
Continued fever ...	...	...	...	...	...	...	...
Puerperal fever ...	6	...	...	...	...	6	...
Plague ...	...	...	...	...	...	...	...
Phthisis ...	5	...	...	...	...	5	...
Totals ...	715	11	155	344	56	146	3

Total Cases Notified in each Locality. Wards and Institutions.

Notifiable Disease.	No. 1 Lancashire Hill	No. 2 Heaton Lane	No. 3 Old Road	No. 4 Portwood	No. 5 St. Mary's	No. 6 Vernon	No. 7 Spring Bank	No. 8 Hollywood	No. 9 Edgeley	No. 10 Shaw Heath	No. 11 St. Thomas'	No. 12 Heapshaw Lane	No. 13 Cale Green	No. 14 Heaviley A	No. 15 Reddish North	No. 16 Reddish South B	Infirmary	Union Workhouse	Totals
Small-pox...	...	...	2	...	3	1	3	...	...	...	10	18	...	...	...	...	...	19	56
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria ...	1	...	1	1	2	...	...	...	3	1	...	3	4	...	6	3	...	...	25
Membranous croup	...	...	...	...	...	...	...	...	...	1	...	1	...	...	2	...	...	...	4
Erysipelas ...	1	1	2	4	2	3	4	4	1	3	3	4	2	7	1	1	...	4	47
Scarlet fever ...	12	10	13	63	8	63	16	64	61	35	20	61	29	22	18	2	11	1	509
Typhus fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric fever ...	4	4	5	4	2	5	...	6	3	5	6	2	1	6	4	2	1	3	63
Relapsing fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal fever ...	1	1	2	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	6
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis ...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	5
Totals ...	22	16	25	72	17	72	23	74	68	45	40	89	36	35	33	9	12	27	715

No. of Cases Removed to Hospital from each Locality. Wards and Institutions.

Notifiable Disease.	No. 1 Lancashire Hill	No. 2 Heaton Lane	No. 3 Old Road	No. 4 Portwood	No. 5 St. Mary's	No. 6 Vernon	No. 7 Spring Bank	No. 8 Hollywood	No. 9 Edgeley	No. 10 Shaw Heath	No. 11 St. Thomas'	No. 12 Heapshaw Lane	No. 13 Cale Green	No. 14 Heaviley A	No. 15 Reddish North	No. 16 Reddish South B	Infirmary	Union Workhouse	Totals	Union Cases Treated in Union Hospital
Small-pox...	...	...	2	...	3	1	3	...	...	...	10	18	...	...	...	...	...	19	56	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	2	...
Membranous croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
Scarlet fever ...	4	7	8	40	5	15	10	41	29	20	7	33	13	9	15	...	11	1	268	...
Typhus fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric fever ...	...	...	1	2	1	...	...	...	...	4	2	2	...	1	1	1	...	1	16	2
Relapsing fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals ...	4	7	11	42	9	16	13	41	29	24	19	53	14	10	16	2	11	21	342	8

NOTES.—The localities adopted for this table are the same as those in Tables II. and IV. Isolation Fever Hospital is situated in Heaviley (marked A.)
The case of Typhoid Fever in the Infirmary was treated in that Institution. Smallpox Isolation Hospital is situated in Reddish South (marked B.)

M EACH LOCALITY.

Old Road	No. 3	Portwood	No. 12	Cale Green	No. 13	Heaviley	No. 14	Reddish North	No. 15	Reddish South	No. 16	Infirmary	Union Workhouse	Totals	Union Cases Treated in Union Hospital
						A				B					
2		3		...		...		...		...		...	19	56	..
..		...		...		...		...		...		...	...	...	...
1		1		1		...		...		1		..	...	2	...
..		...		...		...		...		...		...	...	...	...
2		4		...		...		...		...		...	...	...	6
13		63		13		9		15		...		11	1	268	...
..		...		...		...		...		...		...	...	...	...
5		4		...		1		1		1		...	1	16	2
..		...		...		...		...		...		...	...	...	...
..		...		...		...		...		...		...	...	...	...
2		...		...		...		...		...		...	...	...	...
..		...		...		...		...		...		...	...	...	...
..		...		...		...		...		...		...	...	...	...
25		72		14		10		16		2		11	21	342	8

Smallpox.

This has already been made the subject of a Special Report, and it therefore only need be stated that during the year 1902 there were 56 cases notified, of which 51 occurred in December. All of these were removed to Hospital at once, and the usual preventive measures strictly enforced.

Measles.

The outbreak of this illness, which was specially reported upon in 1901, continued into the first half of 1902, and during that time was responsible for no less than 36 deaths—a number greater than that recorded as the mortality from scarlet fever, diphtheria, typhoid fever, or any of the other zymotic diseases which are regarded by the bulk of the public as more serious diseases. Never, until measles, with its companion, whooping cough, is put into the category of the diseases to be prevented, will its ravages on the child-life of this, or any other town, be reduced.

Whooping Cough.

This disease is credited with 33 deaths of young children during 1902. The remarks made in the immediately preceding paragraph apply with equal force here.

Take the record of the past ten years, and compare the influence of measles and whooping cough on the death-rate with that of all the notifiable diseases combined :—

Year.	Deaths due to Measles and Whooping Cough.	Deaths due to the remainder of the seven chief zymotic diseases put together.
1893	70	94
1894	4	32
1895	116	53
1896	51	55
1897	111	43
1898	73	35
1899	124	24
1900	65	37
1901	64	56
1902	69	54
Totals	747	483

Here we have, in the short space of 10 years, measles and whooping cough together causing more than 1½ times as many deaths as the whole of the remaining principal zymotic diseases put together. And yet we have practically no machinery for controlling the spread of these two diseases, or limiting their mortality !

Diarrhœal Diseases.

The year 1902 was a somewhat exceptional one in this particular, for the number of deaths recorded as due to diarrhœa is the lowest of which we have any record. The experience of this town was shared by a good many others, and it may be due to some fortunate coincidence of events of which we are not cognisant, and which may not occur again.

The diarrhœal death-rate for the whole Borough was the low one of 0.65 per thousand, the highest rates being recorded in Spring Bank Ward (1.80), and Heaton Lane Ward (1.74). In Cale Green and Reddish South Wards, no single death occurred during the year attributable to diarrhœa.

The localities affected by diarrhœal diseases are indicated in the accompanying statement, which shews streets in which fatal cases of diarrhœa occurred during the year. The figures following the name of the street indicate the month and day of the month on which the death occurred.

Ward.	Street	Day of Month.	Month.	
12	Canal street.....	1	1	
8	Freemantle street	5	1	
3	(Union) Short st...	29	1	
4	Hyde street ...	13	2	2 cases
		5	9	
2	Great Egerton st	28	3	3 cases
		1	9	
		16	9	
8	Back Wood street	19	4	
3	Hesketh street	26	4	2 cases
		23	9	
7	Wood street.....	7	5	
11	Higher Hillgate ...	23	6	
12	Higher Hillgate ...	20	9	
1	Summer's court, Bentley street	6	7	
1	Churchill street ...	7	7	
11	Barlow street	16	7	

Ward.	Street	Day of Month	Month.	
12	Angel street.....	18	7	
2	Allen street	5	8	
7	Piccadilly.....	7	8	
10	Burton crescent ...	7	8	
11	Hempshaw lane ...	20	8	
6	New Zealand road	31	8	
2	Wellington rd N	6	9	2 cases
		17	9	
15	Leicester street ...	13	9	
7	Brook street west	14	9	
11	Ardernfield street...	15	9	
4	Borron street	16	9	
10	Ladysmith street...	16	9	
7	Lord street	16	9	
7	Queen street west	17	9	
1	Sharples street ...	17	9	

Ward	Street	Day of Month	Month
4	Queen street	17	9
7	John street	19	9
5	Corporation street	20	9
10	Thomas street W.	21	9
5	Duke street	22	9
10	Apple ct., York st.	22	9
6	Newbridge lane	23	9
8	Yule street	23	9
10	Bowdon street	24	9
7	Clayton street	26	9
7	Lloyd's court, Swaine street	27	9
10	Bk. Longshut field	27	9
14	Carrington field	29 / 11	9 / 10 — 2 cases
8	Bann street	29	9
15	Priory lane, Reddish	29	9
14	Christie street	30	9
9	Earl street	1	10
12	Higher Barlow row	4	10
7	Isaac street	6	10
2	Rooth street	6	10
11	Bk. Swallow street	7	10
2	Watson street	7	10
11	Hindley street	8	10
2	Heaton lane	8	10
8	Myrtle street	9	10
2	Wycliffe street	26	10
2	Brinksway road	9	11
12	Johnson street	11	11

Scarlet Fever.

The year 1902 was an unfortunate one in respect of the occurrence or, rather, continuance of scarlet fever. In all 509 notifications of the disease were received, and of these reported cases, 268 were removed to the Isolation Hospital. The disease abated a little, as is usual, in the early part of the year, increasing rapidly after June, and being exceptionally prevalent in the last quarter of the year.

The cases notified each month are here given :—

	Cases.		Cases.
January	53	July	35
February	14	August	37
March	12	September	55
April	34	October	69
May	17	November	68
June	52	December	63

The illness attacked principally children at ages 3 to 15 years, though, as seen from the statement below, adults were somewhat unusually affected :—

	Cases.
All ages	509
Aged under 1 year	7
Aged from 1 to 5 years	147
Aged from 5 to 15 years	312
Aged from 15 to 25 years	28
Aged from 25 to 65 years	15

As regards Ward-distribution the information given shews that it was most unequal—Hollywood, Portwood, Vernon, Edgeley, and Hempshaw Lane districts being almost equally affected; whilst Reddish South, St. Mary's, Heaton Lane, Lancashire Hill, and Old Road escaped with extremely few cases. The exact figures are given herewith :—

	Cases.		Cases.
Lancashire Hill	12	Edgeley	61
Heaton Lane	10	Shaw Heath	35
Old Road	13	St. Thomas's	20
Portwood	63	Hempshaw Lane	61
St. Mary's	8	Cale Green	29
Vernon	63	Heaviley	22
Spring Bank	16	Reddish North	18
Hollywood	64	Reddish South	2

The causes of the spread of this disease were in the first place the mild nature of the attack—the characteristic rash and feverishness being almost absent in a large number of cases—leading to great difficulty in the recognition of the illness even by medical practitioners; and in the second place carelessness as regards exposure of infected persons and things by those responsible.

It is my opinion, too, that during 1902 we reached the crest of one of the waves of scarlet fever prevalence, and that when the present epidemic abates the town will be comparatively free from the disease for a number of years.

The cases for removal to Hospital had to be very carefully selected after an inquiry into individual circumstances, and though some dissatisfaction was occasioned to those parents who were compelled to go through the tedious work of isolation of cases at home, the strain on the Hospital was so severe that it was impossible to adopt any other means. I have always regarded it as better for the patient that he should be isolated at home, even imperfectly, rather than that he should be exposed to the undoubted dangers which exist in the wards of an infectious diseases hospital when it is overcrowded.

Return Cases of Scarlet Fever.

It is now generally conceded that return cases of scarlet fever are the result of one of two things.

(1) The patient who is the cause of the return case may be suffering in a slight and unrecognisable manner from some inflammation of the lining membrane of the nose, throat, mouth, or ears, and that in this inflamed centre the organisms which are supposed to cause the disease are present and can pass from the patient to others who come into close contact with him. (2) in other cases the patient, although perfectly well in himself, is carrying in the lining membrane of the nose, throat, mouth, etc., the germs of disease, which although causing no ill effects in him, may by transmission to others set up the disease of scarlet fever in them ("carrier cases.") Up to the present the germ or microbe which is presumably the cause of scarlet fever has not been isolated with certainty, and one is therefore unable to use a bacteriological examination of the throat, nose, and ear discharges as a test whether the patient may safely be discharged or not. The greatest care is taken during the residence of the infected patient in hospital, and on his discharge that no infected matter shall be carried out with him either in his person or his clothing, and in order to further safeguard the family to which he is returning the following letter of advice is sent to the parents. It is to be regretted that in many cases our inquiries have shewn that this advice is not followed out :—

STOCKPORT ISOLATION HOSPITAL.

NOTICE RE SCARLET FEVER PATIENTS.

To Parents, Guardians and others.

Although every care is exercised to guard against conveyance of Infection by persons discharged from the Stockport Isolation Hospital, it is impossible in some instances to prevent this accident. for no one can say with certainty how long Scarlet Fever may lurk in the system. PARENTS AND OTHERS ARE THEREFORE WARNED AGAINST ALLOWING RECENTLY DISCHARGED PATIENTS TO COME INTO UNNECESSARILY INTIMATE CONTACT WITH OTHERS. Many secondary cases of Scarlet Fever are caused by parents allowing children who have just returned from the Isolation Hospital to kiss or fondle. or sleep in the same bed with, other children in the family. No person discharged from a fever hospital should be allowed to sleep in the same bed as another until at least a fortnight after discharge. A SHORT HOLIDAY IN THE COUNTRY WITH PLENTY OF FRESH AIR, apart from others, is always desirable after convalescence from Scarlet Fever, AND ALL PERSON RECOVERING FROM SCARLET FEVER SHOULD BE WARMLY CLOTHED and otherwise protected against cold. ANY RECENTLY DISCHARGED PERSONS WHO COMPLAINS OF SORE THROAT, OR WHO HAS ANY DISCHARGE OR RUNNING FROM THE NOSE, OR EARS, OR WHO HAS A BREAKING OUT ON THE SKIN SHOULD BE AT ONCE ISOLATED and placed under the care of a medical man. **In any case, the Corporation cannot accept responsibility or liability for the outbreak of infection subsequent to the discharge of any patient from hospital.**

By order of the Sanitary Committee,

MEREDITH YOUNG, M.D.,

Medical Superintendent.

The following brief statement gives the main particulars of the "return cases" of Scarlet Fever which occurred during 1902.

Return Cases of Scarlet Fever.

No. 1, A.G.—First ill January 11th, with sore throat and rash same day. Previous sufferers T. & G. G.; discharged from hospital January 2nd and January 6th, respectively; had no complications whatever on discharge; returned straight home; no recurrence of symptoms after patients' return; patients occupied separate beds, but not a separate bedroom; questionable whether patients were kissed or fondled by person who has since been attacked.

Nos. 2 & 3, L.A. & A.A.—Illness commenced January 20th, with rash, sore throat, etc.. on 21st. Previous sufferer E.A.; discharged from hospital January 17th, after 31 days isolation; no complications on discharge; returned direct to home; no recurrence of any symptoms after patient's return; patient occupied separate bed and bedroom and had separate eating utensils; was not kissed, etc., by person since attacked.

No. 4, J. S.—Illness commenced January 27th, etc., 28th. Previous sufferer John S.; discharged from hospital January 7th, after 30 days isolation; no complications on discharge; no recurrence of symptoms after patients' return: did not occupy separate beds or bedroom, and did not have separate eating utensils.

No. 5, A.McH.—Illness commenced January 28th, with rash on 29th. Previous sufferer W. McH.; discharged from hospital January 20th, after 35, days isolation; returned straight home; no recurrence of symptons after patient's return: occupied separate bed and bedroom, and had separate eating utensils; was not kissed, etc., by person since attacked.

Nos. 6, 7, 8, & 9, H.A., E.A., E.A., & R.A.—Illness commenced March 24th, rash on 25th. Previous sufferers A. & I. A.; discharged from hospital March 17th, after 39 days' isolation; no complications on discharge; no recurrence of symptoms after return home; returned straight home, but did not occupy separate beds nor bedrooms, nor did they have separate eating utensils.

No. 10. A.E.—Illness commenced July 22nd, rash on 24th. Previous sufferers H.E., E.E., & A.E.; discharged from hospital on July 14th (two cases) and July 18th, after 41 (2 cases) and 45 days' isolation; no complications on discharge; no recurrence of symptoms after return home; occupied separate beds and bedrooms. and had separate eating utensils.

No. 11. E.G.—First ill July 31st, rash August 1st. Previous sufferer J.G.; discharged from hospital July 25th, after 46 days' isolation; no complications on discharge; no recurrence of symptoms after return home;

returned straight home, and had separate bed and bedroom, but not separate eating utensils; not noticed to have been kissed or fondled by person since attacked.

No. 12. N.M.—First ill September 6th, rash September 7th. Previous sufferer J.M.; discharged from hospital August 29th, after 32 days' isolation; no complications on discharge; no recurrence of symptoms after patient's return; returned straignt home, and occupied separate bed and bedroom, but did not have separate eating utensils.

Nos. 13 & 14. W.K. & J.K.—J.K. commenced with sore throat, etc., on September 12th, rash on September 13th; W.K. vomiting and sore throat on 17th, rash on 18th. Previous sufferers W. & A K.; discharged from hospital September 1st, after 41 days' isolation; no complications on discharge; returned straight home; no recurrence of any symptoms after return; occupied separate beds and bedrooms, and had separate eating untensils; not kissed or fondled by persons since attacked.

No. 15. F.H.—First ill, November 10th; rash, November 11th. Previous sufferer E.H.; discharged from hospital October 20th, after 35 days' isolation; no complications on discharge; no recurrence of symptoms after patient's return; returned straight home, and occupied separate bed but not separate bedroom; was provided with separate eating utensils.

Nos. 16 & 17. P.F. & N.F.—First ill. November 29th; rash, November 30th. Previous sufferer F.F.; discharged from hospital November 27th, after 43 days' isolation; no complications on discharge; no recurrence of symptoms after patient's return; returned straight home, and occupied separate bedroom; also having separate eating utensils. (These cases are only questionable return cases, as the period which elapsed between the patient's return home and the commencement of the illness of the other children is rather too short to allow of the two cases having been infected by the other one.

No. 18. A.R.—First ill, December 21st; rash, same day. Previous sufferer A.R.; discharged from hospital December 29th, after 56 days' isolation; no complications on discharge; no recurrence of symptoms after patient's return home; returned straignt home, and occupied separate bed but not separate bedroom; had separate eating utensils provided.

Diphtheritic Disease.

In this group Diphtheria and Membraneous Croup are included. The total number of such cases notified during 1902 has been only 25, and it is worthy of note that the figure has been a low one for many years. The accompanying statement gives some of the more important sanitary circumstances ascertained on inquiry into these cases. Diptheria is probably not so prone to attack persons exposed to effluvia from insanitary surroundings as the general public have learnt to believe, and the statement appended appears to support that view.

SANITARY CIRCUMSTANCES OF NOTIFIED CASES OF DIPHTHERITIC DISEASE, 1902.

Folio No.	Street.	Age.	Sex.	Closet Accommodation.	Paving of Yard.	Paving of Passages.	Remarks.
29	Beech Road	2	F.	W.C outside.....	Paved.	Earth.	Cellar in damp state.
58	Shaw Heath..... ...	19	F.	W.C. outside.....	Partly paved.	Earth.	... ...
78	Newton Street	18	M.	W.C. outside.....	Paved.	Paved.	Fatal.
82	Manchester Street, Reddish.	4 mos.	F.	Privy 7 ft. away ...	Paved.	Cobbled.	Fatal.
86	Johnson Street.....	28	F.	Privy 6 yds. away	Partly paved.	Earth.	Privy-midden offensive.
88	Manchester Street, Reddish.	7	F.	Privy 7 ft. away ...	Paved.	Cobbled.	Infected by contact with case No. 82.
89	Do. do. ...	11 mos.	F.	do. do.	Paved.	Cobbled.	Fatal. Infected by contact with case No. 82.
100	Hall Street	3	F.	Privy 12 yds. away	Paved.	Earth.	Fatal.
150	Adswood Lane West	5	M.	Privy 6 yds. away	Partly paved.	Earth.	Fatal.
160	Aberdeen Crescent ...	5	F.	Privy 7 yds. away	Partly paved.	Partly paved.	Recently visited friends in Manchester where there were cases of diphtheria in house.

Folio No.	Street.	Age.	Sex.	Closet Accommodation.	Paving of Yard.	Paving of Passages.	Remarks.
199	Corporation Street ...	6	F.	Privy 2 yds. away	Partly cobbled.	Paved.	Fatal.
208	Norfolk Street	6	M.	Privy 4 yds. away	Partly paved.	Earth.	Fatal. Defective stone drain.
234	Bateson Street.....	12	M.	W.C. outside	Paved.	Paved.	... ...
264	Prenton View, Reddish	5	F.	Privy 5 yds away	Paved.	Earth.	Fatal.
281	Kennerley Grave Lane	30	F.	W.C. outside	Earth.	Asphalted.	(Female Inspector). Said to have been contracted by visiting filthy house where fowls were kept and where there was also large offensive privy-midden.
287	Bramhall lane	8 mos	M.	W.C. outside	Flagged.	Concreted.	... ...
316	Caroline Street.....	16	M.	Privy 6 yds. away	Partly paved.	Paved.	Offensive common privy-midden.
326	Barlow Lane, Reddish	26	F.	Privy 3 yds. away	Paved.	Earth.	... ...
378	Greg Street, South Reddish.	33	M.	Pail 10 yds. away	Partly paved.	Earth.	Drainage connected direct with sewer.
380	Love Lane	5	M.	Privy 2 yds. away	Paved.	Partly paved.	... ...

Folio No.	Street.	Age.	Sex.	Closet Accommodation.	Paving of Yard.	Paving of Passages.	Remarks.
433	Lingard Street, Reddish.	5	F.	Privy 2 yds. away	Paved.	Earth.	Fatal. Complained of defective drainage, which was tested and found in good condition.
436	Underbank	13	F.	W.C. outside	Paved.	Earth.	A visitor from Bury. Taken ill on day of visit.
545	Clarke Street	32	F.	Privy 6 yds. away	Partly paved.	Earth.	Complained of offensive gully at rear.
561	Gorton Road, Reddish	27	F.	Privy 10 yds away	Paved.	Earth.	Constantly nursing kitten. Defective drainage and foul privy.
562	do. do.	4	M.	Pail 10 yds. away	Partly paved.	Earth.	Fatal.
580	Florist Street	2	F.	W.C. outside	Partly paved.	Earth.	Offensive smells from stagnant water lying in unpaved road at front of house.
607	Grenville Street ...	12	M.	W.C. outside	Flagged.	Paved.	... ...
677	Morton Street	5	F.	Privy 6 yds. away	Paved.	Paved.	... ...
709	Welcroft Street	5	M.	Privy 5 yds. away	Paved.	Paved.	... ...

Typhoid Fever.

During the year 63 cases of this disease were notified, the majority of the cases occurring in July, September, and October. It was only possible to isolate in Hospital 16 of these cases, owing to the exceptional prevalence of Scarlet Fever.

In several cases the source of infection appeared to be the consumption of shellfish, and especially mussels, but as these were purchased in a casual manner from hawkers or from street barrows it was quite impossible to trace their source.

The statement is carried forward from previous years, and serves to emphasise the vicious part played by privy-middens in the dissemination of the disease.

The following statement shews cases in which there was probably some condition of soil-infection or privy infection at work quite apart from personal infection. The figures refer to cases arising during the years 1894 to 1902 inclusive.

In 75 houses 1 subsequent case occurred, viz. :—

In 56 cases within a few weeks.
„ 13 „ about 1 year later.
„ 3 „ „ 2 years later.
„ 1 „ „ 3 „ „
„ 2 „ „ 4 „ „

In 21 houses 2 subsequent cases occurred, viz. :—

In 18 cases within a few weeks.
„ 1 case about 1 year later.
„ 2 cases „ 2 years „

In 3 houses 3 subsequent cases occurred, viz. :—

In 2 cases within a few weeks.
„ 1 case about a year later.

In 2 houses 4 subsequent cases occurred, viz. :—

1 within a few weeks and 1 about 3 years later.

In 3 houses 5 subsequent cases occurred, of which

2 were within a few weeks, the other 4 years later.

In 1 house 4 subsequent cases occurred within a few weeks.

„ 1 „ 7 „ „ „ „ „ „
„ 1 „ 8 „ „ „ „ „ „

Tubercular Diseases.

The death-rate from this group of diseases during 1902 was 2·08 per 1000. The death-rate from phthisis pulmonalis, or that form of tubercular disease which attacks the lungs, was 1·62 per 1000.

For the past nine years the death-rates from these diseases have been as follows :—

Year.	Phthisis Pulmonalis.	Other Tubercular Diseases.
1893	2·33	—
1894	2·03	—
1895	2·20	0·78
1896	1·91	0·49
1897	1·68	0·75
1898	1·91	0·66
1899	1·85	0·53
1900	1·75	0·84
1901	1·49	0·48
1902	1·62	0·46

The death-rate in both columns may be seen to be lower now than even a few years ago, and I make no doubt that if it were possible to trace the statistics of the disease further back we should find that the decrease in mortality was much greater than is shewn by the figures given. The decrease in mortality from these diseases has been marked throughout the whole country, and more so in the case of phthisis pulmonalis than the other tubercular diseases. This decrease has, I think it is admitted an all sides, been due to the influence of improved sanitation which the advent and enforcement of sanitary laws have brought about. The encouragement of free ventilation and of cleanliness of person and surroundings, coupled with the carrying out of measures to secure the unhampered access of sunlight, have probably done more for the prevention and cure of the disease than all the purely medical or surgical remedies put together. Fresh air and sunlight as applied to the cure of phthisis pulmonalis have already saved hundreds of lives: properly applied to the prevention of that disease they would, it is certain, prevent tens of hundreds of cases of illness. Generations have been allowed to grow up in the midst of conditions in which tuberculosis could not help but flourish. In Stockport the arrangement of houses in "courts" is one which is bound from its very nature to interfere with the free circulation of air and the proper access of sunlight. The inside of the court is a more or less stagnant pool of air, in which the odours of privy-middens, ashpits, slops, &c., are concentrated. For some time now I have been making inquiries into the occurence of deaths in the numerous "courts" of this town. but until it is possible to make an extended inquiry, taking a special census of the court-dwellers and those living in the open streets off which the "courts" open, and noting amongst other things their length of residence in the "courts," nothing can be advanced but pure conjecture. It is my hope to be able to do this, with the consent of your Sanitary Committee, before very long now.

The following table is carried forward from previous years and demonstrates practically how tuberculosis attaches itself to certain houses despite measures of disinfection and cleansing.

List showing localities in which deaths from pulmonary consumption have occurred **in the same house** in succeeding years :—

Situation of house.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
Manchester Road (House A)	...	2	...	...	...	...	...	...	...
do. do. (House B)	...	...	...	1	...	1	...	...	...
Old Road	...	1	...	...	1	...	...	...	...
Bury Street	...	...	1	...	1	...	...	...	...
Bentley Street	...	1	...	...	1	...	...	...	...
Reuben Street	...	...	1	...	1	...	...	...	...
Grafton Street	...	...	..	...	1	...	1	...	...
Ellen Street	...	...	...	...	2	...	...	...	...
Chorlton Street	1	...	1	...	...	...	...	...	...
Ince Street	...	1	..	...	1	...	...	...	...
Rowland Street	...	...	...	...	...	...	1	...	1
Smith Street (House A)	1	1	...	...	...	...	...	...	...
do. do. (House B)	...	...	...	...	...	...	...	1	1
Brunswick Street	...	...	...	...	...	...	2	...	...
Travis Street	...	...	...	...	...	..	...	...	2
Wellington Road North	...	...	...	...	1	...	...	...	1
Great Egerton Street	...	...	...	...	...	...	1	1	...
Heaton Lane	...	1	...	1	..	...	...	...	...
Bridgefield Street	...	...	1	...	...	...	...	...	1
Bowden Street	1	...	...	...	1	...	...	...	...
Chatham Street	...	...	...	..	...	...	1	1	...
Carlile Street	1	...	...	...	.	...	...	1	...
Stopford Street	...	...	...	...	...	...	...	...	2
Grenville Street	...	...	1	...	...	...	...	1	...
Lomas Street	...	1	...	...	...	1	...	...	...
James Street	1	...	...	..	...	1	...	...	..
Booth Street	...	...	...	2	...	...	...	...	...
Osborne Road	...	1	...	...	...	...	1	...	...
Heath Crescent	...	...	...	...	...	...	...	1	1
Bramall Lane	...	...	...	...	...	...	...	...	2
Brinksway (House A)	...	1	1	...	...	...	...	...	...
do. (House B)	...	...	.	...	1	...	...	...	1
East Street (House A)	...	1	...	1	...	...	...	...	...
do. do. (House B)	...	...	...	1	...	...	...	1	...
do. do. (House C)	...	...	...	...	...	...	...	2	..
Moss Street	...	1	...	1	...	...	...	...	...
Chestergate	...	...	2	...	...	...	...	..	...
Lottery Street	...	...	1	...	1	...	.	...	...
Daw Bank	1	...	...	...	...	...	...	...	1
Dialstone Lane	1	...	...	1	...	...	...	...	...

Situation of house.	1894	1805	1896	1897	1898	1899	1900	1901	1992
Grimshaw Street	2	...	...	...	...	...	...	...	...
Rosemary Lane (House A)	...	...	. .	...	...	...	1	1	...
do. do (House B)	...	...	...	...	...	...	1	1	. .
Churchgate	...	...	...	2	...	...	...	...	...
Edward Street	...	...	3	...	...	...	...	...	...
Middle Hillgate.....	.	...	...	...	...	...	2	...	...
High Street (House A).....	1	...	...	...	...	...	...	1	...
do. do. (House B) ...	..	...	...	...	...	...	1	...	1
London Place (House A) ...	...	1	1	...	...	...	...	..	...
do. do. (House B) ...	...	1	1	...	...	...	...	...	...
Tatton Street.....	...	1	...	...	...	...	...	...	1
Adlington Square	...	...	...	1	...	...	...	...	1
Angel Street	...	...	1	...	.	. .	1	...	...
German Street	...	...	1	...	1	1	...	..	...
Shawcross Street	...	...	...	...	...	1	1	...	...

Infant Mortality.

The total number of deaths in children under one year of age during 1902 was 477, a number equal to 183 per thousand children born. In other words more than one-sixth of the children born failed to survive the first year of life. This figure, though a steadily decreasing one, and one which is now lower than it has ever been, is still greatly in excess of that of the country generally, and is still deplorably large, even for a manufacturing town.

The chief cause of this high death-rate amongst infants is maternal ignorance and neglect finding its effect in early weaning, injudicious hand-feeding, and lack of proper care in the general management of infants.

Another and large contributing cause is, in my opinion, the employment of female labour in factories, leading in many cases to premature confinement and the death of the immature infant thus born.

The following figures giving the causes of death in infants during 1902 appear to confirm the opinions I have just stated :—

	Deaths.
Diarrhœal Diseases.....	46
Inflammation of Stomach or Intestines	41
Atrophy, Debility, Wasting	88
Premature Birth..... .	50
Debility at Birth.....	16
Dentition	29
Convulsions	35
Acute Bronchitis.....	45
Broncho-pneumonia	24
Tubercular Diseases	21
Whooping Cough	20
19 Other Causes	62
Total	477

As in most other matters connected with the public health, the greatest evil of all is the ignorance which prevails amongst not merely the poorer classes, but to an almost equal extent in the classes which one would expect to find educated in matters connected with the hygiene of infancy. Such ignorance dies hard and it is only with the very greatest difficulty that one can break down and supplant the old-established and harmful notions which are rooted in the minds of both old and young mothers. The young mothers are almost invariably found most rational and amenable to suggestion and correction.

I am more than ever hopeful that the system of employing well-educated ladies to visit mothers at their homes and instruct them by demonstration and verbally in the feeding and general management of infants will prove the means of preventing a very great and an increasing number of deaths in young infants. For the prevention of those deaths due to premature labour one must look again to education, but more so still to legislation. The employment of female labour in factories should be restricted in such a manner as to prevent women continuing at their work, as they frequently do, until a few days before their confinement.

The occurrence of 20 deaths of infants from whooping cough was due to a continuance of the outbreak of that disease alluded to in my last Annual Report, whilst some of the deaths ascribed to bronchitis and broncho-pneumonia were most probably due to the same thing, these diseases being very common sequelæ of whooping cough.

It is somewhat singular to have to record no less than 21 deaths of infants from tubercular diseases, and more unusual still to have to report that in five of these cases the deaths were due to tuberculosis of the lungs or pulmonary consumption.

The only pleasant thing to record in this connection is the fact that the rate of infant mortality shows a gradual and persistent decrease of late years as witness the following figures :—

Year.	Deaths under 1 year.	Death-rate per 1,000 Births.
1891	522	224
1892	463	199
1893	522	222
1894	442	192
1895	568	231
1896	452	189
1897	531	214
1898	551	231
1899	518	221
1900	467	203
1901	431	197
1902	477	183

I am hopeful that by a continuation of the efforts which are now being made in the direction of educating the public, together with an improvement in the sanitary environments, particularly of the poor, this rate will ere long be down to 150 per thousand, or even less. Until that happy point is reached the infant mortality must be regarded as a blot upon the public health character of the town.

Deaths in Cellar-dwellings.

There are now about 150 cellar-dwellings in the town, all of which conform to the provisions of the Public Health Act, 1875. The population inhabiting these dwellings numbers about 400, and consists, I think it might be said, entirely of aged or infirm couples, or young married people in reduced circumstances and with one or two young children. The deaths which have occurred in these cellar-dwellings during the past eight years are tabulated herewith. It is striking to note amongst these the number of deaths of very young children—a fact which may be due to the unfitness of such dwellings to support infant life, or to the ignorance of health laws, which so often accompanies extreme poverty.

Date of Death.	Where Died.	Age.	Sex.	Occupation.	Cause of Death.
1901.					
May 23	Cellar under 28, Newbridge Lane...	4 weeks	F	(See year 1900)	Natural Causes, Probably Convulsions (Inquest)
August 21	,, 55, Union Street	5 m'nths	M	...	Marasmus
Nov. 15	,, 12, ,, ...	10 m'ths	F	...	Premature Birth
1900.					
Feb. 9	,, 141, Old Road	3 days	M	...	Inanition
April 4	,, 28, Newbridge Lane ...	4 days	M	(See year 1901)	Convulsions (Inquest)
,, 23	,, 26, Crowther Street ...	2 m'nths	M	...	Bronchitis (Illegitimate)
June 12	,, 25, Old Road	5 m'nths	F	...	Ac. Bronchitis
1899.					
August 13	,, 150, Hesketh Street ...	73	M	Gen. Labourer	Senile Decay
,, 22	,, 22, Brewery Street ...	7 m'nths	M	...	Starvation (Inquest) (Illegitimate)
October 12	,, 4, Wesley Street	14 m'ths	F	(See year 1895)	Bronchitis (Illegitimate)
1898.					
August 29	,, 18, Brewery Street ...	8 m'nths	F	...	Teething—Bronchitis
1897.					
March 19	,, 1, Adcroft Street	76	M	Hawker	Syncope following Bronchitis (Inquest)
April 2	,, 55, Lancashire Hill ...	65	M	Scavenger	Gastric Catarrh
,, 29	,, 40, Union Street	1	F	...	Dentition and Convulsions

August 19 1896.	„ 29, „	3 m'nths	M	...	Marasmus Convulsions
Jan. 3	In a Cellar at Christy's mill	62	M	Carter	Natural Causes (Inquest)
April 8	Cellar under 145, Old Road	81	M	Army Pension'r	Senile Decay
„ 25	„ 10, Hart Street	5	M	...	Whooping Cough
Sep. 28	„ 15, Union Street	60	F	Hat Trimmer...	Bronchitis
Nov. 22 1895.	„ 4, Hart Street	5 weeks	F	...	Bronchitis and Inflammation (Inquest)
Jan. 29	„ 3, Angel Street	6 m'nths	M	...	Bronchitis (Illegitimate)
April 20	„ 30, Union Street	5 m'nths	F	...	Marasmus
„ 15	„ 12, Old Gardens Street	4 m'nths	M	...	Tabes Mesenterica, Exhaustion
June 26	„ 4, Wesley Street	6 m'nths	M	(See year 1899)	Inanition from Birth (Illegitimate)
August 8	„ 61, Lancashire Hill ...	67	M	Mill Operative	Right Hemiplegia Cerebral Hæmorrhage
October 18 1902.	„ 30, Union Street	35	F	...	Morbus Cordis
Jan. 6	„ 9, Angel Street	55	F	...	Apoplexy
October 2	„ 13, Bamford Street ...	77	F	...	Senility
Nov. 6	„ 22, Newbridge Lane...	2 m'nths	M	...	Bronchitis, Exhaustion
Dec. 3	„ 49, Bamford Street ...	69	F	...	Apoplexy

CAUSE OF DEATH	All Ages	Under 1	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and upwards	WARDS 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Totals	Deaths in outlying parishes belonging to the Union	CONSTITUENTS Within Municipal Limits and Suburbs	Under-ley	Ecclesfield Rural Sanitary District	Ecclesfield Municipal Ward
I.—Zymotic Diseases—																													
Small-pox	7					7								1			3	1	2					7					7
Measles	36	8	16	2					9	2	1	3	2	3	7			3	1	1	2	1	1	36					
Scarlet Fever	23		12	10		1				1	1		1	2	4	5	1		4	1	2	1		23					7
Typhus Fever																													
Influenza (Epidemic)	9			1		8			1	1			1			1	3				2			9					
Whooping Cough	33	20	12	1				5	1	1		3	1	2	3	1	3	2	3	5	1	3	2	33					
Diphtheria	11	1	5	5							1	1					2		1	1		4	1	11					1
Enteric	13		1	1	4	7		2	2	2		1	2					2			2			13					1
Diarrhœa, Dysentery	48	34	8	1		3	2	5	11	3	4		2	7	2		4	4	3		2	1		48				1	
Epidemic or Zymotic Enteritis	14	12	2									2		2	2	1	2	2	1		1	1		14					
Parotitis	1			1											1									1					
Tetanus																													
II.																													
Syphilis	5	4	1						1			1					2						1	5				3	
Gonorrhœa	2					1	1							1			1							2				1	
III.—Septic Diseases—																													
Erysipelas	4					4			1		1		1								1			4				3	
Puerperal Fever	6					6		1	1	2								1				1		6					
Pyæmia, Septicæmia	1	1																						1			1		
Other Allied Diseases	5	3	1	1								1			1		1		1	1				5					
IV.																													
Remittent Fever	1		1							1														1					
Rheumatic Fever	5			1	1	2	1		1			1			1		1			1				5					
V.—Tubercular Diseases—																													
Tuberculosis of Brain or Meninges (Acute Hydrocephalus)	18	6	8	4				1	1	3				2	2		3			2	1	2	1	18				3	
Tuberculosis of Larynx																													
Tuberculosis of Lungs	153	1	5	9	23	105	5	9	12	14	13	8	9	9	14	12	16	10	6	7	8	3	4	156	7			20	1
Tuberculosis of Intestines (Tabes Mesenterica)	9	5	2	1		1					2		1	2	1					1		2		9					
Tuberculosis (General)	17	2	8		2	5		1	1	2		8	1	1	1	2	2		1	2				17				5	
Tubercular disease of undefined position																													
Other forms of Tuberculosis, Scrofula																													
VI.—																													
Thrush	3	3												1	1							1		3					
Acute Alcoholism (Delirium Tremens)	5					5					1						1		1		2			5			1	2	
Arsenical Poisoning																													
VII.—Constitutional Diseases—																													
Osteo-arthritis (Rheumatoid Arthritis)	6				1	3	2										1	2			2	1		6					
Cancer	69				1	46	22	2	5	8	7	2	8	4	7	7	5	6	1	5	2		5	69	2		1	11	
Diabetes Mellitus	10				1	8	1	1			1	1					2	2	1	1		1		10				1	
Purpura Hæmorrhagica																													
Anæmia Leucocythæmia	7	1			1	5			1	2	1	1					2							7				1	
Lymphadenoma (Hodgkin's Disease)																													
VIII.—Developmental Diseases—																													
Premature Birth	50	50						1	2	1	5	4	4	6	2	1	4	5	4	3	3	5	2	50					
Debility at Birth	16	16								2	1		2	2		1	2	1	5					16					
Atelectasis	6	6										1			2					1		1		6					
Congenital Defects	9	9										1		1	2		2			1		2		9			1	1	
Atrophy, Debility, Marasmus	92	88	4					12	11	6	12	5	4	6	3	3	4	9	1	2	4	2	4	92				1	
Dentition	35	29	6					2	2		13	1	2	3	3	2	1			1		2		35					
Rickets	2		2															2						2					
Old Age (Senile Decay)	108					6	102	7	6	6	13	2	4	6	13	5	6	7	5	6	6	5	7	108			1	16	
IX.—Diseases of Nervous System—																													
Convulsions	40	35	5					3	3	5	5	2	3	3	4	1		4	5		1	1	2	40				1	
Meningitis	17	5	7	2		3		1					2		4		5	1	1			3		17	3				
Encephalitis	1						1										1							1	1				
Apoplexy	27					15	12	3	1	1	2		3	3	3	2	2	3	1	2	2	1	1	27	1			6	
Softening of Brain	6					5	1	1			1		1	1							2			6	1			2	
Hemiplegia (Brain Paralysis)	9					4	5				1	1	1				1	1		1		1	1	9				1	
General Paralysis of Insane	9				2	6	1	1					1	1			1	2	1		1	1		9	5			2	
Other Forms of Insanity	4					3	1											1		1		2		4	2			1	
Chorea	1				1						1													1					
Cerebral Tumour	4					3	1	2								1		1						4	1				
Epilepsy	4					3	1	2	1												1			4			1	1	
Laryngismus Stridulus	4	1	2	1								1		1				1				1		4					
Locomotor Ataxy	1					1					1													1					
Paraplegia (Diseases of Spinal Cord)	6		1		1	4		1		1	1			2									1	6			1	2	
Other and ill-defined Diseases of Brain or Nervous System	3	1				1			1									1			1			3					
Peripheral Neuritis																													
X.																													
Otitis, Otorrhœa	1		1																			1		1	1				
XI.—Diseases of Circulatory System—																													
Pericarditis	1			1																		1		1					
Endocarditis, Valvular Diseases of the Heart	28			4	1	14	9	1	2	5	2		1	1			2	2		1		3	3	28	1			1	
Angina Pectoris	4					3	1							1			1		1					4					
Aneurism																													
Senile Gangrene	2						2		1									1						2				2	
Embolism, Thrombosis	5					3	2	2				1		1		1								5			2		
Phlebitis																													
Varicose Veins	1					1					1													1					
Other and ill-defined Diseases of Heart and Circulatory System	131	4		5	3	81	38	4	11	9	9	10	7	10	13	4	11	12	6	7	5	8	3	131	2			40	
Cerebral Hæmorrhage	32					17	15	2	2	2	1	2	2	1	5	1	1	3	1	6		2	1	32				9	

August 19 .. 29. .. ..3 m'nths M ... Marasmus Convulsions

CAUSE OF DEATH.	All Ages	Under 1 m.
I.—Zymotic Diseases:—		
Small-pox	7	...
Measles	36	8
Scarlet Fever	23	...
Typhus Fever	...	...
Influenza (Epidemic)	9	...
Whooping Cough	33	20
Diphtheria	11	1
Enteric	13	...
Diarrhœa, Dysentery	48	34
Epidemic or Zymotic Enteritis	14	12
Parotitis	1	...
Tetanus	...	...
II. Syphilis	5	4
Gonorrhœa	2	...
III.—Septic Diseases:—		
Erysipelas	4	...
Puerperal Fever...	6	...
Pyæmia, Septicæmia	1	1
Other Allied Diseases	5	3

CAUSE OF DEATH	All Ages	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and upwards	WARDS 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Totals	Deaths in outside districts belonging to the Borough	INSTITUTIONS Bishop Rawson Memorial Infirmary	Infirmary	Union Workhouse	Lunatic Hospital
XII.—Diseases of Respiratory System:—																													
Laryngitis	4	1	2	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1	1	1	...	...	...	4	...	...	...	1	...
Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis, Acute	75	45	12	1	4	8	5	4	5	6	11	1	6	8	7	1	5	3	4	5	2	2	5	75	...	...	...	...	...
Bronchitis, Chronic	105	...	...	1	2	53	49	6	8	8	10	9	5	8	6	11	7	7	4	5	8	1	2	105	...	...	...	9	...
Pneumonia, Croupous (Lobar)	40	...	3	2	2	29	4	3	1	2	1	3	2	4	4	5	5	4	3	1	1	1	...	40	...	...	...	14	...
Pneumonia, Bronchо (Lobular)	87	24	23	1	...	31	10	5	7	7	9	3	4	8	7	5	12	10	5	4	1	2	3	87	...	...	1	17	...
Pneumonia (Form not stated)	53	5	10	1	...	26	11	1	7	2	2	2	6	5	3	1	5	2	4	6	2	3	2	53	...	...	...	10	...
Emphysema, Asthma	3	...	...	...	...	3	...	...	...	1	...	...	...	...	1	...	...	...	...	...	1	...	...	3	...	...	1	...	...
Pleurisy	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...
Other and ill-defined Diseases of Respiratory System	8	...	...	...	...	8	...	...	...	...	...	1	...	1	4	...	...	2	...	...	...	...	...	8	1	...	...	4	...
XIII.—Diseases of Digestive System:—																													
Diseases of Mouth and Annexa	3	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	...	3	...	...	...	...	...
Diseases of Œsophagus	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...
Ulcer of Stomach and Duodenum	4	...	...	...	...	4	...	...	1	...	...	...	...	...	1	...	...	1	...	1	...	...	...	4	...	...	...	...	...
Other Diseases of Stomach	16	6	1	2	...	6	1	...	1	1	1	2	1	3	2	...	2	1	1	1	...	...	...	16	1	...	...	...	...
Enteritis	47	35	7	...	1	3	1	5	3	...	4	2	10	6	3	3	2	3	4	1	1	...	...	47	...	...	...	...	...
Appendicitis	3	...	...	...	1	2	...	...	...	...	...	...	...	2	...	...	...	...	...	...	1	...	...	3	...	...	...	...	...
Obstruction of Intestine	19	1	1	...	...	8	9	...	3	3	1	...	1	2	2	1	3	...	...	...	1	2	...	19	...	...	5	2	...
Other Diseases of Intestine	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...
Cirrhosis of Liver	5	...	...	...	...	5	...	...	1	...	...	...	...	1	...	1	...	1	...	1	...	...	...	5	...	...	...	...	...
Other Diseases of Liver	9	1	1	...	...	5	2	...	2	1	...	1	2	...	...	1	1	...	1	...	...	...	...	9	...	...	...	...	...
Peritonitis	7	...	1	1	2	3	...	...	1	2	1	2	1	...	...	...	...	...	...	...	...	...	...	7	...	...	...	1	...
Other and ill-defined Diseases of Digestive System	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
XIV.																													
Mediastinal Tumour	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Myxœdema	3	...	...	...	...	2	1	...	...	...	...	1	...	...	...	...	...	...	...	...	2	...	...	3	...	...	...	...	...
XV.—Diseases of Urinary System:—																													
Nephritis, Acute	9	...	2	...	1	6	...	1	...	...	...	1	...	...	...	1	1	...	3	1	...	1	...	9	...	...	...	...	...
Bright's Disease	29	...	...	...	1	24	4	1	4	2	1	1	2	2	1	4	1	1	2	3	4	...	...	29	1	...	...	4	...
Calculus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Disease of Bladder and Prostate	9	...	...	...	...	4	5	...	...	1	1	...	...	1	...	1	...	2	1	...	...	1	1	9	...	...	...	3	...
Other and ill-defined Diseases of Urinary System	2	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	2	...	...	1	...	...
XVI.																													
Diseases of Ovaries	2	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2	2	...	...	...	...
Diseases of Uterus and Appendages	2	...	...	...	...	2	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	2	...	...	1	...	...
XVII.—Diseases Associated with Childbirth:—																													
Puerperal Convulsions	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Placenta, Prævia, Flooding	4	...	...	...	...	4	...	...	1	...	...	...	...	1	...	...	1	1	...	...	...	...	...	4	...	...	...	2	...
Other and ill-defined Accidents and Diseases of Pregnancy and Childbirth	6	...	...	...	...	6	...	...	1	...	...	...	1	...	...	...	...	1	1	...	1	...	...	...	6	...	...	...	...
XVIII.																													
Arthritis	3	...	...	...	1	2	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	...	...	3	...	...	1	...	...
Other and ill-defined Diseases of Osseous System	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
XIX.—Accidents:—																													
In Vehicular Traffic	2	...	...	...	...	2	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	2	2	...	...	...	...
On Railways	3	...	...	...	1	2	...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	3	1	...	...	...	...
By Weapons and Implements	3	...	...	...	...	3	...	...	...	...	2	...	...	...	1	...	...	...	...	...	...	...	...	3	...	...	...	...	...
Burns and Scalds	17	...	7	1	1	7	1	...	1	...	6	...	3	2	2	...	...	1	1	1	...	...	...	17	...	...	13	1	...
Poisons, Poisonous Vapours	2	...	...	...	1	1	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	2	...	...	...	...	...
Drowning	6	...	1	...	...	5	...	...	1	...	1	...	1	...	...	...	...	...	...	1	...	2	...	6	...	...	...	...	...
Suffocation, overlaid in bed	8	8	...	...	...	...	...	2	2	...	1	...	...	...	...	1	...	...	...	...	...	1	1	8	...	...	...	...	...
Falls, not specified	16	...	...	2	1	9	4	1	1	3	1	1	...	2	1	2	1	...	1	2	...	...	...	16	...	...	5	4	...
Weather Agencies	2	...	...	1	...	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...
Otherwise and not stated	4	...	...	...	...	1	3	...	1	...	...	...	...	1	...	...	...	...	...	...	2	...	...	4	...	...	3	...	...
XX.—Suicides:—																													
By Poison	4	...	...	...	...	4	...	...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	1	4	...	...	2	...	...
By Hanging and Strangulation	6	...	...	...	1	4	1	1	...	1	1	1	...	1	...	...	...	...	...	...	1	...	...	6	...	...	...	...	...
By Drowning	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...
By Cut or Stab	2	...	...	...	...	2	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...
By Railway	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
By other and unspecified methods	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
XXI.																													
Sudden Death, cause not ascertained	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other ill-defined and not specified causes	20	5	...	...	1	13	1	2	3	2	3	1	3	...	2	2	...	1	...	...	...	1	...	20	...	...	1	...	...
GRAND TOTALS	483	477	192	66	68	633	336	99	158	126	157	89	116	139	150	96	152	131	99	92	89	84	55	1832	85	...	44	205	17

NOTE.—Total Number of Deaths registered in the Borough, 1856. Number of Deaths registered in Out Townships belonging to the Borough, 85. Number of Deaths registered in Borough belonging to Out Townships, 59.

CAUSE OF DEATH.	Males	Females
XII.—Diseases of Respiratory System:—		
Pleurisy	1	...
Pneumonia, Lobar	4	1
Pneumonia, Broncho (Lobular)	18	14
Pneumonia (type not stated)	23	2
Emphysema, Asthma	3	...
Other and ill-defined Diseases of Respiratory System	8	...
XIII.—Diseases of Digestive System:—		
Diseases of Mouth and Annexa	3	...
Diseases of Œsophagus	1	...
Ulcer of Stomach and Duodenum	4	...
Other Diseases of Stomach	18	6
Enteritis	47	39
Appendicitis	3	...
Obstruction of Intestine	10	1
Other Diseases of Intestine	...	...
Cirrhosis of Liver	...	...
Other Diseases of Liver	...	...
Peritonitis	...	...
Other and ill-defined Diseases of Digestive System	...	...
XIV.—		
Mediastinal Tumour	...	...
Myxœdema	...	...
XV.—Diseases of Urinary System:—		
Nephritis, Acute	...	...
Bright's Disease	2	2
Calculus	1	...
Disease of Bladder and Prostrate	...	...
Other and ill-defined Diseases of Urinary System	2	...
XVI.—		
Diseases of Ovaries	3	...
Diseases of Uterus and Appendages	2	...
XVII.—Diseases Associated with Childbirth:—		
Puerperal Convulsions	1	...
Placenta, Prævia, Flooding	1	...
Other and ill-defined Accidents and Diseases of Pregnancy and Childbirth	6	...
XVIII.—		
Arthritis	3	...
Other and ill-defined Diseases of Osseous System	...	...
XIX.—Accidents:—		

PART II.

DEPARTMENTAL.

PART II.

DEPARTMENTAL.

District Inspectorial Work.

It is impossible to give more than a skeleton or outline of the work done by your district sanitary staff during the year, but some idea of it may be gathered from the following statement which deals only with the work of the district inspectors. The system of having special inspectors for certain classes of work has proved an admirable one in practice, and has resulted in the greatest benefit to the department, to property-owners, and to the public generally. The work of the special inspectors and of the female inspectors is detailed under separate headings later in this report.

All the district inspectors have the Sanitary Institute or other equivalent certificate. They report daily in writing to your Medical Officer of Health and take their instructions from him as to work to be done, etc.

	No. 1 District	No. 2 District	No. 3 District		No. 4 District	Total.
Complaints Received..... .	44	55	40	32	87	258
Inspections Made.						
Dwelling-houses	136	161	154	135	146	732
Cellar Dwellings	...	...	...	23	24	47
Common Lodging-houses...	128	128	...	68	142	466
Schools	7	7	9	4	8	35
Courts and Yards	189	238	317	116	424	1284
Privy Middens	912	871	788	410	929	3910
Drainage	85	185	133	81	134	618
Miscellaneous	102	105	209	83	130	629
Infectious Disease.						
Cases inquired into	84	223	101	67	196	671
Cases removed to Hospital.	33	108	53	37	79	310
Houses Disinfected	56	200	55	59	133	503
Persons Bathed and Disinfected	36	4	...	34	26	100

	No. 1 District	No. 2 District	No. 3 District		No. 4 District	Total.
PRIVIES, WATER CLOSETS, &c						
Privies Repaired	26	41	...	12	30	109
,, Converted to W.C.'s	333	144	102	47	122	748
MISCELLANEOUS.						
Houses Cleansed & Papered, or Limewashed	12	43	16	34	36	141
Overcrowding of Houses Abated.....	...	2	4	3	2	11
Houses Repaired after Notice	...	56	9	34	53	152
Yards, Courts or Passages paved or repaired	56	33	68	15	24	196
Yards, Courts or Passages drained	44	62	42	26	41	215
Accumulations removed ...	3	23	10	15	3	54
Animals improperly kept ...	5	7	20	16	6	54
House Drainage Tested.....	43	12	5	5	13	78
,, Repaired or Reconstructed	210	134	90	60	157	651
Notices (informal) Served...	142	139	162	80	134	657

The following statement, prepared at my request by District Inspector Child, shows the proportion of work done by means of moral suasion as compared with that which had to be enforced by legal notice, and in some cases magisterial proceedings. The figures all refer to conversion of insanitary privy middens.

A.—Work done without service of any legal notice:--

Privies converted to w.c.'s	211
Additional w.c.'s provided to bring accommodation up to required sufficiency	14
Privy middens demolished and rebuilt	87
Privy middens converted to w.c.'s and dry ashpits...	27
Dust bins provided	153

B.—Work in which legal notice, &c., was required.

Privies converted to w.c.'s	100
Additional w.c.'s provided	8
Privy middens demolished and rebuilt	35
Privy middens converted to w.c.'s and dry ashpits...	19
Dust bins provided	54

This means that in two-thirds of the work done by this inspector in this connection it was not necessary to resort to even preliminary legal notices. In the case of the other inspectors equally good results could be recorded.

During the year the Sanitary Committee were asked by the Sanitary Institute whether they were prepared to grant facilities to persons desirous of qualifying as sanitary inspectors to accompany the staff on their official rounds. The Committee acceded to the request and approved the following regulations drafted by your Medical Officer of Health.

County Borough of Stockport.

REGULATIONS FOR CANDIDATES DESIRING TO ACCOMPANY SANITARY INSPECTORS ON THEIR OFFICIAL ROUNDS.

1. No person shall accompany any of the inspectors unless and until he has received the sanction of the Medical Officer of Health in writing, the Medical Officer of Health having power to cancel this permission without notice at any time.

2. Any person desiring to accompany an inspector shall, prior to so doing, give an undertaking in writing that he will not disclose in any manner whatever anything which comes to his knowledge concerning any persons or premises visited or anything connected with the Sanitary Department or its workings.

3. No person under the age of 21 years shall, under any circumstances, accompany any of the inspectors.

4. No such person accompanying an inspector shall, if the slightest objection be offered by the owner or occupier to his entering any premises, persist in entering such premises.

5. No person shall enter any premises in pursuance of this scheme unless accompanied by a sanitary inspector.

6. In the event of any such person desiring to assist in the removal of any case of infectious disease he shall immediately prior to so doing obtain the express sanction of the Medical Officer of Health. No person who has not been successfully revaccinated shall be allowed to assist in this particular work.

7. No inspector shall receive any fee from any person accompanying him on his rounds except with the sanction of the Medical Officer of Health.

8. It is to be understood that the fact of having accompanied an inspector of this department on his rounds will not give a candidate any preference whatever should he at any time apply for a position under the Sanitary Committee of the Corporation.

9. All persons accompanying a sanitary inspector shall conform to all the rules and regulations of the Sanitary Department for the time being in force.

10. In any question not covered by the preceding articles the decision of the Medical Officer of Health shall be final.

Report by Female Sanitary Inspectors to Medical Officer of Health of Special Work done during 1902.

Cleansing of Floors and Bedding.—In addition to the number of "Houses Cleansed" mentioned in the Report, many others might be mentioned where, after several revisits, we get the floors and bedding cleansed. Through neglect caused by illness, idleness, or outside work, one frequently finds that these have been allowed to get into a filthy state, and so they remain, until it is pointed out to the woman of the house that this condition of things cannot be allowed to continue. In some cases we have induced the people to get entirely new and clean bedding and to destroy the dirty straw on which they and their children have been sleeping. I have just had a case of this kind in **Tatton Street**, where 5 girls, two of whom were working for their parents, were allowed to sleep altogether on one absolutely rotten straw mattress. There was no reason for this state of things, but carelessness and neglectfulness, as the father is in regular work on the railway: after several visits, however, the parents last week bought three new bedsteads with spring mattresses and new bedding for all.

In another case in **Peter Street, Portwood,** the house and bedding had got into a filthy state because the woman worked out all day. **The whole family of 6 slept in one bed.** There were two bedrooms, and the other one only requiring glass putting in the window to make it fit for use; the landlord willingly repaired this window, and after many visits the woman was persuaded to stay at home and look after things herself. The house was cleansed, fresh bedding bought, and a bed put up in the other bedroom for the children. The house has been kept cleaner ever since.

In some cases we found a number of dirty houses in one court (as for example happened in Thrush Court, Cider Court, and Cooper's Court). We made a kind of raid on the Court and enforced a general cleaning all round, and as a result the owners of the property have come here to tell us that they had noticed a great improvement in the cleanliness of the houses since our visits, and that they were grateful for what we had done.

Cases such as these take up much of our time, as, even after we have once secured a thorough cleansing, supervision is necessary to ensure the improvement being maintained.

Various notices to landlords to repair and limewash dilapidated walls have been readily complied with, only excepting some cases where the state of the house has been so bad that the owners preferred to close it temporarily rather than spend money on it. Several houses have, however, been repaired and made habitable when they had got into a very bad condition; e.g., **2, Lomas Court,** where the roof, floors, and walls were in a dangerous state; this house was thoroughly repaired after notice and made habitable; **Lloyd's Court**, where the floors were broken these were reflagged, and the doors, which were off their hinges, were replaced; and numerous other cases of the same description.

Overcrowding.—We have found a good many cases of overcrowding to such a degree as to be dangerous to health, but we have often been able to get these remedied without a written notice. When it is suggested that a larger house will be beneficial to health and advantageous in other ways, the tenants as a rule become interested in the idea and take pains to find a better dwelling. In the worst cases other methods have to be used, but we have never failed in getting any bad case of overcrowding remedied before it was necessary to resort to legal proceedings. The following are examples of such cases :—

2, Brooks' Court —A two-roomed house (very small rooms); six in the family; all sleeping in one room; these people removed within a week, and the next tenants took this house and the one adjoining, as a single dwelling, after first thoroughly cleansing and limewashing both.

6, Etchells Street.—A three-roomed house, where we found two families of three living; the house was in a most filthy condition; the house was cleansed at once, and the three lodgers left the town in a fortnight's time.

Moss Street.—Family of 5 (sleeping in one bedroom), consisting of mother, three grown-up sons and a daughter aged 17. Another bedroom, not fit to use at the time of visit, was repaired, and a small bed bought and put up.

2, Mowbray Street —Single house, one bedroom occupied by man and wife and three lodgers; these last were prevailed upon to remove in three days.

In some cases the tenants have themselves come to ask our help in getting rid of "lodgers." In one such case a young married couple had, in a two-roomed house, the husband's mother and four daughters, who had taken up their abode there apparently against the wish of the tenants. After a notice had been served these five lodgers removed themselves within two days, and the house has ever since been clean and comfortable.

In many cases where we have been able to effect the removal of a family from a dirty overcrowded house into cleaner and more airy quarters we have noticed a great improvement in the habits of the people, at any rate for a time. As an instance of this we may quote that of a house in Edge Court which we found in a filthy overcrowded condition, the woman being of

drunken habits. After three weeks or so, during which many revisits were paid, she removed to a larger house ; the walls were repaired and lime-washed ; she became steadier, cleansed the house thoroughly, bought new furniture, and made a respectable home. We have had many cases of this description, and generally find that the removal into a better house has a good effect on the domestic habits and self-respect of the tenants.

Female Outworkers.—Out of 140 visited we found only four working under unhealthy conditions, and three of these were furpullers. The remainder, principally hat trimmers, were respectable women living in houses rented at 5s. or 6s. a week.

The following are the cases where the women were working under unhealthy conditions :—

5, Gorsey Brow.—A small three-roomed dilapidated house ; five in the family ; the woman worked in a small back room upstairs. When visited, she was ill and unable to work, and on her recovery she gave up working in the house.

11, Rosemary Lane.—A four-roomed house, seven in the family ; the woman was working in the back room upstairs on my first visit. This room was open to the staircase, and the whole house was full of the fur from the work, she was very anxious to be allowed to go on working as her husband has only a small wage ; he was going to put up a shed in the yard for her to work in. I revisited when the shed was put up. The size of it was about 180 cubic feet ; the walls were composed of rotten planks (obscuring the scullery window), and floored with the same (covering in the sink waste pipe and gully). Reported this to the Medical Officer of Health, who declared it quite unfit to work in ; he gave the woman leave to work in the room upstairs for a time, provided that she kept the house clean and well ventilated. Since then the house has been well kept, the window in the workroom always open ; and the bedding has been thoroughly cleansed this last week.

10, Rosemary Lane.—A two-roomed cellar dwelling ; inhabited by a family of four ; two women working in the back cellar at fur-pulling. The owner has agreed to cleanse the walls and to have a window in the back room made to open, when there will be good through ventilation by the two windows. The fourth case has now given up work.

Inspection of Infant Schools.—This year we were invited by the Secretary of the Headmistresses' Association (at one of their first meetings) to visit the Infant Schools at any time and inspect the children, the teachers at the same time undertaking to report any dirty or neglected children to us. We have been able to do a good deal of work in this direction, the Mistress of St. Thomas' School in particular having drawn our attention to many unclean homes from which the mothers have sent their children in a dirty and verminous state to school. We have also found, on inspecting children's classes, cases of ringworm, sore heads, discharging ears, etc., which had escaped the notice of the teachers, and we have had these children sent

home. We also notice, in some schools visited regularly, an improvement each month in the cleanliness and general appearance of the children, as the parents try to avoid having their children picked out for special notice of the kind just mentioned.

Lessons on Infant Hygiene given to the Girls' Classes at Elementary Schools.—This work has been very successful this winter, 33 lessons having been given, and two new schools added to the list of those where this subject is taken. A few of the schools, having taught the subject for some years, do not care for any supervision of the teaching, but most of the teachers like to have the opportunity of gleaning fresh ideas on the subject occasionally. Both girls and teachers have taken much interest in the lessons, and I know of some cases where the girls have carried their knowledge home, and many of the mothers are beginning to wish to have the "new-fashioned" boat-shaped tubeless bottle, after hearing of it from their children. So far as the girls themselves are concerned, the majority of them show such intelligence and interest, that one feels quite sure they will remember the lessons and benefit by them in later years.

Advice to Mothers on Feeding Infants.—These cases are difficult to deal with, as the mothers are not always ready to adopt any different methods of feeding their children from those they have learnt from their own mothers and grandmothers. In some cases, however, advice has been taken, and improvement resulted. We have found some infants from three weeks old and upwards being fed on bread in addition to the proper food, and have persuaded the mothers to discontinue this. We often give advice as to the food of older children, too, with good results ; e.g., a case in **Swann Street,** which has been under supervision for about two years. All the five children were unhealthy and always suffering from indigestion and diarrhœa ; they were fed chiefly on bread and butter and "stewed" tea with no milk in. The woman took my advice about giving milk, oatmeal porridge, etc., and everyone of the children is healthy now.

So far the work just commenced of visiting houses where births have recently occurred, and of which information is obtained from the birth returns, has been satisfactory. The mothers receive the cards with interest and have been able to benefit by them ; they never resent inquiries as to the health of their infants, and a good number of mothers who have to feed them artificially have received advice gratefully. Many of these cases will be followed up, and revisited during the summer months.

Deaths from Diarrhœa.—Out of 40 cases visited only three of the children had been breast-fed for any length of time, and of these the causes of death were attributed to (1) sudden weaning a fortnight before death to cows' milk and bovril ; (2) caught diarrhœa from the mother ; (3) sudden weaning to unsuitable food a month before death. About 600 diarrhœa leaflets have been distributed in the worst parts of the town.

Infirmary Recommends.—We have found these very useful, both as an aid to our influence among the poor, and also in helping "disabled" and poverty-stricken women to regain health and strength, after which we have found marked improvement in the cleanliness of the home and the children.

We have also been able to get some cases of rickety and consumptive children placed under proper medical treatment by means of these ; one bad case of rickets in a child of three years, which I have had under supervision for about nine months, is now in the Infirmary after being treated for a long time at home, and they expect she will be cured. Another case, of a school girl who appeared to be consumptive, so improved under treatment that she is now fit for school again. Another case, a boy with ulcerated legs and who was unable to walk or attend school for three months, was cured and now attends school. A woman with bad eyesight, improved very much under treatment, and is able now to keep her house much cleaner.

Police-aided Clothing Association.—We have been able to bring a number of deserving cases before the committee which were not known to the police. The School Attendance Officers have notified several cases of great poverty to us, and respectable people, who have been in temporary distress, have been helped with clothing; also some cases of neglect have through this work been discovered and reported to the N.S.P.C.C., and the parents dealt with by their inspector.

The Visiting of non-notifiable Infectious Disease.—We have had many cases of **sore heads** reported from the schools, and these cases generally require revisiting and advice, whilst in some bad cases personal help and supervision has been necessary to get anything done. We have also found a number of cases of **measles and whooping cough** where the other children were either at school, or playing in the street with others, or in other ways risking the spread of infection ; and as it is very often ten days or a fortnight before the cases are notified to us, we cannot do much to prevent it. As the Epidemic Grant is discontinued under the new Act, the notifications have fallen off considerably in the last few months. One master said that "they were not obliged to send them in, and he had not time to bother with them :" others have promised the continuance of the notifications as a favour to the Sanitary Department. This is a state of things which it is hoped will shortly be remedied.

	Miss H.	Mrs. F.	Total.
INSPECTIONS MADE.			
Dwelling-houses	1,433	2,617	4,050
Cellar Dwellings	4	33	37
Schools	31	33	64
Vaccinations Dressed	50	—	50
Deaths from Diarrhœa	16	24	40
INFECTIOUS DISEASE.			
Cases inquired into	782	744	1,526
MISCELLANEOUS.			
Houses Cleansed and Papered, or Limewashed	126	86	212
Outworkers	82	72	156
Overcrowding of Houses Abated	15	7	22
Houses Repaired after Notice	10	46	56
Accumulations Removed	9	23	32

	Miss H.	Mrs. F.	Total.
Animals Improperly Kept	1 ...	— ...	1
Notices (informal) Served	149 ...	108 ...	257
Lectures to School Children	27 ...	6 ...	33
Recent Births Visited	14 ...	11 ...	25

Legal Proceedings.

In the following statement an outline is given of the prosecutions undertaken by the Department during the year. It is regrettable to have to record such a large number as compared with previous years, but whilst our aim is to get everything done which is necessary for the protection of the public health without resort to legal proceedings, it is not always possible to do this and still maintain the prestige of the Department. A well-considered prosecution has, even if unsuccessful, frequently a most useful tonic effect, and it has often been our aim not to punish people for a transgression of the law, but to advertise the limits of the law to the public at large.

LEGAL PROCEEDINGS DURING THE YEAR 1902.

OFFENCE.	RESULT.	AMOUNT OF FINES, &c.
		£ s. d.
Selling adulterated milk	Convicted	5 0 0 and costs and advocate's and analyst's fee.
do. do.	do.	1 0 0 do.
do. do.	do.	0 10 0 do.
do. do.	do.	0 10 0 do.
do. do.	do.	0 10 0 do.
do. do.	do.	0 10 0 do.
do. do.	do.	0 10 0 do.
do. do.	do.	0 10 0 do.
do. do.	do.	0 10 0 do.
do. do.	do.	0 10 0 do.
do. do.	do.	0 10 0 do.
do. do.	do.	0 10 0 do.
do. do.	do.	0 10 0 and costs and advocate's fee.
do. do.	do.	0 10 0 and costs and analyst's fee.
do. do.	do.	0 5 0 do.
do. do.	do.	0 2 6 do.
do. do.	do.	Costs.
do. do.	Withdrawn	Costs.
do. do.	do.	
do. do.	Dismissed	
do. do.	do.	

OFFENCE.	RESULT.	AMOUNT OF FINES, &c.
Selling adulterated baking powder	Convicted	£ s. d. 0 5 0 and costs and advocate's and analyst's fee and cost of certificate.
Selling adulterated jam	do.	Costs and analyst's fee.
do. do.	do.	do.
do. do.	do.	do.
do. malt vinegar	do.	1 0 0 and costs and advocate's and analyst's fee.
do. do.	do.	1 0 0 do.
Selling margarine for butter.....	do.	0 10 0 do.
Selling margarine without proper label attached	do.	Costs.
Exposing margarine without label attached.....	do.	10 0 0 and costs and advocate's fee or one month.
Exposing unsound plums for sale	Dismissed	
Exposing unsound fish for sale	Convicted	One month hard labour.
Wilfully obstructing Food and Drugs Inspector.....	do.	0 10 0 and costs or 14 days.
Emitting black smoke from mill chimney	do.	Costs and order made to abate
do. do.	do.	do. do.
do. do.	do.	do. do.
do. do.	do.	do. do.
do. do.	do.	do. do.
do. do.	do.	do. do.
do. do.	do.	do. do.
do. do.	do.	do. do.
do. do.	do.	do. do.
do. do.	do.	do. do.
Allowing unregistered house to be occupied by lodgers	do.	0 10 0 and costs or 14 days.
Allowing couples to sleep in one room without the same being screened	do.	1 0 0 do.
do. do.	do.	0 10 0 do.
Failure to have house registered as a common lodging house	do.	0 10 0 and costs.
do. do.	do.	0 10 0 and costs.
Failure to cleanse and lime-wash dwelling house.....	do.	2 0 0 and costs and advocate's fee.

OFFENCE.	RESULT.	AMOUNT OF FINES, &c.
		£ s. d.
Failure to provide cesspool and reconstruct drainage	Convicted	1 0 0 and costs and advocate's fee and order made to do work.
Failure to reconstruct drainage	Withdrawn, owner promising to do necessary work	Costs.
Stopping up and improperly using w.c.'s.....	Convicted	0 5 0 and costs.
do. do.	do.	0 5 0 and costs.
do. do.	Dismissed	
do. do.	do.	
do. do.	do.	
do. do.	do.	
Using unregistered shed as a slaughter house	Convicted	0 10 0 and costs.
do. do.	do.	0 10 0 and costs.
Being the owner of unsound meat.....	do.	10 0 0 and costs for each quarter (2) and advocate's fee, two veterinary surgeons' fees and specialist's fee.
do. do.	do.	10 0 0 and costs and advocate's and veterinary surgeon's fee or two months' hard labour.
Having unsound meat exposed for sale	do.	3 0 0 and costs and advocate's and veterinary sur-surgeon's fee.
Having unsound meat in possession.....	do.	1 0 0 and costs for each quarter (2).
do. do.	do.	1 0 0 do.
Failure to notify authority that a diseased carcase was on his premises	Withdrawn, person concerned being fined for a cognate offence committed at same time.	

The Isolation Hospitals.

I.—DIALSTONE LANE

Occupies an area of 3 acres 1 rood at the junction of Dialstone and Cherry Tree Lanes. The subsoil is yellow boulder clay.

Cost :—

	£	s.	d.	
Cost of Buildings	7079	13	4	
Cost of Site	1346	14	0	
Cost of Furnishing.....	1822	3	1	to Dec. 31st, 1902

The hospital was opened for the reception of patients in 1881.

The following tables contain a statement of the work done by this hospital since 1888.

CASES TREATED FROM 1888 TO 1901 INCLUSIVE, IN THE TWO HOSPITALS.

	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
Smallpox	98	0	1	0	6	22	26	2	1	0	0	0	6	1	56
Scarlet Fever..	35	36	91	32	26	127	138	100	247	249	79	52	219	385	277
Typhus	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Enteric...	12	14	22	15	16	85	20	37	34	35	53	31	70	36	16
Diphtheria...	0	0	2	1	2	9	1	0	1	0	0	2	2	0	2
Other Diseases..	1	16	4	0	0	1	0	1	0	0	0	1	5	1	0
	149	66	120	48	51	244	185	140	283	284	132	86	302	423	351

PAYMENTS BY PATIENTS.

	£	s.	d.		£	s.	d.		£	s.	d.
1888	108	4	6	1893	122	12	0	1898	264	14	1
1889	591	10	9	1894	150	9	10	1899	362	15	0
1890	122	14	6	1895	176	15	4	1900	1474	14	6
1891	25	7	0	1896	191	8	11	1901	629	0	2
1892	150	18	6	1897	319	11	3	1902	272	18	0

Total in 13 years—£4,061 16s. 2d.

NETT COST OF MAINTENANCE.

	£	s.	d.		£	s.	d.		£	s.	d.
1888	715	0	2	1893	1392	8	11	1898	1316	7	8
1889	864	13	0	1894	1313	12	0	1899	924	5	2
1890	606	16	2	1895	1137	5	11	1900	389	5	5
1891	928	6	2	1896	1544	11	7	1901	3113	14	11
1892	509	19	8	1897	1592	9	6	1902	2598	0	4

EXPENDITURE ON HOSPITAL ACCOUNT FROM JANUARY 1ST, TO DECEMBER 31ST, 1902.

DIALSTONE LANE.

	£	s.	d.	£	s.	d.
Salaries and Wages	829	7	11			
Food, Stimulants, and Drugs	837	19	8			
Coal, Coke, Gas, and Water	266	6	10			
Rates and Tithe Rent Charges	68	2	9			
Repairs	76	19	10			
Services of Extra Nurses	34	4	8			
Dress Material and Drapery	22	5	9			
Deputations' Expenses	21	2	5			
Medical Assistance (Locum Tenens)	16	8	0			
Telephone Rent	13	0	0			
Bedsteads and Mattresses	12	2	6			
Stabling and Keep of Horses	20	0	0			
Harness	10	17	3			
Premiums on Insurance (Septennial Policy)	18	11	11			
Clocks	13	0	0			
Soap	11	16	2			
Ironmongery, Utensils, &c.	7	14	5			
Crockery	6	19	11			
Stationery, Printing, and Advertising	11	19	1			
Pressure Recording Gauge	9	4	6			
Providing and Fixing Water Meter	9	6	9			
Petty Cash	8	0	0			
Cab Hire	12	2	0			
Miscellaneous	97	14	3			
				2498	6	7

WHITEHILL.

Wages	29	18	4			
Food, Stimulants, and Drugs	74	18	11			
Gas, Coal, Coke, and Water	39	2	1			
Rates	25	15	5			
Furniture	17	0	0			
Fitting up Mortuary	35	4	6			
Converting into Smallpox Hospital	43	10	0			
Joinery and Plumbing	6	2	1			
Telephone Rent	8	0	0			
Sink, Cistern, &c.	8	13	4			
Capital Charges	63	14	9			
Miscellaneous	20	12	4			
				372	11	9
				£2870	18	4
Less Amount Received for Treatment of Outside Patients				272	18	0
				£2598	0	4

At Dialstone Lane Hospital the following cases were treated during 1902:—

Scarlet fever	277
Typhoid fever	16
Diphtheria	2
Total.....	295

The accommodation was seriously strained again, as in some previous years, so much so, indeed, that your Hospital Sub-Committee have now purchased a large plot of land immediately adjoining the present site, and plans are (at the time of writing this report) almost completed for a considerable extension, including the erection of an isolation block for 8 beds, a scarlet fever block for about 56 beds, new servants' block (with 22 bedrooms, kitchen, dining-hall, stores, and other appurtenances), new laundry and mortuary, porter's lodge, &c., and a complete rearrangement of the present administrative block, so as to allow of quarters for a resident medical officer, more nursing accommodation, &c. The scheme is an excellent one, and all that is required is that it should be pressed forward with the utmost possible dispatch. Your Sanitary Committee is sparing no effort in this direction.

At the Disinfecting Station 11,654 articles have been disinfected by steam or hot-air, whilst at the conjoined Bathing Station 100 persons have had disinfecting baths.

The following Tables give the number of cases dealt with by the Hospitals during the past year.

STOCKPORT PATIENTS. (385 CASES AND 17 DEATHS.)

Name of Disease.	In Hospital, 1st Jan., 1902.	Admitted.	Recovered.	Died.	In Hospital, 31st Dec., 1902.
Smallpox	...	56	49	7	36
Scarlet Fever	43	266	259	7	43
Typhoid Fever	2	16	14	2	...
Continued Fever	...	...	...	...	...
Diphtheria	...	2	1	1	...
	45	340	323	17	79

PATIENTS OF OTHER AUTHORITIES. (30 CASES AND 4 DEATHS.)

	Smallpox.		Scarlet Fever		Typhoid Fever		Measles	
	Cases.	Deaths.	Cases	Deaths	Cases	Deaths	Cases	Deaths
Guardians	18	3	1	...	1	..	...	...
Gorton	...	...	4	1	...	...	...	...
Handforth...	...	...	1	...	...	..	...	...
Bramhall	1	...	2	...	...	...	...	...
Disley	...	...	2	...	...	...	...	...
	19	3	10	1	1	...	...	...

NOTE.—The Guardians' Patients are also included in the return of Stockport Patients.

Whitehill Hospital.

On the outbreak of smallpox in October this Hospital was put into use, having always been maintained in a state fit for immediate use.

There were 57 cases of smallpox treated there during 1902.

It became necessary to erect three large temporary buildings of wood and corrugated iron, and particulars of these will be found in a special report on smallpox recently issued.

Once more Whitehill Hospital has proved an inestimable boon to the town, and has justified the remark so frequently made about it—that it is one of the best investments ever made by the Sanitary Committee. When the present epidemic is quite over I would suggest that two windows in the main building, which, for some reason or another, have been bricked up inside by the previous owner of the property, should be opened out once more, so as to allow of better lighting and ventilation. I would also refer your Sanitary Committee to a suggestion made in my recent smallpox report as to the adaptation of the stabling at the rear of the main building as a disinfecting and bathing station: there is a danger in sending smallpox patients, and articles infected with smallpox, to Dialstone Lane Hospital to be disinfected, and the time and labour thus lost is a considerable item.

Schools.

The number of children now upon the school rolls in this town is 16,753, or, roughly speaking, one-sixth of the total population. In my previous annual reports (and more particularly in that for 1900), I have mentioned the desirability of having a **School Medical Officer** to carry out certain most important duties with the object of controlling the spread of infectious disease in schools, of testing the eyesight and hearing of the children, and to advise as to the formation of special classes for defective-minded or epileptic children, and such as are deaf and dumb. May I respectfully commend this question to your earnest consideration. I am quite sure that money spent upon this would ultimately be for the benefit of the town as a whole.

Under the new Education Act the Article of the Education Code under which we were enabled to obtain from school teachers reports as to the existence of non notifiable, as well as, in a few cases, of notifiable infectious disease, has been omitted, and there is not the same stimulus therefore for school teachers to send us such reports. To put it plainly, there is now a serious risk of it becoming a matter of indifference to the teachers, now that the epidemic grant has been abolished, what amount of infectious sickness occurs amongst their children. Since the Education Act came into force, although only a few months have elapsed, the number of reports received from school teachers has dwindled down to almost **nil**, and in consequence of that the Sanitary Department is deprived, not only of a most valuable aid to the discovery of isolated cases of infectious disease, but of a system which would frequently enable the department to nip an epidemic of measles, whooping cough, or other disease in the bud. I desire to put it to your Council, in the strongest terms possible, that unless some arrangement is

made by the Education Committee with the school teachers to continue the system which has worked so well for many years, the work of the Sanitary Department in preventing the spread of infectious disease amongst school children will be so crippled and handicapped as to be almost useless. I believe this is the feeling of Medical Officers of Health throughout the entire country.

In this connection I desire to thank those school teachers (practically the whole of those in the town) for their courtesy in forwarding early notice of cases of infectious disease occurring amongst their scholars. The cases of such disease which have been so reported are as set out in the accompanying table. All of them, with extremely few exceptions, have been visited by one of your female inspectors.

CASES REPORTED BY HEADMASTERS AND HEADMISTRESSES OF VARIOUS SCHOOLS.

Name of Disease.	No. of Children who actually suffered.	No. of Children who were prevented from attending School on account of sufferers.
Smallpox	...	2
Scarlet Fever	64	68
Typhoid Fever	2	...
Diphtheria	1	...
Measles	413	569
Whooping Cough	320	250
Mumps	267	188
Chicken Pox	121	85
Influenza	25	15
Erysipelas	2	...
Ringworm	100	...
Ophthalmia	23	...
Eczema	15	...
Swollen Glands	8	...
Sore Face	148	...
Sore Head	151	...
Sore Throat	33	...
Sore Eyes	18	...
Sore Ears	4	...
Sore Mouth	3	...
Sore Neck	2	...
Sore Leg	1	...
Body Sores	4	...
Totals	1725	1177

The extent to which these so-called minor infectious illnesses interfere not only with school attendance, but also with the standard of health amongst school children, may be gathered from the following claim **from one single school in the town for attendances lost during one school year :—**

Mixed Department.			
Boys.....	3607	attendances missed.	
Girls.....	4456	,,	,,
	—— 8063	,,	,,
Infants' Department.			
Boys.....	3442	,,	,,
Girls.....	2884	,,	,,
	—— 6326	,,	,,
Total.....	14389	,,	,,

Surely these figures demonstrate the need for some machinery to control the spread of the commoner infectious illnesses in school children.

In this connection I should like to draw the attention of your Council to a paper recently read before the Childhood Society by Dr. Arthur Newsholme, in which he enters a strong protest against the attendance of children under five years of age at public elementary schools. In England and Wales, it was pointed out, 10·9 per cent. of the total school children at all ages were under five, 10·2 per cent were between five and six years of age, and only 4·7 per cent. were over thirteen years of age. The desire of mothers to go out to work and send their children to school out of their way is the chief reason for this large attendance of very young children, and the evil is augmented by school authorities encouraging the practice, because it prevents girls in the higher standards being kept at home to nurse the younger ones. Dr. Newsholme states that the educational gain to such very young children was **nil,** and that there was in fact an injurious strain on the brain and on the eyesight ; there was thus a serious waste of public money taking place—to the extent of about £900,000 annually at a low estimate. The money thus expended might be much more profitably used by spending it on technical education or in keeping children at school from fourteen to fifteen years of age. **A most important point for consideration was the fact that attendance at school of children under five increased the prevalence of and the mortality from such diseases as measles, whooping cough, scarlet fever, and diphtheria.** If the onset of these diseases could be delayed until after the fifth year of life they would all be less fatal and thousands of lives would undoubtedly be saved. Dr. Newsholme's argument is sound, practicable, and reasonable, and if the difficulty could be met of safely disposing of these young children during their mothers' absence at work the system advocated would quickly find favour.

The only school which it was necessary to close during the year 1902 was Banks Lane Public Elementary School, which was affected by measles to

such an extent during November that it was deemed advisable to close it from November 28th to December 18th. This period of closure was immediately followed by the Christmas holidays, and after re-opening practically no extension of the epidemic occurred.

Complaints were received of offensive smells in a newly erected school, and on inspection several drainage defects were discovered.

Refuse Collection and Disposal.

It is believed that there is now within the Borough the following approximate number of various sanitary conveniences:—

Privy-middens	4550	Fresh water closets	6907
Privies.....	7225	Slop water closets	706
Pail closets	300	Dry ashpits.....	1850
Movable dustbins	5385		

No privies were constructed during 1902 in connection with new buildings, and no new privies were constructed in place of old.

In connection with new buildings 520 fresh water closets were erected.

No less than 748 fresh water closets have been provided in place of old and insanitary privy-middens during 1902, and of this number over 300 were provided in Reddish alone. There still remains a large number of these abominable and unhealthy structures, but at the present rate of progress the whole of the privy-middens in the town should be abolished in about 10 or 12 years. The same discrimination as has always been used in selecting only suitable cases for conversion is still maintained (vide Annual Report for 1901, pp. 110—113).

The following figures taken from the excellent Housing Handbook, published by Councillor W. Thompson, of the Richmond Town Council (Surrey), will be particularly instructive to your Council as shewing that the policy so steadily pursued in this town of abolishing the abominable and insanitary privy-middens which abound to such an extent and replacing them with water closets is one which will ultimately tell its tale in a reduced death-rate, and particularly in a reduced death-rate from diarrhœal diseases and typhoid fever. The figures relating to 31 privy-midden towns include only towns where the number of privy-middens exceeds 5 per cent. of the population.

	31 Privy-midden Towns.		25 Water Closet Towns.
Population.....	3,651,086	.....	7,763,661
Death-rate (all causes).....	18·8	.....	16·6
Death-rate from Fever.....	0·24	.....	0·14
Death-rate from Diarrhœa	1·50	.....	0·93

I am indebted to the Borough Treasurer for the following statement giving the expenditure of the Cleansing Department for the year ending December 31st, 1902.

NIGHTSOIL DEPARTMENT.

	£	s.	d.	£	s.	d.
General Maintenance Account (including Capital Charges, £218 6s. 8d.)				8886	9	11
Warth Meadow (including Capital Charges, £110 4s. 0d.)	178	0	1			
Less Income	175	2	9			
				2	17	4
Whitehill (including Capital Charges, £98 14s. 5d.)				282	14	2

DAY DEPARTMENT.

General Maintenance Account (including Capital Charges, £109 8s. 4d.)				5127	12	5

	£	s.	d.
Nett Expenditure—Nightsoil Department ...	8844	9	9
,, ,, Day Department	5091	15	9

Refuse Destructor.

A sub-committee appointed for the purpose has recently concluded a round of visits to various refuse Destructors, and a report on the subject is, it is understood, shortly to be produced. It is sincerely to be hoped that before many months are past the town will have decided to dispose of its refuse in the only sanitary manner open to them, namely, destruction by fire in a properly adapted Refuse Destructor. Such a thing has been one of the crying wants of the town for many years.

Results of Special Inspection of Water-closets.

There are at the present time about 6,000 fresh water-closets, in addition to about 1,000 waste water-closets, and a smaller number of latrines of various types. About 20,000 inspections have been made of these various forms of water-closets by Inspector Ashton, those situated in the poorer parts of the town receiving special attention, some being visited daily and a large number weekly. This action on the part of the Sanitary Department was, as your Sanitary Committee know, the result of an opposition by property owners and agents to the Corporation Act of 1899, in which Act power was obtained to compel the abolition of privy middens and the substitution of water-closets—the property owners agreeing to withdraw their opposition to the

clause on two conditions :—(1) That the Corporation would, in certain cases, where the privy middens were not certified to be a nuisance, bear half the cost of conversion, and (2) That the Sanitary Committee would appoint an Inspector to pay special attention to water-closets and remedy without charge any **minor** defects caused by usage.

As a result of this special inspection it has been found that the minor repairs most commonly required have been as set out in the following table, in which the repairs necessitated in four different districts have been subdivided. Districts Nos. 1 and 2 are those in which good class dwellings are the rule : districts Nos. 3 and 4 are those in which the poorer class dwellings preponderate.

DEFECTS FOUND IN WATER CLOSETS.

Nature of Defect.	No. of District. 1.	2.	3.	4.
Balltaps	68	91	190	123
Dirtiness and Blockage of Basins and Traps	28	34	83	34
Broken Basins	6	4	15	28
Cistern Valves	26	30	64	50
Service Pipes	18	17	45	30
Drains Blocked	9	15	35	17
Cones	1	...	2	8
Overflow Pipes	...	2	3	...
Seats	...	1	2	...
	350		729	

Summarising the more important items in this table one finds that in all parts of the town the most common defect is that connected with the balltaps ; next in order coming the blockage of traps; next to this defective cistern valves (outflow valves), and next again defective flush-pipes. Classifying these according to their incidence on the better class and poorer class districts one finds a marked difference, as is shewn in the following statement :—

	Better Class Districts.	Poorer Clas Districts.
Defective Balltaps	159	313
Dirtiness and Blockage of Closet Basins and Traps	62	117
Defective Cistern (outflow) Valves	56	114
Defective Flush-pipes	35	75
Defective Drains	24	52
Defective Basins	10	43
Defective Cones	1	10

I propose now to offer a few remarks in explanation of these and a few suggestions as to their prevention, which I trust will be of practical utility to property owners and agents.

(1.) **Service Pipes.**—The service pipes from the main to the supply cistern should be well wrapped in felting, straw, or other suitable material, so as to prevent the evil effects of frost, and in all cases they should be provided with a stop-tap. The great faults in connection with stop-taps are two:—(1) They are frequently fixed on the service pipe quite close up to the cistern, and thus only protect a small portion of the service pipe: their proper place is, of course, as near to the floor-level as possible, so that practically the whole of the pipe may be controlled; (2) the stop tap should be a combined stop and draw-off tap, as suggested by my predecessor, Dr. Charles Porter, so that the pipe may be completely emptied of water after the supply is cut off.

(2.) **Cisterns.**—All cisterns for outdoor water closets should be properly boxed in with a layer of sawdust or other non-conducting material packed between this and the cistern; the covering should have a door by which access to the working parts may be obtained in case of repair being necessary.

The cistern itself should be fixed in the most careful manner possible, and above all things fixed level Most of the damage to cisterns results from the fact that they have been insecurely fixed and in course of time, owing to the weight of the cistern and its contents, or to the chain being pulled too suddenly or too strongly, the bearers or brackets work loose, the cistern cants, and the valve does not fall evenly on to its seating, with the result that leakage takes place into the basin, or the balltrap does not completely shut off the supply from the service pipe and leakage takes place from the overflow pipe. The best way in which to fix a cistern is to balance it level and carefully wedge it on two 3in. square bearers passing into the side walls of the closet: the second-best way is to use cantilever brackets with a turned-down lip on the top arm to afford a hold in the brickwork. The first-named way is the cheapest as well as the best, for 1s. 6d. or 2s. will pay for it. The iron brackets cost from 3s. 6d. to 4s. 6d. per pair, according to ornamentation.

The cistern or outflow valve is provided with a rubber washer, and this at times shrinks, or becomes folded or wrinkled, thereby allowing a slight dribble to take place into the basin: the only remedy for this is the provision of a new washer.

(3.) **Balltaps.**—The washer on a balltap is made of what is known as "insertion," that is, canvas covered on both sides with rubber. This naturally gets worn during constant use, and the inlet of water not being checked, a waste takes place through the overflow pipe. The only remedy is to fix a new washer, a thing which can be done at the cost of about 2d.

Another, though not so common a defect of balltaps, results from the fact that the arm is sometimes made of copper. This used to be done because of the ease of bending the copper arm to any required position. But it was found that in many cases the copper arm got bent as a result of the pressure of water in the cistern, or from its constant jarring on the bottom of the cistern, and now most arms are made of brass.

(4.) **Flush-pipes.**—The majority of defects under this heading were found to be due to bursts caused by frost, but quite an appreciable number of defects were ascribable to constructive errors.

If the flush-pipe be not properly and firmly secured to the wall the vibration of the pipe at each flush, **plus** its weight (which is an inconsiderable amount), caused it to settle downwards and break off the earthenware cone which forms its junction with the basin, or in some cases even to break off a portion of the flushing rim itself. The earthenware cone of a water closet is frequently fixed on after the basin itself has been partly baked and, in consequence, it has not much hold and is easily snapped off.

By far the most satisfactory manner of fixing a flush-pipe to the wall is to use lead tacks, 4 or 4½ins. long, and wipe the flush-pipe to these. The common and least effective way of fixing them is to use narrow clips or astracles, which practically give no vertical support at all to the flush-pipe. In one single block of property no less than 14 basins were found broken at the cone or the flushing rim **in one week,** owing to this imperfect fixing of the flush-pipe.

(5). **Joint between Flush-pipe and Basin.**—This may be made by means of indiarubber cones or by "rag, putty, and paint." The first is one which should be made particularly good because of the strain thrown upon it by the weight of the flush-pipe and the vibration of the flushing action. The "rag-putty-and-paint" joint cannot be recommended, however carefully made, for it will not last and will not stand the strain thrown on it. It carries it own condemnation with it from the very fact that it is rarely used except in connection with jerry-property.

Rubber cones are unquestionably the best, but there are first and second class varieties even in these, the first being known as the "best rubber cones," which are about ¼in. thick and which are specially moulded so as to fit on the earthenware cone and flush-pipe without stretching; and the second being termed "tissue paper" cones, about 1-16th in. thick. These not being moulded have to be stretched so as to fit over the flush-pipe and earthenware cone. The first-named cone costs 1s. to 1s. 6d., the second 6d. to 10d.

All rubber cones have but a limited life, of course, and must be renewed from time to time, the deterioration taking place from the action of the water on the rubber; but if the plumbers would only pack the joint with putty and paint or better still with white lead before putting on the rubber cone the joint would last four times as long.

One result of this inspection which has been made is that we have arrived at the conclusion that the greater occurrence of defects in water closets in the poorer parts of the town is due not to the less educated or less careful habits of the people but to the poorer class of the material used and the

poorer workmanship exhibited in fixing the water closets. The Inspector whose opinion I have been quoting is most positive in this statement, and my own observations on the same point confirm this opinion very strongly.

Lastly, I would draw your attention to the small number of defects discovered in connection with water closets. As a result of about 20,000 inspections of about 7,000 water closets and waste-water closets in a manufacturing town where the poorer classes largely preponderate the total number of defects discovered only amounts to 5·5 per cent., and the majority of these have been of the most trifling character.

Surely this is an answer to those who argue that the poorer classes ought not to have water closets because they are not educated enough to use them properly.

Sewage Disposal.

I am indebted to Mr. Andrews, manager of the Sewage Works, for the following statement which he has kindly sent as to the work which has been carried out under his supervision during the past year. I give it in his own words.

"During the past year it has been found necessary, owing to the limited amount of suitable land available for sewage purification, to put down bacteria beds.

One of the land filters, consisting of six statute acres, is now being utilised as a site for these beds.

The top layer of soil has been removed to allow for the necessary depth of the beds, which average 3 ft. 3 in. in depth, and have a superficial area of half statute acre each.

The beds are drained by three rows of 9 in. butt-jointed agricultural land drains, laid parallel to each other until nearing the other end of the bed when they converge into a brickwork chamber, and are controlled by the hand-lifting valve.

The medium of the beds consist of the hardest clinker obtainable, which has been procured from many places; 200 tons as a sample were procured from Consett in Durham, so determined were the Committee to have the very best material, were its cost not absolutely prohibitive.

The clinker is crushed (the jaws of the crusher being set so that nothing can pass larger than 1¼ in. cube), and afterwards passed over a ¼ in. screen. All material passing this screen is rejected.

The beds are divided by earth walls, held in place by 3 in. tongued and grooved planking which has been twice gas-tarred in order to protect it from rotting.

A first class brickwork carrier has been constructed, which fulfils the double purpose of conveying the tank effluent on to the beds, and also carrying away the filtrate to the concrete carrier, which it has been found necessary to construct, owing to the erosion of the earth carrier at first decided upon.

Two half-acre plots have been constructed, and the rejected material from the screens is being placed on the surface of two of the land filters (which by the way have been recently ploughed and subsoiled); this is afterwards ploughed and thoroughly incorporated with the soil, thus improving its filtering properties, and at the same time raising the level of the beds so as to allow of water being drawn off these plots on to the bacteria beds, when a good effluent should result.

The timber divisions for four other beds are now in position ready for filling with earthwork.

It must be borne in mind that these bacteria beds are being constructed as a supplement to land filtration, the sewage being previously treated by chemical precipitation through tanks."

Water Supply.

This is derived so far as the town itself is concerned from two sources—Disley and Longdendale—and in previous reports these sources have been fully described and analyses submitted. During the year a few analyses have been made of the Longdendale supply as delivered in the Corporation laboratory, and on each occasion the water has proved satisfactory. The results of some of these analyses are given herewith.

LABORATORY TAP WATER (LONGDENDALE SUPPLY).

March, 1902.

Hardness—Total	4·214
,, —Permanent	2·600
,, —Temporary	1·614
Chlorides	0·750
Ammonia—Free	0·0022
,, —Albuminoid	0·0028

LABORATORY TAP WATER (LONGDENDALE SUPPLY).

April, 1902.

Total Hardness	4·086
Chlorides	0·70
Oxygen absorbed 15 mins.	0·0098
,, ,, 3 hours	0·0680
Ammonia—Free	0·0023
,, —Albuminoid	0·0034

LABORATORY TAP WATER (LONGDENDALE SUPPLY).

April, 1902.

	Grs. per gall.
Combined Chlorine	0·74
Ammonia—Free.	0·0018
,, —Albuminoid	0·0036
Oxygen absorbed 15 mins.	0·0126
,, ,, 4 hours	0·0880

LABORATORY TAP WATER (LONGDENDALE SUPPLY).

August, 1902.

	Grs. per gall.
Combined Chlorine	0·763
Ammonia—Free	0·0020
,, —Albuminoid	0·0096
Oxygen absorbed 4 hours	0·0996

The **Wilmslow Supply** being somewhat hard naturally is now artificially softened by the Archbutt Deeley process, the plant for the purpose having been erected complete by Messrs. Mather and Platt. Lime in the proportion of 1¼ to 1½ grs. per 1000 gallons is thoroughly mixed with hot water, and is then blown by steam into the hard water contained in a series of tanks. To assist the thorough mixing of the lime with the water to be softened, air is blown in through perforated pipes laid near the bottom of the tank, a series of these pipes being placed close to the bottom of the tank so as to stir up the "mud" of previously precipitated carbonate of lime. The diffusion of this "mud" throughout the tank causes precipitation to be more thorough, and much more rapid.

After an interval of time averaging about one hour the deposit of carbonate of lime formed has settled to the bottom, and the clear water can then be drawn off. As it is being drawn off, however, a further precaution is taken to prevent the precipitation or deposit in the mains and service pipes, &c., of the carbonate of magnesia, which is found to be still left in solution to a small extent. This precaution consists in blowing in carbonic acid gas derived from the combustion of coke in two small special stoves, the process being termed "recarbonating."

The process is a cheap and rapid one, and the plant occupies but little space. By the courtesy of the Waterworks Engineer, Mr. T. W. Molyneux, I have several times inspected the plant, and at his request I tested the efficiency of the installation before it was finally taken over by the Waterworks Committee. The results of my analyses of the water before and after treatment, and of the gas used for "recarbonating," are appended, and shew that the process is an efficient one, and that nothing of a deleterious nature is added to the water. A great advantage of this special process is that the cost of labour and supervision is very small, averaging about one penny per thousand gallons treated.

In the case of a deep well water such as that at Wilmslow, the composition of the water is practically a constant quantity, and the amount of lime to be added is therefore one which rarely requires to be varied. Analyses should, however, be made from time to time to ensure that the composition of the water is not varying in such a manner as to require any adjustment of the quantity of lime added.

It must not be forgotten that in reducing the hardness of the Wilmslow water its purity is at the same time increased, though analyses have shewn that this is almost superfluous.

TESTS MADE OF WATER SOFTENING PROCESS, WILMSLOW.

Samples taken Tuesday, January 7th, 1902.

Sample I.—Taken from outlet from softening tanks immediately after carbonating.

Total Hardness—6·46 grs. per gallon (Clarke's degrees). No free alkali present.

Sample II.—Taken from tank into which carbonated water flows before pumping.

Total Hardness—6·84 grs. per gallon (Clarke's degrees). No free alkali present.

Sample III.—Tap water from house adjoining.

Total Hardness—7·04 grs. per gallon (Clarke's degrees). No free alkali present.

This last sample was also examined chemically for various impurities, but so far as that analysis could shew none were present.

WILMSLOW WATER WORKS.

Gas taken from outlet where carbonating process was going on.

No free sulphuretted hydrogen or sulphides.

No free ammonia.

WILMSLOW WATER.

Sample I.—Treated by Archbutt-Deeley process.

Reaction—Slightly alkaline.

Appearance—Clear and bright.

Sulphates—Less than in untreated.

		Degrees per gallon.
Hardness	Temporary	4·85
	Permanent	1·00
	Total	5·85

	Grains per gallon.
Calcium Salts	0·70
Magnesium Salts	0·98

Sample II.—Treated by Archbutt-Deeley process.

Hardness	Temporary	1·35
	Permanent	4·20
	Total	5·55

Sulphates—Slight deposit only, less than in untreated.

Sample I.—Untreated.

Reaction—Slightly alkaline.

Appearance—Cloudy.

Sulphates—Fair amount, slightly more than in treated sample.

		Degrees per gallon
Hardness	Temporary	13·95
	Permanent	1 15
	Total	15·10

	Grains per gallon.
Calcium Salts	4·16
Magnesium Salts	1·18

Sample II.—Untreated.

Appearance—Cloudy.

Sulphates—Fairly heavy deposit.

Hardness	Temporary	7·59
	Permanent	5·36
	Total	12·95

The following statement, reproduced from a paper by the Waterworks Engineer, puts the efficacy and value of the treatment adopted at Wilmslow beyond question.

The following are analyses of the water before and after treatment :—

	Untreated.	Treated.
Reaction	Slightly alkaline.	Slightly alkaline.
Appearance	Cloudy.	Clear and bright.
Sulphates	Fairly heavy deposit	Slight deposit only.

		Grains per gallon.		Grains per gallon.	
Calcium Salts		4·16		0.70	
Magnesium		1·18		0·98	
Hardness	Temporary ...	7·59	Total 12·95.	1·35	Total 5·55
	Permanent ...	5·36		4·20	

"The **cost of the process** works out at about 1d. per 1,000 gallons, made up as follows :—

	d.
Lime	·14
Coke	·073
Wages	·285
Coal	·12
Interest and Sinking Fund at 5 per cent	·25
Sundries	·1
	·968

"The **total cost of the plant**, which is capable of treating 600,000 gallons of water per day, was nearly £4,500."

Common Lodging Houses.

There are 21 registered common lodging houses in the Borough, to which 1092 visits have been paid, exclusive of special visits in connection with smallpox. Generally a good standard of cleanliness has been maintained, and only in two cases has it been found necessary to prosecute. Both of these two cases arose for an infringement of the same bye-law, namely, that prohibiting more than one married couple occuping the same room without the beds being effectually screened off. Convictions were obtained in both cases.

Several cases of keeping unregistered common lodging houses have been dealt with during the year, and in three cases it was found necessary to prosecute, a conviction being obtained in each case.

The licence of one house has been transferred, and the licence of two others have been refused on account of the unsuitability of the premises.

The following rules of very ancient date shew the care exercised by the keeper of one of the oldest lodging houses in the town, and are otherwise interesting.

RULES AND REGULATIONS OF THE WORKING MEN'S HOME.

1st.—All lodgers are admitted into this house on payment of 4d. and 5d. per night.

2nd.—No beds will be reserved for anyone who has not paid for it before 8 o'clock p.m.

3rd.—No money that has been paid in advance for lodgings will be returned after 6 o'clock p.m.

4th.—No intoxicating liquors are on any account to be brought into the house.

5th.—Anyone conducting himself to the annoyance of other lodgers will be expelled, and his lodging money will not be returned.

6th.—Anyone tearing the newspapers or damaging the property of the house will be expelled, and his money will not be returned, and if he has any money in hand the amount of damage will be stopped out of it.

7th.—No gambling or foul language allowed in this house.

8th.—No talking allowed in bedrooms after 10 o'clock p.m.

9th.—No spitting or smoking allowed in the bedrooms.

10th.—Each man is particularly requested to look at the number of his check. Any man getting into the wrong bed will be liable to be expelled, and his money will not be returned.

11th.—There shall be no washing on Sundays of lining (*sic*) or other articles.

12th.—The kitchens will be closed at 10-30 a.m. until 12 o'clock, and will be open again at 4-30 p.m.

REGISTERED COMMON LODGING-HOUSES.

	Address.	Registered No. of Lodgers.	No. of Rooms	Average capacity of rooms per person.
1	29, Daw Bank (Bagley)	6	2	462
2	Adlington Square (Kershaw)	61	5	408
3	15, Watson Square (Fitzpatrick)...	19	8	470
	11 & 13, do. do. ...	20	6	438
4	1 & 3, Bamford Street (Mottram) ...	11	3	417
5	Bamford Street (Spilsbury)	17	5	439
6	7 & 9, Small Street (Rowland)	8	4	480
7	Union Street (Marland)	115	6	406
8	Higher Hillgate (Gough)	64	13	410
9	Canal Street (Molyneux)	85	5	411
10	Ridgway Lane (Young)	55	5	406
11	Mid. Hillgate (Church Army Labour Home)	78	2	401
12	15, 17 & 19, Canal Street (Barratt)	36	9	396
13	19, Garnett Street (Sullivan).....	12	3	396
14	3, Adlington Square (O'Gara)	11	5	400
15	24, Chestergate (Ronan).....	14	5	400
16	Adlington Square (Brennan)	5½	2	436
17	Adlington Square (Summer)	22	7	462
	Totals	639½	95	...

Fairs and Wakes.—Travelling Shows, etc.

As these are mainly annual institutions, and as the caravans bring with them a large number of travelling showmen and others, every caravan used as a dwelling house was visited by one of your Inspectors, sometimes accompanied by myself, in search of infectious disease, but on all occasions fortunately without any such illness being discovered.

Black Smoke.

During the year 192 observations of smoke emission have been taken. Notices to abate the smoke nuisance were served in 46 cases, and in three cases no action was taken, a reasonable excuse for the nuisance being given. Observations were again taken after the time allowed in the notice (28 days), and out of the 46 chimneys 10 again exceeded a reasonable time limit. These were brought before your Committee's notice, and instructions given to take legal proceedings in each case. The cases were taken before the Magistrates, when each were ordered to pay costs, and orders to abate the nuisance within periods varying from two months to six months were made on the offending firms.

All the 46 mills were visited at times to see what alterations, if any, had been made to abate the nuisance. In two cases the whole of the old boilers (18 in number) were taken out, and 14 new high pressure boilers put in. In one case two additional new boilers were put in, and in two other cases one extra new boiler. These cases demonstrated the fact that insufficient boiler-room had been the cause of the smoke. In 10 cases apparatus of various designs was fixed, some of these proving very effective. The majority of the others only changed their coal and gave instructions to their firemen to be more careful.

The following apparatus are amongst the most common in use in this Borough :—

Hollingdrake's Hollow Bar.
Needham's Patent Fire Bar.
Swindell's Air Bar.
Cadie's Hollow Bar.
Green's Economizers.
Procter's Mechanical Stokers.
Spider Draught.
Davidson's Sirocco Fan.
McConnell's Automatic Air Regulator.

I have no further observations to add to those I made in my last Annual Report to your Committee, viz., that the emission of black smoke can be prevented with the greatest benefit to both the public at large and those who cause the nuisance by the exercise of common sense and in the main inexpensive methods. It is in the hands of your Committee to enforce its abolition

by persistent inspection, and the taking of the proceedings authorised by law. Of one thing your Committee may be quite certain, that any efforts you may make in this direction will be heartily appreciated by the general body of ratepayers.

Appended is a table shewing the results of 192 two-hourly observations taken during the year.

LIST OF SMOKE OBSERVATIONS TAKEN DURING THE YEAR 1902.

No.	B.	M.	No.	B.	M.	No.	B.	M.
1	...	59	35	18½	63½	69	16	97½
2	...	47	36	...	46	70	1½	72
3	...	28	37	...	30	71	83½	34
4	...	33	38	½	63½	72	10½	74½
5	...	67	39	...	70	73	18	34½
6	...	50	40	45	68	74	21½	64½
7	...	49	41	...	81½	75	1	60½
8	...	45	42	2	46½	76	10½	63
9	43	73	43	...	102	77	6½	61½
10	43	73	44	9½	62½	78	...	45
11	..	45	45	33	75	79	...	63
12	...	50	46	13	104	80	25	23
13	...	40	47	7½	65½	81	...	53
14	...	69	48	25	76	82	21½	54
15	1	68	49	11	89	83	...	111
16	...	50	50	10½	81½	84	...	97½
17	...	47	51	8	97	85	...	79
18	...	67	52	23	67½	86	8½	42½
19	12½	89	53	17	67½	87	3	102½
20	...	65	54	13	107	88	5	48½
21	...	73	55	...	46	89	11½	62½
22	...	27	56	31	65	90	...	49
23	2	38½	57	...	24½	91	25	50
24	...	118½	58	...	73½	92	20½	39
25	...	68	59	...	73½	93	½	73½
26	½	23½	60	...	50	94	29½	56
27	10	75	61	...	39½	95	19	71
28	11½	48½	62	1	76	96	22½	56
29	3	24	63	2	76	97	14½	60
30	43	48½	64	...	68	98	...	115
31	9½	72	65	1	55	99	...	58
32	...	40	66	22	37½	100	19½	47½
33	1	50	67	6	43	101	4	75
34	2	46	68	31½	52½	102	2	37

No.	B.	M.	No.	B.	M.	No.	B.	M.
103	6	21	133	2	60	163	12	92
104	1½	96½	134	...	70	164	...	65
105	3	47½	135	2	75	165	5	46
106	...	88	136	1	81	166	...	71
107	12½	48	137	1	98	167	12	48
108	7	65	138	...	55	168	8	67
109	4	54	139	...	46	169	10	69
110	5	54	140	...	65	170	8	63
111	...	51	141	...	43	171	...	65
112	1	68	142	...	50	172	...	70
113	2	81	143	9	18½	173	1	69
114	4	85	144	4	64	174	2	58
115	1	90	145	8	103	175	3	62
116	...	83	146	9	48	176	...	12
117	2	118	147	...	62	177	...	63
118	...	70	148	35	64	178	..	48
119	2	97	149	...	80	179	1	51
120	13	72	150	10	101	180	2	58
121	6	99	151	...	72	181	...	67
122	37½	80	152	...	84	182	2	69
123	4	87	153	2	81	183	3	71
124	38	34½	154	...	93	184	2	69
125	...	46	155	17	82	185	...	56
126	...	37	156	...	88	186	...	63
127	...	53	157	...	80	187	1	56
128	...	40	158	2	70	188	...	61
129	2	68	159	18	64	189	...	38
130	...	42	160	12	103	190	...	59
131	1	37	161	12½	69½	191	12½	69½
132	...	59	162	2	65	192	2	65

Disinfection.

During the year 503 houses have been disinfected after infectious disease, and have been subsequently cleansed and limewashed or re-papered ; 100 persons who had been exposed to infection have received a bath, and had their personal clothing disinfected by steam. In the case of a few midwives who had been in attendance on cases of puerperal fever, bathing and disinfection was also ordered and carried out under the direct supervision of one of the nurses at Dialstone Lane Hospital.

Your Medical Officer of Health has on several occasions tested the steam disinfecting machine, and towards the end of the year an automatic steam-pressure recorder was fixed, by which the steam pressure reached in the body

of the disinfector and the time during which that pressure is maintained is recorded on a chart. In all 11,654 articles have been disinfected by steam or hot air during the year.

The Department continues to supply lime brushes to the poorer classes for purposes of lime-washing at a cost of a penny per day. The amount received for this during the year was £12 16s. 0d., showing that the brushes had, in all probability, been used in over 2,500 cases. In some cases they are detained for two or three days.

Factories and Workshops.

The **Factory and Workshop Act, 1901**, consolidating and amending previous Acts, came into force on the 1st of January, and contains several additions to the duties of Medical Officers of Health. Chief amongst these are the duties of supervising the houses of **outworkers** in certain classes of work where the dwelling is unwholesome or where there is any case of notifiable infectious disease in existence. Lists of outworkers are to be sent to the Sanitary Authority by employers, contractors, and others on the 1st of February and August each year. A register of workshops has to be kept, and the Factory Inspector's register is to be open to the Sanitary Authority's Officer in order that entries may be compared. The Medical Officer of Health must in each Annual Report make a specific report on the administration of the Act in his district, so far as workshops and workplaces are concerned, and send a copy of this report, or the portion relating to these matters, to the Secretary of State. Further, if the Medical Officer of Health finds any "child, young person, or woman" employed in a workshop **in which no abstract of the Act is posted up** he must report the same in writing to the District Factory Inspector.

The following is a list of the workshops on our register :—

Coopers	3	Skipmakers	6
Dressmakers	146	Cycle Makers	4
Milliners	36	Lath Cutter	1
Boxmakers	3	Watch and Clock Toolmaker	1
Shirtmakers	9	Cabinet Maker	19
Tailors	57	Hat Body Makers	16
Paper Bag Makers	5	Organ Builders	2
Shoemakers	61	Straw Hat Maker	1
Cloggers	19	Blindmakers	6
Tinplate Works	14	Feather Cleaners	2
Blacksmiths	25	Printers	13
Brushmakers	7	Polishers	2
Coachmakers	4	Curriers	2
Saddlers	14	Birdlime Makers	2
Joiners	33	Ropemakers	5
Waste Dealers	7	Handloom Weavers	11
Wheelwrights	8	Bakers and Confectioners	86
File Cutters	2	Dyers and Cleaners	4

These have all been regularly visited, 90 inspections of factories and 976 of workshops and workplaces having been made by the Special Inspector now appointed for that purpose. A number of complaints received officially from H.M. Inspector of Factories for the district have at once received attention. Many notices have been served for the cleansing and limewashing of workshops, and these have been immediately complied with. Bakehouses have received 512 visits of inspection. In nine cases, where underground bakehouses have been found structurally or otherwise unfit for continued use, intimation has been given that they will have to be closed on January 1st, 1904. A number of other underground bakehouses have been inspected by your Medical Officer of Health with a view to determining whether they could be rendered sufficiently sanitary to entitle them to a certificate of suitability under the Act. Your Sanitary Committee adopted the list of requirements for underground bakehouses drawn up by the Incorporated Society of Medical Officers of Health, and it is intended to work as closely as possible to these, dealing with each individual case on its own merits.

Advertisements have been twice issued in the public press drawing attention to the provisions of section 101 of the Act of 1901. and requesting all concerned to apply for certificates of suitability in good time, so as to allow of any necessary alterations being carried out.

One underground bakehouse was closed voluntarily during 1902.

In several cases it has been found that privy-middens, built on to large factories in stacks, constituted a serious nuisance and a menace to health. In one case a series of six privies, delivering into a large foul unventilated cesspool or tank and opening direct into the workrooms, was taken in hand and water closets substituted. Sixteen other cases of a similar kind were subsequently discovered in other factories and as promptly remedied.

An order has now been drafted by the Home Secretary under the powers conferred by section nine of the 1901 Act, which may be briefly summarised as follows:—(a) Factories and workshops employing females to provide one closet for every 25 females, (b) the same standard to hold good for males employed in factories and workshops; but where over 100 males are employed and urinals are provided, one closet will suffice for every 25 males up to the first 100, with one closet to 40 workers above this figure, and where more than 500 males are employed and urinals are provided, one closet will suffice (under certain conditions of supervision to be approved by the District Factory Inspector) for every 60 males. All sanitary conveniences to be kept clean, and well ventilated and lighted; to be aerially disconnected from workrooms: to be provided with proper doors and fastenings; to be readily accessible to those using them, and those for separate sexes to be completely separate and with screened approaches.

In the report of your female inspectors details are given of the visits of inspection to the homes of outworkers. Advertisements have been inserted in the local press twice, drawing attention to the requirements of the Factory Act as to the sending of lists of outworkers to the Council in February and August, and by this means it is believed a fairly complete list has been obtained. Those notified up to the present time include the following:—

FEMALE OUT-WORKERS.		MALE OUT-WORKERS.	
Nature of Work.	Number	Nature of Work.	Number
Hat Trimming	85	Planking	27
Skirt Making	13	Trouser Making	3
Tailoring	9	Boot and Shoe Repairing	2
Vest Making	2	Shoemaking	2
Underclothing	1	Outfitting	1
Fur Pulling	1		
Total	111	Total	35

In consequence of a special enquiry instituted by the Home Office recently I personally inspected the only two **file cutting shops** in the town and examined the workers occupied there. In No. 1, shop there were five 'stocks' and the hands employed were all males and varied from 3 to 5 in number; in No. 2 shop there were 9 'stocks' and the hands employed varied from 6 to 9, all males. The general sanitary condition of both premises was open to objection on the following grounds:—

(I) Absence of through ventilation.

(2) Defective condition of paving of floor.

(3) Want of proper and sufficient washing accommodation.

(4) Absence of means to prevent soiling of clothing with lead.

The 'stocks' in some instances were placed too close together.

An examination of the workers revealed the presence of a blue line in the gums, indicating lead-poisoning, in three cases. In the case of one of these 3 men there was an indefinite history of recurrent colic said by the sufferer to be due to alcoholism.

In the case of a man who was absent from work at the time of my visit, the owner of the shop told me that he was frequently off work for a day or two at a time, that his medical attendant had stated that "his system was saturated with lead" and that the man could at times scarcely lift his arm owing to weakness of the muscles (probably deltoid paralysis).

I had the death returns of the borough examined from January 1st, 1895, to the present date for two things—(a) deaths from any cause in file-cutters, and (b) deaths in any person from plumbism in any of its various forms. I

find that there have been during that time no deaths from plumbism or lead-poisoning in any of its forms, and that there has only been one death in a file cutter, that being a man aged 54, a part proprietor in the business and a man who at the same time did a good deal of file-cutting himself. The cause of death is certified to have been "cerebral hæmorrhage—exhaustion."

At the time of writing this report it is announced that the home office has declared file-cutting to be a "dangerous industry," and it will therefore become subject to stringent regulations directed to the prevention of lead-poisoning.

Offensive Trades.

There are 23 tripe boiling establishments in the borough which have been regularly visited along with other business places coming under the heading of offensive trades, 1,196 visits in all having been made during the year. The places generally have been found to be well conducted and have not given rise to any complaints.

Tripe Boilers	23
Oil Refiners	2
Tallow Melters	1
Tanners	2
Leather Dressers	3
Soap Makers	1

Sale of Food and Drugs Acts.

Last year your Sanitary Committee appointed a special Food Inspector to to carry out the duties imposed by the Sale of Food and Drugs Act, 1899, the Dairies, Cow-sheds and Milk-shops Order, and Sections 73 to 79 of the Stockport Corporation, Act, 1899 together with the inspection of slaughter houses, ice cream shops, meat, fish, game, etc.

The administration of the law relating to adulteration of food and drugs has been regularly carried on throughout the year; as far as possible each month has borne its equal share of the work, and in August, when the Board of Agriculture's Inspector came down, he expressed his satisfaction with the adminstration of the Acts.

During the year 308 official samples were submitted to your Public Analyst, the results of analysis being contained in the table appended.

The proceedings taken will be found under the head "legal proceedings."

STATEMENT OF SAMPLES TAKEN UNDER SALE OF FOOD AND DRUGS ACT.

Number and Nature of Samples.	Number Certified Genuine.	Number Certified Adulterated.
91 Milk	75	16
30 Butter	30	...
8 Cheese	8	...
20 Coffee	20	...
8 Jam	4	4
12 Lard	12	...
8 Pepper	8	...
8 Sugar	8	...
12 Beer	12	...
12 Stout	12	...
12 Porter	12	...
8 Brandy	7	1
8 Whisky	8	...
6 Rum	6	...
8 Gin	8	...
18 Vinegar	16	2
8 Baking Powder	6	2
7 Margarine	7	...
2 Belladonna Plaster	...	2
2 Yellow Beeswax	2	...
2 Boracic Acid	2	...
2 Borax	...	2
2 Chlorinated Lime	1	1
1 Liquorice Powder	1	...
1 Compound Liquorice Powder	1	...
2 Milk of Sulphur	2	...
2 Olive Oil	2	...
2 Quinine Wine	2	...
6 Special Prescriptions containing various Drugs	5	1

It is manifest that there is a general improvement in the quality of the food and especially of the drugs sold to the public, and this improvement in the opinion of your Medical Officer of Health is due to the increase in the number of samples taken and in the careful manner in which the sampling is planned and executed.

More samples were taken of milk than of any other article of food, as it is customary for this to show the greatest relative amount of adulteration.

Two prosecutions were undertaken against milksellers for adding boracic acid to milk in the large proportion of 23 and 43 grains per gallon respectively. Both dairymen pleaded guilty, and after the evidence of your

Medical Officer a conviction and fine was obtained in each case, the presiding magistrate speaking strongly against the use of preservatives.

In two instances milk samples were found deficient in milk fat, in addition to having water added, and **a double summons** was successfully taken out in each case. In the case of a milk-dealer who is found to be selling adulterated milk it is our custom to follow the case up by taking samples in course of delivery from the farmer supplying him. By so doing we are in many cases able to clear the guiltless and find the real culprit, who is then kept under observation, and in the event of a prosecution resulting the circumstances are given in evidence to strengthen the case. Following this line of action during December a sample was taken from a dairyman and found to contain 36 per cent. of added water; within a few days a sample was taken from the farmer supplying him, and this was found to contain 46·4 per cent. of added water. Your Committee waived the prosecution in the first case, and prosecuted the farmer, who was fined £5 and all costs. A few days previous to the trial a second sample was taken from the farmer and marked No. 296. On analysis this was found to contain 24 per cent. of added water. Your Committee again authorised a prosecution, and a few days later a third sample was taken from the farmer, and this time certified as genuine (marked No. 304). When the case concerning sample No. 296 came on for trial the defendant pleaded not guilty, and brought an analyst who was prepared to swear that he had analysed the defendant's part of the sample and found it above the required standard. On the application of the Prosecuting Solicitor for the Corporation, Mr. Dobson, the Court sent the third part of this sample to Somerset House and adjourned the case *sine die*. Certain circumstances led us to suspect that the defendant had tampered with his part of the two samples, and consequently the Somerset House authorities and the Public Analyst were requested to return the bottles intact, and the Solicitor for the defence was requested to produce the bottles containing his portions of the samples. A fortnight later when the case was heard, the Somerset House Analyst practically confirmed your Analyst's report. The bottles which had contained the samples were then passed up to the Bench for examination, and their verdict showed that they were satisfied that previous to sending his samples for analysis the defendant had transferred the label of Sample No. 296 (adulterated) to the bottle containing Sample No. 304 (not adulterated). He was fined £10 and all costs.

Another case, which fortunately is exceptional, occurred during September. Your Inspector had suspicions that a grocer was selling margarine for butter, and he asked a deputy to purchase, among other things, 1lb. of butter. On the Inspector entering the shop this butter was snatched out of the hands of the person who had purchased it. The grocer refused to serve a second sample from the piece from which he served the original, for this (which was really margarine) was not labelled. He eventually served a sample from another piece, and this, of course, was genuine butter. Your Committee authorised a prosecution for exposing unlabelled margarine, and in defence it was urged that the label had dropped off the margarine on the counter, hence the mistake which the defendant was justified in making right. The Court considered the case proved against the defendant and imposed a fine of £10 and costs for exposing unlabelled margarine, and 10s. and costs for obstruction.

The Composition of Baking Powder.

Eight samples of baking powder were submitted for analysis to the Public Analyst, who reported on them as follows : —

No.	Percentage of Starch.	Percentage Weight of Carbonic Acid given off	Percentage of Alkali or Acid in excess.
1	63·27	6·67	3·00 Acid
2	40·10	15·63	2·85 Alkali
3	34·73	16·14	3·19 ,,
4	20·39	19·05	1·35 Acid
5	48·02	8·68	6·38 Alkali
6	18·60	20·13	3·36 ,,
7	44·63	13·55	4·37 ,,
8	39·08	15·16	1·01 Acid

No injurious ingredient such as alum was present in any of the samples. It was decided to take as a test case sample No. 1, and the facts were argued at considerable length before the magistrates, the Chairman of the Bench being a partner in a large firm of manufacturers of drugs and druggists' sundries. The Public Analyst stated that a good baking powder should contain not more than 20 per cent. by weights of diluents, such as starch powder, should give off when moistened not less than 10 per cent. by weight of carbonic acid gas, and should contain no appreciable excess of either the acid or the alkali employed in its manufacture. The constituents of the samples in question being as set out above, he could only regard the powder as having been carelessly or ignorantly mixed, for the tartaric acid, the most expensive ingredient, was the one in excess. Asked why he objected to the amount of starch powder in the sample, his reply was equivalent to the statement that if a glass be filled nearly to the top with water there is not a satisfactory amount of room left for the whisky. After a lengthy hearing the Bench decided to convict, and imposed a small fine with costs and advocate's and analyst's fees.

There have been four applications for registrations of wholesale margarine dealers made to your Committee during the year, all of which were granted. There are now 20 on the Register of Wholesale Margarine Dealers. Certificates were given and the names sent on to the Board of Agriculture in each case.

Two notices have been served under Section 9 of the Sale of Food and Drugs Act, 1899, for not having the name inscribed on the vehicle when selling milk in a public place—both were complied with immediately, and therefore no further steps were necessary.

Ice Cream Shops.

There are some 45 of these in the Borough, which have been visited periodically, 192 visits in all having been made.

Generally speaking this commodity is manufactured in dwelling-houses and cooled in an open yard or cellar, the sanitary condition of which in some cases was found not to be all that was desirable, though for the most part the places and utensils were kept fairly clean. In three cases it was found necessary to serve notices to cleanse, etc., and these were complied with at once. Most of the trade in this commodity is done by means of barrows which are taken round the town.

On three occasions during the year midnight visits were made to Italian houses where its manufacture was in progress, your Medical Officer of Health specially accompanying the Inspector.

Stockport Corporation Act, 1899.

(1) Infectious Disease Amongst Milk-sellers, &c.

A copy of the following notice embodying the provisions of Section 73 of the Corporation Act, 1899, was sent out to 130 farmers who are known to supply milk within the limits of the Borough. It has not been necessary to take any action in this matter further than this, though on two occasions when it was feared that scarlet fever was being spread by the agency of milk a prolonged special inquiry had to be set on foot ; the result showed that the fear was groundless.

COUNTY BOROUGH OF STOCKPORT.

NOTICE TO DAIRYMEN, COWKEEPERS, OCCUPIERS OF DAIRIES,

PURVEYORS OF MILK, ETC.

Dear Sir,

I desire to draw your attention to the fact that under the Stockport Corporation Act, 1899, Section 73, it is compulsory upon you to notify to the MEDICAL OFFICER OF HEALTH, at the Sanitary Office, Great Egerton Street, Heaton Lane, Stockport, any case of the following illnesses occurring

amongst persons employed in or in connection with your Dairy, if you supply milk within the Borough from premises either within or beyond the Borough :—

SCARLET FEVER.

DIPHTHERIA.

TYPHOID FEVER (occasionally known as "Slow" Fever, "Low" Fever, &c.).

SMALLPOX.

MEMBRANOUS CROUP.

CONTINUED FEVER (sometimes known as "Low" Fever, "Slow" Fever, &c.),

ERYSIPELAS,

PUERPERAL (Child-bed) FEVER.

TYPHUS FEVER.

CHOLERA.

Any neglect to carry out the above requirements is punishable by a PENALTY NOT EXCEEDING FORTY SHILLINGS.

IN ANY CASE OF DOUBT AS TO THE ABOVE ILLNESSES, THE OPINION OF A QUALIFIED MEDICAL MAN SHOULD BE OBTAINED **WITHOUT DELAY.**

Yours faithfully,

MEREDITH YOUNG, M.D.,

Medical Officer of Health.

Tuberculosis and Milk.

No samples were taken under the Tuberculous Milk Clauses, but several cases of suspicious tuberculous udders came under your Food Inspector's notice with the result that five animals were surrendered, four of these being in his words, "saturated with tubercle;" in all the five cases the udders were affected. No further proceedings were taken after the surrender of the carcase in any of the cases mentioned, except strongly recommending disinfection of stalls, etc.

Dairies, Cowsheds, and Milkshops Order, 1886.

There are 50 cow-keepers in the Borough, all of whom have made application to your Committee in the prescribed form for registration, certificates being granted in each case subject to their compliance with the regulations, etc. Several certificates have been held back until certain required alterations have been completed. Many of the cow sheds in the added area were most insanitary, and indeed one marvelled how animals housed under such conditions could exist. As an example I may quote the following case : "Twenty-three beasts tied up face to face in a building with a ceiling 6ft. 3in. high with loft over, absolutely without light or ventilation (except what could gain admission through the apertures in the door), with a total air space of 6,785 cubic feet or **295 cubic feet each**, without proper drainage, the floors paved with cobbles, and a huge manure pit within 12 feet of the shippon doors." This, along with 21 other shippons, has been practically remodelled, the ceilings raised to 9 feet high, floors relaid, proper drainage and water supply provided, windows made to open, and ventilators with upcast shafts fixed through the roof, proper manure pits formed and drained, and a paved gangway provided outside the sheds. In 18 other cases additional lighting and ventilating has been provided, together with repairs to floors, drains, abolition of dangerous privies near pumps, and substitution of pails or water-closets, and the removal of dangerous drains from dairies. In addition to this structural work a number of notices were served for overcrowding, cleansing, and limewashing, etc., all of which were complied with. It is pleasing to state that by the exertions of your Food Inspector in the cases just mentioned every beast has now a free air space of over 600 cubic feet, and is certainly housed under much more healthy conditions. Without exception the alterations have been carried out as the result of letters and interviews, no legal proceedings or even threats of these having been necessary. Other farms are now being dealt with on the same lines. Owing to the scattered position of the farms and the necessity for regular supervision of the alterations whilst in progress much of your Food Inspector's time has been taken up with this work, some 492 visits having been made.

The question of grooming cattle and cleansing the cows' teats and the milkers' hands is one which is never lost sight of, but though it will take some little time to become an established practice one is inclined to look upon it as time very well spent.

Much good work has been carried out with a view to securing the greater cleanliness of milk shops. It has been for years the practice in some shops to sell milk, fish, vinegar, pickles, beer, and even paraffin oil over the same counter, a custom which could not be considered desirable ; in shops where these articles are sold under conditions where contamination of the milk is likely to occur, the sale of milk is now forbidden. There have been submitted to your Committee during the year 53 applications for registration as Milk Purveyors, all of which have been granted subject to any sanitary requirements being carried out ; 39 milk-sellers have discontinued this business in consequence of the existence of a combined business (mentioned above),

leaving a total on the register of 153 (exclusive of farmers). In all 619 visits have been made to these milk shops. The places are being gradually improved though not yet quite what one could desire. A register is also kept showing the source from which every milk-seller gets his supply in each case.

Slaughter-houses.

There are 49 registered Slaughter-houses in the Borough and one Knacker's Yard. Your Committee granted a licence to a slaughter-house previously closed after certain necessary alterations had been made, and one was closed during the year as being badly adapted and totally beyond adequate repair. Twenty-two of the total number now come under the provisions of the Public Health Acts Amendment Act, 1890, requiring yearly registration.

During the year 2,158 visits have been paid to the various Slaughter-houses, which for the most part are badly adapted and unsuitable for their purpose.

Having regard to the facts that the places are scattered over a large area and that slaughtering is done at most irregular and untimely periods, it is almost impossible to keep the places under that close supervision one would like. It may be said, however, that with one or two exceptions all have been managed in a fairly satisfactory manner, and the quality of the meat inspected during the visits has been decidedly good. Notices for cleansing, removal of offal, limewashing, etc., have been served in nine cases, and all of them were complied with. In 14 cases repairs have been carried out at the instance of this Department—in five cases water supply laid on, in three cases lairage provided, in three cases drains repaired and traps fixed outside and paving made good, and in three cases drains and floors relaid; one privy midden adjoining a slaughter-house has been converted to a water-closet. The greatest nuisance still continues to be connected with the depositing of offal, and until the Corporation Scavenging Department undertake this work themselves it will probably continue. The majority of slaughtering butchers in the town have expressed themselves as willing to make proper payment to the Scavenging Department for this work, and as proper attention to these matters must necessarily improve the health of the often congested neighbourhoods in which slaughter-houses are usually placed I commend this to your committee's careful consideration. In some 14 cases coming under your Inspector's notice it has been found necessary to seize and destroy a number of lungs and livers in consequence of tubercle or fluke, the carcases, which were otherwise healthy, being passed.

(1) The Food Inspector reports the following cases in which carcases, &c., were surrendered or seized. "A country cow was being dressed, and it was found to be affected. The right lung showed miliary tubercle, and the costal pleura on the right side showed patches of grape nodules. The lymphatic glands appeared healthy, and the beef being otherwise in very good condition, was passed, the right fore quarter being alone surrendered.

" (2) During August an evening visit was paid to a slaughter-house whilst slaughtering was in progress. One animal, a three-year-old heifer, was found to be tuberculous. The costal pleura on the right and left fore-quarters and the peritoneum on the left hind-quarter were studded with miliary tubercle, whilst the inter-costal and dorso-costal lymphatic glands were enlarged, watery, and suspicious. Both lungs contained tuberculous nodules, and the liver contained two tuberculous growths. The entire carcase was surrendered and destroyed, but having regard to all the facts attendant upon the case (the butcher having paid a good price for the beast) no action was taken.

" (3) During November the carcase of a calf was found hanging up in a slaughter-house used in common by three butchers. It was dressed in the usual way for human food. The flesh was wet, badly set, of a bad colour, and smelt sour ; the organs were missing save the kidneys ; the various lymphatic glands were enlarged, watery, and discoloured. The calf appeared to have suffered from some inflammatory mischief, was certainly unfit for human food, and consequently was seized and destroyed. Your Committee authorised a prosecution, and after some difficulty the owner was found and a second summons taken out against him under the Slaughter-house Bye-laws for failing to report to your officer the presence of a diseased carcase on his premises. The Court considered the case proved, and a fine of £10 and costs was imposed in the first case, the second being withdrawn.

" (4) A visit was made to one of the farms on the boundary during May, and a body of beef found hanging in the coach-house, having been brought by a well-known disreputable butcher. On examination it was found to be a case of mild parturient fever, and the flesh having set well it was passed.

" (5) In June a visit was made to a farm standing just outside the Borough with its grounds extending into the Borough, and occupied by a well-known butcher with a business in the Borough. A cart load of beef was found in the yard in charge of the bailiff and the slaughterman. On examination the beef, which was poor, was found to be distinctly tuberculous and dropsical, and it was consequently seized and destroyed as unfit for human food. Your Committee authorised a prosecution, and a series of five summonses were successfully taken out against the various persons concerned for being the owner, being in possession, and having unregistered slaughter-house, and fines imposed ranging from 20s. and costs to £20 and special costs."

The various Butchers, Fishmongers, Fruiterers, and other food shops have been regularly visited during the year, and only in one case has it been found necessary to institute proceedings in the case of beef deposited in a shop. In this case three pieces of rib were seized from the shop; they were partly decomposed, in addition to being from a " wasted" animal. The defendant was fined £3 and special costs.

During October a basket of plums were seized from a shop, which were

unsound. Your Committee authorised a prosecution. The Magistrates dismissed the case on the defendant stating that owing to family trouble she had forgotten to send the plums to be destroyed.

The Markets have been kept under supervision during the year and several surrenders have been made—five decomposed rabbits and a quantity of blown veal. Strangely enough blowing is an offence under the **Market** Bye-laws, but it is not prohibited elsewhere. During June a quantity of unsound fish was seized and destroyed. Your Committee authorised a prosecution. The defendant did not put in an appearance, and on a warrant being issued for his arrest he was sent to prison for a month with hard labour. A quantity of unsound tripe was surrendered during September and destroyed.

Sewering, &c.

I am indebted to the Borough Surveyor for the following information relating to sewering, &c., carried out during 1902 :—

(1) Length of back passages paved and sewered, 72 lineal yards.

(2) Length of new sewers laid, 5,979 lineal yards of sewers and 3,773 lineal yards of surface water sewers.

(3) Shaft ventilators erected, none. (Present number of shaft ventilators, 89).

(4) Surface sewer ventilators closed, none.

(5) Length of old sewers taken up and relaid, none.

Bacteriological Examinations.

These are carried out for the Sanitary Committee by Professor Delepine, of the Public Health Laboratory, Stanley Grove, Manchester, the cost of the examinations being borne by the Sanitary Committee. During the year 118 specimens have been submitted for diagnosis, and though this number is a small one, it must be remembered that the system is a comparatively recent one, and many medical practitioners have not yet had an opportunity of gaining a proper experience of its value. It cannot be too strongly emphasised that bacteriological examination is only an adjunct to, and not a substitute for, clinical diagnosis. The bacteriologist, however expert he may be can only say of certain material sent to him by the medical practitioner, that on being tested or examined it does or does not give a certain reaction, or that it does or does not contain certain pathogenic bacteria. The result of the bacteriological examination must only be accepted by the physician as one of the many factors which he has to take into consideration before pronouncing his verdict as to the nature of the disease. The result of that bacteriological examination may only puzzle the physician instead of assisting him and making his way clear, but it should be no more puzzling

than the discovery of an unexpected symptom or physical sign or the non-discovery of one which he may reasonably expect. The cases in which a bacteriological examination assists the physicians are far more numerous than those in which it perplexes him, or leaves him just where he was before. The best testimony to the value of such an examination is afforded by the fact that those physicians who have used most the facilities afforded for that purpose by the Sanitary Committee are those who continue to use it most. It is to be hoped that those medical men who have not hitherto taken much advantage of the opportunities offered of having a bacteriological report in certain diseases will not abandon their faith in the system until they have given it a lengthy and fair trial. I say nothing of the immense value of the system to the Sanitary Department and the Hospitals ; of that I could scarcely speak too strongly.

The system is now adopted of sending an outfit to replace the one used directly Professor Delepine's report comes to hand, an exact copy of the latter being sent at the same time. This ensures medical men in the habit of using the method always having an outfit at hand for immediate use.

The cases examined have been of the following nature :—

	Positive.		Negative.		Doubtful.
Typhoid (Widal reaction).....	23	.....	25	.....	2
Diphtheria	7	.....	28	.....	1
Tubercle (phthisis)	14	.....	18	.....	—

Meteorological Observations.

The Meteorological Station, the instruments in which are the gift of Mr. T. Kay, J.P., of this town, is situated in the centre of the town in the Town's Yard, off St. Petersgate.

The instruments are as follows :—

(1) Stevenson's Screen, containing

(a) Maximum Thermometer } For Shade
(b) Minimum Thermometer } Temperatures.
(c) Wet and Dry Bulb Hygrometer.

(2) Campbell's Sunshine Recorder.

(3) Five-inch Rain Gauge.

(4) Black and Bright Bulb Thermometers (for "Radiation" Temperatures).

(5) Grass Minimum Thermometer.

Weekly means of Observations at the Borough Meteorological Observatory, Stockport.

Latitude 53° 24′ 12″ N. Longitude 2° 9′ 14″ W.

Cistern of Barometer 152 feet and Top of Raingauge 185·7 feet above Mean Sea-Level.

1902.	Barometer reduced to Sea-level and 32° F.	Percentage Humidity Sat. = 100	THERMOMETERS.									Average Daily Rainfall.	Average Daily Sunshine
			SHADE.				Sun Heat.	Solar Radiation.	Grass (Min.)	UNDERGROUND			
			Max.	Min.	Range.	Corrected Mean.				1 Foot.	4 Feet.		
													Hrs. Min.
1st Week	29·515	89·7	49·5	45·1	3·9	46 254	52·3	61 6	37·9	39 6	43·7	·14	—
2nd ,,	30·202	84·1	47 6	44·6	3·1	44·946	50·0	59·1	37·3	42·3	44·0	·05	—
3rd ,,	30·448	84·1	41·9	36·8	5·8	37·468	45·3	4·7	29·3	39·7	44·7	—	0 13
4th ,,	29·894	85·0	46·6	43·3	4·1	42·421	51·7	59·4	36·6	41·3	44·0	·49	0 6
5th ,,	30·054	80·6	37·7	32·2	5·1	33·468	44 9	59·9	23 7	38·3	44·0	·07	1 4
6th ,,	29·846	79·9	36·1	34·2	4·2	33·218	40·1	59·7	27·3	36·0	43·3	·01	0 9
7th ,,	29·853	81·0	33·1	22·9	8·5	26 354	57·9	78·3	15·1	35·9	42·0	·03	0 21
8th ,,	30·037	84·9	39·3	33·3	3·9	36·754	45·3	70·4	26·1	35·0	41·7	·01	0 18
9th ,,	29·514	87·3	49·0	43·6	5·5	44·579	57 9	73·6	37·6	38·4	41·0	·04	0 19
10th ,,	29·941	87·4	50·3	42·0	8·4	41·968	59·4	76·9	36·4	41·0	41·9	·01	0 15
11th ,,	29·884	84·9	50·0	45·0	5·2	45·825	61·0	77·3	39·3	42·9	42·9	·04	0 30
12th ,,	29·651	78·7	50·3	44·7	6·5	44·604	64·9	83·3	41·9	43·9	43 4	·03	2 4
13th ,,	29·616	80 4	48·6	42·3	7·4	43·650	61·0	78·7	35·1	42·1	44·0	·06	1 26
14th ,,	29·745	80·4	48·3	40·3	6·9	43 004	64·4	88·9	35·0	43·4	44·0	·10	1 21
15th ,,	30·100	70·6	48·3	41·0	6·3	43·082	67·7	91·1	38·6	42 1	44·0	·01	2 26
16th ,,	29·870	74·4	56·4	48·0	7·7	49·786	72·1	97 0	46·9	48·7	44·0	·06	2 0
17th ,,	29·821	70·3	60·6	52·1	8·4	53·054	77·3	103·3	50·6	47·3	44·7	·3	3 26
18th ,,	29·899	80·0	53·0	47·3	7·0	46 475	69·9	101·4	43·9	47·7	46·0	·09	3 17
19th ,,	30·151	69·6	49·8	44·4	4 8	45·054	65·9	93·7	40·0	45·6	46·0	·04	1 4
20th ,,	29·714	70·6	51·5	45·6	6·1	45·625	65·6	93·6	41·9	45·6	46·0	·13	0 43
21st ,,	30·056	73·6	54 9	49·3	4·8	50·200	68·6	100·4	45·0	47·4	46·0	·06	1 9
22nd ,,	29·923	75·1	59·3	52·9	6·3	53·304	76·4	106 4	48·4	51·9	47·1	·02	1 56
23rd ,,	29·870	79·0	62·7	55·7	7·3	55·493	79·7	111·7	52·4	53 9	48·4	·04	2 6
24th ,,	29·667	73·9	56·5	51·3	5·5	51·079	68·6	96·0	48·7	51·7	49·0	·01	0 19
25th ,,	29·833	79·0	61·1	54·2	5·8	56·368	73·9	102·7	51·3	52·7	49·1	·04	0 17
26th ,,	30·148	60·9	76·9	68·4	6·5	71·200	93 9	122·7	72·7	57·6	50·4	·01	6 13
27th ,,	30·061	69·3	69·6	62·6	8·2	61·971	84·0	112·6	64·6	59·4	52·4	·01	2 43
28th ,,	30·001	77·1	64·7	89·2	6·3	58·568	77·4	101·3	57·0	58·4	53·4	·05	1 0
29th ,,	30·017	83·0	68·6	59·6	9·6	59·500	85·9	114·4	61·1	58 3	54·0	—	1 56
30th ,,	29·824	89·4	61·4	54·8	6·7	55·229	75·1	98·1	54·4	56·1	54 0	·09	1 17
31st ,,	29·979	97·3	62·8	56 0	5·9	56·607	81·7	108·1	54·9	55·9	54 0	·06	1 0
32nd ,,	29·848	94·1	61 4	56·0	5·6	56 114	77·7	100·0	55·0	55·9	54 0	·09	1 11
33rd ,,	29·937	91·3	64·0	55·3	9·0	55 932	79·4	105·3	54·1	55·4	54·0	·01	1 9
34th ,,	29·819	91·4	64·1	57·1	5·9	58·875	78·6	105·4	55·4	56·3	54·0	·12	1 1
35th ,,	29·855	90·0	67·1	59·5	8·5	59·318	82·4	111·3	60·3	56·1	54·0	·02	2 15
36th ,,	29·766	91·6	66·6	59·8	6·2	61·443	80·9	107·9	60·3	56·4	54·0	·02	2 30
37th ,,	30·008	84 1	61 9	54·7	6·6	54·957	73·9	103·6	53·4	55 6	54·9	03	2 13
38th ,,	29·959	88·9	59·8	52·6	6 9	53·114	74·3	100·0	51·1	53·3	54·3	·02	2 11
39th ,,	30·179	92·6	63·7	53·3	11·0	55·214	71·4	90·6	51·4	53·3	54·0	·02	1 13
40th ,,	30·174	92·4	55·1	50·3	5·5	50·582	70·9	95·4	49 6	51·7	53·0	·01	2 11
41st ,,	29·790	94·3	52 2	49·6	2 2	49·654	59·0	79·6	47·7	50·0	52·6	·08	0 2
42nd ,,	29 706	90 6	54 5	50·9	4 5	51 321	64·6	85·4	47·1	50·3	52·0	20	0 34
43rd ,,	30 060	89·7	55·4	50 3	4·1	50·993	63 3	80·1	47·0	49·1	51·6	·07	0 34
44th ,,	30·028	89·7	58·0	49 9	5·8	50·258	59 6	76 6	46 6	49·6	51·0	01	0 19
45th ,,	29·761	85 3	62·9	46·8	4 3	48·818	60·4	76·9	41·0	48 4	51·0	·05	0 47
46th ,,	29·869	87 4	51·9	47·6	5·0	48 318	59·0	74·1	42·9	47·7	50·0	02	0 30
47th ,,	30 236	91·1	42·0	36 8	5 1	38·046	49·9	68·3	31·9	44·9	49·7	—	1 4
48th ,,	29·455	91·0	49·0	45 6	3·2	46·196	52·4	66·0	41·3	43·9	48 4	·06	0 9
49th ,,	29·990	85·1	39·4	37·1	5·2	37 261	42 6	54·3	31·9	42·9	48·0	·07	—
50th ,,	30·164	92·4	40·5	35·4	1·5	37·150	43 1	53 9	30·3	39·0	46·6	—	—
51st ,,	29·893	90·0	49·8	46 4	3·7	47·146	50·7	55·7	42 6	42·0	45·3	·10	—
52nd ,,	30 231	80·9	50·5	45·4	6·5	47 289	52·1	57 7	44·3	44·3	45·7	·03	—

(6) One foot and four feet Earth Thermometers.

(7) Robinson's Anemometer.

(8) Standard Mercurial Barometer (Kew pattern). This last instrument is fixed in the office of the Medical Officer of Health at a height of 152 feet above mean sea level.

Readings of these instruments are taken at 9 a.m. each day, and are subsequently corrected and recorded in a register kept for that purpose. A tabulated statement of the readings for 1902 is given herewith.

Housing of the Working Classes Act, 1890.

During the year 11 houses have been condemned by your Medical Officer of Health as being in a state so dangerous or injurious to health as to be unfit for human habitation ; these houses were Nos. 1, 2, 3, 4, 5, and 6, Bennison's Court, High Street ; Nos. 23, 25, and 48, Frances Street, South Reddish ; No. 5, Morley's Court, Adlington Square ; and No. 53, Back Water Street. Since their condemnation the houses in Bennison's Court have changed ownership, and the present owner has a scheme in hand which will involve the demolition of probably two of the houses and the reconstruction of the remainder.

Recommendations in brief for future action.

These are submitted in compliance with the instructions of the Local Government Board as to the preparation of Annual Reports by Medical Officers of Health.

1. That the provision of increased accommodation at the Dialstone Lane Fever Hospital—a matter which has engaged your Sanitary Committee's attention for a considerable time now—be pressed forward with all possible dispatch.

2. That the present system of " tipping" ashpit refuse be discontinued, and that in lieu thereof one or more refuse destructors be erected for the purpose of disposing of such refuse.

3. That a station for the preparation and distribution of sterilised milk be provided (*vide* Dr. Charles Porter's Annual Report for the year 1899).

4. That a School Medical Officer be appointed with duties on some such lines as are sketched out in the Annual Report of your Medical Officer of Health for 1900 (pp. 34 and 35).

5. That a Special Inquiry be undertaken into the effect on health of life in the many closed-in **Courts** which are to be found in this town with a view to action being taken, under the Housing of the Working Classes Acts or the Public Health Acts, for the amelioration of those dangerous or injurious conditions which will undoubtedly be found to exist.

6. The provision, at as early a date as practicable, of a Public Mortuary.

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